FOREIGN

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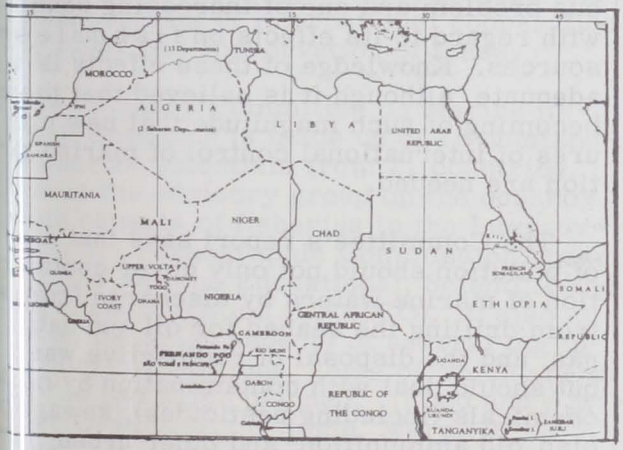
CA

ENCH-SPEAKING NATIONS DISCUSS MINISTRATION AND PLANNING FOR RICAN FISHERIES DEVELOPMENT:

A seminar on Administration and Planning Fisheries Development, to which French-aking countries of Africa were invited, s held at Abidjan, Ivory Coast, March 8-27, 5. The seminar was sponsored by the od and Agriculture Organization (FAO) and chairman was the Chief of the Marine Fish-es section of the Ivory Coast Fisheries vice. In addition to Ivory Coast, other par-ipating African nations were Morocco, Sen-al, Upper Volta, Mali, Dahomey, Cameroon, on, Congo-Brazzaville, Chad, and Burundi.



The conference was called and conducted seminar for the exchange of ideas and rmation toward the overall joint aim of African fisheries. All of the participating ions were represented, in most cases, by h country's Fisheries Service Chief but formal action was taken because the par-pants were not accredited as officially resenting their countries.

Discussions at the seminar included a fair-ide range of discussions, and a report of isheries situation in his country was given by each of the African participants. A consensus of views on certain points, as noted in the Draft Conference report, included: (1) a recognition of the need for conservation measures; (2) a recommendation for intensified development of fresh-water fisheries, including artificial impoundments; (3) a recognition of the value of intercountry training in fisheries; (4) a recommendation for more emphasis on modern industrial methods of fishing rather than the traditional methods; (5) a realization of the need for knowledge of resources, market potential, and effect on the national economy in planning fisheries development; (6) a recognition of the need for adequate training of fisheries personnel either within each country or at regional training facilities; (7) a realization of the importance of establishing a feeling of confidence in and cooperation with the fisheries service on the part of the fishing industry; (8) a recognition of the need for international fishery commissions for research and conservation; and (9) a hope that the Regional Fisheries Commission for West Africa will become more active. (Regional Fisheries Attache, United States Embassy, Abidjan, April 3, 1965.)

EUROPEAN ECONOMIC COMMUNITY

IMPORT QUOTAS SET FOR SELECTED FISHERY PRODUCTS IMPORTED BY WEST GERMANY AND BELGIUM-LUXEMBOURG:

On March 29 and 30, 1965, the Commission for the European Economic Community (EEC) announced decisions granting tariff quotas to West Germany and Belgium-Luxembourg for selected fishery products during various periods in the fiscal year ending March 31, 1966.

Under those quotas, West Germany will be able to import fresh and frozen fishery products as follows:

Herring (Clupea harengus) and sprat (Clupea sprattus): 85,000 metric tons duty-free between June 16, 1965, and February 14, 1966.

International (Contd.):

Dogfish shark (Squalus acanthias): 3,000 tons at 3-percent duty between April 1, 1965, and March 31, 1966.

Cod, pollock, haddock, and "black" halibut: 10,500 tons between August 1 and December 31, 1965. "Black" halibut will be subject to an import duty of 2.2 percent, but other items under that quota enter duty-free.

West Germany was also granted an import quota for 1,300 tons of salted pollock (for canning) at 7-percent duty between April 1, 1965, and March 31, 1966.

Belgium-Luxembourg was granted an import quota for 90 tons of certain crab and shrimp (destined for canning) at 3-percent duty between April 1, 1965, and March 31, 1966. (United States Mission to the EEC, Brussels, April 14, 1965.)

FISH MEAL

PRODUCTION AND EXPORTS FOR SELECTED COUNTRIES, JANUARY 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 1965

Country	January		Jan.-Dec.	
	1965	1964	1964	1963
	. . . .(1,000 Metric Tons). . . .			
Chile	9.0	11.8	137.8	86.8
Angola	1/	4.8	56.0	30.0
Iceland	9.6	11.5	124.3	99.1
Norway	13.2	27.2	179.4	104.1
Peru	164.9	101.9	1,416.5	1,159.7
So. Africa (including S.-W. Africa)	11.3	13.4	226.5	199.0
Total	208.0	170.6	2,140.5	1,678.7

The FEO countries produced 2.3 million metric tons of fish meal in 1964 or about 70 percent of total world production estimated at 3.3 million tons.

Fish meal exports by FEO countries in January 1965 totaled 208,000 tons, an increase of about 22 percent from the same month of the previous year. Peru accounted for about

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

Country	January		Jan.-Dec.	
	1965	1964	1964	1963
	. . . .(1,000 Metric Tons). . . .			
Chile	12.9	21.8	147.0	92.7
Angola	1/	5.6	59.7	31.5
Iceland	4.2	5.7	127.7	87.7
Norway	5.9	8.7	185.9	132.2
Peru	194.1	195.5	1,552.3	1,159.2
So. Africa (including S.-W. Africa)	8.7	14.0	257.4	238.(
Total	1/ 225.8	251.3	2,330.0	1,741

1/Data not available.

79 percent of total fish meal exports repo by FEO countries in January 1965.

FOOD AND AGRICULTURE ORGANIZATION

ADVISORY COMMITTEE ON MARINE RESOURCES RESEARCH MEETS IN ROM

The increasing pollution of the world's rine fishing waters must be combated, fis ies scientists agreed at the annual meetin the Advisory Committee on Marine Resou Research, Food and Agriculture Organiza (FAO), held in Rome, March 1-8, 1965. I final report the Committee says, ". . . ma pollution is, in certain areas, becoming a ous problem and one of increasing concer with regard to its effects on fisheries sources. Knowledge of these effects is in adequate, although it is believed that they becoming of such magnitude that new mea ures of international control of marine po tion are needed."

The Committee's report says that a st of pollution should not only cover contam tion of marine waters by discharge from from drilling the seabed for oil and natu gas, and the disposal of radioactive wast but should deal with contamination by no chemicals (including pesticides), sewage bish, old ammunition, and other urban, in trial, and agricultural wastes. The repo so says there is an urgent need for grea scientific knowledge of the living resour of the sea if man is to harvest them to hi best long-term advantage. The rapid gr of modern fishing operations may lead t damaging depletion of some fish stocks b research has revealed the limits of their annual yield, the report continued.

The Advisory Committee also discuss the possible future use of new and speed

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ys of mapping fish abundance, including the e of underwater television and echo-sounding equipment, sometimes combined with aerial surveys.

The Committee urged the speedy strengthing of present regional fisheries bodies and, ere necessary, the establishment of new s. A case in point was the proposed Atlantic Tuna Commission. Their report says "while the lengthy national and international procedures are being followed, tuna hing in the Atlantic continues to develop dly, in the absence of any adequate international effort to organize the collection of logical statistics and undertake the urgently needed studies of the biology and state of stocks in the area."

The Committee report also noted proposals de earlier by FAO's Director-General: (1) establishment of a permanent committee mposed of senior fisheries officials of selected FAO member nations, (2) the launching world program of marine resources research, and (3) it endorsed a major strengthing of FAO's work in fisheries. The Committee recommended that more studies be ried out on changing fish populations and improvement of international cooperation he study and conservation of these.

The Advisory Committee on Marine Resources Research is made up of 15 outstand- fisheries scientists from 11 countries. lso is the advisory group on the oceanophic aspects of fisheries to the Intergovmental Oceanographic Commission under United Nations Educational, Scientific and ural Organization (UNESCO). It also ad- on fisheries aspects of several big intional expeditions, some of which are in ress and some planned. (Food and Agriure Organization, Rome, March 9, 1965.)

See Commercial Fisheries Review, April 1964 p. 42.

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LD FISHERY TRADE IN 1963:

he value of international trade in fish and ry products reached an all-time high of st US$1,686 million in 1963, the latest for which world fishery statistics are able, according to the 1963 Yearbook of ery Statistics (Vol. 17), published by the and Agriculture Organization (FAO). Yearbook shows the 1963 value to be $89 million above the previous high of $1,597 million reported for 1962.

About one-third of the 1963 record world fishery catch of 46.4 million metric tons crossed at least one international border between the time the fish were caught and when they were placed before the housewife. The 15.2 million tons of fishery products going into international trade represented the live weight as they came out of the water and not the final weight of the products--fresh, frozen, or otherwise processed--as sold to the public.

The FAO Yearbook data include trade statistics for the Union of Soviet Socialist Republics. They do not include trade data for Mainland China, for which fishery catch estimates are based entirely on outside information. The Yearbook's data are based on fishery statistics reported to FAO by 140 countries which accounted for 41 million tons, or 88 percent of the 1963 world catch. About 37 percent of the total catch of those countries went into international trade.

The new FAO publication gives the disposition of the 1963 fishery catch whether sold at home or abroad, such as: marketed fresh 16.4 million tons; frozen 4.7 million tons; cured as smoked, dried, and salted fish 8.3 million tons; canned 4 million tons; for processing into fish meal meal or oil 12 million tons; used for other purposes ranging from fish sticks to fertilizer 1 million tons.

The percentage of the world fishery catch going into international trade has risen steadily since the end of World War II; in 1958 it was 29 percent and in 1948, when FAO began compiling world fishery statistics, it was about 19 percent.

In 1963 there were 19 nations which caught 500,000 or more tons of fish. The top 5 nation's were Peru (6,901,300 tons); Japan (6,697,800); Mainland China (5 million); the U.S.S.R. (3,977,200); and the United States (2,711,900). (Food and Agriculture Oranization, Rome, March 21, 1965.)

INTER-AMERICAN TROPICAL TUNA COMMISSION

ANNUAL MEETING:

A quota of 81,800 tons for the catch of yellowfin tuna in the eastern Pacific for 1965 was recommended by the Inter-American Tropical Tuna Commission at its 17th Annual Meeting in Mexico City, Mexico, March 23-26, 1965. This will restore the resource in about 4 years to

International (Contd.):

a level which will produce the maximum sustainable annual yield of 91,500 tons. The member nations, Costa Rica, Ecuador, Mexico, Panama, and the United States, also pledged themselves to do everything legally possible to induce other nations which fish in the area to cooperate in the regulatory program.

Other nations which fish tuna in the eastern Pacific are Peru, Japan, Chile, and Colombia. The average catch of yellowfin tuna in the eastern Pacific in the four-year period ending with 1964 was 93,991 tons, shared by the member and nonmember nations as follows:

Country	Average Catch Yellowfin Tuna 1961-1964	Percentage of Average Total Catch
	Short Tons	%
United States	77,124	82.0
Peru	8,965	9.5
Japan	4,127	4.3
Mexico	2,051	2.2
Ecuador	975	1.3
Costa Rica	333	0.3
Chile	283	0.3
Colombia	133	0.1
Panama	0	0.0

All the countries, with the exception of Peru and Chile, have pledged themselves to put regulations into effect when this becomes necessary. If the regulatory program is to be effective, however, all countries which fish yellowfin tuna in the regulatory area must cooperate. Peru and Chile so far have refused to cooperate under conditions acceptable to most member nations of the Tuna Commission. Hence, although the Commission has recommended regulation of the fishery each year since 1962, the fishery has not been controlled.

The United States Delegation at the meeting consisted of Commissioners J. L. McHugh (Head of the Delegation), Washington, D. C., Robert L. Jones of Gearhart, Oreg., and John G. Driscoll, Jr., of San Diego, Calif.; Advisers William C. Herrington and Fred E. Taylor of the U. S. Department of State; Donald R. Johnson, Regional Director, U. S. Bureau of Commercial Fisheries, Terminal Island, Calif.; Richard Croker, Fishery Attache, U. S. Embassy, Mexico City, Mexico; Philip M. Roedel, Director, California State Fisheries Laboratory, Terminal Island; and the following representatives of the tuna industry: Lester Balinger, John Calise, Charles Carry, Clifton Day, August Felando, Anthony Nizetich, John Royal, and George Steele.

INTERGOVERNMENTAL MEETING ON REGULATION OF TUNA FISHERIES IN EASTERN PACIFIC:

The Intergovernmental meeting on Marc 25 and 26, 1965, was attended by Delegates Observers from the nine nations already m tioned, plus Canada, El Salvador, Guatema Honduras, and Nicaragua. The United Stat Delegation at the meeting consisted of Wil C. Herrington (Head of the Delegation) and William M. Terry of the Office of the Comm sioner of Fish and Wildlife, with the membe of the Tuna Commission delegation as advis The principal purpose was to reach agreeme on a cooperative scheme for effective contr of the yellowfin fishery. Peru and Chile, ho ever, required subquotas of 12,000 tons and 5,000 tons, respectively, as the price of coo ation. This was not acceptable to most of th other voting nations, and no agreement was reached on this point. It was agreed, howeve that the member nations of the Inter-Americ Tropical Tuna Commission would meet aga soon to develop methods to obtain the coop eration of other countries.

Note: See Commercial Fisheries Review, May 1964 p. 42.

NORTHWEST PACIFIC FISHERIES COMMISSION

PROGRESS OF JAPAN-U.S.S.R. FISHERIES NEGOTIATIONS:

The Ninth Annual Meeting of the Interna tional Northwest Pacific Fisheries Commi sion convened at Tokyo, on March 2, 1965. March 5, the Scientific Subcommittee of Commission began evaluating the conditio salmon resources.

The Subcommittee arrived at the conclu sion that the 1965 chum, silver, and king salmon run would be at about the same le as in 1964 and that the 1965 pink run wou be at a level comparable to the 1963 run well above the 1964 run. The Subcommit acknowledged that the Asian red salmon r source had declined greatly but was not a to reach agreement as to the cause of tha cline. The Soviet Union claimed overfishi by Japanese vessels to be the primary ca while Japan claimed the decline may have origin in natural oceanic conditions.

The Soviet Union's red salmon catch f the past four years was reported to be: 1 7,834 metric tons; 1962--4,649 tons; 1963 3,443 tons; and 1964--2,692 tons. The 19 red salmon run to the Ozernaya River, w

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ontributes 70-80 percent of the total Asian un, was reported to be disastrous. Although apan and the Soviet Union were not able to gree as to whether the 1965 Ozernaya run ould be above or below the 1964 level, they ere in general agreement that the depletion as serious.

At the plenary session on March 18 the viet Union was reported to have proposed at Japan should reduce her salmon fleet in ea B (south of 45° N. latitude) by over 50 rcent and, at the same time, expand the sed areas and shorten the fishing season that area. Japan is said to have rejected e Soviet proposal. (Suisan Keizai Shimbun, arch 19 & 24; Suisan Tsushin, March 11, 65; and other sources.)

* * * * *

APANESE SALMON CATCH QUOTA OR 1965 IN WESTERN PACIFIC:

Agreement on a 1965 Japanese salmon tch quota of 115,000 metric tons in the stern Pacific (off the coasts of Japan and e U.S.S.R.) was reached March 31, 1965, at e ninth annual meeting of the Northwest Pa- ic Fisheries Commission (Japan-U.S.S.R.).

The 1965 Japanese salmon quota in the stern Pacific provides for a catch of 56,000 s in Area A (north of 45° N. latitude) and 000 tons in Area B (south of 45° N. lati- e). That is an increase over the 1964 ta of 1,000 tons in Area A and 4,000 tons rea B. Other regulations were unchanged rn 1964.

The Japanese red salmon catch target for a A was set at 7.75 million fish of which more than 2.5 million are to be taken west 165° E. longitude.

The Japanese press reported mixed reac- s in the fishing industry. A spokesman the Japanese Salmon Drift-Net Associa- (land-based fishery) expressed dissatis- on that Japan's request for a 120,000-ton a was not obtained.

On the other hand, the president of the anese Fishery Association said that al- gh the agreement does not satisfy all ments of the salmon industry, he hailed outcome of negotiations as setting a good edent and offering bright prospects for future negotiations. (United States Embassy, Tokyo, March 31, 1965.)

(Note: The Northwest Pacific Fisheries Commission on March 24, 1965, agreed on a 1965 king crab catch quota in the western Pacific of 240,000 cases (48 ½-lb. cans) for Japan and 420,000 cases for the U.S.S.R.)

Note: See Commercial Fisheries Review, May 1965 p. 53; Mar. 1965 p. 83, Jan 1965 p. 78, July 1964 p. 42.

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JAPANESE-SOVIET NEGOTIATORS SET KING CRAB CATCH QUOTA FOR 1965 IN WESTERN PACIFIC:

On March 24, 1965, an informal agreement on king crab quotas was reached by Japan and the U.S.S.R. at the ninth annual meeting of the Northwest Pacific Fisheries Commission. Japan's 1965 king crab catch quota was set at 240,000 cases (48 ½-lb. cans), a reduction of 12,000 cases from the previous year. The Soviet quota for 1965 was increased to 420,000 cases, or 42,000 cases above the 1964 quota. The new annual king crab quotas are to apply in both 1965 and 1966. The U.S.S.R. plans to operate 7 motherships in the king crab fishery in 1965 as compared to 6 in 1964. There will be no change in size in the Japanese fleet of 4 king crab motherships.

The Northwest Pacific Fisheries Commission sets salmon and king crab catch quotas for waters in the Sea of Okhotsk and in the Bering Sea off Kamchatka. (United States Embassy, Tokyo, March 25, 1965.)

Note: See Commercial Fisheries Review, Mar. 1965 p. 83; Jan. 1965 p. 78; July 1964 p. 42.

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JAPANESE-SOVIET NEGOTIATORS AGREE ON JOINT INSPECTION OF SALMON FISHERY IN NORTHWEST PACIFIC AREA B:

On March 27, 1965, at the ninth annual meeting of the Northwest Pacific Fisheries Commission, informal agreement was reached between the U.S.S.R. and Japan on supervision of the Japanese salmon fishery in Area B (south of 45° N. latitude) along the following lines: (1) Regulations to be jointly enforced by Japanese and Soviet inspectors aboard Japanese patrol vessels only; (2) Japanese to increase number of patrol vessels from 4 operated in 1964 to 5 during current season; (3) one Soviet inspector with interpreter to board each Japanese patrol vessel; (4) joint enforce-

International (Contd.):

ment expanded to cover Japan sea area of Convention waters. (United States Embassy, Tokyo, March 30, 1965.)

NORTH ATLANTIC OCEAN

FISHERY CATCH AT RECORD HIGH IN 1963:

A record 10.7 million metric tons of fish were caught in the North Atlantic Ocean in 1963, according to the Food and Agriculture Organization (FAO). The 1963 catch was 510,000 tons above the previous high of 10.2 million tons in 1962, and accounted for just under one-quarter of the record 1963 world fishery catch of 46.4 million tons.

Leading the nations taking a part, or all, of their 1963 catches from the North Atlantic, was the Soviet Union with 1,679,093 tons. The Soviet total 1963 catch from all fishing areas was 3,977,200 tons. Norway was in second place with 1,330,979 tons. Practically all of Norway's total 1963 catch of nearly 1,387,800 tons came from North Atlantic waters. All other nations fishing the North Atlantic took less than a million tons from it.

Nations catching 500,000 or more tons were Denmark (including Faroe Islands) with 975,730 tons; the United Kingdom 944,266; Spain 810,811; Canada 801,184; Iceland 783,235; the Federal Republic of Germany 636,346; and France 546,002 tons. North Atlantic catches by other nations in 1963 included Portugal with 485,489 tons; United States 464,560; Netherlands 350,310; Sweden 339,798; Poland 198,682; East Germany 177,203; Belgium 61,901; Finland 60,954; Greenland 33,290; and Ireland 27,642. (Food and Agriculture Organization, Rome, March 10, 1965.)

