

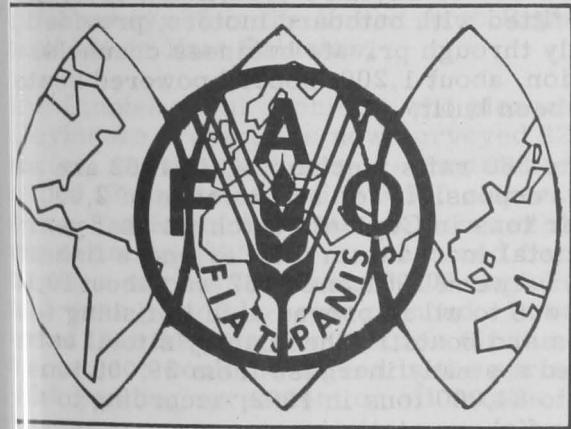
FOREIGN

International

FOOD AND AGRICULTURE ORGANIZATION

INDO-PACIFIC FISHERIES DEVELOPMENT SEMINAR:

In the Indo-Pacific region, fisheries are of great importance, especially from the standpoint of nutrition, and governments in the region attach special importance to increasing fish production and consumption. A dominant fact emerged from the 17-day seminar on fisheries development, planning, and administration held in Canberra, Australia, in February 1964.



Organized by the Food and Agriculture Organization (FAO) Indo-Pacific Fisheries Council, the seminar was attended by fisheries administrators from Australia, Ceylon, Japan, French Polynesia, Korea, Malaysia, Pakistan, Papua-New Guinea, the Philippines, Thailand, Hong Kong, American Samoa, Guam, New Zealand, Viet-nam, and the South Pacific Commission.

The three FAO fisheries experts attending were the Acting Chief, Economics Branch, Fisheries Division, FAO, Rome; the Chief Economist, Marine Resources Institute, FAO, Manila; and the Regional Officer for Asia and the Far East, FAO, Bangkok.

The seminar was officially opened by the Australian Minister for Primary Industry,

who outlined Australia's role in the world food program and referred to some of the problems being experienced by countries in the Indo-Pacific region.

An FAO representative, outlining the background and purpose of the seminar, said that the formulation of realistic fishery development programs had always been a difficult and complex matter due to uncertainties about natural resources and potential markets, and the heavy dependence of fisheries on developments in other sectors of the economy. Moreover, the nature of the fishing industry tended to isolate it from other economic activities, geographically, socially, and administratively, thus increasing the difficulty of coordinated planning and of providing the government services required for its development.

"More than ever before there is an outstanding need to clarify the objectives of fishery development and the importance of these in relation to each other; to examine the real opportunities for development represented by the natural resources and potential markets; to recognize the limits of the available resources of personnel, facilities, equipment and funds; and to review current and planned programs in the light of these fundamental considerations.

"At the present time, many governments in the region are giving special consideration to the need for improving their planning organization and administration in agriculture. In view of the importance of coordinating fishery programs with broader programs of agricultural development and industrialization, it would be desirable to give early consideration to the special problems of fisheries, so that fishery programs might also benefit from such measures," the FAO representative concluded.

Subjects discussed by the seminar included (1) survey and appraisal of fishing situations--the nature of fishery resources--supply, technological, and economic aspects; (2) objectives of government fishery policies; (3) role of government in fishery development--organi-

International (Contd.):

zation of government services to fisheries industry, organization and management of resources research, organization and conduct of technological research, organization and conduct of economic research; and (4) other government fishery activities in the field of statistics, fish marketing, fishery cooperatives, fishery credit, and fisheries education and training. (Australian Fisheries Newsletter, March 1964.)

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OUTBOARD MOTORS INCREASE FISHING EFFICIENCY OF TRADITIONAL CRAFT IN SIX COUNTRIES:

Experience gained in mechanizing traditional fishing craft in Ceylon is now helping other countries add outboard motors to small fishing vessels under a Food and Agriculture Organization (FAO) Freedom From Hunger Project.

Three years ago a 45-year old Ceylonese fisherman lived on the shores of the Bay of Bengal in a small house with walls of thatched palm and a roof of palm fronds. He and his wife and seven children were crowded in the small house, but it was all he could afford. Now he has moved into a modern bungalow with brick walls and a tile roof. His income is ten times higher than it was three years ago, his children are being educated, and he is branching out into other enterprises connected with fishing.

That story has been repeated many times -- with individual variations -- in Ceylon since 1951, under a government program to help fishermen change from their traditional crafts propelled by sail or oar to mechanized methods of fishing. For hundreds of years fishing boats in Ceylon have been either dugout canoes or log rafts called catamarans. They are laborious and limited in scope. They have to be paddled if there is no wind. Sometimes a squall comes up when a traditional fisherman is far offshore and, if he loses sight of land before lights come on at night in the villages, he may lose his life. Sometimes the wind fails and he has to paddle back to shore, arriving during the heat of the day with his catch spoiled. Even with the most strenuous effort, a fisherman in a sail-powered catamaran could never in a single night get out to the 6- or 8-fathom depths where the big fish are.

The solution to those problems has been an outboard motor. A Finnish naval architect sent to Ceylon in 1959 by FAO helped the Ceylonese Government set up a mechanization program for traditional fishing craft. Discussing their initial work, the Finnish expert said, "We were sure that outboard engines could be fitted to catamarans and work efficiently, although there had been difficulties with them previously. We had a few strokes of luck at the beginning -- mainly in the form of people. One of those people was 'Nag' -- as we came to call him. Another was a Ceylonese fisheries extension officer. . . . He caught on very quickly to the use of the outboards and helped greatly. We got two outboards from a Swedish firm and started testing them, fitted to Nag's big catamaran, on Nainativu Island, off the north coast. Normally the catamaran carries six nets. We borrowed 11 more from Nag's neighbors. With these and the motorized raft with which he was able to go out to the deep waters, Nag's catch increased 10 times -- to 13 lbs. per day compared with 13. . . ."

Now 860 of Ceylon's traditional craft have been fitted with outboard motors, provided mainly through private business channels. In addition, about 1,200 inboard powered boats have been built.

The 360 rafts mechanized in 1962 are said to be responsible for an increase of 2,000 metric tons in Ceylon's catch for that year. (The total increase in the Ceylonese fisheries catch between 1961 and 1962 was about 10,000 tons, due to all improvements in fishing techniques and boats.) The country's total catch showed a steady increase from 39,000 tons in 1957 to 84,000 tons in 1962, according to Ceylonese fishery statistics.

The Ceylon project is similar to others now being carried out in 5 other countries, involving more than 500 engines, under FAO's Freedom from Hunger Campaign. The program began with an offer by a manufacturer of outboard motors to give FAO a large number of engines for use in worthwhile projects to demonstrate their value in fishing boats. So far the company has agreed to supply several hundred engines. Other private companies have also offered engines at very low prices and money to help buy and install them is being supplied by a variety of donors.

The engines are being given to fishermen's cooperative associations. They are sold on easy terms to selected fishermen-members.

International (Contd.):

the cooperatives, and proceeds from re-
viving funds, which in turn will be used for
structures which will help the fishing commun-
ties.

An FAO representative said, "It is neces-
sary to put each project on a commercial
basis, so that the fisherman has a stake in it
and therefore a strong incentive for repay-
ment. . . . we feel that if the fisherman is re-
turning to his own association it will encour-
age him because it is, in effect, his money."

Besides supplying and installing engines,
the project will also provide repair kits and
spare parts. An expert will study the type of
gear and installation best suited to local
conditions and, if necessary, another expert will
organize maintenance and training of mechan-
ical assistants.

So far the following engines have been pro-
vided: 28 in Togo (for a 2-year project
launched in November 1963); 10 in Zanzibar;
10 in Dahomey; 85 in the United Arab Repub-
lic and 360 in East Pakistan.

The Finnish naval architect who pioneered
the Ceylonese project has now surveyed 22
countries, and new projects are envisioned in
a total of 13 countries, using 3,500 outboard
motors. For India, for example, where there
are an estimated 80,000 unmechanized fish-
ing craft, a project involving 2,000 engines
over a 3-year period is being planned. It was
expected that the plan of operation for the
Indian project would be signed in the spring
of 1964, pending agreement on all details.

There are two interesting aspects of the
Freedom From Hunger Campaign (FFHC) out-
board projects," the Finnish naval architect
said. "First, results can be seen very quickly,
and second, because the mechanized rafts can
easily beached, the fishermen can continue
to live in their homes and fish offshore from
the beach as they have always done, but taking
in bigger catches. There is no need for
them to move to some far-off fishing harbour,
which is the situation in many countries when
mechanized fishing boats are introduced."
Food and Agriculture Organization of the
United Nations, Rome, April 10, 1964.)

See Commercial Fisheries Review, October 1962 p. 48.

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SWEDEN HELPS PAKISTAN MECHANIZE SMALL FISHING CRAFT:

Sweden's Agency for International Assist-
ance has pledged US\$158,600 to equip 285
small fishing craft in East Pakistan with out-
board motors during the next two years. The
project, which is being carried out under the
Food and Agriculture Organization's (FAO)
Freedom From Hunger Campaign (FFHC),
will be reviewed at the end of the second year
and if everything has gone well Sweden will
provide East Pakistani fishermen with an ad-
ditional 315 outboard motors. This would
raise Sweden's total contribution to \$291,000,
some \$70,000 of it cash and the rest in 600
motors and spare parts valued at about \$370
each. The Pakistani Government counterpart
contribution is \$201,123.

The project is now under way and is sched-
uled to run three years. Its aim is to improve
earnings and standard of living of some 3,000
fishing families in 3 villages near Chittagong,
and 2 in the Sundarban area. The outboard
motors will be sold to the fishermen on easy
terms through local fishing cooperatives. Re-
pair kits will also be provided and a Swedish
expert will instruct the fishermen in engine
care.

Tests carried out by FAO in Ceylon and
other countries show that, when coupled with
modern gear, equipping local craft outboard
engines increases fishermen's catches an
average of 300 percent.

FAO has five outboard mechanization proj-
ects in operation under the Freedom From
Hunger Campaign (FFHC)--in Dahomey, Togo,
East Pakistan, the United Arab Republic, and
Zanzibar. They involve a total of 773 engines.
Nine similar programs involving above 2,000
more engines are planned for India, Chile,
Dominican Republic, Haiti, Tanganyika, Brazil,
Nyasaland, Northern Rhodesia, and Burundi.

Sweden has already contributed \$376,383 to
FFHC. Swedish funds have helped to pay
FFHC central campaign costs and are now be-
ing used to finance projects in Asia and Afri-
ca. In addition to its East Pakistan pledge,
Sweden has also agreed to contribute an addi-
tional \$712,000 to finance a training center for
women and girls in Tanganyika. The four-
year Tanganyika project was launched earlier
this year with an initial Swedish contribution
of \$173,000.

International (Contd.):

Counting Sweden's contributions already paid and funds pledged for the future, the total Swedish commitment to the four-year old Freedom From Hunger Campaign now stands at \$1,379,383. (Food and Agriculture Organization, Rome, March 31, 1964.)

INTERNATIONAL CONVENTION FOR
THE NORTHWEST ATLANTIC FISHERIESSOVIET UNION RATIFIES PROTOCOL
AMENDMENT CONCERNING
HARP AND HOOD SEALS:

On April 13, 1964, the Union of Soviet Socialist Republics deposited ratification of a Protocol to the International Convention for the Northwest Atlantic Fisheries. The Protocol (done at Washington, D.C., July 15, 1963) relates to harp and hood seals and is intended to bring those species within the responsibility of the Northwest Atlantic Fisheries Commission. The Protocol is not in force. (Bulletin, U. S. Department of State, May 4, 1964.)

Note: See Commercial Fisheries Review, March 1964 p. 45.

INTERNATIONAL PACIFIC HALIBUT COMMISSION

SPECIAL MEETING HELD:

The International Pacific Halibut Commission, which is responsible for the regulation of the halibut fishery of the Northern Pacific Ocean and Bering Sea on behalf of Canada and the United States, held a special meeting in Seattle, Wash., on June 4, 1964.

The purpose of the meeting was to examine recent developments in the Pacific halibut fishery, and particularly those in the Eastern Bering Sea where there has been a serious decline in the fishery.

At the meeting the Commission reviewed the situation with its investigational staff and conferred with invited representatives of the vessel owners, fishermen, and dealers from ports in Washington, British Columbia, and Alaska.

NORTH PACIFIC FUR SEAL CONVENTION

JAPAN RATIFIES PROTOCOL AMENDING
INTERIM CONVENTION ON
CONSERVATION OF FUR SEALS:

On April 10, 1964, Japan deposited ratification of a Protocol amending the Interim Convention on Conservation of the North Pacific Fur Seals. The Protocol (done at Wash-

ington, D.C., October 8, 1963) relates to the continuation of the Interim Convention for another six-year period and reflects the recommendations adopted by the North Pacific Fur Seal Commission on November 30, 1962. The Protocol entered into force on April 10, 1964. (Bulletin, U.S. Department of State, April 27, 1964.)

Note: See Commercial Fisheries Review, April 1964 p. 48; December 1963 p. 52.

NORTHWEST PACIFIC FISHERIES COMMISSION

SALMON AND CRAB FISHERIES
NEGOTIATIONS CONCLUDED BETWEEN
U.S.S.R. AND JAPAN:

The eighth annual meeting of the Northwest Pacific Fisheries Commission (Japan-U.S.S.R.) closed on April 28, 1964, after 58 days of negotiations. The two nations signed a new agreement covering fisheries regulations and crab and salmon catch quotas in the treaty area. The 1964 salmon catch quotas under the agreement were set at 110,000 metric tons for Japan (55,000 tons each for Areas A and B), and 65,000 metric tons for the Soviet Union; and 1964 king crab production quotas of 252,000 cases ($\frac{1}{2}$ -lb. 48's) for Japan and 378,000 cases for the Soviet Union were established.

The Commission readopted the following regulations for the salmon fishery in convention waters:

Convention Areas:

- (a) Area A, including the Sea of Okhotsk and the Bering Sea, is described as waters bounded on the east and south by a line commencing at Cape Navarin; thence southeast to a point of intersection at 55° N. latitude, 175° W. longitude; thence south to 45° N. latitude; thence west to 155° E. longitude; thence southwest to Aku-Yuri Island, and the Sea of Japan north of 45° N. latitude.
- (b) Area B is described as all convention waters south of the southern boundary of Area A.

Prohibited Fishing Areas:

- (a) Sea of Japan and Sea of Okhotsk north of 45° N. latitude.
- (b) All waters north of 45°51' N. latitude bounded on the east and south by a line commencing at a point 20 miles southeast of Cape Olyutorskoe; thence to a point 20 miles southeast of Cape Govenia; thence to a point 20 miles east of Cape Ozernoi; thence 20 miles east of Cape Africa; thence east at 56° N. latitude to a point at 170° E. longitude; thence south to 53°50' N. latitude; thence west to a point 20 miles southeast of Cape Shipunskii; thence southwest to 160° E. longitude; thence south to a point of intersection at 45°51' N. latitude; thence west to a point of intersection at 151°30' E. longitude.
- (c) Area north of the southern boundary line of Area A and west of 151°30' E. longitude.

Fishing Seasons:

- (a) Area A:
 - (1) Mothership fishery--May 15-August 10.
 - (2) Land-locked fishery--June 21-August 10.
- (b) Area B:
 - (1) Drift net and long-line fishery--April 30-June 30.

International (Contd.):

Limit on Catcher Boat and Survey Vessel:

Catch limit on catcher boats not to exceed 300 metric tons.

Catch limit on survey vessels not to exceed 150 metric tons.

Total catch of catcher boats and survey vessels attached to one mothership shall not exceed total catch allocated to mothership. Should the catch of catcher boats and survey vessels fall within the amount allocated to each mothership, an increase in catch per catcher boat and survey vessel is permitted.

Regulations:

Length of nets per boat:

- (1) 10 kilometers (6.2 miles)--Sea of Okhotsk.
- (2) 12 kilometers (7.5 miles)--In that portion of Area A within a line drawn from Cape Olyutorskoe at 170°25' E. longitude running south to 48° N. latitude, thence southwest to Aku-Yuri Island (Bulgarian Line).
- (3) 15 kilometers (9.3 miles)--all other areas.

Distance between nets set for fishing:

- (1) Not less than 12 kilometers (7.5 miles)--Sea of Okhotsk.
- (2) Not less than 10 kilometers (6.2 miles)--Pacific area within Bulgarian Line.
- (3) Not less than 8 kilometers (5.0 miles)--other areas.
- (4) No distance limitation between nets operated by small boats fishing south of 48° N. latitude.

Size of mesh of gill nets:

- (1) Gill nets operated by each catcher boat of mothership fleet in 1963 shall have a mesh size larger than 60 millimeters (2.36 inches) measured knot to knot; however, not less than 60 percent of gill nets fished by each boat shall have a mesh size larger than 65 millimeters (2.56 inches).
- (2) Gill nets operated by land-based fleet in Area B shall have a mesh size not less than 55 millimeters (2.17 inches).

Long-line regulations:

- (1) Diameter of branch lines used in long-line fishery in Area B (excluding Sea of Japan) shall be not less than 0.522 millimeters.
- (2) Long-line fishing prohibited in Area A.

Japanese Government sources disclosed that Japan had accepted the Soviet proposal to delete from the Annex of the Japan-U.S.S.R. Fisheries Treaty the 10-percent allowance provided for Area B (south of 45° N. latitude) which allowed Japan to take up to 10 percent over the catch quota set for that area. Japan's acceptance of the proposal, however, was based on the condition that the Commission would insert in the agreement Japan's statement of view with respect to the 10-percent allowance, and

that the Commission would recognize this allowance for the 1964 fishing season.

The allowance was originally provided for Area B because of the difficulty of allocating separate catch quotas to the numerous small Japanese salmon vessels fishing in that area. Its elimination means that Japan can be accused of violating the Treaty even if her catches slightly exceed the area quota. Therefore, this concession is expected to place Japan in a disadvantageous position in future negotiations. In previous years, Japan had not been able to effectively regulate fishing in Area B. For example, in 1963 Japan had intended to limit the catch of the land-based long-line fleet to about 15,000 tons, but final landings figures showed that the total catch for the long-line fleet exceeded 20,000 tons.

The Japanese Government is now reported to be studying the method of allocating catch quotas to the domestic fisheries. The 1963 quota for Area A (57,000 tons) was divided on the basis of 81.21 percent for the mothership-type salmon fishery and 18.79 percent for the land-based gill-net fishery. However, inasmuch as the quota for Area B, which is fished exclusively by the land-based fleet, has been reduced by 8,000 tons this year and the 1964 quota for Area A has been reduced by only 2,000 tons as compared to 1963, the land-based fishery operators are expected to agitate for a bigger proportion of the Area A quota allotment. The 1962 catch quota for Area A was 55,000 tons, and for Area B 60,000 tons.

In Area B, the Japanese Fisheries Agency plans to allocate quotas by type of fishery (i.e., gill-net, long-line, etc.) and also plans to strengthen domestic regulatory measures to ensure full compliance with the Commission's regulations. In addition, the Agency hopes to develop a rapid reporting statistical system and a system of estimating catches of vessels at sea, so that when the quotas allotted to the different fisheries are about to be met, the Agency will be able to direct those vessels at sea to terminate their operations even before the season ends.

Concerning the 1964 negotiations, the Japanese Minister of Agriculture and Forestry stated that the quota agreement was a reasonable settlement considering the fact that 1964 is a poor pink salmon year. The president of a leading Japanese fishing company viewed the Soviet Union's modification of its original insistence upon a 48,000-ton quota for Area B as an unexpected concession. The president of the National Federation of Salmon Gill-Net Fishermen's Associations, however, expressed deep disappointment over the 55,000-ton quota for Area B, stating that the allocation of the quota, which should be determined on the basis of scientific analysis of resources, was instead established as a result of force meeting force, with Japan again being forced to retreat. (*Suisan Keizai Shimbun*, April 23, 25, & 29; *Nihon Keizai Shimbun*, April 24, 1964; and *United States Embassy, Tokyo*, May 4, 1964.)

