



# FOREIGN

## International

### FISH MEAL

#### WORLD PRODUCTION, OCTOBER 1965 WITH COMPARISONS:

World fish meal production in October 1965 was up 16 percent from the previous month, but down 38 percent from October 1964. Peruvian output showed some improvement in October 1965, but was still far below that in October 1964.

World Fish Meal Production by Countries, October 1965 with Comparisons

| Country                                   | October        |                | Jan.-Oct.        |                  |
|---|----------------|----------------|------------------|------------------|
|   | 1965           | 1964           | 1965             | 1964             |
| . . . . . (Metric Tons) . . . . .         |                |                |                  |                  |
| Canada . . . . .                          | 7,404          | 4,927          | 72,203           | 44,623           |
| Denmark . . . . .                         | 12,578         | 13,074         | 103,683          | 99,645           |
| France . . . . .                          | 1,100          | 1,100          | 11,000           | 11,000           |
| German Fed. Repub. . . . .                | 6,190          | 6,369          | 57,404           | 63,545           |
| Netherlands . . . . .                     | 505            | 900            | 4,884            | 6,700            |
| Spain . . . . .                           | 1/             | 1/             | 2/ 13,247        | 1/               |
| Sweden . . . . .                          | 688            | 673            | 6,089            | 5,973            |
| United Kingdom . . . . .                  | 6,633          | 5,584          | 66,669           | 63,807           |
| United States . . . . .                   | 11,517         | 7,780          | 190,096          | 187,528          |
| Angola . . . . .                          | 1/             | 5,402          | 3/ 29,019        | 47,475           |
| Iceland . . . . .                         | 14,734         | 13,064         | 120,436          | 115,309          |
| Norway . . . . .                          | 32,021         | 15,815         | 285,680          | 162,630          |
| Peru . . . . .                            | 41,463         | 130,492        | 951,553          | 1,189,562        |
| So. Afr. (including S.-W. Afr.) . . . . . | 6,375          | 15,855         | 267,824          | 246,928          |
| Belgium . . . . .                         | 375            | 375            | 3,750            | 3,750            |
| Chile . . . . .                           | 885            | 10,743         | 52,581           | 124,979          |
| Morocco . . . . .                         | 3,150          | 950            | 16,050           | 18,200           |
| <b>Total . . . . .</b>                    | <b>145,618</b> | <b>233,103</b> | <b>2,252,168</b> | <b>2,391,654</b> |

1/ Data not available.  
 2/ Data available only for January-May 1965.  
 3/ Data available only for January-September 1965.  
 Note: Japan does not report fish meal production to the International Association of Fish Meal Manufacturers at present.

World fish meal production in January-October 1965 was down about 6 percent from that in the first 10 months of 1964. Peruvian output was down 20 percent and Chilean production was also down sharply, but the decline was partly offset by increased production in Norway, Canada, and South Africa.

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

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#### PRODUCTION AND EXPORTS FOR SELECTED COUNTRIES, JANUARY-NOVEMBER 1965:

Member countries of the Fish Meal Exporters' Organization (FEO) account for about 90 percent of world exports of fish meal. The FEO countries are Chile, Angola, Iceland, Norway, Peru, and South Africa/South-West Africa.

Table 1 - Exports of Fish Meal by Member Countries of the FEO, January-November 1965

| Country                                       | November     |              | Jan.-Nov.      |                |
|---|--------------|--------------|----------------|----------------|
|   | 1965         | 1964         | 1965           | 1964           |
| . . . . . (1,000 Metric Tons). . . . .        |              |              |                |                |
| Chile . . . . .                               | 1.7          | 12.4         | 62.1           | 127.2          |
| Angola . . . . .                              | 1/           | 4.2          | 2/ 30.1        | 52.0           |
| Iceland . . . . .                             | 14.6         | 10.9         | 118.3          | 111.8          |
| Norway . . . . .                              | 32.0         | 14.4         | 234.8          | 169.1          |
| Peru . . . . .                                | 38.8         | 109.7        | 1,161.1        | 1,292.7        |
| So. Africa (including S.-W. Africa) . . . . . | 14.4         | 18.7         | 209.1          | 212.7          |
| <b>Total . . . . .</b>                        | <b>101.5</b> | <b>170.3</b> | <b>1,815.5</b> | <b>1,965.5</b> |

Table 2 - Production of Fish Meal by Member Countries of the FEO, January-November 1965

| Country                                       | November     |              | Jan.-Nov.      |                |
|---|--------------|--------------|----------------|----------------|
|   | 1965         | 1964         | 1965           | 1964           |
| . . . . . (1,000 Metric Tons). . . . .        |              |              |                |                |
| Chile . . . . .                               | 1.9          | 9.6          | 54.4           | 134.6          |
| Angola . . . . .                              | 1/           | 5.2          | 2/ 26.6        | 52.7           |
| Iceland . . . . .                             | 30.9         | 3.2          | 151.4          | 118.5          |
| Norway . . . . .                              | 19.3         | 13.1         | 305.0          | 175.8          |
| Peru . . . . .                                | 116.7        | 181.7        | 1,068.3        | 1,371.6        |
| So. Africa (including S.-W. Africa) . . . . . | 3.2          | 9.0          | 270.8          | 256.4          |
| <b>Total . . . . .</b>                        | <b>172.0</b> | <b>221.8</b> | <b>1,876.5</b> | <b>2,109.6</b> |

1/ Data not available.  
 2/ Data available only for January-August 1965.

### FOOD AND AGRICULTURE ORGANIZATION

#### NEW FISHERIES DEPARTMENT ESTABLISHED:

The Fisheries Division of the Food and Agriculture Organization (FAO) became a Department, consisting of two divisions, on January 1, 1966.

The decision to enlarge FAO's work in fisheries was made by the Organization's biennial Conference held in late 1965. The Conference also decided to establish a per-

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manent 30-nation committee on fisheries, whose principal tasks are to review and propose solutions for conservation problems of an international character, and to advise FAO on its fisheries programs and policies.

Roy I. Jackson of the United States was appointed Assistant Director-General to head the new FAO Fisheries Department. Jackson had been in charge of the FAO Fisheries Division since May 1964. From 1955 until his FAO appointment, he was Executive Director of the International North Pacific Fisheries Commission.

The new FAO Fisheries Department will initially comprise two divisions--a Fishery Resources and Exploitation Division and a Fishery Economics and Products Division. Present FAO plans, approved by the Conference, call for the Department to grow to four divisions between 1966 and 1972.

F. E. Popper of Canada has been appointed Director of Program Coordination and Operations for the new Fisheries Department, and will act as deputy to Jackson. Popper has served with FAO since 1954 and was Deputy Director of the Fisheries Division during 1962-1965.

R. W. Harrison of the United States was named Acting Director of the new Fishery Economics and Products Division. S. J. Holt of the United Kingdom was named Acting Director of the Fishery Resources and Exploitation Division. (Food and Agriculture Organization, Rome.)

NORTHEAST ATLANTIC FISHERIES POLICING CONFERENCE

SECOND SESSION TO MEET IN LONDON:

The Northeast Atlantic Fisheries Policing Conference (NEAFPC) is scheduled to meet in London for its Second Session March 31-April 6, 1966. A technical committee meeting of the Conference is to be held at the start of the Second Session.

The NEAFPC grew out of a resolution adopted at the European Fisheries Conference (held in London, December 1963-March 1964), which called upon the United Kingdom to convene a conference to draw up a convention on rules of conduct for fishing vessels in the Northeast Atlantic.

The First Session of the NEAFPC met in London, April 6-9, 1965, and was attended by France, Germany, Italy, the Netherlands, Belgium, Denmark, Norway, Portugal, Swe-

den, the United Kingdom, Iceland, Ireland, Spain, the United States, Canada, Japan, Poland, and the U.S.S.R. (United States Embassy, London, January 12, 1966, February 5, 1965; and other sources.)

Note: See Commercial Fisheries Review, May 1964 p. 40.

SALMON

BALTIC SEA CONSERVATION AGREEMENT BETWEEN DENMARK, SWEDEN, AND WEST GERMANY RATIFIED:

The Baltic Sea Salmon Conservation Agreement between Denmark, Sweden, and West Germany was scheduled to go into effect March 1, 1966. Ratification of the agreement by all three countries was announced in January 1966. The agreement is reported to provide for:

(1) A minimum mesh size in drift gill nets of 165 mm. (6.5 inches) for natural fibers and 157 mm. (6.2 inches) for synthetic fibers, with a 5-year transition period for gear currently in use.

(2) A minimum width of 19 mm. (0.748 inches) between the point and shaft of hooks used in the long-line fishery.

(3) A minimum size of 60 cm. (23.6 inches) for salmon, measured from the tip of the snout to the extreme end of the tail.

Those salmon conservation measures in the agreement may also be placed in effect by the other Baltic Sea salmon fishing nations (U.S.S.R., Poland, and Finland), even though they did not ratify the agreement.

| Country           | 1/1964        | 1963  |
|-------------------|---------------|-------|
|                   | (Metric Tons) |       |
| Denmark . . . . . | 1,721         | 1,133 |
| Finland . . . . . | 465           | 368   |
| Germany . . . . . | 2/            | 180   |
| Poland . . . . .  | 357           | 335   |
| Sweden . . . . .  | 631           | 371   |
| U.S.S.R. . . . .  | 235           | 200   |

1/Preliminary.  
2/Not available.  
Source: International Council for the Exploration of the Sea.

There was a considerable increase in the Baltic Sea salmon catch in 1964. Preliminary estimates indicate that Denmark's 1965 Baltic Sea salmon catch will be about the same as in 1964. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, January 4, 1966, November 3, 1965, and September 15, 1965.)

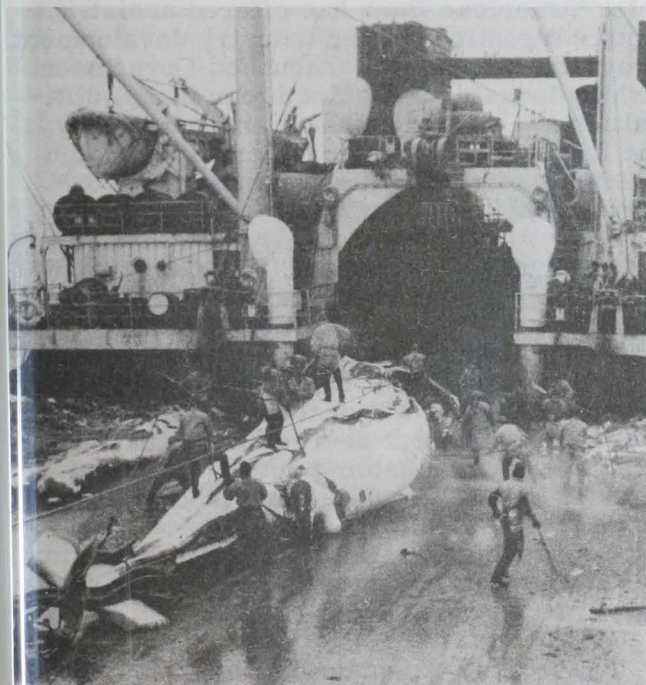
Note: See Commercial Fisheries Review, Nov. 1965, p. 44.

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INTERNATIONAL WHALING COMMISSION

ANTARCTIC WHALING OPERATIONS, 1965/66:

Japan, U.S.S.R., and Norway are operating 10 whaling fleets in the 20th (1965/1966) Antarctic Whaling Expedition. This is a reduction of 5 fleets from the 19th (1964/1965) Expedition. Of the 10 fleets, 3 Japanese fishing companies have 5 fleets on the grounds instead of the 7 operated last year. The fleet reductions followed the action taken by the International Whaling Commission in reducing the international Antarctic whale catch from 8,000 blue-whale units (informally set by Antarctic whaling countries) for 1964/1965 to 4,500 blue-whale units for the 1965/1966 season.



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

Japan's quota for the current year is 2,340 blue-whale units, 52 percent of the international quota. From the beginning of the current whaling season on December 15, 1965, to January 8, 1966, Japanese fleets landed 646 blue-whale units producing 11,376 tons of oil. The combined catch of the Antarctic whaling countries (Japan, U.S.S.R., Norway) during that period was 1,006 blue-whale units.

Current season hauls by the Japanese are significantly lower than during the same pe-

riod in 1964/1965. On January 9, 1965, the catch by 7 Japanese fleets amounted to 1,307 blue-whale units. On a per-fleet basis, the average Japanese catch this year is 129 blue-whale units as compared with 186 last year. The average catch per fleet of the combined fleet (all countries) this year is 100.6 blue-whale units against 136.7 last year. (U. S. Embassy, Tokyo, Japan, January 25, 1966.)

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**BRAZIL TO WITHDRAW FROM COMMISSION:**

The Brazilian Government has informed the International Whaling Commission that it desires to withdraw from the Commission, effective June 30, 1966. The basis for the proposed withdrawal is not known at this time. (U. S. Embassy, Lima, Peru, January 8, 1966.)



**Argentina**

**FISHING INDUSTRY TRENDS, 1964 AND FIRST HALF OF 1965:**

Catch and Production Highlights: The total Argentine fishery catch for 1964 was 160,306 metric tons. The 1964 sea catch of 143,587 tons was 30.1 percent higher than in 1963 and the fresh-water catch of 14,762 tons was 23.1 percent above the previous year.

During the first six months of 1965 the Argentine fishing fleets brought in 75,331 tons of fish, 6.8 percent above the catch for the corresponding period in 1964. The official estimate for 1965 is 15-20 percent above 1964. About 43 percent of that catch went to the canning, salting, freezing, and filleting plants, an increase of 4,045 tons over the same period in 1964; and about 45 percent went to the fish oil and meal processing plants.

The 1964 fresh and frozen fish fillet production of 20,986 tons practically doubled fillet production for 1963. It shows a continuing upward trend in 1965.

About 90 percent of the Argentine catch is delivered to the city of Mar del Plata which, due to location there of fish meal and fillet factories, is rapidly becoming the center of the Argentine fishing industry at the expense of other Argentine Atlantic coast ports.

Increased Imports: Argentina is using more of her fish catch internally and export-

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ing less. During 1964 Argentine exports of fish and products dropped to 4,585 tons from a 1963 level of 8,918 tons. Imports for 1964 rose to 4,746 tons from the 1963 level of 2,367 tons.

From January through June 1965 Argentina exported 1,798 tons of fish (610 tons of fresh, frozen, and canned fish, 657 tons of fish oil and 425 tons of fish meal). In the same period, she imported 10,741 tons of fish and products, including 8,140 tons of fish meal.

**Fish Meal:** In the first five months of 1965 Argentina was a net importer of 7,715 metric tons of fish meal. For the whole year of 1964 she was a net exporter of some 305 tons.

The development of production and trade in fish meal has accompanied the rapid expansion of pig and poultry farming in Argentina, and the increased use of fish meal as a protein additive in livestock feed. Argentine fish meal factories are working at peak capacity and should be able to reduce the high import level in 1966.

**Internal Consumption:** Total consumption of fish per person in Argentina rose in 1964 to 4.2 kilos (9.2 pounds), from 3.3 kilos (7.3 pounds) in 1963. Real consumption (fresh, frozen, canned) rose from 2.7 to 3.4 kilos (5.9 to 7.5 pounds). The trend continues up in 1965, but not quite so dramatically. There have been two beefless days per week in Argentina in an effort to release a part of national beef consumption for export; this is partly responsible for the increased fish consumption, and is also responsible for the increased use of fish meal as a feed additive in the expanding poultry and pig industry.

**Fleet Shortage:** In 1964 only one of the five existing fish oil and meal plants in the country was able to work at full capacity. This was due to a lack of fleet tonnage sufficient to provide large enough catches to operate the other four plants more than 8 to 12 hours a day.

The Argentine high-seas fleet consists of some 50 trawlers and the coastal and river fleet of some 350 launches and 27 boats. Seven high-seas trawlers with a total of 1,290

tons were added to the fleet in 1964 and 2 more large trawlers recently. Forty other fishing vessels of varying sizes are currently under construction under a Government-sponsored development program. The Argentine Government has assigned 2.0 billion pesos annually (about US\$10.5 million) to be loaned at 8 percent interest for the integrated development of the fishing fleet and fish processing capacity. Six firms have made proposals to the Government for loans to start integrated operations consisting of fishing vessels, filleting and freezing plants, and fish oil and meal factories.

One of the principal bottlenecks of the Argentine fishing industry at this juncture appears to be a lack of sufficient high-seas trawlers, and a need to better understand the fishing grounds off the Argentine coast. The Inter-American Bank has offered assistance to the Argentine fishing industry development program, but despite announced Government fishing industry assistance loan plans, difficulties are currently being encountered by the industry in finding peso credit to match the funds offered by the Bank for new construction.