SOVIET-NORWEGIAN TALKS ON FISHERIES

Norway and the Soviet Union announced that they would urge international measures to protect the cod stocks in the Barents Sea, now subjected to heavy exploitation. With a view to reaching a speedy solution, the Fisheries Ministers of the two countries agreed that such measures should be discussed at the 3rd session of the Commission on North Atlantic Fisheries, which was to be held at Moscow in May 1965.

During the Soviet Minister's 12-day visit in Norway during March, the two officials also discussed other questions, including mandatory increase of the mesh size in trawls and nets, ban on protective nets, and regulation of the catch intensity. They welcomed in principle a British proposal for a conferenc of experts to draft regulations that would en sure maintenance of order on fishing ground in international waters.

The Fisheries Ministers of both countrie stressed the importance of continued cooper tion between Norwegian and Soviet oceanog phers to strengthen fishery research in the Northeast Atlantic.

The communique said the Norwegian Fis eries Minister has accepted an invitation to pay an official visit to the Soviet Union at a future date. (News of Norway, March 25, 1965, Norwegian Information Service, Wash ington, D. C.)

LAW OF THE SEA

CERTAIN INTERNATIONAL CONVENTION RATIFIED BY FINLAND:

On February 16, 1965, the Government o Finland deposited its ratification of the four Law of the Sea Conventions: The Conventio on the Territorial Sea and Contiguous Zone the Convention on the High Seas; the Conve tion on the Continental Shelf; and the Conve tion on Fishing and Conservation of the Liv Resources of the High Seas.

Finland's ratification of the Convention o Fishing and Conservation brings the total nu ber of ratifying countries to 18. A total of ratifications are needed before the Convent enters into force. The other three Convent have already entered into force.

The Conventions ratified by Finland we formulated at the United Nations Conferen on the Law of the Sea at Geneva on April 2 1958.

Note: See Commercial Fisheries Review, Mar. 1965 p. 83; J 1965 p. 59; Dec. 1964 p. 39; Nov. 1964 p. 70; Oct. 1964

WHALING

ANTARCTIC CATCH FALLS SHORT OF QUOTA IN 1964/65 SEASON:

Total Antarctic whale production of the three whaling nations (Japan, Soviet Union, and Norway) during the 1964/65 season amounted to 6,984 blue-whale units, accordi to data released by the International Whali Commission. Their total catch not only fa to reach the international catch target of 8,

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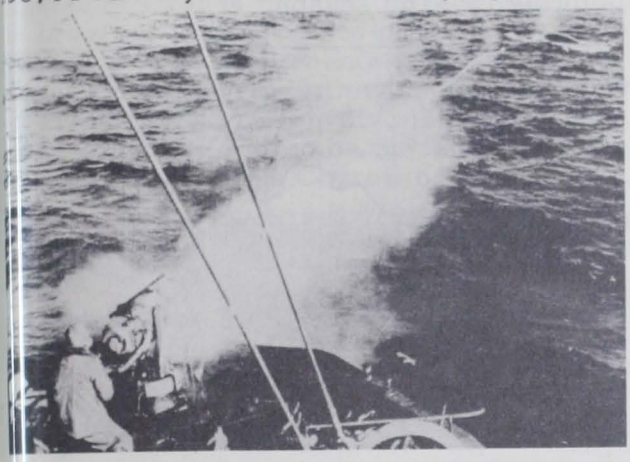
ue-whale units but marked a record low, lling far below the 8,428 units harvested in 63/64 and 11,299 units in 1962/63.



1 - Gunner aboard a Japanese whale-hunting vessel shoots poon into whale (upper right corner).

The seven Japanese whaling fleets partici- ing in the 19th Antarctic Whaling Expedi- n (1964/65) had almost reached their quota en the Antarctic season closed April 7, 5. The combined catch of the seven Japa- se fleets totaled 4,125 blue-whale units, y 35 units short of Japan's international le catch quota of 4,160 blue-whale units. isan Keizai Shimbun, April 9 & 13, 1965.)

2 - Cutting up whale aboard a Japanese whaling mothership ntarctic.

According to newspaper reports in Oslo, Norway, the Soviet Antarctic catch in 1964/65 of 1,586 blue-whale units was also very close to its quota of 1,600 units. But Norway's Antarctic catch in 1964/65 of 1,273 blue-whale units was far below its quota of 2,240 units. The Norwegian newspapers mentioned Norway's aging whaling fleet as a factor in the poor catch. The four Norwegian expeditions caught 5,535 sei whales and 702 fin whales in the 1964/65 Antarctic season, as compared with 2,097 fin whales and 2,617 sei whales in the previous season. (United States Embassy, Oslo, April 14, 1965.)

Note: For details on Norwegian whale oil production see page 69 of this issue.

Angola

FISH MEAL INDUSTRY MODERNIZATION PROGRAM AIDED BY GOVERNMENT LOAN:

According to Angola newspaper reports, a contract was signed February 18, 1965, for a loan of 15,000 contos (about US$500,000) by the Portuguese Development Bank to the Fishing Industries Institute of Angola. The loan will help finance a project to modernize Angola's fish meal industry. Total cost of the project is said to be 40,000 contos ($1.4 million), part of which will be provided by the Government Fund for the Support of the Fishing Industry.

At the signing of the loan contract, the Director of the Fishing Industries Institute of Angola said the modernization project includes plans to: (1) equip fish meal factories with modern equipment to extract fish oil; (2) equip them with fuel oil rather than wood burners; (3) install power blocks on purse-seine vessels; (4) equip isolated fish processors with small fish-meal units and, generally, to provide the financial means for full utilization of fish waste throughout the industry; (5) replace obsolete equipment in certain fish-meal factories; and (6) install a fish-processing plant in Porto Alexandre to replace the existing ones which do not meet minimum standards.

Emphasis appears to be on government support for modernization of present installations rather than for promotion of new processing plants. That is in line with the expressed thinking of the Fishing Institute Director that private industry must provide the

Angola (Contd.):

large sums needed to expand the processing industry. (United States Consulate, Luanda, March 3, 1965.)

Argentina

IMPORT CHARGES REDUCED ON CERTAIN FISHING VESSELS:

A change in Argentina's import charges on fishing vessels may offer an export opportunity to United States shipbuilders.

To stimulate the renewal of the Argentine fishing fleet, the Argentine Government issued a decree (No. 664/1965) which provides for surcharge exemption on imports of new foreign fishing vessels to be used as models for local vessel construction. The conditions necessary for waiver of the 40-percent import surcharge are: (1) that work on an Argentine "copy" of the imported foreign vessel begin within 180 days of the date the foreign vessel joins the Argentine fishing fleet, and (2) that the Argentine "copy" cost more than the foreign "model." If the copy is less expensive than the model, the 40-percent surcharge must be paid on the difference between the two costs.

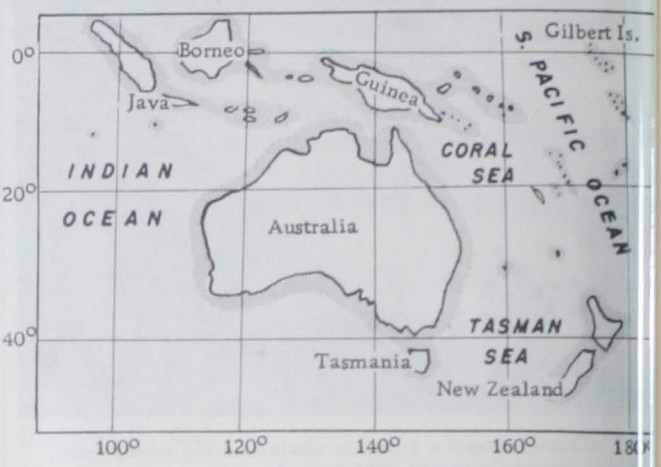
The Argentine fishing industry is interested in rehabilitating and modernizing its fleet. However, financing is a big problem not only for the fishing industry but also for the Argentine shipbuilders. Special credit programs of the official banking system are offering a certain amount of assistance. The surcharge exemption on fishing boats imported for models should help the Argentine industry and also provide an export opportunity for foreign shipyards. (United States Embassy, Buenos Aires, April 12, 1965.)

Australia

TUNA FISHERIES TRENDS, EARLY 1965:

By mid-January, the 1964/65 tuna fishing season off New South Wales on the east coast of Australia was virtually over and the main tuna fleet had sailed for Port Lincoln to prepare for the South Australian tuna season.

Tuna landings in New South Wales to January 20, 1965, were only 2,310 short tons, nearly 700 tons short of the record 1963/64 catch. Bad weather was a factor in the disappointing 1964/65 season.



In February 1965, a Government tuna exploratory project was due to start off Tasmania. Two chartered tuna vessels supported by spotting aircraft were to carry out the experimental fishing tests. (Australian Fisheries Newsletter, February 1965.)

Brazil

GOVERNMENT ASSISTANCE PROGRAMS PLANNED FOR FISHERIES:

Since a change in the administration of SUDENE (Brazil's Federal Government development agency for the Northeast region) in August 1964, that agency has been assigning a higher level of priority to the fishing sector it considers basic to the economic development of that region of Brazil.

A comprehensive research program to supply basic information to the Brazilian fishing industry was presented by the Division of Fishing Resources of SUDENE to the Deliberative Council at its meeting of April 7, 1965. The program includes studies of fishing technology and of the biology of various commercially-important species such as tuna, snapper, flyingfish, mackerel, lobster, shrimp, and mussel ("sururu"--a minature mussel native to the lagoons of Alagoas and basic to the economy of the state), as well as experiments with various methods of preser

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g fish such as salting and drying. The to- cost of the program for the year 1965 is dgeted at Cr$544 million (US$300,000). e program is intended to provide informa- n basic to the implementation of the Pro- am for the Integrated Development of Fish- g (Programa do Desenvolvimento Integrado Pesca), which was to be reviewed by the DENE Deliberative Council on May 3, 1965.

Fig. 1 - Fishing vessels at the dock in Santos, Brazil.

In its justification for the program, the ision of Fishing Resources states that e complete absence of developmental re- rch combined with a fragile and inade- e infrastructure, the lack of knowledge ational fishing methods, and the tradition- tilization of primitive techniques have stituted the major obstacles to the devel- ent of fishing in the Northeast. Other acles were said to be the physical pecu- ities of the Northeastern Continental lf, and the biological and ecological habits s fish population. Those factors was said

Fig. 2 - Boxes of shrimp on the docks at Santos.

to have made it difficult to introduce fishing methods commonly used in other areas, such as trawling.

Fig. 3 - In the Entreposto at Santos, fish are iced, landed on trucks, and delivered to Sao Paulo for distribution.

The report outlines the fishing development philosophy of SUDENE as "The urgent necessity of offering to the people of the Northeast a diet which will make up for protein deficiencies at a reasonable cost has led SUDENE, through its Division of Fishing Resources, to draw up a program which, it is hoped, will scientifically demonstrate the rich potential existing in Northeastern waters; determine the dynamics of the fish populations already subject to exploitation; and introduce more efficient methods and techniques to render already operating enterprises more efficient and productive. More efficient conservation and processing methods are also aimed at as well as the processing of byproducts. The program also includes juridical, administrative, and institutional studies which may influence the development of the fishing industry."

The SUDENE research program is broken-down as follows:

1. Studies of Fishing Technology:

   Survey of marine resources of the Northeast.

   Experimentation with fishing methods & techniques.

   Specialized equipment.

2. Studies of Fishing Biology:

   To include fishing of tuna and similar fish, snapper, flyingfish, mackerel,

Brazil (Contd.):

lobster, shrimp, mussels, and specialized equipment.

3. Studies of Fishing Technology:

Experiments in drying & salting of flying fish.

Fishing statistics (flyingfish).

Experiments in pressing of fish.

4. Training and specialization of technical personnel.

SUDENE Activities in Fishing Sector during 1964: A number of studies and projects were conducted by SUDENE during 1964, the most significant of which were:

1. Analysis of sample catches of tuna, albacore, snapper, flyingfish, and mackerel for age and weight, growth and reproduction cycles, dietary habits, etc.

2. Tagging of lobsters for migration studies.

3. Studies of shrimp from 13 different banks for size and weight.

4. Inception of study of the miniature mussel ("sururu") at Lagoa do Mundau, Alagoas.

5. Survey of fisheries lying off the Island of Fernando de Noronha.

6. Experiments on the pressing and salting of flyingfish, needlefish, and swordfish.

7. Survey of the freezing and cold-storag capacity existing in the Northeast region.

8. Preparation of two projects for establishment of fishermen's cooperatives in Rio Grande do Sul.

9. Sale of fishing equipment to fisherme through PENESA (an operational fish ing company controlled by SUDENE).

10. Operational fishing by PENESA with vessels--the Canopus (18-ton capac and the Colombo (42-ton capacity).

Source: U. S. Consulate, Recife, April 8, 1965.
Note: See Commercial Fisheries Review, April 1965 p. 61; March 1965 p. 68.

Canada

BRITISH COLUMBIA HERRING LANDINGS AND PRODUCTS, 1964/1965:

Total herring landings in British Columb during the 1964/65 season were down about percent from the previous season. Compare with the previous season, fish meal producti in 1964/65 was down 8 percent, but fish oil pr duction was up 11 percent. (Canadian Depar ment of Fisheries, Vancouver, March 31, 1

Note: See Commercial Fisheries Review, June 1964 p. 37.

British Columbia Herring Landings and Products, 1964/65 Season with Comparisons

Item	Unit	Season Ending: Mar. 27, 1965	March 28, 1964	Mar. 10, 1963	Mar. 10, 1962	Mar. 18, 1961 1/	Mar. 12, 19
Landings:							
District No. 2:							
Northern	Tons	46,632	35,016	42,792	33,254	47,088	23,
Central	"	22,107	56,123	62,626	39,032	43,505	10,
Queen Charlotte Islands	"	46,985	32,582	19,856	16,604	2,896	3,
District No. 3:							
Lower East Coast	"	37,849	66,216	55,665	51,821	31,309	55,
Middle East Coast	"	23,845	20,347	24,707	20,561	10,023	20,
Upper East Coast	"	18,672	15,513	10,697	13,294	2,978	10,
West Coast . . .	"	44,490	36,248	49,304	49,595	34,142	62,
Total landings	"	240,580	262,045	265,647	224,161	171,941	185,
Products Produced:							
Bait	"	893	1,128	886	575	1,619	
Meal	"	43,062	46,778	48,035	39,535	31,014	34,
Oil	Imp. Gals.	5,436,358	4,877,688	4,771,087	4,676,991	2,956,948	4,585,

1/Limited operations.

* * * * *

Canada (Contd.):

RESH-WATER FISHERIES EVELOPMENT DISCUSSED BY EDERAL-PROVINCIAL COMMITTEE:

The Canadian Federal-Provincial Prairie sheries Committee met the first week of ril 1965. Proposals for loan and market- assistance for inland fisheries as well as road group of other development proposals re reviewed by the Committee, which is de up of Deputy Ministers of Federal and vincial Departments concerned with in- fisheries.

A regional export sales organization for sh-water fishery products was one pro- al considered at the April meeting. A nical group was asked to study the pro- al and report back to the Committee at a eting to be held in Ottawa on May 7.

The Committee also considered proposals de by subcommittees on suggested desig- ons of grades of fish and standards of lity for the fishery products of the Prairie vinces, the Northwest Territories, and thwestern Ontario.

A report on the concept of Provincial loan rds and its possible application to the irie Provinces was also considered. eral officials gave the Committee an out- of the Fishing Vessel Assistance Plan the problems associated with its possible nsion to the Prairie Provinces.

Another report heard by the Committee on the Federal Government's Fisheries mnity Plan for vessels and equipment, it was agreed that the inland Provinces ld advise the Federal Government re- ing their interest in extension of the plan eir fisheries. It was indicated that the eral Government would give serious con- ration to such an extension.

her matters considered at the meeting plans for economic research in the h-water fisheries of Canada and develop- of an improved statistical system for fisheries. Federal-Provincial pro- s in Newfoundland were described for benefit of the Prairie members of the mittee. Biological and technological re- ch programs in fresh-water fisheries discussed by the Chairman of the Fish- s Research Board of Canada. (Canadian rtment of Fisheries, Ottawa, April 9, 1965.)

Ceylon

FISHING INDUSTRY AIMS AT FIVEFOLD INCREASE IN CATCH:

Ceylon, an island country of 12 million people, is aiming at a fivefold increase in its annual fish catch within the next 10 years.

A marine engineer with the Food and Agriculture Organization (FAO) who recently returned from a 12-year assignment in Ceylon said: "Ceylon has already come a long way in fishing. In 1948, the year she gained her independence, the national catch was 24,000 metric tons. Last year's catch, despite a devastating cyclone in December, was above 100,000 tons." Even so, 2 of every 3 pounds of fish sold in the country were imported and paying for the imported fish was a strain on the nation's exchange earnings, he said. "The Ceylonese need about 300,000 tons a year to reach self-sufficiency. And, of course, they would like to develop an export trade in fish and fish products. That's why they have set a yearly catch of 500,000 tons as their long-range goal."

Fig. 1 - An FAO technologist helps Ceylonese fishermen fit an outboard motor to a log raft known as a "teppam."

Heading the drive for more fish is the Government-managed Ceylon Fisheries Development Corporation, which was organized in late 1964. The first job facing the new corporation is rebuilding that part of the Ceylonese fishing fleet that was destroyed or damaged by last year's cyclone. To help rebuild its fleet, the Ceylonese Government has received a contribution of US$16,800 from the National Freedom from Hunger Campaign Committee of the United Kingdom, a gift of modern fishing equipment worth $4,500 from Denmark, and a pledge of $56,000 from the World Council of Churches.

Ceylon (Contd.):

On the long-range front the Ceylonese are also looking for outside help. The FAO marine engineer who has just returned from Ceylon said, "The Ceylonese know they can't do the whole job by themselves. They are trying very hard to make prospects attractive to private interests. They need foreign capital in almost every sector of the fishing industry; to pay for more boats and fishing equipment, for harbor development, communications, marketing facilities, and for construction of new storage and preservation plants."

Fig. 2 - Ceylonese fishermen land a swordfish taken by long-line fishing.

The Ceylonese like fish as much as the Japanese. The average Ceylonese eats about 45 pounds of fish a year. The principal fish taken in the national catch are various forms of sardines, skipjack, frigate mackerel, snapper, and bottomfish. Most of Ceylon's fishery imports, largely dried and salted fish, come from neighboring India and Pakistan and the Maldive Islands.

By increasing her own fisheries catch, Ceylon has managed to reduce the per capita cost of imports by better than half in the last 10 years, according to the FAO marine engineer. "When I got to the country, the Ceylonese, with a smaller population, were paying out about $20 million a year for fish imports. Last year, with more people, this was down to $12 million," he said.

Fifteen years ago not one of Ceylon's approximately 20,000 fishing craft had a motor. Since then, a mechanization program started with FAO assistance has equipped some 1,500 native Ceylonese craft with outboard motors. About 800 inboard-powered boats of 25 feet or more have also been built under the mec anization program. Fishing fleet improvement, along with the introduction of modern gear and the training of local fishermen, ha accounted for Ceylon's increased catch.

Note: See Commercial Fisheries Review, Nov. 1964 p. 80; O 1962 p. 48; Dec. 1962 p. 65.

Chile

FISH MEAL INDUSTRY CONTINUES TO SUFFER FROM ANCHOVETA SHORTAGE IN EARLY 1965:

Preliminary data for 1965 show the Chil ean anchoveta catch as only 84,000 metric tons in January and 67,000 tons in Februar Those landings are much less than the cor responding monthly catches in 1964 of 160,0 tons and 148,000 tons, respectively.

Late in February 1965, a spotter plane provided by the Fisheries Development Ins tute of Chile located schools of anchoveta i waters near Mejillones, and some 30,000 t of anchoveta were taken between February 24 and March 2, largely by vessels based a the port of Iquique. However, the catch dr ped off again in early March 1965.

The Fisheries Development Institute is requesting funds from the Production Deve opment Corporation of Chile (CORFO) to pe mit it to continue fish spotting for the indu try as a whole. The Institute plans to equi the spotter plane with an infrared thermom eter capable of measuring water temperatur within half a degree centigrade. According current theory, anchoveta are only fou where water temperature is between 14° a 18° C. (57.2°-64.4° F.). Use of the therm eter should thus permit the plane to find t areas in which fishing conditions are mos favorable. Commercial spotter planes ha been used by individual companies, but re portedly without great success, since oth vessels were quick to pick up radio signa and take advantage of the service without ing for it.