Note: See *Commercial Fisheries Review*, June 1963 p. 58, July 1962 p. 47.

ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT

FISHERY TECHNOLOGISTS MEETING:

The Organization for Economic Co-operation and Development (OECD) is organizing a meeting of fishery technologists at Scheveningen (The Hague) in the Netherlands, September 14-17, 1964.

The object of the meeting is to provide for a broad exchange of views between technologists from OECD Member Countries on the scientific work accomplished and the practical experience gained since their last meeting in 1956. Considerable progress has been made since 1956 in the techniques of handling, processing, and distributing fish and the OECD has felt the need to convene a further meeting of specialists in this field.

OECD expects that 150 participants from research centers and industry will attend the meeting. Technologists who wish to attend the meeting are asked to apply as soon as possible.

International (Contd.):

sible, either directly to the Fisheries Division of the OECD (2, rue Andre Pascal, Paris 16e, France), or through their country's Delegation to the OECD. Travel and accommodation expenses will be borne by participants.

The provisional program of the meeting lists the following topics:

September 14, 1964--First and Second Sessions:

1. Storage of Fish in Chilled Sea Water at Sea (Biochemical and Engineering Aspects):
 - (a) Introductory paper on storage in chilled sea water.
 - (b) Storing groundfish in refrigerated sea water.
 - (c) Experiments with storage of herring and shrimp in chilled sea water.
 - (d) Microbiological aspects of storage of fish in chilled sea water.
2. Prepackaging of Fresh, Frozen, Smoked and Other Products for Retail Sale:
 - (a) Public health aspects of prepackaging.
 - (b) Properties of packaging materials and their suitability for various products.
 - (c) Technological application.
 - (d) Practical experiences with prepacked fresh fish for retail market.

September 15--Third and Fourth Sessions:

3. Handling of Wet Fish Aboard and on Shore (Except in Chilled Sea Water):
 - (a) General introduction.
 - (b) Mechanization of German trawlers.
 - (c) Development in United States.
 - (d) Construction of trawlers in connection with handling of the catch.
 - (e) Experience in Norway.
4. Handling of Wet Fish Aboard and on Shore:
 - (a) Handling of fish in the auction hall and layout of the auction hall.
 - (b) Experiences with plastic fish boxes in French harbors.
 - (c) Hygienic aspects of fish boxes.
 - (d) Handling and distribution of fresh fish.
 - (e) Inland distribution of fresh fish.

September 16--Visits to be organized by the Dutch authorities, details of which will be sent with the definite agenda.

September 17--Fifth and Sixth Sessions:

5. Problems in Freezing, Cold Storage and Thawing:
 - (a) General introduction about technical and economical aspects of freezing of fish at sea.
 - (b) German experiences in freezing fish at sea.
 - (c) Special problems with freezing of very fresh fish.
6. Problems in Freezing, Cold Storage and Thawing:
 - (a) Time/temperature tolerance for frozen fish and fish products.
 - (b) Thawing of frozen fish, mainly for further processing.
 - (c) Thawing of frozen fish.

Each of the six sessions will be followed by a discussion period on the subject presented. (OECD Technical Information Bulletin, Paris, May 13, 1964.)

UNESCO INTERGOVERNMENTAL
OCEANOGRAPHIC COMMISSIONTHIRD SESSION MEETS IN PARIS,
JUNE 10-19, 1964:

Interested countries have been invited to attend the Third Session of the Intergovernmental Oceanographic Commission (IOC) meeting in Paris, June 10-19, 1964. UNESCO at its 11th session, adopted a resolution establishing the IOC "to promote scientific investigation with a view to learning more about the nature and resources of the oceans, through the concerted action of its members." IOC programs are carried out through cooperative action by Member States rather than by centralized action, and each Member determines if and to what degree he will participate in any program.

IOC has assumed the coordination of the International Indian Ocean Expedition (IIOE) which was originally launched by the Scientific Committee on Oceanic Research (SCOR) of the International Council of Scientific Unions (ICSU). That program will continue through 1965. The first major program initiated by IOC was the International Cooperative Investigation of the Tropical Atlantic (ICITA), which is virtually completed. IOC has also sponsored a South Atlantic Cooperative Investigation (SACI), and is expected to approve a Cooperative Study of the Kuroshio (CSK) at the Third Session.

Other programs to be considered at the Third Session include the General Bathymetric Chart of the Oceans sponsored by the International Hydrographic Bureau (IHB), the International Biological Program (IBP) sponsored by ICSU, installation and maintenance of tide gauges, a tsunami (tidal wave) warning system in the Pacific, and programs which Members may propose at the Session.

The Third Session will also consider a General Scientific Framework for World Ocean Study (GSF), exchange of data and information, means by which the Commission can assist its Members in development of national oceanographic programs, and a Second International Oceanographic Congress tentatively scheduled for the spring of 1966 in Moscow.



Argentina

FISHERIES TRENDS, 1963:

Argentina's fishing industry reported a record production in 1963 and even better results are expected in 1964. Commercial fisheries landings in Argentina in 1963 consisted of 10,320 metric tons of salt-water fish and 988 tons of fresh-water fish for a total of 11,308 tons, or 32 percent more than the 8,626 tons landed in 1962.

Argentine fish meal production from salt-water fish in 1963 totaled 6,636 metric tons, which was more than double the 1962 production of 3,248 tons. Fish meal exports for the first 11 months of 1963 amounted to 3,211 metric tons, as compared with 1,584 tons exported in the full year 1962.

Increased production of fishery products in 1963 was aided by the expansion of the freezing and packing industry, especially with respect to the preparation of fillets for export (largely to the United States). The capacity of the fish meal plants at Mar del Plata has also increased and new foreign markets, mainly in Europe, have been found for the increasing fish meal production. Argentina's fish meal exports in the first 11 months of 1963 to West Germany alone totaled 2,267 metric tons, whereas in 1961, total fish meal exports amounted to only 260 tons.

Argentine officials are optimistic that 1964 will bring further development in the fishing industry. They believe that the constant increase in domestic beef prices will spur a significant rise in local consumption of fish. To increase the catch, they plan to add about 100 new fishing vessels to the existing deep-sea fleet of 40 vessels. They also look for expanded fish meal exports. Argentina's fish meal industry is reported to have an annual production capacity of 12,000 tons, so there is considerable unused capacity.

There is, however, a need for further investment in parts of the fishing industry. National and Provincial authorities are planning a development program for the fishing industry which would authorize 147.5 million pesos (about US\$1.1 million) in credits to renew boats and equipment, increase production, and improve the system of distribution and marketing. (United States Embassy, Buenos Aires, Dec. 30, 1964.)

See Commercial Fisheries Review, Dec. 1963 p. 54; 1963 p. 54; and Sept. 1963 p. 57.

Australia

LICENSING AND IMPORT REGULATIONS AFFECTING FISHERIES:

The Australian fisheries are subject to regulation by both the Commonwealth Government and by the Australian State Governments.

Licensing: Commonwealth and State or Territorial licenses are required to fish in Australian waters. Licenses are required for each crew member as well as for the vessel. Foreign fishing vessels may be licensed to fish in Australian waters, although no foreign vessels are so licensed at present, according to the Fisheries Division of the Commonwealth Department of Primary Industry.

Licenses are required of all Australian fishing vessels, regardless of where they fish. The Commonwealth has delegated its licensing authority to the States and Territories, and requires the possession of a local fishing license as a condition for the issuance of a Commonwealth license.

Restrictions on Landing Fish in Australia: Laws and regulations prohibit the landing of fish in Australia by foreign-registered fishing vessels without prior approval of the Commonwealth Minister for Primary Industry.

Restrictions on Importing Fishing Equipment: The Fisheries Division and the Department of Customs and Excise of the Commonwealth Government have stated that there are no restrictions, other than payment of applicable customs duties, on the importation of fishing equipment into Australia.

Providing suitably equivalent vessels of Australian manufacture are not "reasonably available," fishing vessels may be imported free of duty under "by-law," or at the British preferential rate (usually 7.5 percent ad valorem). Application for admission under "by-law" must be made to the Department of Customs and Excise.

Fishing vessels denied admission under those provisions may be admitted on payment of the following import duties:

	BPT	MFN
Vessels exceeding 500 tons (gross register)	Free	12.5
Other vessels	32.5	55.0



Australia (Contd.):

Customs duties on other fishing equipment are:

	BPT	MFN
Floats for fishing nets	Free	7.5
Fish hooks	Free	10.0
Fishing and rabbit nets and netting	Free	7.5

Other Fisheries Regulations: Specific regulations governing the operation of various Australian fisheries are issued by the State Government concerned and by the Commonwealth Government. (United States Embassy, Canberra, April 24, 1964.)

Notes: (1) BPT = "British Preferential Tariff"--applies to goods of United Kingdom origin.

(2) MFN = "Most Favored Nation Rates"--goods of United States origin fall within this category.

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DIRECT FISH LANDINGS BY FOREIGN VESSELS RESTRICTED:

The Australian Government is said to have amended the tariff regulation restricting direct exports to Australia of fish taken by foreign fishing vessels, according to the Japanese Fisheries Agency. Direct export is defined as export of catches not landed in a foreign port prior to their entry into Australia for unloading or transshipment. Exports to Australia of fish transshipped from another foreign port are permitted, provided their entry has been approved and documented by the Australian Minister of Primary Industries.

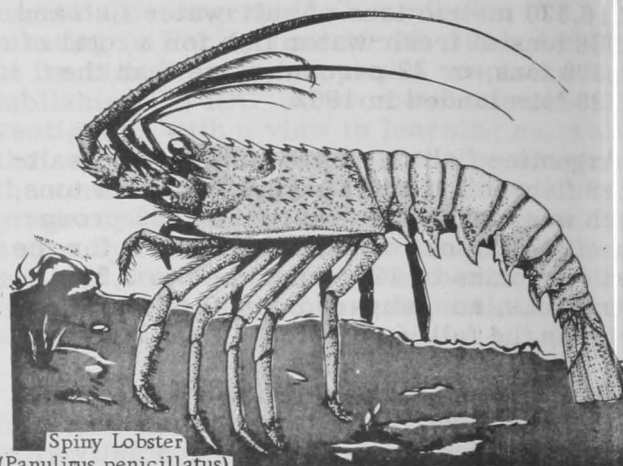
According to a survey made by the Japanese Fisheries Agency, Japan's 1963 direct exports by Japanese fishing vessels to Australia of frozen tuna (which form the bulk of frozen fish exports to that country) amounted in value to US\$5,781 for bluefin, \$6,694 for skipjack, and \$1,611 for albacore--a total of \$14,086. (Suisan Keizai Shimibun, May 2, 1964.)

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SPINY LOBSTER TAGGING PROJECT:

Spiny lobster tagging was carried out in the Abrolhos Islands area of Western Australia during January 22-February 12, 1964, by 2 teams from the West Australian State Fisheries Department.

About 7,000 spiny lobsters were tagged with a plastic dart tag inserted between the second and third tail segments. The tag has a barbed plastic shank to which is attached a spaghetti-like orange plastic tube bearing the letters F.D. and a serial number. The tag is $3\frac{1}{2}$ inches long and the diameter of the tube



one-twelfth of an inch. When the spiny lobster sheds its shell (moult), the barbed shank should hold the tag in the flesh so the new shell will grow around it. Some tags will be lost, of course, during the moulting process.

The purpose of the program is to obtain information on growth rates. Spiny lobsters only grow during a moult, so tagging was planned to take advantage of the general mature spiny lobster moult which takes place during February and March.

The spiny lobster commercial fishing season opened March 15, 1964, in the Abrolhos Island area. For the project to be successful the cooperation of fishermen is required. Investigators need every tagged spiny lobster caught. (Australian Fisheries Newsletter, March 1964.)

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TROUT FARM PLANNED IN TASMANIA:

Australia's first fresh- and salt-water trout farm has been proposed for a site in Bridport, Tasmania. The Australian businessman sponsoring the project has engaged a Danish expert to help in the venture, and applied to the Tasmanian State Government for a license under legislation approved in 1963. Discussing his plans, the Australian businessman said, "Our target will also be the salmon."

Australia (Contd.):

market. Australia imported about 8 million pounds of canned salmon from Japan and Canada in 1962, and we believe we can compete with the imported product, using rainbow trout. Ultimately it is hoped to produce fresh, frozen, and smoked fish for Australia overseas." He said that later efforts might be made to build up a trade in trout to supply fish farms in the United States and Europe.

An application has been made to the Tasmanian Government to use land on a mudflat adjacent to the Brid River for the trout-rearing station. Later it is hoped to develop another 50 acres of the Bar Marsh area near the Brid estuary.

Fresh water for the station would be drawn from the Brid River. As the station grows the water could be drawn from the Great Frester River and nearby creeks. The initial plan is to reclaim the mudflat on the north side of the Brid River estuary for a series of fresh-water rearing ponds. The Bar Marsh section might become a fattening station where fish would be transferred when they were large enough to withstand sea water. However, the Bar Marsh would not be developed until more was known about the behavior of trout in salt and fresh water.

If early approval of the venture is received, a small number of trout might be harvested from the fish farm in 1965. (Australian Fisheries Newsletter, March 1964.)



Fish West Indies

LOOK FOR BARBADOS SHRIMP FISHERY PROMISING:

By the end of 1963 it became evident that the actual potential of the newly established shrimp enterprise in Barbados, operated by United States interests, had been underestimated by both the Barbados Government and the company management. Initially the Barbados fishery company planned for a gradual increase in its United States-owned operated trawler fleet of 25 vessels, and the Government had agreed to expand the inadequate cold-storage and freezing facilities. The Barbados Marketing Corporation to accommodate the shrimp landings anticipated.

Later, because the Government appeared reluctant to go along with the company's revised expansion plans, the company indicated that it would withdraw its base of operations. However, an agreement was finally reached and the company is now talking in terms of a 100-trawler fleet which would make Barbados one of the largest fishing fleet centers south of Tampa, Fla. If the plans for expansion develop, it is anticipated that 2 million pounds of frozen shrimp will be exported from Barbados within a 2- to 3-year period.

The year 1963 was summed up as a poor year for the local fishing industry in Barbados. The major problem to be overcome is the lack of capital for buying the equipment necessary which would permit fishermen to go beyond the shore line and engage in deep-sea fishing operations. (United States Consulate, Barbados, April 24, 1964.)



Cambodia

COMMERCIAL FISHERIES PRODUCTION, 1960-1963:

The commercial production of fishery products in Cambodia showed a general increase during the period 1960-1963.

Table 1 - Commercial Production of Fisheries Products in Cambodia, 1960-1963

Product	Unit	1963	1962	1961	1960
Fresh fish	Metric Tons	31,390	24,006	20,034	25,858
Dried fish	"	6,808	6,267	1,952	1,752
Smoked fish	"	1,932	1,000	4/	5/
Shrimp	"	109	164	83	45
Kapik ¹	"	66	62	41	46
Fresh crabs	"	179	86	23	28
Salted crabs	"	53	55	9	11
Prahok ²	"	2,169	105	70	85
Tuk trey ³	Hectoliters	4,527	3,117	3,126	3,799

1/Shrimp paste.
 2/Fish paste.
 3/Autolyzed fish liquid.
 4/Production reported in "hand" units as 1.5 million "hands."
 5/Production reported in "hand" units as 580,000 "hands."
 Source: Cambodian Government Fisheries Source.

Statistics on fisheries production in Cambodia understate the total commercial catch, since a considerable part of the marine catch is delivered outside Cambodia. In addition, a substantial amount of the fresh-water fish catch by family or subsistence fishermen enters commercial channels without being recorded in official statistics (see table 2 on following page). (United States Embassy, Phnom Penh, April 24, 1964.)

Cambodia (Contd.):

Table 2 - Major Species Which Comprise 90 Percent of the Commercial Catch
Family: <u>Cyprinidae</u> (Carp):
<u>Leptobarbus hoeveni</u> , <u>Danqila siamensis</u> , <u>Thynnichthyes thynnoides</u> , <u>Osteochilus melanopleura</u> , <u>Osteochilus has-selti</u> , <u>Cirrhinus auratus</u> , <u>Labeo chrysophekadion</u> .
Catfishes of several families:
<u>Clarias batrachus</u> , <u>Wallago attu</u> , <u>Cryptopterus apogon</u> , <u>Pangasius</u> (3 species)
Other species from various families:
<u>Ophiocephalus</u> (several species), <u>Anabas testudineus</u> , <u>Pseudosciaena soldado</u> , <u>Oxyeleotris marmorata</u> .



Republic of Cameroon

CHINESE TUNA VESSELS TO TRAIN CAMEROON FISHERMEN:

Two Nationalist Chinese tuna fishing vessels arrived on the west African coast at Douala on April 4, 1964, to begin training work with Cameroon fishermen. The tuna fishing training program is for 18 months under an accord signed in September 1963 by the Republic of China and the Republic of Cameroon. Plans call for each Chinese crew to work intensively with a group of 3 trainees for a 4-months period.

The tuna vessels are the Chung Yu 501 and Chung Yu 502 (each 197 feet long with a net displacement of 600 metric tons and a hold capacity for 400 metric tons of frozen fish). The vessels are equipped for long-line fishing. On each vessel, refrigeration equipment can turn out 6 tons of ice a day and freeze 15 tons of fish an hour. After freezing, the catch will be stored in compartments at temperatures less than 20° F. Each vessel, with a crew of 30 seamen and 10 officers, carries such modern equipment as radar and sonar. A smaller vessel of 10 tons, carried by one of the larger tuna vessels, will be used for coastal fishing.

According to press sources, the tuna caught on the high seas will be sold either in Abidjan in the Ivory Coast, or Monrovia in Liberia. The port of Douala lacks the refrigeration and canning facilities which are available at Abidjan and Monrovia. (United States Embassy, Yaounde, April 10, 1964.)

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Canada

BRITISH COLUMBIA CANNED SALMON INDUSTRY ASKS FOR TARIFF REDUCTION AT 1964 GATT NEGOTIATIONS:

The Fisheries Association of British Columbia filed a statement March 16, 1964, with the Canadian Tariffs and Trade Committee concerning the scheduled 1964 trade negotiations in Geneva under the General Agreement on Tariffs and Trade. Pointing out that the salmon canning industry of British Columbia is export oriented, the Association recommended that Canadian representatives make every effort to halt the upward movement of tariff rates on canned salmon in European countries. More favorable tariff conditions in the United States were also mentioned as objectives for Canadian negotiators.

The United Kingdom offers a duty-free market to Canadian canned salmon and absorbs most of British Columbia's export sales of canned sockeye salmon, but the Province's canned pink salmon pack has a much wider market. Until common tariffs began to be imposed in member nations of the European Economic Community, Canadian canned salmon enjoyed free entry into both Belgium and the Netherlands. Now both countries impose a 5.4 percent duty on Canadian canned salmon and Belgium adds an additional 6-percent internal tax. The highest consumer prices for canned salmon are found in France which imposes an import duty of 18 percent as well as the French consumers tax. That is said to be one of the reasons that France, with more than 5 times the population of Holland, purchases only slightly more canned salmon from Canada than the Dutch.

The Fisheries Association of British Columbia also discussed the export market situation in Australia and New Zealand. The Association has sent representatives twice in the last three years to appear before the Australian Tariff Commission. The Canadian salmon industry wishes to preserve the export market in Australia which permits unrestricted entry of Canadian canned salmon on the normal duty basis of 1d. (1.17 U. S. cents) per pound.

In concluding, the Association's brief said "in return for any concessions made, concessions should be received which will have the effect of broadening the market area for our products or of reducing that part of the cost of our foreign customers which is represented

Canada (Contd.):

import tariff rates." (Facts on Fish, April 1964, Fisheries Association of B.C.)

* * * * *

ALL STERN-FISHING FACTORYSHIPS ORDERED BY NEWFOUNDLAND FROM DUTCH SHIPYARD:

In the fall of 1964, a Dutch shipyard is expected to deliver the first in a series of 4 all stern-fishing factoryships ordered by a Canadian fisheries firm in St. John's, Newfoundland. The main dimensions of the vessels will be: overall length 164 feet, beam 29.5 feet and moulded depth 22.7 feet.

