International

INTERNATIONAL PACIFIC HALIBUT COMMISSION

ANNUAL MEETING:

The annual meeting of the International Pacific Halibut Commission was held at Vancouver, B.C., starting January 19, 1965. The opening session was with fishermen, vessel owners, dealers, and other interested parties for the presentation and discussion of the findings and regulatory proposals of the Commission, and for preliminary discussion of any new regulatory suggestions.

On January 21 a joint meeting was held with the Conference Board of fishermen's and vessel owners' representatives and with dealers' representatives, and other invited persons.

The International Pacific Halibut Commission is responsible for the regulation of the halibut fishery of the Northern Pacific Ocean and Bering Sea.

The Commission is composed of the following members for the United States: Harold E. Crowther, Chairman; and Haakon M. Selvar. The third United States Commissioner, to succeed William A. Bates who died on October 29, 1964, has not yet been appointed by the President. Members for Canada are: Dr. William M. Sprules, Vice Chairman; Martin K. Eriksen; and Frank W. Millerd.

INTERNATIONAL NORTH PACIFIC SALMON FISHERIES COMMISSION

FORECAST OF 1965 SOCKEYE AND PINK SALMON RUN TO PUGET SOUND AND FRASER RIVER:

The International North Pacific Salmon Fisheries Commission held its annual meeting in Bellingham, Wash., December 11, 1964. The Commission regulates the catch of pink and sockeye salmon in certain waters of Washington State and British Columbia. The catch in those waters (known as Convention waters) is adjusted to provide adequate escapement of pink and sockeye salmon. Fishing is also regulated to divide the allowable catch equally between United States and Canadian fishermen.

The staff of the Commission has developed rough estimates--representing "not a prediction but a guess"--of the 1965 run in Convention waters as follows:

Sockeye Salmon: The 1965 sockeye run to the Fraser River may be substantially lower than that in the brood year of 1961 when there was a disappointing run of only 4,125,000 sockeye in Convention Waters. That sockeye forecast is based on the heavy mortality which occurred on the spawning grounds in the brood year of 1961. The Commission has planned regulations on the basis of a total run in 1965 of 3 million sockeye allowing for an escapement of 1 million. However, to gain an accurate insight into the size of the 1965 sockeye run the Commission will have to wait for the appearance of the Early Stuart run in late June and early July 1965. A good run will raise hopes for the balance of the Fraser run, a poor one will be disappointing.

The proposed regulations for the sockeye fishery in Convention waters will be adjusted up or down during the season, depending on the weekly catch, to provide a total escapement of about 1 million sockeye regardless of the size of the run.

Pink Salmon: The Commission is projecting a 1956 pink salmon run in Convention waters of 10 million fish compared with 16 million in 1963. That includes 6.5 million Fraser River fish--up from 4.5 million in 1963. The Puget Sound run of pink salmon in 1965 is expected to be down considerably from the spectacular run of 10.5 million fish in 1963. (Facts on Fish, Fisheries Association of B.C., December 21, 1964.)

FISH MEAL

WORLD PRODUCTION, OCTOBER 1964:

World fish meal production in October 1964 was up 40 percent from the previous month due mainly to a seasonal increase in Peruvian output.

nternational (Contd.):

World Fish Meal Production by Countries, January-October 1963-1964

Country	Oct.		Jan.-Oct.	
	1964	1963	1964	1963
	. . . . . (Metric Tons).			
anada	4,927	12,553	44,623	64,583
enmark	13,074	6,727	95,645	87,170
rance	1,100	1,100	11,000	11,000
rman Fed. Republic	6,369	5,585	63,545	63,792
etherlands	900	900	6,700	5,600
ain	1/	1,900	1/	18,812
veden	673	639	5,973	5,174
ited Kingdom	5,584	5,516	63,807	63,757
ited States	8,373	16,572	175,823	195,379
ngola	5,402	3,620	47,475	21,394
eland	13,064	930	115,309	78,267
orway	15,815	7,822	162,630	109,907
eru	130,492	76,764	1,189,562	903,437
. Afr. (incl. S.-W. Afr.)	15,855	14,749	2/ 250,928	233,072
elgium	375	375	3,750	3,750
hile	10,743	858	124,979	75,877
orocco	1/	-	3/ 17,150	1/
Total	232,746	156,610	2,378,899	1,940,971

1/ Data not available.
2/ Revised.
3/ Data available only for Jan.-Sept. 1964.
Note: Japan does not report fish meal production to the International Association of Fish Meal Manufacturers at present.

World fish meal production in the first 10 months of 1964 as considerably above that in the same period of 1963. The crease was due largely to expanded production in Peru hich accounted for about 50 percent of world output during anuary-October 1964. Higher production during January-ctober 1964 was also reported in Norway, South Africa, hile, Iceland, Angola, and Denmark. The increase was part-offset by lower production in Canada and the United States.

Most of the principal countries producing fish meal sub-it data to the Association monthly (see table).

UROPEAN FREE TRADE ASSOCIATION

NDUSTRIAL TARIFFS REDUCED NOTHER 10 PERCENT:

On December 31, 1964, a further cut of 10 rcent was made in the level of tariffs on in-strial goods traded among e seven Member Coun-ies of the European ree Trade Association FTA)--Austria, Den-ark, Norway, Portu-l, Sweden, Switzerland, d the United Kingdom. he 10 percent reduction so applies to imports om Finland, which is asso-iated with EFTA. (The temporary 15 percent archarge on imports recently imposed by the nited Kingdom for balance of payments rea-ons is not affected by the new EFTA tariff cut.)

The latest EFTA tariff cut brings the gen-al level of EFTA tariffs on industrial goods down to 30 percent of the level in force on January 1, 1960. Finnish tariffs on most EFTA industrial goods will be reduced to 30 percent of their basic level on March 1, 1965. Fishery and agricultural products are not included under industrial goods.

A further reduction of 10 percent in EFTA tariffs will be made at the end of 1965. The remaining 20 percent will be eliminated on December 31, 1966, for the seven EFTA Member Countries; in the case of Finland, the remaining 20 percent will be eliminated in two stages--10 percent at the end of 1966 and 10 percent at the end of 1967. (European Free Trade Association, December 31, 1964.)

Note: See Commercial Fisheries Review, March 1964 p. 35.

TERRITORIAL WATERS AND FISHING LIMITS

VIOLATIONS CHARGED BY SEVERAL EUROPEAN COUNTRIES:

Danish and West German Salmon Cutters Fined for Entering Polish Waters: Eight Danish and two West German salmon cutters were in sheltered waters off the Polish coast on November 19, 1964, when a Polish patrol vessel appeared and signaled they should proceed to Gdynia. On arriving at the Polish port, the salmon cutters were accused of fishing within 1 nautical mile of the Polish coast, according to newspaper reports. In 2 days the Danish vessels were released after paying a fine and costs amounting to 180 kroner (US$26.10). The West German vessels were reported to have paid larger fines. The Danish cutters claimed they had taken shelter in the lee of a storm with their engines stopped and their gear stowed under the deck when they were forced to head for Gdynia.

Denmark Charges Foreign Vessels with Fishing Limit Violations: Two Polish cutters were apprehended by Danish authorities on September 5, 1964, and charged with fishing within Danish fishing limits off Christiansø on the island of Bornholm. According to newspaper reports, the Polish cutters were fishing with floating trawls for herring and had a catch of 6,600 pounds when picked up. A few days later the cases were heard in court and the Polish vessel captains were fined.

In late 1964, the Danish Fisheries Ministry sent an inspection vessel to Aalbaek Bay, a fishing area near Skagen, one of Denmark's most important fishing ports, to look into the complaints of local fishermen about the activities of foreign fishing fleets, especially Soviet, Polish, and East German vessels. Dan-

International (Contd.):

ish fishermen claim that the foreign vessels anchor within Danish fishing limits where they transfer catches, discard wornout gear and other offal, and interfere with the fishing activities of about 20 Danish seiners which operate in the bay.

The Skagen Fisheries Association complained about the situation to the Soviet Government and received in reply a letter from the Soviet Embassy stating that arrangements had been made which would prevent the future discharge of offal from Soviet vessels not only in Aalbask Bay but in all Danish waters. At the same time, the letter pointed out that the Soviet Union could not be responsible for violations of vessels not under the Soviet flag.

Representatives of Polish fishermen are expected to visit Denmark to discuss fishery problems with Danish fishermen.

Danish Fishing Vessels Refused Shelter in East German Waters: In two instances in late 1964 Danish fishing vessels were barred from seeking shelter in East German territorial waters. A vessel from Stubbekøbing seeking shelter near Darsser Ort in November 1964 was boarded by an East German patrol vessel. After the papers of the Danish vessel were examined it was ordered to leave East German territorial waters.

Another Danish vessel from Stubbekøbing seeking shelter along the East German coast was also boarded by an East German patrol. The Danish skipper was taken to Warnemunde for a hearing and accused of illegal fishing. Later he was released and ordered outside the East German 3-mile limit.

East German Trawler Warned in Greenland Waters: During an inspection trip in the southern district of Greenland in October 1964, a Danish inspection vessel came upon an East German trawler anchored in Arsuk Fjord, according to a Danish newspaper. A Danish fishery officer went on board the East German vessel which turned out to be a modern stern trawler equipped to fish in North Atlantic waters and also serve as a marine research vessel. The East German vessel captain was warned that in the future he must seek permission to enter and remain in Greenland waters. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, December 2 and 22, 1964.)

EUROPE

FISHERY LANDINGS AT RECORD HIGH IN 1963:

The combined fishery landings of European nations (not including U.S.S.R.) in 1963 were at a record high of 8.84 million metric tons accounting for 19 percent of the world catch. Only Asia, with a total catch of 17.8 million tons (39 percent of the world total) caught more fish in 1963 than the nations of continental Europe, the Food and Agriculture Organization (FAO) announced December 22, 1964.

Fig. 1 - A typical 52-gross-ton Danish fishing vessel operating out of Skagen.

Other fishery catches by continent in 1963 were: South America, 8.49 million tons or 18 percent of the world total, North America (including Greenland, Central America, the Caribbean Islands, Canada, Mexico, and the United States), 4.31 million tons (9 percent); the U.S.S.R., 4.0 million tons (9 percent); Africa, 2.81 million tons (6 percent),

The largest European fishery catch was Norway's with 1,387,800 tons, a slight increase over the 1,331,700 tons caught in 1962.

Fig. 2 - Britain's first conventional distant-water freezer-trawler, Ross Fighter.

International (Contd.):

Norway ranked sixth in world fishery landings -- behind Peru, Japan, Mainland China, the U.S.S.R., and the United States. Norway's best fishing year was 1956 when 2,187,300 tons was caught.

Spain ranked second among European nations with a 1963 fishery catch of 1,097,900 tons, and was in ninth place in world fishery landings. In 1962, Spain's fishery landings were 1,075,400 tons.

In 1963 Denmark and the Faroe Islands caught 985,000 tons, an increase of 56,600 tons over the 1962 catch of 928,400 tons. They were in 11th place in the 1963 world order.

Fig. 1 - Purse seiners at a dock in San Pedro, Calif. (U.S.A.)

The United Kingdom fishery catch in 1963 was 951,200 tons as compared with 944,300 tons in 1962, and below the record 1948 catch of 1,206,100 tons. The United Kingdom ranked 12th in the 1963 world fishery catch.

Iceland's 1963 catch of 784,500 tons was below the 832,600 ton catch in 1962, and ranked 14th in the world.

France caught 742,300 tons in 1963, slight drop from the 744,300-ton catch in 1962. France's best fishery catch of 750,900 tons was in 1961. France ranked in 16th place in the 1963 world fishery landings.

The Federal Republic of Germany 1963 fishery catch was 646,900 tons. This was above the 1962 catch of 632,700 tons, but more than 100,000 tons below her best catch of 814,800 tons in 1955. The Federal Republic ranked 17th in the world.

Portugal was the only other European nation to catch more than one-half million tons of fish in 1963--a total of 539,800 tons compared with 525,600 tons in 1962.

Other European nations catching 100,000 tons or more were: Netherlands 361,000 tons; Sweden, 339,800; Italy, 231,600; Poland, 226,700; and East Germany, 184,800. (Food and Agriculture Organization, Rome, December 22, 1964.)

NORTH AMERICA

FISHERY LANDINGS IN 1963:

Fishery landings in North America (includes Central America, Greenland, the Caribbean Islands, Canada, Mexico, and the United States) totaled 4,310,000 metric tons in 1963 as compared with 4,490,000 tons in 1962, the Food and Agriculture Organization (FAO) announced December 22, 1964.

In 1963 the North American fishery catch accounted for about 9 percent of the total world catch of 46.4 million tons. It was the first time the North American catch dropped below 10 percent of the world catch; in 1948 it was 19 percent.

The United States fishery catch in 1963 was 2,711,900 tons, a drop of 260,900 tons from the 2,972,800 tons caught in 1962. The highest annual catch for the United States was in 1956 with 2,989,400 tons. Since then it has tended to average from 2.7 million to 2.9 million tons.

For several years the United States has ranked fifth in world fishery landings--behind Peru, Japan, Mainland China, and the Soviet Union.

Canada's 1963 catch was 1,191,300 tons, the highest ever recorded; in 1962 it was 1,124,800 tons.

International (Contd.):

Fig. 2 - Irish moss, a multi-use seaweed abundant on parts of the Canadian Atlantic Coast. Impurities are being removed from Irish moss drying in the sun near Miminegash, N.B., Canada.

Mexico's 1963 catch was 244,300 tons, also a record catch for that country. In 1962 it was 218,600 tons, and the previous high was in 1961 with 225,400 tons.

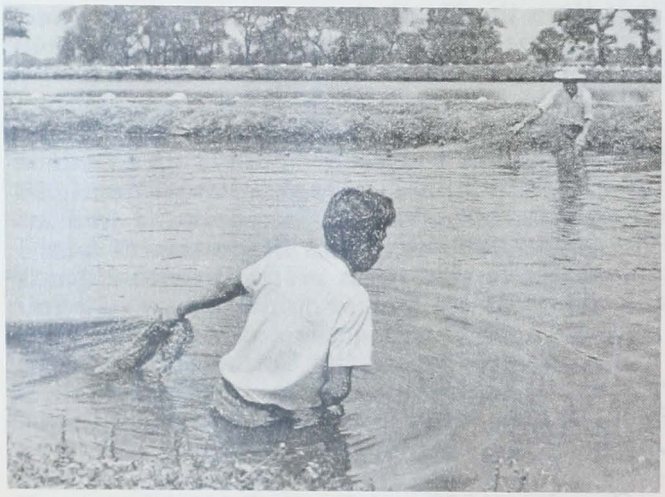


Fig. 3 - Fresh-water fish farm at Chapingo, near Mexico City, Mexico. Workers catching fish in one of the ponds by setting a net across it.

Greenland's catch was 33,300 tons, a drop of 10,000 tons from the 1962 total of 43,300 tons, and the lowest since 1958.

Cuba's 1963 catch was a record 35,600 tons, slightly above the 35,000 tons caught in 1962. Cuba's fishery catch has increased steadily over the past few years.

The 1963 fishery catch of all other North American countries was less than 20,000 tons for each country. (Food and Agriculture Organization, Rome, December 22, 1964.)

FOOD AND AGRICULTURE ORGANIZATION

HIGHLIGHTS OF 11TH SESSION OF INDO-PACIFIC FISHERIES COUNCIL:

The 11th Session of the Indo-Pacific Fisheries Council (IPFC) of the Food and Agriculture Organization (FAO) was held at Kuala Lumpur, Malaysia, October 16-31, 1964. Highlights of topics discussed follow:

Cooperative Study of the Kuroshio Current: The Council noted the proposed Cooperative Study of the Kuroshio (CSK), laid down in document UNESCO/IOC/INF-47, and the resolution (Resolution III-5) on the CSK approved at the Third Session of the Intergovernmental Oceanographic Commission (IOC). The importance of an understanding of the environment in the development of fishery resources to their maximum sustainable yield is recognized. The CSK has potential to contribute such understanding for a large area of the western Pacific Ocean.

