International

FISHING LIMITS

NORDIC DISCUSSIONS:

The Danish Government has asked Iceland to start negotiations in the near future on Faroese fishing rights in Icelandic waters, the Danish Foreign Minister announced on June 22.

On the same day, the Danish Fisheries Minister reported on the recent Scandinavian negotiations in Oslo regarding fishing limits in the Skagerrak and the Kattegat. No results were reached, since the Danes could not accept a Swedish-Norwegian proposal to maintain the status quo for those waters, while Norway would simultaneously be extending its fishing limit from Kap Lindesnes in the south to the Soviet border in the north to 12 nautical miles. Further discussions were expected to take place in July.

No decision has yet been made as to whether Danish fishing limits are to be extended, declared the Danish Fisheries Minister, but the Government expects Danish fishery associations soon to submit demands for a 12-mile limit in Danish waters. (United States Embassy, Copenhagen, June 27, 1961.)

FISH OILS

WORLD EXPORTS CONTINUED UPWARD IN 1960:

World exports of fish oils (including fish-liver oils) reached an alltime high of 300,000 short tons in 1960, reflecting record shipments from Iceland, Peru, and the Republic of South Africa. This was an increase of 35,000 tons from the previous high of 1959 and two-thirds larger than the 1950-54 average.

Iceland's exports of fish oil in 1960 were nearly triple the shipments of the previous year. Large supplies of oil from a good fish catch in 1959 and increased Government subsidies for the processing and export of fish oil helped push exports up sharply. Iceland's exports may decline somewhat this year because prices paid to processors for salted fish were increased in late 1960, as the result of unfilled fish contracts with several Eastern European countries. Lower stocks and production of other marine oils accounted for the slight decline in fish oil exports from Norway.

Peru's fish oil exports continued to rise sharply in 1960. Shipments were double those of 1959--the first year of large exports due to the recent growth of the Peruvian fishing industry. Fish oil exports are expected to continue upward but possibly at a reduced rate because the fear of overexpansion and lower prices, as experienced by the fish meal trade, is of some concern to the processing industry. Most of Peru's exports goes to the Netherlands and West Germany for further processing and re-export, mostly to other European countries.

Fish oil exports from the Republic of South Africa in 1960 were 40 percent above

Fish (Including Liver) Oil Exports from Specified Countries and Estimated World Total, Averages 1935-39 and 1950-54, Annual 1957-60

Continent and Country	1960 1/	1959 1/	1958	1957	Average 1950-54	Average 1935-39
	(1,000 Short Tons)					
North America:						
Canada	14.9	14.4	5.8	3.0	11.6	12.0
United States	71.8	72.2	47.0	58.5	42.2	1.2
Total	86.7	86.6	52.8	61.5	53.8	13.2
South America:						
Peru	38.6	18.9	1.8	4.8	.1	-
Europe:						
Denmark	8.6	17.1	12.6	9.8	6.3	2.5
Germany, West	26.2	31.6	17.9	14.3	3.0	2/ 4.4
Iceland	53.7	18.6	27.4	20.9	19.6	24.5
Netherlands 3/	7.6	16.0	13.0	7.1	14.5	.2
Norway 4/	18.2	21.0	22.3	18.6	30.4	38.0
Portugal	4.9	5.7	5.5	4.2	3.8	.1
United Kingdom	3.7	3.7	3.6	3.4	4.0	6.0
Total	122.9	113.7	102.3	78.3	81.6	75.7
Africa:						
Angola	5.7	5.6	9.4	13.4	6.7	.7
Republic of South Africa	36.5	26.0	18.1	11.4	8.9	2.2
Total	42.2	31.6	27.5	24.8	15.6	2.9
Asia:						
Japan	3.8	3.6	6.6	3.5	6.8	35.0
World Total 5/	300.0	265.0	200.0	190.0	177.0	135.0

1/Preliminary.
2/Total Germany.
3/May include some whale oil.
4/Does not include sizable quantities of hardened marine oils which are exported annually.
5/Includes estimates for minor exporting countries.

International (Contd.):

the previous year. As the result of successively large fish-catch quotas each year, the outturn of fish oil has increased rapidly since the mid-fifties. Although the Government exercises close control over the industry to conserve resources, the fishing season, formerly confined to the March-November period, presently is unlimited.

Shipments of fish oils from the United States, the world's largest producer and exporter, were down slightly in 1960. A larger outturn of fish oil resulted in a sharp build-up of stocks from a low level at the beginning of the year. Larger exports to Canada, probably due to smaller domestic production than in the first quarter of 1960, mostly offset slightly smaller shipments to Europe. Smaller United States exports to Europe were in part the result of increased fish oil shipments from Peru and Iceland and the favorable price levels of United States soybean and cottonseed oils during most of the year. Total United States fish oil exports, January-April 1961, were 22,000 tons--down about 5,000 tons from a year earlier.

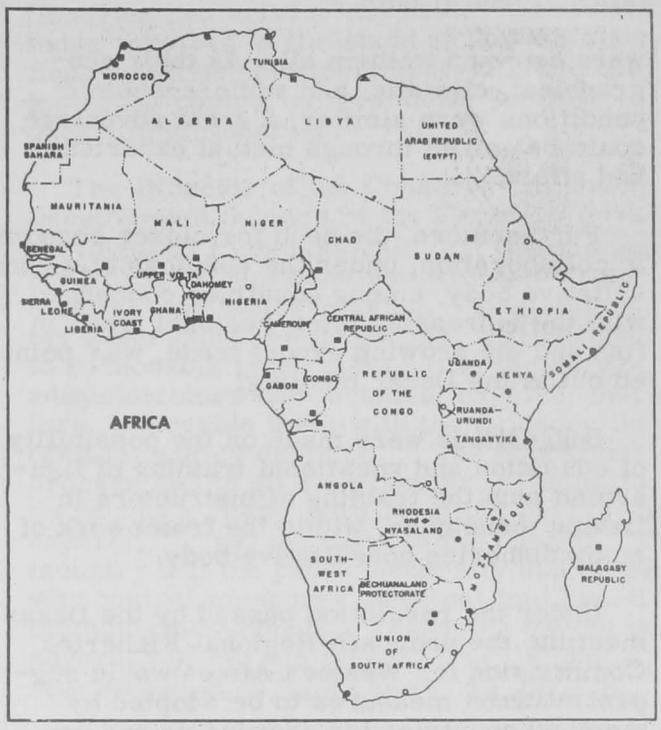
Europe is the world's largest market for fish oil. Although several countries are major exporters, most of the shipments are to other European countries. Denmark and West Germany import large quantities of crude fish oil for processing and re-export as an edible oil for use in margarine production by other European countries. (Foreign Crops and Markets, June 29, 1961, U. S. Department of Agriculture.)

Note: See Commercial Fisheries Review, April 1961 p. 44, February 1960 p. 60.

FOOD AND AGRICULTURE ORGANIZATION

FISHERIES COMMISSION FOR WEST AFRICA PLANNED:

A proposal for a new fisheries consultative body for Western Africa will be placed before the Food and Agriculture Organization of the United Nations (FAO) when its Council meets in Rome this year. The new commission is the result of an FAO-sponsored meeting held at Dakar in June, where delegations from eight nations met to consider establishing a body in the western part of Africa to serve that area in a manner similar to other FAO fisheries bodies in the Mediterranean and Indo-Pacific regions.



The proposed commission would include FAO member countries between Cape Spartel and the Cape of Good Hope, whose territories lie wholly or partially within regions which drain into the Atlantic Ocean and Lake Chad.

Establishment of the commission was proposed unanimously by the delegates representing Ghana, Guinea, the Ivory Coast, Liberia, Nigeria, Portugal, Senegal, and Spain; the proposal was supported also by Sierra Leone and Togo. Representatives from France, the Islamic Republic of Mauritania, the United States, and the Commission for Technical Co-operation in Africa south of the Sahara attended as observers, and spoke in support of this proposal.

The delegates were unanimous in agreeing that such a regional fisheries body was necessary. They felt that problems not only of oceanography and marine biology, but also concerning the inland waters, must be considered as a whole from the geographical point of view, disregarding political frontiers. This would apply to coastal fisheries such as sardinella to fishing on the high seas, and also to the fisheries of the great river basins.

The countries agreed that the technical problems arising from fishing, such as catching, processing, storing and distribution,

International (Contd.):

were common to them all. As their geographical, climatic, and socio-economic conditions were similar, a great advantage could be gained through mutual experience and effort.

Furthermore, the need for closer economic collaboration, under the auspices of a consultative body, among countries concerned with the increasing inter-regional trade in fish and the growing export trade, was pointed out at the Dakar meeting.

Suggestions were made on the possibility of education and vocational training of fishermen plus the training of instructors in fishing techniques, within the framework of a new fisheries consultative body.

Under the resolution passed by the Dakar meeting, the proposed Regional Fisheries Commission for Western Africa would suggest common measures to be adopted by member countries for drawing up and co-ordinating a common program of research for fisheries and related problems; for securing rational and co-ordinated exploitation of their fisheries resources and in the fields of co-ordinated effort of fishery documentation, and in the education and training of qualified fisheries personnel.

* * * * *

COUNCIL APPROVES WEST AFRICAN AND EUROPEAN FISHERY COMMISSIONS:

Two new fishery commissions, one for Europe and the other for Western Africa, were approved by the Council of the Food and Agriculture Organization (FAO) during its 35th session in Rome, Italy, in June 1961. The 25-nation Council met to review proposals for FAO's activities and budget for 1962/63 and to develop a provisional agenda and outline of work for the full 88-member Conference's session in November 1961.

The European Inland Fisheries Advisory Commission (EIFAC) which held its initial session in Dublin in April 1960, had its rules of procedure confirmed by the Council. The establishment of such a commission was approved by the Council in 1957.

The Council also approved in principle the establishment of a Regional Fisheries Commission for Western Africa. A text concerning the proposed Commission's terms of reference and procedures will be prepared for approval by the Council when it meets again prior to the FAO Conference in November.

The EIFAC had five basic points for its first working platform. They were mutual aid; fish-pond culture; a survey of lakes and streams; pollution control and fish diseases; and a review of the principal species of European fish. Its member nations are: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Israel, Italy, the Netherlands, Portugal, Turkey, the United Kingdom, and Yugoslavia.

The West African commission will be concerned with the region extending from Cape Spartel to the Cape of Good Hope and would serve that area in a manner similar to other FAO fisheries bodies in the Mediterranean and Indo-Pacific regions.

* * * * *

WORKING PARTY OF EXPERTS TO INCREASE FISH MEAL AND FLOUR DEMAND APPROVED BY COUNCIL:

In other fishery matters, the Council considered a recommendation made by the International Meeting on Fish Meal in Rome in March 1961, that a working party of experts be set up under the aegis of FAO to increase the demand for fish meal and fish flour. This expert group would ascertain the fish meal and fish flour requirements of potential consuming countries.

This recommendation was approved in principle by the Council and sent to the FAO Director-General for implementation. The Council suggested that the expert group could be convened simultaneously with the September International Meeting on Fish in Nutrition in Washington, D.C., since most of the experts who would form the proposed working party would be at the Washington meeting.

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MEETING ON ECONOMIC EFFECTS OF FISHERY REGULATIONS CONCLUDES MORE FACTS NEEDED:

A need to supply more relevant facts about conditions in specific fisheries, in order to aid administrators in developing fish-

International (Contd.):

ery regulations, was voiced by a fisheries officer of the Food and Agriculture Organization (FAO) in summing up the FAO Expert Meeting on Economic Effects of Fishery Regulations, held in Ottawa June 12-17.

"Biologists, economists, and other specialists in fisheries still need to combine in assembling the data required by policy-makers," said the Chief of the Biology Branch, FAO Fisheries Division. "Experts in different disciplines must be encouraged to acquire a knowledge of each other's techniques to blend their efforts. A mere addition to research results of projects pursued along separate lines will not suffice.

"But a good start has been made at this meeting in approaching the problems of managing fisheries along national lines by bringing specialists together from different fields."

The purpose of the meeting was to add to the theoretical knowledge of the economic management of fisheries. Until recently, regulating fishery resources was a means of protecting these resources and maintaining a steady yield. However, a rate of fishing that produced maximum steady yield might not necessarily be the most economical one.

The meeting was attended by 70 representatives from 20 countries and international fishery commissions.

Discussion panels were formed for the purpose of considering fishery regulations under several headings: the economics of regulating fisheries; the effects of fishery regulations on the catch of fish; the regulation of the Pacific halibut fishery; the Pacific coast salmon fishery; the regulation of the South African west coast shoal fisheries; the Atlantic lobster industry; the Japanese trawl fishery; and the North Atlantic fisheries.

An Associate Professor of the University of Washington Department of Economics supported the demand for additional case studies of specific fisheries and pointed out that the experience gained could be of great potential use in providing technical assistance to developing countries. "Fishery regulations in developed countries have been instituted for the most part only after unsatisfactory conditions in already-exploited fisheries had arisen," he said. "The knowledge acquired in the study of these situations could be profitably applied in designing sound control programs for as-yet-unexploited fisheries."

The Director of the Conservation and Development Service of the Canadian Department of Fisheries said that the one sector which had not been represented at the meeting was policy-making. "Legislators, my experience has taught me, will respond to reasonable persuasion. It is the duty of administrators and technical experts, therefore, to provide them with the evidence they need for policy decision." The educational process had to go even farther, he said, for there was a responsibility on the part of the experts, "to get the facts to the public." The industry and the public generally had to know why control measures were put into practice, including the economic reasoning behind the advocacy of certain types of regulations.

Note: See Commercial Fisheries Review, May 1961 p. 38.

NORTHWEST ATLANTIC FISHERIES COMMISSION

REPORT ON
ELEVENTH ANNUAL MEETING:

Actions affecting the fisheries of the entire area in the North Atlantic from Greenland to Rhode Island marked the Eleventh Annual Meeting of the International Commission for the Northwest Atlantic Fisheries, held in Washington, D.C., June 5-10, 1961. Although cod and haddock are already under regulation in 3 of the 5 subareas of the Convention area, recommendations or resolutions passed at the last meeting look toward regulating all groundfish in the entire Convention area and sea scallops and harp and hood seals as well.

Trawl Mesh-Size Regulations: Recommendations for a number of mesh-size regulations resulted from the Commission's receiving a report of a special committee on assessment of the effects of increasing mesh size in the Convention area. The committee, which was appointed two years ago, submitted a voluminous report that outlined the immediate and long-term effects of different mesh sizes for most of the stocks of the important groundfish species in the Northwest Atlantic.

Recommendations were made limiting the size of mesh in the various subareas as follows (the figure shown on the following page shows the five subareas established for management purposes):

International (Contd.):

1. In Subareas 1 and 2, a minimum mesh size of $4\frac{1}{2}$ inches for all species of groundfish including ocean perch or redfish. To date these subareas have been unregulated.

2. In Subarea 3, a minimum mesh size of $4\frac{1}{2}$ inches for all groundfish in the entire

International Commission for the Northwest Atlantic Fisheries--subareas and subdivisions.

subarea except for ocean perch or redfish in the southern part of the subarea where the ocean perch are smaller (subdivisions N, O, and P). The present regulation in this subarea calls for a minimum of 4 inches for cod and haddock only.

3. In Subarea 4, a minimum mesh size of $4\frac{1}{2}$ inches for cod, haddock, and flatfishes. The present regulation which specifies a minimum of $4\frac{1}{2}$ inches applies only to cod and haddock.

4. In Subarea 5, the $4\frac{1}{2}$-inch minimum for cod and haddock was left unchanged.

Thus, when these recommendations were implemented, there will be a uniform minimum mesh size of $4\frac{1}{2}$ inches throughout the Convention area for nets used in fishing for cod and haddock. Flatfishes will be under a $4\frac{1}{2}$-inch minimum mesh size from Greenland to the southern end of Nova Scotia, and ocean perch or redfish will be under the same minimum size on all grounds north of the southern part of the Grand Bank.

Fishing effort in the Northwest Atlantic has increased in recent years and the pressure is expected to mount even higher. There was general agreement in the Commission that, under these circumstances, increasing mesh size for all ground fish in the Convention area would be beneficial. The Commission expressed the opinion that it should look forward to bringing the ocean perch or redfish of the southern part of the Convention area, as well as silver hake (whiting) and flatfishes in Subarea 5, under mesh regulation as soon as possible. There was also considerable interest in increasing the mesh size above $4\frac{1}{2}$ inches for cod, haddock, and flounders.

Sea Scallop Conservation: The conservation of sea scallops was given considerable attention by the Commission who recognized that scientific evidence indicates the present ring size used in scallop dredges is too small to maintain maximum sustained yield at present fishing levels. The Commission would welcome a proposal for increasing ring size at its next annual meeting. Canadian and United States scientists agreed to work cooperatively in determining the optimum size of ring to use and in developing a specific proposal for a sea scallop ring size regulation.