The factory trawlers have been designed so that their catch will be hauled aboard a stern deck. On a sheltered quarterdeck, the fish will be processed mechanically, and then stored in refrigerated holds. Filleting machines, freezing equipment, and an ice-making machine will be located below deck.

The fish hold of each vessel will have a capacity of 14,120 cubic feet, and each vessel will be able to land about 280 tons of frozen fish or 320 tons of fresh iced fish. Each of the factoryships will have a crew of 20. (Commercial Fishing, March 1964.)

* * * * *

COMMITTEE FORMED FOR DEVELOPMENT OF FRESH-WATER FISHERIES:

A national program for the development of Canada's fresh-water fisheries was implemented early in May with the formation of a Federal-Provincial Prairie Fisheries Committee, announced by the Canadian Department of Fisheries on May 12, 1964. Members of the new Committee are the Deputy Ministers of Federal and Provincial departments responsible for fisheries.

At a two-day organizational meeting, the committee, which is a result of the Federal-Provincial Conference on Fisheries Development held in Ottawa last January, adopted a set of reference, to be ratified by the governments concerned, and appointed subcommittees to make recommendations for industry development and research. It received a progress report from a study group on marketing problems.

The Chief of the Fish and Wildlife Branch of the Ontario Department of Lands and Forests represented Ontario which was invited to send a representative to the meeting because the fisheries problems of its northern lakes are similar to those of the Prairie Provinces and the Northwest Territories.

The main purpose of the committee, which is similar in concept to the Federal-Provincial Atlantic Fisheries Committee, is to provide for the orderly and progressive development of a healthy and economic fisheries and to that end to coordinate, where practicable, the activities in the respective fields of responsibility of its members. The committee is expected to make recommendations to the respective governments for the implementation of fisheries programs and projects of common concern. These recommendations would include the development of methods and techniques in the catching of fish and of shore and plant facilities, and studies on the economics of fisheries to ensure that any proposed program of development is soundly based.

A second meeting, for reports on progress, is to be held at Winnipeg, Manitoba, in the fall of 1964.



Chile

FISH MEAL INDUSTRY TRENDS, FIRST QUARTER 1964:

After relatively good fishing during January and early February 1964, the fish reduction industry of northern Chile was again faced with a scarcity of raw material in March. Anchoveta, the commercial fish of the northern fish meal plants, disappeared off Arica February 20 and had not returned by mid-April. Off Iquique, anchoveta continued to be found in abundance until the second week of March 1964. Then, for almost a month, few Iquique vessels found sufficient fish to make their trip worthwhile until mid-April, when anchoveta reappeared within reach of the Iquique fleet.

The absence of anchoveta from northern coastal waters of Chile in late February and early March has been noted in former years and was not viewed with alarm by the industry. The prolonged absence this year was believed to be due to the unseasonably warm

Chile (Contd.):

weather through late March which may have moved the fish south out of reach of the northern fishing fleets. (Vessels taking anchoveta must be able to deliver their catch to the fish meal plants within a day or carry ice, which is not feasible.)

The Chilean Fisheries Development Institute, which became operative January 1, 1964, has leased a purse-seine vessel in order to speed up its study of anchoveta. (United States Embassy, Santiago, April 18, 1964.)



Costa Rica

GREEN TURTLE REGULATIONS:

The Department of Fish and Wildlife of the Costa Rican Ministry of Agriculture is drafting regulations to control the capture of green sea turtles (*Chelone mydas mydas*) during the months that they appear in large numbers off the Atlantic Coast of Costa Rica (July, August, September). The plan may provide for the establishment of a buying agency by the Consejo Nacional de Produccion at Limon with agents at the Ports of Colorado, Tortuguero, and Parismina. The plan reportedly will authorize the Consejo to sell turtle meat at retail through its sales agencies and also wholesale the turtle meat to retail meat shops throughout Costa Rica.

The new regulations will implement Decree No. 9 of May 24, 1963, published in the Official Gazette of May 30, 1963. Following are the main provisions of Costa Rican Decree No. 9:

Article (1) Permits for the capture of green sea turtles shall be issued by the Ministry of Agriculture and Livestock.

Article (2) Permits for capturing green sea turtles shall be extended only for the period during which the turtles arrive at the Costa Rican coast--June, July, and August--and shall expire on August 31.

Article (3) The capture of green sea turtles for commercial purposes is prohibited on the beaches and for a distance of 1 kilometer (about 0.62 mile) inland, measuring from the high-tide mark.

Article (4) The unloading of captured green sea turtles shall be permitted only when the proportion of females does not exceed 50 percent of total lot.

Article (5) The concessionaire (permit holder) shall notify the appropriate fisheries authorities at Limon of the number of turtles captured during each voyage and the areas where they were taken.

Article (6) Live captured turtles can be kept in pens for a period not to exceed 15 days. Turtles which have been captured by harpoon must be slaughtered within 24 hours after unloading.

Article (7) The exportation of turtles shall be subject to the following conditions: (a) approval by the Ministry of Agriculture and Livestock on each export shipment of live or processed turtles; (b) approval by the Ministry of Agriculture and Livestock on each export shipment of turtle shells ("caparazones") or other type of product; (c) the exportation of live turtles shall be authorized only after the national (local) demand for them has been satisfied; (d) applications for export permits shall be filed with Fish and Wildlife Office of the Ministry of Agriculture and Livestock, specifying the legal qualifications of the applicant, a description of the product to be exported, the destinations, and respective value.

Decree No. 9. was signed by the President of the Costa Rican Republic, May 24, 1963. (United States Embassy, Costa Rica, April 1964.)



Cuba

EQUIPMENT FOR NEW FISH CANNERY BUILT IN ESTONIA:

Machinery and equipment for a fish cannery in Cuba is reported to have been built in the Estonian Socialist Soviet Republic. The plant in the Havana Bay area, will have a daily capacity of about 4,500 pounds of finished product. Soviet technicians were to be sent to Cuba to help set up the equipment. (Unpublished source.)



FISHERIES DEVELOPMENTS, APRIL 1964:

Separate Fishery Negotiations Sought at GATT Sessions: Proposal to seek separate negotiations on fishery products rather than have them included with agricultural commodities during the Kennedy Round at Geneva was discussed at the early April 1964 meeting of the Nordic contact committee on fishery problems. The proposal was made because it was felt that the difficulties involved in the agricultural negotiations would overwhelm the fishery discussions.

Continued Dispensation on Undersized Whiting Requested: Denmark plans to request a prolongation of the dispensation under the North Sea Convention which permits its fishermen to use vessels with not over 150 hp, to use nets with less than the prescribed size mesh and to land whiting less than the minimum size of 23 centimeters (9 inches) in unlimited quantities taken in prescribed areas of the Kattegat and Skagerrak. The dispensation originally expired May 1, 1963, but was extended for another year. The whiting catch is used primarily for pond trout food and mink food by Denmark's near 4,000 trout-pond operators and about 4,000 fur farmers. Whiting is processed into fish meal. Danish biological studies show no adverse effects on the resource fished nor on the fishery for whiting for human food in other areas. In 1963 whiting landings for all purposes amounted to 55,000 metric tons, which is a new record.

Processing and Distributing Plaice: Packaged frozen plaice fillets are reported to cost the Copenhagen consumer 1.5 times as much as the fisherman received for the fish from which they were processed, according to a Danish newspaper reporter and a fishery exporter. Their calculations were based on a package of frozen fillets selling at a Copenhagen supermarket for Kr. 3.95 (57.3 U.S. cents). The fillets in the package weighed 450 grams (about one pound). On this basis, the retail cost of two fillets from one plaice would be about Kr. 0.99 (14.4 cents).

At Danish retail fish stores, plaice usually are sold alive. It is expected to order--an example of Danish insistence on freshness. The frozen product is handled in other types of outlets having the right to sell frozen foods. Such frozen outlets may be tripled in 1966 if proposed legislation is passed.

Fisheries Limits--Skagerrak: Regulation of the fisheries in the Skagerrak--the rich fishing area between Norway, Sweden, and Denmark--was an agenda item at the early April meeting of the Nordic contact committee on fishery problems. The discussion was in general terms mainly exploratory with respect to the intentions of the three countries. No conclusions were reached, and no final decisions are expected until there has been further study at the next meeting.

Costs of Processing and Distributing Frozen Packaged Plaice Fillets in Denmark

	öre/	¢
one plaice at auction	41.0	5.9
from filleting waste sold for		
fur-animal food	-8.4	-1.2
net cost of fish	32.6	4.7
labor	14.0	2.0
packing	3.3	.5
depreciation and interest	4.5	.7
cost of processed fillets	54.4	7.9
processor's and wholesaler's profit--		
18% on wholesale price	11.6	1.7
wholesale price	66.0	9.6
retailer's profit--about 33% on		
wholesale price	33.0	4.8
retail price	99.0	14.4

1 Danish krone (100 öre) equals U. S. \$0.145.

The probable substantial increase in the Skagerrak herring fishery predicted for the coming winter and a number of years in the future by a noted Norwegian biologist has brought some urgency to the matter of fisheries limits and

rights in that area. Norway, Sweden, and Denmark naturally wish to preserve as much of the fishing area as possible for their own fishermen if the herring are to return as they have done in about 100-year cycles for a thousand years, according to predictions.

Fisheries Limits--Denmark: Extension of Denmark's fisheries limits to 12 miles, as provided in the agreement reached at the Western European Fisheries Conference in London in February, was expected would come with deliberate speed. Introduction of the necessary legislation in the Danish Parliament probably will be preceded by negotiations with West Germany and the Netherlands with respect to their fishing rights in Danish waters. Discussions of the proposed fisheries limits between Denmark's Fisheries Ministry and the Danish fisheries associations were reported to be just beginning about mid-April. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, April 22, 1964.)

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FISHERIES TRENDS, JANUARY-MARCH 1964:

Landings: Denmark's fishery landings in January-March 1964 were down about 5 percent from the same period in 1963 because of stormy weather and less abundant industrial fish. The usual large Norway pout fishery--132,000 metric tons in 1962--dropped to 97,000 tons in 1963, presumably because of a poor year-class, but that fishery could recover in 1964. The common sole fishery, which declined about 80 percent in 1963 as compared with 1962 (because of the severe winter), is not expected to recover fully until 1966 or 1967. The North Sea herring fishery should give good yields in July and August of this year, according to Danish biologists. If the Norwegian herring follow a famous Norwegian biologist's predictions--as they seem to be doing--there should be a good herring fishery this coming winter in the inner Skagerrak and possibly on the Jutland banks in the North Sea. Unless the industrial fish catch improves, the current shift of cutters to fishing for foodfish could result in a somewhat smaller but more valuable total catch by Danish fishing vessels in 1964.

Since Denmark's fishery for undersized whiting, under a dispensation from the North Sea Convention, has not affected the whiting resources fished for either industrial or food uses according to their biologists, Denmark expects a renewal of the dispensation which expired May 1, 1964. Should this dispensation not be granted, the whiting fishery (55,000 metric tons in 1963) would be seriously curtailed.

Exports: Danish exporters of fishery products look forward to a favorable year for exports in 1964 if landings equal or surpass those of 1963. For the first quarter of 1964, total fishery exports were about 4 percent less in quantity but 12 percent greater in value than during the comparable period in 1963. Denmark's exports of fishery products to the United States in the first quarter of 1964 were down about 40 percent in quantity and value from the same period in 1963. Pond trout exports were about 65 percent less in value, cod exports were down about 50 percent, and canned herring and brisling exports dropped about 20 percent. Canned shrimp exports were about the same as the same period in 1963, but Norway lobster exports increased about 130 percent.

New Developments: A new development in 1964 has been the importing of fillet waste from the United States and Canada to supply food for Danish and Swedish fur animal (mink) farms. Prices f.o.b. Gloucester, Mass., at just under 2 cents a pound permit delivery in Denmark at about 3-1/4 cents a pound when shipped in large lots.

Denmark (Contd.):

Because of the failure of the bluefin tuna fishery in Norway and Denmark last season, Japanese-caught big-eyed tuna were imported by Danish canners at \$350 a metric ton f.o.b. Italy. When trucked to Skagen the total cost was \$400 a ton. (Tuna producers in New England have been informed of Danish canners as a potential tuna market.)

United States Market: Lower prices in the United States market do not seem to be of especial concern. Alternate markets for cod fillets, for example, are being sought, and found, in England and on the Continent by Danish, Faroese, and Greenland producers. Pond trout sell as profitably in Europe as in the United States. However, the Danish Consulates General in New York, Los Angeles, and Chicago have reported to Danish processors that there is an increasing demand for Danish canned and frozen fish in those areas, and the Danish fisheries attache post in New York is to be filled.

Danish sardine canners cannot compete in the United States market with Maine canners for the less expensive canned sardine market when the Maine pack is normal, but Danish specialties, such as canned brisling in wine sauce, enjoy good United States markets. Currently, Danish canners are having difficulty competing with Canadian sardine canners on the world market. When possible, Danish canners try to market higher priced specialties. They pay about \$58 per metric ton to the fishermen for herring and about \$70 per ton for brisling. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, April 29, 1964.)

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INDUSTRIAL PRODUCTS SUPPLY AND DISTRIBUTION, 1963:

Fish Meal: The Danish supply of fish meal in 1963 was only 1.5 percent less than in the previous year. Domestic production accounted for most of the supply, although Iceland shipped 8,706 metric tons of fish meal (more than half was herring) to Denmark in 1963, and Norway supplied 3,508 tons (somewhat less than half was herring). A small quantity (93.5 tons) was also received from the United States.

Distribution of the Danish fish meal supply in 1963 was about the same as in 1962. A mod-

Item	Quantity	
	1963	1962
	(1,000 Metric Tons)	
<u>Supply:</u>		
Stocks on hand January 1	3.6	4.0
Domestic production	1/95.0	2/93.1
Imports	12.3	15.5
Total supply	110.9	112.6
<u>Distribution:</u>		
Domestic consumption	47.3	52.5
Exports	60.1	56.5
Stocks on hand December 31	3.5	3.6
1/Estimated.		
2/Revised.		

erate decline in domestic use for animal in 1963 was about offset by a gain in exports. The principal buyers of Danish fish meal (mostly herring) in 1963 were the United Kingdom with 31,255 tons, West Germany with 6,793 tons, Poland with 5,529 tons, Switzerland with 4,277 tons, Finland with 3,269 tons, Sweden with 2,809 tons, and the Netherlands with 2,023 tons.

Marine Oils: Refined oils from Peru support a large part of Denmark's marine oil exports, although the imports in 1963 also included sizable shipments of crude marine oil from Peru. Danish production of hardened refined marine and animal oils amounted to 25,000 tons in 1963 and 24,912 tons in 1962. Domestic production of crude fish oil (including herring oil)--the major factor in Danish production of crude--amounted to 25,000 tons in 1963 and 24,697 tons in 1962. Domestic production of other crude marine oils (whale seal, and other) in Denmark amounted to 2,081 tons in 1962 (comparable data for 1963 is not yet available).

Table 2 - Danish Imports of Marine Oils, 1962-1963

Commodity and Country of Origin	Quantity	
	1963	1962
	.. (Metric Tons)	
<u>Whale oil, crude:</u>		
Norway	7.6	7.6
Netherlands	0.2	
Total	7.8	7.6
<u>Sperm oil, crude:</u>		
Norway	36.2	
West Germany	10.6	
Total	46.8	51.8
<u>Seal oil, crude:</u>		
Norway	13.3	17.1
<u>Herring oil, crude:</u>		
United States	1,221.8	1,214.8
West Germany	-	1,214.8
Iceland	1,223.4	507.1
Norway	78.3	138.3
United Kingdom	21.8	
Total	2,545.3	1,864.9
<u>Other marine oils, crude:</u>		
Peru	3,449.3	
Norway	19.8	
United Kingdom	2.0	
Total	3,471.1	2,614.9
<u>Marine oils, refined:</u>		
Norway	130.0	291.1
Peru	15,326.6	17,271.1
Other countries	12.3	31.1
Total	15,468.9	17,601.1
<u>Marine oils and other animal oils, hardened:</u>		
Norway	1,071.9	581.1
Sweden	5,647.3	2,811.1
Other countries	-	
Total	6,719.2	3,392.1

mark (Contd.):

Table 3 - Danish Exports of Marine Oils, 1962-1963

Commodity and Country of Destination	Quantity	
	1963	1962
	(Metric Tons) . . .	
Oil, crude:		
West Germany	0.4	12.6
Oil, crude:		
Total all countries ^{1/}	77.1	79.4
Oil, crude:		
Denmark	977.4	813.3
West Germany	972.2	4,299.1
Czechoslovakia	683.3	1,508.3
Netherlands	1,194.4	434.8
United Kingdom	299.8	-
West Germany	14,205.8	4,058.7
Other countries	1,085.6	1,870.5
Total	-	99.8
Total	19,418.5	13,084.5
Marine oils, crude:		
West Germany	598.5	738.7
Czechoslovakia	100.0	1,073.6
Other countries	326.0	288.9
Total	1,024.5	2,101.2
Oil, refined:		
Total all countries ^{2/}	312.3	50.2
Oil and other animal oils, refined:		
Norway	1,105.0	2,850.0
Other countries	1,011.9	1,653.0
Total	2,116.9	4,503.0

^{1/} Mostly to West Germany, and some to Sweden.
^{2/} Mostly to Norway and West Germany, and a small quantity to Sweden.

Crude herring oil accounted for the bulk of Danish exports of marine oils. (United States Fishery Commission, Copenhagen, April 16, 1964.)
 See Commercial Fisheries Review, July 1963 p. 73.



ETHIOPIA
COMPANY WILL HANDLE FISHERY PRODUCTS:
 The organization of an Ethiopian-Bulgarian company which will engage in shipping, fishing and other activities was announced early in 1964. The capital of the company has been fixed as Eth\$2 million (US\$800,000), of which one-fourth is paid up. It appears that 20,000 shares of the company's 20,000 registered shares are held by a Bulgarian Government organization.

The new company has registered four cargo vessels under the Ethiopian flag to engage in shipping between ports on the Red Sea, Mediterranean Sea, and Black Sea. The registered cargo vessels are under-

stood to have previously been the property of a Bulgarian organization, and the vessels will initially be manned by Bulgarian or other foreign crews. In the future, a training program for Ethiopian seaman may be arranged.

Four new 300-ton fishing vessels are to be acquired by the company. Each fishing vessel will have refrigeration equipment to store 120 metric tons of fish at 0° C. (32° F.).

The company will obtain fish both from its own fleet and from local fishermen. Edible fish will be frozen, presumably for the European market, and the remainder will be processed as fish meal. A freezing plant, fish meal plant and ice plant will be built near Massawa, Ethiopia, in an area north of the city. The freezing plant will have a minimum capacity of 30 tons a day and a maximum capacity of 80 tons. The capacity of the fish meal plant will be 60 tons of raw fish a day. The ice plant will be capable of producing 60 tons of ice a day. A pier will also be built. (Unpublished sources.)



German Federal Republic

FISHERIES RESEARCH VESSEL "WALTHER HERWIG" COMMISSIONED:

The Walther Herwig was commissioned as West Germany's second fisheries research vessel on October 28, 1963. Specifications of the vessel are: length overall 83.2 meters (272.9 feet), width 12.5 meters (41.0 feet), gross tonnage 1,987 tons, and net tonnage 889 tons. The vessel is powered by a 2,000 horsepower engine.

The Walther Herwig will operate in the Atlantic Ocean and will be used primarily for marine and fisheries research. The vessel began its first cruise November 25, 1963, when it sailed for the west coast of Greenland to carry out fisheries biological investigations. (International Commission for the Northwest Atlantic Fisheries Newsletter, No. 44.)



Greece

FREEZER-TRAWLER LANDINGS, JANUARY-FEBRUARY 1964:

During February 1964, two Greek freezer trawlers and two refrigerator vessels landed

Greece (Contd.):

992 tons of frozen fish at the port of Piraeus, down 36 percent from the same month a year earlier but 11 percent more than in February 1962. In January 1964, a total of 2,250 tons of frozen fish was landed by five freezer trawlers and one refrigerator vessel.