The Council noted that the proposed fishery aspects of the CSK are stated in rather general terms, without reference to specific processes, fisheries, or areas as the objects of study. Owing to the existence of a considerable store of knowledge of the resources of the Kuroshio area and to the limitation of, for example, the amount of ship time available, it was considered that a set of specific problems should be selected for study and effort concentrated on the sea. The Council believed, however, that the specific fishery problems to be studied as part of the CSK must be defined by those fishery scientists and agencies who will actually bear the responsibility for making the studies. The Council recognized that the physical, chemical, and biological oceanographic observations will provide a general framework within which the fishery observations may be considered.

Pollution: The views and policy expressed by the Council on pollution were:

nternational (Contd.):

1. "Viewing with concern the continued in-rease in the pollution of natural waters, both resh and coastal, through industrial develop-ent, urbanization, and modern agricultural ractice.

2. "Emphasizing that the use of pesticides rmful to aquatic life, particularly by broad-sting, was rendering large areas of fish-oducing waters no longer fully productive.

3. "Considering that the long term effects the continued use of such pesticides could potentially of considerable danger not only the living aquatic resources but also to eir food organisms and to man himself."

The Council resolved to: (a) "Emphasize Member Governments the urgent and im-ediate need to review their policies in this gard.

(b) "Urge on Member Governments the sirability of exploring more fully the possi-lity of developing and adopting suitable (in-luding biological) control measures not rmful to aquatic life against agricultural sts.

(c) "Request the Director-General of FAO render all possible assistance to Member overnments in order to diminish by all prac-cal measures the current dangers.

(d) "Request the Director-General of FAO make available to Member Governments e documentation on pollution control in rope and North America and urge on them e desirability of adopting the code presented these documents and of forming suitable dies to implement that code."

Recommendation on the Indian Ocean: The uncil recognized the growing need for ani-al protein in the human dietary requirements the countries surrounding the Indian Ocean d was aware of the ability of the Indian ean fishery resources, if rationally devel-ped, to contribute substantially to the filling those needs on a sustainable basis.

Further, the Council realized the need, by veloping fishing industries, and the govern-ents in those countries to be able to take into count the seasonal and cyclical variability fish availability and abundance arising from mporal changes in the environment as well as from increased fishing pressure in planning the rational development of those fisheries, since local conditions of fish abundance and availability may be strongly affected by climatic and oceanographic conditions arising in the far distance and not detectable locally. Recognizing the necessity for a regional ocean-wide, as well as national approach to those problems into which the results of national fishery development programs can be fitted and can grow, the Council resolved to request FAO in consultation with appropriate other United Nations bodies, to examine the feasibility of designing and funding a program of fishery oceanography for the Indian Ocean which would provide a regional background of knowledge and understanding of the ocean for the use of national fishery development programs, which would make use of this sort of information arising from the International Indian Ocean Expedition and national fishery development work, and which would provide a long-range program incorporating both national and regional elements under which the rational development of the Indian Ocean Fisheries could proceed expeditiously.

South China Sea and Sunda Shelf: The Governments of Thailand and Vietnam proposed to conduct a cooperative research project in the South China Sea and the Sunda Shelf with particular emphasis on research that might lead to the development of the fishery resources of that area. The Council recalled that various studies had been made of the area, notably the Naga Expedition in the Gulf of Thailand and the South China Sea, and recognized that the results of this and other expeditions would provide much guidance in planning the project proposed by the Governments of Thailand and Vietnam.

Recognizing the contribution that the proposed project could make to development of fisheries in the region, the Council resolved to recommend the project to the attention of countries bordering the Sunda Shelf, especially Malaysia and the Philippines. The Council requested FAO and UNESCO to give all possible assistance to the project, and suggested that the working party appointed in connection with the compilation of data from tropical trawling operations by Malaysia fishermen might be able to assist in planning that project and interpreting its results.

FAO's Role in Fishery Development: The Council considered Resolution 8/63 of the 12th Session of the FAO Conference which requested

International (Contd.):

the Director-General and the FAO Council to improve the status of fisheries within FAO. The IPFC Council, represented by the Member Governments of Australia, Ceylon, France, India, Japan, Korea, Malaysia, Netherlands, Pakistan, Philippines, Thailand, United Kingdom, United States, and Vietnam, recommended that the Fisheries Division of FAO be elevated to the departmental level in the 1966/67 biennium. It proposed that the Director-General might present this recommendation to the upcoming 13th Session of the FAO Conference, to be held in the fall of 1965 in Rome, Italy. The Council indicated that this action was desirable in order that "FAO may be better organized to aid Member Countries speed the rational development of their Fisheries in the Indo-Pacific area as well as elsewhere."

Note: See Commercial Fisheries Review, December 1964 p. 73.

OCEANOGRAPHY

NORDIC CULTURAL COMMISSION MEETS:

At its meeting in Helsinki on November 16-18, 1964, the Nordic Cultural Commission (Nordiska Kulturkommissionen), among other things, recommended that the Nordic countries (a) augument their national efforts in physical oceanography, and (b) develop a joint program to promote research in physical oceanography. To initiate work on promoting research in physical oceanography, the Commission requested that 100,000 Norwegian Kroner (about US$14,500) be made available for the Fiscal Year 1965/1966. It is understood that Norway will serve as the coordinating country.

The group of experts at the meeting have identified certain areas of collaboration which should have priority during the initial phase. They include: (1) a fellowship and stipened program to facilitate exchange of teachers, scientists and students; (2) arrangements for joint symposia, exchange of information, data, etc.; (3) joint expeditions on the high seas; (4) joint efforts in developing equipment (including oceanographic buoys); (5) the establishment of a Nordic Board of Physical Oceanography (Nordisk Kollegium for Fysisk Oceanografi) along the lines already existing for marine biology.

That Board is to be composed of one representative for each of the 5 countries. As progress is made to recruit talent and to develop a joint program, coordination of the efforts in physical oceanography and marine biology will be considered.

At its November meeting the Nordic Cultural Commission approved the proposals of the group of experts and since considerable prior coordination had been achieved. It was believed that the individual governments will approve the proposals made.

Impressions derived from the meeting, which were also shared by influential persons in Denmark, Finland, Norway, and Sweden, were the recommendation adopted by the Nordic Cultural Commission need not be nearly as modest as the requested appropriation might indicate. Funds for oceanographic work are available in the regular budgets of the institutions concerned, and additional funds can be obtained from different Research Councils and other money-granting national organizations. The short-term gain of the program may be considerable and will come from a reorientation of the national programs, a stimulation of influx of new talent to oceanography, and better recognition of the importance of oceanography by the governments and parliaments concerned. Such recognition may be further stimulated if it were made known that a joint and expanded effort in oceanography by the Nordic countries would be a valuable component of a general scheme for the North Atlantic and Arctic region. (United States Embassy, Stockholm, December 16, 1964.)

WHALING

ANTARCTIC SEASON FOR 1964/65 OPENED DECEMBER 12, 1964:

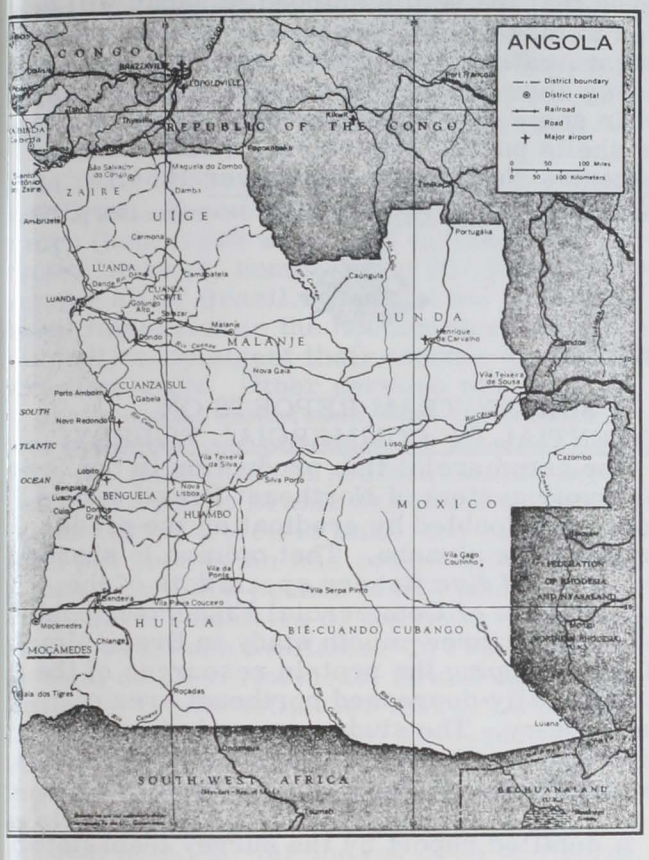
The 1964/65 Antarctic whaling season opened on December 12, 1964, with a total of 15 expeditions from the U.S.S.R., Japan, and Norway participating. Norway has 4 factoryships and 36 catchers; Japan, 7 factoryships and an estimated 76 catchers; the U.S.S.R., 4 factoryships and an estimated 68 catchers. (United States Embassy, Oslo, December 22, 1964.)

Angola

NEW FISH-PROCESSING INDUSTRY PLANNED FOR SOUTHERN REGION:

The Angolan press reported in November 1964 that the Sociedade Portuguesa de Pesarias Restole (SARL) has requested authorization from the provincial government of An-

Angola (Contd.):



gola to install a new fish-processing industry n Mocamedes. Construction is to be in two hases--first, a refrigeration plant with a ca-acity of 2,500 tons, and second, a factory for naking fish meal and for salting, drying, and anning fish. (United States Consulate, Lu-nda, December 3, 1964.)

ustralia

ISHERY EXPORT TRENDS, ULY-SEPTEMBER 1964:

A sharp jump in scallop and shrimp ex-orts was the main feature of Australian fish-ry exports in July-September 1964. Exports f spiny lobster tails were down due to bad eather in Western Australia, the main pro-ucing State. However, spiny lobster tail hipments were expected to improve when the ain fishing season began. The total value f Australian exports of fishery products in uly-September 1964 was up 14 percent from hat in the same period of 1963, according to reliminary data.

Australian scallop exports continued their rapid expansion and reached a record level of A£55,000 ($122,100) in September 1964. Export values in September 1964 for the other leading Australian fishery products were: shrimp A£202,000 ($448,440); spiny lobster tails A£124,000 ($275,280); and whole spiny lobster A£18,000 ($39,960).

Value of Australian Exports of Leading Fishery Items, July-September 1963-1964

Product	July-September			
	1964		1963	
	A£1,000	US$1,000	A£1,000	US$1,000
Spiny lobster:				
Tails	392	870	681	1,512
Whole	147	326	124	275
Total spiny lobster	539	1,196	805	1,787
Shrimp	466	1,035	217	482
Scallops	142	315	-	-
Total of products shown	1,147	2,546	1,022	2,269

Note: Australian £1.00 equals US$2.22.

Australian shrimp exports are steadily increasing as new grounds are developed off Queensland and Western Australia. Japan remains Australia's best customer for shrimp, accounting for 82 percent of the value of Australian shrimp exports in July-September 1964.

The United States remains the main market for spiny lobster tails and France takes most of the whole spiny lobsters.

Abalone is another shellfish resource which Australia is interested in developing. Australian exports of frozen abalone in fiscal year 1963/64 (ending June 1964) totaled 180,000 pounds and were valued at more than A£50,000 ($111,000). Most of the frozen abalone went to Japan. (Australian Fisheries Newsletter, December 1964.)

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SPINY LOBSTERS BRING RECORD PRICES:

In Australia during November 1964, the first 1964/65 season spiny lobster shipment from Tasmania sold for record prices on the Sydney Fish Market. The price for fresh boiled spiny lobsters was 7.5 shillings (83 U.S. cents) a pound.

Prices in Melbourne, Australia, also were strong with live spiny lobster flown from Tasmania selling for up to 6.75 shillings (75

Australia (Contd.):

U.S. cents) a pound, and fresh boiled spiny lobster for 7.5 shillings (83 U.S. cents) a pound.

The relatively high prices in Australia were said to reflect the high prices for spiny lobster tails in the United States. (Australian, Fisheries Newsletter, December 1964.)

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NEW IMPORT DUTIES ON CANNED TUNA, CANNED SALMON, AND CANNED FISH CUTLETS:

Import duties on a wide range of canned fishery products were recommended by the Australian Tariff Board in a report presented in the Australian House of Representatives during October 1964. The Australian Government has adopted the main recommendations of the Tariff Board. Canned tuna, canned fish cutlets (barracouta, mackerel, etc.), and canned salmon are the most important items affected by the new tariffs. Following are the new Australian import duties levied on those items:

Canned tuna: 0.25d. (0.23 U.S. cents) a pound for canned tuna from countries which are accorded "most favored nation" trading treatment. Such countries include Japan and Peru, the two main suppliers of canned tuna to Australia.

Canned fish cutlets: 9d. (8.3 U.S. cents) a pound.

Canned salmon: The new import duty on canned salmon applies only to imports with an f.o.b. value of less than 4.5s. (50 U.S. cents) a pound. When applicable, the duty on canned salmon is 1d (0.925 U.S. cents) for each 1.5d (1.388 U.S. cents) that the f.o.b. price falls below 4.5s. (50 U.S. cents) a pound.

The new import duties were imposed to give protection to the developing Australian canning industry. (Australian Fisheries Newsletter, December 1964.)

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SCALLOP SHELLS EXPORTED TO JAPAN:

A trial shipment of Tasmanian scallop shells has been made to Japan by a fishery firm in Sydney, Australia. Disposal of scallop shells has long been a problem to the Australian scallop industry, and the latest move to export them has aroused keen interest. It is believed that the shells shipped to Japan will be used to make shell jewelry and ornaments. A recent Australian overseas scallop market survey showed that there was a possible market in some countries, particularly Africa, for shells packed separately. (Australian Fisheries Newsletter, November 1964.)

Note: See Commercial Fisheries Review, November 1964 p. 76.

Brazil

U. S. SURVEY TEAM REPORTS ON POTENTIAL OF COMMERCIAL FISHERY:

The commercial fish production in the reservoir system of Northeast Brazil can be more than doubled by eradicating the predator fish--the piranha. That opinion is shared by a team of five fishery specialists of the U. S. Bureau of Commercial Fisheries which conducted a three-month study in Brazil aimed at developing the protein resources of the economically-depressed northeast area of that country. The study was made in cooperation with the Agency for International Development (AID) and the Alliance for Progress.

A detailed report by the survey team states that Brazil's major fishery development plans for the Northeast are basically sound and will lead to significant increases in fishery production, marketing, and consumption. It adds that the major road-block to fisheries development in that area is caused by inadequate financial and technical development.

The report recommends that AID and the Alliance for Progress favorably consider loans for developing all phases of the fisheries in Northeast Brazil. It proposes that at least 3 specialists from the United States be sent to Brazil for 1 or 2 years to assist in fish population studies, technology and marketing, and modernization of reservoir fishing fleets. Another recommendation concerns a program of fellowships and training grants for several professional fishery workers in Brazil who are regarded as potential leaders in fisheries science.

A review of Brazil's fresh-water fishery resources based on the survey team's report follows:

Northeast Brazil is a geographic region comprised of the States of Maranhao, Piaui,

razil (Contd.):

eara, Rio Grande do Norte, Paraiba, Per-
mbuco, Alagaos, Sergipe, and Bahia. In
963, the population of the area was approxi-
ately 23.8 million people and represented
ne-third of the total population of Brazil.

In 1962, about 95,000 individuals in North-
st Brazil were considered professional fish-
men (both fresh water and marine) and pur-
ased licenses, compared to 257,000 fisher-
en for all of Brazil. Some of the profes-
onal fishermen in the northeastern area un-
oubtedly supplement their income by other
rt-time work. Other persons not classed
professional fishermen, fish for subsist-
nce purposes and purchase no licenses. In
962, the total catch of professional fisher-
en in Northeast Brazil was 283.4 million
ounds (129,000 metric tons); the average
tch per fisherman was estimated at slight-
less than 3,000 pounds (1,360 kilograms).
o separate estimates of the fresh-water and
arine catch are available. In 1963, although
e total catch of Northeast Brazil was not
vailable, it was estimated that 110.2 million
ounds (50,000 metric tons) of fresh-water
sh were taken by professional fishermen.
he most common types of gear used by pro-
ssional fresh-water fishermen are gill nets
nd cast nets. By far the majority of fishing
raft are pirogues and canoes, and are pad-
led by hand. A few fishing craft are equipped
ith sails.