Atlantic Seals: The harp and hood seals of the Northwest Atlantic have recently been subjected to greatly increased fishing pressure. More countries are hunting them, using more efficient methods, with the result that the populations have been severely reduced during the last decade. To bring these mammals under control, the Commission recommended that the Convention be amended to bring harp and hood seals under the provisions of the International Commission for the Northwest Atlantic Fisheries. It was accordingly recommended that a separate panel be established for the purpose of dealing with the conservation requirements of harp and hood seal populations.

International (Contd.):

Regulations Enforcement: The question of adequate enforcement of regulations in the Convention area was given considerable attention. At the present time each country is responsible for policing its own nationals. The Commission expressed interest in international inspection of fishing vessels and appointed a committee to study the feasibility of such inspection in the ICNAF area.

Trawl Chafing Gear: The use of topside chafing gear by some countries has always been a troublesome problem since it may interfere with the escape of small fish. The form of chafing gear to be used is now carefully spelled out in the mesh regulations but it is still considered undesirable from a conservation standpoint. A committee was formed to examine the possibility of eliminating all topside chafing gear over cod ends of nets.

Other Related Meetings and Actions: During the week preceding the Washington meeting, the Commission's Committee on Research and Statistics met in Woods Hole, Mass. The scientific advisers to the various panels also met during this week at Woods Hole. The scientists reviewed the research and statistical reports of the member countries on the basis of which they prepared special reports for the consideration of the Commissioners in Washington.

The scientific groups reviewed a report of a special international committee on environmental studies in 1963. The International Council for the Exploration of the Sea will be asked to co-sponsor this symposium. Another result of this committee's work is a plan for joint action of countries interested in Subarea 1 (west coast of Greenland). A multiship survey of the area is planned for 1963 to learn more about the oceanographic conditions in the area in relation to the drift of plankton and fish larvae.

Preceding the meetings of the Committee on Research and Statistics, a 4-day symposium on fish marking was held in Woods Hole. Over 60 contributions were submitted to this symposium covering the main topics: methods and effectiveness of marking, tagging, and tag recovery, and analysis of results. Many new ideas developed from the symposium which will be valuable in planning tagging programs in the ICNAF area. These include new methods of tagging, new techniques for measuring the efficiency of tag recoveries, and new methods for estimating population size and mortality rates.

Reports of research pertinent to ICNAF problems, statistics on each country's catch in the Convention area, and results of biological sampling of the catches are published annually by the Commission in three publication series: the Annual Proceedings, the Statistical Bulletin, and the Sampling Yearbook.

During its Washington meeting, the commission elected the following officers to serve for 2 years: Commission Chairman, George R. Clark, Deputy Minister of Fisheries, Ottawa, Canada; Commission Vice Chairman, B. Dinesen, Under Secretary of the Fisheries Ministry, Copenhagen, Denmark.

The International Commission for the Northwest Atlantic Fisheries was established under a convention between 10 North American and European countries which came into force on July 3, 1950. Since then, two additional governments have become parties to the convention, namely, the Federal Republic of Germany (1957) and the U.S.S.R. (1958). The present member nations are: Canada, Denmark, France, Federal Republic of Germany, Iceland, Italy, Norway, Portugal, Spain, Soviet Union, United Kingdom, and United States.

NORTHWEST ATLANTIC FISHERIES CONVENTION

THREE COUNTRIES SIGN DECLARATION OF UNDERSTANDING:

Denmark, the United Kingdom, and Spain in May 1961 signed the declaration of understanding regarding the International Convention for the Northwest Atlantic Fisheries of February 8, 1949. Done at Washington April 24, 1961 (not in force). The three countries signed without reservations as to acceptance. (Department of State Bulletin, May 22, 1961.)

UNITED STATES INVITES FAO TO HOLD WORLD MEETING ON TUNA BIOLOGY IN CALIFORNIA

The United States Government is inviting the Food and Agriculture Organization (FAO) to hold its World Meeting on the Biology of Tuna and Tuna-like Fishes in July 1962 in the San Diego area in California. The fundamental objective of the conference is to assess the potential of the world's tuna stocks. The tunas, which were discarded fish a half century ago, are now fished in every ocean except the Arctic and the Antarctic and by fishermen of many nations. It is hoped that from the conference will come a composite picture of the rate of utilization and the possibilities and limits of future development.

Officials of the Department of State and Department of the Interior have been confer-

International (Contd.):

ring for some time on arrangements for the meeting. The United States tuna industry, which is centered in California, and the California congressional delegation have endorsed the proposal for a conference. Governor Edmund Brown of California has extended the State's hospitality to the members of the conference.

The decision to hold a world meeting on the biology of tuna arose from the successful meeting on sardines called by the FAO in Rome, Italy, in 1959. The rapid development of tuna fisheries throughout the world emphasized the need for tuna researchers to meet and discuss the biological and oceanographic programs now being conducted. The need for coordination of the work of the various tuna research scientists is also becoming evident as the importance of that resource continues to grow.

The FAO decided that the 1962 meeting should cover the biological aspects only of tuna and tuna-like fish. Consideration will be given later to meetings on the economic and technological phases.

Under the general plan of the meeting only the species of tuna and tuna-like fish which are of commercial importance will be considered. The scope of the inquiry will include the development of the various fisheries, the identity, distribution and behavior, and the potential yields of the various stocks; specific problems and outlook for future cooperation in coordination of methods and research programs; and ways in which international cooperation can be made possible.

WORLD

1958 LANDINGS AT SOME OF THE WORLD'S LEADING FISHING PORTS:

In 1958, about a dozen major fishing ports in selected foreign countries and the United States accounted for a good share of the world's total fish landings. The fishing port of Callao, Peru, in 1958 led all other ports with total landings of 273,000 metric tons (601.9 million pounds). The Peruvian catch was believed to consist mainly of anchovies used in that country's greatly expanded fish meal industry. Walvis Bay in South-West Africa ranked in second place with 235,000 metric tons (518.1 million pounds). The Walvis Bay pilchard (sardine) production was an important part of that African port's 1958 landings. The port of Bremerhaven in West Germany was in third place with total fish landings of 230,000 metric tons (507.1 million pounds).

Landings data covering individual fishing ports in the U.S.S.R. and Communist China are unavailable for 1958. New fishery developments and expansion in the Soviet fishing fleet would no doubt place fishing ports in that country in the forefront among the world's larger fishing ports.

San Pedro, Calif., was the leading fishing port of the United States in 1958 (379.9 million pounds with an ex-vessel value of $29.3 million). Landings at that port consisted largely of tuna, jack and Pacific mackerel, anchovies, and sardines. Lewes, Del., a menhaden or industrial fish port, was in second place (270.0 million pounds), followed by Reedville, Va., (236.9 million pounds), another leading menhaden port. Gloucester, Mass., with landings of 230.2 million pounds (mainly ocean perch, whiting, and industrial fish) ranked fourth among the leading United States fishing ports.

Landing at Some of the World's Leading Fishing Ports, 1958

Country	Port	Quantity	Value	
		1,000 Metric Tons	US$ 1,000	National Currency (In Millions)
Denmark	Esbjerg	213.9	10,931	75.5 Kroner
France	Boulogne	109.9	21,276	10,437.5 Francs
German Federal Republic	Bremerhaven 1/	229.9	26,266	109.7 Marks
" " "	Cuxhaven 1/	123.7	13,635	57.0 "
Iceland	Reykjavik	100.8	-	2/
Peru	Callao	272.5	-	2/
"	Chimbote	195.4	-	2/
Portugal	Leixoes	102.8	8,350	24.1 Escudos
South Africa, Union of	Capetown	100.0	-	2/
South West Africa	Walvis Bay	232.5	-	2/
United Kingdom	Hull	208.0	36,541	£13,(
" "	Grimsby	162.1	34,467	£12.3
United States	San Pedro, Calif.	172.3	29,300	-
" "	Lewes, Del.	122.5	3,775	-
" "	Reedville, Va.	107.0	3,198	-
" "	Gloucester, Mass.	104.0	7,965	-

1/ Trawl-caught landings only.
2/ Unavailable.
Note: (1) Prevailing 1958 official exchange rates used for conversion to U. S. dollars. (2) Only ports with landings of over 100,000 metric tons shown.

Aden Protectorate

GOVERNMENT AIDS FISHERIES:

It has been announced that the Aden Protectorate Fisheries Department plans to build a fish-curing station at Shuqra in Fadhli State to study different methods of salting fish in order to assist the fishing industry and to expand the market for salted fish in the Protectorate.

The Government has purchased a 30-foot motor fishing vessel at an estimated cost of £3,000 (about US$8,400) from British Colonial Development and Welfare Funds for use by the Fisheries Department on the waters off the Western Aden Protectorate. The vessel is fitted with an echo-sounder and carries gear to carry out experiments with 12 different methods of fishing. (United States Consulate in Aden, May 8, 1961.)

Africa

FISHERY NEWS BRIEFS:

Fishery Research Vessel for Nigeria: The Nigeria Ministry of Economic Development is publishing plans to secure and place in operation a special research vessel to operate out of Lagos to speed research in the sea fisheries of Nigeria and the inland fisheries of the Niger River and Lake Chad. (The Fishing News, London, May 19, 1961.)

Tuna Fishing off Sierra Leone: United States and Japanese tuna boats have found tuna abundant outside the territorial waters off Sierra Leone. Storage of frozen tuna is handled by an Italian firm for shipment to the United States. Plans include a cannery to be built at Freetown. (The Fishing News, London, May 19, 1961.)

Freezing Center at Accra, Ghana: One of two Ghanaian fishery trainees, studying various aspects of the fishing industry in Great Britain, stated that a large freezing center is being built at Accra to handle fish. (The Fishing News, London, June 2, 1961.)

Trade Agreement Between Tunisia and Poland Includes Fishing Vessels: In the renewal of the trade agreement between Tunisia and Poland, fishing vessels are included in the list of Polish products which may be imported into Tunisia. (U. S. Foreign Service Despatch, Tunis, May 31, 1961.)

Alexandria, Egypt, to be Site of Repair and Shipbuilding Yards for Fishing Vessels: It is reported that repair and shipbuilding yards for fishing vessels are to be built at Alexandria by Poland. (The Fishing News, London, May 19, 1961.)

Australia

TUNA CATCH HITS 5,000 TONS:

Australia's 1960/61 tuna catch, landed in New South Wales and South Australia, for the first time touched the 5,000-ton mark. Of the total, 2,582 short tons were landed in New South Wales and 2,254 tons in South Australia. To this must be added some fish ordinarily used for other than canning purposes; tuna taken in South Australia after May 24, although the season seemed then to be over; tuna taken in other states (49 tons in 1959/60.)

A feature of this tuna season was the fact that although New South Wales had a record catch, South Australia jumped to near parity with it as a tuna producing state. Last year South Australia produced 1,535 tons.

The 1960/61 tuna catch of about 5,000 tons has made tuna the No. 2, instead of No. 4, fish in Australia by weight of catch second only to mullet (1959/60 mullet catch 6,168 tons). In 1959/60 the shark catch totaled 4,228 tons and Australian salmon 3,800 tons. (Australian Fisheries Newsletter, June 1961.)

Bahama Islands

SPONGE BEDS REOPENED:

The Bahamas Agricultural and Marine Products Board has announced that the Colony's sponge beds, which have been closed for four years owing to a blight, are now reopened.

In its notice, the Board pointed out that "there appears to be a fairly good market for wool sponge, but only a fair market for grass sponge. There seems to be no demand whatsoever for yellow, hardhead, and reef sponge."

The Bahamas Government also announced that it will not be conducting a "Sponge Exchange as in the past, but fishermen will be permitted to sell their sponges directly to merchants."

Impetus for reopening the sponge beds came from natives of the Andros Island distric and their representatives in the Bahamas House of Assembly. Officials of the Bahamas Agricultural and Marine Products Board are not overly sanguine about the possibilities of reviving the sponge industry, which was once

Bahama Islands (Contd.):

a major export, the United States Consulate in Nassau reported on June 6, 1961.

Brazil

WHALE AND FISH MEAL SUPPLY AND DISTRIBUTION, 1959-1961:

The forecast of Brazil's supply of whale and fish meal in 1961 shows a 45.5-percent increase over 1960 and a 215.8-percent increase over 1959, entirely due to an expected increase in domestic production. It is estimated that domestic production should increase significantly--from 4,867 metric tons in 1959 to 15,000 tons in 1961. (United States Foreign Agricultural Service Report, Sao Paulo, May 19, 1961.)

Brazil's Supply and Distribution of Whale and Fish Meal, 1959-1961

Item	1961 1/	1960 2/	1959
	(Metric Tons)		
Opening Stocks, Jan. 1	1,000	1,000	200
Production	15,000	10,000	3/ 4,867
Imports	-	-	-
Total Supply	16,000	11,000	5,067
Exports	-	-	-
Domestic Utilization	15,000	10,000	4,067
Ending Stocks, Dec. 31	1,000	1,000	1,000

1/Forecast.
2/Estimate.
3/Final Estimate.

Note: See Commercial Fisheries Review, Jan. 1961 p. 54.

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WHALE AND FISH OIL SUPPLY AND DISTRIBUTION, 1959-1961:

A forecast of Brazil's supply of inedible whale and fish oils in 1961 shows that it will be more than 6 times greater than in 1959 and up 69.8 percent from 1960. Domestic utilization is expected to keep pace with increased production (see table).

Brazil's Supply and Distribution of Inedible Whale and Fish Oils, 1959-1961

Item	1961 1/	1960 2/	1959
	(Metric Tons)		
Opening Stocks, Jan. 1	1,000	300	300
Production	8,000	5,000	3/ 1,152
Imports	-	-	-
Total Supply	9,000	5,300	1,452
Exports	-	-	-
Domestic Utilization	7,500	4,300	1,152
Ending Stocks, Dec. 31	1,500	1,000	300

1/Forecast.
2/Estimate.
3/Final Estimate.

Brazil's only edible oil of importance is cod-liver oil and the entire supply is imported. However, with the expected increase in the domestic production of whale and fish oil, imports of cod-liver oil declined from 1,218 metric tons in 1959 to 150 tons in 1960, and are expected to drop to 100 tons in 1961. During the first 10 months of 1960, Norway was the main supplier of edible crude cod-liver oil, while only a negligible amount was received from the United States. (United States Foreign Agricultural Service Report, Sao Paulo, May 19, 1961.)

Note: See Commercial Fisheries Review, Jan. 1961 p. 54.

British Honduras

FISHERY PRODUCTS EXPORTS, 1959 and 1960:

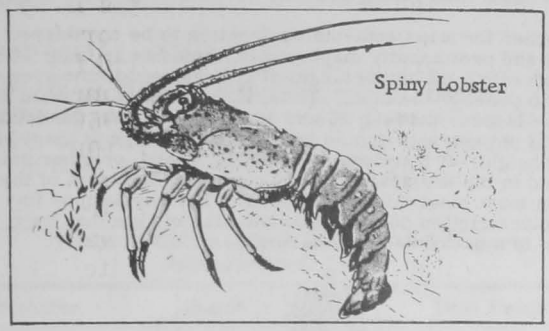
British Honduras exports of fishery products during 1960 totaled 497,467 pounds, valued at US$213,824. As compared with 1959, exports in 1960 were lower by 4.9 percent in quantity, but were up about 14.0 percent in value. In 1960, exports of spiny lobsters (whole and tails) of 363,720 pounds were down about 8.8 percent from the 398,043 pounds exported in 1959. However, the value ($193,304) of spiny lobster exports in 1960 was higher by 15.3 percent as compared with the 1959 value ($167,685).

British Honduras Exports of Fishery Products, 1959-60
(Total Exports & Exports to United States)

Product	1960		1959	
	Qty.	Value	Qty.	Value
	Lbs.	US$	Lbs.	US$
Fresh, frozen or live fish:				
Total exports	103,479	14,295	80,479	12,737
Exports to U.S.	65,403	10,011	49,680	9,482
Salted, dried fish, etc.				
Total exports	24,855	2,573	32,638	3,192
Exports to U.S.	-	-	-	-
Spiny lobster, whole & tails:				
Total exports	363,720	193,304	398,043	167,685
Exports to U.S.	345,198	189,925	368,920	162,411
Tortoise shell:				
Total exports	1,608	3,250	1,507	3,101
Exports to U.S.	-	-	-	-
Unclassified:				
Total exports	3,805	402	10,582	892
Exports to U.S.	520	143	400	182
Total all fishery products:				
Total exports	497,467	213,824	523,249	187,607
Exports to U.S.	411,121	200,079	419,000	172,075

Exports of fish and shellfish to the United States from British Honduras in 1960 accounted for 82.6 percent of the volume and 93.6 percent of the value of total fishery exports. Spiny lobster exports in 1960 to the United States were down 6.4 percent in quantity due to higher prices on the United States

British Honduras (Contd.):



market and possibly to an increase in the amount of spiny lobsters shipped as tails rather than whole.