Total landings of frozen fish in January-February 1964 of 3,242 tons increased 11 percent from the 2,934 tons landed in the same period of 1963. (Alieia, March 1964.)

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NEW EXPERIMENT TO USE FISH MEAL AS FISH FOOD:

The Government of Greece is starting an experiment--a new use for fish meal. If it is successful, a sizable new market for the product might be created. The experiment, to be carried out by the Greek Ministry of Industry's Department of Fisheries, is to import from Denmark 3 or 4 tons of fish meal which is to be used as fish food at 3 trout hatcheries in Greece.

Because Greece's Mediterranean waters no longer provide enough food fish and yields from the distant Atlantic Ocean fishing grounds are declining, the Greek Department of Fisheries hopes to help meet the demand for food fish with hatchery-reared fish, and possibly salt-water fish from estuaries.

The Director of the Greek Department of Fisheries cited the pioneer work done in Denmark in the use of fish meal as fish food. He said:

"In 1946 Denmark produced 400 tons of trout fed from fish meal, and in 1961 the total was 7,500 tons. The research workers there found that with fish meal they could grow a marketable fish in 18 months."

The three hatcheries in Greece include a state hatchery at Jannena, in northwestern Greece, a second under construction at Edessa in Macedonia, and a private hatchery near Laevadia, about 80 miles northwest of Athens.

The possible significance of the experiment to fish-meal producers would be in supplying the hundreds of state and private fish hatcheries scattered throughout Greece. Another possibility would be smaller sales of fish meal to farmers and others maintaining fish

ponds, either to supply their own tables or provide fishing on a paying basis to others. Farmers are encouraged to dam streams and thus make small lakes which are stocked with fish.

The Department of Fisheries also plans to later try fish meal as a fish food on fish in the brackish waters of many estuaries of the seas almost surrounding Greece. About 100 of those are now being developed by the Government and exploited under concession by private firms and fishermen's cooperative societies. The inlets being developed have narrow entrances which can be closed with a bamboo dike or weir in the spring and summer to admit water but prevent escape of the fish. In the future, fish are now allowed to grow naturally in the inlets, but enrichment of their natural food supply with fish meal might well stimulate more growth. The hoped for results are larger fish and lower prices to the consumers.

A parallel experiment, said the head of the Department of Fisheries, may be in attempting to stimulate plankton growth in the estuaries by introduction of nutritious chemicals such as nitrogen and phosphates. Since fish feed on plankton, they would benefit from having a better natural food supply. He added, however, that feeding of fish meal will be more successful, if for no other reason than that it eliminates the intermediate step of feeding plankton. (Alieia, March 1964.)



Iceland

FISHERY LANDINGS BY PRINCIPAL SPECIES, 1962-1963:

Species	Year	
	1963	1962
	... (Metric Tons) ...	
Cod	235,201	223,448
Haddock	51,215	54,271
Saithe	14,321	13,468
Ling	5,566	7,071
Wolfish (catfish)	17,442	13,361
Cusk	5,832	5,281
Ocean perch	32,867	22,271
Halibut	1,221	1,541
Herring	395,166	478,121
Shrimp	649	691
Capelin	1,077	-
Lobster	5,179	2,471
Other	7,866	10,051
Total	773,602	832,081

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

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land (Contd.):

FISHERY LANDINGS BY PRINCIPAL SPECIES, JANUARY-NOVEMBER 1963:

Species	January-November	
	1963	1962
	... (Metric Tons) ...	
...	226,508	217,968
Black	46,850	50,351
Blue	13,722	12,585
...	5,318	6,846
cod fish (catfish)	17,077	13,283
...	5,473	4,984
cod perch	31,718	21,398
...	1,112	1,483
...	384,879	424,569
...	603	532
...	1,077	-
...	5,177	2,474
...	6,297	9,866
Total	745,811	766,339

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

EXPORTS OF FISHERY PRODUCTS, 1962-63:

During 1963, there was a considerable increase in exports of frozen and salted herring, herring meal, and cod-liver oil as compared with 1962, according to the Statistical

Icelandic Fishery Exports, 1962-63

Product	1963			1962		
	Qty. Metric Tons	Value f.o.b.		Qty. Metric Tons	Value f.o.b.	
		1,000 Kr.	US\$ 1,000		1,000 Kr.	US\$ 1,000
fish, dried	2,420	53,858	1,252	3,184	64,012	1,485
fish, un cured	18,990	239,321	5,552	25,349	303,874	7,050
fish fillets	1,114	14,346	333	1,320	17,423	404
fish, salted	1,529	18,793	436	1,045	12,032	279
...	9,616	278,656	6,465	10,654	281,274	6,526
...	7,311	23,610	548	7,022	23,773	552
...	36,161	202,066	4,688	30,864	167,999	3,898
...	37,384	208,497	4,837	24,126	132,512	3,074
...	47,903	895,954	20,786	50,200	884,272	20,515
...	1,138	96,823	2,246	420	44,508	1,033
...	860	14,869	345	720	13,680	317
...	340	16,310	378	429	23,136	537
...	8,650	66,094	1,533	5,313	40,994	951
...	324	5,322	123	449	6,823	158
...	3,180	44,981	1,044	2,746	37,936	880
...	1,745	12,571	293	1,407	8,831	205
...	57,282	552,053	12,808	47,290	469,008	10,881
...	55,148	301,357	6,991	60,478	241,755	5,609
...	754	5,130	119	15	61	1
...	3,444	24,483	568	1,687	13,660	317
...	22,809	119,689	2,777	20,230	126,736	2,940
...	76,583	439,661	10,200	48,489	314,420	7,295
...	4,028	18,667	433	437	2,451	57
...	4,779	13,181	306	7,168	18,853	437
...	442	3,036	70	320	2,129	49
...	267	693	16	212	846	20
...	100	558	13	602	3,286	76
...	2,447	17,138	398	2,484	18,689	434

Source: Bureau of Iceland's Statistical Bulletin, February 1964. Exports of frozen fish fillets and herring oil showed a decrease in 1963.

UTILIZATION OF FISHERY LANDINGS, 1962-1963:

How Utilized	Year	
	1963	1962
	... (Metric Tons) ...	
<u>Herring</u> ^{1/} for:		
Canning	296	335
Oil and meal	274,704	361,295
Freezing	37,722	34,888
Salting	76,642	69,621
Fresh on ice	5,802	11,988
<u>Groundfish</u> ^{2/} for:		
Fresh on ice	40,171	36,310
Freezing and filleting	168,894	164,854
Salting	71,566	88,135
Stockfish (dried unsalted)	72,559	44,471
Canning	47	-
Home consumption	14,837	13,379
Oil and meal	3,458	3,635
<u>Capelin</u> for:		
Freezing	188	-
Oil and meal	889	-
<u>Shrimp</u> for:		
Freezing	507	561
Canning	141	138
<u>Lobsters</u> for:		
Fresh on ice	2	-
Freezing	5,177	2,474
Total production	773,602	832,084

1/Whole fish.
2/Drawn fish.
Source: Aegir, April 1, 1964.

UTILIZATION OF FISHERY LANDINGS, JANUARY-NOVEMBER 1963:

How Utilized	January-November	
	1963	1962
	... (Metric Tons) ...	
<u>Herring</u> ^{1/} for:		
Canning	296	336
Oil and meal	271,489	334,221
Freezing	32,260	21,801
Salting	73,955	59,283
Fresh on ice	5,802	8,928
<u>Groundfish</u> ^{2/} for:		
Fresh on ice	34,375	31,280
Freezing and filleting	162,496	161,245
Salting	70,527	86,921
Stockfish (dried unsalted)	70,983	43,486
Canning	47	-
Home consumption	13,403	12,323
Oil and meal	3,321	3,509
<u>Capelin</u> for:		
Freezing	188	-
Oil and meal	889	-
<u>Shrimp</u> for:		
Freezing	475	446
Canning	128	86
<u>Lobsters</u> for:		
Fresh on ice	2	-
Freezing	5,175	2,474
Total production	745,811	766,339

1/Whole fish.
2/Drawn fish.
Source: Aegir, March 1964.

Iceland (Contd.):

TWO NEW FISHING VESSELS DELIVERED BY BRITISH SHIPYARD:

The Jorundur II and an identical sister-ship, the Jorundur III, were delivered to Icelandic owners in March and April 1964 by a British shipyard in Selby. The dimensions of the new vessels are: length between perpendiculars 104 feet, length overall 119½ feet, moulded breadth 25 feet, moulded depth 12 feet, and gross tonnage 267 tons. Main power in both vessels is provided by an 800-horsepower Diesel engine. Both are equipped with variable pitch propellers.

Specifically designed for service in Icelandic waters, each vessel has a multipurpose fish deck which by its layout enables gear and fishing methods to be changed according to season. The vessels will probably operate as purse seiners in herring fisheries for 8 to 9 months out of the year, but they can also be used for trawling and long-lining.

The builder's description of the Jorundur II states, in part, "when trawling, the vessel employs fore and aft gallows on the starboard side, the aft unit of which is removed for purse-netting and long-lining operations. Twelve men are employed for trawling. Line fishing for cod requires a crew of 16 on Jorundur II--the extra numbers being engaged in hook-baiting... the line is paid out over a runner in the stern immediately beneath the boat deck... .

"The bulwarks of the fish deck and the section boards of the fish pounds are 15 inches higher than normal for the better retention of the herring catch; a gravity chute is used for the rapid transfer of the herring from fish deck to hold."

The total fishroom capacity of the Jorundur II was reported to be 9,630 cubic feet. Cooling grids maintain a fishroom temperature of 35° to 37° F. Two liver tanks with a combined capacity of 1,500 gallons are fitted forward of the fishroom on port and starboard sides.

Both Jorundur II and III were built to Lloyds Class 100 A1 "Trawler" specification, and strengthened for navigation in ice. The vessels are of all-welded construction and were built by unit prefabrication methods. Their design embodies a bar keel, cruiser stern, raked round-nose stem of clipper form, and

flush deck with whaleback. Though conventional in type and mechanical layout, the vessels were equipped with modern navigational and fish-finding electronic equipment.



India

INDO-NORWEGIAN FISHERIES DEVELOPMENT PROJECTS CONTINUED:

The Norwegian fisheries development project in India will be intensified during the fiscal year April 1, 1964-March 31, 1965. For work during that period, the Norwegian Government has provided an appropriation of Kr. 6.8 million (US\$952,000) and the Indian Government will also contribute substantial amounts. The basis for the cooperation is an agreement between India, Norway, and the United Nations concluded in 1952, and supplemented by later agreements in 1953, 1956, 1961, and 1963.

A chapter in the history of the Indo-Norwegian project was closed April 1, 1963, when Norwegian specialists withdrew from the villages of Sakthikulangara and Neendakara in the Province of Kerala where the project originally began. In that project area a boatyard, engineering workshop, ice factory and fish-freezing plant had been established.

The Norwegian specialists now plan to establish similar fishing stations at Cannanur in northern Kerala, Karwar in Mysore, and Madapam in Madras. It is estimated that the construction of fishing facilities in those ports will be partially completed by the end of 1964.

The working program for the year also includes continued development of the fishing station in Cochin, Kerala, where the administration headquarters of the Indo-Norwegian fishery project is located. Plans also call for experimental fishing from the new stations. When the boatyards at the new fishing stations are put into operation, the training of local fishermen will begin.

A total of 26 Norwegian fishery specialists are now engaged in the fishery project in India. For most of the Norwegian positions, there are corresponding Indian positions, since the work will eventually be transferred entirely to Indian technicians.

The project is administered by Indian authorities in consultation with the Norwegian

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ject director. Until recently, the overall administration of the project was under the Provincial Government in Kerala, but it has now been transferred to the Central Government, New Delhi. (United States Embassy, Oslo, April 12, 1964, and News of Norway, May 23, 1964.)

See Commercial Fisheries Review, July 1963 p. 78, and January 1962 p. 69.



FROZEN TUNA TO BE EXPORTED TO CUBA:

A Japanese fishing company is reported to have notified the Fisheries Agency of its intention to export to Cuba a total of 1,070 metric tons of frozen tuna between early May and early June 1964. Four tuna vessels were selected to deliver the frozen tuna to Cuba. They are the Akashi Maru, Sakiyoshi Maru, Zenko Maru, and the Sakiyoshi Maru. They were to carry 160, 270, 370, and 270 metric tons of tuna, respectively.

The firm is reported to have traded in tuna with Cuba since 1960. The trade was subsequently temporarily terminated due to problems involving payment. The existing agreement covering the 1,070-ton shipment is reported to have been concluded in December 1963. (Shin Suisan Shimbum Sokuho, May 7, 1964.)

EUROPEAN BIG-EYED TUNA MARKET REPORTED SOFT:

The European market for Japanese-caught big-eyed tuna was reported to have softened considerably in late April and early May 1964. The price of big-eyed (which sold for around US\$340-360 a metric ton in February) declined to about \$300 a metric ton. Italian packers were reluctant to purchase big-eyed, but one packer purchased a shipment for \$285 a metric ton. Also, Yugoslavia and Czechoslovakia are not purchasing any big-eyed at that price.

The sluggish European big-eyed tuna market is creating a problem for the Japanese big-eyed tuna fishery. One press report states

that the catches of the Japanese tuna vessels (about 160) operating in the Atlantic Ocean are running 40-60 percent big-eyed. Japanese trading firms are said to be seeking big-eyed outlets in northern Europe, but they have not yet made any significant progress. They are also said to be studying the possibility of shipping big-eyed back to Japan, but since the transportation cost would run up to around \$63 a ton, they hope to dispose of their big-eyed tuna supply in Europe.

In an effort to overcome the depressed big-eyed tuna market in Europe, one Japanese trading firm is seeking an outlet for that species in West Germany. The Japanese firm's market survey indicated good possibilities of developing a tuna market in West Germany, not only for big-eyed but for other species of tuna in less than fair marketable condition. A report from the Japan External Trade Organization (JETRO) representative stationed in that country also indicates that West German fish packers, faced with a supply shortage, want to buy Japanese tuna, regardless of quality, provided the price is acceptable. The report stated that German packers hope to process the lower grade tuna into smoked fish for domestic consumption. (Suisancho Nippo, May 11 & 12; Suisan Tsushin, May 8, 1964.)

Editor's note: Previous reports indicate that as many as 120 Japanese tuna vessels have operated in the Atlantic Ocean at one time. The 160-vessel figure in this latest report, if accurate, is a new high.

JAPANESE NEGOTIATE TUNA PRICES WITH U. S. PACKERS IN AMERICAN SAMOA:

The Japanese fishermen's associations, fishing companies, and trading firms involved in the American Samoan tuna base operations were reported in mid-April to be negotiating tuna price agreements with the two United States packing firms in American Samoa. As of mid-April, Japanese-caught tuna delivered to American Samoa were quoted at highs of US\$260 a short ton for iced round yellowfin tuna and \$320 a short ton for iced round albacore.

The Japan c. & f. export price of frozen tuna delivered to the United States as of mid-April was \$375 per short ton for gilled-and-gutted yellowfin and \$400 per short ton for round albacore. (Suisancho Nippo, April 17, 1964, and other sources.)

Japan (Contd.):

JAPANESE FISHERY OFFICIAL'S VIEWS
ON AMERICAN SAMOA TUNA BASE:

An official of the Japanese Fisheries Agency who visited American Samoa earlier this year has given the following views of his visit to the tuna base there:

Japanese tuna vessels delivering tuna to the two United States plants located on American Samoa now total about 50. This is in sharp contrast to the time when a fleet of 70 Japanese vessels was delivering tuna to just 1 of the 2 plants.

In 1962, the average catch in tons per day was about 3 tons, but is now barely 1.5 tons. According to Japanese fishing captains operating vessels out of American Samoa, they could make out adequately if they could catch an average of two tons of tuna per day. (Suisancho Nippo, April 22, 1964.)

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1964 TUNA MOTHERSHIP REGULATIONS
FOR TWO FISHING COMPANIES
CHANGED BY GOVERNMENT:

The Japanese Government has notified two large Japanese fishing companies of changes made in the existing regulations governing tuna mothership fleet operations. The new regulations, applicable only for the 1964 fishing season, will affect their tuna mothership operations as follows:

1. The Yuyo Maru (5,040 gross tons) and Koyo Maru (7,500 gross tons) operated by one of the companies and licensed to fish with 55 and 45 catcher vessels, respectively, in the South Pacific Ocean off the Fiji Islands, must be accompanied by a catcher vessel fleet consisting of not less than 50 percent of the total number of catcher vessels authorized to accompany those motherships.

2. The Nojima Maru (8,800 gross tons) operated by the other fishing company and licensed to fish with 65 catcher vessels in the South Pacific Ocean off the Tahiti Islands, must be accompanied by a catcher vessel fleet consisting of not less than 60 percent of the total number of catcher vessels authorized to accompany that mothership.

3. For prevention of sea disasters, every catcher vessel must be equipped with wireless or radiotelephone so as to be able to

maintain close communication with its mothership or with other catcher vessels.

4. The Yuyo Maru and Koyo Maru fleets must operate within a radius of 1,000 miles from Suva, Fiji Islands. The Nojima Maru fleet must operate within a radius of 1,000 miles from Papeete, Tahiti Islands.

5. Catcher vessels must operate within close distance of their motherships.

6. Motherships must operate in areas where medical and other supplies, and repair services can be obtained readily from nearby bases (i.e., Suva and Papeete).

7. Fishing operations must be conducted in areas where ocean and weather conditions are relatively good.

The new tuna mothership regulations are viewed by the two fishing firms as imposing considerable difficulties on their operations. In previous years the Government had not stipulated the minimum fixed size of the mothership fleets, and the regulations requiring one company to contract not less than 50 percent, and the other company not less than 60 percent of the number of catcher vessels authorized to accompany their motherships are considered very difficult to comply with. (Suisancho Nippo, April 20, 1964.)

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AGREEMENT SIGNED FOR JOINT TUNA
VENTURE IN CAPE VERDE ISLANDS:

The Japanese trading firm, which had been negotiating with a United States tuna packing firm and a Portuguese firm to establish a joint tuna base in the Cape Verde Islands, recently signed a formal partnership agreement with those firms to operate a joint base at Porto Grande, Sao Vicente Island. The base was to become operational in late March 1964.

Under the agreement, the Portuguese firm is to provide base facilities, which include a cold-storage plant; the Japanese firm is to supply fishing vessels; and the United States firm carrier vessels. Catches will be transported to the American firm's tuna plant in Puerto Rico and sold to the European and Japanese markets. The Japanese firm plans to contract three classes (190, 240, and 290 tons) of refrigerated long-line vessels from the Kanagawa Prefectural Tuna Fishermen's

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ative Association and hopes to have at least 10 of them operate regularly out of the Grande base.

ase facilities presently include one 700-ton cold-storage plant, the capacity of which is to be enlarged to 1,700 tons (an earlier report cited the figure 3,000 tons) by December; one small fishing vessel repair shop operated by the Portuguese firm; and a warehouse, with another under construction.

The Portuguese Government approved the venture on the condition that the Japanese vessels do not fish within Portuguese territorial waters. In the past, the Portuguese Government, which has always viewed with favor Japanese fishing operations in the Atlantic Ocean, had refused to permit Japanese vessels to use the Cape Verde Islands as a base of operation. (Nihon Suisan Shimbu April 24, 1964.)

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COMPLETION OF JOINT JAPANESE-BRITISH FIJI ISLANDS TUNA BASE DELAYED:

Construction of the joint Japanese-British tuna base at Levuka, Fiji Islands, originally scheduled to be completed in June 1964 was expected to be delayed for about one month due to problems on procurement of materials. Because of the delay the base will not become operational until August.

The Levuka tuna base is to be managed by the Japanese fisheries cooperative association, cold-storage facilities to be operated by an Anglo-Japanese company. The base has an export quota of 9,000 short tons of tuna. (Suisancho Nippo, April 20, 1964; and other sources.)