No reliable estimate of the per capita fish
nsumption is available. Fish and other food
oduction, however, does not satisfy the pro-
n needs of the majority of people in North-
st Brazil. Agricultural production, for
ample, is hampered by recurrent droughts
nd floods, and the average income of individ-
ls is low. Fish is highly acceptable as a
od by nearly all people in Northeast Brazil.
the inland and coastal cities, the demand
r fish exceeds the supply. Near the reser-
irs, the supply exceeds the demand; distri-
tion and preservation problems prevent the
rplus from reaching the ready markets in
e larger inland and coastal population cen-
rs. Of the 29 species of food fish taken in
e reservoirs, the curimata (Prochilodus
.) is the most important.

The principal fishery products produced
nd marketed in Northeast Brazil are fresh
nd salted fish. Reservoir fish is sold direct-
to consumers for immediate consumption and to truck owners for further sale and distribution. The truck owners transport the fresh and salted fish to nearby villages and the larger more distant cities, and sell to retail markets or ambulatory fish peddlers. While in transit, the fresh fish are carried iced in large boxes; the salt fish in bags.

Markets, particularly in villages, generally lack icing and cold-storage facilities. The marketing problems are associated not only with the marketing of fishery products, but also with the marketing of other fresh and salted meat products.

The principal Federal agency concerned with reservoir fishing activity in Northeast Brazil is the National Agency for Works Against the Drought (DNOCS). This agency, headquartered in Fortaleza, Ceara, has primary responsibility for the area largely within the Northeast known as the Drought Polygon. The Drought Polygon represents approximately 70 percent of the total area of Northeast Brazil, and contains by far the major share of the fresh-water fisheries. Fishery information and data on areas outside the Drought Polygon are very limited.

DNOCS controls 117 large reservoirs with a capacity of 2 million cubic meters of water or more within the Drought Polygon. This is the majority of large reservoirs in the Drought Polygon, but there are others not controlled by DNOCS. In addition, there are at least 3,000 small reservoirs with an average water capacity of 750,000 cubic meters within the Drought Polygon. The smaller reservoirs, and some large reservoirs, are not under the control of DNOCS: their control rests with state and municipal governments, and with private individuals.

In relation to the reservoir fisheries of the Northeast, DNOCS operates programs for piranha control, fish culture, and other activities:

Piranha Control: Piranha (Pygocentrus sp.) is particularly sensitive to rotenone, more so than other more desirable species, and succumbs in the presence of relatively small amounts (2-3 parts per million). After rotenone treatment of the Araras Reservoir, Ceara, in 1957-58, Dr. Osmar Fontenele remarked as follows: "Even if the economic results obtained from fishing were not so high, the sole advantage of freeing the livestock and the people from the carnivorous

Brazil (Contd.):

piranha would justify the cost of the work." DNOCS records indicate that catches in reservoir waters without piranha are as much as seven times more than those with piranhas.

Fish Culture: DNOCS conducts a fish-culture program for stocking all public and private waters in the Northeast, including reservoirs, lakes, and rivers. The DNOCS plan envisions the concentration of fish culture stations in key areas, where the greatest number of public and private reservoirs is located and can be serviced. Two stations are now in operation in the State of Ceara; one at Amanari Reservoir; another at Lima Campos Reservoir. Two stations are under construction at Itans Reservoir, Rio Grande do Norte, and at Jacurici Reservoir, Bahia. A fifth station is planned for Poco do Cruz Reservoir, Pernambuco. The location of each of the five stations is planned so that reservoirs will be serviced within a radius of roughly 150 kilometers (93 miles).

The fish-culture program has two major functions: (1) to supply the stocking needs of public and private reservoirs; and (2) to acclimatize and introduce new species. The reservoir needs for brood stock fish are great and will increase in the next few years.

Other Activities: DNOCS directs a system known as the "Guarita da Pesca" (Fisheries Law Enforcement, Tax, and Marketing Section) on the large reservoirs under its control; the system consists of collecting statistics and taxes on the fish catch, issuing fishing licenses, enforcing fishing relations, and providing landing, processing, and marketing facilities. The DNOCS plan to improve and expand reservoir landing, processing and marketing facilities, is part of the "Guarita da Pesca" system. The plan is to improve and construct facilities at six reservoirs, namely, Araras Reservoir, Ceara; Pentecoste Reservoir, Ceara; Oros Reservoir, Ceara; Curema Reservoir, Paraiba; Jacurici Reservoir, Bahia; and Poco do Cruz Reservoir, Pernambuco. Modest accommodations and fish-landing facilities will be built at the smaller stations around the reservoirs. Ice, gear, and other supplies will be made available to fishermen at cost. Instruction and extension-type services are planned at the stations for the benefit of the fishermen. A limited number of stations at each reservoir will be developed into larger marketing centers; they will have cold-storage facilities and ice-making plants, and will serve as supply stations and distribution points for fish destined for the markets of the larger cities. The plan, if carried out, will (1) greatly improve conditions and efficiency in fish handling, processing, and marketing; (2) improve the quality of fishery products; (3) facilitate the movement of increased amounts of fishery products through domestic trade channels to the consumer; and (4) undoubtedly result in increased economic benefits to the fishermen, wholesalers, and retailers.

--By Robert Balkovic, Loyal G. Bouchard, John Crum, J. Bruce Kimsey, Charles Lee, and Wm. Ellis Ripley.

Canada

TUNA PURSE SEINER LAUNCHED AS EAST COAST TUNA PROJECT MOVES FORWARD:

The Golden Scarab, one of the world's largest tuna seiners, was launched November 4, 1964, by a Quebec shipyard. Scheduled to begin her maiden voyage in January 1965, the vessel is expected to start a tuna canning industry on Canada's East Coast. A sistership, the Silver Scarab is under construction. Each vessel will have a capacity for 780 tons of frozen tuna. The vessels will deliver their catch to a tuna cannery being built at St. Stephen, New Brunswick. The cannery expects to be in operation by June 1965 and to sell $3 million worth of canned tuna in 1966.

The Golden Scarab and the Silver Scarab each cost $1.8 million of which 40 percent was contributed by the Canadian Federal Government and 10 percent by the Province of Quebec under fishing vessel subsidies.

The Golden Scarab measures 170.5 feet overall. Powered by a 10-cylinder Diesel engine developing 1,666 horsepower, she will have a loaded service speed of 12.5 knots at 750 r.p.m. Cruising range is 18,000 miles, and the vessel can stay at sea for 120 days. The vessel's refrigeration plant holds fish at 15° F. It is operated by three ammonia compressors. A helicopter will be carried by the Golden Scarab to scout fish.

The nylon seine of the Golden Scarab weighs 28 tons and is 4,000 feet long and 420 feet deep. It is reported to be one of the largest seines ever built.

The tuna canning plant being built in New Brunswick may be closer than California to some of the traditional Pacific tuna grounds off Central and South America. Also, the two vessels will exploit the large skipjack and bluefin tuna populations of the Atlantic. Each vessel is expected to land about 3,000 tons of tuna a year. (Western Fisheries, December 1964.)

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LARGE STERN TRAWLER LAUNCHED:

The largest trawler ever built in Canada, Acadia Albatross, was launched on November 23, 1964, from a shipyard in Lauzon, Quebec.

The Acadia Albatross is a stern trawler with a shelter deck. It is said to be capable of catching and handling 7 million pounds of fish a year.

anada (Contd.):

Main specifications of the vessel are: length overall 152 et, length between perpendiculars 130 feet, breadth molded feet, depth molded (shelter deck) 22¾ feet, and gross nage about 625 tons.

The vessel is of all-welded steel construction and is engthened for navigation in ice. It has a raked soft-nosed m (flared at bow) and a wide stern with ramp (with gates ed between bulwarks at the top of ramp). The new trawler s two continuous decks. Machinery and accommodations e located forward of amidships.

A fixed type of fishing gantry is fitted on the shelter deck at stern. Forward of the stern ramp is a fish-handling try which, in combination with another gantry formed he exhaust pipes, handles the fish and fishing equipment.

The deck machinery, which is generally of the electrically- rated type, consists principally of one 4-barrel trawl ch situated on the shelter deck aft of the bridge and two on capstans located right aft on the shelter deck.

The washing and handling of fish is done under cover be- en decks. Fish are landed on the shelter deck and then led ough a hatch to the fish-handling area below. There the sh are cleaned. After cleaning, the fish are taken by con- yor belts to three hatches serving the insulated fish hold. l doors and hatches in the system are hydraulically-oper- ed.

The vessel is equipped with modern navigational aids in- uding radar, radiotelephone, loran, and echo-sounders ar- nged on a central console in the wheelhouse.

Populsion is by marine Diesel engine and controllable ch propeller controlled directly from the wheelhouse. anadian Fisherman, January 1965.)

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LOATING FISH FACTORY PLANNED:

A $500,000 floating fish plant to process roundfish fillets is to be built in Liverpool, ova Scotia, and is expected to be in opera- n early in 1966, according to the Trade and dustry Minister of Nova Scotia.

The project is being developed by a pri- e firm with the aid of a $190,000 sub- y from the Maritime Commission of Nova otia. In addition, a $390,000 loan for the oject was approved by the Nova Scotia Gov- ment.

Three fishing vessels being built to help pply fish to the floating plant will boost the erall cost of the project to more than ,000,000.

The plant will be built on a floating barge 50 feet long and 40 feet wide) because prep- ation of a land site in Liverpool was not onomically feasible. The floating plant will capable of handling about 10 million pounds groundfish annually on its production line. out 60 people will be employed at the plant.

The floating plant will have three decks. Storage space and a compact fish meal plant to use fish waste will be housed on the bottom level. Upper decks will be for holding, processing, freezing, and cold-storage facilities.

Fish will move in a straight line from a conveyor bringing them to the upper deck through various processing stages. Processed fish will be dispatched for fresh shipment or freezing and cold-storage.

The floating fish factory will create jobs in the Liverpool area, not only through plant employment but also by making a ready market available for inshore fishermen.

"The eventual application of such a plant, and others like it, would be to move it to areas not served by nearby land-based plants," a company spokesman said. "For example, such a plant could be moved to a Gulf of St. Lawrence site during good fishing periods, then be moved out when ice closed harbors. This type of plant construction also cuts other costs, particularly public works such as piers and highways." (Fishing Gazette, November 1964.)

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FEDERAL-PROVINCIAL BRITISH COLUMBIA FISHERIES COMMITTEE MEETS:

Topics of vital importance to British Columbia fisheries were discussed at a meeting of the Federal-Provincial British Columbia Fisheries Committee held in Ottawa, during November 1964. The Committee reviewed problems affecting the maintenance and development of the salmon resource in freshwater areas. The problems include the effects of logging, gravel removal, pollution, and other water-use projects upon the fresh-water environment. Ways of assuring that major salmon spawning areas be preserved are to be explored with the appropriate government departments.

At the meeting, the need was recognized for long-term studies dealing with the effects of patterns of forest cover removal on the capacity of streams to produce salmon. Because of the major problem of pollution, the Committee recommended the establishment of a program working party to review pollution studies of various fisheries agencies.

Canada (Contd.):

The Committee discussed the existing administration of the oyster resource. It was agreed that the management of the oyster fishery and its public health aspects require review. The Committee accepted the fact that further experimentation and research are desirable to develop more effective utilization of oyster grounds, and concurred that a review of purification techniques for possible application in the Pacific area would be of value. The subject of administration of the oyster resource is to be discussed with other agencies concerned at the next meeting of the Committee.

Sport and commercial salmon fisheries also were on the agenda for the meeting. While the Department of Fisheries of Canada is responsible for administration of those fisheries in tidal waters, their well-being is of importance to the Province of British Columbia. Because the sport fishery is expanding rapidly and is related to tourism, the province expressed interest in the status of the chinook and coho fisheries in the Gulf of Georgia and Victoria areas where the major concentration of the sport fishery is found.

A subcommittee is to be formed to periodically consider tidal salmon sport fishing regulations and conservation problems with respect to coho, chinook, and steelhead salmon. (Canadian Department of Fisheries, November 26, 1964.)

Note: See Commercial Fisheries Review, November 1964 p. 79.

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SYMPOSIUM ON THE ECONOMIC ASPECTS OF SPORT FISHING:

A 3-day symposium on the economic aspects of sport fishing was held in Ottawa, Canada, January 5-7, 1965. It was sponsored by the Department of Fisheries of Canada. The meeting was attended by about 75 biologists, administrators, and economists from all parts of Canada, as well as several from the United States.

The meeting was opened by the Canadian Federal Deputy Minister of Fisheries who said that the Canadian Government was aware of the difficulty in reconciling the regulation of fisheries for commercial purposes with those of recreation. While it is relatively easy to assess the value of commercial fisheries, it is very difficult to do so for sport fishing. The recreational value in itself is important, and in addition, sport fishing, like commercial fishing, supports a large industry. If fisheries are to be regulated in the best interests of the people, however, something must be known of the value of sport fishing as well as commercial fishing.

The Chairman of the Fisheries Research Board of Canada said that problems faced by economists in considering the sport fisheries held similarities to those which faced biologists in fish population studies.

A paper prepared by Dr. Marion Clawson, of Washington, D.C., was read at the symposium. The paper detailed the extent of the boom in outdoor recreation in the United States and explained that the basic factors underlying the outdoor boom were population changes, growth in per capita income, improved travel facilities, and increased leisure. As total population has grown, so has the number of elderly retired and semiretired people and the number of young people not yet in the labor force, two classes with special demands for outdoor recreation.

In foreseeing a greater demand for sport fishing in the future, Dr. Clawson said that perhaps it would also be less discriminating, and that a period of "mass fishing" may develop before too long. The problems of those responsible for fisheries management could then shift from fish to people--how to educate, help, guide, and hopefully satisfy the recreationists seeking some fishing, consistent with proper management. That would inevitably impose new and different burdens upon researchers and managers alike. Traditional methods would no longer suffice and greater research would be needed.

Information on expenditures made by fishermen is often collected, but its value is by no means clear. The major question is what items of expenditure to include and how to assess the value of the sport fishery in monetary terms, apart from its known value from a recreational standpoint.

The symposium on sport fisheries included panel discussions on "The Basis for an Economic Approach," "Techniques and Methods of Evaluation," "The Economics of Management," "Research Requirements," and "Statistical Needs."

The growth of sport fishing was given further emphasis during the panel discussion on research requirements. Although many of the untold thousands of sport fishermen may be inefficient, the results of their activities can be "terribly effective" with regard to fish stocks.

The panel on research requirements received a paper by the Director of the Atlantic Laboratory of the U. S. Bureau of Sport Fisheries and Wildlife. He discussed the need for research in salt-water sport fisheries. By 1960, he said, over 6 million anglers were fishing at one time of the year or another along United States coasts. They were spending about $626 million in pursuit of their sport and were increasing in numbers by about 350,000 a year. In the case of some species of fish, sportsmen account for a larger catch than commercial fishermen.

A basic need in a program of sport fishery research, he said, is statistics which are comprehensive, systematic, and accurate. How to gather such data is a problem.

He said the habits of fishermen, as well as of fish, must be studied. The livelihood of many people depends on sport fishing. There have been many changes in the use of fishery resources and in the public's attitude toward them. These changes must give direction to research requirements.

anada (Contd.):

A paper discussing the biological research required n management of fresh-water sport fisheries was pre-ented by a Canadian scientist from Vancouver, B.C. e discussed research bearing on physical and chemi-al aspects of the fresh-water environment as well as that pertaining to fish and other organisms of impor-nce to sport fish. He also stressed that man himself s a biological factor with which research was in-olved.

The final paper on research requirements was pre-nted by a scientist from Acadia University, Wolfville, .S. He stated that there is a need for units to meas-e supply, and that until a curve can be drawn show-g the long-run supply of sport fish resources, a com-lete range of economic problems defies or eludes conomic analysis. It is possible to obtain information bout the utilization of the resource in real terms such s in rod days and number of fishermen, but such in-rmation falls short of that necessary for the analysis demand in terms of money.

The last panel discussion was on statistical needs n the marine sport fishery for Pacific salmon in Brit-sh Columbia. The paper on which that discussion was ased was prepared by a member of the Canadian De-artment of Fisheries in Vancouver, B.C. He said that either the existing statistics nor the methods by which hey are gathered are adequate to the challenge now merging in the recreational salmon fishery. Major rograms of biological study have already been under-aken on sport fishing and these need to be matched ith at least a comparable level of catch and effort in-rmation.