Canada

ARCTIC FISHERIES SURVEY:

The Yukon Territory cannot develop a profitable sea fishery at the present time because there are not enough marketable fish in adjacent waters, according to a survey made in the summer of 1960 by the Arctic Unit of the Fisheries Research Board of Canada.

Caplin, which are closely related to smelt, and which are the chief food of Newfoundland cod from early spring to midsummer, have recently appeared at and in the vicinity of Herschel Island off the Yukon coast. The only Yukon coastline is the territory's northern boundary, where it looks out on Mackenzie Bay of the Arctic Ocean. This strip is about as long as New Brunswick's coastline on the Gulf of St. Lawrence. Herschel, roughly the area of Grand Manan in Fundy, is the only sizable island close to this coast. It was the base last summer for experimental fishing by the Research Board's motor vessel Salvelinus, to find out whether this area would support a commercial fishery. The answer was that it will not. The area is covered with ice until late July. Beginning on July 23, 1960, bottom trawling and drift gill-netting revealed no abundance of marketable fish, although beach seining on the island proved that large quantities of caplin were still present there.

The Arctic Unit, which has its headquarters in Montreal, made this investigation in pursuit of its current study of the commercial potentiality of fish stocks throughout the western Arctic.

At the same time other Research Board vessels in the eastern Arctic were continuing the Unit's long-term study of stocks of Arctic char, the fish so highly rated by gourmets, who described it as something between sea salmon and brook trout. Two surveys were made in fresh-water areas on the south coast of Baffin Island and one on the east coast of Hudson Bay. Char were scarce in the latter area and although present in the Baffin waters were not in sufficient quantities to support commercial fishing. A few other fresh-water fish were taken also, nine-spined stickleback in the Baffin areas and sea-run brook trout, whitefish, and ciscoes in the waters running into eastern Hudson Bay. (Canadian Trade News, April 1961.)

* * * * *

FISHING VESSEL REPORTS RECORD SCALLOP TRIP:

A record scallop trip of 62,571 pounds of meats was reported early this year, when the Canadian scallop dragger Barbara Joe unloaded at Lunenburg, Nova Scotia.

Scallop fishing is relatively new to Canadians because it was scarcely more than a decade ago that Canadian draggers began to exploit the rich scallop fishing grounds off the Nova Scotia coast. Inshore scallop fishing such as that carried out in the heavy tidal waters of the Bay of Fundy is an important part of the fishing picture, but for vigorous expansion the deep-sea scallop is a leader in new developments contributing to the growth of the Canadian fishing industry.

Rich Georges Bank--a big area of water sprawling in the Atlantic about 160 miles southwest of Yarmouth, Nova Scotia--is an important scallop fishing area. There are other scallop grounds in the Canadian Atlantic, but it is Georges Bank where the bulk of the production is found. Each year sees more vessels on Georges Bank, now being fished heavily by both Canadian and United States draggers.

Last year scallops returned nearly C$2 million to Canadian fishermen and vessel owners in the Maritime Provinces.

So important is the scallop fishery that Canada and the United States are carrying out joint investigations as to how the scallop lives and reacts to its environment.

Canada (Contd.):

In good fishing weather it is an around-the-clock operation for scallop fishermen. There is plenty of work from the time the dredges are hauled on deck, the scallops shucked, washed, placed in bags, and iced in the holds.

Only the white column of muscle, that holds together the two halves of the shell and operates the opening-and-shutting movement that gives the shellfish its jet propulsion, is utilized.

* * * * *

FREEZE-DRYING EXPERIMENTS ON FISH CONTINUED:

Canadian experiments on vacuum freeze-drying of cod steaks and fillets have so far been limited to drying fish slices of half-inch thickness. After cutting the frozen fish into steaks, fillets, or portions of this thickness, the fish were dried for 10 hours in a vacuum oven at 80° F. The finished product was white, porous, and of good appearance. It could be warehoused and distributed as readily as any other frozen fish. The housewife would need only to soak it in cold water for five minutes to give the appearance and texture of fresh fish.

Similar experiments are planned for 1961, using spiked plate-drying and radiant heating, and comparing results with other methods. Experiments will also be conducted with salt fish. If vacuum freeze-drying can be made commercially feasible in the salt fish industry, it may, to some extent at least, supersede the present plant method for certain products.

* * * * *

NEW FOOD LABEL LAW:

A new Canadian food label law now requires that the main panel of the package show the contents close to the name. General food labeling regulations under the Canadian Food and Drugs Act, amended on January 1, 1960, come into full force on January 1, 1962.

It is expected, notes the Canadian Department of National Health and Welfare, that all food labels in consumer packages will conform with the new regulations by the first of the new year. After that date, entry will be refused importations which do not meet the new labeling requirements. Manufacturers expecting to export food products into Canada should plan to conform to the new regulations.

It is now required that the main panel of a package of food carry the brand or trade name, if any, the common name of the food and a declaration of net contents in close proximity to the common name. Close proximity is defined as immediately above, below, to the right, or to the left of the common name without intervening printed, written, or graphic matter.

In order for a net contents declaration to be considered clearly and prominently displayed, it should be in bold-face type and with a minimum height of type related to the area of the main panel of the label. Thus, if the area of the main panel of the label is between 20 and 40 square inches, the declaration of net contents should be in bold-face type at least 1/8 inch in height. If fractions of an ounce, pound, or other unit are used in the declaration of net contents, each part of the fraction must meet this requirement. The regulations impose no restriction on the maximum size of type that may be used in a net contents declaration.

Ceylon

JAPANESE TO PROVIDE FISHERIES TRAINING CENTER:

Under the terms of the agreement worked out between Ceylon and Japan, Japan is sending eight technicians, headed by an employee of the Japanese Fishery Agency, to Ceylon on July 10, 1961, to open the fisheries training center at Negombo, Ceylon. The Center is scheduled to open on September 1. Japan will provide one training ship and contribute a total of 1.3 million rupees (US$273,000) over a three-year period. In addition, Japan will train 20 Ceylonese every four months in the handling of fishing gear; instruct 10 Ceylonese for a one-year period in the operation and maintenance of marine engines, and offer instructions in general fishery problems. (Suisan Tsushin, June 22, 1961.)

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JAPANESE-CEYLONESE JOINT FISHING VENTURE:

A Japanese fishing firm and a Ceylonese firm have completed negotiations on forming a joint company. The Japanese firm dispatched the tuna vessel No. 1 Shizuoka Maru, 87 gross tons, to Ceylon on June 20, 1961. By agreement, the vessel will be used to train Ceylonese fishermen in fishing techniques, and all catches will be delivered to the the Ceylonese firm for a period of one year.

The vessel will make 13 trips during the year, each trip to be about 20 days. Plans call for an additional 2 or 3 fishing vessels if the venture proves successful. (Suisan Keizai Shimbun, June 23, 1961.)

Chile

FISH MEAL AND OIL EXPORTS AND PRICES, JAN.-MAY 1961:

Official trade statistics of the Banco Central report exports of fish meal and fish oil for the month of April and the first quarter of 1961 (table 1).

Table 1 - Chilean Fish Meal and Oil Exports January-April 1961

Destination	Quantity	Value	Unit Price	
	Metric Tons	US$ 1,000	US$ per Metric Ton	US$ per Short Ton
Fish Meal				
April 1961:				
United States	1,182.7	82.9	70.09	63.59
Netherlands	687.6	48.0	69.81	63.33
France	397.3	29.6	74.50	67.59
Venezuela	317.8	23.6	74.26	67.37
Germany	197.5	14.0	70.89	64.31
April total	2,782.9	198.1	71.18	64.57
Jan.-Mar. 1961:				
United States	2,316.4	152.5	65.83	59.72
Netherlands	2,798.5	184.2	65.82	59.71
France	534.3	35.4	66.25	60.10
Germany	344.8	23.0	66.71	60.52
Venezuela	296.5	21.4	72.18	65.48
Sweden	198.6	13.3	66.97	60.76
Brazil	198.6	13.1	65.96	59.84
Bolivia	29.6	2.2	74.32	67.42
Jan.-Mar. total	6,717.3	445.1	66.26	60.11
Fish Oil 1/				
April 1961:				
Germany	440.0	49.5	112.50	102.06
Jan.-Mar. 1961:				
Germany	698.1	73.8	105.72	95.91

1/Excludes exports of 6.7 metric tons (value US$8,500) to the United States which is believed to be a special type fish oil or fish oil fractions.

The trade journal of the Central Chamber of Commerce El Informativo publishes shipments on basis of manifests (table 2). Data compiled from that source does not fully agree with official trade figures but is the only information available on a more current basis (as far as values are concerned, the difference is believed to be in the listing of both c.i.f. and f.o.b. values in accordance with the terms of the sale.)

All shipments continue to move out of the fish meal plants located in Arica and Iquique which operate with the 30-20 percent subsidy. Fish meal plants along with other manufacturing industries located in the distressed northern area of Chile receive this subsidy on products manufactured of natural resources and exported. The subsidy amounts to 30 percent of the cost of raw material used and 20 percent of the f.o.b. price of the finished product exported. The subsidy fund for Arica is supported by a tax on imports entering Arica and for Iquique by local sales taxes. The primary purpose of the subsidy is to encourage private investment capital to assist in the economic development of this northern region.

The one shipment of fish oil in April to the United States was a special lot of "merluza" oil obtained from the Instituto de Biologia of Vina del Mar, a department of the University of Chile. (United States Embassy, Santiago, June 5, 1961.)

Table 2 - Chilean Exports of Fish Meal and Oil, March-May 1961

Destination	Quantity	Value	Unit Price	
	Metric Tons	US$ 1,000	US$1 per Metric Ton	US$1 per Short Ton
Fish Meal				
March 1961:				
United States	298.0	23.8	79.81	72.40
Venezuela	621.6	45.0	72.33	65.62
Netherlands	498.6	45.7	91.65	83.14
France	198.6	14.8	74.52	67.60
Germany	197.5	13.6	68.86	62.47
March total	1,814.3	142.9	78.73	71.42
April 1961: 1/				
United States	1,354.6	98.0	72.34	65.63
Netherlands	398.6	33.1	83.04	75.33
Germany	497.5	39.5	79.35	71.99
April total	2,250.7	170.6	75.78	68.75
May 1961:				
United States	397.2	36.4	91.64	83.14
Netherlands	500.0	41.2	82.48	74.83
May total	897.2	77.6	86.54	78.51
Fish Oil				
March 1961: 2/				
Germany	146.0	18.8	129.00	117.03
"	N	27.1	N	N
March total	N	45.9	N	N
April 1961: 2/				
Germany	N	29.1	N	N
"	100.2	14.3	142.75	129.50
April total	N	43.4	N	N
May 1961:				
Germany	300.0	43.3	144.33	130.94
Norway	59.2	6.1	103.80	94.17
May total	359.2	49.4	137.66	124.89

Source: El Informativo, official publication of Central Chamber of Commerce of Chile and Santiago.
1/Note that these data are substantially different from data reported in table 1.
2/Incomplete

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IMPLEMENTING REGULATIONS ISSUED FOR FISHERIES LAW:

By Decree No. 133 dated February 9 and and published March 29 in the Diaro Oficial, the Chilean Government establishes the controlling regulations for the new fisheries law issued as DFL No. 266, April 6, 1961. Law No. 208 of July 21, 1953, however, is not superseded by this legislation and remains in force for the industries which do not wish to qualify under DFL No. 266. Although the provisions are quite similar, No. 208 is applicable to both natural and juridical persons while concessions offered under DFL No. 266 are offered to juridical persons only.

Decree No. 133 classifies the fisheries industry into three groups: fishing industries, auxiliary fishing industries, and complementary fishing industries. Fishing industries include those companies engaged in the fishing, hunting, and capture of marine life.

Chile (Contd.):

Processing and canning plants are classed as auxiliary fishing industries. Enterprises engaged in the construction and repair of industrial and commercial fishing boats or the manufacture or construction of fishing equipment for own use are classed as complementary fishing industries.

To qualify for the privileges and concessions specified in DFL No. 266, all fishing industries must be registered on the Rol de Industrias Pesqueras, Anexas y Complementarias in the Office of Fisheries and Hunting, Ministry of Agriculture. Those already entered in the Fisheries Register may reregister on the Rol and qualify. With registration the juridical entity may request issuance of the supreme decree by the Ministry of Agriculture which entitles it to all privileges and concessions specified by DFL No. 266.

On presentation of this public document such entities may import free of all duties, taxes, and charges including consular fees and deposits, products specified in Article 2, paragraph (i) of DFL No. 266, i.e. fishing boats of over 10 metric tons, machinery used exclusively by the fishing industry, nets, boats, refrigerated trucks, and trailers completely equipped, marine motors and winches, and machinery parts and accessories.

A certificate from the Ministry of Economy certifying that the product to be imported is not produced in Chile in adequate quantity or quality or at a reasonable price must be presented to the Central Bank, together with the recommendation of the Department of Agriculture and Fisheries, to obtain free import of merchandise specified in Article 2, paragraph (j) of Law No. 266. Included in the group are petroleum fuels and lubricants excluding gasoline; refrigeration units, machinery and parts and accessories; display refrigerator units, equipment and machinery for sale of seafood, refrigerators or freezers; tinplate with a protective varnish with or without lithograph for re-exportation of canned fish products; tackle, lines or ropes; steel cables, galvanized or not; navigation and fishing apparatus, implements and gear. The Department of Industry and Commerce of the Ministry of Economy will consider production inadequate when it is insufficient to cover normal domestic requirements, quality inadequate when the Chilean product is noticeably inferior to imported goods, and price unreasonable when it exceeds the c.i.f. value of the imported product by 20 percent.

The 75-percent capitalization required by Article 4 of DFL No. 266 of profits will be applied on the profit shown on the income tax statement less 8 percent as interest on paid-in capital and accumulated reserves, 2 percent of capital and reserves for contingencies, and up to 20 percent of the social capital for salaries of no more than 3 administrative members of the enterprise provided it is not an anonymous society.

This 75-percent portion must be invested in (1) consolidation and development of the company through an increase in physical assets, including stocks, increase in credits for sales abroad, or reduction of debts, (2) expansion into other fields of fisheries industry, and/or (3) construction of workers' housing. The 75-percent reserve may be accumulated for a period up to 3 years but the Office of Internal Revenue, which has the responsibility of ensuring that capitalization and investment are made in accordance with DFL No. 266, may authorize an extension of the three-year period.

Chile (Contd.):

A fishing cooperative will be granted privileges and concessions authorized by DFL No. 266 provided its application is accepted by the Department of Agriculture and Fisheries and the supreme decree is issued.

Goods imported free of duty under DFL No. 266 may be transferred within 5 years of entry to another entity entitled to free entry or upon payment of applicable import taxes and/or duties. After 5 years the Department of Agriculture and Fisheries may waive payment of import charges. A "finished product" is understood to be that which does not require further industrial processing for use. In case of doubt the final determinations shall be made by the Department of Agriculture and Fisheries.

The decree granting the right to concessions and privileges of DFL No. 266 will be invalidated only by the President on basis of fully documented proof of infringements referred to in Article 8 of DFL No. 266.

Most companies now operating under Law No. 208 of July 23 are expected to reregister in order to qualify for the privileges and concessions of DFL No. 266. (United States Embassy, Santiago, May 31, 1961.)

Costa Rica

EXPORTS OF SEA TURTLES ARE LEGAL EXCEPT FOR THOSE CAUGHT IN NURSERY AREA:

The Costa Rican Ministry of Agriculture and Livestock states that exports of sea turtles taken on the beaches or offshore (mostly males or females that had already deposited their eggs) are legal, with the exception of those taken from Laguna del Tortuguero beaches, which is an important nursery area and essential to the maintenance of the resource in the Caribbean.

Laguna del Tortuguero is one of the few known sites where female turtles come in large numbers to lay eggs. Hunters would go up and down the beach tipping turtles over until they could be moved to pens prior to export. But most of the turtles harvested were females which were not given the opportunity to deposit their eggs. Uncontrolled harvesting of the female turtles in the past forced the authorities to close that area several years ago and also prohibit the sales of turtle eggs in the local market.