Iquique, the center of the Chilean fish m industry, has been hit hardest by the anch veta shortage. Anchoveta landings at Iqui have been far below the 25,000 tons per we needed for financially successful operatio It is estimated that 100 vessels (12-13 me per vessel) have been staying in port duri

ile (Contd.):

t past several months due to the absence of anchoveta.

While the Iquique industry was thus depressed, anchoveta catches were somewhat re abundant in January off Arica, just south the Peruvian border. In January 1965 Arica nts produced some 5,200 tons of meal valued at about $450,000, augmented by 73,000 lbs (160,936 pounds) of fish oil worth $14,000. This was close to Arica's production in the same month of 1964. During February 1965, however, landings in Arica fell to 9,200 tons (1,800 tons of meal), the lowest level for that month in the last 3 years.

The Iquique shipyard operated by a United States-Chilean firm announced in mid-February 1965 that 50 workers were to be laid off. It was explained that due to the long absence of anchoveta new vessel orders had not been received and some orders had even been canceled. Despite the cutback, the shipyard will remain in Iquique for the time being and maintain a repair shop. Later in the year the company plans to begin construction of 82-foot refrigerated tuna vessels. (United States Embassy, Santiago, April 10, 1965.)

Costa Rica

IMPORTS OF CANNED SARDINES RESTRICTED BY HEALTH AUTHORITY:

Importers of canned sardines in Costa Rica were sent a letter dated February 12, 1965, from the chief of Costa Rica's Food Control Office, Ministry of Public Health, setting forth the reasons for rejecting numerous shipments of canned sardines which had been shipped to the country from the United States, South Africa Republic, and other countries.

The letter referred to "pitting" of the tin coating, weak coatings of lacquer and mottling of the lacquer in the tins. The chief of the Food Control Office admitted that while the product itself was found to be in good condition, the defect in the lacquer coating would increase substantially the shelf life of the product in that tropical country.

Because of the approaching Holy Week in the Lenten Season, a period when consumption of canned sardines is heaviest in that country, the clearance of shipments then in Costa Rican customhouses was authorized for that one time, but with the warning that two months after the date of the February 12 letter, clearance no longer would be authorized if shipments continued to reveal the same defects in mottling and flaking; and also if the food product was not duly registered in the country in accordance with Article 252 of the Sanitary Code of Costa Rica. Otherwise, shipments will be reexported, or confiscated and destroyed, the chief of the Food Control Office said.

Costa Rican Imports of Canned Sardines by Country of Origin, 1960-1964

Country of Origin	1964	1963	1962	1961	1960	Average 1960-64
	(US$1,000).					
United States	105	183	163	234	235	184
S. Africa Rep.	215	126	69	22	14	89
Spain	38	37	27	32	34	34
Morocco	51	44	25	17	22	32
Canáda	13	14	1/	10	17	11
Netherlands	14	10	6	2	2	7
Other	17	49	22	16	21	24
Total	453	463	312	333	345	381

1/Less than $500.
Source: Direccion General de Estadisticas y Censos, Costa Rica.

The Costa Rican authorities' refusal to permit the entry of sardines in cans which show discoloration of the lacquer is expected to adversely affect exports of sardines to that country from the United States which heretofore has been the principal supplier. Costa Rica's total imports of canned sardines during the past five years have averaged US$381,000 per year in value. Of that total, the United States accounted for 48.3 percent, and South Africa Republic (a country from which some U. S. packers export their product) 23.4 percent.

A Food Consultant on contract with the U. S. Agency for International Development (USAID/Costa Rica), who is considered well qualified to comment on the matter, suggests that the trouble actually is a harmless black spot inside the can as a result of a chemical reaction between the sulphides of the fish with a chemical in the lacquer. If there were also some peeling he feels that the can would not deteriorate to the extent that it would be dangerous to the consumer.

Earlier, Costa Rica's chief of the Food Control Office ordered the return of a shipment of sardines to the Netherlands because of discoloration in the lacquer. In order to

Costa Rica (Contd.):

avoid the future return of any of its shipments, the Dutch company changed to another type of lacquer (gray in color) which does not show discoloration. The fact that the change was made by the Dutch company has led Costa Rican authorities to believe that the earlier decisions to reject shipments which showed discoloration were justified. Indications are that only the product of that Dutch company will be permitted entry into Costa Rica after April 12, 1965, or until such time as other brands change their lacquer to one which shows no discoloration or peeling. (United States Embassy, San Jose, March 16, 1965.)

Denmark

EXPORTS OF INDUSTRIAL PRODUCTS, 1963-1964:

Danish exports of fish oil (largely herring) totaled 30,357 metric tons in 1964, compared with 20,754 tons in 1963.

Exports of herring meal, however, declined to 56,340 tons in 1964 from 60,389 tons in 1963. Shipments of other fish meal in 1964 increased to 4,948 tons from 1,846 tons in 1963, and those of fish solubles to 17,298 tons from 10,000 tons. (Foreign Agriculture, U.S. Department of Agriculture, April 12, 1965.)

* * * * *

SEAL SKINS FROM ALASKA AND CANADA INCLUDED IN FEBRUARY 1965 AUCTION OF GREENLAND SEAL SKINS:

The Royal Greenland Trade Department held another of its regular auctions for Greenland seal skins of February 25, 1965, in Copenhagen, Denmark. Included were 680 Alaska hair seal skins designated as Alaska rangers (from younger and smaller seals) which sold at prices ranging from US$30.40 to $32.60 a skin. (That was the second appearance of Alaska skins at a Danish auction, the first lot of Alaska skins having been sold at the Danish auction of September 9, 1964, for $31.10-38.40 for prime young washed rangers and $22.45-39.80 for prime old washed rangers.)

Also included in the Danish auction in February were 1,275 Canadian seal skins. The price ranges for the main lots of the Cana skins were $37.60-48.60 a skin for 695 wa ed rangers and $14.50-32.60 for 261 wash saddlers (skins from older and larger seal

Greenland skins sold at the auction cluded 32,872 ringed (netsider) skins whi were sold at prices ranging up to $40.30, averaging somewhat less than in the previ auction when 21,316 ringed seal skins bro an average price of $20.40 a skin. Prices the two auctions are not entirely comparal since the February auction included a lar proportion of small and slightly damaged skins. Also sold at the February auction 1,743 other Greenland skins (from harp, bl dernosed, and saddle seals) at prices ran from $3.80 to $55.00.

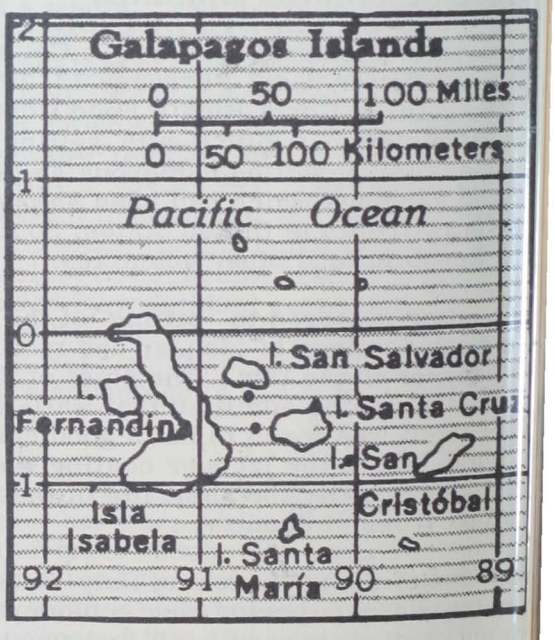
The next sale of Greenland seal skins the Royal Greenland Trade Department is scheduled for September 17, 1965. (Regi Fisheries Attache for Europe, United Sta Embassy, Copenhagen, March 24, 1965.)

Note: See Commercial Fisheries Review, March 1965 p. 73

Ecuador

FISHERY TRENDS IN GALAPAGOS ISLANDS, 1963:

The 1963 fishery catch of Ecuador's Ga pagos Islands was estimated to be 550 me tons. Spiny lobster, sea bass, and m



Ecuador (Contd.):

were the most important species, although small quantities of shark and tuna were also landed. Virtually all of the catch is processed, with frozen lobster tails, salted and dried sea bass, and mullet the principal processed products.

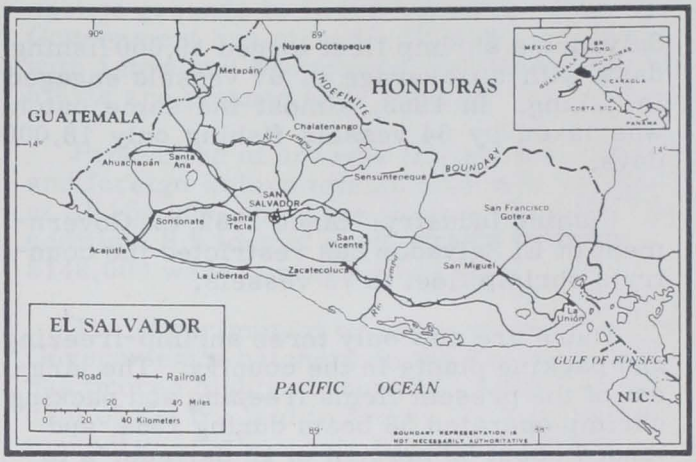
The Galapagos Islands' fishing fleet consists of 64 vessels, all but 6 of which are motorized. Included in the total are 3 vessels serving as a base of operations for lobster fishing, and 1 refrigerated transport vessel of 268 gross tons, which carries fish between the Galapagos and Guayaquil.

El Salvador

SHRIMP INDUSTRY TRENDS, 1964:

Summary: During 1964, El Salvador's shrimp fleet landed a total of 7.6 million pounds of shrimp--down only slightly from the previous year, but about 10 percent below the 1963 record high. The 1964 shrimp exports of 7.2 million pounds were exceeded only in the record year of 1961. Due to lower prices, however, the total value of shrimp exports in 1964 declined to US$4.2 million, a drop of about 9 percent from 1963. Almost all of El Salvador's shrimp exports went to the United States. It is estimated that 339,000 pounds of shrimp were consumed domestically in El Salvador in 1964.

Landings: White shrimp of large size (20 shrimp and less per pound) made up about



half of the 1964 shrimp landings. The quantity of white shrimp landed in El Salvador during the last 4 years has been fairly constant.

The other major item in the catch was sea bob.

The catch of pink and brown shrimp has been declining steadily. The brown shrimp catch in 1964 was only one-fourth that of 1961; pink shrimp landings in 1964 were down about 50 percent from 1961.

The total catch of other shellfish (mainly spiny lobster) and miscellaneous fish landed by the shrimp fleet has been growing about 10 percent annually, and reached 3.1 million pounds in 1964. The shrimp vessels probably still discard part of their fish catch at sea for lack of a ready market.

An increasing fishing effort is being required per unit of catch. During 1964, El

El Salvador Shrimp Industry: Landings, Exports, and Fishing Effort, 1958-1964

Item	Unit	1964	1963	1962	1961	1960	1959	1958
Shrimp Landings:1/								
[illegible]	1,000 lbs.	3,851	3,632	3,485	3,856	4,458	1,846	1,179
[illegible]	" "	831	1,054	1,212	1,652	2,243	11	0
[illegible]	" "	228	205	254	960	433	1	0
Total shrimp, other than sea bob	" "	4,910	4,891	4,951	6,468	7,134	1,858	1,179
Sea bob	" "	2,715	2,820	3,310	2,037	663	64	116
Total shrimp landings	" "	7,625	7,711	8,261	8,505	7,797	1,922	1,295
Fisheries Landings	" "	3,090	2,594	2,013	1,729	1,351	854	1,132
Shrimp Exports:1/								
[illegible]2/	" "	7,247	6,842	7,156	8,113	6,700	1,838	1,131
[illegible]2/	US$1,000	4,227	4,668	5,150	5,505	4,216	1,298	660
Fishing Effort:								
Average number of vessels equipped for fishing	Number	67	64	65	63	53	16	14
Total vessel fishing days of fleet	Days	19,000	18,000	16,000	15,000	12,000	3,000	2,000

1/ Heads off shrimp.
2/ Preliminary.
Source: Fisheries Section, El Salvador, Ministry of Economy.

San Salvador (Contd.):

Salvador's shrimp fleet logged 19,000 fishing days with an average of 67 vessels engaged in fishing. In 1963, almost the same catch was taken by 64 vessels fishing only 18,000 days.

Fishing Industry: Since 1962, the Government of El Salvador has restricted the country's shrimp fleet to 73 vessels.

There are now only three shrimp-freezing and packing plants in the country. The largest of the present firms freezing and packing shrimp operated 58 boats during 1964, and landed about 80 percent of El Salvador's total shrimp catch. That firm's freezing and packing facilities are located at Puerto El Triunfo. The firm is adding new machinery and expects to begin producing the higher-priced peeled and deveined shrimp for export in 1965. Another shrimp company located at Puerto El Triunfo operated 16 vessels in 1964. The third company operated only four vessels in 1964. Its plant is located at La Union on the Gulf of Fonseca.

Exports, Consumption and Stocks: A total of 7,247,000 lbs. of shrimp valued at $4,227,000 was exported in 1964. Those exports yielded the Government of El Salvador 1,085,000 colones ($434,000) from the export tax of 6 U. S. cents a pound. Domestic shrimp sales (mainly sea bob) totaled about 339,000 pounds. The difference of 39,000 pounds between production and the total of exports and domestic consumption presumably remained as year-end stocks. The greater portion of El Salvador's shrimp exports go to the United States, by trailer truck to the Caribbean coast of Guatemala, then by freighter to Miami, Fla.

Outlook: The present white shrimp fishery in Salvadoran water seems capable of supporting a catch of around 4 million pounds annually on a sustained yield basis. In view of the foreign exchange to be earned from shrimp exports, it would appear desirable to increase the catch of brown and pink shrimp. "Royal-red" shrimp are also probably available in Salvadoran waters, but they are not now harvested in any appreciable quantity. It is hoped that the United Nation's Special Fund $1.5 million 6-year technical assistance program to the Central American fishing industry will provide additional information on brown, pink, and royal-red shrimp stocks in Salvadoran waters. (United States Embass San Salvador, April 22, 1965.)

Note: See Commercial Fisheries Review, Dec. 1964 p. 91 a Feb. 1962 p. 64.

German Federal Republic

FISH MEAL AND OIL INDUSTRY TRENDS FOR 1964 AND OUTLOOK FOR 1965:

Fish Meal: West German imports and consumption of fish meal reached new hig in 1964. (Editor's Note: West German fis meal imports in 1964 totaled 391,900 metr tons as compared with only 295,300 tons 1963, according to Oil World Weekly. The ternational Association of Fish Meal Manu turers has reported West German domes production of fish meal in 1964 as 73,900 or only 16 percent of the total supply.)

The increase in West German fish mea imports was due mainly to larger shipmen from Peru (the leading supplier), Chile, A gola, and South Africa Republic.

The increase in West German consump of fish meal was due mainly to increased p and egg production and improved feeding p tices. Those factors will also be effective during 1965, but the increases will probably smaller than last year.

Fish meal price increases in the first p of 1965 are due partly to Soviet purchases the world market, according to trade sour in the West German industry. They belie Soviet purchases will continue, but West G man fish meal consumption will probably fairly steady even if prices increase som what over current levels.

Fish Oil: West German fish oil impo taled 65,743 tons in 1964 and 65,105 tons 1963. The leading suppliers were Peru (32,349 tons in 1964 and 31,627 tons in 1963) and the United States (with 17,263 tons in and 11,371 tons in 1963). West German e ports of fish oil in 1964 totaled 12,681 to down 30 percent from the 17,992 tons shi in 1963.

Whale Oil: West German imports of w oil totaled 51,233 metric tons in 1964 com pared with 66,188 tons in 1963. Japan wa the leading supplier with 34,029 tons in 1

rman Federal Republic (Contd.):

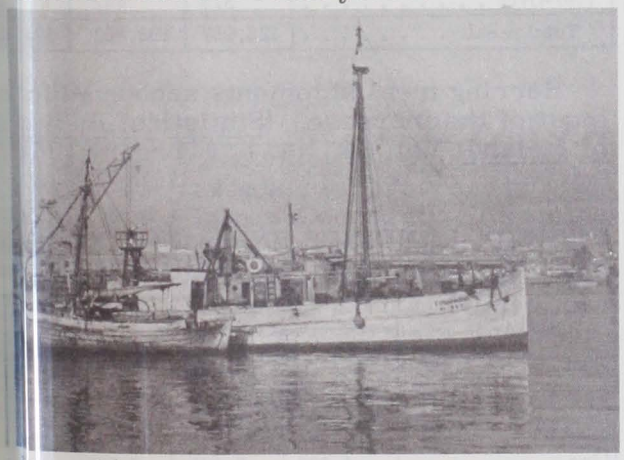
42,249 tons in 1963, followed by Norway h 5,133 tons in 1964 and 11,515 tons in 3. West German exports of whale oil to- ed only 168 tons in 1964 and 441 tons in 3. (United States Embassy, Bonn, April 1, 5.)

eece

HERIES TRENDS, 1964:

reece's total catch of fish in 1964 was mated at 105,000 metric tons (up 2 per- t from 1964) valued at US$34.7 million 5 percent). Greek coastal waters yielded t 67,000 tons in 1964 (down 3 percent); Mediterranean yielded 7,500 tons (down ercent) and Greek lakes and breeding sta- s yielded 9,500 tons (up 58 percent).

The 1964 Greek catch in the Atlantic in- sed by 13 percent over 1963, reaching a l of 21,039 tons valued at about $7 million. number of Greek freezer trawlers in the ntic fleet increased to 29 vessels in 1964 a combined tonnage of 17,990 tons. The rage yield per freezer trawler was 935 s in 1964, continuing the small but steady ward trend of recent years.



vessels at Pireaus, Greece, fishing port for the City of ns.

ecent legislation by the Greek Parlia- classifies high-seas fishing catches as strial products" and so authorizes the sition of an antidumping tariff against rts from other countries when dumping oven.

To reopen important African fishing and sponge grounds to Greek vessels, the Greek Government has signed a fishing agreement with Libya and Mauritania, and Greek negotiations are planned with Tunisia.

Production of sponges in 1964 from Greek and foreign waters totaled 80.9 tons valued at $1,154,000, about the same as in 1963. In addition, 8.9 tons of coral valued at about $148,000 were harvested in 1964.

The experimental breeding of trout at the Government's hatchery on the Louros river has proven highly successful. Some 25 percent of the fry laid in March 1963 grew into marketable fish in only 8 months. About 5 tons of hatchery trout were sold in 1964. The average yield per square meter of basin has been 10 kilograms (22 pounds) of trout annually. One small Greek private firm is now engaged in trout breeding, and Government officials believe that more firms could profitably enter this field. (United States Embassy, Athens, February 5, 1965.)

Note: See Commercial Fisheries Review, Jan. 1965 p. 80; June 1964 p. 40; May 1964 p. 51.

Iceland

HERRING EX-VESSEL PRICES SET FOR MARCH 1-JUNE 15, 1965:

Minimum ex-vessel prices for south and west coast herring during March 1-June 15, 1965, were set by the Icelandic Fishing Industries Price Committee as follows:

Herring for freezing, salting and filleting--Kr. 1.56 a kilo (1.64 U. S. cents a pound).

Herring for reduction, unsorted--Kr. 1.40 a kilo (1.47 U. S. cents a pound).

Herring for animal feed--Kr. 1.00 a kilo (1.05 U. S. cents a pound).

The price of reduction herring is more than double the reduction price of Kr. 0.67 a kilo (0.71 U. S. cents a pound) in effect March 1-June 15, 1964. (United States Embassy, Reykjavik, March 30, 1965.)

Note: Icelandic Kr. 43.06 equal US$1.00.

* * * * *

Iceland (Contd.):

EXPORTS OF FISHERY PRODUCTS, 1963-64:

During 1964, there was a considerable increase in exports of frozen fish fillets, cod-liver oil, fish meal, and herring meal as compared with 1963, according to the Statistical Bureau of Iceland's Statistical Bulletin, February 1965. Exports of herring on ice, frozen herring, salted herring, and herring oil showed a decrease in 1964.