At the close of the symposium, the Canadian Deputy linister of Fisheries said he hoped that the stimulat-ng statements which emerged during the conference ould increase efforts to find a way to make meaning-l economic analyses of the sport fisheries.

A summary of the discussion at the symposium was iven by the Director of the Namaimo, B.C., Biological tation of the Fisheries Research Board of Canada. He poke of the difficulties encountered by biologists and conomists in assessing the value of a recreation such s sport fishing because of the variety of intangibles volved. He thought that more attempts should be ade to forecast trends in sport fishing so that future emands on the resource might be better assessed. anadian Department of Fisheries, Ottawa, January 5 nd 7, 1965.)

yprus

ERRITORIAL WATERS
F 12 MILES CLAIMED:

An extension of the territorial waters of e Republic of Cyprus to 12 miles was de-lared by law No. 45 of the Cypriot Parlia-ent, published August 6, 1964. The action as protested by the Turkish Government, hich claimed that Turkish Cypriot Repre-sentatives had been barred from the Cypriot Parliament and prevented from taking part in deliberations which led to the new law on ter-ritorial waters. (Turkish Permanent Mission to the United Nations, New York, December 22, 1964.)

Denmark

WESTERN EUROPEAN
FISHERIES CONVENTION RATIFIED:

The Danish Parliament approved on May 29, 1964, Special Bill XVI agreeing to Den-mark's ratification of the March 9, 1964, London Fisheries Convention approved at the Western European Fisheries Conference in London. The Danish documents were depos-ited in the United Kingdom archives in London on October 9, 1964.

Danish fisheries limits have not been ex-tended pending discussions with neighboring countries having historic fishing rights under the Convention, and approval of a new Salt Water Fisheries Law still under considera-tion in the Folketing. Danish Fisheries Min-istry officials stated extension of limits prob-ably would occur at the same time as passage of the Salt Water Fisheries Law. (Regional Fisheries Attache, United States Embassy, Copenhagen, January 13, 1965.)

Note: See Commercial Fisheries Review, August 1964 p. 61.

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SEAL SKINS FROM ALASKA
INCLUDED IN AUCTION OF
GREENLAND SEAL SKINS:

The Royal Greenland Trade Department held one of its regular auctions for Greenland seal skins on September 9, 1964, in Copen-hagen, Denmark. Included in the auction for the first time were 2 lots of Alaska hair seal skins designated as Alaska rangers (from younger and smaller seals) and Alaska sad-dlers (from older and larger seals). There have been reports that the Alaska seal skins were taken from southwestern and central Alaska by bounty hunters.

During the auction, a total of 21,316 ringed seal skins from Greenland were sold at an average price of US$20.40 a skin. A total of 849 other Greenland skins (from harp, bladder-nosed, and saddle seals) were sold at some-what higher average prices.

Denmark (Contd.):

A total of 2,450 Alaska ranger seal skins were sold at an average price of $33.20 a skin. The price spread for the Alaska rangers was $31.10-38.40 for 2,000 prime young washed skins and $22.45-39.80 for 450 prime old washed skins. A total of 50 Alaska saddler skins were sold for $36.90 each.

It was reported that the Alaska seal skins were not sorted as uniformly as is the practice for Greenland skins. Better prices for the Alaska skins would be expected if they were sorted more uniformly. It was not known if more Alaska seal skins would be offered at the next auction of the Royal Greenland Trade Department which was scheduled for February 1965. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, November 11, 1964.)

Ecuador

CANNED TUNA EXPORTED TO BRAZIL:

An Ecuadorean tuna cannery owned by United States interests has announced its first shipment of canned tuna to Brazil. The shipment consisted of 1,500 cases (48 1-lb. cans) of fancy solid pack. The sales manager of the Ecuadorean tuna cannery, which is located at Manta, had to make several trips to Brazil to develop the sale. (United States Embassy, Quito, December 11, 1964.)

Faroe Islands

FAROESE VESSEL TO LONG LINE FOR TUNA IN CARIBBEAN:

The Faroese owners of the M/V Skugvur plan to send the vessel to the Caribbean to long line for tuna. Built in a Norwegian shipyard during 1964, the vessel has already made a trip to the northeast coast of the United States to long line for porbeagle (herring shark).

Main dimensions of the Skugvur are: length 172 feet, breadth 30 feet, depth 16 feet, and tonnage 646 gross tons (312 net tons). Speed is 12 knots.

The vessel is equipped with the latest electronic aids to fishing and navigation. The engine is automatically-controlled from the bridge. A variation of the Kort Propellor enables the vessel to make tight turns during purse-seine operations. The vessel is air-conditioned for work in tropical waters. It carries fresh-water generators with a capacity for distilling 2 metric tons of fresh water a day and a flake-ice machine with a capacity of 3 tons a day. The vessel has two blast freezers which can freeze 20 tons of fish a day at -10° F. Lower temperatures can be reached, but with reduced daily output.

The Skugvur was built for the porbeagle fishery. Owing to a combination of poor fishing and unfavorable conditions in the Italian market for porbeagle, the owners have decided to try the vessel at tuna long-lining in the Caribbean, probably operating out of Barbados in the West Indies. The vessel had been considered for use in conjunction with a United States-Somali fishing project which was cancelled in 1964. It recently carried a cargo of frozen fish fillet waste for use as mink food from Nova Scotia to Norway. (Assistant Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, January 6, 1965.)

Greece

FREEZER-TRAWLER FISHERY TRENDS, SEPTEMBER 1964:

Landings: The Greek fleet of Atlantic freezer-trawlers landed 14,749 metric tons of fish in the first 9 months of 1964 compared with 14,352 tons in the same period of 1963 and 11,888 tons in January-September 1962.

Exports: One of the Greek fishing companies operating freezer-trawlers in the Atlantic has sold Bulgaria 400 tons of frozen fish (mackerel and horse mackerel). The shipment was delivered to the port of Pyrgos (Burgas), Bulgaria, by the Greek firm's refrigerated vessel Evangelistria V. The same Greek firm has also exported 50 tons of frozen cuttlefish and squid to Italy, and has prospects for further exports.

Freezer-Trawler Fleet Expands: Nine additional freezer-trawlers are scheduled to join the Greek fleet in 1965 and fish off Northwest Africa. The new vessels were acquired from foreign owners in Germany, France, and Iceland. The vessels are being adapted for

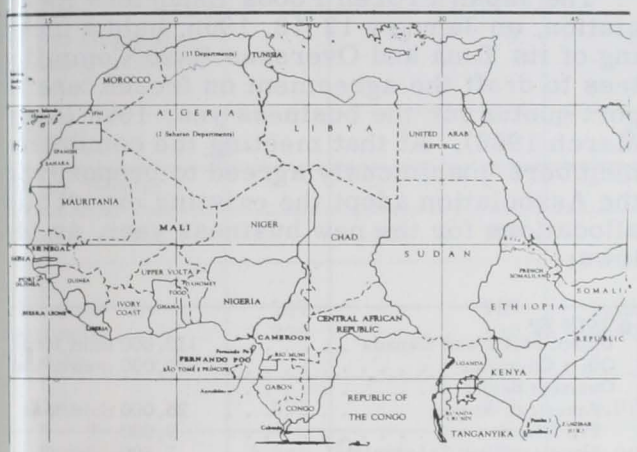
reece (Contd.):

ork as freezer-trawlers by shipyards in iraeus (Piraievs), Greece. (Alieia, October 964.)

uinea

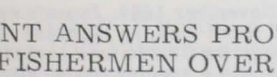
ERRITORIAL WATERS OF 0 MILES CLAIMED:

By Presidential Decree No. 224 dated June 1964, the Government of Guinea declared s territorial waters were extended to 130 utical miles calculated on the basis of straight baselines.



The United States has declared that a uni-teral extension of territorial waters is not cognized under international law, and that e United States reserves its rights and those its nationals in the waters in question. The tension of Guinean territorial waters was so protested by the Japanese Government.

It appears that the purpose of the exten-e territorial waters claim by Guinea was establish an exclusive 130-mile fishing eserve for Guinean fishermen.



eland

OVERNMENT ANSWERS PROTESTS Y LOCAL FISHERMEN OVER PANISH LANDINGS AT IRISH PORT:

Angry demonstrations by Irish fishermen arked the arrival in early December 1964 of Spanish trawler to unload fish at the Irish port of Galway. Protests were also made to the Irish Parliament. Involved in the conflict is a fish-processing factory at Galway which needs regular raw fish supplies to meet export requirements for fish sticks, fish balls, and related products. Landings by Irish fishermen have been inadequate to meet the factory's requirements, so a Spanish trawler was licensed by the Government of Ireland to supplement domestic supplies.

In the Irish Parliament on December 9, 1964, a Government spokesman defended the issuance of the license to the Spanish trawler. He emphasized the importance of the processing sector of the fishing industry in the development of a national fisheries policy; factories must be assured of regular and adequate supplies. He said contractual arrangements between Irish fishermen and the factories would be promoted so that adequate supplies would be available from Irish sources. But until that was done, landings of fish by foreign trawlers to supplement rather than supplant local catches was necessary so that export orders could be met. Since those landings would be processed and re-exported, the interests of Irish fishermen would not be adversely affected. (United States Embassy, Dublin, December 11, 1964.)

Ivory Coast

FISHERY DEVELOPMENT PLANS BEING REALIZED:

Plans for the development of the commercial fisheries of the Ivory Coast were being realized by the end of 1964 when the construction of warehouses for fishing gear and equipment and other auxiliary buildings was completed. Most of the new buildings were in operation but construction of the cold-storage plant (planned for the new "Port de Peche" or Fishing Port), which had been reported as being 25 percent completed in the summer of 1964, had not been started as of the beginning of 1965.

Specifications for the cold-storage plant were changed from a storage capacity of 1,500 tons to at least 3,000 tons. Construction bids from 4 companies (2 French and 2 United States firms) were to have been submitted this past January. It was reported that actual construction of the plant would be delayed until the completion of at least part of a new

Ivory Coast (Contd.):

1,300-foot L-shaped addition to the dock of the same length, which has been completed and is in use. This will probably be about the latter part of 1965. (Fisheries Attache, United States Embassy, Abidjan, January 9, 1965.)

Note: See Commercial Fisheries Review, October 1964 p. 60.

Jamaica

FISHERIES DEVELOPMENT PROJECT CONSIDERED:

An offshore fisheries development project costing £3.5 million (US$9.8 million) is being considered by the Jamaican Government, according to an announcement by the Jamaican Minister of Development and Welfare. The Minister mentioned the project on October 20, 1964, when he opened the Jamaican annual All-Island Fishermen's Cooperatives Conference. The conference was attended by representatives from the 65 fishing cooperatives in Jamaica. The Minister told the conference that the development project under study proposed not only to improve fisheries landings for domestic consumption but also to provide an export surplus. The proposal has provisions for a fish-canning operation, and the over-all project could lead to the employment of 1,000 people.

Pointing out that Jamaica was continuing to import canned fish, the Minister said he would like the country to become self-sufficient in fish with an export surplus. He said Jamaican landings of fish in 1963 totaled 1,500 tons. The Minister strongly supported the principle of operating through fishery cooperatives.

The Minister also told the conference about the fisheries project in the Caribbean region sponsored by the United Nations Special Fund. The Special Fund project is designed to provide through exploratory fishing, market studies, and training, a basis for fisheries development in Caribbean countries. The cost of the project to the Special Fund will be about $1.5 million. The Caribbean countries participating will contribute about $750,000. The Minister emphasized that the proposed Jamaican fisheries project was separate from and in addition to the United Nations Special Fund project in the Caribbean. (United States Embassy, Kingston, November 26, 1964.)

Japan

FROZEN TUNA EXPORT QUOTAS FOR FY 1965:

The Japan Frozen Foods Exporters Association, on January 12-13, 1965, held a meeting of its Tuna and Overseas Base Committees to draft the agreement on frozen tuna export quotas for the business year 1965 (April-March 1966). At that meeting the committee members unanimously agreed to propose that the Association adopt the existing export quota allocations for the new business year, as follows:

Exports to:	
United States and Canada	110,000 short tons 1/
Other Countries	70,000 metric tons
Overseas Bases:	
American Samoa	25,000 short tons
Fiji Islands	9,000 " "
Noumea (New Caledonia) 2/	7,500 " "
Espiritu Santo (New Hebrides)	6,000 " "
Penang (Malaysia)	6,000 " "
Saint Martin (West Indies)	2,000 " "

1/Excludes exports of tuna loins and frozen tuna transshipments from overseas bases.

2/Base, established in 1963, no longer exists but quota continues to be allocated. The fishery firm assigned the quota can utilize it by reactivating base or by obtaining permission to transfer quota to another overseas base.

Source: Suisan Tsushin, January 14, 1965.

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EXPORT VALIDATIONS OF FROZEN TUNA AND TUNA LOINS TO U.S., JANUARY-NOVEMBER 1963-64:

Japan's export validations of frozen tuna and frozen tuna loins to the United States in November 1964 totaled 7,723 short tons. Of that total, 62.5 percent were albacore tuna, 24.8 percent yellowfin, 1.4 percent skipjack, and 11.3 percent tuna loins.

During January-November 1964, Japan's export approvals amounted to 104,480 short tons, an increase of 32,236 tons or 44.6 percent more than the 72,244 tons exported during the same period in 1963. On a species basis, albacore exports were up 67.9 percent, yellowfin 30.5 percent, skipjack 5.9 percent, and tuna loins 12.2 percent. Exports of big-eyed tuna were down 2 percent. Only one ton of bluefin tuna fillets was exported as compared with 374 tons shipped during the same period in 1963.

pan (Contd.):

apan's Export Validations of Frozen Tuna and Tuna Loins to U. S., January-November 1964 with Comparisons

Species	November 1964			January-November 1964			January-November 1963			1963
	Direct	Trans-shipped	Total	Direct	Trans-shipped	Total	Direct	Trans-shipped	Total	Total
	(Short Tons)									
acore, round	1,347	3,478	4,825	24,351	32,099	56,450	11,220	22,396	33,616	36,737
owfin:										
ound	-	130	130	-	1,535	1,535	-	861	861	
illed and gutted:										
0/100 lbs.	1,087	469	1,556	25,291	4,010	29,301	18,348	3,976	22,324	
00 lbs. up	34	-	34	2,381	-	2,381	1,248	-	1,248	
essed with tail	9	186	195	87	4,537	4,624	-	4,160	4,160	
illets	-	-	-	33	12	45	296	132	428	
Total	1,130	785	1,915	27,792	10,094	37,886	19,892	9,129	29,021	33,370
-eyed:										
illed and gutted	-	4	4	30	39	69	24	4	28	
essed with tail	-	-	-	-	201	201	-	240	240	
illets	-	-	-	37	3	40	6	42	48	
Total	-	4	4	67	243	310	30	286	316	316
efin, fillets	-	-	-	-	1	1	-	374	374	374
pjack, round	-	106	106	8	3,135	3,143	-	2,967	2,967	3,762
ins:										
lbacore	537	-	537	3,283	-	3,283	2,707	-	2,707	
ellowfin	336	-	336	3,407	-	3,407	3,086	-	3,086	
luefin	-	-	-	-	-	-	157	-	157	
Total	873	-	873	6,690	-	6,690	5,950	-	5,950	6,183
and Total	3,350	4,373	7,723	58,908	45,572	104,480	37,092	35,152	72,244	80,742

ce: Japan Frozen Food Exporters Association.

rozen tuna and tuna loins approved for export during Jan- -November 1964 exceeds the total amount exported during 1963 by 23,738 tons. (Fisheries Attache, United States assy, Tokyo, December 18, 1964.)

* * * * *

NA FISHING AND MARKET TRENDS:

Japanese tuna vessels early in January 5 were shifting their operations from the ter albacore fishing grounds in the west- n Atlantic to the yellowfin grounds in the stern Atlantic. Average catches of 3-4 ric tons a day, consisting of 60 percent llowfin, were reported.

Exports of frozen dressed yellowfin tuna Italy brought US$420 a metric ton c. & f. comparison, frozen gilled-and-gutted yel- wfin tuna exported to the United States from pan proper were quoted at $370-375 a short n c.&f. Frozen round albacore for export the United States were quoted at $270-275 a short ton f.o.b. port of delivery, Africa. (Suisan Tsushin, January 18, 1965, and other sources.)