At the present time there are no exporters of turtles in Costa Rica. It is believed that a recently-formed fishermen's cooperative (Asociacion Pesquera de Puerto Limon) may in time be able to assume the role of both producer and exporter. The Government of Costa Rica would welcome the encouragement of exports of sea turtles, provided that the resource is protected from overexploitation. (United States Embassy, San Jose, dispatch dated June 30, 1961.)

Denmark

FISH MEAL AND SOLUBLES PRICES, JUNE 4-10, 1961:

During the week ending June 10, 1961, export prices for Danish herring meal were quoted at 920 kroner a metric ton (US$121.01 a short ton) f.o.b. Esbjerg. Prices for lower protein fish meal were 860 kroner a metric ton ($113.12 a short ton).

A large order of fish solubles brought 750 kroner a metric ton ($98.65 a short ton). This price represents a substantial increase from an early May price of about $64.46 a short ton. (United States Embassy, Copenhagen, June 27, 1961.)

El Salvador

NEW TAX IMPOSED ON SHRIMP EXPORTS:

The Civil-Military Directorate of El Salvador signed a decree (No. 154) on June 7, 1961, imposing an export duty of 15 centavos (6 U. S. cents) for each net 453 grams (one pound) of shrimp in any form exported from El Salvador.

A plan to tax shrimp exports was studied by the Government, reached the drafting stage in October, and almost became law on March 17. The present law is believed to be less objectionable to the industry than the previous draft, which provided for ad valorem taxes on all shrimp exports, based on c.i.f. prices, with rates ranging from 10 percent on shrimp sold at 50 U. S. cents per pound

El Salvador (Contd.):

or under, up to 20 percent on sales at $1.00 a pound.

Decree No. 154, published in the Diario Oficial on June 14, 1961, justifies the law stating that the State has made a heavy investment in fisheries investigations which the industry is now enjoying, that fishery resources are the property of the State, and that the shrimp industry has now reached a level of development that enables it to repay the State for its investment. The law provides for fines ranging from 25 to 25,000 colones ($10 to $10,000), with the possibility of suspension or cancellation of the fishing license.

The shrimp industry, which is presently making a study of the new law, intends formally to request the Directorate to reconsider the decree, according to press reports. Eleven of the 14 shrimp companies have formed a Camara Pesquera de El Salvador (Fisheries Chamber). The industry is expected to object to the new law on two grounds: that the newly expanded companies have not completed payments on newly-purchased equipment, and are therefore in no position to absorb the tax, and that the tax is too high thus impeding the development of the smaller companies.

An industry spokesman further stated to the press that it was a most inopportune time for such a duty since the catch in May had dropped off due to the rainy season, off 50 percent from the April catch of 15,000 pounds. As of June, shrimp catches picked up and 65 of the 72 shrimp vessels were active. (United States Embassy, San Salvador, dispatch dated July 5, 1961.)

German Federal Republic

FISH MEAL PRICES, JUNE 7, 1961:

Prices reported at Hamburg Commodity Exchange as of June 7, 1961, for fish meal delivered ex-Hamburg warehouse, or c.&f. West German sea port were as follows:

Type of Fish Meal	Protein Content (%)	Delivery	DM/Metric Ton	US$/Short Ton
German fish meal	50-55	prompt/June	540	122.47
" " "	55-60	" "	555	125.87
" " "	60-65	" "	575	130.41
" " " std. brands	60-65	June	605	137.21
Icelandic cod meal	65-70	June	665	150.82
Peruvian fish meal	65-70	July-Sept.	575	130.41
" " "	65-70	-	557.50	126.45
South African fish meal ...	65-70	August	597.50	135.52
Angola fish meal	65-70	June	600	136.08

Note: Values converted at rate of 4.0 deutsche marks equal US$1.

As compared with May 7, 1961, fish-meal prices on the Hamburg exchange on June 7, 1961, continued the upward trend for both domestic and Peruvian fish meal. (United States Consulate, Bremen, June 12, 1961.)

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FISH MEAL PRICES, JULY 5, 1961:

Prices reported at Hamburg Commodity Exchange as of July 5, 1961, for fish meal delivered ex-Hamburg warehouse, or c.&f. West German sea port were as follows:

Type of Fish Meal	Protein Content (%)	Delivery	DM/Metric Ton	US$/Short Ton
German fish meal	50-55	loco/ prompt/July	540	122.47
" " "	55-60	" " "	550	124.74
" " "	60-65	" " "	580	131.54
" " " std. brands	60-65	July	610	138.35
Peruvian fish meal	65-70	loco	540	122.47
" " "	65-70	Aug.-Oct. 1961	570	129.28
" " "	65-70	Nov.-Dec. 1961	575	130.41
South African fish meal ...	65-70	July	590	133.81
" " " " ...	65-70	Aug. 1961	595	134.95
Angola fish meal	65-70	loco/July	607.50	137.79

Note: (1) Values converted at rate of 4.0 deutsche marks equal US$1.
(2) "Loco" means where and as it is at the time of sale, and all subsquent expenses to be at buyer's account.

German Federal Republic (Contd.):

Fish-meal prices on the Hamburg exchange on July 5, 1961, averaged about the same as on June 7, 1961. (United States Consulate, Bremen, July 11, 1961.)

Ghana

BANS IMPORTS OF PORTUGUESE CANNED FISH:

The Ghana Government has revoked the application to Portugal and the Portuguese monetary area of all open general import licenses, effective June 1, 1961. The effect of this is to require a specific license for imports of goods consigned from Portuguese territory regardless of origin and of Portuguese goods regardless of point of shipment.

According to Notice to Importers No. 152 dated June 1, 1961, the Ministry of Trade will entertain applications for specific licenses only for pre-freezing Portuguese transactions or for non-Portuguese goods merely transshipped via Portuguese territory, and there is no guarantee of a license even in those cases.

The major Portuguese product imported by Ghana is canned fish, particularly sardines and pilchards. Another traditional source of fish was South Africa, the only other country against which Ghana has imposed an import embargo.

Imports of canned sardines and pilchards from South Africa and Portugal in 1960 totaled ŁG770,000 (about US$2.1 million) or about 40 percent of the total, despite the fact that the embargo against South Africa was imposed during the year. (United States Embassy, Accra, June 21, 1961.)

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PROGRESS REPORTED IN MODERNIZING FISHING INDUSTRY:

The Government of Ghana, depending on fish as the mainstay in its national diet, has made considerable progress in its efforts to modernize its fishing fleet. Deep-water ports and processing plants are under construction or being completed, and the country is making a concerted effort to exploit its vast marine potential. Progress in fisheries development is reflected in the newly-constructed harbors at Tema and Elmina, building new boats for fishermen, and Government offshore exploratory fishing for tuna.

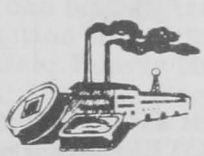
One of Ghana's principal concerns in properly implementing its fishing mechanization and modernization program has been to devise marketing and distribution systems assuring availability of fish in towns and villages in the hinterlands. A fish marketing specialist of the Food and Agriculture Organization has been assisting Ghana in this endeavor, recommending systems for wholesaling and retailing fish in Ghana's interior.

Fish marketing traditionally has depended on women fishmongers who deal directly with the fishermen and completely control the trade. The FAO expert has helped the Government set up a pilot market at Takoradi where the market buys the fish from the fishermen for re-sale, at a negotiated price, to the women traders. In return, the traders who have been able to handle only small amounts of fish in the past are provided with ice and cold-storage facilities to help them extend their business.

The expert is also assisting Ghana on another project, drawing up the final plans for a new market to be located at the recently-completed million-dollar fishing harbor at Tema. The latter port will serve as a distribution point for increased catches landed at Tema and Elmina.

Fish flour, long advocated by FAO experts for human consumption, has found a growing market in Ghana. A pilot fish-flour plant has been in operation for some time and now a plant is being built to produce it on a commercial scale. This fish flour, which can be kept sterile up to two years in waterproof bags and can be easily carried by bicycle, bullock, or even as a headload, will be sent into the interior of Ghana where there is a lack of protein and a large potential market for the fish flour. (Commercial Outboarder, Summer 1961.)

Note: See Commercial Fisheries Review, September 1960 p. 49.



Iceland

OCEAN PERCH FISHING AND MARKETING PROBLEMS:

Ocean perch or redfish in the Atlantic have given Icelanders good catches in recent years, but they have found that production is unpredictable.

In 1958 Icelandic trawlers made bumper catches of ocean perch on Greenland and Newfoundland banks. Because of that some trawler companies decided to build several big trawlers, about 1,000 tons, which would quickly have paid for themselves if catches had continued.

But no sooner had these new trawlers been delivered than the ocean perch vanished from the banks and the big trawlers made some disappointing trips returning with only 50 or 80 metric tons after three-week trips. It became difficult to find any paying catch for these trawlers and they lay unused for many months.

In early May 1961, a few Icelandic trawlers on Newfoundland banks again found ocean perch but only for a short time. But again the ocean perch catch dropped off.

A marketing problem is also confronting Iceland since as of June 1961 no new trade agreement has been made with the Soviet Union although such should normally be concluded at the beginning of the year. Talks have been going on at diplomatic levels but without result.

Since the beginning of this year there has been practically no export of frozen fish to Russia, while Icelanders have continued to receive fuel shipments from the Black Sea. This has now resulted in a 200 million kronur debt to the Russians (US$5.2 million).

Russians trade on basis of world market prices. When fish sales to Russia suddenly increased in 1953 (because of the landing ban in Britain), the Russians paid for ocean perch a price comparable to the world market price. But since then they have not been ready to increase the price although market prices of ocean perch have increased about 30 percent in Western Germany and the United States.

Icelanders, therefore, have for a time been selling the fish under the world price to Russia. They maintain they were able to do so when catches were good, but since catches have decreased they cannot do so without losses.

However, Icelanders feel less dependent upon the Russian market since the dispute with Britain seems to be solved, and the markets in Western Europe and the United States are expanding. They also suspect that the producing cost in the Russian fisheries is much higher, and may be many times higher than the purchasing price of Icelandic fish.

Icelanders would not like to lose the Russian market, mainly because it is very big and sometimes has taken considerable quantities, especially in years of bumper catches. But they have found that the Russians are strong negotiators who try to use their big buying power to get goods cheaper. (The Fishing News, June 9, 1961.)

India

INCREASED FISH PRODUCTION NEEDED TO SUPPLY PROTEIN FOOD:

India, with 438,000,000 inhabitants, has suffered severe food shortages for many years despite its 3,500 mile coastline, and its immense fishery reserves which could be exploited to provide an abundance of fish.

Producing slightly more than one million tons of fish per year, or approximately one forty-fifth of the world's total yearly production, India's fish consumption is only 0.9 pound per capita, one of the lowest in the world.

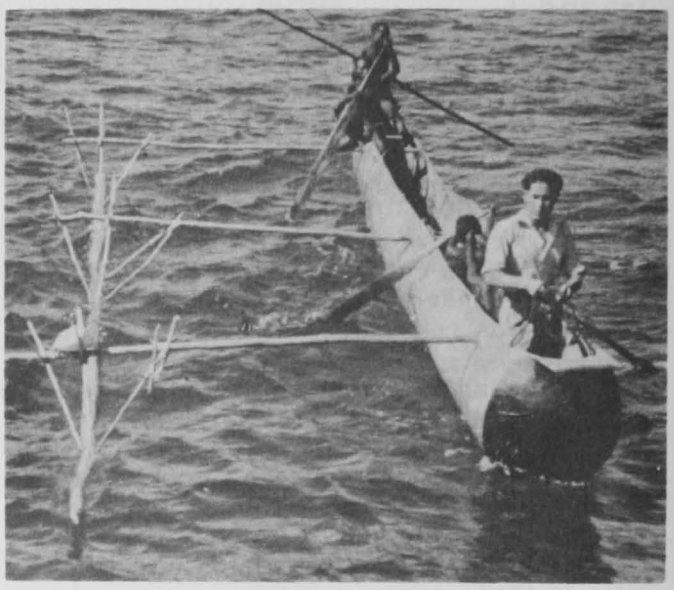


Fig. 1 - Spear fishing in Andaman Islands from a hollow-tree canoe is an outmoded fishing method still used in India.

In addition, India requires 750,000 fishermen to harvest its comparatively meager catch. Norway, a country of 3,500,000 inhabitants and a highly mechanized fishing fleet employing 85,000 fishermen, produces more than India. Norway has an annual catch that varies from 1.2 to 1.8 million metric tons despite the fact that its fisheries are highly seasonal.

However, despite the various problems suffered in its fishing industry, India has shown a slow but definite growth in its attempt to increase fishing production. It is expected that by 1966 the increase will be 50 percent above the 1956 level, but there are problems still to be overcome.

India's fishing industry has been handicapped mainly because of outmoded fishing techniques handed down from one generation to another. Fishermen are dependent on small, primitive craft propelled by sail and oar and are restricted to limited fishing areas. Their yield is necessarily low due to the fact that

India (Contd.):

they are constantly fishing the same waters which have been thoroughly exploited.

In addition to being undermechanized, Indian fishermen are further handicapped by problems of geographical dispersion; their inadequacy to obtain credit; a shortage of storage plants, preservation, transport, and marketing facilities; and dependence on middlemen.

Fig. 2 - An FAO prototype powered surf boat going through the surf on the Indian coast. This is meant to replace the catamarans used along the surfbeaten coast where there are no harbors.

The establishment of either government- or private-sponsored fishing cooperatives would free fishermen of their economic bonds; provide them with credit to buy new boats, engines, tackle, and other supplies; will help them to market their catch at a fair market price. Cooperatives (which are in successful operation in many countries) could also provide credit to fishermen, permitting them to mechanize their craft, with the investment paid off through increased production.

The answer to India's problem of how to provide more vitally-required food of a specific type that contains a high animal protein yield definitely lies in fish foods. India's coastal waters (particularly on the west coast where the continental shelf extends about 100 miles offshore) and her inland waters with their great variety of fish, provide ideal conditions to augment fishing production.

The Indian Government's second Five-Year Plan now in effect calls for the improvement in fishing methods, mechanization of boats, the availability of proper fishing gear, the introduction of new fish farming methods, and the improvement of storage, transportation, and marketing facilities. It has been reported, however, that the program, aimed at supplying more food and helping to raise the social and economic welfare of the fishing population, has fallen short of its projected production goal.

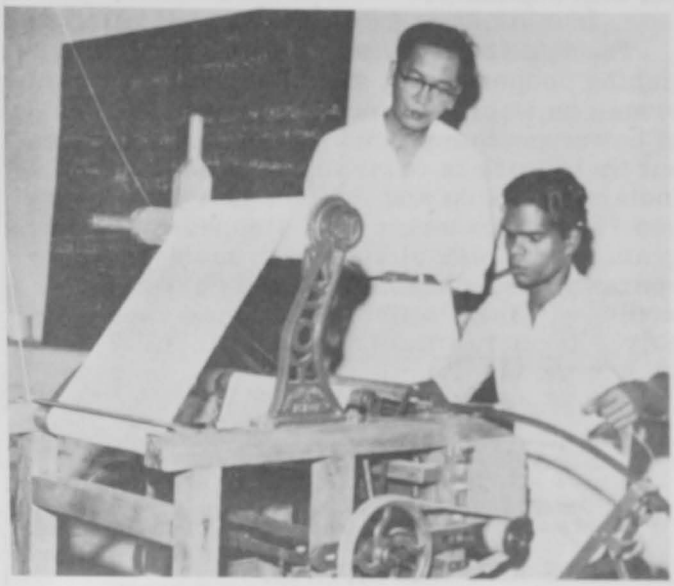


Fig. 3 - A trainee at the Fishing Gear Research Station in Cochin learns to use a net-making machine under the instruction of a fishing gear technologist.

The main reasons given for India's failure to reach this goal to increase production (except in isolated areas) is reported to lie in (1) not being able to provide vast sums of money required for investment in heavy mechanization equipment; (2) failure to eliminate the middleman; and (3) the fisherman's role as an independent businessman is difficult.

Regarding the availability of funds to invest in the purchase of heavy equipment to mechanize large fishing vessels, it has been suggested by the Food and Agriculture Organization (FAO) that production might be increased at a faster pace by commencing with the mechanization of individual fishermen. The success of this approach can be illustrated by large increases in production in Mexico, Salvador, Nicaragua, Jamaica, Puerto Rico, Ceylon, Malaya, Sarawak, Uganda, Angola, Senegal, Nigeria, and many countries where outboard motors have been employed to propel small fishing craft. Outboard motors have also been used for towing 20 to 30 other boats to and from the fishing grounds.

India (Contd.):

A small-craft mechanization program rather than long-range investment in heavy fishing equipment would obtain immediate increases in production by allowing fishermen to devote more time to their trade; to extend their radius of operation into new and more productive banks, presently out of reach of oar and sail, and to return to market more quickly.