Icelandic Fishery Exports, 1963-64

Product	1964			1963		
	Qty.	Value f.o.b.		Qty.	Value f.o.b.	
	Metric Tons	1,000 Kr.	US$ 1,000	Metric Tons	1,000 Kr.	US$ 1,000
Salted fish, dried	1,139	28,154	653	2,420	55,958	1,252
Salted fish, uncured	23,955	371,321	8,615	18,990	230,521	5,352
Salted fish fillets	1,429	21,859	507	1,114	14,346	333
Wings, salted	1,173	14,765	343	1,529	18,783	436
Stockfish	11,580	337,403	7,828	9,616	278,656	6,465
Herring on ice	382	1,104	26	7,311	23,610	548
Other fish on ice	34,512	215,039	4,989	36,161	202,066	4,688
Herring frozen	21,881	129,918	3,014	37,384	208,497	4,837
Other frozen fish, whole	4,814	53,050	1,231	3,852	41,102	954
Frozen fish fillets	54,085	1,096,264	28,433	47,903	895,954	20,786
Shrimp and lobster, frozen	1,171	108,526	2,550	1,138	96,823	2,246
Roes, frozen	1,703	27,900	647	860	14,868	345
Canned fish	381	20,067	466	340	16,310	378
Cod-liver oil	8,815	91,717	2,128	8,650	66,084	1,533
Lumpfish roes, salted	419	10,603	246	324	5,332	123
Other roes for food, salted	2,971	43,859	1,019	3,180	44,961	1,044
Roes for bait, salted	3,043	25,280	586	1,745	12,571	292
Herring, salted	46,223	517,085	11,996	57,282	552,053	12,808
Herring oil	52,403	417,619	9,689	55,148	301,357	6,991
Ocean perch oil	28	188	4	754	5,130	119
Whale oil	4,499	37,582	872	3,444	24,482	568
Fish meal	26,738	198,268	5,860	22,809	119,689	2,777
Herring meal	96,379	594,803	13,799	76,583	438,662	10,200
Ocean perch meal	2,265	13,239	307	4,028	18,667	433
Wastes of fish, frozen	7,166	22,967	533	4,779	13,181	306
Liver meal	575	3,827	89	442	3,036	70
Lobster and shrimp meal	156	686	16	267	693	16
Whale meal	1,387	7,698	179	100	558	13
Whale meat, frozen	2,277	18,167	421	2,447	17,138	398

Note: Values converted at rate of 1 krona equals 2.30 U. S. cents.

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EXPORT STOCKS OF PRINCIPAL FISHERY PRODUCTS, FEBRUARY 28, 1965:

Iceland's stocks of frozen groundfish (fillets) for export to the United States totaled 2,157 metric tons as of February 28, 1965 (see table). (United States Embassy, Reykjavik, March 26, 1965.)

Icelandic Export Stocks1/ of Principal Fishery Products, February 28, 1965

Item	Quantity	Value	
	Metric Tons	Million Kr.	US$ 1,000
Groundfish, frozen:			
For export to:			
U. S.	2,157	47.5	1,103.1
Other countries	1,386	24.0	557.4
Stockfish	4,030	112.8	2,619.6
Herring:			
Salted	2/	16.3	378.5
Frozen	3/5,572	33.0	766.4
Industrial products:			
Fish meal:			
Herring	5,381	35.5	824.4
Other fish	4,526	18.7	434.2
Herring oil	26,347	218.7	5,079.0

1/Includes only stocks intended for export.
2/Not available.
3/Includes 313 tons of frozen herring fillets valued at Kr. 3.0 million (US$69,670).
Note: Icelandic kronur 43.06 equals 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, 2,7[illegible] metric tons of haddock fillets, and 548 metric tons of ocean perch fillets.

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EXPORTS OF FISH OIL AND MEAL, 1962-1964:

Iceland's exports of fish and fish-liver oil in 1964 totaled 62,246 metric tons, 4 percent below the previous year's tonnage. Exports of fish meal increased 21 percent to 125,[illegible] tons in 1964, the largest volume on record.

Iceland's Exports of Fish Oil and Meal, 1962-1964

Item	1964	1963	1962
	(Metric Tons)		
Oil:			
Herring	52,403	55,184	60,47[illegible]
Ocean perch	28	754	[illegible]
Cod-liver	9,815	8,650	5,3[illegible]
Total fish and fish-liver oil	62,246	64,588	65,8[illegible]
Meal:			
Herring	96,379	76,583	48,4[illegible]
Ocean perch	2,265	4,028	4[illegible]
Other fish	26,738	22,809	20,2[illegible]
Fish-liver	575	442	3[illegible]
Total meal	125,957	103,862	69,4[illegible]

Herring meal shipments accounted for most of the increase. (Statistical Bulletin of Iceland, Vol. 34, No. 1, February 1965.)

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FISHERY LANDINGS BY PRINCIPAL SPECIES, JANUARY-OCTOBER 1964:

Species	Jan.-Oct.		Jan.-Se[illegible]	
	1964	1963	1964	[illegible]
	(Metric Tons)			
Cod	270,469	218,655	265,638	21[illegible]
Haddock	48,992	42,470	42,703	[illegible]
Saithe	20,216	13,117	18,894	[illegible]
Ling	4,302	5,035	3,879	[illegible]
Wolffish (catfish)	8,159	16,952	8,110	[illegible]
Cusk	2,962	5,179	2,846	[illegible]
Ocean perch	25,174	29,911	23,063	[illegible]
Halibut	1,019	1,025	926	[illegible]
Herring	501,350	370,832	441,488	36[illegible]
Shrimp	348	512	202	[illegible]
Capelin	8,640	1,077	8,640	[illegible]
Lobster	2,626	4,874	2,612	[illegible]
Other	9,827	6,909	8,497	[illegible]
Total	904,084	716,548	827,498	692[illegible]

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

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and (Contd.):

LIZATION OF FISHERY LANDINGS, UARY-OCTOBER 1964:

w Utilized	Jan.-Oct.		Jan.-Sept.	
	1964	1963	1964	1963
	(Metric Tons)			
n1/ for:				
ning	218	296	93	296
and meal	427,497	267,338	376,811	264,388
ing	20,437	26,342	14,604	22,285
g	53,198	71,240	49,980	70,012
on ice	-	5,617	-	5,617
fish2/ for:				
on ice	31,671	29,663	27,514	24,796
ng and fillets	173,935	155,955	165,728	147,604
g	87,768	69,662	85,727	69,109
fish (dried lted)	82,067	68,530	81,435	67,685
ing	24	35	24	35
nd meal	3,455	3,186	3,094	2,977
for:				
ing	133	188	133	188
nd meal	8,507	889	8,507	889
for:				
ing	190	399	166	267
ing	159	113	36	82
for:				
on ice	-	2	-	2
zing	2,626	4,872	2,612	4,804
consumption	12,199	12,221	11,034	11,167
tal production	904,084	716,548	827,498	692,203

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NT FISHING VENTURES AND RIMP TRADE WITH JAPAN PROPOSED:

ndian trade representatives on April 10, 5, were reported to have approached the Jap- se Overseas Fishery Cooperative Associa- (a Government-sponsored organization) offers to establish various types of joint ing ventures in India with major Japanese ing firms. The proposals were taken for y by the Association. One large Japanese ing company has been operating a joint l fishery with Indian interests for over ears.

The Indian representatives are also said e seeking to export to Japan shrimp which rtedly are being taken in increasing quan- off Cochin. (Shin Suisan Shimbun Sokuho, il 13, 1965.)

Japan

PROGRESS ON NEGOTIATIONS ON CANNED TUNA IN BRINE EXPORTS TO U. S.:

Japanese canned tuna in brine exports to the United States have been suspended since December 1964 as a result of the failure of the Japanese tuna packers and exporters to conclude an "Exporters Agreement." However, developments in late March indicated that the dispute might be settled shortly.

On March 15, 1965, the Exporters Association submitted to the Ministry of International Trade and Industry (MITI) an agreement calling for a 20-percent adjustment quota (for packers' use). This agreement differed with the memorandum exchanged between the packers and exporters which called for a 30-percent adjustment quota, and the packers were quick to point this out. The problem was later resolved by the Exporters Association's submission to MITI of a memorandum stating that the packers would have sole allocation rights over the 30-percent adjustment quota, thereby removing the packers' objection to the new agreement.

On March 29, MITI promulgated the ministerial trade control ordinance applicable to all Japanese canned tuna in brine exports from April 1, and on March 30 announced the "Standard for Approval of Canned Tuna Exports to the United States" by which the Government will approve a total of 2.3 million cases of canned tuna in brine for export during the period April 1-November 30, 1965. However, as of the end of March, a slight uncertainty continued to persist among some packers inasmuch as MITI and the Ministry of Agriculture and Forestry, the two government agencies concerned with canned tuna exports, had not exchanged any note concerning the method of determining the allocation of the adjustment quota.

Reportedly, the prolonged suspension of canned tuna exports to the United States has reduced Japanese canned tuna in brine holdings in the United States to an extremely low level. According to a report filed by the Japan Export Trade Promotion Organization representative stationed in New York in March, holdings in the United States of Japanese 7-ounce whitemeat solid pack had hit bottom and the supply of 4-pound lightmeat solid pack had been completely exhausted. (Suisancho Nippo, April 1; Suisan Tsushin, March 31; Suisan Keizai Shimbun April 1; Nihon Suisan Shimbun, March 29, 1965.)

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Japan (Contd.):

ALBACORE TUNA FISHING CONDITIONS OFF JAPAN AND FROZEN TUNA EXPORT PRICE TRENDS:

Albacore tuna fishing off the Japanese islands commenced two weeks later than usual this year due to cold water conditions. But fishing picked up considerably in early April. A total of 160 metric tons were landed at Yaizu on April 6, 1965. About 50 pole-and-line vessels were fishing albacore. Japanese tuna packers were offering 120-135 yen per kilogram (US$302-340 a short ton) for the pole-caught fish.

A Japanese tuna long-liner.

In mid-April, frozen tuna from Japan proper for export to the United States was quoted (price a short ton, c. & f.): round albacore--around $365; yellowfin (gilled and gutted) $355-360.

A Japanese trading firm contracted for the delivery of 800 short tons of Indian Ocean albacore for export to the United States at c.i.f. $365 a short ton. (Suisan Keizai Shimbun, April 10; Suisancho Nippo, April 9, 1965, and other sources.)

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ATLANTIC TUNA FISHERY AND PRICE TRENDS, MARCH 1965:

A total of around 150 Japanese tuna vessels was reported operating in the Atlantic Ocean in late March 1965. Of that number, about 120 were concentrated in the yellowfin and big-eyed tuna fishing grounds north of the Equator nearby the Cape Verde Islands and about 30 fishing for albacore tuna south of the Equator. However, albacore catches were reported falling off.

Exports of frozen dressed yellowfin to Italy as of late March were US$420-425 a metric ton, c.i.f., down $15 per ton from ea ly March prices. The market was turni soft due to high canned tuna inventories b ing carried by Italian packers. Frozen dressed big-eyed shipments in Italy wer US$280 a metric ton, c.i.f.

Japanese exporters, in late March, were shipping most of their albacore to Spain fo lowing issuance of an export permit of 3,00 metric tons to that country. Initially, alba core shipped to Spain brought US$400 a me ric ton, c.i.f., but later declined to $380 ton. However, those prices were $15-25 ton higher than the prices for albacore shi ped to the United States. Reportedly, Jap nese-caught Atlantic albacore for export t the United States were offered at $275 a sh ton, f.o.b. West African port, but U. S. pac ers were showing little buying interest a that price. (Suisan Tsushin, April 2 & 1965, and other sources.)

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LARGER VESSELS TO OPERATE FROM OVERSEAS TUNA BASES:

Under a new regulation by the Japanese Fisheries Agency, effective April 1, 1965, t size limit on tuna fishing vessels operating out of South Pacific tuna bases was raised from 180 gross tons to 240 gross tons, or t same as the tonnage limit for catcher vess engaged in the tuna mothership operations. At the same time, the Agency simplified ad ministrative procedures for vessels wishi to fish out of established overseas bases a for vessels seeking to unload catches at ov seas bases under certain conditions. (Suis Tsushin, March 27, 1965.)

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TUNA PURSE-SEINE FLEET OFF WEST AFRICA REPORTS POOR FISHING:

A Japanese fishing company's 2-boat tu purse-seine fleet (led by the 1,600-ton re erated mothership Chichibu Maru No. 2), which has been operating off West Africa s early November 1964, reports poor fishing As of early April, the fleet caught less tha 1,000 metric tons of tuna, predominantly s jack and scarcely any yellowfin. The skip were smaller than those found off the coas Japan, averaging under two kilograms (4.4 pounds) per fish.

During the early stages of the West Afr can operation, the skipjack were observed be escaping the net by diving under it. Thi

pan (Contd.):

s corrected by modifying the net, making sink faster, and by speeding up the pursing eration. However, the skipjack schools cently encountered by the fleet are report- to be skittish, making it difficult to com- etely surround them before they escape. many as 7 or 8 schools are sighted per y, but the schools are reported to be small en compared to those found off the Japa- se coast. (Shin Suisan Shimbun Sokuho, ril 6, 1965.)

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NA LONG-LINE FISHERY MANAGEMENT:

The Japanese Fisheries Agency has re- sed a report, "Research and Analysis of tant-Water Tuna Long-Line Fishery Man- ment," prepared by Assistant Professor ra Nakai of the Kochi Junior College. The ort, which is based on a study of the tuna g-line vessel operators in Muroto City, hi Prefecture, points out the need to re- raise Japan-based independent tuna fish- operations. It ascribes the deteriorating nomic position of the tuna fishery to the lowing factors: (1) reduced net income re- ting from high operating costs; (2) depreci- on of new vessels; (3) declining value of duction of old, inefficient vessels; (4) ris- rates of interest on loans extended to own- of large vessels and bad debts resulting m advance payment of wages to crew mem- s by small vessel owners; and (5) exces- e capital investments with borrowed mon- resulting in overburdening the one-family -vessel type of fishery operators. (Suisan zai Shimbun, April 9, 1965.)

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NA EXPORTERS UNHAPPY OVER GOSLAVIAN GRADING SYSTEM:

The grading system (based on yield) adopt- y Yugoslavia since January 1965 for im- ed frozen tuna has resulted in claims be- pressed against the Japanese trading firms ling exports to that country. The firms not happy over this development and the n Frozen Foods Exporters Association is ing into the problem. Some exporters suggested that tuna exports to Yugoslavia ld be temporarily ended for a month or if Yugoslavia does not abolish the grading em. (Suisancho Nippo, April 7, 1965.)

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GOVERNMENT CONSIDERING FORMING SPECIAL TUNA STUDY GROUP:

The Japanese Fisheries Agency is considering establishing a special study group composed of industry and government officials to study the problems confronting the Japanese tuna fishery. Formation of the study group had been requested by the National Federation of Tuna Fishermen's Cooperative Associations, which has for some months been studying ways and means of overcoming the depressed conditions facing tuna vessel operators. (Suisan Keizai Shimbun, April 10, 1965.)

* * * * *

MODERN TUNA PURSE SEINER BEING CONSTRUCTED:

A modern 212-ton Japanese purse seiner, Taikei Maru (equipped with two power blocks), was constructed in a shipyard in northern Japan. It is reported that the purse seiner is the first Japanese fishing vessel to be equipped with two power blocks and is, in addition, equipped with a brine-freezing system and the latest communication equipment, including facsimile and ultrahigh-frequency radio. The vessel was scheduled for completion in early May 1965.

The first Japanese purse seiner to employ a power block for net hauling was the Kenyo Maru (240 gross tons) in the summer of 1962. Reportedly, the adoption of the hydraulic power block reduced manpower requirements on that vessel from 30 to 17. (Shin Suisan Shimbun Sokuho, April 7, 1965.)

* * * * *

NORTH PACIFIC SALMON CATCH QUOTA ALLOCATION FOR 1965:

On April 8, the Japanese Fisheries Agency announced salmon catch quota allocations for the 1965 Western Pacific season as follows (with 1964 comparisons):

	1965	1964
	. . .(Metric Tons) . . .	
Area A (north of 45° N. latitude):		
Mothership-type fishery	45,478	44,665
Land-based gill-net fishery . .	10,522	10,335
Subtotal	56,000	55,000
Area B (south of 45° N. latitude):		
Land-based gill-net fishery . .	35,300	33,240
Land-based long-line fishery .	15,700	14,760
Pacific coastal fishery (Hokkaido)	4,500	4,000
Japan gill-net fishery	3,500	3,000
Subtotal	59,000	55,000
Grand total	115,000	110,000

Source: Suisan Keizai Shimbun, April 10, 1965.

Japan (Contd.):

Note: Agreement on a 1965 Japanese salmon catch quota of 115,000 metric tons in the western Pacific (off the coasts of Japan and the U.S.S.R.) was reached March 31, 1965, at the ninth annual meeting of the Northwest Pacific Fisheries Commission (Japan-U.S.S.R.). It provided for 56,000 tons in Area A (an increase of 1,000 tons from 1964) and 59,000 tons in Area B (an increase of 4,000 tons).

Note: See Commercial Fisheries Review, July 1964 p. 62.

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KING CRAB PRODUCTION AND PRICE TRENDS:

A possible shortage of export king crab packed in $\frac{1}{4}$-pound cans is reported in Japan. In view of this situation, Japanese trading firms are said to be asking packers that at least one-third of the pack which they consign to the Crab Sales Company be of the $\frac{1}{4}$-pound size. In fiscal year 1964 (April 1964-March 1965), canned king crab consigned to the Sales Company totaled 363,000 cases, including 62,000 cases of the $\frac{1}{4}$-pound pack. King crab offered by the Sales Company currently is quoted at US$28.15 a case for $\frac{1}{2}$-pound 48's and $16.90 a case for $\frac{1}{4}$-pound 48's. (Suisan Tsushin, April 8, 1965.)

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KING CRAB FLEETS DEPART FOR OKHOTSK SEA:

The four Japanese king crab factoryships (Yoko Maru, 5,763 gross tons; Kaiyo Maru, 5,549 gross tons; Hakuyo Maru, 6,430 gross tons; and Seiyo Maru, 6,404 gross tons) departed Hakodate for the Okhotsk Sea crab grounds on April 7, 1965. Their productio quota is 60,000 cases (48 $\frac{1}{2}$-lb. cans) per fleet, a total of 240,000 cases. (Kanzume Nippo, April 12, 1965.)

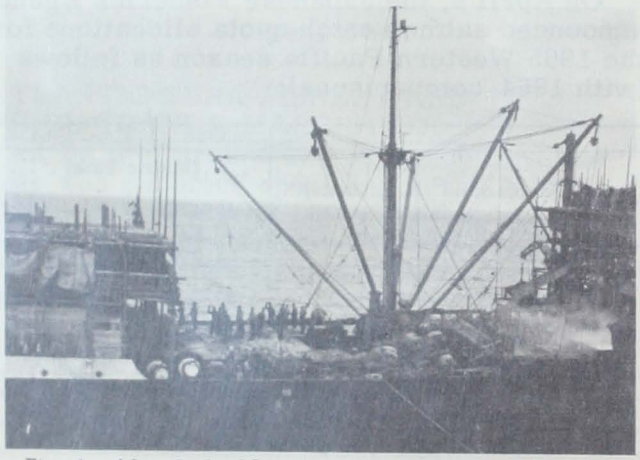

Fig. 1 - After deck of Japanese crab factoryship showing crab cookers (extreme right) and crew mending nets (center).

Fig. 2 - Processing crab meat aboard a Japanese crab fa ship.

Note: On March 24 agreement on the 1 king crab quotas was reached for waters the Sea of Okhotsk and the Bering Sea off Kamchatka by Japan and the U.S.S.R. at th ninth annual meeting of the Northwest Pa ic Fisheries Commission. Japan's quota 240,000 cases (48 $\frac{1}{2}$-lb. cans), a reductio 12,000 cases from the previous year. Th Soviet quota is 420,000 cases, or 42,000 c more than in 1964.

Note: See Commercial Fisheries Review, May 1965 p. 53; 1964 p. 72; July 1964 p. 42.