**Government Activities:** The Government recently froze the retail price of fish for consumption on the local market. Subsidies which the fishing industry had been receiving for purchases of fuel also were recently withdrawn, but a new bill recommends reinstating them. Other recent decrees have granted an exemption from customs duties for machinery imports related to the fishing industry, and given permission for Latin America Free Trade Association (LAFTA) member country vessels to fish Argentine waters under certain restrictions.

The Argentine Senate late in 1965 passed and sent to the Chamber of Deputies a bill looking to rationalization and intensification of the Argentine fishing industry. Thirty years ago Argentina produced more fish and products than any other South American country; today she ranks fourth behind Peru, Chile and Brazil.

A UN/FAO team is currently making preliminary studies here which it is hoped will lead to a \$3 million investment by those international organizations in Argentine fisheries research.

Under the auspices of FAO, Argentina, Brazil, and Uruguay have formed a regional

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commission for the study of fishing in the southwestern Atlantic looking to coordinated regional development and exploitation of fishing resources.

Argentina is forming a National Institute for Fishery Studies to consist of members of the industry and interested government agencies.

Fish Meal and Fillet Freezing Plants:

One Argentine firm in Mar del Plata is a consortium of fishing-fleet operators and fish processors which markets fresh fish and produces fish oil and meal. Another Mar del Plata firm processes hake which it fillets, freezes, and exports, mostly to the United States where it is sold as "Argentine whiting". The two firms process the catch from 17 high-seas trawlers and numerous coastal launches; the plants of the two firms process some 60 percent of the total Argentine high-seas catch.

One of the firms employs some 400 women to cut and clean the hake and quick-freeze it for export. Some 80 percent of that firm's frozen fish fillets are exported to the United States and the firm has received market inquiries from South Africa, Australia, and Japan. Part of the high-seas hake catch processed by that firm is sold fresh, packed in shaved ice and trucked into the interior; another part is sold in Buenos Aires supermarkets, which are just now beginning to have sufficient display refrigeration cases to handle such products.

The firm's fish meal plant uses both coastal catch and the filleting waste in its production of fish meal; thereby using the total catch from the consortium's vessels. The firm's fish-meal processing plant, which operates with Danish equipment, is the only one of the five fish meal plants in Argentina which was able to purchase sufficient catch to operate continuously in 1964 (three 8-hour shifts, seven days a week).

Both the Mar del Plata plants are efficiently laid out, clean, and managed for maximum input of high-seas and coastal catch and maximum output of salable products.

A lack of plate-freezing equipment for processing fillets is holding back the expansion of the one firm. That firm is unable to

obtain the pesos needed for physical plant expansion to accommodate the proposed new freezing capacity.

Domestic demand for fish meal as a feed supplement, and international market demand for frozen fish fillets, appear practically unlimited. In 1964, one of the two firms had estimated that during 1965 he could sell some 21 million pesos worth of frozen fish fillets during the year: they have been selling 20 million pesos worth (about US\$100,000) each month. The firm estimates that when they are able to install four new plant freezers which they are currently seeking to finance, they will be able to increase their fillet-processing operation from 2 shifts a day to 3, and increase their sales of fillets to 50 million pesos (\$250,000) monthly.

These firms are believed to be representative to the extent that it can be said that the Argentine fishing industry urgently needs a large volume of new investment, both in ships and installations. (U. S. Embassy, Buenos Aires, Argentina, January 15, 1966.)

Note: 1 Argentine peso equals US\$0.005.

**Brazil****SHRIMP SHIPPED TO UNITED STATES FROM NEW PROCESSING FIRM:**

In Brazil, a modern fish-freezing and processing plant at São Sebastião, north of the city of São Paulo, made its first shipment of frozen shrimp to the United States, November 15, 1965. The shipment of 70 metric tons was packed according to U. S. specifications and destined for a New York firm.

The fish-processing plant at São Sebastião was 18 months under construction and represents an investment of Cr. 2.5 billion (US\$1.35 million), of which Cr. 1.3 billion (\$700,000) had been spent by late 1965. Present production capacity is estimated at 200 tons of frozen fish and 40 tons of salt fish a month. Danish and German ice-making equipment can produce 90 tons in 24 hours. The plant has a cold-storage capacity for 800 tons of ice and 1,900 tons of perishable products. The firm plans to supply ice to local fishermen, from whom it buys fish at a fixed price, and is said to need a supply of 50 tons of fish a day for a profitable operation. The future installation of modern unloading equipment and other im-

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provements at the port of São Sebastião is also considered essential to the success of the new fish-processing operation. (U. S. Embassy, Rio de Janeiro, December 16, 1965.)  
 Note: Brazilian cruzeiros 1,850 equal US\$1.00.

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TUNA FISHERY DEVELOPMENTS, 1965:

About 16 species of tuna and tuna-like fish have been caught off the northeastern Brazilian coast. Yellowfin (Thunnus albacares) is reported to have accounted for about 50 percent of the commercial tuna catch in those waters and albacore (T. alalunga) for about 25 percent. Fishing takes place between July and January in two of the three general fishing grounds for yellowfin: (1) the area extending from French Guiana to the mouth of the Amazon and (2) from Parnaíba to Fortaleza. In the other half of the year (February to June), fishing is concentrated between latitudes encompassed by Cabo São Roque and the mouth of the São Francisco River. Distribution of albacore extends to the south, substantial quantities having been fished between Cabo Frio and Santos. Further oceanographic studies are needed to establish tuna fishing areas and their yearly variations.

One large Japanese vessel, line-fishing on the high seas along the Brazilian coast, reported a daily catch of from 15 to 30 tons of tuna, with the weight of individual species ranging from 50 to 700 pounds.

A small variety of albacore ("albacorinha") frequents northeastern coastal waters during certain periods of the year. Although "albacorinha" has been observed at the mouth of the Rio São Francisco and at the entrance of Bahia harbor, it is fished on a commercial scale only off the coast of Rio Grande do Norte. The fishing is done by sail boats varying from 7.5 to 9 meters (24.6-29.5 feet) in length with a crew of 3 men using a single line.

Line fishing is the principal method for tuna fishing, although tuna have been captured with almost every type of gear used in Brazil.

The only specialized tuna vessels used in Brazil were those owned by the two Japanese companies operating in Brazil from Santos

and Recife, respectively. The firm out of Santos discontinued tuna fishing well over a year ago owing to problems encountered in training crews (two-thirds of which by law must be Brazilian citizens) and in maintaining the gear and vessels. According to officers of the company, high Brazilian production costs prevented them from competing in the international market. The firm's two long-liners were converted for use in general pelagic fishing operations. The firm out of Recife is understood to be operating one long-liner for tuna fishing, but to have encountered the same problems. Tuna is also caught in general fishing operations where other types of vessels are used. There are no present or prospective building programs for tuna vessels.

Shore-based facilities available for handling tuna consist of the general fishing depots (entrepósitos) located at Fortaleza, Natal, Recife, Salvador, Rio de Janeiro, and Santos. All are badly in need of expansion and modernization of landing, handling, ice-making, and cold-storage facilities. There are innumerable plans for construction of such facilities, but progress in recent years has been negligible and, with the possible exception of SUDENE (Superintendency for the Development of the Northeast) financing for refrigerated warehouses in northeastern ports, there are no building programs for those facilities. There are no current technological developments in Brazilian tuna-handling methods.

Research on tunas is being carried out by SUDENE, by the Institute of Marine Biology at the University of Ceará, and by a joint research group at Santos sponsored by the University of São Paulo and the São Paulo State Secretariat of Agriculture. SUDENE has analyzed sample catches of tuna and other fish for age and weight, growth and reproduction cycles, dietary habits, etc. (United States Embassy, Rio de Janeiro, Brazil, January 14, 1966.)

Note: Dr. Melquiades Pinto Paiva of the University of Ceará is reported to have published papers on tuna in the Boletim de Estudos de Pesca which was issued by SUDENE through 1963. Lists of research papers on tuna are contained in FAO Report No. 1917 (Development of the Marine Fisheries Biology Research Program) and in FAO Fishery Report No. 27 (Report of the Second Session of the FAO Working Party for Rational Utilization of Tuna Resources in the Atlantic Ocean.)



**Bulgaria**

**U.S.S.R. TO IMPORT TRAWLERS FROM BULGARIA:**

Beginning in 1966 the Shipyards at Burgas, on Bulgaria's Black Sea coast, will specialize in the construction of fishing vessels. During Bulgaria's new 5-Year Plan (1966-1970), 220 fishing trawlers will be produced; of those, 120 will be exported to the Soviet Union which will operate them in the North Sea, the Barents Sea, and the Baltic Sea. This new series of trawlers will each have 300 horsepower motors; a displacement of 11 tons; and a length of about 30 meters (118 feet). Each trawler will be able to operate continuously for 19 days and nights without refueling; each will have a refrigeration hold with a volume of 100 cubic meters (3,531 cu. ft.) maintained at a constant temperature of -4° centigrade (24.8° F.). All processing will be fully mechanized. (*Zemledelsko Zname*, November 26, 1965, page 1.)

Editor's Note: The design for the new fishing trawlers was prepared by the Scientific Research and Design Institute of Shipbuilding of Varna. That Institute collaborates closely with similar institutes in the Soviet Union. The prototype of the new class was launched in early 1965, and serial production is to begin in early 1966. The U.S.S.R. probably placed the order with Bulgaria because of lower production costs as well as for trade and other considerations. It is believed that these additions to the Soviet fleet will serve mainly to replace obsolete Soviet trawlers built in the early post-World War II era in East Germany. They will not be used to further expand Soviet Baltic and North Sea operations.



**Canada**

**TUNA CANNERY BEING BUILT IN NEW BRUNSWICK:**

On November 4, 1965, construction began on an east coast Canadian tuna cannery in New Brunswick, between St. Andrews and St. Stephen. Total cost of the cannery will be about C\$1.5 million.

To supply the plant, 3 tuna vessels (combination trawler-purse seine vessels) will be built at a cost of about C\$6.0 million.

The cannery will have 60,000 square feet of space to handle 20 million pounds of tuna annually, and will be able to process 100,000 cans a day. The cannery is expected to employ 200 people from the surrounding area. The target date for the plant to be in operation is December 1966.

The tuna vessels built to supply the plant will each have a holding capacity for 1,000 tons of frozen tuna. The vessels will be capable of fishing anywhere in the world. For 8 months of the year they will probably operate in the southern Pacific. Through the Panama Canal, some Pacific grounds are actually closer to New Brunswick than to California. For the other 4 months of the year, the fleet is expected to fish the North and South Atlantic. (*Trade News*, November 1965, and other sources.)

Note: See *Commercial Fisheries Review*, Aug. 1964 p. 55; June 1964 p. 37; Jan. 1964 p. 44.

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**GROUND FISH EXPORTS TO AUSTRALIA:**

Three Nova Scotia firms have begun shipping groundfish to Australia. One hopes to sell a million pounds of fish to Australia in 1966. Another one exports to Australia all flounder in excess of its needs for the domestic market, and the third firm has been selling groundfish, mostly sole, to Australia since 1964. A representative of one of the firms said cod, flounder, and ocean perch are very well received in Australia. He explained that the Australian preference for those species may result from the large number of European immigrants who are used to eating Atlantic fish.

Canadian sales success in Australia could be at the expense of frozen fish products now shipped to Australia from Europe. The Canadians have comparatively low shipping costs via the Panama Canal and consider themselves competitive with European producers.

A Nova Scotia firm said it was cheaper to ship to Australia than to France because of routing problems to France. Monthly refrigerated vessel service is available between Halifax and Australia. (United States Consulate General, Halifax, January 6, 1966.)

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**LOBSTER-SPLITTING MACHINE DEVELOPED:**

A prototype lobster-splitting machine has been developed by an engineer with the Canadi-

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an National Research Council. In late 1965, the machine was undergoing further tests in the Maritimes. It splits top and bottom of the lobster shell, allowing the meat to be extracted quickly and without waste. The claws are put through the machine separately. The inventor estimates that the machine can split between 300 and 400 lobsters an hour. (Canadian Trade News, November 1965.)

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LOBSTERS SHIPPED TO DENMARK:

Canadian lobsters, airfreighted to Denmark, compete successfully with those from Scotland and Norway. The Canadian lobsters sell for \$2.30-2.45 a pound as compared with \$3.25-3.85 for the others.

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GOVERNMENT INCREASES EMERGENCY ASSISTANCE TO FISHERMEN FOR CATCH FAILURE:

An emergency assistance plan for fishermen suffering serious catch failure was announced by the Canadian Federal Government, December 3, 1965, and expanded January 15, 1966. As expanded, the emergency plan will supplement unemployment insurance in order to raise total benefits over a 3-months period to a maximum of \$350 for fishermen with dependents and \$200 for single fishermen. To be eligible for the emergency aid, fishermen must have 5 weeks of contributions to unemployment insurance. This is the first occasion on which the Canadian Government has made a direct payment to fishermen to compensate for loss of income due to failure of their catch. (Canadian Department of Fisheries, Ottawa, January 15, 1966.)

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INSURANCE FOR FISH TRAPS AND SHORE INSTALLATIONS:

As of February 1, 1966, the Canadian Government began offering insurance in the Atlantic Coast provinces and British Columbia for fixed fishing gear (cod traps, herring traps, herring weirs, etc.) and shore installations (buildings only) against natural perils. The insurance is being offered on a 1-year experimental basis, and will cover assets valued from \$300 to \$15,000 for loss due to storms, ice, fire, etc., but not theft. It will pay 60 percent of appraised value on total

loss, and a lesser indemnity for partial loss. Premium will be 1 percent of value. Coverage is an experimental extension of Canada's Fishermen's Indemnity Plan, which for the past 12 years has provided low-cost insurance for fishing vessels.

The new plan for fixed gear and shore installations will be reviewed after it has been in effect for 12 months, at which time a decision will be made as to whether or not it will be continued and if so, what amendments would be desirable. (Canadian Department of Fisheries, Ottawa, January 11, 1966.)

\* \* \* \* \*

FEDERAL DEPARTMENT OF FISHERIES SETS UP NEW OFFICE TO ADMINISTER ECONOMIC AID:

The Federal Department of Fisheries of Canada has established a new position--director of special programs--to administer economic and other aid to the fishing industry. The new position was created in the course of a major reorganization in the Federal Department of Fisheries. Programs already in existence which will be administered by the new office include the Fishermen's Indemnity Plans, the Newfoundland Bait Service, and the Salt Assistance Plan. (Canadian Fishermen, January 1966.)

\* \* \* \* \*

NEW TRADE COMMISSION OFFICE OPENED IN FAR EAST:

A new office of the Canadian Government Trade Commissioner Service has been opened in Kuala Lumpur to provide a more direct trade link with Malaysia, Burma, and Brunei.

The new office brings the number of Canadian Trade and Commerce posts abroad to 67.

Canadian imports from Malaysia in 1964 included frozen tuna valued at C\$218,000. (Canadian Department of Trade and Commerce, Ottawa, December 15, 1965.)

\* \* \* \* \*

FIRM BUILDING LARGE FISH-PROCESSING PLANT AT MORTIER BAY, NEWFOUNDLAND:

A Newfoundland plant to process 60 million pounds of fish a year for overseas export will be built at Mortier Bay by a Canadian firm, the Newfoundland Premier announced January



Canada (Contd.):

17, 1966. The operation will involve building a C\$3-million plant, acquiring a dragger fleet, and training employees. Total investment by the firm will be more than C\$13 million. February 1967 is the target date for completion. The Newfoundland Government actively sought the new plant and is pushing the development of groundfish processing for export. (Fisheries Council of Canada Bulletin, January 1966.)

Another fish-processing complex is being set up at St. John's, Newfoundland, by a British firm and a Canadian firm with financial aid from the Canadian Government. Also, in 1965 another large British firm entered into partnership with one of Newfoundland's largest fish-processing firms.



Communist China

LOBSTER FISHING IN EAST CHINA SEA:

A large fleet of Communist Chinese and Japanese drag-net and trawl boats (some of 60 gross tons) were fishing in the East China Sea off the Shantung Peninsula early in 1966 and making rich catches of "taisho lobsters." The Japanese fishermen came from the fishing port of Shimonoseki.