The FAO is assisting India to establish fishing cooperatives, and also training fishermen on improved techniques, and the use of better equipment and marketing practices, but their work is naturally limited due to India's vast size and the fact that the country has 750,000 fishermen. A stepped-up program for the establishment of many pilot cooperatives which would expand with time, would help India's fishing industry considerably. (Commercial Outboarder, Vol. 2, No. 2, Summer 1961.)

Italy

IMPORTS AND EXPORTS OF MARINE OILS, 1959-60:

Italy's combined imports of cod-liver and marine oils increased from 8,903 metric tons in 1959 to 9,547 tons in 1960. Most of these oils were purchased from Australia, Norway, and the United States. But shipments from the United States decreased from 1,216 tons in 1959 to 202 tons in 1960.

Italy's Imports of Fish Oil and Cod-Liver Oil, 1959-1960

Country	1960	1959
	(Metric Tons)	
United States	202	1,216
Austria	-	430
Denmark	-	6
France	847	385
West Germany	164	149
Iceland	18	9
Norway	2,314	1,583
Netherlands	270	195
Portugal	930	693
United Kingdom	382	856
Sweden	35	-
Japan	9	80
Indonesia	214	-
Morocco	575	10
South Africa	105	85
Chile	46	30
Peru	374	337
Australia	2,153	2,606
New Zealand	891	197
Others	18	36
Total	9,547	8,903

Italy's exports of cod-liver and fish oil were negligible. In 1960, exports amounted to only 29 tons as compared to 146 tons in 1959. While in 1959 Italy shipped 75 tons to the United States, none were shipped in 1960. (United States Foreign Agricultural Service Report, Rome, May 17, 1961.)

Japan

COMMERCIAL DEEP-SEA FISHING AREAS CONSTANTLY CHANGING:

The fishing areas, especially those in offshore areas, exploited by Japanese fisheries in the postwar period are constantly changing. The Japanese fishing industry has grown tremendously and has shifted in recent years from coastal to offshore and from offshore to deep-sea fishing operations. Today, she leads the world with catches averaging 6,192,000 metric tons a year, surpassing the Communist Chinese fishing target of 5,800,000 tons for 1960.

Fig. 1 - A big school of yellowtail herded into a net off Japan.

In order to conserve fishery resources and utilize them reasonably, it has been the desire of Japanese fishing circles to cooperate unreservedly with other fishing nations and to observe strictly all international fishing regulations. However, the Japanese feel that the principle of the open seas is now in jeopardy because of the strong claims put forward by some foreign fishing nations regarding fishing restrictions in the open seas in the name of "preservation of fishery resources."

To cope with this situation, Japan is striving to explore and to develop new fishing grounds, to conclude capital tie-up agree-

Japan (Contd.):

ments with foreign countries for the establishment of joint enterprises, and to export Japanese fishing know-how. Large fishing companies are also going into the field of processing marine products in addition to their established fishing operations in order to improve their business position.

The following is an outline of the changing Japanese fishing industry today.

Salmon Fishing in North Pacific: The most serious restrictions currently being placed on Japanese fishing in the open seas are those on salmon fishing in the Northern Pacific. Salmon fishing is presently restricted by the Japan-Soviet Fishery Treaty as well as the Japan-U. S.-Canada Fishery Treaty.

At the fifth Japan-Soviet fishery negotiations which were held in Tokyo from February 20, Japan's salmon quota for the 1961 season was set at 65,000 metric tons. As a result of past negotiations between the two countries, Japan's salmon quota in the restricted areas has been diminishing every year. The quota for last year was limited to 67,500 tons. Moreover, fishing in the Okhotsk Sea, which Japan considers clearly an open sea, has been entirely prohibited since January 1, 1959. Large areas are thus being designated every year as closed to Japanese fishing vessels, greatly reducing the sphere of Japan's fishing operations.

Under the Japan-U. S.-Canada Fishery Treaty, Japan is obliged to refrain from fishing in waters east of 175° west longitude until agreement among the three nations is reached on an accurate line of demarcation between salmon originating in American and Asian rivers. This provisional line (175° west longitude) has been the focal point of controversy at the annual fishery talks between the three nations. For example, in last year's talks the United States called for an extension of the provisional line by another 10 degrees west while the Japanese side was for maintenance of the status quo. The negotiations were broken off and the issue had to be carried over to this year.

Bottomfish Fishery in Bering Sea: In contrast to the diminishing salmon catches, hauls of fish in the Bering Sea, such as flatfish, cod, halibut, and other species of deep-sea fish, have increased in recent years. These types of fish are used for the production of fish meal (animal feed), frozen fish, and fish oil. Thirteen fleets were in operation last year. This year 28 fleets are operating in that area. In the past, the operation of meal processing and refrigerator ships was not profitable, but the Japanese fishing industry became active in this field to offset the curtailment of operations caused by the serious restrictions on salmon fishing. Today it is thriving, thanks to efforts in exploring new fishing grounds, rationalizing the use of fishing vessels, and improving fishing as well as processing techniques.

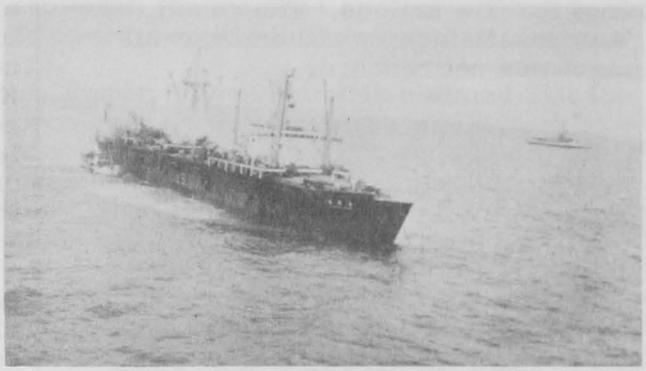


Fig. 2 - Mothership operating in the Bering Sea bottomfish fishery with a fleet of trawlers. Mothership equipped to freeze and also manufacture fish meal and oil.

Mother-of-Pearl Shell Fishing in Arafura Sea: Japanese mother-of-pearl fishing in the Arafura Sea is limited to a fixed volume which is determined through provisional agreements concluded between the Japanese and Australian Governments every year prior to the opening of the mother-of-pearl fishing season. The initial agreement was concluded following the "Continental Shelf Declaration" announced by the Australian Government in 1953. The fishing grounds are also restricted to a certain area which is decided by the two countries. Japan was permitted to catch a total of 415 tons of mother-of-pearl shells last year, but the actual harvest was 385 tons. This figure compares poorly with the 960 tons a year caught up to the time of the Continental Shelf Declaration. Japan's harvest during prewar years averaged 4,000 tons annually.

Whaling in the Antarctic Ocean: Under regulations of the International Whaling Convention, the five whaling countries of the world were originally allowed to catch as many whales as they could within an annual quota of 15,000 blue-whale units applicable to all countries. This was the so-called Olympic formula under which Britain, Norway, the Netherlands, the Soviet Union, and Japan operated.

Japan (Contd.):

Japan generally led the four other countries in the number of whales caught, but a problem arose when Britain and Norway proposed that a whale quota should be fixed for each nation because of the increase in the Soviet whaling fleet. Then in 1959, Norway and the Netherlands withdrew from the convention, resulting in an indiscriminate hunting of whales. Norway, however, rejoined the convention last year and a conference was convened in February this year to deliberate on the problem of assigning quotas to each of the five nations. The result, however, was unsatisfactory and an over-all agreement was not reached.

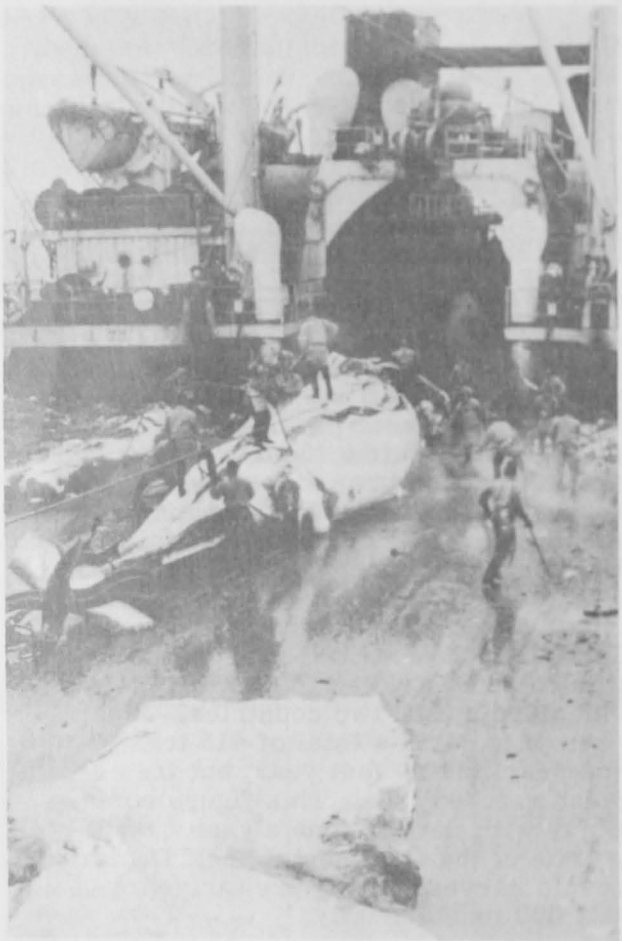


Fig. 3 - Cutting up a whale for processing aboard a Japanese whaling factoryship in the Antarctic.

It was however decided to allow the Soviet Union to catch 20 percent of the total quota, although the four other countries--Japan, Britain, the Netherlands, and Norway--have not reached an agreement on the allocation of the remaining 80 percent of the quota.

Drag-Net Fishing in the Yellow and East China Seas: Japanese fishing operations in the Yellow and East China Seas were placed under restrictions until June 1958, when the Japan-Communist China Fishery Agreement expired. Since then, fishing by Japanese boats in those areas is not bound by any agreement or restriction. However, Japan has informed Communist China that she would voluntarily abide by the regulations defined in the old fishery agreement between the two nations.

On the other hand, the Republic of Korea is still adhering to and enforcing the unilateral "Rhee Line" fishing restrictions announced in 1952 against Japan. In the fifth preliminary negotiation between Japan and the Republic of Korea which opened in October last year concerning fishing and the "Rhee Line," the problem of fishery resources had been discussed until the recent political change took place in the Republic of Korea.

Deep-Sea Tuna Fishing: Deep-sea tuna fishing by Japanese vessels is relatively unaffected by restrictions imposed by foreign countries. With the abolition of the so-called "MacArthur Line" in 1952, an increasing number of larger Japanese fishing vessels were constructed and equipped with modern fishing nets and gear. The marine catch for 1959 totaled 380,000 tons, more than twice the 1954 figure.

Japanese tuna vessels are now operating not only in the Southern Pacific and Indian Oceans but also in the Atlantic Ocean. Large areas of new tuna fishing grounds are being explored. Tuna fishing in the Atlantic Ocean was initiated in 1957. Two years later, in 1959, the total tuna haul from that area amounted to 50,800 tons, which was three times the catch in 1958. The tuna vessels have also increased in size from the 700-ton class to those of more than 1,000 tons.

One of the difficulties confronting Japanese tuna fishing is the Indonesian Government's declaration on inland waters made in 1957. According to the declaration, all waters within the area enclosed by a line encompassing the fringes of all the islands of Indonesia are considered inland seas of that country. Japanese tuna fishing is thus restricted greatly in that area. Other problems facing Japanese tuna fishing are the rationalization of the fishing approval system, maintenance of export prices, and the development of new export markets.

Fishing Companies Diversify: Since restrictions have been enforced on fishing op-

Japan (Contd.):

erations in the open seas, and since a business operation which depends solely on fishing has its limitations, the big fishing companies are now turning to new types of ventures. During the past 2 or 3 years, the major fishing firms have ventured into: canning of marine, agricultural, and meat products, the manufacturing of hams, sausages, frozen foodstuffs, mayonnaise, fruit juice, fish oil and fish meal; as well as the operation of mink farms. This is an effort to diversify operations. Some of the companies have even started chicken farms.

On the other hand, Japanese fishing ability and methods have drawn recognition from countries which are eager to develop their own marine resources. Contracts have been concluded in recent years for the establishment of joint companies, chartering of fishing vessels, marketing of fish, and other enterprises between Japanese companies and those of Venezuela, Brazil, Argentina, Mexico, India, Ceylon, Vietnam (South), Thailand, Borneo, Britain, and Israel. In every case, the venture has been conducted to the satisfaction and mutual benefit of the parties concerned. (Japan Report, June 15, 1961, Consulate General of Japan, New York.)

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OPINION ON INTER-AMERICAN TROPICAL TUNA COMMISSION'S PROPOSAL TO REGULATE EASTERN PACIFIC YELLOWFIN TUNA FISHING:

The Japanese periodical Nippon Suisan Shimbun, July 3, 1961, stated that two developments in the United States bear watching. One concerns the proposal to regulate the catches of the Eastern Pacific tuna fishery made by the Director of the Inter-American Tropical Tuna Commission, and the other, the tuna meeting scheduled in Honolulu in August 1961.

The periodical pointed out that the Commission's Director was reported to have stated at a meeting held in Panama on February 24, 1961, that it will be necessary to consider adopting catch regulations this year for yellowfin tuna fishing in the Eastern Pacific. He was also reported to have stated before a Congressional Committee hearing that catch regulations may have to be established in the Eastern Pacific Ocean to prevent yellowfin tuna resources from becoming exhausted. His proposal was aimed at regulating the catches of the United States' tuna fleet operating in the Eastern Pacific Ocean. However, the impact that such a regulation, if enacted, would have on Japan must be considered, inasmuch as a number of Japanese tuna long-liners have begun operations in the Eastern Pacific due to poor fishing elsewhere in the Pacific Ocean and in the Indian Ocean.

The Japanese Fishery Agency feels that the catches made by the long-liners are not large and should not create any problem from the standpoint of the resource; however, Japan cannot completely ignore any regulations established for the area and permit her vessels to operate freely in those waters.

Nippon Suisan Shimbun claimed that the problem of tuna resources would be discussed at the tuna meeting in Honolulu and it was not possible to see how this subject could be completely divorced from the subject of regulations being proposed by the Commission.

The periodical added that it was most difficult to ascertain precisely the extent of the tuna resources and it was unlikely that this problem would grow immediately into an international issue. However, Japan does conduct a tuna trade with the United States and this problem cannot be taken lightly. All these developments indicate a trend that the tuna problem is gradually but surely becoming an international issue.

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EXPORT PRICES RAISED FOR CANNED TUNA IN BRINE:

All prices for Japanese canned lightmeat tuna in brine for export to the United States have been raised as follows:

Size & No. Cans per case	New Price (per case)	Old Price (per case)	Increase
Lightmeat tuna (not including yellowfin)			
No. 1, 24's	$7.00	$6.50	$0.50
No. 2, 48's	7.30	6.80	0.50
No. 3, 48's	4.50	4.50	0.30
4-lbs., 6's	8.10	7.55	0.55
Yellowfin			
No. 1, 24's	$7.15	$6.50	$0.65
No. 2, 48's	7.40	6.80	0.60
No. 3, 48's	4.55	4.20	0.35
4-lbs., 6's	8.25	7.55	0.70

The above prices were approved at a meeting held on June 21, 1961, by the Japan Export Canned Tuna Fisheries Association.

Japanese sources in the United States said that the above prices would become effective July 10, 1961.

Also, the Japan Canned Foods Exporters Association Tuna Standing Committee met June 21, 1961, to discuss sales poli-

Japan (Contd.):

cies for canned lightmeat tuna in brine for export to the United States. At this meeting the Committee approved the proposal submitted by packers to establish separate prices for canned lightmeat tuna produced from yellowfin and canned lightmeat tuna made from skipjack.

At the same time, the Committee agreed to accept the 50,000 cases (about 20,000 cases of skipjack and 30,000 cases of yellowfin) held in stock by the joint sales company at the packers' prices. Also, in selling the 50,000 cases, the Committee agreed to sell the yellowfin first and to sell the canned skipjack later, depending on market developments. (Suisan Tsushin, June 23; Suisan Keizai Shimbun, June 22, 1961.)

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CANNED TUNA IN BRINE EXPORTS TO UNITED STATES, 1960:

Japanese exports of canned tuna in brine January-December 1960 amounted to: white meat, 986,853 standard cases (48 7-oz. cans) valued at $9,309,180 f.o.b.; light meat, 1,057,709 standard cases valued at $7,063,731 f.o.b., according to Japanese official export records.