* * * * *

JAPANESE SUMMER ALBACORE FISHERY:

The 1964 Japanese summer albacore fishery which began in late April 1964, reportedly continued slow as of early May. Indications are that fishing would get even poorer. Fishing conditions this year are reported to be especially different from normal years, with the schools distributed deeper below the surface of the Kuroshio current.

Some Japanese albacore fishing vessels were said to have switched to skipjack fishing, which was said to be relatively steady. Practically all the skipjack catches are being sold to the domestic fresh fish market at prices above 160 yen per kilogram (US\$403 a short ton). (Suisan Tsushin, May 4, 1964.)

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TUNA PURSE-SEINING EXPERIMENT IN SOUTH PACIFIC UNSUCCESSFUL:

The Japanese purse seiner Kenyo Maru (260 gross tons) spent two months at sea test-fishing for tuna northeast of New Zealand. The vessel (which is equipped with a power block) returned to Yokosuka on May 13, 1964, and reported very little success in its test-fishing experiment. The lack of success was attributed to unfamiliarity with the fishing grounds and to the lateness of the season. Fish schools located by that vessel by means of a fish-finder were at depths of 200-300 meters, so the vessel was not able to set its net on them. The vessel did not encounter any yellowfin or skipjack tuna.

The Japanese fishing company which operates the Kenyo Maru is reported to be planning on sending that vessel to the South Pacific again next year, only earlier in the season. (Shin Suisan Shimbu Sokuho, May 7, 1964.)

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TUNA MOTHERSHIP DEPARTS FOR TAHITIAN WATERS:

The Japanese Nojima Maru (8,800 gross tons) tuna mothership fleet departed for the South Pacific waters off Tahiti on May 10, 1964, from Kobe. Although earlier reported to be encountering some difficulty in signing up catcher vessels, the fishing company operating that mothership succeeded in contracting for 65 catcher vessels (including 4 scout vessels) to deliver fish to its mothership. (Suisancho Nippo, May 9, 1964.)

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TUNA-VESSEL REFUELING AT SEA TO CONTINUE:

The Japan Federation of Tuna Fishermen's Associations (NIKKATSUREN) planned again to charter an oil tanker for refueling tuna vessels at sea, as it did in 1963. In addition to fuel, the tanker will carry fresh water and food for the tuna vessels receiving fuel.

Japan (Contd.):

Later NIKKATSUREN chartered the 1,983-ton tanker Tofuku Maru to refuel tuna vessels at sea. The tanker was to have departed Yokohama for the eastern Pacific on May 13, 1964.

In 1963, NIKKATSUREN had chartered the 1,500-ton tanker Shimmei Maru. That tanker refueled 82 tuna long-line vessels at sea at a saving estimated to total three million yen (US\$8,333) a vessel. The savings resulted from elimination of running time to port to refuel and resultant increase in fishing time. (Suisan Keizai Shimbun, May 13, 1964, and other sources.)

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EXPORTS OF TUNA SPECIALTY PACKS, FY 1963:

Japanese tuna specialty packs exported in FY 1963 (April 1963-March 1964) totaled 438,875 cases, according to data compiled by the Japan Tuna Packers Association. This

Japanese Exports of Tuna Specialty Packs, FY 1963		
Product	FY 1963	FY 1962
 (Actual Cases)	
<u>Tuna:</u>		
With vegetable	362,673	328,140
In jelly	42,736	95,598
In tomato sauce . . .	17,976	14,163
Stew	4,613	840
In specially seasoned sauce	4,600	-
In curry sauce	2,911	3,918
In soy sauce and oil .	1,640	1,170
Sandwich spread . . .	976	1,203
With sweet & sour pork	750	315
Total	438,875	445,347

represents a slight decrease from FY 1962, when exports totaled slightly over 445,000 cases. (Suisan Tsushin, April 17, 1964.)

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TUNA DELEGATION TO U. S. BEING CONSIDERED:

Japan is seriously considering sending to the United States a tuna delegation representing trading firms and packers to survey the United States canned tuna market. The idea of the survey originated with the trading firms, and the packers are reported to be very much in favor of it. An executive session of the Japanese Packers Association was scheduled for April 27, 1964, to discuss the matter.

Reportedly, Japan felt that the stagnant condition of the canned tuna sales market in the United States was not a temporary one and would have long-range repercussions. Because of this, Japan felt that it should begin to study and develop measures to cope with the problem. (Suisancho Nippo, April 22, 1964.)

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CANNED TUNA MARKET TRENDS, APRIL-MAY 1964:

Japan offered for sale between December 1963 and March 1964, a total of 670,000 cases of canned tuna in brine for export to the United States. Of that amount only about 400,000 cases were said to have been sold. The Japan Canned Tuna Sales Company had about 1.1 million cases of canned white meat tuna in brine in stock, as compared with 570,000 cases at the end of the December 1962-November 1963 business year.

The drop in sales of Japanese canned tuna in the United States was attributed mainly to the loss of the competitive position of Japanese brands, resulting from the large promotional sales conducted by United States tuna packers. Japanese tuna in brine was reported to be selling at prices higher than name-brand American products packed in oil.

Japanese trading firms submitted to the packers a request to grant a promotional allowance of US\$1.00 a case for solid white meat tuna, 50 cents a case for solid light meat tuna, \$1.50 a case for chunk white meat tuna and \$1.00 a case for chunk light meat tuna.

At a meeting held on April 27, 1964, the packers deliberated on the proposal submitted by the exporters. However, due to conflicting reports submitted by the exporters and by the Japan Export Trade Promotion Organization (JETRO) on the canned tuna market situation in the United States, the packers requested attendance of a representative from the exporters' association. That representative stated to the packers (in reference to the JETRO report) that it is not possible at all to analyze market trends on the basis of one or two reports, that the American products are in fact, actually selling at prices lower than the Japanese products as had been reported by his group, and that the packers should send a survey party to the United States to study the market situation firsthand.

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Earlier, the packers were greatly in favor of the proposal submitted by the exporters to send a delegation to the United States to study the tuna market trends, but they later were indifferent to the idea, although a segment of the packers' group still strongly favored doing so.

The packers had not arrived at any definite conclusion concerning the exporters' proposal to reduce prices and grant promotional allowances. They clearly recognize the need for placing Japanese canned tuna in a competitive position with the American products, but claimed that the promotional allowance requested by the exporters is excessive. As a result of the slump in sales, a canned tuna sale that had been scheduled for April was postponed until mid-May. (Suisan Tsushin, April 24, 27, & 28; Suisancho Gyo, April 23, 25, & 30, 1964.)

LONG-LINE EXPLORATORY CRUISE AIDS UNITED STATES SALMON STUDY:

An observer from the United States Bureau of Commercial Fisheries boarded the Japanese research vessel Shoyo Maru at Panama on January 3, 1964, for a 2-months' cruise. The vessel was carrying out exploratory long-line fishing in the eastern tropical Pacific. From Panama, the vessel's cruise ran to 10° S. latitude, 100° W. longitude. From there, 6 long-line stations were run to Manzanillo, Mexico, and from Mexico stations were run to Honolulu, Hawaii.



The Japanese research vessel Shoyo Maru.

The Shoyo Maru, which does not carry commercial quantities of long-line gear, generally samples fringe areas not fished by these commercial vessels. At the 14 stations between Panama and Hawaii, a total of 102 lowfin tuna averaging 82 pounds each

were caught, along with 85 big-eyed tuna averaging 125 pounds each, and 98 spearfish averaging 72 pounds. Thirteen percent of the catch was damaged by shark bites and a total of 247 sharks representing 7 species were taken.

Frozen storage was provided on the Shoyo Maru so that 16 shark specimens could be preserved. On arrival at Honolulu, the shark specimens were shipped to California for taxonomic study in connection with work on a species list and key to all sharks found in the eastern Pacific.

Eyes of sharks, yellowfin, big-eyed, skipjack, little tuna, and frigate mackerel were preserved for a histological study of the retinas.

PRICES PAID FOR FIRST JAPANESE SALMON LANDINGS, MAY 1964:

On May 7, 1964, the first significant landing (over 2 metric tons) of salmon (mostly chums) caught by a gill-net vessel was reported at the Japanese port of Hanasaki, Hokkaido. The fresh whole salmon sold (for the domestic trade) at the following prices:

Species	Price	
	Yen/Kg.	Cents/Lb.
Chum (A quality)	398	50
" (B quality)	358	45
Pink (A quality)	230	29
" (B quality)	190	24

In comparison, a year earlier on the same day (when market was somewhat stabilized due to large landings), A-quality fresh round chum sold for 325 yen a kilogram (US\$0.41 a lb.) and A-quality fresh round pink salmon 212 yen a kilogram (\$0.267 a lb.). (Hokkai Suisan, May 11, 1964.)

SALMON PRICES NEGOTIATED WITH VESSEL OWNERS:

In April, the Japan Federation of Salmon Fishermen's Associations (NIKKEIREN) was negotiating 1964 salmon prices with the Japa-

Species	1964 Asking Price		1963 Price	
	Yen/Kg.	US\$/Lb.	Yen/Kg.	US\$/Lb.
Salmon:				
Red	215	27.1	203	25.6
Chum	130	16.4	110	13.9
Pink	105	13.2	88.5	11.2
Silver	144	18.2	120	15.2
King	144	18.2	120	15.2

Japan (Contd.):

nese companies operating salmon mother-ships. NIKKEIREN planned to ask for a 10 percent increase in salmon prices as shown in table.

The mothership companies, however, were planning to ask for a reduction of 10 percent from last year's salmon prices. (Suisan Tsushin, April 22, 1964.)

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SALMON FISHERY QUOTA ALLOTMENT AND FLEET COMPOSITION:

The 1964 allocation of the 55,000-metric-ton salmon catch quotas for Areas A (north of 45° N. latitude) and B (south of 45° N. latitude) in the North Pacific was announced by the Japanese Fisheries Agency on May 9, 1964:

Area	Fishery	Catch Quota		Share of Quota	
		Metric Tons	Percent		
A	Mothership-type fishery	44,665	81.21		
"	Land-based gill-net fishery	10,335	18.79		
	Total	55,000	100.00		
BB	Land-based gill-net fishery	33,240	60.44		
"	" " long-line fishery	14,760	26.84		
"	" " small-vessel fishery . . .	4,000	7.27		
"	Japan Sea gill-net fishery	3,000	5.45		
	Total	55,000	100.00		

The salmon mothership fleet for 1964 totals 11 motherships and 369 catcher vessels, the same as in 1963. The land-based gill-net fleet numbers 333 vessels. They consist of 293 vessels over 30 gross tons licensed by the Ministry of Agriculture and Forestry and 40 vessels over 5 tons but under 30 tons licensed by the prefectural government. The land-based long-line fleet consists of 369 vessels, 176 operating out of Japan proper and 193 based in Hokkaido. The small vessel salmon fleet consists of vessels under five gross tons and are estimated to total 1,200 vessels. Licenses are not required for their operation. The Japan Sea pink salmon gill-net fleet is restricted to 95 vessels in 1964. However, only 76 are reported to be actually engaged in fishing this year.

The salmon motherships were scheduled to depart for the fishing grounds on May 15 from Hokkaido ports. The fishery in Area B commenced on April 30 for vessels operating out of Japan proper and May 2 for vessels based in Hokkaido. The Japan Sea pink salmon

fishery commenced in early spring. (Suisan Nippo, May 1 & 11, 1964, and other sources.)

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SALMON NEGOTIATION WITH U.S.S.R. CONCLUDED:

On April 22, 1964, Japan and the Soviet Union informally agreed on the 1964 North Pacific salmon catch quota of 110,000 metric tons for Japan, the quota to be equally divided between Area A and Area B. This is the lowest catch quota established in eight years. Formal ratification of the agreement was scheduled for April 27.

On April 18, Japan and the Soviet Union reached an informal agreement on the following points:

1. Japan to autonomously regulate the catch of salmon in Area B according to type of fishery (e.g., long-line, gill-net) and to notify the Soviet Union of the estimated salmon catch of Japanese vessels operating in Area B.

2. Japan to voluntarily regulate the catch of red salmon in Area A, restricting the total catch to 7,750,000 fish. Of this quantity, Japan to limit the catch in the area west of 150° E. longitude and north of 48° N. latitude to 2.5 million fish.

3. Japan to operate two salmon motherships in the adjustment area north of the Komandorskie Islands, as in 1963.

4. The Soviet Union to permit Japanese scientists to visit the Okhotsk Sea area and the northern West Kamchatka area. (Rafu Shimpo, April 25; Suisan Keizai Shimbun, April 21, 1964.)

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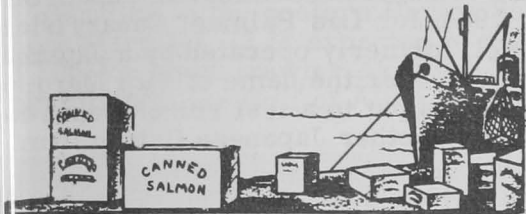
JAPANESE VIEW ON CANADIAN CANNED PINK SALMON MARKET TRENDS:

According to information from sources connected with Japanese trading firms, Canadian holdings of canned pink salmon have been reduced from 540,000 cases carried over from 1963 to 362,500 cases as of April 30, 1964. The reduction of inventory was attributed to improved market conditions in Canada. The quality of the canned pink salmon stored in Canada at that time was said to be suitable for either domestic consumption or for export.

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supply was expected to be exhausted by end of June.

The increased production of canned pink salmon in Canada during the past three years reported to have resulted in the development of a buyer's market. For 1964, however,



Japanese sources foresee a decline in Canadian pink salmon production, which may well be a seller's market. Therefore, Japanese traders, who foresee a good pink salmon export market this year, are reported to be hopeful of raising the export price of the 1964 crop substantially above the existing Japanese price of \$10.30 a case. (Suisancho Nippo, May 4, 1964.)

TOMFISH MOTHERSHIP OPERATIONS IN BERING SEA:

The Japanese mothership Soyo Maru (11,192 gross tons), accompanied by 28 trawlers, left Yokohama May 10, 1964, for the Eastern Bering Sea. The mothership Itsukushima Maru (10,144 gross tons), accompanied by 12 trawlers and six long-line vessels, was scheduled to leave Hakodate May 19. Three Japanese mothership fleets were on their way to the Eastern Bering Sea fishing grounds in early May: the stern trawler Taiyo Maru No. 82 (10,144 gross tons), accompanied by one small trawler, left Hakodate May 1; the Seifu Maru (8,269 gross tons) fleet (17 trawlers and 9 long-liners) left Yokohama on May 2; and the Itsukushima Maru (10,144 gross tons) fleet (12 trawlers) left Hakodate May 3.

The 700-ton mothership Fuji Maru special-berthed to fish for halibut in Area 3B Triangle was scheduled to return to Japan in late May. The mothership's five long-line vessels are to be assigned to the Fuji Maru fleet. (Suisan Tsushin, May 4, 7, 1964.)

BERING SEA VESSEL DEPARTURES:

The two 3,500-ton stern trawlers under construction for a Japanese fishing company were scheduled to be dispatched to the eastern Bering Sea in mid-July and late August. The departure of that company's Chichibu Maru No. 2 (1,693 gross tons) fleet, originally scheduled for early May, was postponed until late June or early July.

Other Japanese motherships scheduled to depart for the eastern Bering Sea in May were: the Seifu Maru (8,269 gross tons) accompanied by 28 catcher vessels, departing Japan on May 2, and the Itsukushima Maru (5,871 gross tons) accompanied by 9 trawlers and 9 long-liners, departing Hakodate, Japan, about May 15. (Suisan Tsushin, April 17 and 18, 1964.)

SHRIMP FISHERY IN BERING SEA:

A large Japanese fishing company's shrimp factoryship Chichibu Maru (7,420 gross tons) has been fishing for shrimp in the Eastern Bering Sea with 12 trawlers. The factoryship had processed about 4,500 metric tons of shrimp as of early May 1964. Due to engine trouble, she was expected to return to Japan around May 20 for repairs, after which she will again depart for the Bering Sea shrimp grounds in August. (Suisancho Nippo, May 7, 1964.)

JAPANESE ATLANTIC TRAWL FLEET:

By December 1964, 18 newly constructed Japanese trawlers are expected to be placed in operation in the Atlantic Ocean. This will enlarge the size of the Japanese Atlantic trawl fleet from 35 trawlers in operation as of March 31, 1964, to 53 vessels.

Of the 18 trawlers, 13 are vessels newly licensed by the Fisheries Agency in November 1963 to engage in the eastern Atlantic Ocean trawl fishery. Seven of the 13 trawlers (one 190-ton, five 299-ton, and one 2,500-ton vessels) were scheduled to be completed by June 1964, and 6 (one 290-ton, one 1,500-ton, one 2,530-ton, one 2,800-ton, and two 3,000-ton vessels) by October 1964.

The remaining 5 trawlers are those previously licensed for construction by the Agency. They include one 1,500-ton, two 2,800-ton, and

Japan (Contd.):

two 3,400-ton trawlers. They were expected to be completed some time between May-December 1964.

In view of the high cost of constructing the trawlers, which may require 5 years to write off, some circles in the Japanese fishery are said to be entertaining doubts that the trawlers entering the Atlantic fishery can operate profitably. They hold the view that vessel owners entering the trawl fishery must bear in mind that, despite reports of good prospects of developing markets for trawl-caught fish, catches in the principal trawling grounds off Las Palmas are declining and that the composition of the catches has changed. (Suisan-cho Nippo, May 4, 1964.)

Editor's note: In November 1963, the following 13 classes of trawlers were licensed for operation off West Africa: 3,500-, 3,000-, 2,800-, 2,500-, 2,000-, 1,500-, and 500-ton--one each; 299-ton--six. Thus, 2 of the 13 trawlers under construction during mid-year 1964 (one of 2,500 tons and the 190-ton trawler) do not "fit" the licensing requirements.

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JAPAN MAY JOIN INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES:

The Japanese Government has for some time been studying the possibility of becoming a member of the International Commission for the Northwest Atlantic Fisheries. She was reported to be planning on sending as observers to the Commission's annual meeting (scheduled for Hamburg, Germany, June 1, 1964) the former Fisheries Agency investigation official; the First Secretary, Japanese Embassy, London; the chief, trawl fishing department, of one of Japan's largest fishing companies; and one other person.

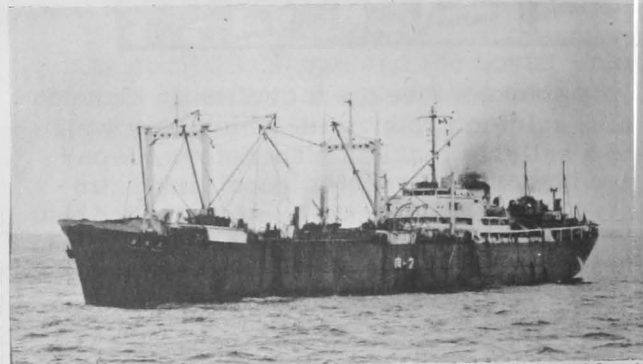
This move was being interpreted in Japan as a preliminary but positive step taken by the Japanese Government preparatory to joining the Commission. As of May 1964, trawlers licensed by the Japanese Government to operate in the North Atlantic were the Aoi Maru No. 2 (1,130 gross tons) and the Tenyo Maru No. 3 (3,700 gross tons). The latter trawler is fishing with two 300-ton trawlers (Chuyo Maru and Eiyo Maru). In addition, several large Japanese companies are reported as planning to operate large stern

trawlers in the North Atlantic in the near future. (Minato Shimbun, May 5; Nihon Keizai Shimbun, May 1, 1964.)

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FREEZERSHIP DEPARTS FOR LAS PALMAS TO PROCESS BOTTOMFISH:

The Japanese freezer ship Hoyo Maru (formerly the Renshin Maru 6,800 gross tons) was scheduled to depart Shimonoseki, Japan, on May 15, 1964, for Las Palmas, Canary Islands. The vessel, formerly operated by a Japanese fishing firm under the name of Fuji Maru, was remodeled and put to a test run off Japan earlier this year by another Japanese fishing firm.