* * * * *

TUNA VESSEL RESEARCH GROUP TO BE FORMED:

In an effort to assist the tuna fishing industry in stabilizing the management of fishing vessels and in improving working conditions aboard those vessels, the Japanese Fisheries Agency plans to organize a research group to develop ways and means of reducing manpower on tuna vessels. Under the plan announced by the Agency, a research group comprised of leading experts from the Government and industry will be organized and placed under the supervision of the Agency's Production Division Chief Kamenaga. Its activities will be carried out in cooperation with the Japan National Tuna Research Council.

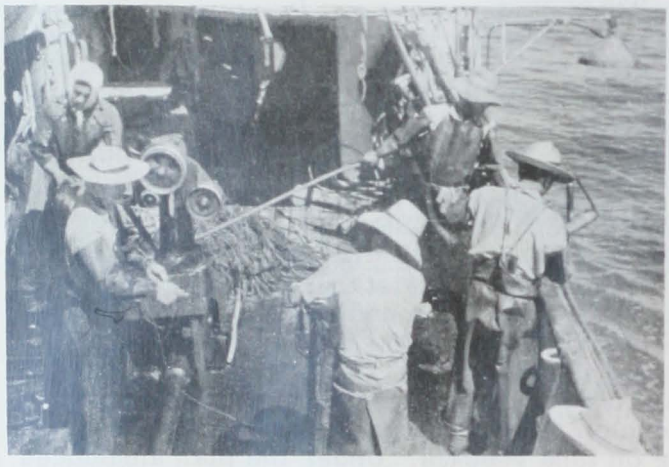
Japan (Contd.):

Projects to be assigned to the research group include the design and development of: (1) equipment to mechanize fishing operations on tuna long-liners; (2) mechanical devices to facilitate fish handling and freezing aboard the vessel; (3) automatic steering mechanism for slow-speed vessel operation during fishing; and (4) other technological improvements of fishing vessels. The projects are tentatively scheduled for completion by the end of 1965. (Suisancho Nippo, December 28, 1964.)

* * * * *

TUNA MOTHERSHIP FISHERY TRENDS IN SOUTH PACIFIC:

The Japanese tuna mothership Shinyo Maru (3,800 gross tons) returned to Tokyo on January 15, 1965, after a 103-day trip to the South Pacific. The mothership returned with 3,164 metric tons of frozen fish, consisting of 46 percent albacore tuna, 15 percent yellowfin tuna, 7 percent other tuna species, 20 percent spearfish, 8 percent shark, and 4 percent miscellaneous species. The Shinyo Maru's operation is said to have ended in a deficit due to lower than anticipated production and the preponderance of albacore in the catch, prices for which are presently depressed. Catcher vessels fishing for the mothership totaled 34, including two transport vessels. They averaged 1.92 metric tons of fish a day.



Retrieving long-line gear aboard a Japanese tuna long-line catcher boat. Note the long-line hauler.

The tuna mothership Yuyo Maru (5,500 gross tons), which belongs to the same firm that owns the Shinyo Maru, is scheduled to depart for the South Pacific in mid-May. The Yuyo Maru made a profit on its last trip. On the other hand, another fishery firm recorded a loss in its South Pacific tuna mothership operation in 1964, and it does not plan to conduct mothership-type operations in 1965. That firm's fleet, led by the mothership Nojima Maru (8,800 gross tons), operated in the vicinity of Tahiti in the summer of 1964. (Suisan Tsushin, January 18, 1965.)

* * * * *

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

The Japanese tuna purse-seine fleet, led by the mothership Chichibu Maru No. 2 (1,639 gross tons), has been operating in the waters off West Africa. It reported poor fishing at the end of 1964 and in early January 1965. The fleet began fishing on November 17 and, except for a short period soon after it commenced operations, fishing has been poor. (Suisan Tsushin, January 13, 1965.)

* * * * *

TUNA CANNERS ADOPT NEW SALES PROCEDURE:

The Japan Export Tuna Packers Association, at a directors meeting held January 8, 1965, to discuss the new export sales procedure approved at the previous directors meeting, formally adopted the original proposal and supplementary provisions as follows:

1. Packers will contract sales with exporters who have outlets in the United States and who will aggressively promote sales to help establish a firm market in that country for Japanese canned tuna.

2. Sales goal will be the attainment of the 1965 canned tuna in brine import quota admissible into the United States under the lower duty rate of 12½-percent ad valorem. However, when market conditions indicate it would be advantageous to export canned tuna in excess of that quota (packers to assume obligation of paying for the increase in duty), a decision on whether to exceed the quota admissible under the lower duty rate will be made each time such a situation occurs.

3. Exporters will present their annual sales plan within a specified date to the Packers Association on forms to be prescribed separately.

4. With regard to advance purchase orders submitted by exporters on the basis of their an-

pan (Contd.):

al sales plan, the Sales Committee (repre-nting packers), in consultation with the ex-rters, will determine the quantity of ad-nce orders in a manner which would enable porters to fulfill their targets. As a rule, pplementary contracts will not be made.

5. To assure sales and shipment of can-d tuna purchased in advance, the exporters l conclude purchase contracts with pack-s on a progressive scale based on their es plan.

6. The advance purchase plan will be mulated on a quarterly basis if that is con-ered particularly advisable under prevail-g circumstances.

7. The basic sales contract and the sales ntract to be drawn up will stipulate sales nditions. The basic sales contract shall be wn up at the time that the quantity of ad-nce purchase is determined by the export-s on the basis of their annual sales plan. e sales contract shall be prepared each e a sale is transacted.

8. A reasonable sales price based on sting market conditions in the United States l be determined by the packers at the di-ctors meeting. When a price change be-mes necessary, it will be announced as ly as possible.

9. Packers may designate outlet (trading) ms to handle their allotted production tas, in which case they must notify the kers association. Such packers may con-t their outlet firms on matters related to kind and size of pack. The Packers As-iation will recognize such firms as desig-d exporters so long as this presents no cial problem. When necessary, the Asso-tion will give those firms priority over r firms in handling the sale of canned a products.

10. The kind and size of pack to be put up packers who do not have their own desig-ed outlet (trading) firms will be deter-ned under the usual method following con-tations with exporters.

11. Joint accounts and other matters, in-ding those related to delivery, will be dled in the same manner as before.

Supplementary provisions: (1) It is understood that the advance purchase orders stipulated in Paragraph 4 will be submitted to the Tokyo Canned Tuna Sales Company; and (2) it is further understood that the provisions in Paragraphs 9 and 10 are applicable provided they present no problem, and that those provisions shall be studied further. (Suisan Tsushin, January 9, 1965.)

Note: Japanese canned tuna exporters and packers have not yet reached settlement on a new agreement covering the export of canned tuna to the United States for the business year December 1964-November 1965. The preceding 11-point proposal prepared by the packers has been submitted to the Exporters Association for its concurrence.

* * * * *

DEVELOPMENTS ON SUSPENSION OF CANNED TUNA EXPORTS TO UNITED STATES:

According to an article in the Japanese periodical Nihon Kogyo, December 15, 1964, Japan stopped exporting canned tuna to the United States as of December 1, 1964. The reason for the suspension was because of a difference of opinion between Japanese canners and traders on the policy for the sale of canned tuna to the United States during the business year 1965 (begins December 1). Canned tuna packers have been shipping their products for export to the Japan Canned Tuna Export Fisheries Union. That Union has been exporting the products after consulting with the Japan Canned Food Export Union.

Japanese tuna canners were scheduled to hold a meeting of the Board of Directors on December 16 to again discuss their export policy. It was reported that the keynote of their policy is to "establish in the United States a market for Japanese canned tuna," but with no intention to change the policy of relying on the big trading firms for greater sales. They also hold that the canners can designate their trading firms within the framework of production, while the trading firms' agreement calls for export quotas based solely on the actual exports in the preceding year.

It was pointed out that it is necessary for the canners and trading firms to reach an agreement through talks, apart from whether or not the trading firms' agreement should be recognized. It was reported that the Japanese Fisheries Agency strongly wants such an agreement.

The Japanese report that sales of Japanese canned tuna in the United States dropped in

Japan (Contd.):

1964, and that inventories of the Japanese product in the U.S. total 400,000 or 500,000 cases.

* * * * *

TUNA INDUSTRY URGED TO REDUCE RELIANCE ON GOVERNMENT ASSISTANCE:

Japanese tuna industry leaders, on December 24, 1964, held a meeting in Tokyo to exchange views with State Minister Ichiro Kono and Fisheries Agency officials on problems confronting the depressed tuna industry. Matters discussed at that meeting included the voluntary reduction of the fishing fleet, international regulation of the tuna fisheries, labor-management improvement, and tuna price problems.

In addressing the industry leaders, the State Minister commented on the great gap between his views and those of industry. He expressed the hope that industry would understand that the Government's fishery policy is changing with the times. Heretofore, the Government had pursued a protective policy for the producers, but with changing economic conditions main emphasis of the administration's policy must be directed toward the consumers. The Minister stressed that the industry should try to resolve its own problems and seek government assistance only where such help is needed, and that it must first of all reduce production costs to successfully compete with other countries. (Suisancho Nippo, December 25, 1964.)

* * * * *

GOVERNMENT ARBITRATES ALLOCATION OF BERING SEA KING CRAB PRODUCTION QUOTA:

The nine Japanese fishing companies which jointly operate the king crab factoryships Tokei Maru (5,385 gross tons) and Dainichi Maru (5,858 gross tons) in the eastern Bering Sea were unable to resolve their differences of views on the allocation of the reduced king crab production quota of 185,000 cases. That quota was agreed to at the negotiations held between Japan and the United States in the fall of 1964. Thus the firms arranged for the Fisheries Agency to arbitrate their dispute. On January 16, 1965, the Agency ruled that each company's quota would be reduced by 21.28 percent. The fractional shares of less than one case, totaling three cases, were allotted to the firm with the smallest production quota. The annual quota for 1965 and 1966 for the Tokei Maru fleet (operated by 4 firms) is 94,467 cases and the Dainichi Maru fleet (operated by 5 firms) 90,533 cases.

Those two factoryships will be licensed to operate in Bristol Bay during the 1965 season until the king crab production quota of 185,000 cases (48 $\frac{1}{2}$-lb. cans) is attained. Production by the two vessels in 1964 was 235,000 cases. (Suisan Tsushin, January 18; Suisan Keizai Shimbun, January 12; Fisheries Attache, United States Embassy, Tokyo, January 22, 1965.)

* * * * *

COMPOSITION OF BERING SEA BOTTOMFISH FLEETS:

On January 19, 1965, the Japanese Fisheries Agency submitted for consideration of the Central Fisheries Coordination Council (highest Government-industry advisory body on fisheries matters) a list showing the composition of the mothership-type bottomfish fleets scheduled for operation in the Bering Sea in 1965. According to the Agency's sub-

Typical Japanese small otter trawler in the Bering Sea fishing for a mothership.

Composition of Bering Sea Mothership Bottomfish Fleets, 1965

Mothership	Size	No. Catcher Vessels
	Gross Tons	
Gyokuei Maru	10,357	28
Shikishima Maru	10,144	23
Aso Maru	3,500	1
Tenyo Maru	11,581	15
Soyo Maru	11,192	30
Einin Maru	7,482	15
Meisei Maru No. 2	9,300	8
Chichibu Maru	7,420	12
Hoyo Maru	14,111	30
Seifu Maru	8,269	28
Itsukushima Maru	5,871	18
Taiyo Maru No. 82	2,840	1
Kotoshiro Maru No. 15	700	3
Tone Maru	535	2

pan (Contd.):

ission, 14 motherships and 214 catcher ves-
ls will be authorized to engage in the Ber-
g Sea bottomfish fishery. In 1964, 14 moth-
ships and 228 catcher vessels were li-
nsed to engage in that fishery. (Suisancho
ippo, January 20, 1965.)

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RAWLER FLEETS DEPART
R BERING SEA:

The Japanese shrimp factoryship Chichibu
aru (7,420 gross tons), accompanied by 9
awlers, departed for the eastern Bering Sea
m Hakodate on January 20, 1965. Three
ditional trawlers were expected to join the
imp fleet later.

The 3,500-ton stern trawler Aso Maru, ac-
mpanied by one small trawler, was sched-
ed to depart Tokyo for the eastern Bering
a. on January 21. (Suisancho Nippo & Suis-
Tsushin, January 20, 1965.)

* * * * *

ASONAL SAURY
SHERY DISAPPOINTING:

Japan's saury landings since the opening
the season in September through November
1964, totaled only 206,600 metric tons,
0,600 tons below the saury landings for the
me period in 1963. The saury catch off the
ast of Hokkaido was particularly disappoint-
g. Although the quantity of saury delivered
ports located on the Pacific side of Hokkai-
were slightly above the previous year, land-
gs from the Okhotsk coast of the Island
pped from 42,390 tons in 1963 to 2,900 tons
964. The failure of the run to appear off
Sanriku and Joban coasts of Honshu also
disappointing.

Because of the shortage of saury and pros-
ts of poor fishing during December 1964,
price paid to the fishermen at landing
ts during the month rose to 61 yen per
gram (about 8 U.S. cents a pound) from
average price of about 29 yen (about 4
nts) during the previous three months.
isheries Attache, United States Embassy,
kyo, December 24, 1964.)

* * * * *

URY FISHERY TRENDS:

A survey of trends in the Japanese saury
hery shows that in 1964 a proportionately larger than usual amount of the catch was frozen as bait. This was attributed to the fact that the price of bait saury has tripled in one year. As a result, cold-storage operators are processing greater quantities of that species for bait and are planning to process sizes other than those considered to be of optimum bait size.

As of December 15, 1964, the total catch of saury was reported to be 209,600 metric tons, or slightly over 60 percent of the catch for the same period a year ago. Due to poor fishing conditions, fears were expressed earlier that there would be a severe shortage of bait saury in 1965. However, as a result of the above developments, as well as a plan being considered to encourage the wider use of other species (such as small mackerel and large sardines) for bait, the outlook for 1965 is considered much brighter. (Suisan Keizai Shimbun, December 20, 1964.)

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SALMON IMPORTS FROM
COMMUNIST CHINA:

Japanese trading firms hope to import a fairly large quantity of chum salmon from Communist China in 1965. In 1964, two trading firms imported 20-30 metric tons of chum salmon at 230 yen a kilogram (US$0.28 a lb.), but the quality was poor. The trading firms hope to provide guidance in proper processing techniques (freezing and salting) this year before the commencement of the fishing season in China.

The chum salmon were reported to be from the Amur River. (Suisancho Nippo, January 19, 1965.)

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HERRING ROE ON KELP PROVE POPULAR:

A product of Alaska, "herring roe on kelp," exported to Japan, has become a highly popular food item in that country. Reportedly, demand is very strong and supplies can barely meet demand. As a result of the strong market a certain trading firm has made a request to the firm processing that product in Japan that it be appointed exclusive agent. Consideration is now being given to putting up a new style of consumer pack containing 120 grams (4.2 oz.) of "herring roe on kelp" which would be sold for 180 yen (US$0.50. (Suisancho Nippo, January 20, 1965.)

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Japan (Contd.):

HERRING TO BE IMPORTED FROM U.S.S.R.:

According to information released on January 8, 1965, by the Hokkaido Federation of Fishermen's Cooperative Associations (DOGYOREN), the Federation has concluded discussions with the Soviet Union to import 4,000 metric tons of Russian herring in 1965 at US$110 a metric ton for "fresh" herring and US$123 a ton for salted herring. In 1964, the Federation imported 3,000 tons of Russian herring at US$95 a ton for "fresh" and US$117 a ton for salted.

The trade agreement concluded by the Federation and the Soviet Government is subject to approval by the Japanese Government. Some sources believe that the Japanese Government may approve the importation of only 3,500 tons. (Suisan Keizai Shimbun, January 9, 1965.)

Note: Prices believed to be f.o.b.

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VIEWS ON SOVIET FISHING EXPANSION TO NEW FISHING GROUNDS:

According to the Japanese periodical Nihon Keizai, December 21, 1964, there is growing concern in Japanese fishing circles over possible competition with the Soviet fishing industry as a result of the recent appearance of Soviet fishing vessels off the Sanriku coast. As one of the top fisheries nations in the world, Japan has been almost free from pressure of foreign fishing operations on any fishing ground. The expansion of Soviet fishing operations is not overlooked by Japan, and in a few cases, the thinking is that the Japanese fishing industry is being surpassed by the Soviets.