The "taisho lobsters" caught in the East China Sea are most abundant during December-January. They are 20-30 centimeters (about 1 foot) long; as many as 10,000 were harvested per net in only 3 hours of trawling

by at least one Japanese boat. The landings are easily sold in Japan where a good customer demand exists; each lobster brings about 40 yen (US\$0.11) in wholesale markets. A good Japanese catch brought 20 million yen (about US\$56,000) per boat and a captain could make up to \$1,500 a trip.

Japan and Communist China have recently concluded a private fisheries agreement which makes it possible for Japanese fishermen to fish near Communist China's coasts. Large numbers of boats fishing in close proximity nevertheless cause gear conflicts and even collisions. (Asahi, January 4, 1966.)



Cuba

SOVIETS TRAIN CUBAN FISHERMEN:

By September 1964, a total of 483 Cuban fishermen had received training in the U.S.S.R. or on vessels of the Soviet fleet. It was expected that an additional 70-80 students would join that number during 1965-66; and 6 students were scheduled to enter Soviet universities.

Two Soviet fishery research vessels manned by crews of both countries will engage in an extensive research program using Havana as a base. Seven engineers will work temporarily in Cuba as technical advisers in planning the expansion of Cuba's fishing industry, and for two years, 36 Soviet specialists will work aboard six Cuban fishing vessels. (World Fishing, December 1965.)

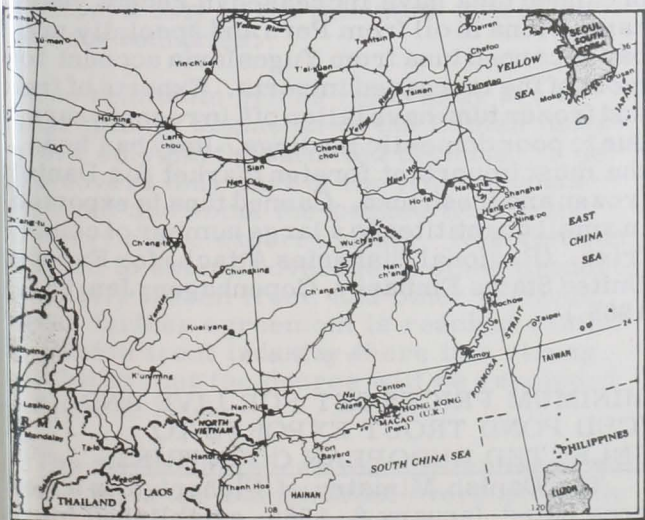
Note: See Commercial Fisheries Review, Oct. 1965 p. 70; Dec. 1964 p. 90; Nov. 1964 p. 82; June 1963 p. 68.



Denmark

TUNA INDUSTRY TRENDS:

Fishing: Denmark's fishery for tuna is small and based entirely on bluefin tuna (Thunnus thynnus) taken mainly in the North Sea, the Skagerrak, the Kattegat, and to a minor extent in the Sound. The North Sea was the principal tuna-fishing ground from 1955 to 1960 and the Kattegat from 1961 to 1964 (table 1). The fishery is conducted for the most part during the months of August, September, and October, with heaviest catches usually made in September. Bluefin tuna are caught on a



Denmark (Contd.):

Table 1 - Danish Tuna Landings, by Area of Catch and Months Fished, 1955-1964

| Year | Quantity    | Value     | Principal Area | Months Fished           |
|------|-------------|-----------|----------------|-------------------------|
|      | Metric Tons | 1,000 Kr. |                |                         |
| 1964 | 46          | 126       | SK-KT          | Aug. -Sept. -Oct.       |
| 1963 | 3           | 14        | -              | Sept. -Oct.             |
| 1962 | 152         | 360       | - ↓            | Aug. -Sept. -Oct. -Nov. |
| 1961 | 144         | 317       | - ↓            | Aug. -Sept. -Oct. -Nov. |
| 1960 | 47          | 116       | NS-            | Aug. -Sept. -Oct.       |
| 1959 | 772         | 1,615     | NS-            | Aug. -Sept. -Oct.       |
| 1958 | 221         | 597       | NS-            | Aug. -Sept. -Oct.       |
| 1957 | 598         | 1,247     | NS-            | Aug. -Sept. -Oct.       |
| 1956 | 453         | 1,005     | NS- ↓          | Aug. -Sept. -Oct.       |
| 1955 | 1,098       | 2,253     | NS-SK-KT       | Aug. -Sept. -Oct.       |

Notes: (1) Underlining indicates principal month and principal area.  
 (2) "NS" - North Sea; "SK" - Skagerrak; "KT" - Kattegat.  
 (3) 1 Danish krone = US\$0.145.  
 Source: Fiskeriberetning, 1955-1964.

single hook, baited with herring or mackerel, attached to a line fished from a drifting cutter which has observed the tuna while fishing for herring or mackerel. Chumming with cut up herring or mackerel is practiced. A few tuna are caught incidentally in pound nets. Sportsmen troll for tuna, using herring or mackerel for bait, often selling the catch commercially.

The regular Danish fishing cutter is used in this seasonal fishery; the vessels seine or trawl for other species during the rest of the year. The number of vessels fishing for tuna in any one year fluctuates according to the availability of tuna and was estimated at about 25 vessels in recent years. There is no tuna vessel-building program.

The limited amount of tuna caught is landed at regular shore facilities used for landings of other species. Tuna is canned in 5 or 6 plants which pack primarily herring, brisling, mackerel, etc. There are no programs for building tuna vessels or processing facilities; no new technological developments in the handling of tuna are reported.

Biological research on tuna is conducted on a small scale. The Fishery Research Institute, Charlottenlund, Denmark, has studied the relationship of water temperature to the appearance of tuna in waters near Denmark. In addition, incidental tuna research is done during cruises of the Danish research vessel Dana. No technological research is being done.

Tuna Catch, Consumption and Trade: The Danish catch of tuna has fluctuated considerably during the last decade and has been almost negligible since 1959 (table 1). During

the past few decades, the highest landings were 2,059 metric tons taken in 1952 and the lowest, 3 metric tons in 1963. The major part of the catch is consistently landed in Skagen, a fishing port on the northermost tip of Jylland Peninsula.

Danish consumption of tuna consists primarily of canned. A small quantity of Danish tuna landings is consumed fresh. Tuna is canned natural style and with tomato sauce. Danish canners use fresh Danish and Norwegian bluefin for the natural pack and frozen imported tuna, preferably dark meat, for the sauce pack. There are about 5 or 6 fish canneries which also pack tuna; a plant in Skagen probably has the largest production.

Table 2 - Denmark's Imports and Exports of Tuna, 1957-1964

| Year | Imports       |         |        | Exports |        |        |
|------|---------------|---------|--------|---------|--------|--------|
|      | Fresh         | Frozen  | Canned | Fresh   | Frozen | Canned |
|      | (Metric Tons) |         |        |         |        |        |
| 1964 | 93.2          | 1,152.7 | 174.8  | 17.3    | 1.1    | 20.4   |
| 1963 | 21.0          | 25.1    | 121.2  | 3.4     | -      | 9.0    |
| 1962 | 584.1         | 4.1     | 104.3  | 74.0    | -      | 6.4    |
| 1961 | 222.2         | -       | 94.0   | 25.6    | -      | 5.1    |
| 1960 | 264.4         | 22.6    | 16.3   | 8.4     | 1.7    | 9.5    |
| 1959 | 1/166.0       | 0.1     | 12.7   | 94.9    | 346.5  | 11.0   |
| 1958 | 1/163.1       | 1/      | 11.1   | 1/7.8   | 1/     | 6.9    |
| 1957 | 1/271.7       | 1/      | 11.5   | 1/295.5 | 1/     | 11.6   |

1/Fresh and frozen shown together.  
 Source: Danmarks Vareindførsel og -Udførsel, 1957-1964.

The trends in Danish tuna trade are shown in table 2. Nearly all the imports of fresh tuna are from Norway. A small amount includes fresh fish landed in Danish ports by Norwegian and Swedish fishermen. The large quantity of frozen tuna imported in 1964 was primarily from Japan. Canning that tuna saturated the Danish market and considerable effort was required to move the pack. Imports of canned tuna have increased in recent years; canned tuna in oil from Peru and specially prepared canned tuna from Yugoslavia account for most of the increased imports. Exports of fresh and frozen tuna have fallen off in recent years due to poor domestic landings. Italy had been the most important foreign market for Danish frozen and fresh tuna. Canned tuna is exported in small quantities to a large number of countries. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, Jan. 26, 1966.)

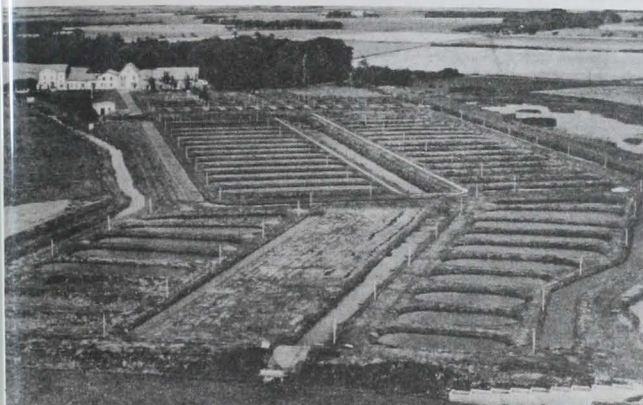
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MINIMUM PRICES SET FOR LIVE AND ICED POND TROUT EXPORTS TO SELECTED EUROPEAN COUNTRIES:

The Danish Ministry of Fisheries in a decree dated January 6, 1966, established min-

Denmark (Contd.):

Minimum export prices on exports of (1) live pond trout from Denmark to West Germany, Belgium/Luxembourg, the Netherlands, Switzerland, Austria, Sweden, Norway, and France and (2) iced pond trout to West Germany. The action was taken at the request of the Danish pond trout industry under legislation adopted June 4, 1965.



A Danish pond trout enterprise.

For iced trout to West Germany, the minimum export price (f.o.b. Danish border) is about 38.8 U. S. cents a pound for trout with a round weight of 8.82 ounces or over; on a drawn weight basis, the minimum price is 48.0 cents a pound.

For live trout, minimum export prices were set for specified trout sizes for each affected European country. The live trout minimum export prices (including freight and duty in some cases) range from 34.9 cents a pound to 80.7 cents a pound. The wide range is due partly to varying methods of computing freight and duty in the minimum prices for different countries.

The minimum prices reportedly are a compromise. Segments of the Danish industry are only partly satisfied because the decree covers only part of the trout exports--live trout and some ice-packed trout--and only part of the export market. Negotiations continue to extend coverage to other products, especially frozen trout, and other markets. Unless further agreement is reached within the Danish trout industry there is a strong possibility that the decree will be rescinded on April 1, 1966.

The minimum prices were established at a time when the Danish trout oversupply situ-

ation had been relieved. Actually the supply of Danish trout for export in early 1966 was reported to be in short supply. The situation was attributed to weather conditions in Denmark and reaction to overproduction early in 1965 which slowed the production rate during the latter half of 1965. Market prices for live trout in early 1966 were higher than the minimum set in the January 6 decree. The supply situation is also affecting stocks of frozen trout. A cooperative which accounts for about 45 percent of Danish production was not processing any frozen trout in early 1966.

January-November 1965 production of Danish pond trout was 10,143 metric tons, 29 percent higher than the 7,833 tons produced in the same period of 1964.

Danish exports of pond trout in January-November 1965 consisted of 1,961 tons of live trout valued at Kr. 14.4 million (US\$2.1 million), 4,402 tons of fresh iced trout valued at Kr. 25.3 million (\$3.7 million), and 3,560 tons of frozen trout valued at Kr. 25.2 million (\$3.7 million).

Danish producers and exporters are seeking to set up a Joint Centralized Sales Office for frozen trout exports, especially for sales to the United States and Canadian markets. Motivating the effort to establish this new marketing office is the belief of many Danish trout exporters that a special sales office is needed to meet competition from Japanese exporters of frozen trout. (Assistant Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, January 19, 1966.)

Note: A loan copy of the report from the United States Embassy, Copenhagen, giving a detailed breakdown of the new Danish minimum pond trout export prices to certain European countries is available on loan, to firms in the United States only. To borrow Danish Report 554, dated January 19, 1966, write to the Branch of Foreign Fisheries, Bureau of Commercial Fisheries, U. S. Department of the Interior, Washington, D. C. 20240.

\* \* \* \* \*

ICING REGULATIONS FOR FISH:

Danish regulations require icing of fish while in the auction hall, even at freezing temperatures. They are being enforced despite fishermen's protests because the Danish Fisheries Ministry's Technological Laboratory says ice in the boxes acts as an insulator and prevents the fish from drying out and becoming rancid when thawed. Fishermen ice their catches if out over 6 hours, but this may be extended to 8 hours.

\* \* \* \* \*

Denmark (Contd.):

#### BALTIC SEA LUMPSUCKERS RICH SOURCE OF ROE FOR CAVIAR:

Lumpsucker roe is the source of Danish caviar. Lumpsuckers in the Baltic Sea yield much more abundant roe than those in the North Sea, according to a Danish biologist. His studies showed that Baltic Sea lumpsuckers yielded almost 2,000 eggs per ounce of fish as compared with slightly under 1,100 in the North Sea variety.

\* \* \* \* \*

#### FROZEN PRODUCT LABELING REQUIREMENTS:

Beginning December 1, 1965, all Danish frozen products for domestic use, with a few exceptions, were required to carry on the label the net weight of the frozen product. Those containing sauce, soup, brine, water, etc., must also give the drained weight. A tolerance of 5 percent is permitted for net weight and 10 percent for drained weight, but the average weight of a reasonable number of packages must equal the labeled weight.

\* \* \* \* \*

#### DATE MARKING OF FROZEN FISHERY PRODUCTS:

A large Danish fish processor began open (as opposed to coded) marking of the date of production on its frozen fish products on Jan. 1, 1965. Initially, only 20 percent of the frozen products consumed in Denmark are being marked with an open date. However, open-date marking will be offered to buyers in the 17 countries to which the company exports. In previous discussions of open-date marking, most processors have opposed it.

\* \* \* \* \*

#### FISH PROCESSORS SEEK IMPORTED SUPPLIES:

Stable ex-vessel price levels for Danish fish landings can be maintained, according to processors, only if landings are sufficient to keep filleting and other processing lines producing near capacity continuously. The processors are seeking relaxation of import restrictions to augment deficient Danish landings of plaice, cod, and herring. The Danish Fisheries Ministry supports liberalization as in line with Denmark's international trade responsibilities. Fishermen, however, fear adverse effects on prices. As an alternative,

the fishermen have increased herring landing quotas and urged larger landings by Swedish cutters under an existing special agreement.

\* \* \* \* \*

#### FISHERY EXPORTS AND CATCH, 1965:

Preliminary estimates show that the Danish fishing industry can look back on a prosperous 1965 marked by exports valued at a record US\$100 million and a catch only about 5 percent under the record 855,529 metric tons (almost 1.9 billion pounds) landed in 1964.)

\* \* \* \* \*

#### GOVERNMENT FISHERY LOANS, FISCAL 1965:

Fishery loans made by the Royal Danish Fisheries Bank in fiscal year 1965 (April 1964-March 1965) totaled Kr. 20.2 million (US\$2.9 million) as compared with Kr. 16.7 million (\$2.4 million) the previous fiscal year.

A breakdown shows that in fiscal 1965 there were 64 new vessel loans with a total value of Kr. 11.6 million (\$1.7 million), 14 used vessel loans totaling Kr. 1.4 million (\$200,000), 24 fishery industry loans totaling Kr. 6.7 million (\$970,000), and 17 miscellaneous loans with a total value of Kr. 442,000 (\$64,000).

In fiscal 1964, there were 74 new vessel loans with a total value of Kr. 11.9 million (\$1.7 million), 8 used vessel loans with a total value of Kr. 515,000 (\$75,000), 22 industrial loans totaling Kr. 3.7 million (\$530,000), and 116 miscellaneous loans (including 95 loans for ice damage) with a total value of Kr. 615,000 (\$89,000).

Losses on loans during fiscal 1965 amounted to Kr. 43,082 (\$6,247). Funds on loan increased to Kr. 106.8 million (\$15.5 million) in fiscal 1965. The Bank operated under amended Fishery Bank Law No. 170, April 27, 1963, which extended operations to include Greenland in addition to Denmark and the Faroe Islands.

During fiscal 1965, loans were financed by 3 series of bonds issued by the Bank which pay 6 and 7 percent interest. When a loan is approved, the applicant receives bonds for the amount of the loan and must sell them to receive his funds. The market value of the bonds is less than their face value. The bonds were

Denmark (Contd.):

quoted at a discount of about 15 percent in early December 1965.