Japanese mothership Hoyo Maru (formerly the Renshin Maru)

The Hoyo Maru was expected to arrive at Las Palmas in late June, where it will be used for about one year to freeze and process bottomfish, such as sea bream, squid, and octopus, to be purchased from about 40 local fishing vessels under an agreement concluded in the past April between the Japanese firm operating the vessel and a Spanish firm. The freezer ship is expected to process in one year a total of 10,000 metric tons of fish, which will be exported to such countries as Spain, Italy, and Denmark, as well as shipped back to Japan.

A similar arrangement was concluded in the summer of 1963 between another Japanese firm and another Spanish fishing firm located in Las Palmas. That same Japanese firm entered a five-year contract to purchase annually from the Spanish firm 6,000 metric tons of squid, sea bream, and octopus. (Suisan Tsushin, May 2, 1964, and other sources.)

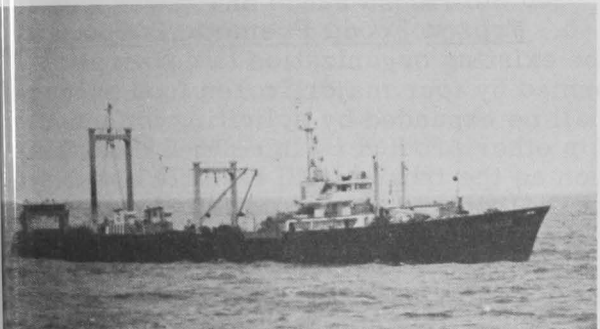
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LARGE STERN TRAWLERS COMPLETED:

Two stern trawlers--Akebono Maru Nos. 71 & 72 (each of 3,500 gross tons)--under construction at Hakodate were expected to be completed in June and July, respectively, <

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with earlier than originally scheduled. Upon completion, they were to be dispatched to the North Pacific and Bering Sea. One large Japanese fishery firm built both vessels. The Akebono Maru No. 71 replaces the 1,500-ton stern trawler Akebono Maru No. 52 which has been operating in the eastern Bering Sea. The Akebono Maru No. 72 is expected to replace the 1,500-ton stern trawler Akebono Maru No. 51 operating in the Gulf of Alaska.



Japanese stern-trawler Akebono Maru No. 51.

Another firm's new stern trawler, Daishin Maru No. 15 (1,500 gross tons), was scheduled for launching on May 8 at the Osaka Shipyard, with final completion in late June. That stern trawler was scheduled to be sent to the Gulf of Alaska on her maiden trip. (Suisan Nippo, May 2 and 12, 1964.)

STERN TRAWLER COMPLETED FOR BERING SEA OPERATIONS:

A large Japanese fishing company accepted delivery of its new 2,800-ton stern trawler Maru No. 82 on April 15, 1964. Built at a total cost of 800 million yen (US\$2.2 million), the vessel has the following specifications: length--82 meters (269 feet); beam--12 meters (50 feet); depth--9.2 meters (30 feet); engine--3,150 hp.; speed--12 knots; carrying capacity--45 metric tons per day.

The new stern trawler was to depart for the eastern Bering Sea on April 24, 1964, accompanied by the 360-ton trawler Taiyo Maru No. 6. (Nihon Shimbun, April 22; Minato Shimbun, April 23, 1964.)

TWO NEW STERN TRAWLERS SENT TO WEST AFRICAN FISHING GROUNDS:

Two new small stern trawlers were scheduled to depart from Japan for fishing grounds off West Africa on May 1, 1964. The new vessels are the 314-ton sister trawlers Kyoshin Maru Nos. 51 and 52. (Nihon Suisan Shimbun, April 22, 1964.)

LARGE STERN TRAWLER COMPLETED FOR RUMANIA:

Construction of the second of two large stern trawlers ordered by Rumania was completed at a Japanese shipyard in mid-April 1964. Called the Galati, the trawler (3,631 gross tons) carries two 20-ton portable vessels, and is equipped with a fish-meal processing unit and fish-filleting equipment. Total construction cost was 1,008.0 million yen (US\$2.8 million). (Minato Shimbun, April 23, 1964.)

VESSEL CONSTRUCTION, MAY 4, 1964:

On May 4, 1964, the Japanese Fisheries Agency issued permits for the construction of 22 fishing vessels: 9 wooden vessels (totaling 160 gross tons) and 13 steel vessels (totaling 2,394 gross tons). Included were permits for 9 steel tuna vessels: two 111-ton, two 192-ton, four 253-ton, and one 375-ton long-liners. (Suisan Keizai Shimbun, May 8, 1964.)

NATIONAL PROGRAM TO PROMOTE FROZEN FISH SALES ESTABLISHED:

A meeting to formalize plans for promoting the consumption of frozen fishery products in Japan was scheduled for April 23, 1964, by the Director of the Japanese Fisheries Agency with the heads of six major Japanese fishing firms and the Japan National Federation of Fishermen's Cooperative Associations. Plans were that the program will be funded with a total capital of 40 million yen (US\$111,000), one-half to be financed by the industry and one-half to be subsidized by the Government. Government funds for the program have already been appropriated in the fiscal year 1964 (April 1964-March 1965) budget.

The proposed plans of the frozen fish promotion are:

Japan (Contd.):

1. Purpose: The purpose of the program is to promote the sale of good-quality frozen fishery products to consumers at the retail level in an effort to create greater demands for those products. The mass media shall be utilized for promotional purposes.

2. Methods of Promotion and Sale: Advertising media, such as radio, television, and newspapers, as well as food exhibits, shall be utilized to introduce good methods of preparing frozen fishery products. Over 20 frozen fish retail stores shall be established in Tokyo to sell frozen fish products of improved quality.

3. Management Organization: The management organization, to be tentatively named the Frozen Fish Products Association, shall be formed by the organizations connected with the frozen fish industry. They shall include the Japan National Federation of Fishermen's Cooperative Associations (ZENGYOREN) and six fishery firms. The Association shall be chartered as a corporation qualifying for government subsidy and shall conduct the following activities:

(a) Publicity by means of advertising in newspapers, magazines, radio, and television; poster and pamphlet distribution, preparation and presentation of film slides; and presentation of food exhibits and cooking classes. (b) Quality improvement program to improve the image of frozen fish. For that purpose, quality and size standards, and a uniform labeling system for frozen products shall be established.

The newly formed Frozen Fish Products Association shall have a staff of 1 managing director, 1 executive director, 7 directors, 2 secretaries, and 3 staff personnel.

4. Frozen Fish Retail Stores: Frozen fish retail stores shall be established to acquaint the consumer with the advantages of buying and using frozen fish as follows:

(a) Member firms of the Association shall establish in Tokyo at least 20 retail stores displaying frozen fishery products. They shall provide guidance to store operators on how to stock and sell frozen fish products. (b) The selection of sites for the frozen fish stores, prod-

uct quality, price adjustments, and other matters requiring adjustment among the shop operators shall be handled by the existing Frozen Foods Promotion Association. (c) In view of the seasonal nature of fish supply, turnover of products, and space consideration for display cases, about 20 varieties of frozen fish products shall be placed on sale. All products shall bear standard labels showing that they conform to prescribed quality standards. Retail prices shall be fixed for all specified products and retailers shall conform to those prices as much as possible.

5. Frozen Foods Promotion Association: The existing organization (a corporation formed by four major frozen food producers) shall be expanded by soliciting for membership other producers in related industries, such as the frozen fish, electric appliance, and the food wrapper manufacturing industries.

The Association shall perform adjustment services (on matters related to selection of shop locations, quality and price determination for products) and assist in obtaining business capital. The Association shall have on its office staff 1 full-time worker and 3 members associated with the Frozen Fish Products Association. (Suisan Keizai Shimbun, April 17 & 22, 1964.)

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FISH SAUSAGE PRODUCTION, FISCAL YEAR 1963:

Data compiled by the Japan Fish Sausage Association show that a total of 130,206 metric tons of fish sausage and fish ham were produced in Fiscal Year 1963 (April 1963 - March 1964). This represents a 14-percent increase over Fiscal Year 1962, when production totaled 114,125 metric tons. Production of fish sausage totaled 98,444 tons, representing a 28-percent increase over 1962 production of 76,832 tons, and production of fish ham totaled 31,762 tons, showing a 15-percent decrease from the 37,293 tons produced in 1962. The increase in fish sausage production is attributed to improved methods of processing and marketing, the low price maintained for that product compared with the rising prices of beef and pork sausages and other food products, and increased consumption of fish sausage in farming and fishing communities. (Suisancho Nippo, May 1, 1964.)

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WITH AFRICAN FISH MEAL
BE IMPORTED BY JAPAN:

The Japanese Fisheries Agency, after studying the request submitted by the Livestock Bureau, is reported to have approved importation of 25,000 metric tons of South African fish meal in fiscal year 1964 (April 1964-March 1965). The South African fish meal is reported to have been contracted at a price of 54,142 yen (US\$150) a metric ton. (Suisan Keizai Shimbum, May 13, 1964.)

Editor's note: The press report did not state whether the price is f.o.b. or c.i.f.

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1 MILLION FOR SOUTH KOREAN
IMPORTS ALLOTTED BY JAPAN:

The Japanese Ministry of International Trade and Industry (MITI) was expected to formally approve a foreign fund allocation of 1 million for the importation of South Korean fishery products in fiscal year 1964 (April 1964-March 1965). Japanese producers and exporters had requested an allotment of US\$1.8 million and the MITI had recommended US\$1.3 million, the same as in fiscal year 1963. However, the Fisheries Agency had held firmly to an allocation of 1 million on grounds that it would not yet be advisable to liberalize imports from Korea since the Japan-Republic of Korea fisheries negotiation had not yet been concluded. The Agency also held that the 1963 allotment included a special appropriation of US\$300,000, but it would not at all be possible to predict whether a special need such as that which arose in 1963 would arise again in 1964. (Suisancho Nippo, May 7, 1964.)

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JAPANESE-CANADIAN TALKS
ON FISHING LIMITS PLANNED:

A Japanese delegation was scheduled to arrive in Canada May 1, 1964, to conduct preliminary discussions with Canadian Government officials regarding Canada's proposal to unilaterally a 12-mile fishing limit based on the straight base-line concept. The Japanese delegation was said to consist of an official from the Japanese Fisheries Agency, an industry representative, and a counselor at the Japanese Embassy in Ottawa. (Nihon Keizai Shimbum, April 24, 1964.)

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KELP FISHERY AGREEMENT
WITH SOVIET UNION:

An agreement was formally signed in Moscow on April 29, 1964, between Japan and the Soviet Union to extend for a one-year period the Japan-U.S.S.R. private kelp fishery agreement originally concluded on June 10, 1963. Representing Japan at the kelp negotiation was the President of the Japan Fisheries Society. The U.S.S.R. was represented by the Soviet Fisheries Minister.

The kelp agreement, concluded on a private basis between the Japan Fisheries Society and the Soviet State Fisheries Commission, permits up to 300 Japanese fishing boats to harvest kelp in approximately a 4.5-square-mile area off the Shigunarinui Island in the Nemuro Strait, northeast of Hokkaido. As in 1963, the Japan Fisheries Society will pay the Soviet Union a kelp harvesting fee of 12,000 yen (US\$33.34) per boat. Opening date for the kelp harvesting season was advanced from June 10 to June 1. Closing date is September 30, as in 1963. The 1964 kelp production is expected to total about 1,800 metric tons. The 1963 harvest totaled 1,200 tons. (Suisan Keizai Shimbum, May 1; Suisancho Nippo, April 30, 1964.)



Mauritania

SIGNS 50-YEAR FISHERIES
TREATY WITH SPAIN:

Three treaties, one of which is on the fisheries, were signed by Mauritania and Spain at the capital city of Nouakchott on February 14, 1964. In the fisheries treaty, Spain agrees to construct and operate fish-processing plants at Port-Etienne in Mauritania, in return for the right for Spanish fishermen to fish Mauritanian waters on the same basis as that country's nationals.

The 50-year fisheries treaty is potentially of great importance to the development of Mauritania's major natural resources. It attempts to regulate the difficulties that have arisen between Spain and Mauritania since the latter's independence over the traditional use of Mauritanian territorial waters by Canary Islands-based Spanish fishermen. It gives Spain the right to fish in Mauritanian waters under the same conditions as Mauritanian nationals, in return for sizable Spanish investments in fish-processing facilities at Port-Etienne, and the right of free repatriation of profits from such industries.

Mauritania (Contd.):

In the treaty, Spain specifically guarantees: (1) to build and operate a salting and drying plant within 18 months with an annual capacity of 6,000 metric tons; and within 24 months, a cannery with an annual capacity of 3,000 tons; and a fish-meal factory capable of treating 100 tons of fresh fish daily; (2) to document 20 to 50 Spanish fishing vessels under Mauritanian registry, subject to Mauritanian laws; (3) for Spanish vessels fishing Mauritanian waters, to pay an annual royalty of US\$10 a gross ton; and (4) train Mauritanian commercial fishermen in Spanish schools and as crewmen aboard Spanish vessels fishing Mauritanian waters.

In addition to permitting the use of Mauritanian waters and repatriation of profits, Mauritania agrees to: (1) grant Spanish fisheries enterprises most-favored-nation administrative, customs, and tax treatment; (2) make available the necessary construction sites for the projected industrial establishments; and (3) reserve to Spanish fishermen the necessary storage space in the projected refrigeration facilities at Port-Etienne for the fish used in 15 days' operations in the canning and fish-meal plants. (United States Embassy, Nouakchott, March 30, 1964.)

Note: See Commercial Fisheries Review, October 1963 p. 60.



Mexico

POSSIBLE EFFECTS OF SHRIMP VESSEL TIE-UP AT MAZATLAN:

The decision of shrimp vessel owners in Mazatlan, Mexico, on May 6, 1964, to halt operations of 100 privately owned vessels was believed would result in greatly reduced shrimp catches during the final 2 months of the 1964 fishing season. The shutdown was caused by steadily worsening catches that made fishing unprofitable.

Mazatlan is the principal shrimp port of Mexico with 270 to 300 vessels of the approximately 600 operating out of Pacific Coast ports. With a large segment of the Mazatlan shrimp fleet tied up, including many of the best vessels, several packing plants closed down. Although vessels belonging to the cooperatives and some privately owned vessels continued to fish out of Mazatlan for those plants that were still operating, the partial

tie-up coupled with generally poor fishing was believed would result in very small shrimp landings. That could reduce shrimp shipments to the United States for the remainder of the season to July 15, 1964. The atmosphere for negotiating next year's contract between vessel owners and fishermen may also be impaired.

The existing contract between vessel owners and the crew members who belong to the several cooperatives was based on the good fishing and high prices that prevailed during the previous season (1962/63). It called for the crew to receive 45 percent of the gross catch and required the crew to pay only for provisions, with the owner paying all other expenses. When the price of shrimp dropped to pre-1963 prices and catches slumped while operating costs remained unchanged, returns dropped below the break-even point, according to the vessel owners. Some of the cooperatives were also reported to be overextended and in a poor credit position. Tension was reported between the cooperatives and vessel owners all season as the fishermen scouted all available shrimp grounds from south of San Blas, Nayarit, to the outer coast of Baja California, and fishermen from Topolobampo in northern Sinaloa reportedly penetrated into the Mazatlan fleet's traditional areas.

Because of this year's poor results, a number of Mexican shrimp vessels have left to work new grounds off French Guiana. Other owners are ready to send their vessels to French Guiana, and reportedly over 500 fishermen including highline skippers have applied to go with them. The 12 vessels being built at Mazatlan for export to Kuwait will require 36 officers and crewmen, and the shipyard building the vessels reports "hundreds" of applications. A feeling of pessimism pervaded the Mazatlan shrimp fishery. (United States Embassy, Mexico, May 18, 1964.)



Morocco

FISHERIES TRENDS, FIRST QUARTER 1964

The first quarter is traditionally the slow season for the Moroccan fishing fleet. The year bad weather prevented the start of the sardine fishing season at Safi at the usual time, and it was not expected that the catches would reach important proportions until the end of April. Farther south at Agadir, the

Morocco (Contd.):

Several vessels with limited range had still not landed sardines in commercially important quantities by mid-April 1964.

The past two years have seen strenuous objections by French fishermen against the arrival of frozen Moroccan sardines on the French market during the peak of the French fishing season. As a result, the French and Moroccan Governments have agreed to suspend exports of Moroccan frozen sardines to France during the summer. The late start in Moroccan sardine fishery may, therefore, result in important reductions in sales.

The possibility of expanding the Moroccan catch has continued to attract attention. A team of consultants from the United States Agency for International Development had previously recommended a careful exploration of offshore tuna fishing grounds using a modern fishing vessel. For various financial and technical reasons, United States vessels were not suitable for the project, so a French vessel has been chartered to carry out a one-year study of the tuna potential off Morocco. (United States Embassy, Rabat, April 24, 1964.)

See Commercial Fisheries Review, April 1964 p. 65.

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TANGIER FISH MARKET SALES, 1963:

In 1963, the Tangier Fish Mart received 10,000 tons of tuna (includes a small quantity of bonito, mackerel, and swordfish) from the fishery in the Cape Spartel region. Of that total, 738 tons were immediately sold while 9,262 tons were exported.

The Tangier Fish Mart in 1963 also received 2,378 tons of fish other than tuna (1,468 tons from the inshore net and small-boat fishery and 910 tons from the coastal fishery) and 1,000 tons of shellfish. Most of those receipts were immediately sold and only a small quantity was used for canning or freezing.

The Tangier Fish Mart makes no distinction between fish landed at Tangier and fish landed in from Alhoceima or Larache. (United States Embassy, Rabat, April 3, 1964.)



Netherlands

MARINE OIL INDUSTRY TRENDS, 1963, AND ANTARCTIC WHALING RESULTS, 1963/64 SEASON:

Marine Oil Industry Trends, 1963: In calendar year 1963, the Netherlands imported 95,500 metric tons of fish oil, including 26,456 tons of whale oil. Netherlands use of fish oil in edible products during 1963 amounted to about 82,500 tons compared with similar use of about 47,500 tons of soybean oil, 43,300 tons of palm oil, and 30,000 tons of coconut oil. (United States Embassy, The Hague, April 27, 1964.)

Antarctic Whaling Results, 1963/64 Season: The Netherlands Whaling Company announced that the Dutch whaling expedition caught 343 international blue-whale units during the 1963/64 Antarctic whaling season, which was 257 units short of its quota of 600 units per-

Netherlands Whaling Company Production in Antarctic, 1961/62-1963/64			
Product	Season		
	1/1963/64	1962/63	1961/62
	(Metric Tons)		
Whale oil	8,026	10,527	12,155
Sperm oil	2,578	2,927	2,918
Meat meal	978	1,275	1,726
Frozen meat	1,194	1,108	1,582
Meat for Japanese refrigerator ship	6,045	7,284	7,932
<u>1/Preliminary.</u>			

mitted under the International Whaling Agreement. (United States Consulate, Amsterdam, April 27, 1964.)

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NEW TRAWLER "TINIE CORNELIA":

The dual-purpose trawler Tinie Cornelia was recently completed by a Dutch shipyard in Breskens. The vessel can be used as a stern trawler, or as a double-rig beam trawler. When twin-beam trawling, the two derricks on the vessel are topped up and the warps rove through the sheaves on each end. When stern trawling with a standard-type trawl, however, the derricks are lowered on to the strong back aft and the sheaves are used as towing blocks.

The derricks have been arranged in such a way that the risk of capsizing should the trawl come fast is minimized.

The principal dimensions of the Tinie Cornelia are: length overall 21.2 meters (69.5

Netherlands (Contd.):

feet), breadth 5.6 meters (18.4 feet), and depth 2.6 meters (8.5 feet). The vessel's refrigerated fishroom has a capacity of 47 cubic meters (61.47 cubic yards), and accommodations are provided for a crew of 7.

The vessel is driven by a 380-horsepower Diesel engine, and is equipped with electro-hydraulic steering gear. The winch is situated well forward beneath the wheelhouse, and can be controlled from the bridge. Electronic fish-finding and navigational equipment are also provided. (World Fishing, April 1964.)