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FISHING VESSEL OPERATIONS IN BERING SEA:

The Japanese 7,482-ton shrimp factor ship Einin Maru, accompanied by a fleet 15 catcher vessels, was scheduled to de for the eastern Bering Sea on April 14, 1 The factoryship is scheduled to remain the fishing grounds until September 20. production target is 180,000 cases (48 cans) of shrimp and 1,000 tons of froze products.

Fig. 1 - Japanese shrimp factoryship Einin Maru.

an (Contd.):

The combined total 1965 shrimp production target of the Japanese factoryships operating in the eastern Bering Sea is 390,000 cases (48 ½-lb. cans).

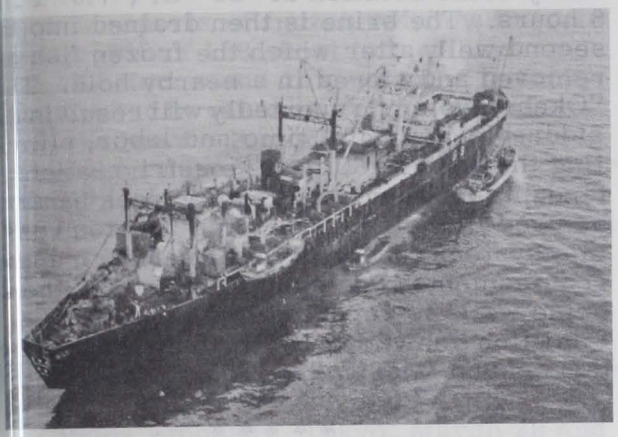

Fig. 2 - Japanese factoryship Tenyo Maru.

The 11,581-ton factoryship Tenyo Maru, accompanied by 10 catcher vessels, was scheduled to depart for the eastern Bering Sea on April 20. The factoryship is to fish mainly for Alaska pollock for conversion into minced fish. Minced fish meat made from Alaska pollock is used as an ingredient for fish cake and fish sausage. At present, there are 34 plants in northern Hokkaido (annual production capacity of 30,000 metric tons) engaged in the production of minced Alaska pollock meat. Their 1965 production target is 16,000 tons. (Suisan Tsushin, April 7, 1965.)

The 700-ton factoryship Kotoshiro Maru No. 15 departed Hachinohe, northern Japan, for the eastern Bering Sea on April 8.

The 10,357-ton fish meal factoryship Gyokuei Maru departed Hakodate, Hokkaido, for the eastern Bering Sea on April 9. (Suisancho Nippo, April 10, 1965.)

Note: See Commercial Fisheries Review, Mar. 1965 p. 81; Apr. 1965 p. 68.

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ING SEA FISH MEAL
DUCTION TARGET FOR 1965:

Seven Japanese factoryships operating in the eastern Bering Sea will be engaged in the production of fish meal this year. They are: Gyokuei Maru (10,357 gross tons); Hoyo Maru (14,000 gross tons); Soyo Maru (11,192 gross tons); Shikishima Maru (10,144 gross tons); Itsukushima Maru (5,889 gross tons); Tenyo Maru No. 3 (3,700 gross tons); and the Tenyo Maru (11,581 gross tons). Their combined production target is 41,000 metric tons of fish meal. Of the seven fleets, only Gyokuei Maru and the Hoyo Maru will be engaged on a full-time basis in meal production. In 1964, Japanese factoryships operating in the Bering Sea produced a total of 45,500 metric tons of meal. (Suisancho Nippo, April 8, 1965.)

Note: See Commercial Fisheries Review, Dec. 1964 p. 101; June 1964 p. 48, Mar. 1964 p. 60.

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FISH MEAL MARKET TRENDS:

The production of 5,600 metric tons of fish meal produced by the 14,000-ton Japanese fish-meal factoryship Hoyo Maru has been sold on the Japanese domestic market for 63,750 yen (US$177) a ton. In 1964 factoryship-produced fish meal sold for 60,500 yen ($168) a ton; in 1963 for 62,500 yen ($174).

The meal produced by the Hoyo Maru, which operated in the Okhotsk Sea, was processed from 36,300 metric tons of Alaska pollock supplied to the factoryship in February-March 1965 by Russian trawlers. The agreement establishing the joint enterprise extends for another two years. (Suisancho Nippo, April 9, 1965, and other sources.)

Note: See Commercial Fisheries Review, May 1965 p. 76; Mar. 1965 p. 83.

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FISH MEAL IMPORTS, FY 1965:

The Japanese Fisheries Agency on April 1 formally approved the importation of 148,000 metric tons of fish meal for Fiscal Year 1965 (April 1965-March 1966). This represents a substantial increase of 42,000 tons over FY 1964 imports, which totaled 106,000 tons. (Suisan Keizai Shimbun, April 3, 1965.)

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MACKEREL FISHING AND CANNING TRENDS:

As of March 31, 1965, the mackerel canners of the Choshi District (Chiba Prefecture, Japan) had packed 520,000 cases of mackerel, of which 100,000 cases were for export. This was a substantial reduction in pack as compared to the same period a year ago when they packed 630,000 cases, of which 185,000 cases were for export. Fishing prospects in

Japan (Contd.):

mid-April were reported poor due to a cold-water mass extending from off Choshi to Katsuura to the south. A considerable quantity of seine-caught mackerel was landed on April 9; the price ex-vessel was 22-23 yen a kilogram (US$55-58 a short ton), but due to their very small size and high price, the canners did not buy the fish. (Kanzume Nippo, April 8 & 10, 1965.)

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CANNED JACK MACKEREL PRICES:

The Japan Export Canned Sardine and Mackerel Sales Company has announced the following prices for canned jack mackerel:

Japanese Can Size	Equivalent U. S. Can Size	Price Per Case	
		Yen	US$
In tomato sauce:			
No. 1 oval 24's	1-lb. oval 24's	1,075	2.99
No. 3 oval 48's	½-lb. oval 48's	1,200	3.33
No. 1 small 100's	5-oz. tall 100's	1,870	5.19
No. 4 48's	1-lb. tall 48's	1,900	5.28
No. 6 48's	-	1,075	2.99
Natural:			
No. 3 oval 48's	½-lb. oval 48's	1,150	3.19
No. 1 small 100's	5-oz. tall 100's	1,700	4.72
No. 4 48's	1-lb. tall 48's	1,700	4.72

Source: Suisan Tsushin, March 30, 1965.

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JAPANESE FIRM TO EXPERIMENT WITH BRINE-FREEZING SYSTEM ABOARD FISHING VESSELS:

A large Japanese fishing company plans to install a brine-freezing system (described as the "Okabe system") in the 99-ton vessel Asahi Maru on an experimental basis in fall 1965. If successful, the firm plans to gradually adopt it on other tuna vessels.

The "Okabe system" employs two 3-ton capacity freezing wells. Fish are dropped into one well through a chute and chilled in heavy brine solution at -22° C. (-7.6° F.) for 8 hours. The brine is then drained into the second well, after which the frozen fish are removed and stored in a nearby hold. The "Okabe system" reportedly will result in considerable saving of time and labor, eliminating the need for full-time refrigeration attendants inasmuch as regular deck hands can be used in their place. On a 500-ton vessel this system reportedly will reduce manpower requirements by 5 men. The cost of the two brine wells is reported to be approximately 2 million yen (US$5,556). (Shin Suisan Shibun Sokuho, March 27, 1965.)

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EXPORTS OF FROZEN RAINBOW TROUT JANUARY-FEBRUARY 1965 AND YEAR 1

The United States and the United Kingdom are the principal world markets for frozen rainbow trout exported from Japan. In January 1965, Japan's total exports of frozen rainbow trout amounted to 138 short tons valued at US$105,122, of which 54 percent in quantity and 56 percent in value were exported to the United States and 26 percent in quantity and 22 percent in value to the United Kingdom.

Although Japan's exports of frozen rainbow trout to all countries in January 1965 increased 18 percent in quantity and 3 percent in value from those in January 1964, purchases by the United States were down 13 percent in quantity and lower by 24 percent in

Japan's Exports of Frozen Rainbow Trout by Country of Destination, January 1965 with Comparisons

Destination by Country	February 1965		February 1964		Jan. 1965		Jan. 1964		Jan.-Dec.	
	Short Tons	Value US$	Short Tons	Value US$	Short Tons	Value US$	Short Tons	Value US$	Short Tons	Va US
United States	62	49,900	118	105,111	75	58,953	86	77,219	1,408	1,1
United Kingdom	46	30,861	35	26,444	36	23,967	19	14,506	418	28
Netherlands	-	-	-	-	5	3,719	-	-	-	
Belgium	23	19,692	-	-	15	13,072	-	-	-	
Canada	15	13,089	-	-	3	2,219	-	-	-	
South Africa	-	-	-	-	2	1,203	-	-	-	
Australia	5	4,508	-	-	2	1,989	-	-	-	
Hong Kong	1	839	-	-	-	-	-	-	-	
Sweden	3	2,100	-	-	-	-	-	-	-	
West Germany	1	792	-	-	-	-	-	-	-	
Italy	2	316	-	-	-	-	-	-	-	
Other	-	-	34	26,967	-	-	12	10,725	340	27
Total	158	122,097	187	158,522	138	105,122	117	102,450	2,166	1,68

Note: Not shown separately for some countries prior to 1965.
Source: Japan Bureau of Customs.

Japan (Contd.):

wale. Exports to the United Kingdom in January 1965 were up 88 percent in quantity and 65 percent in value as compared with the same month a year earlier.

Japan's exports of frozen rainbow trout in February 1965 of 158 short tons valued at US$121,997, increased 15 percent in quantity and 16 percent in value as compared with exports in the previous month. Exports to the United Kingdom increased 28 percent in quantity and 29 percent in value from January to February 1965. The February exports of that product to Belgium and Canada were higher than in January. Although shipments to the United States in February dropped 17 percent and 15 percent in quantity and value, respectively, it remained the principal buyer of Japanese rainbow trout. (Fisheries Attache, United States Embassy, Tokyo, March 29 and April 2, 1965.)

* * * * *

AIRCRAFT TO BE USED FOR FISH SITTING AND HYDROGRAPHIC OBSERVATIONS:

The Japan North Pacific Region Surrounding Net Council, which has been conducting annual surveys of sea conditions off the northeastern coast of Japan for the past 11 years, plans to expand the area of investigation by employing a larger aircraft, the Cessna 182. The aircraft will be equipped with a special temperature water temperature meter (to be purchased from the United States) which will enable the taking of sea surface temperature measurements directly from the plane. In addition, the Cessna 182 will be used to conduct other hydrographic studies, such as current movements, and to search for fish concentrations. Data collected by the aircraft will be radioed to a relay station for transmission to fishing vessels via facsimile. (Suisan Keizai Shimbun, March 27, 1965.)

* * * * *

FISHERY LABOR CONDITIONS IN JAPAN:

The Japanese Fisheries Agency has compiled a report, "Survey of Fishery Labor Conditions in 1964"; it was prepared with a view toward contributing to the improvement in fishery labor. It discusses labor, employment, and wage conditions in the fishing industry. Based on a survey of 608 management units in 8 types of medium and small fisheries in 19 prefectures, some facts uncovered by the survey are: (1) wage structure even within the same type of fishery varies with managements and with locality (crew members in many regions receive base pay plus a share of the catch, but none works under a straight wage system); (2) monthly wages of those who made the most in 1963 were down but higher for those who were in lower income categories; and (3) recruitment of young workers is becoming an acute problem, as indicated by the fact that 84 percent of the fishery enterprises surveyed were experiencing varying degrees of difficulties in hiring young men. (Suisan Keizai Shimbun, April 9, 1965.)

* * * * *

FISHERIES RESEARCH PROGRAMS BEING CONSOLIDATED:

The Japanese Fisheries Agency is reorganizing and consolidating the research programs of the Agency's regional laboratories. Tuna research presently conducted by the Nankai Regional Laboratory in southern Japan, bottomfish studies conducted by the Tokai Laboratory in Tokyo, fur seal research carried out by the Tohoku Laboratory in northern Japan, and salmon research conducted by the regional laboratory in Hokkaido are being consolidated and will be conducted out of a new distant-water fisheries research laboratory now under construction in Shimizu, Shizuoka Prefecture, and scheduled for completion within the current fiscal year ending March 1966. Salmon research will continue to be conducted at the Hokkaido Laboratory but the program will organizationally be classified under distant-water research. (Suisan Tsushin, April 6, 1965, and other sources.)

日本

Mexico

FISH CANNING CENTER AT ENSENADA EXPANDS:

The greater part of the canned fish production in Mexico originates in the Ensenada area of Baja California. The demand for canned fish in Mexico is growing rapidly, and canning capacity at Ensenada is being expanded.

A Mexico City firm has built a new modern anchovy canning plant just south of Ensenada. The new cannery first operated in August 1964 with a pack of 6,000 cases. When production

Mexico (Contd.):

is resumed this summer the new cannery is expected to produce an annual pack of 200,000 to 300,000 cases (100 4.5-oz. cans) of anchovy ("sardines") in tomato sauce or cottonseed oil. The new cannery should employ 250 persons during the anticipated 4-month season. Like other Ensenada canneries, the new cannery will market its entire production in Mexico.

Fig. 1 - General view of fishing vessels and boats in the harbor at Ensenada, Baja California.

Plant equipment at the new cannery is of United States and Swedish manufacture. The firm plans to add reduction machinery to make fish meal and oil from the waste.

Adjacent to the new cannery, a larger plant is being built by another firm to pack anchovies as well as fruit and vegetables.

Fig. 2 - Purse seiners unloading sardines and mackerel at dock in Ensenada. Suction pumps are on floating barge between vessels. Belt conveyors carry fish to trucks for delivery to cannery. Vessel in foreground is brine-refrigerated.

In the same area is a new can manufacturi plant which will produce about 7 million sardi cans a year, all of which will be taken, at pres ent, by one of the established canneries at En ada. Can-making equipment is of United Stat German, and Spanish manufacture. Tinplate blanks are from the United States.

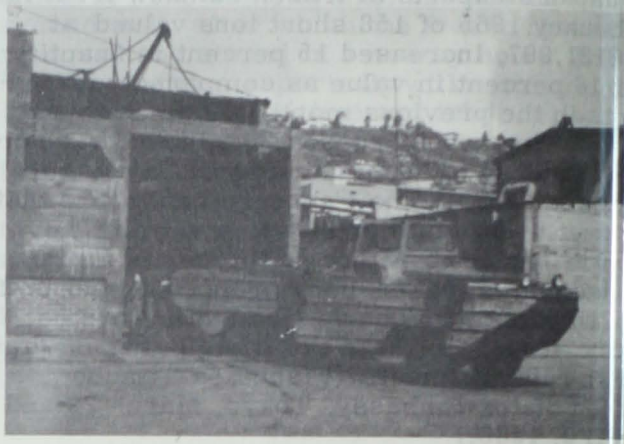


Fig. 3 - DUKW or amphibious "duck" delivering mackerel t cannery in Ensenada. Purse seiners lie at anchor in harbor, load fish into the "duck," and it runs on the beach and alon the streets to the canneries. The three smaller canneries in Ensenada receive their fish deliveries in this way.

Fig. 4 - Two canneries in Ensenada that pack mackerel and dines.

Fig. 5 - Large cannery located about 5 miles out of Ensena Cans sardines, mackerel, tuna, and also tomato products.

Addition of the two new packing plants to several already operating will solidfy Ens ada's position as Mexico's leading seafood c ning center. (United States Embassy, Mexi D. F., April 3, 1965, from information suppl by Consulate General, Tijuana.)

Morocco

FISH PROTEIN CONCENTRATE FOR HUMAN CONSUMPTION:

Fish protein concentrate or fish flour is to be produced on a commercial scale in Morocco at a plant being built at Agadir by the National Society of Comestible Flour from Fish (SONAFAP). The project is a joint enterprise of private capital and the Moroccan Government.

The new factory is expected to use 50 metric tons of fresh sardines a day and produce 3000 to 400 tons of concentrate during the 220 days of the fishing season in the region of Agadir. The plant will employ about 200 seasonal and 20 permanent employees. The production of the plant could be quickly doubled with small additional investment, according to reports.

Morocco may provide an interesting test case whether fish protein concentrate can be marketed in a tradition-oriented society. (United States Embassy, Rabat, March 10, 1965)

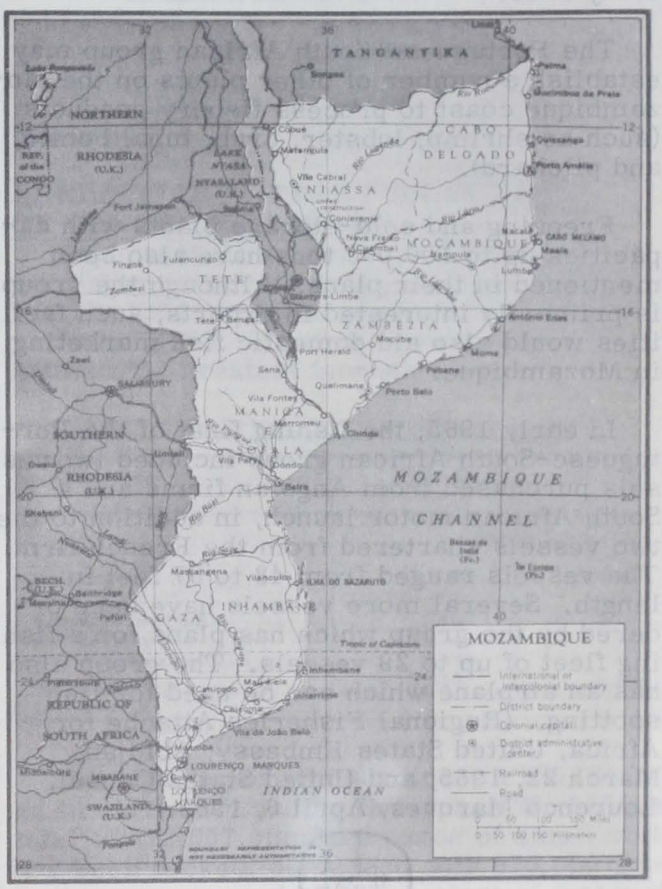
Mozambique

FISHERIES ENTERPRISE BEING DEVELOPED BY PORTUGUESE-SOUTH AFRICAN GROUP MAY HELP MODERNIZE FISHING INDUSTRY:

A freezing and canning plant to handle shrimp and possibly other fishery products is being established at Porto Amelia in northern Mozambique by a firm representing interests in Portugal and the South Africa Republic.

The group is also sponsoring fisheries exploration--mainly for shrimp--off the east coast of Africa. The explorations were started late 1964 and are being conducted by two trawlers supplied under an arrangement with a French firm. (The same French firm may also furnish marketing and other technical assistance.) Early in March 1965, one of the exploratory trawlers reported a shrimp catch of 800 kilos (1,764 pounds) in 4 hours.

The new enterprise may help modernize Mozambique's fishing industry which in 1962 had only 92 motor-powered vessels in its fishing fleet of 7,965 small fishing craft. Landings in Mozambique in 1962 totaled only 3,256 metric tons consisting of 2,429 tons of fish, 409 tons of shrimp, 160 tons of cockles, and 258 tons of other fishery items. To supplement the domestic catch, Mozambique imports about US$2.1 million worth of dried fish annually from Portugal and a small amount of frozen fish from South Africa.



In early 1965, a representative of the Portuguese-South African group said the Port Amelia plant should be ready in early summer 1965 to begin processing frozen shrimp for

Typical fish boats still used at Lourenco Marques.

Mozambique (Contd.):

marketing in the United States and South Africa. Although the plant will concentrate on shrimp initially, it has been designed to handle up to 70 tons of varied fish landings a day, according to reports. Investment in the project was thought to have reached $1 million by early 1965.

The Portuguese-South African group may establish a number of other plants on the Mozambique coast to process fishery products (such as shrimp, lobster, crab, tuna, bonito, and pilchard).

Freezing and cold-storage plants with capacities up to 100,000 tons have also been mentioned in their plans. Although the group is primarily interested in exports, such facilities would also aid domestic fish marketing in Mozambique.