In late 1965, a representative of the Danish Fisheries Association (mostly vessel owners) complained about the expenses incurred by fishermen building vessels, especially the 15-percent loss in selling the loan bonds. For a modern steel cutter costing Kr. 1.2 million (\$174,000), the owner must supply 20 percent of the cost--Kr. 240,000 (\$34,800)--plus Kr. 50,000 (\$7,250) for gear, and Kr. 180,000 (\$26,100) to make up the loss on the sale of bonds for a total of about Kr. 470,000 (\$68,150).

Fishing vessel owners are aided by favorable vessel depreciation regulations. For example, tax-free depreciation may be claimed annually on fishing vessels up to 30 percent of the book value. Advance tax-free depreciation is allowed on vessels when the construction price aggregates at least Kr. 200,000 (\$29,000). Depreciation may be claimed for the first time in the year when a contract to build a vessel is concluded, and each year thereafter preceding the year delivery takes place. The total amount of advance tax-free depreciation may not exceed 30 percent of the contract price. The annual rate of advance depreciation is optional to the vessel owner, but may not exceed 15 percent in any one fiscal year. (Regional Fisheries Attache, United States Embassy, Copenhagen, December 15, 1965.)

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FISHING VESSEL LOAN FUNDS NEARLY EXHAUSTED:

The Government-guaranteed fund of nearly US\$22 million for the Danish Fisheries Bank was almost exhausted in late 1965 just as demands were increasing because of tightening credit in Denmark. Industry representatives were seeking a further guarantee of \$14 million to meet the demand for cutter construction funds stimulated by 1965's near-record landings and relatively high prices. About 100 new cutters are reported ordered for delivery in 1966 and 1967.

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EX-VESEL FISH PRICES, NOVEMBER 1965:

Landings of most Danish fish brought higher prices in 1965 than in 1964. Average No-

vember 1965 prices (November 1964 in parentheses) in U. S. cents per pound ex-vessel were: cod 8.6 (8.3); plaice 20.2 (15.1); industrial fish 2.1 (1.45); herring 5.6 (4.2); haddock 9.4 (7.7), and dogfish 7.8 (6.5). A few prices declined: salmon \$1.10 (\$1.19); ordinary lobster 89 (\$1.17); and shrimp 29.6 (38.8).



East Germany

FISHERY TRENDS, LATE 1965:

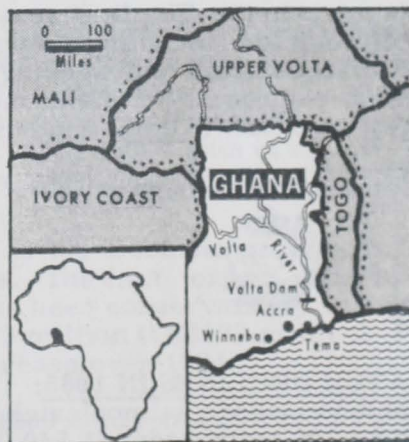
An East German trade delegation visiting Danish fishing ports the latter part of 1965 said East Germany's fishing fleet was increasing steadily and the country was about to become self-sufficient with regard to fish. However, because Denmark delivered such a quality fresh product, East Germany still had a buying interest in Danish fish.



Ghana

NORWAY DELIVERS LAST OF SEVEN STERN TRAWLERS:

The last of seven stern trawlers built by a Norwegian shipyard for the Ghana State Fishing Corporation was delivered in Trondheim early this year. Named the Agyimfra, the vessel is a sistership of the other six motor



trawlers. The vessel is 231 feet long, has freezing facilities for 24 metric tons of fish a day, and has a hold capacity for 35,000 cubic feet of fish. (The Export Council of Norway, January 1966.)



## Greece

### FISHERY TRENDS, JANUARY-AUGUST 1965:

Atlantic Freezer-Trawler Fishery: Landings by the Atlantic fleet of Greek freezer trawlers in January-August 1965 totaled 16,029 metric tons as compared with 13,135 tons in the same period of 1964. Greek freezer trawlers reported slightly improved fishing conditions off West Africa in August 1965. The catch included smaller amounts of horse mackerel but larger quantities of sea bream. The shrimp catch was insignificant. Weather hampered fishing in the northern section of the African grounds.

Shrimp Fishing Venture in the Persian Gulf: A new Greek shrimp-fishing venture got under way in late August 1965 when four Greek trawlers sailed for the Persian Gulf. Plans called for the trawlers to deliver their Persian Gulf shrimp catch to the Greek freezer-trawler Evangelistria for freezing and transport. The venture is sponsored by a Greek fishing company operating under a permit of the Iranian Government.

Kuwait Shrimp Fishing Attracts Greek Technicians: An experienced Greek trawler skipper reportedly has been appointed technical manager of a newly established Kuwait shrimp-fishing company. The new company is said to be building wooden fishing vessels of up to 100 tons in Kuwait. The vessels are to be fully equipped with fish-finders and other electronic equipment. The first vessel was reported ready for launching in August 1965. The Kuwait company was seeking Greek skippers, engineers, and fishermen to man its new vessels. (Alieia, September 1965.)

Note: See Commercial Fisheries Review, January 1966 p. 74.



## Greenland

### SALMON CATCH DECLINES IN 1965:

The Greenland inshore salmon catch will total only about 700 metric tons (1,540,000 pounds) in 1965 as compared to 1,400 tons (3,080,000 pounds) in 1964. The decline was due to lower prices to the fishermen, a change in availability as indicated by larger catches farther north, and better cod fishing. Market prices are recovering from the unexpectedly large catch in 1964.

Fishing offshore from Greenland in the fall of 1965, a Norwegian vessel caught about 12 tons of salmon and the Faroese gill-net vessel Bakur caught about 40 tons. The salmon on the Bakur averaged about 10-13 pounds each and were of good quality when landed in Denmark. The Bakur's salmon catch was taken during about  $3\frac{1}{2}$  months of fishing, mostly 3 to 12 miles off Greenland. A Danish processor paid about US\$1.28 a pound for the Bakur's salmon.

The financial success of the Bakur's trip, together with the knowledge of offshore salmon fishing that has been gained, makes it reasonably certain that at least a few vessels will fish for salmon again off Greenland in the fall of 1966. The Bakur might be replaced by a smaller vessel which could fish gill nets more effectively. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, January 10, 1966.)

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### SHRIMP FISHERY TRENDS IN 1964 AND FUTURE OUTLOOK:

In 1964, the Greenland catch of heads-on shrimp amounted to 3,770 metric tons, up 13 percent from the 3,341 tons landed in 1963. The Royal Greenland Trade Department (RGTD) processed about 95 percent of the 1964 catch and the remainder was handled by private companies. Output in 1964 included 379 tons of canned or jarred shrimp (166 tons hand-peeled and 213 tons machine peeled) and 407 tons of frozen shrimp. In 1964, exports of frozen shrimp from Greenland by the RGTD totaled more than 290 tons, with 186 tons to Denmark and the remainder to other European countries. Exports of canned and jarred shrimp from Greenland in 1964 went to 66 countries; Denmark was the leading buyer, followed by the United States, West Germany, the United Kingdom, Finland, and Switzerland.

The Greenland shrimp fishery has shown a steady rise in past years and should continue to grow. According to biologists, the resource can support a much larger fishing effort. Efforts in marketing, processing, and fishing will probably be the measure of future growth in the Greenland shrimp industry.

In recent years, good shrimp prices and the generous subsidy and loan program of the Danish Government have enabled many Green-

Greenland (Contd.):

land fishermen to own their own shrimp vessels. Those craft have generally tended to be between 10 and 20 gross tons. Vessels in that category are eligible for a subsidy covering 20 percent of the total cost and a loan covering 70 percent of the cost (repayable in 15 years at 4 percent annual interest). Thus a shrimp fishermen may have to provide only 10 percent of the initial cost to acquire a vessel. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, December 28, 1965.)



Iceland

EXPORT STOCKS OF PRINCIPAL FISHERY PRODUCTS, NOVEMBER 30, 1965:

As of November 30, 1965, Iceland's stocks of frozen groundfish (fillets) for export to the United States totaled 1,010 metric tons, a decline of 1,614 tons from the stocks on hand October 31, 1965. (United States Embassy, Reykjavik, December 27, 1965.)

Icelandic Export Stocks 1/ of Principal Fishery Products, November 30, 1965

| Item                             | Qty.<br>Metric<br>Tons | Value          |               |
|----------------------------------|------------------------|----------------|---------------|
|                                  |                        | Million<br>Kr. | US\$<br>1,000 |
| <b>Groundfish, frozen:</b>       |                        |                |               |
| for export to:                   |                        |                |               |
| U. S. . . . .                    | 1,010                  | 26.9           | 624.7         |
| other countries . . . . .        | 4,388                  | 83.4           | 1,936.8       |
| <b>Stockfish . . . . .</b>       | <b>1,230</b>           | <b>38.1</b>    | <b>884.8</b>  |
| <b>Herring, frozen . . . . .</b> | <b>4,645</b>           | <b>26.5</b>    | <b>615.4</b>  |
| <b>Industrial products:</b>      |                        |                |               |
| <b>Fish meal:</b>                |                        |                |               |
| herring . . . . .                | 44,126                 | 370.7          | 8,608.9       |
| other fish . . . . .             | 1,868                  | 13.9           | 322.8         |
| herring oil . . . . .            | 48,653                 | 384.4          | 8,927.1       |

1/ Includes only stocks intended for export.  
Note: Icelandic kronur 43.06 equal US\$1.00.

United States imports of frozen groundfish fillets from Iceland in the year 1964 totaled 17,812 metric tons of groundfish blocks and slabs, 4,669 metric tons of cod fillets, 1,791 metric tons of haddock fillets, and 548 metric tons of ocean perch fillets.

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EXPORTS OF FISHERY PRODUCTS, JANUARY-OCTOBER 1965:

During January-October 1965, there was an increase in exports of salted fish, herring

| Product                               | Jan.-Oct. 1965 |              |               | Jan.-Oct. 1964 |              |               |
|---------------------------------------|----------------|--------------|---------------|----------------|--------------|---------------|
|                                       | Qty.           | Value f.o.b. |               | Qty.           | Value f.o.b. |               |
|                                       | Metric<br>Tons | 1,000<br>Kr. | US\$<br>1,000 | Metric<br>Tons | 1,000<br>Kr. | US\$<br>1,000 |
| Salted fish, dried . . . . .          | 2,314          | 46,221       | 1,072         | 890            | 22,532       | 523           |
| Salted fish, uncured . . . . .        | 23,558         | 394,156      | 9,144         | 22,821         | 353,123      | 8,192         |
| Salted fish fillets . . . . .         | 1,512          | 25,624       | 594           | 1,047          | 15,280       | 354           |
| Wings, salted . . . . .               | 1,470          | 19,877       | 461           | 1,173          | 14,765       | 343           |
| Stockfish . . . . .                   | 9,688          | 293,995      | 6,821         | 9,225          | 260,876      | 6,052         |
| Herring on ice . . . . .              | 1,866          | 1,206        | 28            | 19             | 140          | 3             |
| Other fish on ice . . . . .           | 44,436         | 152,142      | 3,530         | 27,415         | 162,846      | 3,778         |
| Herring, frozen . . . . .             | 18,752         | 119,422      | 2,771         | 16,250         | 96,939       | 2,249         |
| Other frozen fish, whole . . . . .    | 5,403          | 63,914       | 1,483         | 3,257          | 35,404       | 821           |
| Frozen fish fillets . . . . .         | 43,767         | 1,011,132    | 23,458        | 48,085         | 960,351      | 22,280        |
| Shrimp and lobster, frozen . . . . .  | 816            | 103,688      | 2,406         | 1,028          | 94,594       | 2,195         |
| Roes, frozen . . . . .                | 1,934          | 30,166       | 700           | 1,624          | 26,652       | 618           |
| Canned fish . . . . .                 | 537            | 23,446       | 544           | 310            | 15,411       | 358           |
| Cod-liver oil . . . . .               | 5,398          | 57,066       | 1,324         | 9,132          | 84,599       | 1,963         |
| Lumpfish roes, salted . . . . .       | 851            | 44,918       | 1,042         | 419            | 10,609       | 246           |
| Other roes for food, salted . . . . . | 2,033          | 33,530       | 778           | 2,644          | 39,515       | 917           |
| Roes for bait, salted . . . . .       | 826            | 8,749        | 203           | 3,049          | 25,280       | 586           |
| Herring, salted . . . . .             | 19,920         | 239,142      | 5,548         | 31,689         | 348,528      | 8,086         |
| Herring oil . . . . .                 | 59,086         | 496,357      | 11,515        | 36,330         | 284,868      | 6,609         |
| Ocean perch oil . . . . .             | -              | -            | -             | 28             | 188          | 4             |
| Whale oil . . . . .                   | 3,066          | 28,184       | 654           | 3,782          | 32,322       | 750           |
| Fish meal . . . . .                   | 18,123         | 121,991      | 2,830         | 25,354         | 157,552      | 3,655         |
| Herring meal . . . . .                | 83,473         | 606,691      | 14,075        | 75,403         | 453,151      | 10,513        |
| Ocean perch meal . . . . .            | 2,689          | 19,763       | 459           | 1,894          | 11,084       | 257           |
| Wastes of fish, frozen . . . . .      | 8,954          | 32,834       | 762           | 6,196          | 19,690       | 457           |
| Liver meal . . . . .                  | 569            | 4,042        | 94            | 502            | 3,323        | 77            |
| Lobster and shrimp meal . . . . .     | 50             | 231          | 5             | 156            | 686          | 16            |
| Whale meal . . . . .                  | 1,254          | 7,964        | 185           | 1,211          | 6,694        | 155           |
| Whale meat, frozen . . . . .          | 2,571          | 23,000       | 534           | 1,928          | 15,322       | 355           |

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

and other fish on ice, frozen herring, canned fish, herring oil, herring meal, and ocean perch meal, as compared with the same period in 1964, according to the Icelandic periodical *Hagtidindi*, November 1965. Exports of frozen fish fillets, cod-liver oil, salted herring, whale oil, and fish meal showed a considerable decrease in the first 10 months of 1965.

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FISHERY CATCH AND TRENDS, 1965:

In 1965, Iceland's fish catch was a record 1,166,000 metric tons, according to preliminary data from the Fisheries Association of Iceland. That was a gain of almost 20 percent from the previous record catch of 971,574 tons in 1964.

Most of the Icelandic catch goes for export products. The f.o.b. export value of the 1965 catch has been conservatively estimated at Kr. 5,300 million (US\$123 million), a 15-percent increase over 1964.

The 1965 catch was marked by a sharp rise in the herring catch, but a drop in the higher-valued groundfish catch. The 1965 herring catch totaled 753,000 tons (a 38-percent increase over 1964). However, the groundfish catch in 1965 declined 13 percent to about 361,000 tons from 415,305 tons in 1964.

## Iceland (Contd.):

The 1965 catch also included 50,000 tons of capelin (8,000 tons in 1964) and 4,000 tons of shellfish (3,173 tons in 1964).

The big increase in the herring catch was attributed to modern vessels and fish-finding equipment (without which the season would have been poor), and to the buildup in the herring fleet at the expense of groundfish operations. The scattered shoals of cod found in 1965 made fishing for groundfish less attractive.

The reduced catch of groundfish will force some restriction in Iceland's expanding markets for frozen fish blocks and fillets, while the tremendous herring catch will increase Icelandic reliance on the more volatile world markets for fish meal and oil. (United States Embassy, Reykjavik, January 6, 1966.)

\* \* \* \* \*

## FISHERY LANDINGS BY PRINCIPAL SPECIES, JANUARY-AUGUST 1965:

| Species                      | January-August |         |
|------------------------------|----------------|---------|
|                              | 1965           | 1964    |
|                              | (Metric Tons)  |         |
| Cod . . . . .                | 211,645        | 262,181 |
| Haddock . . . . .            | 36,783         | 36,971  |
| Saithe . . . . .             | 19,268         | 17,917  |
| Ling . . . . .               | 3,488          | 3,635   |
| Wolffish (catfish) . . . . . | 7,011          | 7,894   |
| Cusk . . . . .               | 1,296          | 2,794   |
| Ocean perch . . . . .        | 20,987         | 20,904  |
| Halibut . . . . .            | 597            | 800     |
| Herring . . . . .            | 347,317        | 350,375 |
| Capelin . . . . .            | 49,611         | 8,640   |
| Shrimp . . . . .             | 408            | 202     |
| Other . . . . .              | 10,194         | 9,504   |
| Total . . . . .              | 708,605        | 721,817 |

Note: Except for herring which are landed round, all fish are drawn weight.