Norway

EXPORTS OF CANNED FISH,
JANUARY 1-FEBRUARY 22, 1964:

Norway's total exports of canned fish in January 1-February 22, 1964, were up 12.5 percent from those in the same period of 1963. Shipments of canned brisling were up 15.5 percent and of canned small sild up 12.8 percent. Other Norwegian canned fishery products were also exported in greater quantity in early 1964.

Norwegian Exports of Canned Fish, January 1-February 22, 1963-1964		
Product	Year	
	1/1964	1963
	. . . (Metric Tons) . . .	
Brisling	948	821
Small sild	1,955	1,733
Kipperd herring	470	438
Soft herring roe	38	14
Sild delicatessen	72	65
Other canned fish	282	320
Shellfish	260	188
Total	4,025	3,579
1/Preliminary.		

The Norwegian winter herring fishery in 1964 yielded a better catch than in the previous year and by March 14, 1964, the Norwegian kippered herring canned pack amounted to 206,524 standard cases compared with only 70,862 cases in the same period of 1963.

Norwegian production of canned soft herring roe also increased considerably in early 1964 and by mid-March amounted to 16,078 cases of $\frac{1}{2}$ ovals and 28,276 cases of $\frac{1}{4}$ oblong cans as compared to 5,757 cases of $\frac{1}{2}$ oval and 15,968 cases of $\frac{1}{4}$ oblongs in the same pe-

riod of the previous year. (Norwegian Catchers Export Journal, April 1964.)

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NORWEGIAN STERN-FISHING
FACTORY TRAWLER LANDS FROZEN
PROCESSED CATCH IN ENGLAND:

The Norwegian factory trawler Longva completed its fourth fishing trip when it arrived in Grimsby, England, March 31, 1964, with a capacity load of 400 tons of frozen fillets (mainly skin-on cod fillets in 10-pound blocks). The owners of the 1,092-gross-ton vessel have contracted to deliver the vessel's catch in 1964 to a British distributor of frozen fishery products. The 400 tons of fillets delivered in March were processed aboard the Longva from a catch of about 14,000 kits (1,960,000 pounds) taken during a 3-months trip in early 1964. (The average catch by a conventional British trawler during a typical 22-day trip is said to amount to about 2,000 kits, or about 280,000 pounds.)

With an overall length of 208 feet, the Longva is only about 30 feet longer than the average British deep-water trawler. The Norwegian vessel is considerably shorter than British factoryships and freezer-trawlers. The Longva has an extremely compact design, and additional space was saved by not installing a fish meal plant. Some waste products are frozen on the vessel for animal food, but the fish meal is generally discharged into the sea.

The Captain of the Longva said the vessel's operations in early 1964 had included 2 weeks of fishing off the west coast of Greenland where the temperature was below -25° C. (-13° F). The Longva can operate in extreme weather conditions because all fish handling is done on the low deck. When the cod end approaches the vessel during net hauling, it is taken up and suspended from the rear bipod mast. A large steel hatch door then opens beneath it, giving direct access to the rear of the fish-processing factory below the fishing deck. During a brief period the hatch is open, the cod end is opened and the catch--about three tons, on average--is discharged directly into a pump below deck. In the air-conditioned and heated fish factory, fish can be fully processed and delivered to cold storage within two hours after landing. Fish processing equipment on the vessel includes heading, filleting, and skinning machines which can be geared to process up to 20 tons of fillets a day.

way (Contd.):

The Longva was built in late 1962 at Aale-
nd, Norway. (Fish Trades Gazette, April
1964.)

See Commercial Fisheries Review, April 1963 p. 66.

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2 SUPPLY AND DISPOSITION OF MARINE OILS, 1963 WITH COMPARISONS:

In 1963, Norwegian production of marine
oils (table 1) was 34 percent below that in the
previous year due to a sharp decline in the
whaling season in the
arctic. Norwegian production of marine
oils in 1964 was expected to continue at about
the same level as in 1963.

Table 1 - Norwegian Production of Marine Oils,
1962-1963, and Forecast for 1964

Item	Forecast 1964	1/1963	2/1962
. (Metric Tons)			
Uncleared cod-liver oil	10,000	4,100	5,500
Other fish-liver oils		6,100	1,000
Whaling oil	60,000	60,000	61,000
Total fish and fish-liver oils	70,000	70,200	67,500
Whale oil	2,500	2,000	2,800
Marine oil:			
Arctic	8,500	7,378	12,020
Whaling stations (Norway)	800	916	687
Total sperm oil	9,300	8,294	12,707
Whale oil:			
Arctic	34,000	31,423	85,015
Whaling stations (Norway)	500	209	847
Total whale oil	34,500	31,632	85,862
Total marine oils	116,300	112,126	168,869

1/Preliminary.
2/Revised.

The decline in Norwegian whale oil pro-
duction in 1963 was only partly offset by
higher imports (tables 2 and 4). As a result,
Norwegian supply of crude whale and her-
ring oil during 1963 was down 10 percent
from the previous year, even though there
were substantial stocks on hand January 1,

Norwegian exports of unrefined marine-
animal oils (table 5) were down sharply in
1963 due mainly to smaller shipments of
whaling oil. The decline affected all the im-
portant unrefined marine oils exported by
Norway except fish-liver oil. (In 1963, the
leading buyers of Norwegian fish liver oil--
the United States and West Germany--were
more than medicinal cod-liver oil--were
Czechoslovakia with 2,993 metric tons, West
Germany with 1,945 tons, Sweden with 1,837
metric tons, Italy with 1,830 tons, and Denmark with

Table 2 - Norwegian Supply and Disposition of Crude Whale
and Herring Oil, 1961-1963, and Forecast for 1964

Item	Forecast 1964	1/1963	2/1962	1961
. (Metric Tons)				
Supply:				
Stocks, January 1	60,129	71,336	54,163	67,929
Production:				
Whale oil	34,224	31,632	85,864	114,715
Herring oil	60,000	60,000	61,000	59,000
Total production	94,224	91,632	146,864	173,715
Imports:				
Whale oil	-	11,715	1,674	79
Herring oil	-	53,278	51,858	33,677
Total imports	-	64,993	53,532	33,756
Total supply	-	227,961	254,559	275,400
Disposition:				
Exports:				
Whale oil	-	25,631	65,948	67,656
Herring oil	-	98	125	398
Total exports	-	25,729	66,073	68,054
Processed by hardening industry ^{3/}	-	142,103	117,150	153,183
Stocks, December 31	-	60,129	71,336	54,163

1/Preliminary.

2/Revised.

3/Data computed by deducting year-end stocks and exports from
total supply; the export figures are complete but the year-
end stocks may include oil not included in the reported sup-
ply.

Table 3 - Norwegian Supply and Disposition of Hardened Fats
and Oils from Fish and Marine Animals, 1961-1963

Item	1/1963	2/1962	1961
. (Metric Tons)			
Supply:			
Stocks, January 1	8,230	7,803	13,325
Production	136,536	113,179	105,968
Imports:			
Edible	2,012	1,125	372
Inedible	-	47	13
Total imports	2,012	1,172	385
Total supply	146,778	122,154	119,678
Disposition:			
Exports:			
Edible	59,982	40,922	45,396
Inedible	27,058	20,902	10,479
Total exports	87,040	61,824	55,875
Domestic disappearance ^{3/}	52,000	52,100	56,000
Stocks, December 31	7,738	8,230	7,803

1/Preliminary.

2/Revised.

3/The main consumer is the margarine industry; estimated con-
sumption outside the margarine industry is only about 1,200
metric tons.

1,253 tons. Norwegian exports of medicinal
cod-liver oil in 1963 amounted to 2,158 tons
and the United States was the leading buyer
with 500 tons.)

In 1963, Norwegian production of hardened
fats and oils from fish and marine-animal oils
(table 3) was up considerably from the previ-
ous year. Exports absorbed the increase,

Norway (Contd.):

Commodity and Country of Origin	Quantity	Value	
		Metric Tons	Kr. 1,000
Whale Oil, Crude:			
Netherlands	1,988	1,973	276
United Kingdom	2,031	2,874	402
Iceland	1,046	1,344	188
Japan	6,649	9,346	1,307
Other countries	-	-	-
Total	11,714	15,537	2,173
Sperm and Bottlenose Oil, Crude:			
Denmark	556	1,014	142
Australia	464	849	119
Total	1,020	1,863	251
Herring Oil, Crude:			
Iceland	16,590	13,508	1,889
West Germany	15,265	14,784	2,068
United States	8,186	8,059	1,127
Peru	6,505	5,120	716
Other countries	6,732	11,289	1,579
Total	53,278	52,760	7,379
Cod-Liver Oil:			
Total all countries	1,011	1,312	183
Industrial and Mixed Fish-Liver Oils:			
Iceland	3,233	3,905	546
Other countries	158	153	21
Total	3,391	4,058	567
Residual Fish-Liver Oils:			
Sweden	867	472	66
West Germany	2,357	1,478	207
Other countries	148	75	10
Total	3,372	2,025	283
Other Crude or Refined Fats and Oils from Fish and Marine Animals:			
West Germany	1,570	1,683	235
Peru	1,831	1,073	150
Other countries	161	125	18
Total	3,562	2,881	403

Table 5 - Norwegian Exports of Unrefined Marine Oils, 1960-1963

Product	1/1963	2/1962	1961	1960
 (Metric Tons)			
Whale oil, crude	25,631	65,948	67,656	65,555
Sperm and bottlenose oil, crude	4,664	12,975	8,815	8,682
Seal oil, crude	1,773	2,646	2,117	3,859
Herring oil, crude	98	125	398	199
Fish-liver oil	18,078	14,950	18,767	15,564
Other unrefined marine oils	5,590	8,988	8,582	4,989
Total	55,834	105,632	106,335	98,848
1/ Preliminary.				
2/ Revised.				

since domestic consumption of hardened marine oils by the margarine industry was about the same as in the previous year. There has been a steady drop in the use of marine oils in Norway's production of margarine

from 57,170 tons in 1960 to 50,095 tons 1963.

Note: See Commercial Fisheries Review, July 1963 p. 89.

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SHIPYARDS TO BUILD SHRIMP VESSELS FOR KUWAIT:

A Norwegian shipbuilding sales organization has arranged to deliver 8 shrimp-fishing vessels and 1 supply vessel to the Kuwait National Fishing Company. The terms of the Kr. 20 million (US\$2,793,000) contract call for cash upon delivery within one year. The Norwegian contractor will build 1 of the 8 trawlers. The firm has subcontracted with other Norwegian shipyards to build the other 7 trawlers and the supply vessel. (News of Norway, April 30, 1964.)



Peru

FISH MEAL PRODUCTION AND EXPORTS JANUARY-MARCH 1964:

Peruvian fish meal production in January-March 1964 was reported to be 496,000 metric tons, or 58 percent more than the 314,000 metric tons produced during the first quarter of 1963.

Peruvian fish meal exports during the first 3 months of 1964 amounted to 389,000 tons, or only 9.6 percent from the 355,000 tons exported in the same period of 1963. Fish meal inventories at the end of the first quarter of 1964 were said to total 258,000 tons as compared with inventories of 149,000 tons at the end of January-March 1963. (Unpublished sources.)



South Africa

FISHERIES TRENDS, EARLY 1964:

Following are excerpts from a report in the The Southern Africa Financial Mail, April 10, 1964, describing recent developments in the fishing industry of the South Africa Republic (including South-West Africa):

Summary: Fishing expectations and early results for 1964 indicate that the pilchard and asbanker shoal fishery may be headed for a seventh successive record year. While inshore fishing will produce the bulk of the catch, there are also interesting develop-

Africa (Contd.):

deep-sea trawling, tuna fishing, and ex-tory fishing.

Richard-Maasbanker Fishery: At Walvis (South-West Africa), where just over 100 short tons of pilchards were landed from jetties of 6 factories in 1963, a fleet of 70 vessels in early April 1964 was taking about 6 to 7 hours sailing from port. Although that was farther away than normal, trips were repaid by the excellent condition of the fish which yielded 16 to 18 gallons of oil from each ton caught.

Plans called for the completion of 2 new fish meal factories in South-West Africa in 1964. With the advent of the 2 new factories (1 in Walvis Bay and 1 in Luderitz), South-West Africa pilchard quota has been raised to 720,000 short tons for 1964 (630,000 for Walvis Bay and 90,000 tons for Lude-

the South Africa Republic's Cape West shoal fishery was hampered early in 1964 by the appearance of pilchards farther than usual. The fish were found in the Hout Bay and Robben Island areas, which was a boon to the 2 factories at Hout Bay and Gansbaai, but unfavorable to the majority of factories located at Saldanha Bay and further north. Vessels from the West Coast had to travel from 50 to well over 100 miles to their catches. Despite the extended trips, the pilchard-maasbanker catch in the South Africa Republic during the first 6 months of 1964 was 130,640 tons as compared with 119,973 tons in the same period of 1963. In the South African Cape West shoal fishery there is no catch limit, and the season lasts only to the end of July.

In 1963 there were indications that the fish meal factory license might be transferred to a group of leading South African fishermen. However, it is believed that some concern over heavy fishing of the pilchard may persuade the South Africa Department of Commerce and Industries to postpone action on the new license, at least during

indications of an increased catch in South Africa and South-West Africa, it is possible to reach the 1964 fish meal production goal of 300,000 short tons. (Editor's Note: That goal equals the 1964 export

quota assigned to South Africa by the Fish Meal Exporter's Organization.) More than 75 percent of the anticipated production has been sold in advance at a good price and there are ample markets for the remainder.

Once again, canned fish production will be limited and is not likely to exceed 2.5 million cases in 1964, which would be only half the canned fish pack of 5 million cases in 1960.

Offshore Trawling: A new company has been formed by South African-Spanish interests to carry out deep-sea trawling operations. Although detailed plans have not been announced, it is expected that the company will operate 4 to 6 large trawlers and establish a freezing and processing plant in South Africa at Saldanha Bay.

Another South African company was due to take delivery in May 1964 of the 130-ton stern trawler Sea Horse, the first of several trawlers being built for the company by a British shipyard.

A third South African company will start taking delivery in 1964 of 7 side trawlers and 2 stern trawlers being built for the company in Aberdeen, Scotland. In addition, a South African shipyard in Durban is completing two new stern trawlers for another South African fishing company which will operate the vessels from Port Nolloth.

Tuna Fishing: The potential tuna fishery off South Africa is also attracting investment. The former navy corvette Justin has been converted for tuna long-line fishing at a Durban shipyard at a reported cost of R100,000 (US\$139,000) by a South African company. The vessel will be used off South Africa.

Another South African company has been operating the converted refrigerated cargo vessel Marinette as a tuna vessel and is purchasing two more vessels in Europe for the tuna fishery.

Fisheries Development: The Fisheries Development Corporation of South Africa Ltd. is expanding its activities. (Editor's Note: Formed in 1944 under Section 2 of the Fishing Industry Development Act, the Corporation was created as a semipublic body with half its capital of almost \$2.8 million subscribed by the State.) As part of its new work in resource development, the Corporation has begun exploratory fishing and gear research to

South Africa (Contd.):

find out if shrimp and anchovies can be caught commercially off South Africa. (United States Consul, Cape Town, April 21, 1964.)

Note: See Commercial Fisheries Review, May 1964 p. 72, Mar. 1964 p. 67, Dec. 1963 p. 78, Oct. 1963 p. 64.

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**PILCHARD-MAASBANKER
FISHERY, JANUARY 1964:**

The shoal fish catch off the Cape west coast of the South Africa Republic in January 1964 was 63,781 short tons pilchards, 3,666 tons maasbanker, and 594 tons mackerel for a total of 68,041 tons. That compares with 44,611 tons pilchards, 165 tons maasbanker, and 4,278 tons mackerel landed in January 1963.

The January 1964 catch yielded 15,765 short tons of fish meal, 563,874 imperial gallons of fish body oil, 312,456 pounds of canned pilchards, 533,208 pounds of canned maasbanker, and 125,088 pounds of canned mackerel. (The South African Shipping News and Fishing Industry Review, March 1964.)



Republic of Togo

**FISHERY PRODUCTS IMPORTS FROM
SOVIET UNION INCREASE IN 1963:**

In 1963 the Soviet Union increased its exports of fishery products to Togo. Imported frozen fishery products of Soviet origin appear to have become very popular with the Togolese and are reported to be unloaded and sold directly from rail cars to the Togolese market women. Despite the noticeable increase and frequency of such imports, the consumer demand has kept pace with supplies and there has been no indication of a saturated market.

A four-man team of German fishing experts is expected to arrive in Togo during 1964. They will bring with them two 39-foot fishing vessels for offshore fishing. Two of the German experts will work with the Togolese in training them to operate the 2 vessels and the 2 other experts will teach the Togolese how to preserve and distribute fish. (United States Embassy, Lome, April 21, 1964.)



U.S.S.R.

SOVIET FISHING INDUSTRY:

Following are excerpts from a report by Alexander Ishkov, chairman of the Soviet State Committee of Fisheries:

Fisheries Landings: In 1963, landings by Soviet fishing vessels and whalers reached 4.5 million metric tons, exceeding the plan target by 380,000 tons. The Soviet catch goal for 1964 calls for landings to increase by 400,000 tons to 4.9 million tons; and in 1965 landings are expected to rise to well over 5 million tons.

The Soviet Union has nearly 29,000 miles of sea coast, opening onto a variety of seas, as well as some 211,000 miles of rivers, many of which are very large. The Soviet Union also has over 200,000 large lakes, covering nearly 12,000 square miles. Those include 102 artificial lakes created mainly in connection with hydro-electric and irrigation schemes. The lakes are being developed as hatcheries for salmon, sturgeon, and other fish.

Fishing Fleet: The development of the Soviet fishing industry has required major capital expenditures. Seven out of 10 vessels and auxiliaries now operating in Soviet fisheries have been built in the last 10 years, and 12 new large vessels should be added in 1964, including 21 refrigerated trawlers. Many of the new vessels have been built in Soviet shipyards, but even more have been built to Soviet order by shipyards in Poland, East Germany, Finland, Japan, Denmark, West Germany, and certain other countries.

Construction of Soviet fishing vessels abroad is continuing. Poland, for example, is at work on a series of fishery motherships to serve Soviet distant-water fleets. Polish shipyards also plan to deliver a series of large factory trawlers to the Soviet Union during the next two years. Each of the new factory trawlers should be capable of catching and processing 5,500-6,000 tons of fish annually.

As recently as 15 years ago, vessels operating from Soviet Baltic ports, which then constituted a major part of the Soviet fishing fleet, consisted only of small schooners which operated only in coastal waters. The Soviet Baltic fleet now includes numerous modern fishing vessels capable of operating in distant waters such as the fishing area now in active exploitation off west Africa. The Soviet B

S. R. (Contd.):

is supported at Illaipedä, Tallinn, and other ports by refrigerated warehouses and pressing factories.

The Soviet Far Eastern fishing fleet, includes about 200 modern fishing vessels and 110 packing fish canneries which operate for 6 months of the year around the Kurile Islands. Those vessels landed about 500,000 tons of fish and other sea products in 1963, and are expected to increase their catch in 1964.

The Soviet herring fleet, operating from Murmansk and other ports on the Barents Sea, is fishing in the North Atlantic. The fleet, which has been aided by the research done by the estuarine Severyanka, is catching large herring at depths of 1,000 feet, and in certain areas at depths of 2,000-2,300 feet.

Other Soviet fleets are operating in the Black Sea and Sea of Azov, and in the Caspian Sea.

Fisheries Research: There are now 20 Soviet research institutes engaged in fishery research, with 4,000 scientists and technicians working out plans for further development of the fishing industry.

As a result of Soviet research, five Soviet vessels will be fishing for tuna in the Indian and Pacific Oceans, and others will be fishing in the northwestern part of the Atlantic Ocean for tuna, "scomber," sailfish, and mackerel. (World Fishing, April 1964.)

See Commercial Fisheries Review, April 1964 p. 73, May 1964 p. 70, and February 1964 p. 84.