In early 1965, the fishing fleet of the Portuguese-South African group included two vessels purchased from Angolan firms and a South African motor launch, in addition to the two vessels chartered from the French firm. The vessels ranged from 48 to 67 feet in length. Several more vessels have been ordered by the group which has plans for a fishing fleet of up to 29 vessels. The group also has an airplane which can be used for fish spotting. (Regional Fisheries Attache for Africa, United States Embassy, Abidjan, March 22, 1965, and United States Consul, Lourenco Marques, April 6, 1965.)

New Zealand

TUNA FISHERY DEVELOPMENT PROGRAM INITIATED:

The Government of New Zealand earlier this year approved plans of the Fishing Industry Board for experimental work in the development of tuna fishing in New Zealand offshore waters. A subcommittee of the Board, consisting of an equal number of members from the Fishing Industry Board and the New Zealand Marine Department is responsible for the operation of this experimental project and has already done much to implement its plans.

An official statement issued jointly by New Zealand's Minister of Marine and the Chairman of the Fishing Industry Board said, "
first stage of a combined Marine Departm
and Fishing Industry Board tuna developm
project commenced in the first week of Fe
ruary (1965) in the Gisborne/Tauranga ar

"The objective of the 4 to 6 weeks' exp
mental tuna fishing program is to compar
effectiveness and economics of different m
ods of tuna fishing under commercial cond
tions. The four methods to be used are mo
filament gill-netting, live-bait pole fishin
long-lining, and possibly purse-seining.

"Planning for the project is in the han
a joint committee set up by the board, co
prising representatives of the Marine De
ment and the Fishing Industry Board."

It was hoped at the time the statement
issued that an experienced live-bait pole
erman would be brought to New Zealand
Australia to run the pole-fishing vessel s
that New Zealand skippers and crews wh
training during Japanese fishing demonstr
tions would run the vessels using the othe
three methods under direct supervision
Japanese experts.

The official statement added, "It is pla
ned to use aircraft for tuna spotting and u
will be made of modern electronic fish-fi
ing equipment. Tuna is known to exist in
Zealand waters and February is normall
good month for sightings in the proposed
perimental fishing area."

The joint project between the industry
the New Zealand Marine Department is e
pected to be a forerunner for future coor
nated efforts to develop New Zealand's fi
ing resources.

If the project shows that tuna can be
economically in commercial quantities,
ther active steps will be taken by the Bo
and the Marine Department to develop t
fishing as an important aspect of New Z
land's fishing industry. (New Zealand Co
mercial Fishing, February 1965.)

Note: See Commercial Fisheries Review, October 1964 p

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FIFTY YEARS OF WHALING COMES TO AN END:

New Zealand whaling came to an end
1964 when its last whaling station closed
after half a century of operations. The re
economics.

N Zealand (Contd.):

ew Zealand whalers had traditionally
hed the humpback whale and in 1960 caught
2--an all-time record. But in 1961 the
ch dropped to 55 and in 1962 to only 27.

With the collapse of humpback whaling,
of the two New Zealand whaling compa-
s closed down. But the other firm decided
unt sperm whales, never before exploited
ew Zealanders. They were successful
rst and in 1963 took 201 sperm whales
the aid of spotting aircraft and modern
niques.

t success was short-lived. Not only did
petition from Soviet whalers develop off
Zealand, but world demand for whale
ll and prices dropped. Despite Govern-
t guarantees to cover operating costs,
ew Zealand station found it could no long-
ake a profit and closed down. (Foreign
e, Canadian Department of Trade and
merce.)

See Commercial Fisheries Review, Sept. 1964 p. 85.

aragua

IMP FISHERY TRENDS:

hrimp are caught on both the Pacific and
bbean coasts of Nicaragua, with landings
962 totaling an estimated 3.5 million
ds. Although about half the catch is from
Pacific area, the Caribbean fishery is
ing more rapidly.

he large shrimp-processing plant at El
in southeastern Nicaragua, which is op-
d by a United States firm, is working at
city and is planning to expand. The plant
ties are modern, clean, and efficient.
of the output consists of peeled and de-
d, individually frozen pink shrimp count-
0-30 to the pound; "broken" shrimp are
packed and frozen. The plant has a large
ge capacity for holding shrimp until they
e shipped to the United States. The pres-
eet, which is owned by the United States
and is to be enlarged, consists of 38 ves-
, mostly old vessels from Gulf of Mexico
. An additional 12 vessels are fishing
nearby plant at La Nica. A total of 70
ng vessels is reported to be operating in
rea.

A large canoe fishery is conducted in the bay at El Bluff. The canoes, some of which are motorized, carry a crew of 2 or 3 men, using cast nets. A buyer selects the best quality large shrimp from the canoe landings for resale to the processing plant and the remainder is sold in the local market or in Managua.

Note: See Commercial Fisheries Review, January 1964 p. 65.

Norway

PRELIMINARY REPORT ON EXPORTS OF CANNED FISH IN 1964:

Exports of all the principal Norwegian canned fishery products during January 1-November 28, 1964, were larger than in the same period of 1963. Exports of canned brisling showed the greatest increase.

Norwegian Exports of Principal Canned Fishery Products

Product	1/Nov. 28, 1964	Nov. 23, 1963
	(Metric Tons)	
Brisling	5,843	4,837
Small sild	13,421	12,930
Kippered herring	3,049	2,818
Soft herring roe	1,112	684
Sild delicatessen	554	476
Shellfish	1,555	1,435

1/Preliminary.

The packing of sild sardines in 1964 started in early May and by December 26, 1964, a total of 872,057 standard cases of small sild had been packed, compared with 970,000 cases in the same period of 1963. Most of that pack was smoked sild. (Unsmoked sild accounted for only 56,519 cases of the 1964 pack and 64,262 cases of the 1963 pack.) As of December 26, the 1964 exports of canned sild sardines totaled 875,315 standard cases as compared with 911,645 cases in the same period of 1963.

As usual, the brisling canning season closed October 15. The 1964 brisling pack totaled 378,719 standard cases, compared with 282,160 cases in 1963. The 1964 brisling pack would have been even larger if additional supplies had been available. According to preliminary data, Norwegian exports of canned brisling in 1964 totaled 412,474 standard cases as compared with 305,695 cases in 1963. One factor behind the increase

Norway (Contd.):

in exports was the advertising allocation of Kr. 2.5 (35 U.S. cents) per standard case of brisling set aside by Norwegian canners in 1964.

The Norwegian pack of canned kippered herring in 1964 totaled 213,000 cases, an increase of 55,000 cases from 1963 but a decline of 156,695 cases from 1962.

Norwegian production of canned crab and canned anchovies showed a small increase in 1964, while the output of canned shrimp and sild delicatessen showed some decline in 1964.

For January to October 1964, Norwegian total canned fishery exports of 25,645 tons were valued at Kr. 128.8 million (US$18.0 million), compared with 23,024 tons valued at Kr. 116 million ($16.2 million) in the same period of 1963.

The United States was the main market for Norwegian exports of canned fishery products in January-October 1964 with 8,354 tons valued at Kr. 45 million ($6.3 million), followed by the United Kingdom with 6,444 tons valued at Kr. 35 million ($4.9 million). Other markets were the South Africa Republic with 1,525 tons, Australia with 1,519 tons, Czechoslovakia with 1,089 tons, and Canada with 744 tons.

With the exception of sales to the United States, canned fish deliveries to all major markets in January-October 1964 were running ahead of the same period in 1963. Shipments to the United Kingdom were up 1,408 tons and Kr. 9 million ($1.2 million). The decline in shipments to the United States was 1,355 tons in quantity and Kr. 5.9 million ($824,000) in value. The decline in exports to the United States was due mainly to smaller shipments of canned brisling in oil and canned sild in oil.

Although exports of canned fishery products increased in 1964, Norwegian canners report that profit margins have been reduced as a result of rising costs for wages and raw material. Competition abroad is said to be tightening, particularly in countries with lower production costs.

Norwegian canners are also concerned about the outlook for sales to the European Common Market, which is designed to give intra-Community trade a preference over shipments from outside countries such as Norway.

On the other hand, Norwegian exports be fit from tariff reduction in the European Fr Trade Association (EFTA). Part of the increase in exports to the United Kingdom wa due to the fact that canned brisling ordered in 1963 was shipped early in 1964 to benefi from EFTA year-end tariff cuts. (Norwegi Canners Export Journal, February 1965.)

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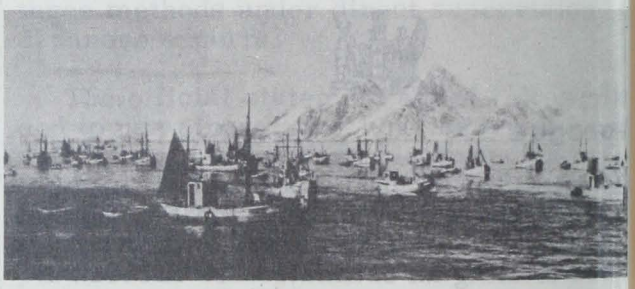
FISHERIES LANDINGS, 1962-1964:

Norwegian fisheries landings in 1964 to ed 1.4 million metric tons with an ex-vess value of Kr. 777 million (US$109 million), u 19 percent in quantity and 11 percent in va from 1963. Sharply higher landings of win herring and trawl herring accounted for m of the increase. Those gains more than off set a considerable decline in landings of fa herring, small herring, and cod.



Norwegian vessels fishing for cod on the Lofoten fishing ground Photo taken in 1950.

A heavy run of herring off the Lofoten a of northern Norway contributed to the strik recovery of the winter herring fishery. Th sharp fluctuations in Norwegian fisheries r flect the country's heavy dependence on co al fisheries.

The cod fishery off northern Norway ha declined steadily in recent years and the trend continued in 1964. The capelin (sme fishery continued at a relatively low level. (Capelin landings totaled over 200,000 tons in 1961, but the fishery was almost wiped o in 1962 when capelin failed to seek Norwe gian waters.) Landings were also down in 1964 for haddock, Norway pout, and dogfish. On the other hand, landings were up substa tially for saithe and mackerel.

Norway (Contd.):

Norwegian Fisheries Landings, 1962-1964

cies	1/ 1964			1963			1962		
	Quantity	Value		Quantity	Value		Quantity	Value	
	Metric Tons	Kr. 1,000	US$1,000	Metric Tons	Kr. 1,000	US$1,000	Metric Tons	Kr. 1,000	US$1,000
Fish:									
Herring:									
ter	286,254	69,849	9,755	61,509	25,169	3,515	84,068	32,115	4,485
	56,576	16,100	2,249	143,813	43,648	6,096	171,267	45,202	6,313
ll	106,113	24,579	3,433	172,787	35,598	4,972	136,165	31,844	4,447
d	1,016	857	120	1,321	1,096	153	2,701	2,282	319
l	186,132	63,397	8,854	32,419	12,548	1,752	12,510	4,851	678
nd	91,620	38,122	5,324	98,133	40,830	5,702	152,199	59,000	8,240
	10,174	9,737	1,360	16,602	10,495	1,466	10,596	11,542	1,612
l herring	737,885	222,641	31,095	526,584	169,384	23,656	569,506	186,836	26,094
C									
ning	47,276	53,192	7,429	58,255	60,514	8,452	68,270	65,867	9,199
ark	19,329	21,209	2,962	35,495	32,002	4,470	31,218	26,126	3,649
r	93,801	107,806	15,057	97,790	103,209	14,415	100,789	95,218	13,299
l cod	160,406	182,207	25,448	191,540	195,725	27,337	200,277	187,211	26,147
n (smelt)	19,625	2,734	382	28,338	2,181	305	363	62	9
and sea trout	1,600	20,000	2,793	1,553	19,320	2,698	1,671	21,511	3,004
2/	3,594	14,623	2,042	3,794	15,422	2,154	4,687	16,569	2,314
	19,641	20,352	2,842	17,505	16,012	2,236	16,726	14,043	1,961
k	34,695	34,528	4,822	46,412	40,811	5,700	41,694	34,980	4,885
y pout	93,337	16,697	2,332	106,482	18,637	2,603	40,751	7,138	997
	143,562	78,120	10,910	107,627	62,829	8,775	83,165	44,689	6,241
	13,125	20,145	2,814	10,924	13,573	1,896	10,556	11,833	1,653
rel	47,712	22,741	3,176	24,114	16,739	2,338	16,955	13,282	1,855
	1,137	2,700	377	130	303	42	6,794	13,486	1,883
h	25,343	15,704	2,193	30,810	16,089	2,247	28,682	14,026	1,959
gle	5,264	18,186	2,540	4,554	13,670	1,909	1,771	5,302	741
fish 4/	57,314	38,832	5,423	45,296	30,594	4,273	45,324	27,047	3,778
tal fish	1,364,240	710,210	99,189	1,145,663	631,289	88,169	1,068,922	598,015	83,521
Fi ers & roe	17,917	9,826	1,372	18,651	8,888	1,241	20,607	10,245	1,431
Sh fish:									
p	11,047	44,438	6,206	11,729	46,169	6,448	10,908	42,619	5,952
er	376	7,502	1,048	502	8,725	1,219	555	8,516	1,189
	3,943	2,689	376	3,593	2,750	384	3,557	2,623	366
	1,500	450	63	860	226	32	6,018	1,981	277
tal shellfish	16,866	55,079	7,693	16,684	57,870	8,083	21,038	55,739	7,784
Se d, dried	12,000	2,200	307	8,668	1,620	226	13,405	3,254	454
tal landings	1,411,023	777,315	108,561	1,189,666	699,667	97,719	1,123,972	667,253	93,190

1/ Preliminary.
2/ Does not include the lower-valued "Greenland halibut."
3/ Does not include "blue ling."
4/ Mainly "Greenland halibut," "blue ling," plaice, pollock, ocean perch, wolffish, eel, and sand eel.
Norwegian kroner 7.16 equal US$1.00.
Source: Norwegian Fishing and Maritime News, No. 4, 1965.

964, Norwegian shellfish landings--
y shrimp, lobster, and crab--continued
rather modest level of past years.
e Commercial Fisheries Review, May 1963 p. 79.

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RCTIC WHALE OIL
UCTION, 1964/65:

the conclusion of the 1964/65 Antarctic
g season, Norway's 4 expeditions had
ssed a total of 232,500 barrels of whale
perm oil (38,750 tons), as against 252,740
ls (42,143 tons) during the preceding season. (A decade ago in 1955, Norway had 10 Antarctic expeditions which produced 852,000 barrels of oil.) Whale oil production dropped to about 175,000 barrels (29,166 tons), as compared to approximately 202,500 barrels in the 1963/64 season. The production of sperm oil rose from 50,273 to 57,460 barrels (9,576 tons).

The output of the Norwegian expeditions in 1964/65 was very uneven. Two of the expeditions actually surpassed their production in 1963/64, but the other two expeditions lagged far behind.

Norway (Contd.):

During the 1964/65 Antarctic season, the Norwegian catch consisted mainly of sei whales. Fin whale stocks appear to be rapidly diminishing, while blue whales are virtually extinct.

The value of the oil processed by the Norwegian expeditions during the 1964/65 Antarctic season is estimated at about 60 million kroner (US$8.4 million), which includes Kr. 50 million ($7.0 million) for whale oil and Kr. 10 million ($1.4 million) for sperm oil. The possible value to Norwegian expeditions of other byproducts of 1964/65 whaling (meat, meal, and meat extract) was estimated at Kr. 90 million ($12.6 million) by the newspaper Tonsbergs Blad.

The 4 Norwegian expeditions had a total complement of 1,857 officers and men when they set off for the Antarctic last fall. As recently as the 1958/59 season, 6,817 Norwegians manned whaling ships. (News of Norway, April 22, 1965.)

Note: See Commercial Fisheries Review, April 1964 p. 68.

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SUPPLY AND DISPOSITION OF MARINE OILS, 1964 WITH COMPARISONS:

Norway's production of marine oils in 1964 consisted mainly of herring oil (80,000 metric tons) and fish-liver oil (10,000 tons), plus Antarctic sperm oil (8,546 tons) and whale oil (34,419 tons).

Table 1 - Norwegian Production of Marine Oils, 1962-1964

Item	1964 1/	1963 2/	1962
	(Metric Tons)		
Cold-cleared cod-liver oil	10,000	4,100	5,500
Other fish-liver oils		6,100	1,000
Herring oil	80,000	55,000	61,000
Total fish and fish-liver oils	90,000	65,200	67,500
Seal oil	2,500	2,000	2,800
Sperm oil:			
Antarctic	8,546	7,378	12,020
Shore stations (Norway)	363	916	687
Total sperm oil	8,909	8,294	12,707
Whale oil:			
Antarctic	34,419	31,423	85,015
Shore stations (Norway)	262	209	847
Total whale oil	34,681	31,632	85,862
Total marine oils	136,090	107,126	168,869

1/Preliminary.
2/Revised.

Herring oil production in 1964 was up 45 percent from the previous year due mainly to sharply higher landings of winter herring ar North Sea trawl herring. It is estimated tha the Norwegian fish meal and oil industry ab sorbed over 75 percent of Norwegian herrin landings in 1962-1964. (Norwegian herring meal production was up 41 percent in 1964.) The 1965 outlook for the Norwegian herring reduction industry is promising since the ye began with an excellent winter herring catch

Norwegian production of Antarctic whale and sperm oil in 1964 showed some increas over the previous year, but 1964 output was down sharply from that of 1962, and the out look for 1965 is for even lower production since Norway failed to meet its catch quota during the 1964/65 Antarctic season.

Table 2 - Norwegian Supply and Disposition of Crude Wha and Herring Oil, 1962-1964

	1/ 1964	2/ 1963	196
	(Metric Tons)		
Supply:			
Stocks, January 1	60,129	71,336	54
Production:			
Whale oil	34,681	31,423	85,
Herring oil	80,000	55,000	61,
Total production	114,681	86,423	146,
Imports:			
Whale oil	2,100	11,715	1,
Herring oil	75,430	53,278	51,
Total imports	77,530	64,993	53,
Total supply	252,340	222,752	254,
Disposition:			
Exports:			
Whale oil	16,150	25,631	65,
Herring oil	810	98	
Total exports	16,960	25,729	66,
Processed by hardening industry 3/	150,166	136,894	117,
Stocks, December 31	85,214	60,129	71,

1/Preliminary.
2/Revised.
3/The data are arrived at by deducting year-end stocks and e ports from total supply; the export figures are complete b the year-end stocks may include oil not included in the duction figures.

The Norwegian supply of marine oils i 1964 was increased not only by higher do tic production but also by much larger im ports of herring oil. The gain was only p ly offset by lower whale oil imports. Sinc marine oil exports from Norway declined 1964, it is assumed that much of the incre supplies went to the domestic hardening a refining industry. Carryover stocks were so up on December 31, 1964.

Norwegian imports of all types of mari oil (mainly herring oil) in 1964 totaled 85, tons valued at 118.1 million kroner (US$1 €

Norway (Contd.):

million). The leading supplier was Iceland with 44,189 tons valued at Kr. 62.3 million ($8.7 million), followed by the United States with 14,119 tons valued at Kr. 19.2 million ($2.7 million), and West Germany with 10,594 tons valued at Kr. 13.7 million ($1.9 million).

Norwegian exports of all types of marine products in 1964 totaled 47,367 tons valued at Kr. 75.9 million ($10.6 million). The leading buyer was the United Kingdom with 10,696 tons, followed by West Germany with 6,175 tons, the Netherlands with 5,851 tons, and the United States with 4,998 tons. (Foreign Agricultural Service, United States Embassy, Copenhagen, March 22, 1965.)

Note: See Commercial Fisheries Review, July 1964 p. 71.

* * * * *

GOVERNMENT-INDUSTRY FISHERIES AGREEMENT AIMS TO ELIMINATE PRICE SUBSIDIES BY 1968:

In Norway, a General Agreement on State support and other measures to increase fishermen's income was concluded between the Ministry of Fisheries and the Fishermen's Association (Norges Fiskarlag) on June 3, 1964, and approved by the Norwegian Parliament on January 12, 1965.

The General Agreement, which aims at making the Norwegian fishing industry independent of price subsidies by 1968, contains the following main provisions:

Negotiations on subsidies and other support measures for the fishing industry will take place between the Ministry of Fisheries and the Fishermen's Association, the latter acting as the sole representative of the fishermen.

The Fishermen's Association may request negotiations for support measures when the profitability "under normal fishing conditions" for "averagely well operated and well equipped vessels" engaged in fishing on a full-time basis is not in "reasonable proportion" to incomes in other jobs. Negotiations may also be requested for temporary support measures when the difficulties are due to structural factors."