Formerly, fishery problems between Japan and the Soviet Union have been limited to the salmon, salmon-trout, and crab fisheries in the Northwest Pacific. Those problems, such as catch quotas and regulations for fishing operations, have been under the jurisdiction of the Japan-Soviet Fisheries Commission. Now, the fishing vessels of Japan and the Soviet Union are in rivalry with each other on the following fishing grounds of the world: (1) The Soviet Union in 1964 sent a major fishing fleet to the grounds off Sanriku, which has been a mackerel-pike (saury) fishing ground exclusively for the Japanese, driving the Japanese fishing vessels into confusion by the misuse of SOS lines of communication; (2) Soviets also sent another large fishing fleet to the western coast of Africa where the Japanese are developing fishing grounds for cuttlefish, octopus, and sea bream. The Soviet Union has concluded "technical cooperation and aid agreements" with Ghana and other newly independent countries on the same coast, and is underselling its fishery products in those countries on the basis of "offering food to less developed countries" which is bringing about some market confusion; (3) Japan during 1964 sent only 6 trawlers to waters south of Alaska where it started its fishing activities in 1963 under the Japan-U.S.-Canada Fisheries Treaty. Japanese sources say that the Soviet Union has sent about 250 vessels to that same area.

The Japanese believe the Soviet Union has sent its mackerel-pike fishing fleet to the area off Sanriku, which borders on Japanese territorial waters, because the Soviets have started full-scale efforts for the development of northern Pacific fisheries by building in the spring of 1964 a cannery, which is said to be the biggest in the Far East, on the island of Shikotan. (The Soviet general headquarters for Far Eastern fisheries is in Vladivostok.) Japanese fisheries circles fear, above all, that the Soviet Union may advance into the field of "offshore" salmon and salmon-trout fisheries. At present, the Soviet Union is engaged in salmon and salmon-trout fisheries only at the estuaries of rivers or rivers on the sea coast, like the United States and Canada.

In recent years the Soviet Union has redoubled its efforts for the construction of refrigerator and canning factoryships. It has ordered such vessels from West Germany, and Japan[1/] while also building them at home. Despite the concern of Japanese fisheries circles, an agreement was concluded in spring 1964 between Japan and the Soviet Union for the export of cannery vessels with favorable payment terms to the Soviets calling for deferred payment of 70 percent over a period of 5½ years. Since then, most of the major Japanese industrial firms have concluded contracts with the Soviets. In 1964 alone, Soviet orders for about 200,000 gross tons of cannery and refrigerator vessels were received by Japanese firms. Although those vessels are likely to be used mainly for tuna fisheries, Japanese fisheries circles are uneasy because such vessels can also be used for fishing salm

1/Editor's note: Also from Poland, East Germany, Finland, and Sweden.

pan (Contd.):

, salmon-trout and other fisheries. (Trans-tion from Japanese periodical Nihon Keizai, ited States Embassy, Tokyo, January 4, 65.)

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PANESE PREPARING FOR RTHWEST PACIFIC FISHERIES MMISSION MEETING:

In preparation for the Ninth Annual North-st Pacific Fisheries Commission (Japan-S.S.R.) Meeting scheduled to convene at kyo on March 1, 1965, the Japanese Fish-ies Agency planned to meet with the For-gn Ministry to exchange views and to con-ue a series of meetings of high-level Agen- personnel. Similarly, industry organiza-ns involved in the North Pacific fisheries re said to be rushing preparations for the nual Meeting. To seek an adjustment of ws within the industry, the Japan Fisher-s Society scheduled a meeting for January 1965. (Suisan Keizai Shimbun, January 1965.)

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VERNMENT MAY RATIFY TWO NVENTIONS ON LAW OF THE SEA:

The Japanese Government is planning to rticipate in the Convention on the Terri-rial Sea and Contiguous Zone and the Con-ntion on the High Seas (two of the four con-ntions on the Law of the Sea) to cope with problems relating to territorial waters. e Japanese Government hopes to seek Diet nsent on the ratification of those two con-ntions, possibly as early as 1965. In view the recent trend towards extension of ter-orial waters by many countries, Japan con-ers it more realistic to revise her think-on the traditional concept of the three-le territorial sea limit in order to gain eater recognition of her established fishing hts in international waters. (Suisan Keizai mbun, December 18, 1964.)

e: See Commercial Fisheries Review, October 1964 pp. 49 & .

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GH-SEAS FISHERY ROMOTION LAW PROPOSED:

The Japanese fishing industry has long t the need for a law whereby the Govern-nt could assist the distant-water fisheries. erefore, the industry plans to seek enact-ment of such legislation. Industry leaders, led by the officers of the Japan Fisheries Society and the President of a large fishery firm, are drafting a bill for the promotion of high-seas fisheries. The bill calls for the extension of government assistance to the distant-water fisheries, including the tuna, salmon, crab, bottom-trawl, and whale fisheries. The bill also spells out administrative measures on taxes, labor, and state subsidies. (Suisancho Nippo, January 14, 1965.)

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FISHING COMPANY OBTAINS LARGE LOAN:

Japan's largest fishing enterprise arranged to borrow US$21 million during 1965 from a United States financial institution. The loan bears an interest rate of 5.5 percent per annum. In 1964, that firm obtained a short-term loan of US$11.7 million from the same bank. (Japan Economic Journal, January 12, 1965.)

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FACTORYSHIP TO BUY POLLOCK FOR FISH MEAL FROM SOVIET FISHING VESSELS:

The Japanese factoryship Hoyo Maru (14,111 gross tons), formerly the Renshin Maru, was scheduled to depart Hakodate about January 25 for the Okhotsk Sea. Under an agreement concluded with the Soviet Union, the factoryship will buy from Soviet fishing vessels Alaska pollock for processing into meal. The agreement reportedly calls for the delivery of 30,000 metric tons of fish.

The Hoyo Maru was expected to remain on the fishing grounds for about 60 days, to the end of March 1965, and will initially operate in the vicinity of 52° N. latitude. Size of the Soviet fishing fleet that serviced the Japanese factoryship was not known, but Japanese sources believed that, on the basis of the quantity of fish contracted for delivery, about 30 vessels in the 150- to 300-ton class would be assigned to fish for the factoryship. (Suisan Keizai Shimbun, December 25, 1964, and January 9, 1965.)

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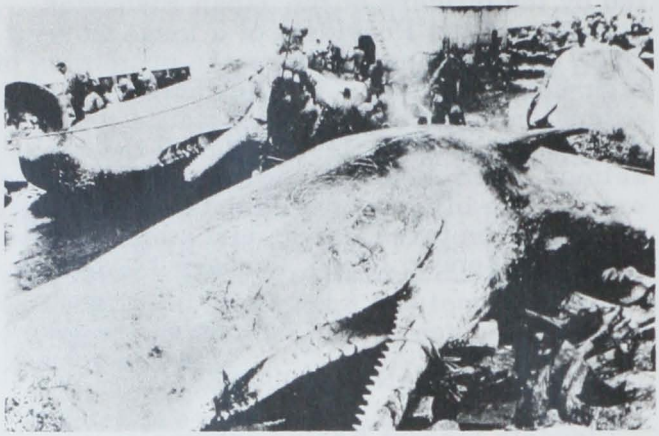
WHALE OIL AND MEAT PRODUCTION, 1963/64 SEASON:

Japan's production of whale products from the 1963/64 season's Antarctic and North Pacific whaling expeditions amounted to 334,905

Japan (Contd.):



Cutting up whales aboard a Japanese whaling factoryship.

Table 1 - Japanese Antarctic Production of Whale Products, 1963/64 Season

Product	Quantity	Estimated Value
	Metric Tons	US$1,000
Baleen (4,600 blue-whale units):		
Oil	95,400	21,111
Frozen meat	144,400	40,111
Salted meat	6,200	1,033
Meal	3,800	581
Liver oil	55	153
Whale meat extract	132	513
Total	249,987	63,502
Sperm (4,700 whales):		
Oil	1/20,400	4,122
Salted meat	1,600	267
Meal	1,400	214
Liver oil	45	125
Whale meat extract	158	614
Total	23,603	5,342
Grand total	273,590	68,844

1/Includes inventory carryover from previous season of 3,300 tons.

metric tons valued at an estimated US$83 million. The Antarctic operation produced 81 percent of the total quantity and 83 percent of the total value.

The major part of the 1963/64 season yield consisted of whale meat and oil. Those two products accounted for 329,200 metric tons

Table 2 - Japanese North Pacific Production of Whale Products, 1963/64 Season

Product	Quantity	Estimated Value
	Metric Tons	US$1,000
Baleen (800 blue-whale units):		
Oil	11,700	2,535
Frozen meat	25,800	7,167
Salted meat	300	50
Liver oil	26	72
Whale meat extract	13	58
Total	37,839	9,882
Sperm (2,460 whales):		
Oil	19,500	3,354
Frozen meat	2,100	350
Salted meat	1,800	300
Liver oil	45	125
Whole meat extract	31	138
Total	23,476	4,267
Grand total	61,315	14,149

or 98 percent of total production, of which whale meat totaled 182,200 tons and oil 147,000 tons. The value of those two items was $49.3 million and $31.1 million, respectively; they accounted for 59.3 percent and 37.5 percent of the total income received from the manufacture of whale products. (Fisheries Attache, United States Embassy, Tokyo, December 22, 1964.)

Note: See Commercial Fisheries Review, March 1964 p 61.

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GOVERNMENT'S FISHERY BUDGET ESTIMATES, FISCAL YEAR 1965:

The Japanese Government's fishery budget estimates for Fiscal Year 1965 (April 1965-March 1966) to be presented to the Diet for approval total 20,190 million yen (US$56.1 million), 9 percent more than the Fiscal Year 1964 budget of 18,600 million yen ($51.7 million). The Fiscal Year 1963 regular fishery budget was 15,166 million yen ($42.1 million). In line with the stringent fiscal policy laid down for 1965 by the Finance Ministry, very few new programs were added to the fishery budget as compared with previous years.

Funds for Some of the Proposed Fiscal Year 1965 Programs with Comparisons

Program	Proposed			
	FY 1965 Budget		FY 1964 Budget	
	Yen	US$	Yen	US$
	(In 1,000's)			
Water pollution control measures	1,612	4.5	-	-
Countermeasures for international fisheries	22,835	63.4	22,357	62.1
Guidance, supervision, and control of northern water fisheries	191,895	533.0	195,146	542.1
Guidance, supervision, and control of distant water fisheries	173,693	482.5	172,625	497.5
Promotion and development of overseas fisheries	24,373	67.7	4,624	12.8
Development of new fishing grounds	19,373	53.8	-	-
Improvement of fishing vessel management	11,120	30.9	9,946	27.6
Biological research related to international fisheries	148,458	412.4	137,756	382.7

Japan (Contd.):

The proposed fiscal year 1965 Japanese fishery budget includes the sum of $67,700 for the promotion and development of overseas fisheries, 5 times more than the previous year's allotment. It also includes $53,800 for a new program named "Development of New Fishing Grounds." Funds for the establishment of a fishery data center were disapproved by the Finance Ministry. (Suisan Keizai Shimbun, January 5, 1965.)

Netherlands

GOVERNMENT GIVES FISHING INDUSTRY FINANCIAL SUPPORT:

General details of the Netherlands Government budget of Fl. 2 million (US$554,000) for improvement of that country's fishing industry were announced by the Minister of Agriculture and Fisheries early in January 1965. Of the total, $277,000 is planned for the improvement in quality standards for fresh herring and mackerel; $125,000 for withdrawal of about 30 drift-net loggers from the fleet; $110,000 for support of experimental fishing trips; $28,000 for improving the fish canning industry; and $14,000 for rationalization of commercial fresh-water fishing in Friesland.

Quality Standards: A premium of Fl. 3 (85 U.S. cents) a case of 25 kilograms (55 pounds) will be paid for first-quality fresh herring and mackerel landed in unused barrels at IJmuiden and Scheveningen. The purpose of the premium is to improve the competitive position of Dutch herring and mackerel in the German market, particularly in competition with Danish fish.

Experimental Fishing Trips: Subsidies will be paid for fishing trips to nontraditional fishing grounds for catches of different species (particularly cod, haddock, and ocean perch as opposed to flat fish), and for use of new fishing methods and vessel types. The subsidy will be paid only if the "experiment" helps to improve the structure of the Dutch fishing industry; a special commission will make this determination. The subsidy is designed in part to entice Dutch fishermen away from the overfished North Sea grounds and to encourage diversification in the catch. It will compensate for any losses incurred in searching for new fishing grounds.

Vessel Replacement: During the 1964 season, 45 drift-net loggers were active, none of which was built later than 1930 and some of which are more than 60 years old. If at least 25 of those vessels are offered for replacement before April 1, 1965, a replacement subsidy of Fl. 15,000 ($4,150) per vessel will be paid. It was expected that about 30 of them would be offered.

Fish Canning: The subsidy will be used primarily to support the establishment of long-term delivery contracts to fish canneries. Steady supplies of fish to the canneries will, in the Government's opinion, result in more stable prices and better quality. The possibility of assistance in replacing machinery and equipment will also be investigated. It is hoped that the measures will assist in making Dutch canned fish more competitive in the European market.

Friesland Fresh-Water Fisheries: A fund will be established to buy up marginal commercial fresh-water fishing enterprises. The fund will be supplemented by the income earned from leasing the concessions held by such firms to sport fishermen.

With the exception of the Fl.50,000 ($14,000) earmarked for fresh-water fishing in Friesland, the subsidies will assist in improving the competitive position of the Dutch fishing industry in relation to its European Economic Community (EEC) counterparts, in anticipation of a common EEC fisheries policy. (United States Embassy, The Hague, January 7, 1965.)

Note: Fl. 3.614 equals US$1.00.

Norway

EXPORTS OF CANNED FISH, JANUARY 1-SEPTEMBER 26, 1964:

Norway's total exports of canned fish during January 1-September 26, 1964, were up about 6 percent from those in the same period of 1963, due mainly to larger shipments of canned brisling and canned soft herring roe.

The packing of sild sardines in 1964 started in early May and by October 17, 1964, a total of 459,848 standard cases of small sild was packed, compared with 500,009 standard cases in the same period of 1963. Most of that pack was smoked sild. Unsmoked sild

Norway (Contd.):

accounted for only 41,212 cases of the 1964 pack and 42,543 cases of the 1963 pack.

Norwegian Exports of Canned Fish

Product	Jan. 1- Sept. 26	
	1/1964	1963
	(Metric Tons)	
Brisling	4,956	3,782
Small sild	9,747	10,289
Kippered herring	2,450	2,318
Soft herring roe	1,073	621
Sild delicatessen	327	321
Shellfish	1,246	1,147
Other fishery products	2,282	2,410
Total	22,081	20,888

1/Preliminary.

The pack of brisling from the start of the season in late May to October 17, 1964, amounted to 362,081 standard cases, compared with 272,687 standard cases in the same period of 1963. The 1964 Norwegian brisling fishing season appeared to be drawing to a close in October 1964.

Mackerel landings in 1964 for canning purposes totaled 1,236 tons as of October 10, 1964, compared with 1,365 tons in the same period of 1963. (Norwegian Canners Export Journal, November 1964.)

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WHALE OIL STOCKS SOLD OUT:

Norwegian stocks of whale oil from the 1963/64 season production have been completely sold out, according to a report in the Norwegian newspaper, Norges Handels og Sjofartstidende, December 16, 1964. A total of 46,000 long tons of 1963/64 Norwegian whale oil production was sold at £83.5 (US$233.8) per long ton. The newspaper predicted an increase in the price of whale oil since Norwegian stocks are exhausted. Whale oil, unlike competing oils, does not deteriorate when stockpiled. (United States Embassy, Oslo, December 22, 1964.)

Pakistan

FISHERY PRODUCTS EXPORTS, FISCAL YEAR 1963/64:

Pakistan's export value of fishery products in fiscal year 1963/64 increased to about US$20.8 million as compared with $6.6 million in fiscal year 1958/59, according to a Pakistan Government press release. The value of exports for the current year is expected to be about the same as in the previous year. The export value of fishery products is expected to rise to $41.6 million by 1969/70, according to the estimate given in the outline of Pakistan's Third Five-Year Plan.

A modernized fishing vessel powered by a 30 b. hp. engine operating out of an East Pakistan port.