\* \* \* \* \*

## UTILIZATION OF FISHERY LANDINGS, JANUARY-AUGUST 1965:

| How Utilized                           | January-August |         |
|--|----------------|---------|
|  | 1965           | 1964    |
|  | (Metric Tons)  |         |
| Herring and capelin <sup>1/</sup> for: |                |         |
| Oil and meal . . . . .                 | 360,818        | 311,404 |
| Freezing . . . . .                     | 14,317         | 13,535  |
| Salting . . . . .                      | 21,639         | 33,983  |
| Groundfish <sup>2/</sup> for:          |                |         |
| Fresh on ice . . . . .                 | 24,090         | 23,748  |
| Freezing and filleting . . . . .       | 144,351        | 158,372 |
| Salting . . . . .                      | 79,092         | 84,635  |
| Stockfish (dried unsalted) . . . . .   | 49,396         | 80,667  |
| Canning . . . . .                      | 186            | 117     |
| Oil and meal . . . . .                 | 2,096          | 2,923   |
| Crustaceans for:                       |                |         |
| Freezing . . . . .                     | 2,729          | 2,631   |
| Canning . . . . .                      | 123            | 36      |
| Home consumption . . . . .             | 9,768          | 9,766   |
| Total production . . . . .             | 708,605        | 721,817 |

1/Whole fish.  
2/Drawn fish.



## Japan

## CANNED TUNA MARKET SURVEY IN WEST GERMANY:

The Japan External Trade Promotion Organization (JETRO) has released a report on the canned tuna market survey conducted by that organization in West Germany in 1965. According to the report, West Germany is the second largest market after the United States for Japanese canned tuna exports. Unlike the United States, which primarily imports canned tuna in brine, West Germany imports predominantly lightmeat tuna packed in oil. Other suppliers of canned tuna to West Germany include such countries as Yugoslavia, Peru, Malaysia, and Spain. It was not known to what extent their products competed with Japanese exports and so the survey was conducted to study the canned tuna demand and supply relationship in West Germany and to obtain other basic information in an attempt to ascertain the attitude of German distributors and consumers toward Japanese canned tuna and other competing products.

The JETRO survey revealed the following facts:

1. Imports of canned tuna by West Germany have been trending upwards in recent years, with 21 countries now supplying canned tuna to that country. Imports from Japan, which account for over one half of the trade, are increasing, whereas imports from Yugoslavia and Peru are declining.

2. Canned tuna packed in West Germany and Spain is superior to that packed in other countries, but the German production and Spanish exports to West Germany are very small. Consequently, they have not affected Japanese exports to that country. Japanese canned tuna is highly regarded by German buyers and consumers for its quality. A prominent German fish importer who was asked why he thought Japanese canned tuna led all other similar imports by his country remarked that Japanese products consistently maintained a high quality.

3. The City of Berlin reportedly maintains a reserve supply of 20 million cans of tuna for emergency use, which are stored for a period of 10 years and then replaced with a fresh stock. In West Germany, the people seem to particularly favor lightmeat tuna packed in oil. Many German housewives consider bluefin to make the best tuna pack, followed in



Japan (Contd.):

order by yellowfin, skipjack, albacore, and big-eyed.

4. The emergence of Japanese canned tuna on the West German market may appropriately be called an "overwhelming development." Like canned tangerine, Japanese canned tuna products have created a wonderful image in the minds of German consumers. However, despite this favorable condition, sales are not expected to show any appreciable gain. This is because the West German market today abounds in all sorts of attractively packaged, eye-catching foods which are being extensively promoted and which are creating a deep impression on the consumers.

5. Under the present Japanese production setup, where tuna processors pack their products under numerous brands, it is probably impossible to reduce the number of brands to 2 or 3. However, it is believed that greater stress could be laid on promoting the identity of Japanese products and thereby enhancing their image. A great potential exists for expanding the West German canned tuna market, and it is no exaggeration to say that it is fully possible to increase the present volume of canned tuna sales by about 40 percent within the next 1 to 1½ years. (Suisan Keizai Shimbun, December 9, 1965.)

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TUNA CANNED IN BRINE EXPORT SALES TO U. S. RESUMED:

Sales of Japanese canned tuna in brine for export to the United States had been suspended since December 1, 1965, due to deadlocked negotiations between tuna packers and exporters over conclusions of a new exporters agreement (exporters agreement for business year 1965 expired November 30, 1965). Sales were temporarily resumed when the Government on December 24, 1965, announced that it would apply the interim export validation standard based on the Trade Control Ordinance to permit exports until January 31,

1966. During the two months, the Government was to validate canned tuna in brine exports totaling 500,000 cases, to be allocated to exporters on the basis of a 70-percent past performance quota and a 30-percent adjustment quota. For the December sales, the Japan Canned Tuna Sales Company planned to offer 180,000 cases (150,000 cases of white-meat tuna and 30,000 cases of lightmeat tuna).

Price negotiations, which had been in progress between the Sales Company and exporters, were settled on December 24, 1965, resulting in raising the export prices an average of 70 cents a case for canned white-meat tuna and 20 cents a case for canned lightmeat tuna. The new f.o.b. Japan prices went into effect in December; they are base prices and exclude promotional allowances heretofore granted to exporters and premiums previously paid to packers to encourage production. (Suisan Tsushin, December 27, 1965.)

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ALBACORE TUNA EX-VESSEL PRICE TRENDS, DECEMBER 1965:

Small quantities of albacore tuna were being landed in December 1965 at such ports as Kesenuma and Shiogama in northeastern Japan by long-line vessels engaged in the winter albacore fishery. The ex-vessel price of albacore landed at those ports was:

| Port     | Date    | Ex-Vessel Price |                |
|----------|---------|-----------------|----------------|
|          |         | Yen/Kg.         | US\$/Short Ton |
| Kesenuma | Dec. 13 | 180-217         | 454-547        |
| Shiogama | Dec. 14 | 220-260         | 554-655        |
| Kesenuma | Dec. 15 | 130-200         | 328-504        |
| Shiogama | Dec. 15 | 188-233         | 474-587        |

The high price paid for albacore at that time of the year was due to increased domestic demand in Japan for all varieties of fish for the holiday fresh fish trade. (Suisan Keizai Shimbun, December 14-16, 1965.)

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ALBACORE TUNA EXPORT QUOTA TO U. S. INCREASED:

The Japan Export Frozen Tuna Producers Association, at a meeting December 16, 1965,

| Tuna Pack | Can & Case Size | New Base Price | Old Price                              |
|-----------|-----------------|----------------|--|
| Whitemeat | 7-oz. 48's      | 9.70           | 9.50 (incl. 60¢ advertising allowance) |
| "         | 13-oz. 24's     | 8.95           | 8.80 ( " " " " )                       |
| "         | 4-lb. 6's       | 10.40          | 10.10 ( " 30¢ promotional allowance )  |
| Lightmeat | 7-oz. 48's      | 8.15           | 7.35 ( " 60¢ premium to packers )      |
| "         | 13-oz. 24's     | 7.90           | 7.15 ( " 60¢ " " " )                   |
| "         | 4-lb. 6's       | 8.75           | 8.45                                   |

## Japan (Contd.):

decided to use 5,000 short tons of the 15,000-ton adjustment quota for exporting frozen round albacore directly to the United States from Japan proper. The albacore export quota (for direct shipment to the United States) had been set at 30,000 short tons for fiscal year 1965 (April 1965-March 1966) but that quantity was expected to be arrived at by early 1966. (Suisan Tsushin, December 13 & 17, 1965.)

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#### FROZEN TUNA EXPORT PRICES TO ITALY, DECEMBER 1965:

The price of Japanese frozen dressed yellowfin tuna exported to Italy continued to trend upwards and record new highs. Towards mid-December 1965 it was US\$490-495 a metric ton c.i.f., compared to the November 1965 price of \$455-460. In 1964, the average Japanese export price for yellowfin to Italy was \$409 a ton; in 1963, \$394.

In December 1965, other c.i.f. prices of Japanese dressed frozen tuna transhipped to Italy were: bluefin \$455-460 a metric ton (1964 high \$390, 1964 average price \$339); big-eyed \$390 (1964 high \$360, 1964 average price \$276).

The rapid increase in the price of Japanese tuna exported to Italy is attributed to: (1) expansion of processing facilities and increase in consumer demand for canned tuna in Italy; (2) shortage of supply of tuna as a result of the rapid decline in Japanese fishing effort in the Atlantic, which earlier in 1965 consisted of about 160 vessels but in December 1965 only 100 long-liners; and (3) the large drop in the catch of yellowfin tuna. (Suisan Tsushin, December 14; Katsuo-Maguro Tsushin, November 26, 1965.)

\* \* \* \* \*

#### COMPANY INCREASES ATLANTIC OCEAN TUNA PURSE-SEINING EFFORT:

A fishing company announced at a press conference on December 17, 1965, plans to dispatch in 1966 two additional pairs of two-boat seiners to West Africa to join that firm's mothership-type purse-seine fleet (led by the 1,600-ton mothership Chichibu Maru No. 2). Despite large losses suffered from the 1965 operations, the fleet was successful in catching a total of 4,000 metric tons of fish (con-

sisting of 50 percent yellowfin, 40 percent skipjack, and 10 percent miscellaneous species), and the fishery was considered to hold promise. (Suisan Tsushin, December 18, 1965.)

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#### TUNA PURSE SEINER REPORTS GOOD FISHING IN SOUTH PACIFIC:

The Japanese purse seiner Taikei Maru No. 23 (212 gross tons), which left Japan, December 3, 1965, on a tuna fishing trip to the southwest Pacific Ocean, began fishing off New Guinea around December 13. She unexpectedly encountered good fishing, taking a full load in one week. She was scheduled to be back in Japan around December 27 or 28 with 65 metric tons of skipjack and 250 tons of yellowfin tuna. (Katsuo Maguro Tsushin, December 22, 1965.)

\* \* \* \* \*

#### FIVE TRAWLERS TO CONDUCT WINTER OPERATIONS IN GULF OF ALASKA:

Japan expected to have a total of five large stern trawlers operating in the Gulf of Alaska during winter 1965/66. They include the Taiyo Maru No. 82 (2,886 gross tons), Daishin Maru No. 12 (2,967 gross tons), Takachiho Maru (3,494 gross tons), Koyo Maru (2,521 gross tons), and Akebono Maru No. 53 (1,450 gross tons). The Taiyo Maru No. 82 in early December 1965 was already on the fishing grounds (since September), as was the Daishin Maru No. 12 which departed Japan, November 26. Scheduled departure dates for the other three vessels were: Takachiho Maru, December 10, Koyo Maru, December 14, and the Akebono Maru, late January or early February 1966. The 276-ton fishing vessel Fukuho Maru reportedly will fish for the Koyo Maru but as of early December her port departure had not been fixed.



Akebono Maru, large Japanese stern trawler fishing in the Gulf of Alaska during the winter of 1965/66.

It is also reported that another fishing company will dispatch a 2,400-ton stern trawl-

Japan (Contd.):

er to the Gulf in April 1966. On December 10, the Fisheries Agency announced the issuance of a construction permit to that firm. The trawler is to be constructed at a shipyard in southern Japan. (Suisancho Nippo, December 14; Suisan Keizai Shimbun, December 7, 1965.)

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FISHING PLANS FOR 1966 IN BERING SEA-GULF OF ALASKA:

Applications submitted to the Fisheries Agency by firms planning mothership-type trawl fisheries in the Bering Sea and Gulf of Alaska show that Japan plans to operate in 1966 a total of 14 motherships accompanied by 208 catcher vessels in the Bering Sea and 11 motherships accompanied by 11 catcher vessels in the Gulf of Alaska. The previous year 13 motherships and 175 catchers operated in the Bering Sea and in the Gulf about

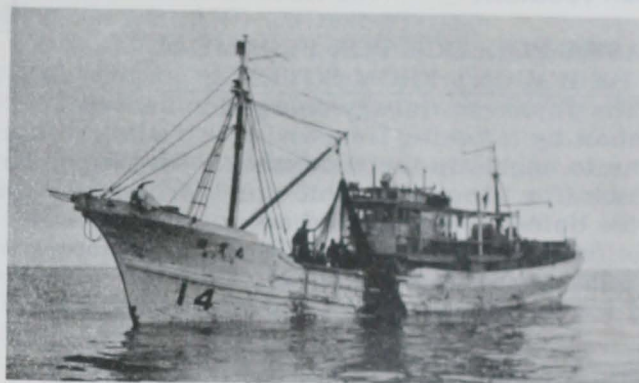


Fig. 1 - Typical small otter trawler fishing in the Bering Sea for a mothership.

Table 1 - List of Mothership-Type Bottomfish Fleets Planning to Operate in the Bering Sea in 1966<sup>1/</sup>

| Mothership                   | Size       | Catcher Vessels |
|------------------------------|------------|-----------------|
|                              | Gross Tons | No.             |
| ryo Maru . . . . .           | 11,192     | 25              |
| enyo Maru . . . . .          | 11,581     | 15              |
| in Maru . . . . .            | 7,482      | 16              |
| okuei Maru . . . . .         | 10,357     | 30              |
| ikishima Maru . . . . .      | 10,144     | 23              |
| o Maru . . . . .             | 3,499      | 1               |
| ichibu Maru . . . . .        | 7,472      | 12              |
| eisei Maru No. 2 . . . . .   | 9,300      | 11              |
| shima Maru . . . . .         | 7,163      | 18              |
| ryo Maru No. 3 . . . . .     | 3,698      | 1               |
| fu Maru . . . . .            | 8,269      | 23              |
| yo Maru . . . . .            | 14,111     | 29              |
| oshiro Maru No. 28 . . . . . | 572        | 2               |
| nano Maru . . . . .          | 535        | 2               |

<sup>1/</sup>Subject to Fisheries Agency approval.

Table 2 - List of Japanese Bottom-Trawl Fleets Planning to Operate in the Gulf of Alaska in 1966<sup>1/</sup>

| Mothership                   | Size       | Catcher Vessels |
|------------------------------|------------|-----------------|
|                              | Gross Tons | No.             |
| yo Maru No. 82 . . . . .     | 2,886      | 1               |
| achicho Maru . . . . .       | 3,494      | 1               |
| e bono Maru No. 53 . . . . . | 1,450      | 1               |
| ishin Maru No. 12 . . . . .  | 2,967      | 1               |
| shima Maru . . . . .         | 3,495      | 1               |
| designated . . . . .         | 2,500      | 1               |
| ero Maru . . . . .           | 2,521      | 1               |
| der construction . . . . .   | 3,500      | 1               |
| uho Maru . . . . .           | 1,950      | 1               |
| designated . . . . .         | 2,400      | 1               |
| " . . . . .                  | 1,500      | 1               |

<sup>1/</sup>Subject to Fisheries Agency approval.



Fig. 2 - Shows Bering Sea catch of a Japanese trawler.

8 large trawlers accompanied by small trawlers. (Suisan Keizai Shimbun, January 13, 1966.)

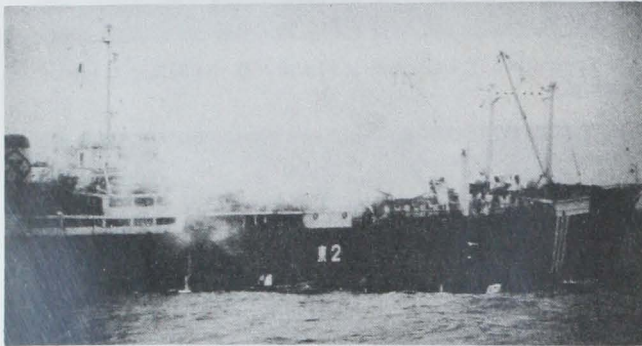
Note: Press reports January 18 indicated that the Central Fisheries Coordination Council (highest Government-industry consultative body) on January 17 approved the operation in the Bering Sea and Gulf of Alaska bottomfish fisheries of 25 mothership fleets, including 216 catcher vessels. The licenses are good until August 31, 1967.

\*\*\*\*\*

Japan (Contd.):

#### ALASKA POLLOCK FOR FISH MEAL TO BE BOUGHT FROM SOVIETS:

The Japanese fishery delegation sent to Moscow by a fishing firm and two trading firms to negotiate the purchase of Alaska pollock (for processing into meal) from the Soviet Union has concluded a contract. It calls for the purchase in 1966 of 45,000 metric tons at US\$20.50 a ton, \$3 above the price paid for Soviet-caught Alaska pollock in 1965.



Hoyo Maru, Japanese fish meal factoryship that is to receive Alaska pollock from trawlers for use in fish meal.