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PACIFIC SALMON
INDUSTRY AND FISHERIES:

The Chief of the Research Section of the Hokkaido (Japan) Salmon Hatchery, Japanese Fisheries Agency, and his assistant visited Ussuryskaya, Okhotsk, Kamchatka, and Sakhalin on the Pacific Coast of the Soviet Union in 1957 and 1959, respectively. They were participants in an exchange program exchanging techniques between the Soviet Union and Japan. Their observations on Soviet fisheries have been kept current by information from visitors to the Soviet Union and dealings with Soviet delegations to Hokkaido. Following are some of their impres-

sions of the Soviet salmon hatcheries and fisheries in the Pacific coast:

Hatchery Program: The Japanese believe that the Soviets will rely on their natural salmon runs until the resource shows strong evidence of depletion. Only then will the Soviets begin full-scale development of their salmon hatcheries. The fact that only two members of Soviet fisheries delegations to Japan have been hatchery personnel suggests the low priority of the program at present. Earlier, during a joint scientific conference between the Soviet Union and Japan, the Soviets described plans to expand hatchery programs in Sakhalin, the Kurile Islands, and the Amur River area. But a visiting fisheries team from Japan in 1963 found no pronounced increase of hatchery activity in those areas.

The Japanese, however, were impressed by the overall administration of the hatchery program and the natural resources available to the Soviets. One river in Kamchatka is said to have more salmon than all the rivers of Hokkaido combined. Poachers pose little problem and wide rivers allow the salmon to swim unmolested to their natural spawning grounds. This contrasts with Japanese experience where the fish must be caught in midstream, then artificially transported to spawning areas. Soviet scientists also had such advantages as the use of helicopters to fly to and from hatcheries in remote areas.

The Soviet hatchery method is the same as the Japanese, both of which are similar to certain United States methods. One Soviet variation in technique, however, is the placing of incubation trays with eggs in a large indoor rearing pond rather than in troughs through which spring water runs as is the practice in Japan. The Japanese also stated that little encouragement is being given to the breeding of hybrid stock in the Soviet Union.

Fishing Industry: The Japanese were generally unimpressed by the Soviet salmon fishing industry and felt their own plants and techniques were superior. They reported that some Soviet salmon canneries were sorting and packing by hand, and using equipment installed by Japanese firms some years ago.

Standard of Living: To compensate for the remoteness and seasonal nature of the work, Soviet wages in the Pacific salmon fishing industry were set at 1.5 times the community average, and other incentives such as the de-

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

velopment of recreation facilities, and a 10-percent annual increase in wages were used to retain workers.

The price of food was comparable to or only slightly higher than that in Japan, but the price of clothing was 4 to 5 times the Japanese level. (United States Consulate, Sapporo, April 15, 1964.)

NORTH PACIFIC WHALING FLEET TO BE INCREASED:

The Soviet Fisheries Minister is reported to have informed the Production Chief of the Japanese Fisheries Agency that his Government plans to operate 4 whaling fleets in the Aleutian Island waters in 1964, according to informed sources in the Japanese Government. The Soviet Union operated 2 whale fleets in 1962 and 3 in 1963.

Japan intends to operate 3 mothership-type whaling fleets in the North Pacific, as before. They include the motherships Kinjo Maru (10,912 gross tons), Nitto Maru (12,933 gross tons), and the Kyokuyo Maru (11,449 gross tons). The three motherships were scheduled to depart Japan on May 20, 1964. (Suisan Keizai Shimbun, May 5; Suisancho Nippo, May 12, 1964.)

ELECTRONIC FISHING GEAR BEING TESTED:

A Soviet research vessel has successfully conducted experiments in the equatorial Atlantic Ocean with electronic fishing gear, which can be used to catch sardines without the use of a net. The gear consists of a 100-kilowatt generator and a fish-suction pump, according to a Tass News Agency report dated April 16, 1964. Sardines attracted by means of a night light are "guided" to the mouth of the fish pump by means of electrical charges released in the water. The fish are then caught by suction. It is reported that by this method 3 to 4 tons of sardines can be landed in one night's fishing.

In the Pacific Ocean, the Soviet fishing vessel Yuri Gagarin is reported to have been experimentally fishing for saury with this type of electronic fishing gear for several years, achieving considerable success. So-

viet fishing gear experts are also said to be experimenting with electronic trawl gear to improve Soviet bottom-fishing techniques. (Suisancho Nippo, May 2, 1964.)

UNDERWATER CRAFT DESIGNED FOR BARENTS SEA STUDIES:

The Soviet Institute for Scientific Research in Fisheries and Oceanography in the Arctic has designed and started construction of a surfacing bathyscaphe for investigations in the Barents Sea. It will carry a crew of 3 and be able to work at depths up to 100 meters (328 feet), remaining submerged for up to 5 days. (World Fishing, April 1964.)

FISHERY DEVELOPMENTS SINCE 1913:

The Soviet Government's aim in the fisheries is first and foremost to develop their fisheries to such a level that they fully and clearly meet the needs of the country. Therefore, the development and management of the fishing fleet are neither for profit nor expo-

Parallel with the development of the fishing fleet, the U.S.S.R. has built an entire fleet of research vessels and exploratory ships for scientific investigations and for guiding the fishing fleet. The Soviets now have between 80 to 100 such vessels, which undertake investigations on all the most important fishing regions in the world. For example, they have recently undertaken research and fishing explorations in the Indian Ocean and will soon begin regular fishing there. The object of the States Fishery Committee is the rational utilization and conservation of the stocks of fish, and the Soviets cooperate as best they can with other countries which have the same views about carrying on the fisheries. Within the U.S.S.R., in rivers and lakes, the Soviets are so striving purposefully to protect the stocks of fish and to carry on fish rearing.

In 1913, the total Soviet catch was 1 million metric tons of which 200,000 tons were ocean fish and the rest (about 80 percent) were caught in the Caspian Sea, rivers, and lakes. In 1950, the total catch was 1.4 million tons, of which 556,000 tons were ocean fish. In 1950, the total catch increased to 1.75 million tons, and of this, the ocean fishery accounted for about 810,000 tons, or about half the total. The Soviets calculated that their total production in 1963 would be about 4.2 million tons, but in

U. S. R. (Contd.):

...the fishing fleet exceeded the production plans and the total catch for the year was expected to amount to about 4.5 million tons. The Soviet fishery in the Caspian Sea, rivers, and lakes together yield about 800,000 tons or about as much as in 1913, but the ocean fishery now yields about 81 percent of the total catch.

In recent years emphasis has been placed on building and modernizing the fishing fleet, putting it in the best possible condition, and equipping it with the newest instruments. Large vessels are now mostly used, and they freeze the catches, pack them in boxes, and export fish meal out of what is left.

It is a great problem to maintain, and still more difficult to attain, an increase in the catch of fish. The country's industries, with their many dams, power stations, and factories on all the great rivers, to a large extent, deplete the fishery stocks and disturb the passage of fish. In inland waters the fishery also encounters the limits of overfishing. In the Sea of Azov, for example, the fishery there formerly accounted for about 230,000 metric tons annually, but now only about 200,000 metric tons. The same can be said of the Caspian Sea where the total catch in 1940 was 351,000 metric tons, contrasted to 340,000 metric tons in 1950. But in reservoirs and inland lakes, the fishery has increased considerably with the development of fish culture. Fish ladders have also been built in all places where possible. They are of various types according to the circumstances and requirements of the various kinds of fish.

Good results have resulted from many of these projects. For example, Soviet scientists produce more sturgeon in Soviet's great rivers in peacetime than there were before all the great dams were built. Salmon culture has also given good results in the Kura and Kuban Rivers.

Formerly, most of the catch was salted, but now over 50 percent is frozen and much of it is also canned. The total production of salmon is now less than before World War I when it was 340,000 tons (nearly half of the total catch). Now it is about 300,000 tons--a small percentage of the total catch. The consumption of fish, which was formerly about 13.2 kilograms (13.2 lbs.) a year per capita, is now increased to over 12 kilograms (26.5 lbs.).

In recent years the Soviets have emphasized the building up of a fleet of large trawlers which can carry on many types of fisheries at sea far from the mother country. These are specially applicable to the fisheries in the Atlantic Ocean on the great banks of Newfoundland, Georges Bank, and Greenland, and off the West African coast. The fleet is divided into two principal categories: factoryship trawlers and fleet expeditions. The last category includes many trawlers accompanied by a mothership. They supply the transporting ship with catches of round fish, or dressed or drawn fish, and receive fuel and water from it. In contrast, the large factoryship trawlers fish and fully prepare their own catches until they have a complete load, and then sail with their catches to Soviet ports. There are two principal types of those trawlers:

1. **Factoryship Trawlers:** These vessels fish in the Northwest Atlantic, on the Newfoundland Banks, and Georges Bank. They are stern trawlers with freezers, are about 3,600 metric tons, have 2,000-hp. engines, storage for 750 metric tons, crews of 90 to 100 men, and can stay at sea for 90 days. They have freezing equipment that can quick-freeze 30-35 metric tons of fish fillets a day, and also filleting machines with a production capacity of 10-15 tons per day. They also have fish meal processing equipment which manufactures about 4 tons per day. In addition, those vessels have canning equipment, which is used principally to produce products from fish livers. The annual catch of one of those trawlers is 6,000 to 7,000 metric tons. They usually use trawls made of synthetic fiber.

2. After some research with fishing on Africa's west coast, the Soviets found that they could do better with another type of vessel. For this fishery, they have built stern trawlers of 2,900 metric tons with storage capacities of 560 metric tons, crews of 60-70 men, and freezing apparatuses that can daily freeze 30-35 metric tons. They have no filleting machines. They fish principally for sardines, mackerel, and other species, such as carangids. Both the factoryship trawlers and stern trawlers use synthetic fiber trawls with large, vertical openings. Under good conditions, they can take 20-25 metric tons per 2-hour tow. Tropic trawlers use midwater trawls which can be fished in any depth.

3. In the North Pacific Ocean, the North-east Atlantic Ocean, and Barents Sea, the So-

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

viets use principally trawlers of the "Okean" type. They are of medium size: 650 metric tons with a capacity of 150 metric tons, 26-man crews, and can fish 30 to 35 days before returning to port. They often accompany a mothership which takes the catch and supplies them with fuel and water. They are equipped with trawls, purse seines, and gill nets. During autumn and over the winter, for example, they fish a great deal with gill nets in the region between Iceland and Norway; in the spring and summer they fish with trawls in the Barents Sea, Georges Bank, or on the Newfoundland Banks. These trawlers are not particularly well equipped. For example, they lack freezing equipment. The Soviets are now beginning to build new trawlers for this fishery which are somewhat larger.

4. "Maiak" Type Trawlers: These vessels are 1,350 metric tons, have a capacity of 200 metric tons, 800 hp. engines, 30-man crews, and can stay at sea 50 to 55 days. This type trawler has freezing equipment that can freeze 6-7 tons daily. They can travel at 11-13 knots and are equipped with Russian hydroacoustic instruments of both horizontal and vertical types. They have mostly trawled at depths of 200-300 meters (656-984 feet), down to 400 meters (1,312 feet), and still fish mostly at those depths, but they have now also begun to trawl at 400-600 meters (1,312-1,969 feet), and in the Pacific Ocean down to 700 meters (2,297 feet), with good results.

Among new fishing gear is the Soviet mid-water trawl, which has given good results.

Fishing off the West African coast is shown to be profitable, and the fishery is beginning to be pursued. Most of the catch is brought to Soviet ports and only a part is sold on the spot, for example in Ghana. Fishing with a pump and light has been tried for North Sea herring, but with a complete lack of success.

The object of the Soviet fisheries is not to make a profit, but instead, to satisfy the Soviet people's demand for food. Shipbuilding continues, and the catches bring a steady price fixed by the Government. The fluctuation in the fish markets in other places have no influence on the price of fish in the Soviet Union.

Fishermen are paid in the following way:

1. Fixed "normal" pay, which is calculated on the basis of the vessel's filling its production goal.
2. A bonus for those vessels with a catch that exceeds the goal.
3. For those whose catch is disappointing there is a guaranteed minimum share which is somewhat lower than the normal pay.

The Soviet fisheries are now approaching the established goal--to reach a yearly total catch of about 5 million metric tons--but members of the Soviet Fishery Board think that the Soviet people really need about 7 million metric tons.

Note: Translation from Norwegian by Leslie W. Scattergood, article "Sovjetsamveldets fiskerier" (Soviet Fisheries), which appeared in *Fiskets Gang*, 50 årgang, nr. 7 (February 13, 1964), pp. 119-120.



United Kingdom

WORLDWIDE TARIFF REDUCTION ASKED BY BRITISH PRIME MINISTER:

The British Prime Minister confirmed a speech April 9, 1964, that Britain's trade policies are aimed at achieving worldwide reductions in tariff barriers. The Prime Minister's remarks were made in London in the opening address to the European Purchasing Conference, which is composed of buyers from most European countries as well as from the United States, Canada, India, and Japan. The Prime Minister was reported to have said that the United Kingdom will have free trade by 1966 with all countries in the European Free Trade Association (EFTA). He noted that at present there are no such advantages for British trade in the European Economic Community (EEC), but nevertheless British exports to the EEC are steadily increasing. On the Kennedy Round of tariff negotiations under the General Agreement on Tariffs and Trade, the Prime Minister was reported to have stated that Britain would go into the talks seeking a 50-percent general reduction in tariffs with a minimum of exceptions. (U.S. States Embassy, London, April 18, 1964.)

BRITISH FISHING INDUSTRY:

The British fishing industry employs 24,000 full-time and 6,000 part-time fishermen.

United Kingdom (Contd.):

The principal fishing ports in England and Wales are Hull, Grimsby, Fleetwood, Milford Haven, and Lowestoft for white fish (cod, haddock, plaice, turbot, and sole) and Great Yarmouth and Lowestoft for herring.

The white fish fleet is made up of three main groups--the distant-water, the near-middle-water, and the inshore vessels. Distant waters are those off Iceland, Greenland and the north coast of Norway, and the Barents Sea. The middle-water grounds are around the Faroe Islands. The near-water grounds are in the North Sea, the Irish Sea and the coastal areas around Britain. Inshore fishing grounds are mainly within 60 miles of land.

Distant-water vessels (there are about 330 of them) are more than 140 feet long and make voyages of from 17 to 23 days; middle-water vessels are less than 140 feet long and their voyages can last from several days up to two weeks. Britain has more than 450 near-water and middle-water vessels. The capital invested in British fishing vessels is some £1 billion (US\$154 million), and the public investment to the value of more than £100 million (US\$280 million) a year.

The catch is usually distributed through wholesalers at the ports, who buy at auctions and sell to inland wholesalers. (Billingsgate Market, London, which handles more than 300 tons of fish a day, is the largest inland wholesaling distributing center for fish in Britain, as well as other large cities have central fish markets.) Sixty special express fish trains transport the catch daily from the ports to inland centers, and increasing use is made of air transport.

Every village, town, and city of Britain has fresh fish available within 24 hours of being landed.

Retail sales are handled by some 300 fishmongers and about the same number of fish friers. Purchases by fish friers account for roughly one-third of the value of sales of white fish.

Frozen packaged fish--sold by other shops as well as fishmongers--is rapidly increasing in popularity and accounts for about 20 percent of all fish sold in Britain. (Commercial Fishing, March 1964.)

PRODUCTION OF FROZEN PROCESSED FISHERY PRODUCTS, 1963:

British production of frozen processed fishery products in 1963 amounted to 58,062 long tons, only 263 tons (or 0.5 percent) more than the previous year but up 3.4 percent from 1961. This is revealed in a report issued by the White Fish Authority, London.

Of the 1963 production, 27,445 tons were packed in bulk or institutional packs and 30,617 tons were packed in consumer packs. While the quantity put up in bulk or institutional packs in 1963 was 18.7 percent less than the previous year, the quantity packed in consumer packs increased 27.4 percent.

In addition to the domestic production, 18,748 tons were imported (10,451 tons in bulk or institutional packs and 8,297 in consumer packs) in 1963, somewhat less than in 1962.

British Production of Frozen Processed Fishery Products as Reported by the White Fish Authority				
Year	Fish Used	Amount Produced		
		Institutional Packs	Consumer Packs	Total
	 (Long Tons)		
1963	129,000	27,445	30,617	58,062
1962	128,442	33,763	24,036	57,799
1961	127,020	29,996	26,161	56,157
1960	116,500	29,930	22,487	52,417

Home market sales of 73,901 tons in 1963 were up 17.0 percent from the previous year. The greater increase from 1962 was in home market sales of consumer packs (up 22.5 percent); sales of bulk or institutional packs were up 12.5 percent.

BRITISH FIRM PLANS TO EXPAND FLEET OF REFRIGERATED STERN TRAWLERS:

A British fisheries company has announced plans to order eight additional stern trawlers all of which will be equipped to freeze fish at sea. When completed the vessels will be assigned to Grimsby and Hull where they will serve as replacements for older vessels in the British company's fleet of 61 distant-water trawlers. (Only 16 vessels in that fleet are over 10 years old.)

The first of the new group of stern trawlers will be scheduled for delivery in June 1965.

United Kingdom (Contd.):

NEW MACHINE CUTS FISH-DRYING PROCESS TO 30 HOURS:

A machine that cuts the process of drying fish from 6 weeks to 30 hours has been developed at the British Government Torry Research Station in Aberdeen, Scotland. Since the machine can be used on board fishing vessels at sea, it will enable trawlers to operate in unexploited fishing grounds of the South Atlantic and dry their catches at sea.

Working in cooperation with the Torry Research Station, a Scottish shipyard has designed a new type of trawler to carry the drying machine. The vessel will be about 310 feet long--only slightly larger than conventional deep-sea trawlers. (Commercial Fishing, March 1964.)

Note: See Commercial Fisheries Review, August 1963 p. 112.



Viet-Nam

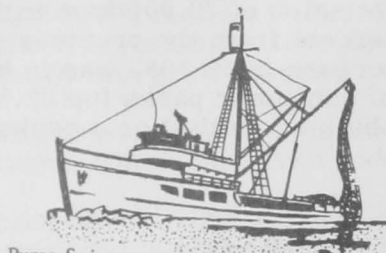
SHRIMP EXPORTS TO JAPAN UP IN 1963

Viet-Nam's shrimp exports to the United States in 1963 were valued at US\$32,000, and were about unchanged from those of the previous year. In the same year, however, Japan's purchases of shellfish products from that country (769,000 pounds), particularly shrimp, were ten times greater than a year earlier and were valued at \$300,000. By increasing its purchases of spiny lobsters, crabs, and shrimp, Japan replaced Hong Kong as Viet-Nam's best fishery customer. (U.S. States Embassy, Saigon, May 6, 1964.)

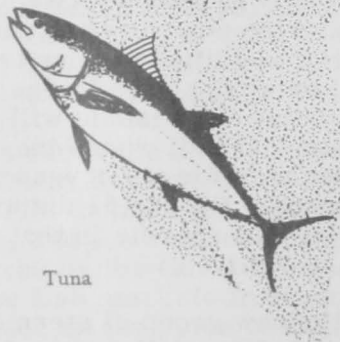


TUNA

Tuna are wide-ranging inhabitants of the open sea; some species cross the oceans in their movements. Little note was paid them until 1903, when the sardine failed to



Purse Seiner



Tuna

appear in California waters. Today, more tuna are taken by United States fishermen than any other food fish and only the shrimp and salmon fisheries are more valuable. For many years, American fishermen in the famed tuna clippers pursued the fish along the coasts of the Americas from southern California to far below the Equator. At its peak in 1951, the clipper fleet numbered 228 boats. In the late 1950's, however, a revolution occurred in the United States tuna fishery as clipper after clipper converted to the more efficient purse seiner. This was possible because of the introduction of nylon seines and the development of the power block to handle the great nets. Four kinds of tuna--yellowfin, skipjack, albacore, and bluefin--and a tunalike fish, the bonito, are taken by our fishermen, largely off Central and South America. Recent landings have averaged nearly 300 million pounds, worth \$35 to \$40 million ex-vessel. From those landings and imported frozen tuna, West Coast processors annually put up a tuna pack worth more than \$140 million. For many years, California processors have led the world in the canning of tuna.

--Conservation Note 15, "Commercial Fisheries of the Pacific Coast," Fish and Wildlife Service, U. S. Department of the Interior, Washington, D. C. 20240.