That country's total landings of fresh-water and marine fish in 1962/63 was 329,000 metric tons. The Third Five-Year Plan target is landings of 473,000 tons. If measures proposed to develop Pakistan's marine fishing industry are properly implemented it is estimated that about 25 percent of the target production will be exported. (United States Embassy, Karachi, January 1, 1965.)

Papua-New Guinea

FISHERIES POTENTIAL OF PAPUA AND NEW GUINEA:

The Australian-administered Territories of Papua and New Guinea are believed to have fishery resources which might support a canning industry. Those territories comprise the Australian Territory of Papua, and the United Nations Trust Territory of New Guinea which includes New Britain, New Ireland, Manus, Bougainville and Buka in the Solomons and about 600 lesser islands. It is expected that a survey by the World Bank will recommend faster economic development for Papua and New Guinea. (Pacific Islands Monthly, November 1964.)

Persian Gulf

ANGLO-ARABIAN SHRIMP FISHING VENTURE IN PERSIAN GULF:

Since September 1964, a British firm has cooperated with interests in Beirut, Lebanon, to develop a shrimp fishing operation in the Persian Gulf.

The first trawler to be used in the new venture--a 95-foot (b.p.) side trawler with blast-freezing equipment purchased from Italian owners--has operated since late 1964. Results are promising.

A second vessel--a stern trawler purchased from Denmark--was sent to the Persian Gulf in early 1965 to expand the operation. The new stern trawler is larger than the first vessel and may serve as mothership to a number of small shrimp boats as well as engage in fishing itself.

The vessels will operate together and their catches--mainly shrimp--will be shipped to the United States on refrigerated freighters. (Ross Group, Grimsby, England, January 15, 1965.)

Note: See Commercial Fisheries Review, December 1964 p. 109.

Portugal

CANNED FISH EXPORTS, JANUARY-SEPTEMBER 1964:

Portugal's total exports of canned fish in oil or sauce during the first 9 months of 1964 showed only a small increase over the same period of 1963. Sardines accounted for 78 percent of the total canned fish exports in January-September 1964.

Portuguese Canned Fish Exports, January-September 1963-64

Product	Jan.-Sept.			
	1964		1963	
	Metric Tons	1,000 Cases	Metric Tons	1,000 Cases
In oil or sauce:				
Sardines	37,149	1,955	33,924	1,785
Chinchards	2,612	137	1,341	71
Mackerel	3,478	139	4,504	180
Tuna & tuna-like	1,444	48	2,590	86
Anchovy fillets	2,340	234	3,434	343
Others	529	27	258	14
Total	47,552	2,540	46,051	2,479

Portugal's principal canned fish buyers during the first 9 months of 1964 were Germany with 9,009 metric tons, the United Kingdom with 7,010 tons, Italy 4,873 tons, France 4,354 tons, the United States 4,195 tons, and Belgium-Luxembourg 2,980 tons. Germany's purchases of canned fish from Portugal in January-September 1964 increased 23 percent from those in the same period of 1963. Purchases by the United Kingdom were up 33 percent. But purchases by the United States and Italy in the first 9 months of 1964 were down 17 and 36 percent, respectively. (Conservas de Peixe, November 1964.)

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CANNED FISH PACK, JANUARY-SEPTEMBER 1964:

Portugal's total pack of canned fish in oil or sauce in the first 9 months of 1964 was up 28 percent from that in the same period in 1963. The increase was due to an expanded sardine pack. The pack of other leading Portuguese canned fish items was down in January-September 1964. (Conservas de Peixe, November 1964.)

Portuguese Canned Fish Pack, January-September 1963-64

Product	Jan.-Sept.			
	1964		1963	
	Metric Tons	1,000 Cases	Metric Tons	1,000 Cases
In oil or sauce:				
Sardines	34,177	1,799	19,818	1,043
Chinchards	1,356	71	2,315	123
Mackerel	3,375	135	5,414	216
Tuna & tunalike	4,708	157	5,381	180
Anchovy fillets	2,085	208	2,956	296
Others	534	28	347	18
Total	46,235	2,398	36,231	1,876

South Africa Republic

ANCHOVY AND PILCHARD FISHERIES, AUGUST SEPTEMBER 1964:

South Africa Republic: The new anchovy fishery of South Africa received its first large commercial test in August 1964 after the close of the Cape pilchard season. By the first week in September 1964, more than 40 Cape vessels were reported to be engaged in anchovy fishing. The Cape anchovy catch was 4,032 short tons in August 1964 and 21,342 tons in September 1964. Also taken in Cape anchovy nets during the 2 months was an incidental catch of 320 tons of pilchards and 116 tons of maasbanker. That brought the Cape shoal fish catch for January-September 1964 to 413,613 tons.

From the beginning of 1965, all vessels licensed to supply factories with pilchard, ma-

South Africa Republic (Contd.):

asbanker, and mackerel may also catch anchovy. That was announced by the Chairman of the South African Fisheries Development Corporation when he opened the Sea Harvest Festival at Lambert's Bay on October 31, 1964. He also stated that regulations for the anchovy fishery would be issued soon.

South-West Africa: Fishing vessels operating from Walvis Bay and Luderitz caught 108,965 tons of pilchards and 350 tons of anchovy during August 1964. In September 1964, as several factories closed down after completing their quotas, the catch dropped to 52,025 tons of pilchard and 176 tons of anchovy. At the end of September 1964, South-West African factories had received 661,047 tons of their 1964 quota of 720,000 tons.

At the end of September 1964, most factories in South-West Africa decided to postpone further anchovy fishing until the first part of 1965.

South and South-West Africa: Combined shoal fish catch for South Africa Republic and South-West Aftica January-September 1964 amounted to 1,074,210 tons of maasbanker, pilchard, mackerel, and anchovy.

By the end of October the 1964 shoal fish catch of South and South-West Africa had passed the 1963 record total of 1,085,806 short tons and seemed likely to reach 1,150,000 tons. When that is added to the eventual catch of the trawling section of the industry and of spiny lobster and line fish, it is almost certain to raise the 1964 total for all commercial fishing to a new record for the seventh year in succession since 1958. (South African Shipping News and Fishing Industry Review, November 1964.)

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SHRIMP EXPLORATIONS OFF COAST:

South Africa has moved another stage closer toward starting a shrimp fishing industry with the discovery in 1964 of apparently highly productive grounds to the west of Cape Agulhas and off Natal. The discoveries were made in the course of exploratory trips initiated and carried out by the Fisheries Development Corporation (FDC) in cooperation with the South African trawling industry.

Early in 1964 the small experimental stern trawler Keurbooms was made available to the FDC by a local fishing company. Using this 67-foot long vessel, an FDC crew under the direction of a former senior fishing technologist with the Division of Sea Fisheries, began a wide-ranging probe that extended from Lambert's Bay round to north of Durban.

According to the general manager of the FDC, the Keurbooms has proved very suitable for such explorations and could well indicate the type of vessel which may in the future be used in shrimp fishng. Although a beam trawl had been tested, almost all fishing has been done with 75- and 100-foot otter trawls whose synthetic fiber netting has a small mesh ranging in size from $1\frac{1}{2}$ inches stretched in the wings to $\frac{3}{4}$ inches stretched in the cod end.

The object of the explorations has been to investigate, try out, and pinpoint exploitable shrimp grounds. What has been achieved in a period of six months from February to August is described in a preliminary report issued in September 1964 by the FDC. The report notes that the investigation has led to the discovery of several shrimp grounds "which appear to be highly productive." The grounds are located off Durban (at depths between 200 and 230 fathoms), off the Tugela River mouth (at about 20 fathoms), and in the area between Cape Hangklip and Danger Point (at depths ranging from 85 to 90 fathoms).

Details given in the report of results from the five main areas covered are:

Area 1 (Lambert's Bay to Cape Point): The Keurbooms fished in those waters during February and March 1964, and achieved the best results between the latitudes of Saldanha Bay and Dassen Island. Catch details for the latter area are: gear used: 75-foot shrimp bottom trawl; depth range: 96-110 fathoms; total number of hauls: 32; total fishing time: 75 hours; total catch of shrimp: 205 pounds; best catch in a single haul: 16 pounds (in 2 hours); average catch an hour: 3 pounds; size of shrimp caught: 75-85 to the pound (heads on).

The species caught were Solenocera africanum (red prawn) and Chlorotocus crassiornus (red shrimp), and they were mixed mainly with large numbers of small hake. Fishing was done at night; a haul made during daytime yielded virtually no shrimp.

Area 2 (Cape Point to Cape Agulhas): This area fished during April to June revealed considerable concentrations of shrimp in two areas, namely from Cape Hangklip towards Gansbaai, and south of Danger Point as follows:

CAPE HANGKLIP TO GANSBAAI: Gear used: 75-foot shrimp bottom trawl; depth range: 85-86 fathoms;

South Africa Republic (Contd.):

otal number of hauls: 7; total fishing: 7 hours; total atch of shrimp: 135 pounds; best catch in a single haul: 3 pounds (in 1 hour); average catch an hour: 20 pounds; ize of shrimp: 120-130 to the pound.

SOUTH OF DANGER POINT: Gear used: 75-foot and 00-foot shrimp bottom trawls; depth range: 85-90 fathms; total number of hauls: 16; total fishing time: 16 hours tal catch of shrimp: 565 pounds; best catch in a single aul: 50 pounds (in 1 hour); average catch an hour: 35 unds; size range of shrimp caught: 100-110 to the pound.

The predominant species of shrimp caught were lenocera africanum, and catches contained fair quanties of small hake. As the few hauls made during ytime yielded negligible quantities of shrimp, night shing was adapted as a standard procedure.

Area 3 (Cape Agulhas to Plettenberg Bay): This gion was explored during April-June and yielded ingnificant quantities of shrimp. The presence of large mbers of small Agulhas sole was a striking feature the majority of the test catches made in the area.

Area 4 (Plettenberg Bay to Port Shepstone): This ea explored intermittently during May and June, but d weather hampered fishing, with the result that the tch data are rather sketchy. The isolated hauls ade between Plettenberg Bay and Port Elizabeth elded negligible amounts of shrimp, while the area tending from Port Elizabeth to Port Shepstone was t fished at all. Area 4 as a whole is rather poor in awling grounds, but it is intended to investigate those ounds again when the opportunity arises.

Area 5 (Port Shepstone to Lourenço Marques): In at region, explored during July and early August, rimp were found in abundance about 12 miles southst of Durban and within 3 miles off the Tugela River outh. The remainder of Area 5 yielded insignificant antities of shrimp but this finding may be reversed carrying out a more intensive survey, especially in northern part of the area.

The catch details for the two productive grounds in ea 5 are as follows:

SOUTH-EAST OF DURBAN: Gear used: 100-foot rimp bottom trawl; depth range: 200-230 fathoms; al number of hauls: 9; total fishing time: 9 hours; l catch of shrimp: 1,000 pounds; best catch in a gle haul: 200 pounds (in 50 minutes); average catch hour: 110 pounds. Size composition (by weight) of average catch: "knife prawn" (about 25 a pound): percent; "king prawn" (about 3 a pound): 16 percent; ous small shrimp (about 150 a pound): 4 percent.

The two species of large shrimp caught (ranging rn 3 to 25 to the pound) accounted for 96 percent of catches. They were identified by the Division of Fisheries as Hymenopenaeus triarthrus (knife wn) and Nephrops andamanica (king prawn). The minant species present among the small shrimp ght were Plesionika martia, Parapenaeopsis acirostria, and Solenocera comatum. The shrimp ches were often mixed with fair quantities of Natal ny lobster. Catch results were equally good at ht and during the day in the area.

OFF THE TUGELA RIVER MOUTH: Gear used: foot and 100-foot shrimp bottom trawls; depth range: 14-21 fathoms; total number of hauls: 12; total fishing time: 12 hours; total catch of shrimp: 300 pounds; best catch in a single haul: 40 pounds (in 1 hour); average catch an hour: 25 pounds. Size composition (by weight) of the average catch: "brown shrimp" (about 15 a pound) and "tiger shrimp" (about 15 a pound) 73 percent; various small shrimp (about 150 a pound) 27 percent.

The Division of Sea Fisheries has identified the brown shrimp caught in the area as Penaeus indicus and the tiger shrimp as Penaeus monodon. They ran about 15 shrimp to the pound. The small shrimp caught were mainly of the same species as those found off Durban. The shrimp were mixed with fair quantities of small kob, and again there was no significant difference between catches made during daytime and those made at night.

The FDC report concluded that in view of the good results obtained, in particular off the Natal coast and on the western side of the Agulhas Bank, there seemed to be sufficient justification for intensifying explorations of the shrimp resources. The FDC intends to accelerate the survey in order to chart properly the boundaries of the fishing grounds and determine their seasonal yields, while at the same time trying to evolve the optimum fishing method and gear with an eye on commercial exploitation, but with due regard to the biological implications of fishing with small-mesh trawls. (The South African Shipping News and Fishing Industry Review, October 1964.)

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HARBORS BEING IMPROVED TO HELP FISHERIES EXPAND:

Harbor improvement is needed so that the fisheries of the South Africa Republic can expand. That was emphasized by the Chairman of the South African Fisheries Development Corporation when he opened the Sea Harvest Festival at Lambert's Bay on October 31, 1964.

Cape fishing vessels suffer serious inconvenience because of the crowded conditions at Table Bay Harbor. That affects fisheries expansion. Operators can't buy larger vessels until they are assured of adequate dock space. Development of a plan for harbor improvement at Table Bay is a priority project, according to the Chairman of the Fisheries Development Corporation. He said, however, that such work would be very expensive, and completion of a new fishing harbor at Table Bay could not be expected in less than 3 years.

The Chairman summarized plans for harbor improvement at other South African ports. He said work on the expansion of harbors at Hout Bay and Gansbaai would probably begin in 1965 and should be completed in 3 years. A portion of Saldanha Bay will be developed for the fishing industry. Government engineers proposed plans for improvements at St. Helena Bay,

South Africa Republic (Contd.):

where better shelter for fishing vessels is urgently needed. A special committee is studying the prospects for improving the facilities for fishing vessels and fish processing at Mossel Bay. Improvements at numerous other places along the long South African coastline were also considered. (South African Shipping News and Fishing Industry Review, November 1964.)

South-West Africa

NEW SPINY LOBSTER GROUNDS EXPLORED OFF COAST:

A group of Windhoek (South-West Africa) businessmen has been granted a concession by the South-West Africa Administration to carry out research work into the spiny lobster potential in the area south of Cape Cross (about 100 miles north of Walvis Bay) to a point just south of Walvis Bay.

The fishing vessel Dalkeith started exploratory work in November 1964 which was expected to take several months. It is understood that if the exploration proves successful the company will be granted a concession to catch and process spiny lobster from that area.

An area between the Hoanib and Kunene Rivers along the extreme north coast of South-West Africa also was visited by the manager of a Walvis Bay fishing firm and the Fisheries officer of the South-West African Administration to investigate possible spiny lobster fishing grounds. Indications there of a very rocky shoreline and discarded spiny lobster shells on the beach led to the belief that the area seemed very promising.

The Walvis Bay fishing firm has a concession to fish for spiny lobster along that stretch of the coast. (The South African Shipping News and Fishing Industry Review, November 1964.)

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NEW FISHING FIRM PLANS PURCHASE OF FREEZER-STERN TRAWLERS:

A new company is to be formed in South-West Africa to fish for whitefish or bottomfish in waters which have been worked almost exclusively by the Soviet fishing fleet.

The company plans to acquire three deep-sea freezer-stern trawlers which will be stationed at Walvis Bay. The share capital of the new company will be about US$415,000 with 200,000 shares to be made available to the public at 50 South African cents per share.

The trawlers were to be ordered as soon as legal formalities were completed and suitable land acquired at Walvis Bay for the erection of a factory. (The South African Shipping News and Fishing Industry Review, November 1964.)

Spain

FISHERY TRENDS AT VIGO, OCTOBER-DECEMBER 1964:

Landings and Prices: Fishery Landings at the port of Vigo, Spain, in October-December 1964 totaled 26,619 metric tons valued at 251.5 million pesetas (US$4.2 million), an increase of 14.0 percent in quantity but a decrease of 17.6 percent from the third quarter 1964 landings. Compared with October-December 1963, landings in the last quarter of 1964 were up 29.2 percent in quantity, but the value was down 6.3 percent.