The fishing firm's 14,000-ton fish-meal factoryship Hoyo Maru was scheduled to depart Japan on January 10 for the Okhotsk Sea and to begin receiving deliveries of Alaska pollock from Soviet trawlers January 15. (Suisan Tsushin, January 6 & 10, 1966.)

Editor's Note: According to one report, the purchase was negotiated at a price of \$20.30 a ton. Some periodicals in 1965 reported the 1965 price to be \$16 a ton, but several more recent articles state the price was \$17.50 a ton.

The Hoyo Maru in January-March 1965 received deliveries of about 36,000 tons of pollock from Soviet trawlers. The operation was a success, due in great part to the good demand for meal and the firm price of that product. Subsequently, several other large fishing companies submitted applications to the Fisheries Agency to purchase pollock from the Soviet Union for processing into meal and minced fish meat. This was vigorously opposed by the Hokkaido fishermen and processors. The Agency eventually authorized only the one firm to engage in the fishery and granted that firm an increase in quota to 45,000 tons. However, the firm was authorized to produce fish meal only.

Note: See Commercial Fisheries Review, January 1966 p. 84; December 1965 p. 70.

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#### GOVERNMENT ANNOUNCES FISH MEAL IMPORT ALLOCATION:

The Japanese Ministry of International Trade and Industry (MITI) announced an import allocation of 56,000 metric tons of fish meal for the second six months of fiscal year 1965 (April 1965-March 1966). That is 16,000 tons less than the anticipated import allocation of 72,000 tons, but the reduction in quantity is attributed to a world shortage in fish meal. For FY 1965 fish meal imports authorized by MITI totaled 124,000 metric tons.

Fish meal was quoted on the Japanese domestic market in late November 1965 at an average of \$200 a metric ton, but MITI has calculated the importation of the 56,000 metric tons of meal on the basis of \$180 per ton c.i.f. (Nihon Suisan Shimibun, November 29, 1965.)

\* \* \* \* \*

#### MACKEREL FISHING COMPETITION FROM PURSE-SEINERS CAUSES PROBLEMS FOR POLE-AND-LINE FISHERMEN:

Conflict has developed in the Japanese coastal mackerel fishery between purse-seine and pole-and-line fishermen. Purse-seine vessels of the Japanese Surrounding Net Fishery Adjustment Association of the North Pacific Area have moved into the coastal mackerel fishing grounds in large numbers. The entry of the purse-seine vessels is blamed for a drop in the catch of mackerel by pole-and-line fishermen under the East Japan Mackerel Pole-and-Line Fishery Adjustment Association.

Mackerel landings in Japan by pole-and-line fishermen for 1965 as of December 8, 1965, were 30,401 metric tons valued at US\$3.78 million. Compared with 1964, that was a drop of 29 percent in quantity and 21 percent in value. On the other hand, mackerel landings by Japanese purse-seine fishermen in the first 11 months of 1965 were 167,300 tons, valued at \$12.87 million, an increase of 112 percent in quantity and 130 percent in value over 1964.

Pole-and-line fishermen of Kanagawa, Shizuoka, and Ehime Prefectures have been hit especially hard by the competition from purse-seine vessels. It has caused a drop in ex-vessel prices as well as a catch decline for the pole-and-line vessels.

## Japan (Contd.):

In late 1965, the pole-and-line fishermen presented a petition to the Japanese Fisheries Agency asking that (1) purse-seine fishing be prohibited at night; (2) the purse-seine fishing season be shortened; and (3) the purse-seine fishing grounds be restricted. The purse-seine fishermen oppose such limitations.

The Japanese Fisheries Agency scheduled a meeting between the two groups on December 16, 1965. The Fisheries Agency was expected to mediate the dispute. (Nihon Keizai, December 15, 1965.)

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## MACKEREL FISHERY OFF TO GOOD START:

The Japanese pole-and-line mackerel fishery, which started January 8 off the Pacific coast of Chiba Prefecture (east of Tokyo), got off to a good start. Catches between 1,300-1,700 metric tons were being landed daily and sold at ex-vessel prices of 40-50 yen a kilogram (US\$101-126 a short ton). Mackerel packers were hoping to begin packing around January 20, but were waiting for prices to drop below the 40-yen-per-kilogram level. (Kanzume Nippo, January 18, 1966.)

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## SAURY CATCH DOWN IN 1965:

The total catch of saury as of December 15, 1965, was estimated at 227,000 metric tons and had already exceeded the 1964 catch of about 200,000 tons. By year's end the catch was expected to total about 240,000 tons, that quantity is far below the catch of 483,000 tons in 1963 and 483,000 tons in 1962. The landed value of the 1965 catch through December 15 was estimated at 9,200 million yen (US\$25.5 million), exceeding by 53 per cent 1964's estimated value of 6,000 million yen (US\$16.7 million). The large increase in value is attributed to the poor fishing conditions which prevailed during the early part of the season and fear of another poor season, thereby resulting in competition for supplies among such groups as bait and canned fish processors. (Suisan Tsushin, December 15, 1965.)

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## WHALING OPERATION IN NEWFOUNDLAND UNDER STUDY:

A Japanese fishing company is studying a plan to establish a whaling operation in Newfoundland. The Japanese firm, through a trading firm, in December 1965 was conducting negotiations with Canadian interests. In September 1965, that firm chartered a vessel to conduct studies on the whale resources off Newfoundland, but completely reliable results were not obtained because of the shortness of the charter period. (Nihon Suisan Shimbun, December 1, 1965.)

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## HERRING ROE SHORTAGE PUSHES PRICES TO RECORD HIGH:

There was reported to be a great shortage in Japan in early December 1965 of processed herring roe, which is in great demand during the New Year holiday season. As a result, on December 7, top-quality dried herring roe had been bid up to 22,500 yen per kilogram (US\$28.40 a pound) by buyers at the Tokyo Central Market. Top price paid for herring roe in 1964 was 17,000 yen per kilogram (\$21.46 a pound), with the average ranging between 12,000-13,000 yen kilogram (\$15.15-\$16.41 a lb.) Top price paid in 1963 was 16,500 yen a kilogram (\$20.80 a lb.). (Suisan Keizai Shimbun, December 9, 1965, and other sources.)

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## REST HOME FOR FISHERMEN TO BE ESTABLISHED AT LAS PALMAS:

The Japanese Welfare and Health Ministry and the Finance Ministry here agreed to establish at Las Palmas, Canary Islands, a rest home for crew members of Japanese vessels engaged in pelagic fisheries in the Atlantic. The home will be the first such official facility overseas and work on it was scheduled to begin the spring of 1966. A suitable Spanish villa will be remodeled at a cost of 20 million yen (US\$56,000). Work is expected to be completed by early 1967.

Las Palmas is a large base for Japanese fisheries in the Atlantic. Almost all major Japanese fishing companies have bases at Las Palmas. On some days more than 1,000 Japanese fishermen go ashore there. It is estimated that over 8,000 Japanese fishermen are engaged in fishing operations from Las Palmas. Many of the fishermen are away

## Japan (Contd.):

from home for more than a year. The home will provide a place for recreation and relaxation. (Nihon Keizai, January 13, 1966.)

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JAPAN-COMMUNIST CHINA PRIVATE FISHERIES AGREEMENT RENEWED:

Japanese private fishery interests and Communist China, on December 17, 1965, reached accord in Peking to extend for another 2 years the Japan-Communist China Private Fishery Agreement covering fishing operations in the East China Sea and the Yellow Sea, effective December 23, 1965. Agreement was reached following 3 weeks of negotiations.

The areas covered by the agreement are north of 27° N. latitude and east of a line extending approximately 50 miles off the Chinese mainland. In those areas, the agreement provides, among other things, for six fishing zones where a limited number of fishing vessels from both countries may fish, and emergency ports of call for distressed fishing vessels of both countries. In the fall of 1965, Japan was reported to have 760 dragnet vessels and 20 trawlers operating in the area covered by the agreement.

The new agreement calls for a tightening of fishery regulations on mesh sizes, minimum fish size, and catch composition. It also provides for extending eastward regulatory areas 1 and 2 to a distance of 15 miles, mainly for the purpose of protecting shrimp resources. The number of vessels, both Japanese and Chinese, that can operate in the restricted areas remains the same. (The Japan Economic Journal, December 28, 1965; Suisan Tsushin and Suisan Keizai Shimbun, December 20, 1965; and other sources.)

Note: See Commercial Fisheries Review, Dec. 1965 p. 70; Jan. 1965 p. 85; Jan. 1964 p. 61.

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FISHERIES AGENCY BUDGET FOR FISCAL YEAR 1966:

The Japanese Cabinet on January 14, 1966, approved a general account budget for fiscal year 1966 (begins April 1) for submission to the Diet (parliament), which convened in late January. Funds requested for the Fisheries Agency, Ministry of Agriculture and Forestry, total 24.2 billion yen (US\$67.2 million),

an increase of 4.0 billion yen (\$11.1 million) or about 20 percent over 1965's regular fishery budget of almost 20.2 billion yen (\$56.1 million). The proposed increase in the fishery budget is considerably higher than any past increases approved by the Cabinet.

Proposed funding for some fisheries programs include:

| Program  | Proposed 1966 Budget |           | 1965 Budget |           |
|--|----------------------|-----------|-------------|-----------|
|  | 1,000 Yen            | US\$      | 1,000 Yen   | US\$      |
| Improvement of vessel gear and shipboard medical service . . .   | 38,000               | 105,556   | -           | -         |
| Improvement in weather and fishing condition forecasts . . . . . | 29,000               | 80,556    | 24,000      | 66,667    |
| Resource conservation (including water pollution control) . . .  | 482,000              | 1,339,000 | 473,000     | 1,314,000 |
| Measures to improve marketing of fishery products . . . . .      | 351,000              | 975,000   | 252,000     | 700,000   |
| Sea farming development surveys . . . .                          | 19,000               | 52,778    | 12,000      | 33,333    |

New programs in the fiscal year 1966 fishery budget include, among others, extension of a \$14,000 government subsidy to improve medical service aboard fishing vessels engaged in high-seas fisheries, \$83,000 for installation of labor-saving devices aboard the 602-ton government research vessel Shoyo Maru, and \$7,000 for long-line gear research. The proposed budget also includes a large increase in funds for the promotion of frozen fishery products on the Japanese domestic market and a request for additional funds for sea-farm development projects. (Suisan Keizai Shimbun, January 17; Minato Shimbun, January 15, 1966.)



## Kenya

### FISHERIES PRODUCTION, 1964:

| Fisheries Production, 1964    |          |                 |           |
|-------------------------------|----------|-----------------|-----------|
| Area of Production or Product | Quantity | Ex-Vessel Value |           |
|                               |          | Metric Tons     | US\$1,000 |
| Fish:                         |          |                 |           |
| Coast . . . . .               | 4,652    | 248,275         | 6,952     |
| Lake Victoria . .             | 12,000   | 672,000         | 18,816    |
| Lake Baringo . .              | 600      | 18,120          | 507       |
| Lake Rudolf . . .             | 850      | 4,760           | 133       |
| Lake Naivasha . .             | 550      | 18,480          | 517       |
| Other Lakes . . .             | 350      | 19,600          | 549       |

(Table continued on next page.)

Kenya (Contd.):

| Fisheries Production, 1964 (Contd.)        |             |           |           |
|--|-------------|-----------|-----------|
| Area of Production or Product              | Quantity    |           |           |
|  | Metric Tons | KL        | US\$1,000 |
| Fish ponds . . .                           | 120         | 13,440    | 376       |
| Rivers . . . . .                           | 1,000       | 44,800    | 1,254     |
| Total . . . . .                            | 20,122      | 1,039,475 | 29,104    |
| <b>Other Marine Products:</b>              |             |           |           |
| Oyster meats . . .                         | 2.5         | 3,353     | 94        |
| Oyster shell--crushed . . . . .            | 100.0       | 2,500     | 70        |
| Beche-de-mer (Sea cucumber) (fresh weight) | 35.4        | 752       | 21        |
| Green turtle . . .                         | 5.0         | 168       | 5         |
| Spiny lobster (crawfish) . . .             | 52.6        | 10,245    | 287       |
| Shrimp (prawn)                             | 27.0        | 2,500     | 70        |
| Total . . . . .                            | 222.5       | 19,518    | 547       |
| Grand total . . .                          | 20,344.5    | 1,058,993 | 29,651    |

Note: One Kenya L equals US\$2.80.



Republic of Korea

TUNA FISHING IN ATLANTIC AND INDIAN OCEANS PLANNED FROM AFRICAN BASES:

Korea plans to set up fishing bases (mainly for tuna) at various African coastal ports, according to the Korea Marine Industry Development Corporation. From those African bases, South Korean vessels would be able to fish extensively for the first time in the South Atlantic and Indian Oceans.

To expand fishery exports, Korea has been making large investments in an offshore fishing fleet. An example is the order for 91 fishing vessels (including 76 tuna vessels and some trawlers) placed by Korea with a French-Italian group. In August 1965, it was announced that half of those vessels would be delivered in 1965 and the remainder in 1966.

Under current proposals, Korea will begin a massive buildup of her fishing fleet with funds provided by Japan under the normalization agreement between the two countries. Some of the funds will also be used to develop Korean processing and canning plants.

Fishery and marine product exports with a total value of US\$29.3 million was South Korea's target in 1965. (United States Embassy, Seoul, December 27, 1965.)

Morocco

CANNERS COMPLAIN ABOUT EXPORT CONTROLS:

Canned fish was among the products placed under the control of the Office de Commercialisation et d'Exportation (OCE) by the July 1965 decrees nationalizing Moroccan exports of food products and handicrafts. Implementing the nationalization of the exports of the canning industry (which in 1964 exported \$26.8 million in canned fish, \$4.2 million in canned fruits and vegetables, and \$3.2 million in canned fruit and vegetable juices) appeared to be less complicated because of the nonperishable nature of the product, the control exercised over the industry by the OCE's predecessor (the Office Cherifien de Control d'Exportation), and the organization of the industry in canners associations. However, in a late 1965 meeting of the Conseil Superieur de la Conserve, the members decided to send a memorandum of their grievances against the OCE to the various ministers who serve on the governing council of that organization. According to the newspaper, Maroc Informations, the memorandum made the following points:

(1) The new expenses imposed on the producers despite their protests add to production costs already too high.

(2) Despite the good intentions of the responsible officials, the administrative regulations which govern the organization do not permit it the flexibility required in commerce or the speed necessary in export operations. For these reasons numerous claims by purchasers are made daily.

(3) The lack of technical knowledge in certain branches (of the OCE) or the lack of experience results in serious mistakes which harm the foreign customers as well as the canners and damages the good commercial reputation of the Moroccan industry.

(4) The uncertainty of obtaining a normal profit margin in the canning industry not only will prevent its expansion but will risk checking investments required for modernization already undertaken.

While the situation outlined in the memorandum is perhaps due in part to the initial confusion and administrative problems involved in hurriedly setting up a new organization, the Moroccan canning industry, particularly the fish canners, have been in a

## Morocco (Contd.):

precarious state for some years. The additional production costs caused by the OCE have only added to the problems of the fish canners.

According to the weekly, *La Vie Economique*, the average cost price of packed sardines which make up about 80 percent of the Moroccan canned fish exports is higher than the average world market price. This is brought about by the fact that the price of the fresh fish to the canners is set by the Government on the basis of a fair return to the vessel owners who operate old inefficient boats with excess labor. Labor costs on the fishing vessels and in the canneries are high because of union pressure, which is supported by the Government, to keep employment at maximum levels.

The portion of the sardine pack which is sold at world market prices is thus sold at a net loss to the industry. This loss, however, is more than made up by the sale of an annual duty-free quota to France at the high price of the protected French internal market. Most of the industry is dependent on this French quota which is renewed annually. The quota could, however, be abolished or drastically reduced at any time.

In 1966, the price squeeze on the fish canners is even greater than before since other costs, including the price of cans and the oils used in packing the fish, have risen. In addition, the OCE receives the equivalent of 60 U.S. cents per case of canned fish exported to France and 20 U.S. cents per case on exports to other countries. As a result of these increased costs and delays caused by the newness of the OCE, the latest available statistics show that canned fish exports dropped 36 percent during July-September 1965 as compared to the same period in 1964. According to the OCE's statistics, exports of canned fish during the summer quarter were lower than in any of the past nine years. (United States Embassy, Rabat, Morocco, January 5, 1966.)