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SEVENTH SALE TO UNITED STATES OF CANNED TUNA IN BRINE:

The seventh sale of canned tuna in brine for export to the United States was approved early in July by the Japan Canned Foods Exporters Association's Standing Tuna Sales Committee. The quantity approved was 150,000 cases, consisting of lightmeat (skipjack). Shipment was scheduled for July-August 1961.

Of the 50,000 cases of lightmeat on the sixth or last sale, some 20,000 cases of skipjack remained on hand with the exporters, and that amount also was included with the seventh sale. (Japanese periodical Suisan Keizai Shimbun, July 8, 1961.)

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CANNED TUNA IN OIL EXPORTS TO EUROPE:

Figures from the Japan Export Canned Tuna Fisheries Association show that a total of 135,728 cases of canned tuna in oil were approved for export in April 1961. Included are 43,912 cases of albacore, 10,667 cases of yellowfin, 62,897 cases of big-eyed, 4,865 cases of skipjack, and 13,387 cases of "flake-type" tuna. Principal markets (listed in order of importance) were West Germany, which led with 30,578 cases, Canada, Lebanon, Netherlands, and Kuwait. (Nippon Suisan Shimbun, June 30, 1961.)

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PRICES FOR EXPORTS OF FROZEN TUNA TO U. S.:

Reflecting the demand for raw tuna, the Japanese f.o.b. export market prices of frozen tuna for shipment to the United States has been advancing gradually since mid-May 1961, and in early June reached about US$320 a short ton for albacore; and $270-$275 for yellowfin gilled and gutted, weighing 20-80 pounds.

Some 5,000 short tons of yellowfin tuna were exported in April and May, almost as much as planned, while albacore amounted to some 1,100 tons, considerably less than expected. (The Suisan Tsushin, June 13, 1961.)

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FISHERY AGENCY LICENSES 15 TUNA MOTHERSHIPS WITH PORTABLE CATCHER BOATS:

The Japanese Fishery Agency, on April 18, 1961, authorized two types of tuna mothership operations: (1) tuna motherships employing regular catcher vessels; and (2) tuna motherships fishing with portable catcher boats. Subsequently, the Japanese fishing companies, planning to operate tuna motherships of the latter type, formed an association called Portable-Vessel-Carrying Mothership Association. One of the primary functions of the Association is to arrange for the purchase of vessel rights for the purpose of constructing portable boats under the replacement system established by the Fishery Agency.

At the present, the Association consists of 16 member firms. Applications submitted by these firms to engage in tuna fishing, using portable boats, total approximately 30. Of these, the Fishery Agency as of June 1961 has licensed 11 firms to operate a total of 15 motherships. As far as can be ascertained, it appears that each mothership will be carrying only one portable catcher vessel. (Nippon Suisan Shimbun, June 28; Shin Suisan Shimbun Sokuho, July 4, 1961.)

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FISHERY AGENCY TO CONSOLIDATE TUNA RESEARCH:

The Japanese Fishery Agency is now studying plans to consolidate all tuna research beginning in 1962, and is planning to ask for a small budget in 1962 to get the program started.

Tuna research is now being conducted at several research institutions and although important they only present a fragmentary picture of the over-all tuna problem. The Fishery Agency hopes to consolidate all work done on tuna so that effective use can be made of information collected. The collection of

Japan (Contd.):

data would be assigned to prefectural research vessels and training vessels belonging to fisheries high schools, and the data collected would be processed at a central unit.

Tuna research being conducted at the Nankai Regional Fisheries Research Laboratory is considered to be of good quality, and one objective of the program will be to increase the production of good-quality research. (Suisan Keizai Shimbun, June 28, 1961.)

* * * * *

CONTROL OF ATLANTIC OCEAN TUNA FLEET BY EXPORTERS ASSOCIATION PROPOSED:

The Japanese Fishery Agency is considering turning over control of the Japanese Atlantic tuna fleet to the Export Frozen Tuna Fisheries Association. The Association would regulate the operations of the Atlantic tuna fleet and the landing of Atlantic Ocean tuna. The Fishery Agency is also reported to be considering licensing all tuna vessels in the Atlantic Ocean as "commercial" fishing vessels and not as "experimental" fishing vessels, as has been the practice in the past. The purpose of the change would be to simplify the management of the Atlantic tuna fishery and to vest control in a civilian group. This means that the Association would control the flow of tuna in the Atlantic Ocean area.

In practice, the Association has been setting catch quotas for the Atlantic Ocean fleet and the Fishery Agency has been licensing fishing vessels to operate as "experimental" fishing vessels within the framework of the quotas set by the Association. The Fishery Agency has also been designating ports in the Atlantic Ocean, of which there are nine, where Japanese tuna long-liners could land their catches. However, in practice it took the Fishery Agency some time to issue permits for vessels to land their catches at certain ports so that at times fishing vessels were receiving the authority some time after they had landed their catches.

The Fishery Agency plans to draft a broad policy for the Atlantic Ocean tuna fishery and to leave the execution of the policies and the management of the fishery to the Association. (Nippon Suisan Shimbun, July 10, 1961.)

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FROZEN ALBACORE TUNA EXPORT MARKET CONDITIONS:

The prevailing high ex-vessel prices paid in June 1961 for albacore by canners in Japan are making it most difficult for frozen tuna exporters to compete for raw fish. The export price of frozen albacore was about US$320 to $330 a short ton in that month, but canners were reported to be offering as much as 130 yen a kilogram ($327 a short ton) for raw albacore and frozen tuna exporters cannot compete at that price. As a result, consignments of frozen albacore for export purposes as of June only amounted to about 200 tons and it is unlikely that more than 400 tons of albacore taken by the Japanese fleet will be exported this year.

Exports of albacore caught by the Japanese shore-based fleet have been declining in the last two years. In 1959, those exports amounted to 800 tons; in 1960, about 600 tons. (Suisan Tsushin, June 30, 1961.)

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FISHERY LANDINGS DOWN AT YAIZU IN MAY 1961:

Landings of tuna and other fish at the important Japanese tuna port of Yaizu during May 1961 totaled 16,900 metric tons, 186 tons less than in the same month last year. Ex-vessel prices were higher than last year and the value of the landings was $4,143,889, about $391,000 above the value reported last year. The bulk of the landings was tuna.

Yaizu Fishery Landings, May 1961

Species	Metric Tons
Tuna:	
Bluefin	272
Indian[1/]	492
Big-eyed	1,926
Albacore	3,512
Skipjack	4,647
Yellowfin	369
Swordfish, broadbill	58
Mackerel	3,484
Others	2,165
Total May 1961	16,925
Total May 1960	17,111

1/Indian Ocean bluefin tuna.

Entering into the regular season for albacore and skipjack, landings increased somewhat in May but they were not enough to fill the demand of the canners.

Landings of all fish at Yaizu during January-May totaled 56,008 tons, valued at $14,811,111 ex-vessel--3,383 tons less than last year in quantity but $2,279,908 more in value. (Suisan Keizai Shimbun, June 22, 1961.)

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Japan (Contd.):

TUNA LANDINGS AT YAIZU IN JUNE 1961:

A survey made by the Yaizu Fisherman's Cooperative Association shows that in June 1961 a total of 16,709 metric tons of fish valued at 1,477,560,000 yen (US$4.1 million) were landed at Yaizu, one of Japan's major tuna ports. This represents an increase of 3,690 metric tons and 258 million yen ($717,000) over June 1960.

Skipjack tuna led in landings with 5,894 metric tons, an increase of about 2,600 tons over the same month last year. Albacore landings totaled 5,253 metric tons, or about 600 tons less than in June 1960. (Suisan Keizai Shimbun, July 6, 1961.)

Fishery Landings at Port of Yaizu

Species and Period	Qty.	Value		Average Ex-Vessel Price
	Metric Tons	1,000 Yen	US$ 1,000	US$ Per Short Ton
June 1961:				
Skipjack tuna	5,894	400,741	1,113	$169
Albacore "	5,253	657,899	1,827	$315
Other tuna species	3,820	344,847	958	$227
Pacific mackerel .	1,193	43,467	121	$ 91
Others	549	30,606	85	-
Total	16,709	1,477,560	4,104	-
Cumulative Landings:				
Jan.-June 1961 . .	72,829	-	18,900	-
Jan.-June 1960 . .	72,521	-	15,900	-

* * * * *

SUMMER ALBACORE TUNA FISHERY TRENDS AS OF JUNE 1961:

Much was expected from this year's Japanese summer albacore tuna fishery because early in the season oceanic and fishing conditions were considered favorable. In the latter part of May 1961, however, when the catch picks up rapidly in the average year, landings failed to increase as expected. June landings were no more than 30 or 40 percent of landings in the same period last year.

Some 7,300 metric tons of summer albacore were landed at Yaizu and Shimizu (two most important Japanese tuna ports) by June 10, which was but 60 percent of last year's 12,000 tons by the same date. The ex-vessel price dropped below US$276 a metric ton in mid-May, but it rose again and around June 10 reached $322-$329 for fish weighing about 28 pounds. Buyers of the fish were almost entirely canners because the price was too high for the freezers.

Summer Albacore Tuna Landings at Yaizu and Shimizu, April-June 1960-61

Year	April	1st Part of May	Middle Part of May	Latter Part of May	1st Part of June
	(Metric Tons)				
1961	820	1,045	1,745	1,625	2,100
1960	425	225	955	5,240	5,205

Because of the poor albacore fishing through the first part of June this year, half of the 200 hook-and-line vessels fishing albacore switched to skipjack fishing. For this reason, skipjack tuna landings are increasing more than last year and as of mid-June, 200-300 tons a day on the average were being landed at Yaizu and Shimizu. The ex-vessel price for skipjack was $163-$185 a metric ton. Although the canners have begun to buy skipjack, buying was not in full swing as of June 20. (Suisan Tsushin, June 20, 1961.)

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ALBACORE TUNA FISHING PICKS UP:

According to a news dispatch from Yaizu, albacore fishing has picked up considerably. The combined landings of albacore at Yaizu and Shimizu from June 11-22, 1961 were reported from 200 to 500 metric tons of fish per day.

A survey made by the Tokai University's fishery laboratory shows that a total of about 190 to 200 tuna vessels are concentrated in the area of good fishing, which lies between 145° and 150° E. longitude and between 31° and 34° N. latitude. This concentration of effort in one area is causing the laboratory some concern. The laboratory feels that the areas to the east of 150° should also be explored in case fishing should fall off in the area of heavy fishing. (Suisan Keizai Shimbun, June 23, 1961.)

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ALBACORE AND SKIPJACK TUNA LANDINGS AND PRICES, JUNE 18-24:

During the week of June 18-24, 1961, a total of 1,946 metric tons of albacore and 1,201 tons of skipjack were landed at the principal Japanese tuna ports of Shimizu and Yaizu. Price for albacore ranged from a low of 110 yen a kilogram (US$277 a short ton) at the beginning of the week to a high of 137 yen a kilogram ($345 per short ton) on June 22 and 23. Skipjack for the fresh fish market sold for a high of 160 yen a kilogram ($403 per short ton) on June 20; skipjack for canning purposes sold from a low of 54 yen a kilogram ($136 per short ton) to a high of 64 yen a kilogram ($161 per short ton), but for the most part sold around the 61 yen level ($153 a short ton).

Albacore landings at Shimizu totaled 677 metric tons, and at Yaizu 1,269 metric tons. Of the skipjack landed during the week, 1,071

Japan (Contd.):

metric tons were landed at Yaizu, of which 816 tons were landed during the last three days of the week. (Suisan Tsushin, June 26, 1961.)

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ALBACORE AND SKIPJACK TUNA LANDINGS AND PRICES, JUNE 25-JULY 1, 1961:

For the week of June 25 to July 1, 1961, approximately 1,700 metric tons of albacore and 2,200 tons of skipjack tuna were landed at the three Japanese ports of Shimizu, Yaizu, and Kesennuma. These data are not complete since landings at Yaizu on July 1 and landings at Kesennuma for June 28 to July 1 are not included.

Albacore landings at Shimizu totaled 703 tons, Yaizu 886 tons, and Kesennuma 94 tons. Skipjack landings at Shimizu totaled 249 tons, Yaizu 1,660 tons, and Kesennuma 280 tons.

Ex-vessel prices for albacore ranged from a low of 114 yen a kilogram (US$288 a short ton) at Kesennuma on June 27 to a high of 135 yen per kilogram ($340 a short ton) at Shimizu on June 30. For the most part, albacore sold in the range of 120 to 130 yen a kilogram ($302 to $327 per short ton).

Skipjack ex-vessel prices showed a wide fluctuation depending on whether they were sold for the fresh fish trade or for canning purposes. Those for canning generally sold between 55 yen to about 68 yen a kilogram ($139 to $171 a short ton). (Suisan Tsushin, July 3, 1961.)

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ALBACORE AND SKIPJACK TUNA FISHING TRENDS, JULY 1961:

The albacore tuna schools early in July had moved farther offshore and the Japanese domestic tuna fleet was fishing for albacore approximately 900 to 1,000 miles east of the Japanese mainland. All small tuna vessels had switched to skipjack fishing. The larger tuna fishing vessels which were still fishing for albacore were reported to be averaging about 35-40 metric tons of albacore per trip. Those vessels were planning to make one final trip, which meant that albacore would be landed until the end of July.

For the first 15 days of July, the ex-vessel price of albacore held steady for the most part between 130 and 140 yen per kilogram (US$327 to $353 per short ton). These prices are somewhat higher than prices in late June when albacore sold for 120 to 130 yen per kilogram ($302 to $327 per short ton).

The ex-vessel price of skipjack crept up slightly towards the middle of July, with skipjack for canning purposes selling generally between 70 to 75 yen per kilogram ($176 to $189 per short ton). Towards the end of June, skipjack had sold between 55 to 68 yen per kilogram ($139 to $171 a short ton).

Landings of Tuna at Principal Japanese Ports

Port	Albacore	Skipjack	Yellowfin
	..... (Metric Tons)		
July 2-8, 1961:			
Yaizu	358	1,382	-
Shimizu	135	185	-
Kesennuma ..	-	220	-
Total.....	493	1,787	-
July 9-15, 1961:			
Yaizu	380	976	157
Shimizu	264	125	15
Kesennuma ..	-	565	-
Total.....	644	1,666	172

A small quantity (172 metric tons) of yellowfin was landed towards the middle of July and ex-vessel prices ranged from 60 to 85 yen per kilogram ($151 to $214 per short ton). (Suisan Tsushin, July 10 & 17, 1961.)

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BIG-EYED TUNA FISHING REPORTED GOOD:

Japanese fish sausage makers who earlier this year faced a shortage of tuna were reported to have an ample supply of fish on hand as of June 1961. This turn of events was attributed to the pickup in big-eyed tuna fishing in the area north of New Guinea and southwest of the Philippine Islands.

According to the captain of a Japanese vessel which landed 200 metric tons of big-eyed tuna at Yokohama in late June, all of which were sold to one firm for fish sausage, fishing was poor in the Indian Ocean and Australian waters and the Japanese tuna fleet was concentrated in the area between 125° W. and 135° W. longitude near the vicinity of 5° N. latitude. Catches consisted mainly of big-eyed tuna, and they were being utilized primarily for fish sausage.

Big-eyed tuna had sold ex-vessel for over 100 yen a kilogram (US$251 a short ton) in November and December 1960, then dropped to about 90 yen a kilogram (US$227 a short ton) in April and May of this year, and in June was selling for 80 to 70 yen a kilogram (US$201 to $176 a short ton). Some companies had anticipated a decline in landings and had stocked up large quantities of big-eyed tuna when it sold for 90 yen a kilogram (US$227 a short ton), but were not able to dispose of the fish.

The decline in the big-eyed tuna price is attributed not only to the excellent catches, but to some extent also to the lack of cold-

Japan (Contd.):

storage space in Japan. Salmon and bottomfish taken in the North Pacific Ocean and Bering Sea are now being landed in Japan proper and they are putting a critical drain on available storage space. (Suisan Keizai Shimbun, June 22, 1961.)

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NUMBER OF VESSELS FISHING TUNA IN THE ATLANTIC OCEAN:

As of the end of May 1961, there were about 60 Japanese tuna vessels operating in the Atlantic. Reports indicate that catches have begun to decrease rapidly and the catch by some vessels has been reduced to less than 8,270 pounds a day on the average. This drop in catch is causing concern among those engaged in fishing tuna in the Atlantic.

When tuna fishing began in the Atlantic in 1957 and 1958, some vessels caught 33,080 pounds a day on the average and the catch rate was 14-15 fish per 100 hooks. The catch rate has been reduced to some 6-8 fish per 100 hooks. Also, because of the drop in catch, the number of operating vessels is declining. Because of this it is believed that this year's total catch in the Atlantic is likely to be much lower than last year's catch.