Sardine landings were heavy during the last quarter of 1964--more than three times greater than in the last quarter of 1963. In October 1964, sardine landings for that month alone amounted to 7,000 tons. The lower value in the last quarter of the year was probably due to the larger proportion of lower-priced species in the total landings.

Total landings of 23,359 tons in July-September 1964 also included 2,548 tons of tuna (yellowfin), with an ex-vessel price of 27.18 pesetas a kilo (20.6 cents a pound).

Total landings in 1964 were lower by 8.1 percent in quantity and 20.8 percent in value

Spain (Contd.):

Table 1 - Landings and Average Ex-Vessel Prices of Selected Species at Vigo, October-December 1964 with Comparisons

Species	1964						1963		
	October-December			July-September			October-December		
	Quantity	Avg. Price		Quantity	Avg. Price		Quantity	Avg. Price	
	Metric Tons	Pesetas/Kilo	US¢/Lb.	Metric Tons	Pesetas/Kilo	US¢/Lb.	Metric Tons	Pesetas/Kilo	US¢/Lb.
Sardines . . .	10,442	5.27	4.0	2,021	6.61	5.0	3,359	8.09	6.1
Horse mackerel	3,239	5.03	3.8	4,806	2.21	1.7	3,034	4.14	3.1
Small hake . .	1,946	31.12	23.5	2,085	38.43	29.1	4,675	25.50	19.3
Octopus . . .	1,126	6.51	4.9	1,509	5.55	4.2	357	7.41	5.6

Table 2 - Distribution of Fishery Landings at Vigo, October-December 1964 with Comparisons

Period	Shipped Fresh to Domestic Markets	Canned	Other Distribution (Smoking, Drying, Fish Meal, etc.) and Local Consumption
	(Metric Tons)		
4th Quarter 1964	11,445	8,439	6,735
3rd Quarter 1964	10,884	6,140	6,335
4th Quarter 1963	12,020	5,364	3,215

as compared with 1963. Since 1963 was an all-time record year, the 1964 landings were considered to be very good.

Table 3 - Fishery Landings at Vigo, 1960-64

Year	Quantity	Value	
	Metric Tons	1,000 Pesetas	US$1,000
1964	84,425	999,673	16,667
1963	91,882	1,261,424	21,037
1962	79,344	890,449	14,850
1961	74,810	723,033	12,058
1960	65,457	660,645	11,018

During early 1965, a group representing Vigo fishery interests visited the United States to examine refrigerating machinery. The visit was believed to be in connection with plans to establish a fishing company with facilities to market frozen fish throughout Spain. If the program is carried out, it will be the second company of its type in Spain.

Canned Fish Industry: Mainly as a result of the abundance and low price of sardines in October 1964, the canning industry was more active than usual during the early part of the fourth quarter. This situation emphasized the need for greater cold-storage facilities. During the heavy landings in October, substantial quantities of sardines had to be used for fish meal and fertilizer, with considerable waste and loss in the value of the fish.

A slight uptrend in the quanity of canned fish exports was reported for the last quarter of 1964, with a considerable increase in exports of canned fish to the United States.

Note: See Commercial Fisheries Review, December 1964 p. 113; March 1964 p. 68.

U.S.S.R.

TUNA FACTORYSHIPS BUILT IN JAPAN:

The third of the five tuna factoryships ordered from Japan by the Soviet Union was scheduled to be turned over to the Soviet Union on January 19, 1965. Called the Iakie Luchi (5,100 gross tons), the factoryship carries 6 portable vessels and a complement of 180 persons. (Suisancho Nippo, January 12, 1965.)

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CANNED KING CRAB MEAT PRODUCTION FROM SEA OF OKHOTSK, 1958-64:

Production by the Soviet Union of canned king crab meat from the Sea of Okhotsk in 1964 was estimated to be 9.1 million pounds, according to a Japanese Government report. Average annual production from 1958 to 1964 was about 9.2 million pounds, but with a peak production of 14.2 million pounds in 1960.

Data on Soviet canned king crab production from the Sea of Okhotsk was reported to Japan as per the Japanese-Soviet fishery agreement

U.S.S.R. Canned King Crab Meat Production from Sea of Okhotsk, 1958-64

Year	Quantity
	Lbs.
1964	9,072,000
1963	8,731,200
1962	8,606,400
1961	7,790,400
1960	14,193,600
1959	7,795,200
1958	8,179,200

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

under the Northwest Pacific Fisheries Convention between Japan and the U.S.S.R. (United States Embassy, Tokyo, January 12, 1965.)

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CANNED SALMON EXPORTS, 1963:

Soviet exports of canned salmon in 1963 totaled 188,300 cases, valued at 4,275,000 rubles (US$4.7 million), as compared to 194,100 cases valued at 5,206,000 rubles ($5.8 million) in 1962, according to data released by the Soviets.

Soviet Exports of Canned Salmon, 1962-63

Principal Countries of Destination	1963			1962		
	Qty.	Value		Qty.	Value	
	1,000 Cases	1,000 Rubles	US$ 1,000	1,000 Cases	1,000 Rubles	US$ 1,000
Great Britain	135.5	3,181	3,531	92.5	2,615	2,903
Cuba	12.1	229	254	29.5	711	789
Italy	7.7	171	190	2.5	48	53
Czechoslovakia	7.0	183	203	11.3	349	387
Belgium	5.9	101	112	5.2	92	102
East Germany	3.5	74	82	30.4	913	1,013
New Zealand	3.5	67	74	0.4	23	26
Australia	3.2	93	103	1.2	86	95
Finland	0.8	44	49	8.7	186	206

Note: New ruble (1964 official rate)--US$1.11.
Source: Suisancho Nippo, January 12, 1965.

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SALMON HYBRID ANNOUNCED BY SOVIETS:

The development of a new salmon hybrid has been announced by the Soviet Union. The salmon hybrid was developed on the Pacific Coast at the Kalinin fish-breeding plant on Sakhalin Island, according to the Soviet newspaper Tass. (Editor's Note: It is not clear what species of salmon were crossed to produce the hybrid. There are some indications

Fig. 1 - Salmon spawners migrating upstream are intercepted by trap at Kalinin fish-breeding plant.

Fig. 2 - Soviet hatchery workers at Kalinin fish-breeding plant remove salmon spawners from traps.

Fig. 3 - Soviet hatchery worker holds up salmon specimen taken from trap at Kalinin.

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

hat the cross involved chum and pink salmon, r salmon similar to those species.) The Soiets claim that the new hybrid salmon combines early maturity with good size. (The Fisherman, Vancouver, B.C., November 13, 964.)

ote: See Commercial Fisheries Review, July 1964 p. 75, May 1964 p. 76.

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OVIET TRAWLING ACTIVITIES OFF OUTH AFRICA, OCTOBER 1964:

Summary: The following summary of Soiet trawling off the South Africa Republic apeared in the Walvis Bay (South-West Africa) amib Times, October 9, 1964.

"The first Russian vessels appeared off outh-West Africa in February 1961, and ince then they have increased their fleet rom 6 vessels to 26, of which some 23 are t present operating off the coast south of ere. The fleet belongs to three Russian coperatives--1 from the Baltic Ocean at Kaliingrad and 2 from the Black Sea (one at Oessa and the other at Poti).

They are catching mainly white fish groundfish). The exact quantity they catch s not known, but it is estimated to be about 0,000 tons a year... .

"The Russians use far superior equipent... . Apart from the conventional echounder they also have a horizontal scanner hich can trace shoals of fish in an area of to 4 miles round the vessel.

"The (Russian) trawlers have a freezing apacity for approximately 500 tons of fish hich is transferred at sea (or in the bay re) to depot ships which ferry out provions, oil, and water, and take the fish transrred from the trawlers back to Russia. me of the fish is being sold to Ghana and e United Arab Republic.

"Calls at Walvis Bay are only to supplent oil, water, and provisions should a dept ship or tanker be late in arriving back in ese waters with the main stores.

"A thorough and organized research proram into the fish potential off this coast is ing carried out at the same time.

"The (Russian) trawlers follow the fish between Luderitz and the Kunene River mouth. At this time of the year they usually go south of Walvis Bay."

Interview with Captain of Soviet Trawler: An interview with George Svanidze, Captain of the Soviet trawler Shota Rustavelli, was obtained by the editor of the Walvis Bay Namib Times. Following are excerpts from that interview as published in the Namib Times, October 9, 1964:

"Captain Svanidze said that he left his home port of Poti on the Black Sea on the 16th of February this year (1964). After experimental catches off Aden, down the east coast of Africa, off Madagascar, and the vicinity of Port Elizabeth he had finally reached Walvis Bay last month (September 1964) with 450 tons of fish... .

To sum up the interview, Captain Svanidze said "that fishing off this coast was poor at the moment; that he would barely make his 800 tons and therefore sacrifice the bonus they got if they brought home more than a 1,000 tons; that his ship could process a maximum of 15 to 20 tons of fish a day; that each trawler undertook one trip a year which usually lasted from 4 to 6 months...; and that he very much doubted that there were even 30 Russian ships operating off this coast."

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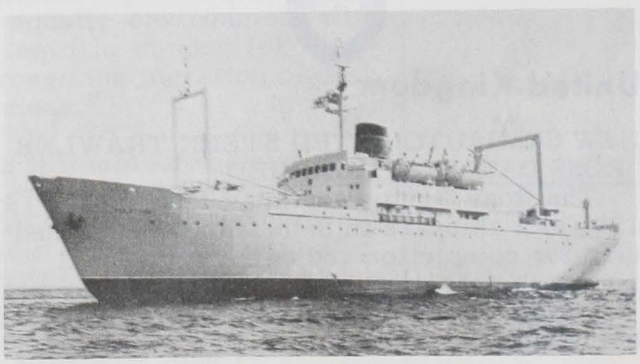
FREEZER-TRAWLER "GOLFSTRIM" DELIVERED TO SOVIETS BY DANISH SHIPYARD:

The 2,570-ton freezer-trawler M/S Golfstrim was delivered to V/O Sudoimport, Moscow, by a Copenhagen shipyard, December 30, 1964. Launched January 16, 1964, the vessel



Freezer-trawler M/S Golfstrim--a refrigerator vessel that can also be used as a trawler.

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

is the 6th in a series of 11 freezer-trawlers for the 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. Another series of 4 freezer-trawlers has been ordered by the Soviets from the Danish shipyard for delivery in 1966.

The M/S Golfstrim is powered by a 6-cylinder diesel engine developing 3,530 horsepower at 200 r.p.m. 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 of the vessel 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, United States Embassy, Copenhagen, January 6, 1965.)

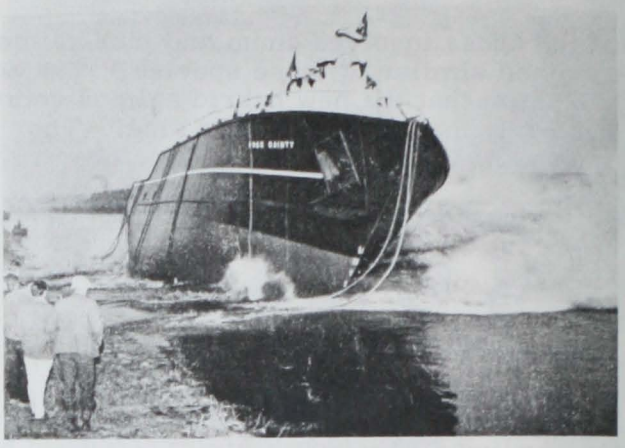
Note: See Commercial Fisheries Review, March 1964 p. 70.

United Kingdom

NEW SEMIAUTOMATED STERN TRAWLER "ROSS DAINTY" LAUNCHED:

The Ross Dainty was launched January 19, 1965 at a shipyard in Selby, England. Scheduled for completion and delivery in April 1965, the vessel is the first of two additional "Daring" class semiautomated stern trawlers being built for a large British trawling firm.

Ross Daring and her sistership Ross Delight (both launched in 1963) pioneered semi-automated stern trawling in the North Sea. Each of those vessels has a length overall of 99 feet, a range of about 30 days, and a fish-hold capacity for about 140,000 pounds of iced fish. Each is worked by a crew of five men including the skipper.



Launching of the Ross Dainty.

The Ross Dainty incorporates the basic design of the Ross Daring with improvements developed through extensive trials of the earlier vessel.

Note: See Commercial Fisheries Review, Dec. 1964 p. 115.

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BRITISH FIRM ORDERS TWO MORE SEMIAUTOMATED STERN TRAWLERS:

Sisterships to be named Ross Fame and Ross Fortune have been ordered from a shipyard in Selby, England, by the British firm which pioneered semiautomated trawling in the North Sea with the Ross Daring. Somewhat larger than Ross Daring, the new stern trawlers will extend automation to middle-distance fishing. Ross Fame and Ross Fortune will each operate with a 10-man crew. British middle-water vessels usually carry about 15 men. The new vessels will eventually have automatic gutting machines to handle their catch.

Specifications of the Ross Fame will be length between perpendiculars 120 feet, beam 30 feet, and molded depth 12½ feet. Fish-room capacity will be 8,500 cubic feet representing space for about 100 long tons of shelf fish. Power will be provided by an engine developing 950 b. hp. at 1,500 r.p.m.

Both Ross Fame and Ross Fortune will have a bridge in the true sense of the word,

United Kingdom (Contd.):

with a conventional winch well forward under the protection of the whaleback, hauling the gear under the bridge, a system adopted because of the size of the vessels. Covered cutting and washing rooms adjoining the bridge will receive the catch after it is sorted on deck.

When completed later this year, the new vessels will operate out of Grimsby.

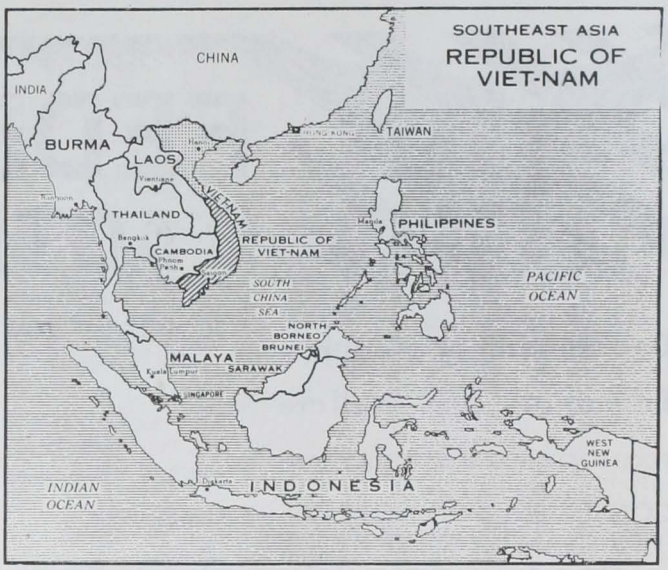
Note: See Commercial Fisheries Review, Dec. 1964 p. 115.

Viet-Nam

FISHERY TRENDS, JULY-SEPTEMBER 1964:

Viet-Nam's commercial fishery landings were at their highest level in August 1964 when they totaled 18,241 metric tons. But marine fish landings in September were light because of typhoons and strong seas.

Fishery exports, particularly of frozen shrimp, rose substantially throughout the third quarter of 1964, with 32,300 pounds in July, 59,000 pounds in August, and 92,000 pounds in September.



About 25 percent of Viet-Nam's fishing fleet of some 42,000 craft is now motorized, with the number of fishermen operating as of the end of 1964 jumping to about 205,000 from 187,000 at the end of 1963. (United States Embassy, Saigon, November 9, 1964.)

FAO ASKS TIGHT CONTROL OF PESTICIDES

As part of a general statement of policy concerning fish and pesticides (FAO Fisheries Technical Paper No. 45), the Food and Agriculture Organization of the United Nations recommended in part, that: "As a matter of general principle, all possible efforts should be made to ensure that in the use of pesticides either for agricultural purposes or public health purposes, there will be: (a) minimum loss to aquatic life; (b) minimum degradation of the aquatic environment with consequent loss or reduction of aquatic stocks; (c) minimum danger to human beings through the ingestion of fish or fish products containing pesticides."

Toward those ends, FAO said it would advise and promote close control of the manufacture, labeling, marketing, and application of pesticides. FAO will also recommend: (1) testing new pesticides for their effect on aquatic life; (2) using only those pesticides that dissipate quickly or break down in soils and do not have residual action; and (3) taking measures to retard the run-off of polluted soil into water courses. (SFI Bulletin, No. 159, February 1965.)