## New Zealand

### JAPAN SEEKS FISHING RIGHTS WITHIN NEW ZEALAND 12-MILE FISHING LIMIT:

The Japanese Government on December 20, 1965, sent a 3-man delegation to New Zealand to seek recognition of Japanese fishing rights within New Zealand's 12-mile fishing limit, which became effective January 1, 1966. About 25 Japanese bottomfish long-line vessels have been fishing for sea bream within 12 miles of New Zealand's coast, and Japanese trawlers have also been operating in adjacent waters since 1960. Japan's position is that she does not recognize any exclusive fishing zone established unilaterally and without arrangements being made with affected countries. However, according to preliminary reports the New Zealand Government has stated that within its 12-mile limits it will not recognize Japanese fishing activities beyond a prescribed time limit. (*Suisan Tsushin*, December 28, 1965, and *Suisan Keizai Shimbun*, December 21, 1965.)

\* \* \* \* \*

### TWELVE-MILE FISHING ZONE CLAIM DISCUSSED WITH JAPAN:

Representatives of the Japanese and New Zealand Government discussed in early January 1966 the question of New Zealand's twelve-mile fishing zone. This zone was established by New Zealand legislation enacted on September 10, 1965, and took effect January 1, 1966. Japanese Government representatives stated that they were unable to recognize the validity of the New Zealand zone in terms of Japan's understanding of international law on such questions. New Zealand representatives reaffirmed New Zealand's view that it is within the sole competence of the coastal state.

The Japanese indicated that they intend to refer the matter to the International Court of Justice in order to resolve the difference of opinion on the the international legal issue. They suggested that this might be done jointly by both governments. It was the New Zealand Government's understanding that the Japanese Government would, as a next step, submit detailed proposals for stating jointly a case to the court. Meantime, provision has been made for continuing consultations through diplomatic channels on the interim situation in order to ensure that the merits of either party's legal position should not be prejudiced and



New Zealand (Contd.):

that the overall friendly relations between the two countries should be preserved. (United States Embassy, Wellington, January 7, 1966.)



**Nigeria**

SHRIMP FISHERY TRENDS, LATE 1965:

The shrimp resource off Nigeria has attracted a lot of interest. Following is a short summary of recent development projects in this potential fishery:

In the spring of 1964, a trawler working off Nigeria was supplied shrimp trawls (Gulf of Mexico-type) through the cooperative efforts of the U. S. Agency for International Development (AID) and the Food and Agriculture Organization (FAO). The results proved more than satisfactory. The vessel which had been landing from 50 to 100 pounds of heads-on shrimp after a 3-day trip started landing from 1,000 to as high as 2,400 pounds of shrimp in the same length of time at sea. As a result of those catches, shrimp shipments totaling 6,426 pounds were sent to the United States market to test its acceptance. The shrimp was handled through regular trade channels and proved quite acceptable as to taste and appearance. Most of the shrimp caught off Nigeria are of the *Penaeus duorarum* species and correspond to Gulf of Mexico pink shrimp, according to marine biologists. There have been several types of shrimp trawls used off Nigeria since the initial trials and all have been successful.

Most of the shrimp fishing done during the initial explorations in 1964 was in 12 to 20 fathoms outside of Lagos Harbor, some 20 miles in either direction. Since then the United States trawler *Basra*, which arrived in January 1965, has found richer shrimp grounds in the delta area off Port Harcourt. Catch rates were as high as 1,500 pounds of heads-off shrimp a night. During the limited explorations from April 1964 to December 1965, there was no appreciable seasonal change in production, but more intensive fishing might reveal a seasonal pattern.

Since the first large catch of shrimp off Nigeria in April 1964, U. S. commercial firms have shown a growing interest in the fishery.

One U. S. firm sent two American shrimp trawlers to explore for shrimp off Nigeria in January 1965. That company plans a shrimp fishing operation off Nigeria in which the catch would be processed at sea aboard freezer trawlers.

Two other U. S. firms were given AID survey grants to study the Nigerian shrimp grounds, and their representatives arrived in the early months of 1965. One of those groups returned in October 1965 to make final arrangements for a joint U. S.-Nigerian company to be located in the Port Harcourt area starting with a nucleus of 10 shrimp trawlers.

Still another large shrimp producer from Tampa, Fla., arrived in October 1965 and spent some time surveying the various Nigerian ports and facilities. The reaction was favorable, and it is expected that an operation by this group will be started soon.

In addition, AID is going ahead with plans to help Nigerians develop a local trawler fleet. Several technicians for the AID project have already been assigned. (United States Embassy, Lagos, December 21, 1965.)



**Norway**

EXPORTS OF FISHERY PRODUCTS AT RECORD LEVEL IN 1965:

Norwegian exports of fishery products in 1965 had a record high value of about US\$200 million. Production of frozen fishery products and fish meal were up substantially in 1965. Norwegian landings in 1965 totaled more than 2.1 million tons as compared to 1.4 million tons in 1964. Very large catches of herring in the North Sea throughout the second half of 1965 accounted for much of the increase.

Compared with 1964, the export increases in 1965 for the main categories of Norwegian fish products were as follows: fresh, frozen, dried, salted, and smoked fish--23 percent; herring meal--38 percent; other fish meal--31 percent; and hardened fats--18 percent. (The Export Council of Norway, January 1966.)

\* \* \* \* \*

EX-VESSEL PRICES FOR INDUSTRIAL FISH IN 1966:

Ex-vessel prices in 1966 for reduction fish (herring and other species) have been agreed

## Norway (Contd.):

upon in Norway by representatives of the fishermen and the fish meal and oil industry.

| Norwegian Ex-Vessel Prices for Reduction Fish, 1965-1966 |                      |         |
|--|----------------------|---------|
| Species  | 1966                 | 1965    |
|  | (US\$ Per Short Ton) |         |
| Fat herring . . . . .                                    | 1/                   | 2/      |
| Winter herring (storsild) . . . . .                      | 36.66                | 29.77   |
| Winter herring (vaarsild) . . . . .                      | 30.59                | 26.63   |
| North Sea herring . . . . .                              | 45.40                | 40.15   |
| Capelin . . . . .  | 16.70                | 12.77   |
| Sandeel . . . . .  | 27.31                | 23.18   |
| Norway pout . . . . .                                    | 25.53                | 21.46   |
| Mackerel, Jan. 1-Aug. 15 . . . . .                       | 42.16                | } 35.22 |
| Mackerel, Aug. 16-Dec. 31 . . . . .                      | 40.26                |         |

1/The 1966 prices for fat herring will, as a change from 1965, be based partly on the fat content of the fish. The basic price in price group I (1-3 herring per kilogram) is set at US\$19.94 per short ton, and in price group II (more than 3 herring per kilogram) at \$18.77 per ton. For each percent of fat exceeding 2.7 percent there will be an additional payment of \$1.52 a ton.

2/Prices not available.

Note: Prices above were originally announced in Norwegian kroner per hectoliter. The prices in dollars per short ton were arrived at by the use of official Norwegian conversion factors (1 krone equals 14 U.S. cents).

The 1966 ex-vessel prices are higher than in 1965.

The year 1965 was a record year for the Norwegian fish meal and oil producers in terms of production as well as sales. In January-October 1965, total deliveries of herring and other fish to the reduction plants reached 1.5 million short tons, or 85 percent more than in 1964. The increase was largely accounted for by record catches of North Sea herring and capelin.

According to official Norwegian trade statistics, 206,900 short tons of herring meal valued at Kr. 235 million (US\$32.9 million) were exported in January-October 1965, or about one-third more in terms of quantity and two-thirds more in terms of value than in 1964. (United States Embassy, Oslo, January 9, 1966.)

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#### CANNED FISH EXPORT TRENDS, JANUARY 1-OCTOBER 9, 1965, WITH COMPARISONS:

Exports of the principal Norwegian canned fish export items (brisling, small sild, and kippered herring) were about the same during the first three quarters of both 1964 and 1965. But in 1965 stocks were down and fishing for brisling and small sild was disappointing.

During January 1-October 9, 1965, exports of the principal items in standard cases (100  $\frac{1}{4}$  cans) were as follows (comparable 1964 data in parentheses): brisling 311,000 cases (307,000 cases), small sild 640,000 cases (645,000 cases), and kippered herring 206,000 cases (201,000 cases).

During January 1-August 31, 1965, exports of canned crab were 497 metric tons (446 tons in 1964) and exports of canned shrimp were 312 tons (613 tons in 1964).

Pack of canned brisling during January 1-October 9, 1965, was 356,000 standard cases (no change from 1964) and that of small sild was 427,000 standard cases (down 17 percent from 1964).

Stocks of brisling and small sild were short in late 1965. Increasing sales of Norwegian canned brisling over the last several years have cut into carryover stocks, and the 1965 pack of brisling (although about the same as in 1964) failed to meet demand. The brisling fishing season closed October 15, 1965; however, canners continued to pack brisling from frozen stocks. The small sild fishing season was expected to continue until January 31, 1966, and packers were hoping for some improvement in fishing during the latter part of the season.

The United States was the principal market for Norwegian canned fish exports in the first 8 months of 1965 taking 7,017 tons valued at Kr. 39 million (US\$5.4 million), a gain of 8 percent in quantity and 10 percent in value over the same period of 1964. Other important markets for Norwegian canned fish are Great Britain, continental European countries, South Africa, Canada, and Australia. (Norwegian Canners Export Journal, October and November 1965.)

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#### COST OF TYPICAL NEW HERRING PURSE SEINER:

Norway's productive North Sea herring fishery has encouraged the construction of many new purse seiners. A typical new Norwegian steel seiner (length 125 feet, breadth 26.5 feet, and depth 13.5 feet with an 800-horsepower diesel engine, sonar, echo-sounder, radar, direction-finder, radiotelephone, winch, and power block) costs about US\$280,000. A towboat and seine skiff with echo-sounder costs \$9,100; two seines cost \$56,000, and a

Norway (Contd.):

fish pump \$11,200. (Dansk Fiskeritidende, December 17, 1965.)

\* \* \* \* \*

**LONG-LINE BAITING MACHINE DEVELOPED:**

A small baiting machine for long-line fishing has been developed by a firm in Stavanger, West Norway, in cooperation with the Chemical-Technical Research Institute of the Norwegian Directorate of Fisheries. Before baiting, the line is coiled up in the machine, and the hooks put into magazines containing 200 each. When the line runs into the water, fish for bait is fed into the machine, and pieces are automatically attached to the hooks as they pass by. Two hooks are baited every second. This allows a vessel to maintain a speed of 6 knots while playing out the long line.

The machine, based on a patented device invented by a fisherman, is said to be of a very simple design which is suitable for all kinds of fishing vessels. (Export Council of Norway.)

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**FLOATING PLASTIC FISH CONTAINER TESTED:**

Floating plastic fish containers for use by herring fishing vessels to add to their holding capacity (by 46 to 183 metric tons) are being tested by the Central Institute for Industrial Research at Oslo, Norway.

A 46-ton container, which is described as sausage-like, occupies less space than a life raft. If the catch exceeds the carrying capacity of the vessel, the container can be launched filled with fish, kept afloat with compressed air, and towed to the landing place. The first experimental container tested has a capacity for 500 hectoliters (46.2 metric tons) of herring or similar bulk fish. A similar container capable of carrying 2,000 hectoliters (183 metric tons) will also be tested.

If expectations are fulfilled, one of the problems arising during heavy herring fishing off Norway should be solved, as fishermen will be able to make use of excess catches or keep fishing beyond their present limitations.

The 2,000-hectoliter container is to be fitted with a radar reflector or radio beacon, which will direct tugs or transport vessels to the spot where the containers were released after having been filled from the fishing vessels. The tugs might be needed to tow the larger containers because some skepticism has been expressed as to the chances of bringing in a fully loaded purse-seine vessel safely when towing a fully loaded container under rough weather conditions. (World Fishing, December 1965.)



**Pakistan**

**CHINESE TO INCLUDE FISHERY PRODUCTS IN TRADE FAIR:**

Chinese Communists plan a "giant trade fair" in mid-March at Karachi, Pakistan. Fishery products will be among the 4,000 items on display. (U. S. Embassy, Karachi, January 14, 1966.)



**Persian Gulf**

**SHRIMP FLEET BUILT IN NORWAY ARRIVES IN PERSIAN GULF:**

A complete shrimp fleet, comprising a 177-foot mothership, eight 89-foot trawlers, and a 39-foot exploratory stern trawler, began operating in the Arabian Gulf in late 1965 after an armada-style voyage from Bergen, Norway, to Kuwait.

All eight trawlers in the fleet are fitted with freezing equipment. The mothership, christened the Marzook, supplies them with fuel, water, etc., takes on their frozen catches, and cooks and freezes some of the shrimp in a blast freezer with a capacity of 4 tons in 24 hours. The catches are then loaded aboard a cargo vessel for shipment to foreign markets, mainly in Great Britain and the United States. (Simrad Echo, January 14, 1966.)



**Peru**

**LIBERALIZES LICENSE PERIOD FOR FOREIGN-FLAG FISHING VESSELS:**

Supreme Decree No. 16, dated December 28, 1965, liberalizes the period of license

## Peru (Contd.):

validity for foreign-flag vessels fishing for Peruvian companies. Under the terms of the decree, licenses for such vessels will be valid to the end of the calendar year in which they are purchased. (U. S. Embassy, Lima, January 6, 1966.)



## Philippines

BUY SOUTH AFRICAN CANNED FISH:

Under a purchase agreement concluded at the end of the season, some 70,000 cases of canned sardines had been shipped to the Philippines. According to the *Namib Times*, the Philippine National Marketing Corporation (NAMARCO) wished to buy considerably more, but the South-West African end-of-season supplies were inadequate. Large orders are expected during the coming season. The periodical speculates that the recent change of Government in the Philippines is unlikely to affect South-West African fish sales to that country as the fish are highly competitive in terms of price and quality.

This is the second large purchase of fish by the Philippines since announcement of a ban on imports from South Africa. In April 1964, the Philippines purchased 875,000 cases. (United States Consulate, Cape Town, December 17, 1965.)



## Poland

ATLANTIC TUNA FISHERY NOT PLANNED:

Poland does not now fish for tuna and has only taken a few tuna incidentally while catching other fish. Initiation of tuna fishing, including construction of tuna vessels, was considered during development of the new 5-year fisheries plan

Japanese long-lining techniques and power-block purse-seining were reviewed but both would require learning complex new techniques. At least one Polish fisheries expert considered the labor involved in long-lining unsuited to Polish fishermen. Furthermore, an effort to send a Pole to Japan through FAO to learn long-lining was cancelled by Japanese industry opposition.

Special tuna vessels would have to be constructed. At present there is no tuna vessel building program nor is there one included in the new 5-Year Plan. However, a latent Polish interest in tuna fishing remains. (U. S. Embassy, Warsaw, January 22, 1966.)

Editor's Note: There have been incidental catches of tuna while fishing for herring in the North Sea and possibly off Africa. The Polish state fishery enterprise "Arka" sent a cutter to fish with poles and lines for tuna in the Bay of Biscay in 1960 with unsatisfactory results. Canned tuna available in Poland is mostly imported from Yugoslavia and is not a significant item in domestic fish consumption. The staff of the Sea Fisheries Institute, Gdynia, did much of the background investigation for the tuna project proposed for the new 5-Year Plan.

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CONSTRUCTION AND EXPORT OF FISHING VESSELS:

Polish shipyards built the first vessels for export in 1952. They were conventional B-10 class steam trawlers destined for Soviet owners, each of 450 tons deadweight. Five years later they were replaced by an improved B-14 series, of which 46 units were built by 1961. The heavy and spacious steam engine of the B-10 was replaced in the B-14 by a much smaller diesel engine.

The building of the first factory trawlers and stern trawlers was also undertaken. Polish shipyards have mastered the serial production of large base ships serving as floating warehouses, and workshops as well as the construction of processing factoryships operating with fishing flotillas far away from home ports.

Two Polish shipyards have specialized in the building of fishing vessels. Fishing vessels built in Polish shipyards can be seen more and more frequently in nearly all of the world's fishing grounds. They operate in tropical oceans near African coasts, in the North Atlantic, and in the Caribbean Sea.

According to statistics published by British sources (Lloyd's Register), Poland ranks second in the world for fishing vessel tonnage built, with Japan first. A noticeable percentage of the Polish-built fishing vessels are exported.

**Poland (Contd.):**

The Import and Export Office for Ships and Marine Equipment (CENTROMOR) of Warsaw has sold 173 vessels over the past 15 years to foreign customers. For several years French owners from the Atlantic ports of Boulogne-sur-Mer, Lorient, and La Rochelle have been regular clients of Polish shipyards, which have built for them B-20, B-21, and B-27 class motor trawlers. (Polish Maritime News, November 1965.)