Planned Number of Japanese Vessels in the Atlantic Tuna Fishery, April-September 1960-61

Year	April	May	June	July	Aug.	Sept.
	(Number)					
1961	64	60	52	51	47	46
1960	54	55	55	56	57	60

While in 1960 the number of vessels fishing tuna in the Atlantic gradually increased from 54 in April to 60 in September, this year the number is expected to decline from 64 in April to 46 in September.

It was also reported that two tuna vessels of a large California cannery which this past year have also been fishing tuna in the Atlantic, have left for California because of decreasing catches. (The Suisan Tsushin, June 15 and 17, 1961.)

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POOR FISHING FORCES TUNA LONG-LINERS TO MOVE SOUTHWARD IN ATLANTIC OCEAN:

Poor fishing in the Atlantic Ocean during June 1961 in the area between 10° N. and 10° S. latitude off the West African coast, where the Japanese tuna long-line vessels normally operate, has compelled the Japanese tuna fleet to search for new grounds. The Japanese tuna fleet began to move southward in mid-June and by late June were operating in the vicinity of 10° S. latitude and 10° E. longitude, with some vessels fishing around 20° S. latitude towards the Brazilian side of the Atlantic Ocean.

Until late June the Japanese tuna longliners were averaging from 2 to 3 metric tons of tuna per day, but fishing was reported to have picked up since the fleet moved south, with one 400-ton vessel reporting catches of 6 to 7 tons per day. However, as of the end of June 1961, Atlantic Japanese tuna catches were down about 40 percent as compared to the same period last year.

The price for Japanese yellowfin tuna exports to Italy has been raised from $280 to $285 a metric ton. (Suisan Keizai Shimbun, July 8 and 13, 1961.)

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TUNA MOTHERSHIP FIRMS PLAN TO TRANSSHIP FROZEN TUNA TO UNITED STATES:

A large Japanese fishing company, which operates the tuna mothership Nojima Maru, planned to transship 960 short tons of frozen tuna from the mothership's catch to the United States. This shipment was to be loaded at Suva, Fiji Islands, in early September 1961 and delivered to San Francisco. The firm also planned to have her carrier vessels make three trips to Japan during the course of the tuna mothership fishing season in the South Pacific, and transport 960 tons of frozen tuna on each trip. The company's parent company was expected to handle all sales, both domestic and foreign.

Another large fishing company, which operates the tuna mothership No. 3 Tenyo Maru, planned to transship to the United States via Suva approximately 2,100 tons of frozen tuna from that mothership's catch. The firm's carrier vessels were scheduled to make a total of three trips to the United States, carrying about 700 tons per trip. The trips were scheduled for July 23, August 10, and September 1. In addition to these three transshipments, the same firm planned to ship to Japan about 4,000 tons of frozen fish in five separate shipments of 800 tons each (would include big-eyed tuna, large yellowfin

Japan (Contd.):

over 100 pounds dressed, and shark) for use in fish sausage.

Catches of Two Japanese Tuna Mothership Fleets in South Pacific		
Species	"Nojima Maru" (as of June 16)	"No. 3 Tenyo Maru" (as of June 18)
	(Metric Tons)	
Yellowfin	685	1,147
Albacore	293	795
Spearfish	173	310
Others	181	272
Total	1,332	2,524

A third Japanese fishing company planned to dispatch a tuna mothership to the South Pacific sometime in August. The article does not identify the mothership but in the past the firm has utilized the Jinyo Maru (7,200 gross tons) as a tuna mothership and it was expected that this same vessel would be utilized for this purpose again. As of late June the Jinyo Maru was engaged in salmon fishing. The firm's tuna mothership quota for this year is 3,612 metric tons. (Suisan Tsushin, June 24; Suisan Keizai Shimbun, June 22, 1961.)

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RESEARCH VESSEL EXPLORES NORTH AND CENTRAL PACIFIC OCEAN FOR TUNA:

The Japanese Fishery Agency's research vessel Shoyo Maru, 603 gross tons, was scheduled to depart Tokyo July 18 to conduct a two-month survey of tuna fishing grounds in the north and central Pacific Ocean. The vessel called at Honolulu on August 13 to bring Japanese fisheries scientists to the Tuna Conference scheduled for mid-August.

En route to Honolulu, the Shoyo Maru planned to explore the grounds roughly between 160° W. longitude and between 38° and 42° N. latitude and on its return to Japan to survey the distribution of young tuna in the area lying between 160° E. and 175° W. longitude along 20° N. latitude. (Japanese periodicals Suisan Keizai Shimbun, June 18; Shin Suisan Shimbun Sokuho, July 11, 1961.)

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CATCHES OF TUNA MOTHERSHIPS IN SOUTH PACIFIC:

The Japanese tuna motherships No. 3 Tenyo Maru and Nojima Maru have caught a total of 4,725 metric tons of fish as of June 27, 1961.

Japanese Tuna Mothership Catches in South Pacific		
Species	"No. 3 Tenyo Maru"	"Nojima Maru"
	(Metric Tons)	
Tuna:		
Yellowfin	1,286	897
Albacore	958	465
Big-eyed	-	128
Other species	165	-
Spearfish	349	223
Shark	119	75
Other species	26	34
Total	2,903	1,822

No. 3 Tenyo Maru fleet (45 catcher vessels) was reported averaging 3 tons of fish per catcher vessel per day; Nojima Maru fleet was averaging about 2.8 tons of fish per catcher vessel per day. (Suisan Keizai Shimbun, June 29, 1961.)

The carrier vessel Tsukishima Maru, 1,170 gross tons, was expected to transship 960 tons of frozen tuna from the tuna mothership Nojima Maru. The Tsukishima Maru was scheduled to depart Suva, Fiji Islands, on August 23 and arrive in San Francisco around September 13. (Suisan Keizai Shimbun, June 30, 1961.)

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FORECAST OF JAPANESE HALIBUT CATCH BY VESSELS OPERATING IN BERING SEA BOTTOMFISH FISHERY:

The Japanese halibut catch target in the Bering Sea for the 1961 season, published in Japanese periodicals in May and June, is a composite figure compiled from license applications submitted to the Japanese Fishery Agency by the operating companies. The Fishery Agency does not exercise quantity controls over the Halibut catch by mothership fleets in the North Pacific. The latest compilation gives the target for the halibut catch as 46,253 metric tons. This target is for true halibut only, according to a July 20 report from the United States Embassy in Tokyo.

Japanese halibut fishing is being conducted between 170 degrees E. longitude and 175 degrees W. longitude along the 200-300 meter (109-164 fathom) curve from Cape Olyutorski to 175 degrees W. longitude. The gear used is mainly long lines. Trawls are fished but not as successfully because of rough bottom. Operating units consist of 127 long-line vessels and 68 trawlers. Halibut range from 60 to 80 centimeters (23 to 31 inches) in length, or 13 to 21 pounds each.

No definite schedule is followed in landing the halibut catch in Japan. When mothership freezers are taxed to capacity during

Japan (Contd.):

operations, halibut with other species are delivered by carrier vessels to Japan. Halibut are generally dressed, sectioned into three pieces, and frozen.

There is no concrete information on the amount of halibut exports for 1961. The Japan Frozen Food Export Association informed the Embassy an export target has not been set up for halibut. The Fishery Agency advised that halibut exports for 1960 amounted to about 10 percent of the catch. Preliminary figures for 1960 show the halibut catch as 7,269 metric tons with 600 metric tons exported to the United States. In 1959 exports totaled 411 metric tons of which 408 tons went to the United States and 3 tons to Great Britain.

In 1960 only 4 mothership fleets operated in the area described above, but in 1961, 20 mothership fleets are fishing the same area for halibut and other species of fish. The total catch of halibut as of July 19 this season was 5,950 metric tons round weight. Wholesale halibut prices in Tokyo are: small 28 U. S. cents a kilo (12.7 cents a pound), medium 30 cents a kilo (13.6 cents a pound), large 32 cents a kilo (14.5 cents a pound). Demand is reported very active on the Japanese market. Halibut exports to the United States January-June 1961 amounted to 177 metric tons, with no exports to other countries.

Unofficial but informed sources regard the catch target for 1961 unrealistic and estimate that the halibut catch will be about 10,000 metric tons.

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PLANS FOR EXPORT OF FROZEN HALIBUT TO UNITED STATES:

As a new undertaking in 1961, a large Japanese fishing company is reported to have decided to start exports of halibut to the United States beginning in July 1961, through a large Japanese trading company. Two export contracts with United States importers and one with a British firm have been concluded.

According to informed Japanese sources, the latest estimate for exports of frozen halibut to the United States is 2,000 short tons of dressed fish and steaks, of which 1,500 tons will be steaks. (Suisan Keizai Shimbun, June 17, 1961.)

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BERING SEA BOTTOMFISH FISHERY CATCHES LOWER THAN EXPECTED:

Some of the Japanese firms which have fleets engaged in the Bering Sea bottomfish fishery are becoming concerned that operations may be in the red this year. Catches to mid-June 1961 were lower than expected and the drop in catches is attributed to the large concentration of fishing vessels in a relatively confined area. Of a total of 28 fleets, 20 fleets are concentrated in the area between Cape Navarin and Cape Olyutorski.

Fig. 1 - Japanese trawler attached to Japanese factoryship Shinyo Maru.

Prior to the beginning of the fishing season, an agreement had been drafted by the companies concerning the conduct of vessels planning to fish in the Olyutorski area but this agreement on operations is reported to be rather ineffectual. The fishing companies feel that the only way to correct the present situation and help increase production is to remove the restrictions on the fishing grounds and allow the vessels to fish elsewhere.

Specifically, the companies hope to have the ban removed prohibiting their mothership fleets from fishing in areas other than A, B, C, and D. They want their vessels to be allowed to operate in areas E and F, as well as in the waters to the west of 170° E. longitude and south of the Alaskan Peninsula.

Fig. 2 - Repairing nets aboard the Japanese refrigeration factoryship Shinyo Maru.

Japan (Contd.):

The Japanese Fishery Agency has expressed the view that requests to remove area restrictions will be denied. The waters to the west of 170° E. longitude in the Bering Sea are presently set aside for Japanese trawlers operating out of Hokkaido, and areas E and F are presently restricted to the fish meal motherships, oil-and-meal factoryships, and refrigeration factoryships which operated in those waters in previous years. These are the vessels: Renshin Maru (14,094 gross tons), Gyokuei Maru (10,357 gross tons), Chiyo Maru (7,194 gross tons), and Kinyo Maru (9,373 gross tons), which are classified as fish meal factoryships; Tenyo Maru (11,581 gross tons), which is classified as an oil-and-meal factoryship; and the Shinyo Maru (5,630 gross tons), which is listed as a refrigeration factoryship. The Fishery Agency believes that the companies already engaged in fishing in the above areas (areas E and F and the waters to the west of 170° E. longitude) would strongly oppose changes permitting other fleets to fish in waters which they had developed. As far as permitting fishing south of the Alaska Peninsula is concerned, the Fishery Agency definitely has no intention of opening up this area due to the likelihood of halibut being caught incidentally with other bottom fishes. (Suisan Keizai Shimbun, June 23 & 25, 1961.)

Note: Areas A, B, C, and D include the waters in the Bering Sea between 170° E. longitude and 170° W. longitude; area E includes the waters to the east of 170° W. longitude; and area F is the triangular area formed by a line extending from Cape Navarin to the Aleutian Islands along 180° longitude, east to Cape Sarichef, Unimak Island, and back to Cape Navarin.

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FISH MEAL PRODUCTION BY BERING SEA FACTORYSHIPS AS OF JUNE 30:

Production of the Japanese fish meal factoryships operating in the Bristol Bay area as of June 30 totaled 26,156 metric tons of fish meal, 5,750 metric tons of fish solubles, and 1,224 metric tons of fish oil. Five factoryships belonging to three fishing companies are operating this season in the Bering Sea. (Suisan Tsushin, July 10, 1961.)

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FACTORYSHIP FISH MEAL PRICES:

It appears likely that the fish meal produced by the Japanese fish meal factoryships operating in the Bering Sea will be sold between 54,000 to 54,500 yen per metric ton (US$136.00-137.89 a short ton) during the first sale of this product. Producers hope to get about 55,000 yen per metric ton ($138.80 a short ton); whereas, the national federation representing users hopes to pay about 53,000 yen a metric ton ($133.36 a short ton).

Fish meal users also hope to have the price of fish meal fixed according to protein content. At the present time, the standard for protein content is 65 percent but the protein content of imports fluctuate between 60 to 65 percent. The protein content of fish meal produced by the Japanese fish meal factoryships range from 67 to 70 percent and it will be to the benefit of companies operating these factoryships to have a system where prices are fixed according to protein content adopted, although this proposal originated from users. (Japanese fishery periodicals Shin Suisan Shimbun Sokuho, July 6; Nippon Suisan Shimbun, July 7, 1961.)

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CANNED JACK MACKEREL EXPORTS:

The Japanese Canned Jack Mackerel Exporters Association reports that consignments to the Association for the period April to June 1961 totaled 294,653 cases. Of that amount, 221,557 cases were contracted for, leaving a balance of slightly over 70,000 cases on hand.

Miyako in Iwate Prefecture is considered Japan's leading mackerel port. Just before the opening of the mackerel season (some time in September), boats assemble at Miyako flying colorful pennants and at 6 a.m on the opening day sail for the fishing areas.

The market for Japanese canned jack mackerel is limited to the countries in Southeast Asia. Shipments of this product in April-June were mainly to Singapore and Malaya, totaling 101,427 cases, or nearly half of the total sales for the April-June period. Sales to West Africa were next highest, totaling 46,890 cases, or approximately 20 percent of the total sales. Sales to Borneo, Hong Kong, and Indonesia ranged from 3,000 to 4,000 cases. (Suisan Keizai Shimbun, June 21, 1961.)

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CANNED SARDINE PACK AND SALES:

The Japanese canned sardine pack April 1 to June 30, 1961, totaled 159,334 cases. During that same period, 188,600 cases were sold for export, of which 95,000 cases went to the Philippines, 27,600 cases to Belgium, 22,840 cases to West Africa, 13,350 cases to Indonesia, and lesser amounts to countries

Japan (Contd.):

in Southeast Asia. Stocks on hand early in July totaled 5,600 cases.

The boycott of South African sardines carried out by some West African and Southeast Asian nations is reported to be having a beneficial effect on Japanese sales of sardines. (Suisan Keizai Shimbun, July 11, 1961.)

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NATURAL PACK SARDINES TO BE CANNED:

Japan stopped producing natural-pack sardines for export purposes a few years ago since she was not able to compete with the pack produced by South Africa. Instead, Japan concentrated on packing sardines in tomato sauce. However, a shortage of tomato sauce exists in Japan at the present time, particularly in Choshi, Chiba Prefecture, and Japan has decided to go ahead and produce a limited amount of natural-pack sardines this year.

The Export Canned Sardine Fisheries Association held a meeting with the sardine joint sales company on June 27, 1961, and unofficially established the following prices for No. 4 (16-oz. can) canned sardines (natural) and a temporary pack target of 50,000 cases: wholesale price 2,050 yen (US$5.69) per case; canner's price 1,960 yen (US$5.44) per case.

Early in July sardines sold ex-vessel for 70 to 80 yen per kan ($47-$54 a short ton) at Choshi, where fishing is excellent. Sardine fishing is very poor elsewhere in Japan and some packers in other regions are buying sardines from Choshi at a cost of 130 to 140 yen per kan ($87-$94 per short ton). As of July 3, Choshi packers had not yet begun to produce natural-pack sardines which sell at a lower price than sardines packed in tomato sauce. At the ex-vessel price of $47 to $54 a short ton, Choshi packers are reported to be making a profit of around 500 yen ($1.40) per case on canned sardines in tomato sauce. (Suisan Tsushin, June 28 & July 4, 1961.)

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EXPORT PLANS FOR CANNED PINK SALMON IN 1961:

Japan plans to export 300,000 cases (No. 2 or $7\frac{3}{4}$-ounce cans) of canned pink salmon at a price of US$11.80 per case f.o.b. Japan. The 300,000 cases are expected to be sold to England and Australia. This amount is in addition to the 100,000 cases bought earlier this year by six United States firms. (Suisan Tsushin, July 1 & 4, 1961.)

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EASTERN HOKKAIDO LAND-BASED SALMON FISHERY:

The Japanese Fishery Agency began to issue fishing licenses on June 21, 1961, to the Hokkaido-based salmon gill-net fishing vessels planning to fish in the Northwest Pacific Fisheries Convention waters to the north of 45° N. latitude. Fishing was permitted in this restricted area beginning July 5 and ending August 10. Only gill-net vessels were permitted to fish in that area and they were required to pick up their permits by July 5.