The main emphasis should be on support measures which can make fishing, production, and marketing more effective and promote rational development generally in the industry.

4. Government funds shall be allocated for special loans to qualified fishermen who want to acquire vessels suitable for the coastal fishing banks and for offshore fishing.

5. The State Fisheries Bank should have sufficient resources available for short-term credit for modernization of the fishing fleet.

6. With regard to social measures, the negotiations should aim at allocation of a portion of total State support for the industry to a social fund to cover part of the premium payments for social security.

7. Price subsidies will be gradually eliminated by the end of 1968, provided other development measures result in a reasonable increase in fishermen's income. (United States Embassy, Oslo, February 15, 1965.)

(Editor's Note: Of interest--in view of the Norwegian proposals--is the position on fishing industry subsidies adopted at the June 1964 meeting of the Fisheries Committee of the Organization for Economic Cooperation and Development (OECD). The Fisheries Committee of OECD made a distinction between justifiable subsidies and those which should be eliminated.

According to a statement issued July 21, 1964, by the Council of OECD, juistifiable subsidies include those which "may be necessary for developing the fishing industry and raising its productivity or for facilitating the alternative employment of fishermen."

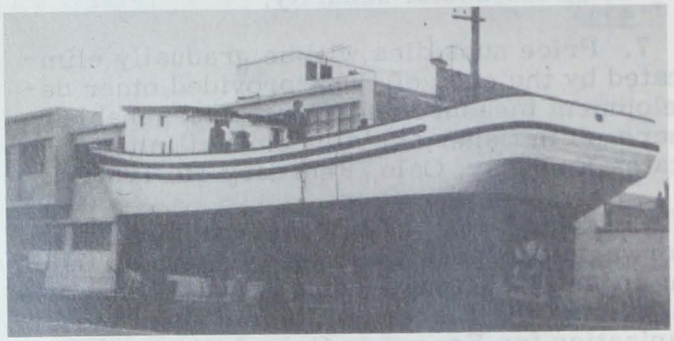
On the other hand, OECD condemned "catch premiums and subsidies given to fishermen on the basis of the quantity of fish landed, gross proceeds, or time spent at sea." Referring to that class of subsidies, OECD said: "Such schemes should only be introduced by way of exception and for a period not exceeding 3 years. In those countries where such subsidies have been made for more than 5 years, the aim should be to reduce them gradually with the object of abolishing them within 10 years." OECD recommended the eventual total abolition of such subsidies because they have too great an influence on foreign trade.)

Note: See Commercial Fisheries Review, April 1965 p. 80, and Oct. 1964 p. 48.

Peru

FISH MEAL OUTPUT CONTINUES HEAVY IN SPITE OF FISHING UNCERTAINTIES IN MARCH 1965:

Peruvian fishing turned erratic in March 1965 when warm water moved into the normally cold anchoveta fishing grounds. However, Peruvian output of fish meal exceeded 94,000 metric tons during the first half of March. Despite high production in early March, prices remained firm to strong. In early April 1965, Peruvian fish meal for May delivery was quoted at US$128 f.o.b. Peruvian ports. Prices for delivery later in the year were reported to be well above that level with very little offered.



A typical anchoveta boat about ready for launching at Callao in 1962.

The warm water pushing into the anchoveta grounds is driving fish deeper and also closer toward shore. This shoreward concentration of fish may have helped the fishermen, but they have also had to go deeper to get their catches. Birds which depend on anchoveta for food cannot get at the fish as easily. Anticipating a reduction in guano output, fertilizer producers have called for reduced fishing pressure.

Whether the intrusion of warm water will have any dramatic effect on fish meal production is still uncertain. Scientists at the Peruvian Marine Institute are watching developments closely. (United States Embassy, Lima, April 8, 1965.)

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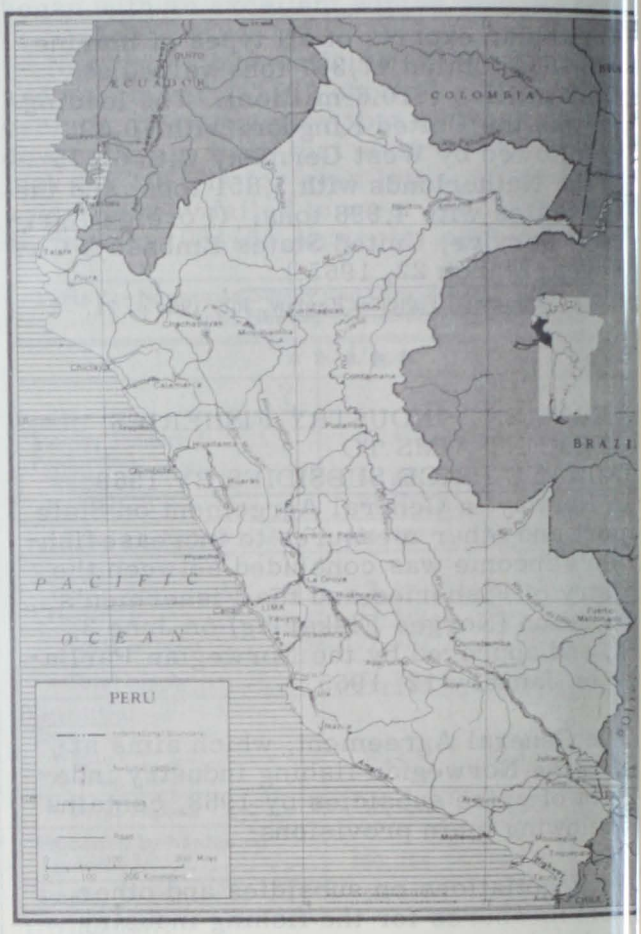
FISH MEAL PRODUCTION TRENDS AND OUTLOOK, EARLY 1965:

In spite of a 3-week fishermen's strike at Chimbote in February 1965, Peruvian fish meal output in the first 2 months of 1965 was almost equal to the record production in the first 2 months of 1964. (Editor's Note: Peruvian fish meal production in January-February 1965 totaled 313,100 metric tons as compared with 320,600 tons in the same period of 1964, according to reports in Oil World Weekly, February 19 and March 12, 1965.) Without the strike, production in early 1965 would probably have run about 10 to 15 percent ahead of last year.

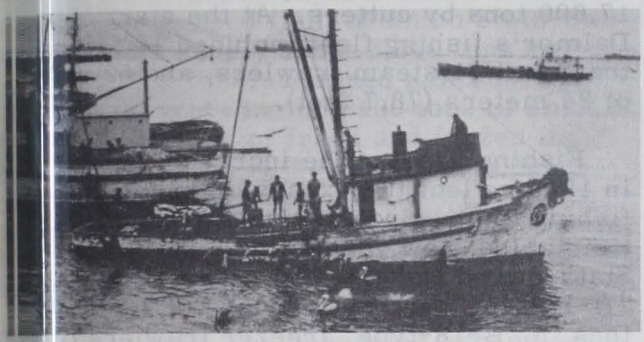


The 1965 production outlook is obscured by two factors. First, there is the possibil that heavy fishing pressure may have affect anchoveta spawning stocks. Second, there a unusual oceanographic factors such as the large body of warm water (known as a "nino" which is pushing its way southeastward into anchoveta grounds.

Scientists at the Peruvian Marine Institut will be better able to determine the effects overfishing (if any) after the normal seasona anchoveta catch decline in late May. The ef fects of the warm water moving in are more difficult to evaluate. For the present, the nino seems to have pushed the fish closer t shore where the water is cooler. The resul ant concentration of anchoveta has, if anythi

Pu (Contd.):

roved fishing. Efforts are now under way termine the extent of the nino, its source direction of movement, and its future ef- on fishing conditions.



Anchoveta boat waiting to unload at Chimbote.

eruvian firms supplying machinery to the l fish meal industry are given excessive tariff protection, according to the Peruvian nal Fisheries Society. This results in ssive costs and works a special burden, ociety alleges, on export producers who ot pass the higher costs along in higher es. Noting that the Peruvian Industrial motion Law under which special tariff in- ses are granted calls only for "adequate" ection, the fisheries organization has ask- e Peruvian National Industrial Society elp in seeing to it that protection granted sonsistent with the intent of the law. (Unit- ates Embassy, Lima, March 25, 1965.)

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MEAL INDUSTRY TRENDS IN 1964 OUTLOOK FOR 1965:

ruvian fisheries in 1964 were marked record catch of almost 9 million metric (mostly anchoveta), record fish meal pro- on of over 1.5 million tons, and record eal exports of 1.4 million tons valued $143 million. In spite of the tremendous in output, prices for fish meal remained throughout the year.

is estimated that the Peruvian industry working at only 65 percent of capacity producing its record output in 1964.

regional breakdown of Peruvian fish meal rts in 1964 shows Western Europe as the ng buyer with about 57 percent of the to- llowed by North America with 22 per- the Soviet Bloc with 9 percent, the Far with 7 percent, and Latin America with about 5 percent. As in the past, the three largest markets for Peruvian fish meal in 1964 were the United States, West Germany, and the Netherlands. Peruvian shipments to most foreign markets were up in 1964, and there was a sharp increase in shipments to West Germany, the United States, and the United Kingdom.

(Editor's Note: According to Oil World Weekly, Peruvian fish meal shipments to certain leading buyers in 1964 and 1963 were as follows:

	1964	1963
	.(1,000 Metric Tons).	
West Germany	308.2	203.8
United States	299.7	250.0
Netherlands	192.8	181.3
Japan	89.8	70.0
United Kingdom	83.7	49.2
Italy	82.4	62.9
France	50.1	46.3
Spain	38.0	76.4
Belgium	35.2	30.6
East Germany	41.2	42.6
Poland	27.2	9.8
Yugoslavia	23.4	31.0
Sweden	21.1	15.6
Mexico	35.9	27.8
Venezuela	20.4	5.9

Oil World Weekly reported Peruvian fish meal stocks at the end of 1964 as 260,500 tons; Peruvian fish meal production in January-February 1965 as 313,100 metric tons; and Peruvian fish meal exports in January-February 1965 as 294,900 tons.)

Outlook for 1965: In the Peruvian fish meal industry, price prospects are bullish while the production outlook is uncertain. Peruvian sellers reportedly slowed commitments in the spring of 1965 in order to build inventories for sale later in the year when production declines seasonally. Spot prices in the spring of 1965 were running upward from $115 f.o.b. Peruvian ports. How far prices can rise without the threat of buyers turning to substitute sources is a subject of disagreement.

Informed observers estimate that Peruvian fish meal production in 1965 will fall somewhere between the 1963 and 1964 levels, that is between 1.1 and 1.5 million tons.

Scientists at the Peruvian Marine Institute have pieced together tentative indications that the intensity of fishing effort may be cutting into anchoveta spawning stocks. The effects of overfishing (if any) are expected to be much

Peru (Contd.):

clearer after the normal seasonal anchoveta catch decline in late May.

The effect of a large body of warm water moving into the anchoveta grounds is also uncertain. (United States Embassy, Lima, April 11, 1965.)

Poland

FISHERIES GOALS, 1965:

Landings: The Polish fisheries catch target in 1965 is 270,000 metric tons, up 47,000 tons from the target in 1964. Atlantic fisheries--with a 72-percent increase in catch goal--have the major responsibility for heavier landings. Increased catches are planned in the northwest Atlantic as well as off the African west coast. The Baltic Sea catch target was raised 8 percent, and the North Sea target was raised 7 percent (see table). Considerably heavier landings of ocean perch, cod, and North Sea herring are called for in 1965. Most of the overall increase in landings is to be achieved by State-owned fisheries.

Polish Fisheries Catch Goals, 1964-1965

Item	1965	1964
	. . . (Metric Tons) . . .	
Catch Goals by Fishing Areas:		
Atlantic area	81,000	47,000
Baltic Sea	98,000	91,000
North Sea	91,000	85,000
Total catch goal	270,000	223,000
Catch Goals by Fishing Groups:		
Private fisheries	16,000	16,000
Cooperative fisheries	27,000	23,000
State-owned fisheries	227,000	184,000
Catch Goals for Leading Species 1/:		
Cod	75,000	64,000
Ocean perch	29,000	12,300
Herring:		
North Sea	83,000	76,000
Baltic Sea	24,500	22,000
Sprat	16,500	14,000
Mackerel	2/	13,000
Flatfish	2/	4,700
Salmon and trout	400	275

1/Does not include catch goals for all species.
2/Not available.
Note: Data shown for both 1964 and 1965 are catch goals. Actual landings in 1964 are not yet available.

An important part of the State-owned fisheries catch goal of 227,000 tons in 1965 has been assigned to the reorganized "Dalmor" group. (At the start of 1965, two State-owned fishery enterprises, "Arka" and "Dalmor" of Gdynia, were combined into one group know as "Dalmor." The new Dalmor group is to land a total of 97,600 tons of fish in 1965 fr its overall fishing operations in the northw Atlantic, North Sea, and Baltic Sea. Of tha total, 52,900 tons are to be landed by factor trawlers, 27,100 tons by steam trawlers, a 17,600 tons by cutters. At the start of 196 Dalmor's fishing fleet included 10 factory trawlers, 31 steam trawlers, and 52 cutte of 24 meters (78.7 feet).

Fishing Fleet: The increased landing g in 1965 reflect the expansion of the Polish fishing fleet. Under current construction timetables, new vessels to be delivered to State-owned fisheries in 1965 will include "B-15-type" factory trawlers of 2,890 gro tons, 5 "B-18-type" freezer trawlers of 3, gross tons, 2 "B-23-type" freezer trawler 1,160 gross tons, and six 24-meter (78.7- cutters. In working out the catch goals, it assumed that the annual landings of a B factory trawler would average 5,000 ton Other expected annual landings by vessel cla are: B-23 freezer trawler 2,400 tons, B-2 motor trawler 1,300 tons, steam trawler 9 tons, and 24-meter cutter 450 tons.

The cooperative fisheries expect to rec ten 17-meter (55.8-foot) and two 24-meter cutters in 1965.

Processing: Polish fish-processing fac ties are also being called upon to expand c put, particularly of fish meal. A total o 11,400 tons of fish meal is scheduled to be produced at sea and shore plants in 1965, pared with a target of 7,660 tons in 1964. er production goals in 1965 are 2,100 tons cod-liver oil, 23,000 tons of canned fis 20,500 tons of smoked fish, 6,800 tons of led fish, and 2,900 tons of semicooked fis dishes.

Preparing herring for hot-smoking in a fishery plant in Gdy

Poland (Contd.):

Poland is scheduled to spend 200 million zlotys (about US$8.3 million) to modernize and expand fish-processing plants and harbors.

Exports: Planned exports in 1965 include 44,000 tons of canned fish, of which State-owned plants will supply about 3,800 tons and cooperatives 800 tons. Planned sales to West European markets include 400 tons of smoked fish and 1,750 tons of fresh and frozen fish products (such as salmon, ocean perch, eels, and shrimp). In addition, plans call for direct landings of about 9,000 tons of fish in West European and African ports during 1965.

Employment: The scheduled expansion in Polish fisheries should raise employment in the State-owned fisheries to 25,400 persons in 1965, an increase of about 1,200. (Polish Maritime News, January 1965 and February/March 1965.)

Note: See Commercial Fisheries Review, Nov. 1964 p. 107, and June 1964 p. 55.

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FISHERIES TRENDS, EARLY 1965:

Winter Fishing Activities: In the first part of February 1965, frequent and strong storms hindered fishing in the Baltic, but good catches were achieved by factory trawlers operating in the northwest Atlantic. Some of the Atlantic catches averaged about 50 metric tons of cod and ocean perch per unit.

During the winter months several Polish factory-stern trawler and motor trawlers with freezing equipment fished off West Africa. Part of their catch was sold directly in African ports.

Polish trawlers from Szczecin took herring during the winter by means of midwater trawls in the North Sea and Skagerrak grounds.

Fisheries Research: The Sea Fisheries Institute of Gdynia has established a station in Kolobrzeg on the Baltic Sea. The new unit will study ways to modernize fishing gear and increase catches in the coastal region of the Baltic.

Aid to Foreign Fisheries: In early 1965, three Polish experts on inland fisheries left for Nigeria to spend several years as advisers on fish-breeding methods.

In mid-January, Polish fishermen sailed from Gdynia on board the Traugutt for India, where they will train Indian fishermen in operating trawls. A 17-meter (55.8 feet) fishing cutter for India was also shipped on board the vessel.

Danish Fishery Talks: In the second half of January, a delegation of Polish cooperative fisheries organizations visited Denmark and carried out talks with representatives of Danish fishery organizations on problems of interest to fishermen of both countries. It was resolved to carry out more meetings of this kind and undertake direct cooperation and exchange of information in the field of fishing and processing. (Polish Maritime News, February/March 1965.)

Note: See Commercial Fisheries Review, May 1965 p. 85.

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FISHERIES TRENDS, 1964:

Landings: Polish landings of salt water fish in 1964 amounted to about 244,400 metric tons, surpassing the overall catch goal for the year by 21,400 tons. The 1964 landings were also up considerably from the 210,000 tons landed in 1963 and 164,000 tons in 1962.

Table 1 - Polish Landings of Salt-Water Fish, 1964 1/

Species	Total	State-Owned Fisheries	Cooperatives	Private Fishermen
	(Metric Tons)			
Salmon	355.9	2.0	265.1	88.8
Baltic eel	153.7	-	16.6	137.1
Baltic herring	18,844.2	11,673.2	5,176.4	1,994.6
North Sea herring	94,371.8	94,054.9	316.9	-
Sprat	17,693.4	12,141.7	2,262.9	3,288.8
Cod	53,563.5	38,269.5	9,896.6	5,397.4
Flatfish	6,472.0	5,155.7	752.8	563.5
Mackerel	10,653.9	10,653.7	0.2	-
Ocean perch	21,414.6	21,414.6	-	-
Other salt-water fish 2/	18,116.3	17,823.7	104.5	188.1
Brackish-water fish	2,745.5	-	3/2,566.6	178.9
Total	244,384.8	211,189.0	21,358.6	11,837.2

1/Preliminary.
2/Includes catch off Africa.
3/Includes 503.8 tons of eel.

The 1964 landings included 116,300 tons from the North Sea (31,300 tons over the catch goal for the area), 47,400 tons from the Atlantic (400 tons over the goal), and 80,700 tons from the Baltic Sea (10,300 tons under the goal).

A larger catch of North Sea herring accounted for most of the 1964 increase over the previous year. Landings were also up

Poland (Contd.):

for sprat, ocean perch, and mackerel, but landings were down for Baltic Sea herring.

The heavy catch of North Sea herring taken by Polish catchers was delivered not only to Polish bases and tender vessels but also to transshipment bases at the British port of North Shields, the Norwegian port of Haugesund, and the Belgian port of Ostende.

Fishing Fleet: Additions to the Polish fishing fleet in 1964 included 3 "B-15-type" factory trawlers of 2,890 gross tons, 7 "B-23-type" freezer trawlers of 1,160 gross tons, and 16 cutters. By the end of 1964, the Polish fleet included 10 factory trawlers, 10 freezer trawlers, 15 motor trawlers, 54 steam trawlers, 44 drifter-trawlers, 2 base ships, 1 tender ship, 568 cutters, and about 870 other boats and vessels.

Processed Fishery Products: With new factory trawlers and freezer trawlers entering service, Polish output of processed fishery products was up sharply in 1964. Frozen fish and fillets showed the largest increase (50,000 tons in 1964 as against only 23,400 tons in 1963).

Table 2 - Polish Production of Processed Fishery Products, 1960-1964

Products	1/ 1964	1963	1962	1960
	(1,000 Metric Tons)			
Frozen fish and fillets	50.0	23.4	21.5	22.4
Salted fish	61.5	54.6	45.6	58.7
Smoked fish	2/	18.5	17.7	16.0
Conserves 3/	23.0	20.7	18.1	15.7
Marinades	2/	6.7	7.1	6.0
Cod-liver oil	2.2	1.9	1.4	1.1
Fish meal	9.5	7.0	4.8	3.3
Fish pulp	3.5	2.8	1.3	-

1/Preliminary.
2/Not available.
3/Includes hermetically-processed canned pack and cold-pack.