**Rumania****DISCONTINUES FISHING IN THE NORTHWEST ATLANTIC:**

The large stern trawler Galati came into the port of Casablanca, Morocco, for supplies. The Galati and her sistership Constanta were fishing off the United States Atlantic coast the latter part of 1965. The Galati reportedly caught 500 metric tons of herring as well as some cod while operating on Georges Bank in the Northwest Atlantic. Early in 1966 the Galati was fishing off Morocco's southern coast for mackerel and allied species. (La Peche Maritime, November 1965, p. 841.)

Editor's Note: In January 1966, both of the large freezer stern trawlers, owned by the Rumanian Government, began fishing off western Africa. Both Rumanian trawlers also fished off Africa's west coast between the Tropic of Cancer and the Equator in the spring of 1965. One of them, the Constanta, caught about 2,000 metric tons of fish in one month-long trip and produced 860 tons of edible fishery products and 200 tons of fish meal. In previous trips, the two Rumanian stern trawlers fished near the Faeroe Islands and in the Pacific.

Note: See Commercial Fisheries Review, April 1965 p. 82; July 1964 p. 55; March 1964 p. 67.

**South Africa Republic****MUCH OF 1966 FISH MEAL OUTPUT SOLD IN ADVANCE FOR HIGHER PRICES:**

About 60 percent of expected 1966 fish meal output in the South Africa Republic was sold in advance at prices at least 25 percent above those in 1965, according to an official

in the South African industry. He said that the high prices in the world market were due to uncertainties in the Peruvian outlook. (Namib Times, December 24, 1965.)

**South-West Africa****WHITE FISH INDUSTRY EXPANSION:**

Possibly in response to the rapidly increasing foreign interest in South-West Africa's white fish resources, several South or South-West African companies have indicated plans for exploiting the resource through facilities planned or under construction at Walvis Bay. An article in the Namib Times of November 26, 1965, indicated that among the planned investments in Walvis Bay are: (1) a white fish factory valued at more than US\$4.2 million to be constructed by the Marine Products group; (2) a fish and meat freezing plant to be constructed by a South African company which is already doing experimental trawling off the coast; and (3) construction of a \$350,000 white fish factory by Atlantic Rock Lobster Bpk., subject to the Administration's approval of certain arrangements. According to the article, Atlantic Rock Lobster is seeking permission to use three foreign trawlers with crews to fish for the company. It has also obtained the participation of British interests who will help with technical staff, construction and operation of the factory, the supply of modern machinery, and marketing. Finally, the article noted that an \$85,000 white fish and snook processing factory owned by Tafelberg Fisheries is already under construction in Walvis Bay. The Walvis Bay Town Council has set aside a number of additional plots of sea frontage for fish-processing factories, indicating that further interest may have been expressed by other South African firms. (United States Consulate, Cape Town, Dec. 17, 1965.)

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**VESSEL OWNERS SEEK TO RESTRICT FOREIGN FISHING VESSELS:**

In a letter to the Administrator of South-West Africa, the Walvis Bay Boat Owners' Association has suggested that restrictions be applied to foreign trawling operations off the South-West African coast, in order to prevent overfishing beyond the territory's 12-mile fishing limit. Among the suggestions incorporated in the letter were: (1) prevent-

### South-West Africa (Contd.):

ing the transshipment of fish by foreign trawlers calling at Walvis Bay; and (2) denying fresh provisions and water at Walvis Bay. The letter culminates a press and public attack on the growing incursions of foreign fishing vessels in the waters off South-West Africa. Although the vast majority of the vessels are believed to fish only white fish, the boat owners' concern seems to center around possible depletion of the pilchard stocks through disruption of their breeding grounds, which lie fairly close to the 12-mile fishing limit. A representative of the South African fishing industry, commenting on the Association's proposals, tended to dismiss them as impractical and ineffective.

According to the periodical Cape Argus (Cape Town, S. Africa) of November 13, 1965, Walvis Bay has become a supply station for fishing vessels from a number of other countries. In addition, crew members of many of the vessels spend considerable sums of money in Walvis Bay for personal needs. Among the nations represented are: Belgium, Israel, Spain, Japan, U.S.S.R., Bulgaria, and Poland. Soviet, Bulgarian, and Polish vessels have been discouraged from visits to Walvis Bay and their frequency of stops had decreased noticeably in late 1965. (United States Consulate, Cape Town, December 17, 1965.)



### Thailand

#### JAPANESE SET UP JOINT SHRIMP ENTERPRISE IN THAILAND:

A Japanese fishing firm and a Thai trading company have agreed to establish a joint shrimp-processing company in Thailand. The Japanese firm will provide technical assistance in the freezing and processing of shrimp and will purchase the frozen shrimp produced by the joint company for export to Japan. It was reported that the Japanese firm hopes to purchase 300-400 metric tons of frozen shrimp a year. The proposed venture was scheduled to begin operations in February 1966. (Suisan Keizai Shimbun, January 17, 1966.)



### Tristan da Cunha

#### TRISTAN DA CUNHA SPINY LOBSTER FISHERY, LATE 1965:

A spiny lobster fishing project and a new harbor should bring important changes to the tiny island of Tristan da Cunha in the mid-South Atlantic where about 260 people live. Many of the islanders are fishermen, but they have been able to push their small dinghies off the rocky beach through the heavy surf only about 40 days a year. The new harbor will extend their fishing season.

The harbor is being provided by the British Government at a cost of about R160,000 (US\$222,000) and should be ready for use about April 1966. Sited on the reef in front of the settlement, the small harbor comprises 2 curving arms, each 60 feet wide at the base, which are 270 feet apart at their shore ends and reach to within 50 feet of each other at the entrance. A depth of water of 9 feet has been provided by blasting out solid rock.

The harbor has made possible a new shore based processing and freezing plant at Tristan, which is being financed by interests in the South Africa Republic. Construction of the new plant had begun in late 1965.

In addition to the shore-based operation, the South African fishing vessels Tristania and Gillian Gaggins are expected to operate offshore from Tristan da Cunha during the main fishing season from September to April, after which they will return their catches to South Africa. (The South African Shipping News and Fishing Industry Review, November 1965.)



### Tunisia

#### YUGOSLAVIA TO CONSTRUCT FISHING PORTS:

A Belgrade construction enterprise, the "Ivan Milutinovic," has contracted with the Tunisian Government for feasibility studies on the construction of two fishing ports. The projected fishing ports will be located in the cities of Sukrin and Sayade on the Mediterranean. (U. S. Embassy, Belgrade, November 16, 1965.)

Editor's Note: In 1962, the Yugoslav Shipyards of Pula delivered five tuna fishing vessels to Tunisia, and they are at present building a series of 10 deep-sea fishing vessels.

Tunisia (Contd.):

In August 1964, the Tunisian state-owned fishing corporation, L'Office National des Pêches, concluded an agreement with the East German Rostslau Shipyards for the construction of 10 steel trawlers to be delivered by the end of 1965.



U. S. S. R.

PACIFIC OCEAN PERCH LANDINGS:

Over the past 7 years, Kamchatka fishermen have intensified fishing for ocean perch in the North Pacific and the Bering Sea. In 1959, over 50 percent of Kamchatka's annual catch consisted of flounders; by 1965, ocean perch landings amounted to about 50 percent and flounders only to 8 percent of the total. Kamchatka's herring landings amount to about 50,000 metric tons a year (Kamchatskaia Pravda, January 13, 1966.)

Editor's Note: In 1965, Kamchatka fishermen caught a total of 416,000 metric tons of fish. Ocean perch landings in 1965 were thus in excess of 200,000 metric tons; that species was caught mainly off the Aleutians (with large factory stern trawlers) and in the Gulf of Alaska (with medium and large trawlers). Total 1965 Soviet landings of Pacific ocean perch are estimated at over 400,000 metric tons. Kamchatka fishermen catch flounders mainly in the Bering Sea (off Pribilof Islands); herring is also caught there but even more in the Sea of Okhotsk.

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FLOUNDER EXPLORATIONS  
BRISTOL BAY:

In mid-January 1966, one factory stern trawler (Valerii Bykovskii) and 2 medium trawlers (Krutogorovo and Kekurnii) explored for flounders on the outer Bristol Bay flats north of Unimak Island.

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ESTONIAN FISHERMEN  
OFF ICELAND:

Fishery Administrators of the Estonian Soviet Republic are studying the possibility of fisheries expansion into Icelandic waters. A small fishing fleet was about to sail the latter part of 1965 to this new area which,

according to the Soviets, has not been sufficiently exploited by her fishermen. If the initial exploratory expedition is successful, a larger Estonian fleet will continue to fish on Icelandic banks. As a result, the Estonian fishing operations off the coasts of North America (Georges Bank and Newfoundland) may diminish.

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POLAND TO BUILD SOVIET  
OCEANOGRAPHIC RESEARCH VESSELS:

Polish shipyards at Szczecin will construct nine oceanographic research vessels for the Main Institute of Hydrometeorology of the U.S.S.R. The construction will begin in 1967; at present Polish naval architects are working on the design of the prototype. (Zycie Gospodarcze, December 5, 1965.)

Editor's Note: The new Soviet class of oceanographic research vessels will have these specifications: displacement of 3,550 tons, length exceeding 100 meters (328 feet), a crew of 105 (50 scientists and 55 crew members), and sea endurance of 90 days. This class will be equipped with the latest electronic instruments and will have 23 laboratories as well as auxiliary installations and workshops. The vessels will have reinforced hulls and air-conditioning, enabling them to conduct research both in polar and tropical regions. The range of studies will include hydrology, biology, chemistry, geography, acoustics, and other sciences.

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FISHERY AID TO INDIA:

A three-man team from the Soviet Union arrived in India the latter part of 1965 to study the possibilities of extending technical assistance in the development of Indian marine fisheries. The Soviet team began its studies at Visakhapatnam in the Indian state of Hyderabad, adjacent to the Bay of Bengal. This is the first instance of Soviet fishery aid to India. (U. S. Embassy, New Delhi, November 16, 1965.)

Editor's Note: The Soviet Union began its fishery operations in the Indian Ocean 2 or 3 years ago, and ever since has been on the outlook for possible fishery bases to supply her fleets as well as for marketing outlets for her catches. The process seems to be similar to the one that the Soviets have successfully completed in Africa where, after a few initial years

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

of independent operations, they have finally concluded trade agreements with coastal African countries delivering fresh and frozen fish for local domestic markets.

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**HERRING SALES TO SCOTLAND:**

Scottish kippering firms, unable to obtain supplies domestically, bought 300 metric tons of frozen herring from the Soviet Union in 1965. Additional amounts were purchased from Norway. Soviet-caught fish arrived at Aberdeen in the refrigerated fish transport Zelenogorsk at the end of November 1965. The Scottish purchaser stated that Scottish boats had failed to keep his plants supplied adequately since May of 1965, therefore, the plants operated only by purchasing foreign fish. Soviet-delivered fish was caught in the fall of 1965 off the Hebrides. (The Fishing News, November 26, 1965.)

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**ANTARCTIC WHALING SEASON, 1965/66:**

As in previous years, the Soviet Union is operating four whale factoryships in the Antarctic during the 1965/66 whaling season. Two (Sovetskaia Ukraina and Slava) came from the Soviet Black Sea port of Odessa; one (Iurii Dolgorukii) from the Soviet fishing port of Kaliningrad; and one (Sovetskaia Rossia) from the Far Eastern port of Vladivostok. Because of the smaller Antarctic quota of 4,500 blue-whale units for this season, one of the Soviet whale factoryships will hunt only sperm whales, which are not included in the Antarctic quota agreement. (The Fishing News, November 1965.)

Editor's Note: The Soviets have selected the oldest and least efficient whaling factoryship Slava to hunt sperm whales. The Slava was constructed in 1929 in Great Britain for German whaling interests. She was acquired by the Soviets, and began fishing in Antarctica in 1946.

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**LIMIT ON SEALING OPERATIONS:**

On the recommendation of scientists of the Research Laboratory for Marine Mammals of the All-Union Institute of Fisheries and Oceanography (VNIRO), the Soviet Fisheries Ministry ordered the discontinuation of seal

hunting in the White and the Barents Seas during 1966-1970. The reason for this measure was the decreasing size of seal herds in those areas.

Editor's Note: At the 8th Session of the U.S.S.R.-Norwegian Commission for Sea Mammals, December 1965 in Oslo, the Soviets also asked the Norwegians to restrict their seal hunting operations in the Barents and White Seas.

**United Kingdom****FREEZER-TRAWLER FISHERY TRENDS, NOVEMBER 1965:**

In late November 1965, the British 1,750-ton stern-trawler Victory landed a record catch of about 550 long tons of frozen fish at Grimsby. The fish were caught during a 39-day trip to Newfoundland fishing grounds. Over 500 tons of the catch, which was frozen aboard ship in 100-pound blocks and stowed at -20° F., consisted of cod and codling. Most of the catch was frozen heads-on. Similar catches had been landed during other trips by British freezer trawlers.

The Victory is operated by a firm which markets frozen fish on a nationwide basis, and they recently introduced cod in portion form. The skinless and boneless 3-ounce portions are packed in 14-pound cartons. (Fish Trades Gazette, November 27, 1965.)

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**DANISH POND TROUT PROMOTED IN GREAT BRITAIN:**

A promotional campaign to introduce fresh rainbow trout from Denmark to British consumers is being carried out by a London distributor. Danish trout farms are shipping iced trout (either round or gutted) to selected British wholesalers. The trout are shipped on the same day they are taken live from rearing ponds in Denmark.

Speaking in November 1965, the managing director of the London firm handling the promotional campaign said: "The consumption of trout in Britain at the moment is approximately one fish per head of population per annum. This is a figure that can easily be doubled because of the quality of trout and the fact that it now sells at half the price of a dover sole



## United Kingdom (Contd.):

and often almost as cheaply as a herring. Trout is 6d. (7 U.S. cents) a pound cheaper today than a year ago, and I can think of no other wet fish of which this can be said."

The belief that the average family is now more adventurous in its eating habits and will experiment with trout if guided on how it can be used to make interesting meals is the main reason for the promotion. Three-color rainbow trout recipe leaflets have been made available to British retailers. In fact, a number of recipe leaflets are sent with the boxes of trout for retailers to distribute to purchasers. The leaflets are plastic wrapped for protection in transit. (Fish Trades Gazette, November 27, 1965.)



## Yugoslavia

## FISHING INDUSTRY IN CRISIS:

Because of (1) recent economic reforms which abolished many subsidies to the Yugoslav fishing industry and (2) increased import duties, the planned development of Yugoslav fisheries is being jeopardized. To increase

productivity and obtain the concentration of investment funds, a merger of a number of smaller enterprises into large state-owned fishing corporations is planned (3 of these will fish in the Adriatic, 1 on the high seas). In addition, a Government development plan of 43 billion dinars (US\$38.5 million) is being prepared for the decade 1966-1975. Some of the funds sought will be received from the Government (mostly made up of annual payments by Italy for the use of the Yugoslav side of the Adriatic Sea), and the balance from domestic and foreign banks. (Morsko Ribarstvo, vol. 17, no. 10.)

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## INCREASED TUNA CATCHES PLANNED:

The 5-Year Plan (1966-1970), provides for an annual tuna catch of 40,000 metric tons by 1970. All of it will be processed and exported (Morsko Ribarstvo, vol. 17, no. 10).

Editor's Note: In 1964, Yugoslavs caught only 300 tons of bluefin tuna. Plan for 1970 is based on expansion of the Yugoslav Atlantic tuna fleet; three tuna vessels are now under construction at Pula Shipyards.

FISHING VESSEL BUILDERS ADVISED TO STUDY  
MERCHANT MARINE PRACTICES

The builders of fishing vessels could learn much from studying modern commercial vessels, a Swedish editor told the opening session of the Food and Agriculture Organization's third International Technical Meeting on Fishing Boats, which was held in Goteborg, Sweden, October 23-29, 1965.

The editor, who was formerly a captain of merchant ships, said: "The merchant ships of today are more efficient and cheaper than their predecessors, which means a higher earning capacity. It seems rather odd that--with a few exceptions--similar progress has not been made in fishing boat construction." He named maintenance, rust protection, engineroom layout, the selection of engineroom equipment, economy and management, and automation, as fields in which the fishing industry could learn a great deal from present merchant marine practices.

"Even if the background differs from place to place and from time to time," he said, "the owner of a small merchant vessel and the owner of a fishing vessel have this in common: They operate vessels under severe weather conditions, they have as small crews as possible, and time is always inadequate."