Imports: The rising demand for animal feed boosted Polish fish meal imports from 6,406 tons in 1960 to over 55,000 tons in 1964. During the same period, Polish imports of salted herring and canned fishery products declined as domestic fisheries expanded. Polish canned fish imports in 1964 consisted mainly of sardines in oil, a product which is not being produced by the domestic industry.

Table 3 - Polish Imports of Fishery Products, 1960-1964

Product	1/ 1964	1963	1962	1960
	(Metric Tons)			
Mackerel, frozen	1,450	568	500	-
Herring, fresh and frozen	5,583	3,891	5,992	4,014
Herring, salted	6,490	8,517	5,132	19,681
Fish fillets	-	-	-	1,419
Conserves 2/	2,069	1,328	2,670	6,141
Caviar	10	10	10	10
Fish meal	55,700	30,000	13,000	6,406
Total	71,302	44,314	27,304	37,671

1/Preliminary.
2/Includes hermetically-processed canned pack and cold-pack.

Exports: Polish exports of fishery products increased from 6,582 tons in 1960 to 11,162 tons in 1964. Almost half of the 1964 fishery exports consisted of direct landings of fresh and frozen fish in European and American ports. Most of the direct landings were sold in Ghana and Nigeria from "B-23-type" freezer trawlers and motor trawlers operating in the eastern Atlantic.

Table 4 - Polish Exports of Fishery Products, 1960-1964

Product	1/ 1964	1963	1962	19
	(Metric Tons)			
Fresh and Frozen:				
Salmon	209	272	206	
Other salt-water 2/	5,559	4,270	405	
Carp	478	380	379	
Other fresh-water fish	925	892	933	
Smoked fish	236	392	316	
Salted fish	40	15	203	2,
Conserves 3/	3,695	3,414	3,733	2,
Shellfish	20	32	36	
Total	11,162	9,667	6,211	6,

1/Preliminary
2/Direct landings in foreign countries.
3/Includes hermetically-processed canned pack and cold pa

Polish exports included 3,695 tons of c ned fish, of which 1,900 tons were sold to countries outside the Soviet Bloc. (Polis Maritime News, February/March 1965.)

Note: See Commercial Fisheries Review, June 1964 p. 55.

South Africa Republic

ANCHOVY EXPERIMENTAL FISHING CONTINUED OFF SOUTH-WEST AFRIC

Experimental anchovy fishing off Wal Bay in South-West Africa was resumed mid-January 1965. Two vessels search the area between Cape Cross north of W Bay and Sandwich Harbour to the south, without any early success.

Each pilchard factory at Walvis Bay h been licensed to use two anchovy nets for perimental fishing. Anchovy fishing off W Bay during August, September, and Octob last year was not encouraging. Only 718 tons of anchovy were caught off South-we Africa in 1964. On the other hand ove

Sth Africa Republic (Contd.):

1,000 tons of anchovy were caught off the
Se West Coast of the South Africa Republic
1964. (South African Shipping News and
hing Industry Review, February 1965.)

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LAGIC SHOAL CATCH, INDUSTRIAL
DUCTION, AND CANNED FISH
K, 1959-1964:

With a total catch in 1964 of 1,195,353
t tons of pilchard, maasbanker, mackerel,
anchovy, the South African pelagic shoal
factories of the Cape, Walvis Bay, and
eritiz had a record production during the
of 283,989 short tons of fish meal and
16 long tons of fish-body oil. In addition,
canned fish pack, which in 1963 had fallen
,500,000 cases, rose to 4,117,865 cases
964.

African Pelagic Shoal Catch and Production of Fish Meal, Fish-Body Oil, and Canned Fish, 1959-1964

	Catch	Production		
		Fish Meal	Fish-Body Oil	Canned Fish
	. . . (Short Tons)		Long Tons	Cases
	1,195,353	283,989	70,016	4,117,865
	1,085,806	262,573	46,678	2,506,326
	986,301	223,094	57,063	4,841,117
	922,362	199,123	57,632	5,218,219
	765,318	155,012	40,995	5,234,901
	641,787	132,733	31,116	2,871,454

During the 1964 season in the Territory of
th-West Africa, the 7 factories at Walvis
and 1 factory at Lüderitz received
057 short tons of pilchards and 718 tons
nchovy. That record catch was reduced
75,186 short tons of fish meal and 48,159
tons of fish-body oil. The Walvis Bay
ories also packed 3,574,347 cases of can-
fish.

1 - A 51-foot Walvis Bay vessel with a full load of
ards.

On the Cape West Coast of South Africa in 1964, 15 factories received 282,301 short tons of pilchards, 27,279 tons of maasbanker, 57,368 tons of mackerel, and 104,630 tons of anchovy (a total of 471,578 tons) and reduced that catch to 108,803 short tons of fish meal and 21,857 long tons of fish-body oil. The canned fish pack was 543,518 cases.

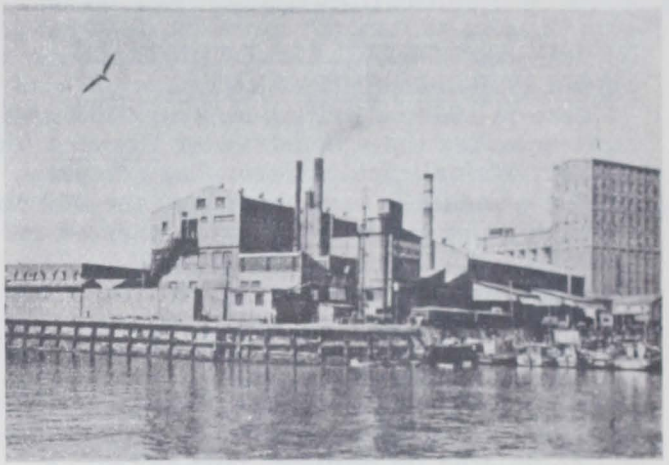

Fig. 2 - A modern fish meal plant at Alfred Basin, Cape Town.

The South African pelagic shoal catch has increased steadily since 1959 when 641,787 short tons were landed. During 1959-1964, fish meal output also increased sharply, but production of fish-body oil and canned fish showed considerable fluctuation. (The South African Shipping News and Fishing Industry Review, February 1965.)

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PELAGIC SHOAL CATCH, JANUARY-NOVEMBER 1964:

By the end of November 1964, Cape shoal fishing vessels of the South Africa Republic had brought the 1964 season catch of pilchard, anchovy, maasbanker, and mackerel up to 462,930 short tons.

In South-West Africa all 8 factories at Walvis Bay and Lüderitz had completed their quotas for the year after processing a total of 723,057 tons of pelagic fish (mostly pilchard).

The combined pelagic shoal fish catch in the South Africa Republic and Territory of South-West Africa in January-November 1964 totaled 1,185,987 tons. That was made up of 1,006,610 tons of pilchard (284,271 tons from Cape waters), 98,013 tons of anchovy (Cape 97,295 tons), 25,438 tons of maasbanker, and 55,926 tons of mackerel.

South Africa Republic (Contd.):

The limited shoal fishing allowed off the Cape in November 1964 yielded a catch of 16,785 tons of anchovy and 4,054 tons of maasbanker. (The South African Shipping News and Fishing Industry Review, January 1965.)

Note: See Commercial Fisheries Review, May 1965 p. 87.

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NEW STERN TRAWLERS DELIVERED FROM FOREIGN SHIPYARDS:

Late in 1964, a British shipyard in Lowestoft launched the stern-trawler Corvina for a South African-Spanish trawling company. The new vessel is a sistership of the 300-ton stern-trawler Sea Horse, which arrived in Hout Bay, South Africa, in June 1964. The Corvina was scheduled to sail for Hout Bay in March 1965.

Another South African trawling company took delivery of the new 576-ton stern-trawler Pionier II in December 1964 after the vessel completed its delivery voyage from a shipyard in the Netherlands to Cape Town. According to previous reports, the Pionier II will help supply a filleting and freezing plant near Cape Town.

A third South African company took delivery of the stern-trawler Hawthorn in January 1965 after the vessel completed its delivery trip from a shipyard in Aberdeen, Scotland, to Cape Town.

The new stern trawlers will help diversify South African fisheries. (The South African Shipping News and Fishing Industry Review, January 1965.)

Note: See Commercial Fisheries Review, Jan. 1965 p. 87 and July 1964 p. 73.

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SHARK FISHING TESTS OFF NATAL:

Three weeks of experimental long-line fishing for sharks off the South African east coast in the Natal area were scheduled in early 1965 by the Government research vessel Sardinops (operated by the Division of Sea Fisheries). An investigation of shoal fish, tuna, and plankton was to be included in the shark study.

If experimental long-lining for sharks yields good results, it may be possible to start a commercial shark fishery off the Natal coast. That would not only add another fish species to the catch of local vessels, but might also help reduce the shark danger [illegible] long Natal beaches. (The South African S[illegible]ping News and Fishing Industry Review, [illegible]uary 1965.)

Taiwan

TUNA FLEET:

Taiwan's tuna long-line fleet at the e[illegible] 1964 numbered 678 vessels (19,133 gros[illegible] tons), according to a survey conducted b[illegible] Japan Frozen Tuna Producers Associat[illegible] Of that number, 38 vessels were over 1[illegible] gross tons in size. Tuna production by [illegible] long-line fleet in 1964 included 7,000 m[illegible] tons landed at Kaohsiung, southern For[illegible] and approximately 3,500 tons delivered [illegible] American Samoa. (Suisan Tsushin, Mar[illegible] 1965.)

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FISH CONSUMPTION TRENDS:

Annual per capita consumption of fish[illegible] products in Taiwan averages 27.3 kilos ([illegible] pounds), according to a 1963 survey of 1,[illegible] representative families conducted by the [illegible]wan Fisheries Bureau. (Editor's Note: [illegible]sumption data reported by the Taiwan Fis[illegible]ies Bureau may be on a round weight bas[illegible] The Food and Agriculture Organization h[illegible] reported annual per capita consumption [illegible] fishery products in Taiwan in 1961 as 28[illegible] pounds on an edible weight basis.)

According to the Taiwan Fisheries Bu[illegible] consumption of fish in Taiwan is much g[illegible] than the annual per capita consumption o[illegible] (about 25.7 pounds), poultry (about 6.0 p[illegible] and eggs (about 10.3 pounds).

Annual per capita consumption of fis[illegible] products in Taiwan is highest in the fish[illegible] ducing area (82.0 pounds) and lowest in [illegible] rural area (52.9 pounds). Milkfish, sea[illegible] and croaker seem to be the most popula[illegible] cies in Taiwan.

All of the 1,000 families interviewed [illegible] consumers of fresh fish, and 707 famili[illegible] ate dry-salted fish, such as sardines, h[illegible] bonito, mackerel, and cuttlefish. But on[illegible] of the 1,000 families interviewed bought [illegible] ned fish, such as sardines, mackerel, bo[illegible] and eel. The reasons given for not buyi[illegible] ned fish by the other families were: (1)

Taiwan (Contd.):

Early in the morning every inch of the fish market in Kaohsiung is filled with baskets of fish. They are quickly weighed and auctioned by truck for retail sale or refrigerated.

tough, (2) not palatable, and (3) not accustomed to it.

As to method of preparation, most families preferred frying. People in fish-producing areas had a relatively high preference for raw fish. Urban people liked fish fried, in sauce, or steamed. Rural people liked to boil or steam their fish. (Brief Report on Survey of Fish Consumption, Indo-Pacific Fisheries Council, Food and Agriculture Organization.)

USSR.

SOVIET TRAWLING ACTIVITIES OFF SOUTH AFRICA, DECEMBER 1964:

The Soviet trawling fleet operating off the South African coast was reported to have shifted its operations northward in December 1964. At that time a fleet of 15 Soviet trawlers was said to be fishing off the mouth of the Kunene River, which is the border between South-West Africa and Angola. Soviet trawlers were also reported off the mouth of the Congo River.

In the past the Soviet trawling fleet seeking groundfish off South Africa has usually moved somewhat to the north in late November and then returned to waters off the South Africa Republic in February or March.

The Soviet tanker Ventspils called at Walvis Bay in late November 1964 after refueling the Soviet fishing fleet off South Africa. The vessel, which is reported to have a capacity of 3,000 tons of oil, took on stores and fresh water at Walvis Bay before returning to its home port on the Baltic Sea. (The South African Shipping News and Fishing Industry Review, January 1965.)

Note: See Commercial Fisheries Review, March 1965 p. 93.

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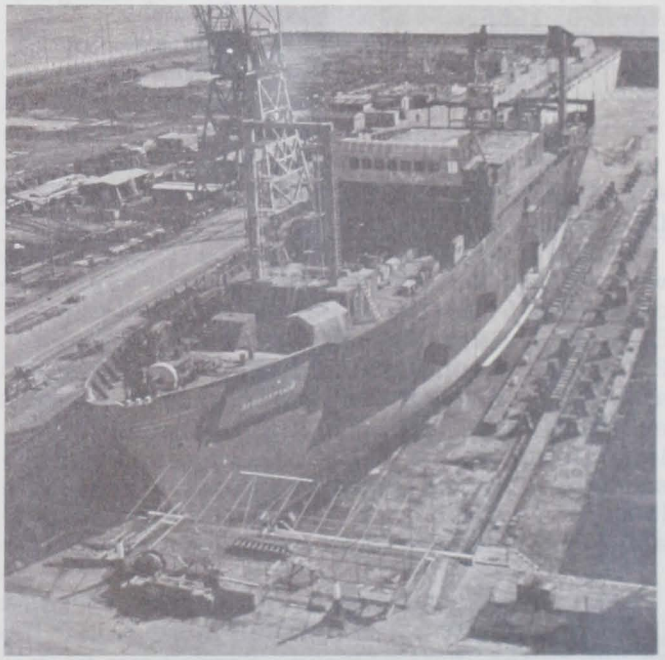
FREEZER-TRAWLER "ZAPOLJARNYJ" BUILT FOR SOVIETS BY DANISH SHIPYARD:

The 2,550-ton freezer-trawler M/S Zapoljarnyj was launched March 30, 1965, by a shipyard in Copenhagen, Denmark, for V/O Sudoimport, Moscow. The vessel is another in the series of 15 freezer-trawlers for the



The M/S Zapoljarnyj in construction dock at Copenhagen.

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

U.S.S.R. being built by the Danish shipyard to the following specifications: length between perpendiculars 91 meters (298.5 feet), breadth 16 meters (52.5 feet), and deadweight tonnage 2,550 to 2,600 metric tons. The first vessel in the series was the M/S Skryplev launched May 10, 1962.

The M/S Zapoljarnyj is powered by a 6-cylinder diesel engine developing 3,530 horsepower at 200 r.p.m. Speed on loaded trials was 14 knots. The vessel is designed to serve mainly as a refrigerator vessel, but it can also operate as a stern trawler. It is equipped with a large stern chute for trawling and also for hauling aboard catches of other vessels.

The propulsion machinery as well as the refrigerating plant are located amidships, with large refrigerated cargo holds fore and aft. The entire superstructure is arranged amidships.

The rigging consists of two pairs of self-supporting derrick posts. The foremost pair is provided with a top mast as well as a self-supporting combined signal and radar mast. The derricks (four 3-ton and two 7-ton) are served by four 3-ton and two 5-ton winches. The deck machinery also includes one anchor winch, two 3-ton warping winches, and one 15-ton trawl winch. All winches are electric-hydraulic. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, April 9, 1965.)

Note: See Commercial Fisheries Review, April 1965 p. 87, and Mar. 1965 p. 93.

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ANOTHER TROPIK-CLASS STERN TRAWLER DELIVERED BY EAST GERMANY:

The 43rd stern trawler of the Tropik-class was delivered to the Soviet Union in early December 1964 by the People's Shipyards at Stralsund, East Germany. The Tropiks are 2,600-gross-ton vessels and carry a crew of about 75. Although they are basically trawlers, that class vessel is also equipped for long-lining, electric-light fishing, and purse seining. The vessel catch is mostly frozen (daily capacity 30 metric tons), but some is also processed into fish meal and fish oil.

As of April 1965, most of the Soviet Tropiks operated off northwest and southwest Africa and in the Indian Ocean. Some have been observed on Georges Bank in the North At tic, and also off the United States Middle a South Atlantic coasts.

Under a contract negotiated with East G many in 1961, an additional 23 vessels of t type are to be delivered to the Soviet Unio the end of 1965.

Note: See Commercial Fisheries Review, December 1964 p

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NEW BALTIC SEA BASE FOR FREEZERSHIP FLEETS:

The Soviet Baltic port of Klaipeda is t site of a new centralized base for Soviet r rine fishing fleets. The "Klaipeda refrig tor-fleet base" will supply gear, packagi material, food stores, and fuel oil to Sovi transport and fishing vessels.

Concentration of management is said t the object of the new base which was esta lished by a decree of the Soviet Board of Main Administration of Fisheries of the W ern Basin in the Lithuanian Production De partment of Fisheries. (Rybnoe Khozyais 41 (1), 1965.)

United Kingdom

FISHERY LOAN INTEREST RATES REVISED:

The British White Fish Authority annou that their rates of interest on loans made from February 6, 1965, would be as follo

For processing plants: on loans for n more than 20 years, $7\frac{3}{4}$ percent (increase percent).

For fishing vessels of not more than 1 feet, new engines, nets and gear: on loa for not more than 5 years, $7\frac{3}{8}$ percent (in crease $1\frac{1}{4}$ percent); on loans for more th years but not more than 10 years, $7\frac{1}{8}$ pe (increase 1 percent); on loans for more t 10 years but not more than 15 years, 7 p cent (increase $\frac{3}{4}$ percent); on loans for n than 15 years but not more than 20 years percent (increase $\frac{5}{8}$ percent).

The rates on advances made before F ruary 6, 1965 are unchanged. (Fish Trad Gazette, London, February 20, 1965.)

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Uted Kingdom (Contd.):

TAWLER "STELLA LEONIS" REPEATS AS WINNER OF SILVER COD TROPHY IN 1964: The 190-foot trawler Stella Leonis won the British Silver Cod Trophy in 1964 for the second successive year, after a very close race with the Somerset Maugham. The trophy is presented annually to the British distant-water vessel with the largest catch for the year.

Sh Cod Trophy winner in 1964. The Stella Leonis is fitted for tboard fishing only. Fish storage hold has a capacity of 1170 cubic feet.

In 1964, the Stella Leonis after 340 days at sea landed 35,505 kits (4,970,700 pounds) valued at £144,153 (US$403,628). The runner-up Somerset Maugham after 337 days at sea landed 35,418 kits (4,958,520 pounds) valued at £150,976 ($422,733).

The winning margin of the Stella Leonis was only 12,180 pounds--the smallest on record--and the value of her catch was actually surpassed by the Somerset Maugham. The outcome of the race was in doubt right up to the final weighout of the season.

The Stella Leonis was also the winner of the Silver Cod Trophy in 1963 with landings of 39,556 kits (5,537,840 pounds) valued at £161,500 ($452,200). The record for the competition which started 11 years ago is held by the Kirkella, which landed 46,589 kits or 6,522,460 pounds.

Note: See Commercial Fisheries Review, May 1964 p. 77 and March 1964 p. 75.

U. S. SCIENTIST REARS BROWN SHRIMP FROM EGGS

The first successful rearing of brown shrimp from eggs has been accomplished by a biologist of the U. S. Bureau of Commercial Fisheries Biological Laboratory, Galveston, Tex., after almost five years of concentrated effort. He is one of four scientists in the world known to have been successful in rearing shrimp from eggs. Only 2 of those 4 scientists have successfully duplicated their experiments--the U. S. Bureau of Commercial Fisheries scientist and a scientist in Japan. The Japanese scientist, who has worked in the field for 22 years, runs a commercial shrimp farm which supplies Japanese fish markets with a product similar to that of the commercial white shrimp of the United States. Scientists of the University of Miami (Florida) have successfully reared pink shrimp from eggs. A French woman scientist has grown a species of shrimp from eggs. The United States scientist has also successfully raised rock shrimp.

A "key" to aid researchers in identification of the larval stages of the brown shrimp in plankton samples is in process. Studies to refine techniques and develop economical methods for artificial culture of shrimp in commercial quantities will be carried out. The brown shrimp (Penaeus aztecus) is one of the three most important commercial shrimp resources of the South Atlantic and Gulf coasts of the United States.