Retrieving gill net and removing salmon from net aboard a Japanese gill-netter in the North Pacific.

A total of 415 gill-net vessels were allowed to fish in the restricted waters--277 were vessels ranging in size from 30 gross tons to a maximum of 75 tons (licensed by

Japan (Contd.):

the Minister of Agriculture and Forestry), and the remaining 138 vessels ranged in size from 5 tons to 30 tons (licensed by the Governor of Hokkaido). The Fishery Agency fixed the individual quota of the 415 vessels according to vessel size. Total catch quota for the restricted area (north of 45° N. latitude and south of 48° N. latitude) is 11,400 metric tons of salmon. (Nippon Suisan Shimbun, June 23, 1961.)

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NORTH PACIFIC SALMON MOTHERSHIP OPERATIONS AS OF JUNE 20:

The 12 Japanese salmon mothership fleets in the North Pacific, which commenced fishing on May 28, 1961, caught a total of about 26,000 metric tons of salmon as of June 18. Every fleet is said to have attained about half of its target. Catch of red salmon is said to be excellent, making up about 70 percent of the total catch.

Unlike last year, no fishing violations were reported. This is attributed to (1) the heavy fines that would be imposed on violators and (2) the threat of revoking the salmon fishing license of violators first in the event that developments make it necessary to reduce the size of the salmon fleet in the future. The lack of violations is attributed to some extent to the good catches of red salmon and the prospects of operating at a profit this year. Should fishing continue at the present level, some motherships were expected to terminate fishing around the middle of July, and others around July 20.

A later report stated that the 12 salmon fleets have taken a total of 26,402 metric tons of salmon as of June 20 and the fleets had begun to move westward. Some fleets had already met two-thirds of their quota and those vessels should have been able to catch their full quota well before the close of the fishing season on August 10, even if fishing slowed down. (Suisan Tsushin, June 22; Suisan Keizai Shimbun, June 27, 1961.)

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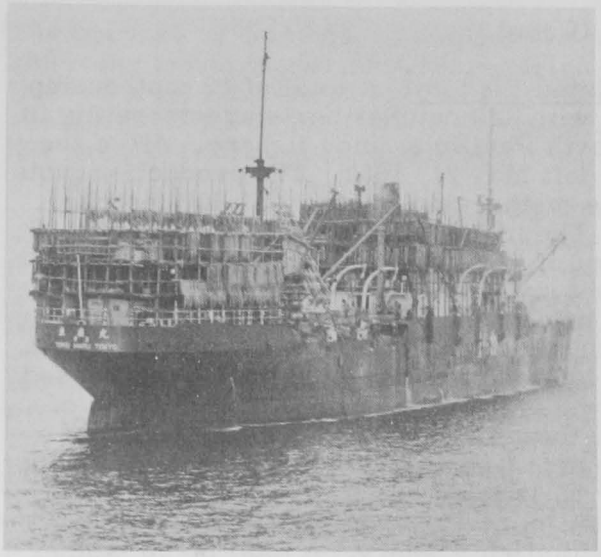
BRISTOL BAY KING CRAB FISHERY:

The Japanese king crab factoryship Tokei Maru operating in the Bristol Bay area had produced approximately 64,000 cases of canned king crab meat as of June 18, 1961. If



Tokei Maru, Japanese crab factoryship.

crab fishing continued good, the Tokei Maru was expected to reach her target of 80,000 cases in early July. (Suisan Keizai Shimbun, June 21, 1961.)

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BRISTOL BAY CRAB-FACTORYSHIP ATTAINS PACK GOAL:

The Tokei Maru (5,385 tons) crab-fishing fleet jointly operated in Bristol Bay by three Japanese companies reported early in July 1961 that it had attained its pack goal of 80,000 cases (48 $\frac{1}{2}$-lb. cans) of canned crab meat. The fleet this year left the fishing grounds for Hakodate, Hokkaido, a few days earlier than last year. (Japanese newspaper, July 8, 1961.)

Editor's Note: Early this year the Shinyo Maru factoryship fleet was also reported fishing crabs in Bristol Bay but no pack target was announced for it.

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MOTHERSHIP FLEETS OPERATING IN NORTH PACIFIC, 1961:

Data on the projected catch of salmon, bottomfish, crabs, and whales by the Japanese mothership fleets operating in the North Pacific in 1961 have been obtained from the Japanese Fishery Agency and segments of the fishing industry. These data confirm and summarize information obtained piece-meal from various Japanese periodicals.

Japan (Contd.):

Salmon Fishery: A total of 12 mothership fleets with 410 catcher boats are operating in the North Pacific salmon fishery. All of the fleets left May 21, 1961. The production quota for the mothership fleets is 53,600 metric tons. The mothership fleets were allotted 82 percent of the Japanese quota of 65,000 metric tons set under the terms of agreement reached at the 1961 Japanese-Soviet fishery negotiations. The remainder of the quota of 11,400 tons was assigned to the land-based fishery. In addition, a permissible catch of 70,000 tons outside the regulated waters of the Soviet-Japanese Convention area or south of 48° N. latitude has been set.

Bottomfish Fishery: A total of 28 motherships with 362 catcher boats are engaged in the North Pacific bottomfish fishery. Most of the fleets left port in April, but a few left in May. One fleet is expected to return on July 22, 3 on September 30, and the balance late in October. The estimated production of the fleets is 61,984 metric tons of fish meal, 145,729 tons of frozen fish, 2,512 tons of salted fish, and 56,400 cases of shrimp (48 $\frac{1}{2}$-lb. cans).

Crab Fishery: A total of 6 mothership fleets with 79 catcher boats are fishing for crabs in the North Pacific. Two of the fleets left port on April 5, and 4 on April 24, 1961. Four of the six fleets have an estimated production target of 65,000 cases (48 $\frac{1}{2}$-lb cans) each, one fleet 80,000 cases, and for the sixth fleet no production target has been set.

A good haul of king crabs aboard a Japanese crab factoryship in the North Pacific.

Whaling: Two mothership fleets with 15 catcher boats are hunting and processing whales in the North Pacific. Both left port in May. One fleet has a quota of 1,800 sperm whales, and the second has a quota of 800 blue-whale units. (United States Embassy, Tokyo, June 8, 1961.)

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LARGE FIRM'S PLANS FOR FROZEN AND CANNED OYSTER EXPORTS IN 1961:

A large Japanese oyster producer-processing firm plans to export to the United States 300 short tons of frozen oysters and 40,000 cases of canned oysters between August and November 1961.

In 1960, this firm exported to the United States 32 tons of frozen oysters at 50-55 cents a pound f.o.b. Japan and 60,000 cases of canned smoked oysters. The glass-packed oysters sold for $4.10 and the canned oysters sold for $3.80 per case f.o.b. Japan.

The pack of canned oysters in Japan in 1961 is estimated at 210,000 cases, or about 50 percent of a normal year's production of 400,000 cases. As a result, prices are expected to go up in late fall. (Suisan Keizai Shimbun, June 30, 1961.)

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FROZEN SWORDFISH EXPORTS TO THE UNITED STATES:

The estimated quota for Japanese swordfish production for 1961 is about 5,500 metric tons. The bulk of this quota will be filled during periods of good fishing, usually between June and September and between December and February of each year. In 1960, Japan's exports of frozen swordfish to the United States consisted of 5,003 metric tons of swordfish fillets, 188 tons of

A swordfish being hauled aboard a Japanese catcher boat.

Japan (Contd.):

Table 1 - Japanese Frozen Swordfish Exports to United States

Month	Fillet 1/		Chunk 2/		Steaks 3/	
	Qty.	Value	Qty.	Value	Qty.	Value
	Metric Tons	US$ 1,000	Metric Tons	US$ 1,000	Metric Tons	US$ 1,000
1960:						
January . . .	492	282	12	7	83	58
February . .	715	352	16	11	140	98
March	417	269	29	12	122	86
April	487	243	33	26	129	89
May	226	125	13	9	95	66
June	219	117	5	5	89	64
July	232	176	11	5	82	60
August	465	274	14	11	87	63
September .	418	324	9	7	75	56
October . . .	320	221	19	15	90	68
November .	528	359	15	11	99	78
December .	484	424	12	12	176	146
Total 1960 .	5,003	3,166	188	131	1,267	932
1961:						
January . . .	597	473	18	15	185	159
February . .	469	355	25	21	277	221
March	377	246	24	18	257	195
April	329	204	21	16	n.a.	n.a.

1/Under 30 to 70 pounds per piece.
2/80-100 pounds and over per chunk.
3/Less than 2 pounds per piece.
"n.a." - Not available.

Table 2 - Japanese Average F.O.B. Prices for Frozen Swordfish Exports to U. S.

Month	Pounds				
	Over 100	80-100	50-70	30-40	Under 30
	. . . . . (U. S. Cents a Pound)				
1960:					
January . .	28.0	28.7	26.3	25.8	24.3
February .	28.5	29.1	26.6	25.6	23.9
March . . .	29.3	29.0	26.1	25.1	21.4
April . . .	29.2	30.1	27.3	24.6	23.0
May	34.5	31.6	29.5	27.1	23.6
June	35.6	32.8	30.0	21.0	25.6
July	35.5	34.2	31.7	27.8	26.3
August . .	36.6	35.5	34.4	30.0	27.5
September	37.6	37.0	36.0	30.2	29.5
October . .	38.7	38.0	36.1	34.2	31.3
November	42.0	41.1	38.6	36.9	33.6
December	42.6	41.9	40.6	40.1	36.5
1961:					
January .	42.7	42.5	38.8	36.5	34.8
February	38.8	49.8	35.8	33.5	29.9
March . . .	34.0	36.0	32.5	32.1	29.5
April	35.1	33.0	33.2	24.2	26.2

chunks, and 1,267 tons of steaks. (United States Embassy, Tokyo, June 12, 1961.)

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RESEARCH ASSOCIATION TO STUDY REVISION OF INTERNATIONAL NORTH PACIFIC FISHERIES CONVENTION:

The Northern-Seas Fisheries Resources Research Council, which is a unit of the Japan Fisheries Association, has set up a Japan-United States Canada Fishery Agreement Research Association within the Japan-United States-Canada Fishery Subcommittee. The purpose of this new Association is to study and make recommendations for revision of the International Convention for the High-Seas Fisheries of the North Pacific Ocean, which has been in force since June 1953.

The Research Association held its first plenary session on June 17, 1961. It was reported in the Japanese language press that the Treaty is an unequal one which forces Japan to abstain from fishing for salmon and salmon-trout east of the provisional territory line located at 175° W. longitude and that the Research Association is expected to study this and other problem areas with a view to the possible revision of the Convention. (United States Embassy, Tokyo, June 30, 1961.)

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TRANSSHIPMENTS OF ATLANTIC TRAWL FISHERY CATCHES OFF WEST AFRICA:

Catches of the Japanese trawl fleet operating in West African Atlantic waters are primarily being transshipped to Japan via commercial vessels. The first transshipment of 400 tons of trawl fish was made in September 1960. Since then, transshipments via foreign commercial vessels have been increasing. To cite recent shipments: June 4, 1961, the vessel Ispaniola unloaded 2,300 tons of fish at Shimizu; July 6, the vessel Golden Ocean was scheduled to have unloaded 1,200 tons of fish at Shimonoseki in southern Japan. As of June 26, approximately 6,000 tons of trawl fish have been transshipped to Japan on commercial vessels; whereas, only 1,800 tons have been brought back to Japan by fishing vessels.

The cost of transporting frozen fish from West Africa to Japan is reported to be cheaper than the cost of hauling frozen fish from Japan to the United States.

One of the large Japanese fishing companies operating in the West African trawl fishery expects catches to increase, and plans on placing the freezer vessel No. 37 Banshu Maru, 3,700 gross tons, on the Atlantic run when that vessel is not engaged in hauling fish from the North Pacific Ocean and Bering Sea. The same fishing company is also constructing a freezer vessel of about the same size as No. 37 Banshu Maru, which it plans to put on the Atlantic run.

Two other Japanese fishing companies are engaged in the Atlantic trawl fishery off West Africa. These two companies are also plan-

Japan (Contd.):

ning to tranship the catches of their trawl fleets. (Nippon Suisan Shimbun, June 26, 1961.)

Editor's Note: The first company mentioned uses the port of Las Palmas, Canary Islands, as a base of operations for its Atlantic trawl fleet and is presently constructing a 3,000-ton cold-storage plant at that port.

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TARIFF NEGOTIATIONS WITH EEC NATIONS INCLUDED FISHERY PRODUCTS:

The Japanese Government announced on July 4, 1961, the results of the GATT (General Agreement on Tariffs and Trade) negotiations with the European Economic Community (EEC) nations. Nine items were removed from the tariff schedule and 23 appended items negotiated. Four of the 23 items are marine products, which Japan exports to Italy and West Germany:

Product	Common Market Rate	Range of Existing Rates in EEC Bloc
	(Percent Ad Valorem)	
Tuna (fresh & frozen)	25	0-20
Whale oil	0	0- 5
Fish nets	19	18
Pearl products	0	10

Marine products for which tariff rates were agreed upon earlier:

Product	Common Market Rates	Range of Existing Rates in EEC Bloc
	(Percent Ad Valorem)	
Canned tuna	25	20-25
Canned salmon	18	14-30
King crab meat	20	30
Agar-agar	4	15
Pearl	0	0

Although the Common Market tariff rate on frozen tuna of 25 percent represents an increase of 5 percent from the existing rate in the Common Market nations, which ranges from 0 to 20 percent, the Italian Government, through its Embassy in Tokyo, announced in mid-May that Italy will not tax imports of frozen tuna until 1971. This means that the Common Market rate for frozen tuna will go into effect in 1969 in all Common Market nations (West Germany, France, Netherlands, Belgium, and Luxembourg) except Italy.

According to earlier reports, these nations were reported to be considering a common tariff rate of 7.5 percent for 1962, which would then be raised to 15 percent and then to 25 percent in 1969. (Japanese periodicals Suisan Tsushin, March 30; Shin Suisan Shimbun, July 10, 1961.)

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TUNA VESSELS APPROVED FOR CONSTRUCTION, FISCAL YEARS 1958-60:

A total of 407 tuna fishing vessels were approved for construction for fiscal year 1960 (April 1, 1960 to March 31, 1961), according to the Japanese Fishery Agency. This is the largest number of tuna vessels ever licensed for construction in any one year since the end of World War II, and represents an increase of 85 vessels over fiscal year 1959 and 255 over fiscal year 1958. The increase in 1960, which is due largely to the relaxation of regulations on enlarging tuna fishing vessels, is mainly in tuna vessels under 40 tons, for which licenses are not required, and in steel vessels over 200 tons. On the other hand, applications for permits to construct medium-class tuna vessels (40 tons to 100 tons) showed a decline.

Table 1 - Tuna Vessels Approved for Construction, Fiscal Years, 1958-60

Size and Type	FY 1960		FY 1959		FY 1958	
	No. Vessels	Gross Tons	No. Vessels	Gross Tons	No. Vessels	Gross Tons
Steel Vessels:						
Under 100 tons	30					
100 to 200 tons	6					
Over 200 tons	96					
Total	132	39,578	93	28,936	38	10,617
Wooden Vessels:						
39-ton vessels	250					
40 to 100 tons	25					
Total	275	11,509	229	10,854	114	6,996
Grand Total	407	51,087	322	39,790	152	17,613

As for vessels actually launched in any one year, fiscal year 1960 also leads in this category. For 1960, a total of 112 steel vessels and 214 wooden vessels were completed.

Table 2 - Tuna Vessels Completed in Fiscal Year 1960

Steel Vessels:	
Less than 100 tons	33
Between 100 to 200 tons	3
Over 200 tons	76
Total	112
Wooden Vessels:	
39 gross tons	194
40 to 100 tons	17
(not indicated)	3
Total	214

Construction of medium-class tuna vessels is at a low level and this development will likely affect the tuna mothership fishery. Tuna motherships presently cannot utilize vessels over 200 tons as catcher vessels and they already are having difficulty chartering vessels under 200 tons.

One development of the present vessel construction trend has been the boom in the market of license rights. It is reported that tuna fishing license rights are now selling for about 300,000 yen (US$830) a ton. (Suisan Keizai Shimbun, May 17, 1961.)

Mauritania

GOVERNMENT ENCOURAGES INVESTMENT IN FISHING INDUSTRY:

The Livestock, Maritime Fisheries, and Animal Industries Service of the Republic of Mauritania has issued a brief publication entitled Note sur les Possibilites de Peche sur la Cote Mauritanienne ("Note on the Fishing Possibilities off the Coast of Mauritania"). It attempts to show very briefly what the potentials are for the development of the industry.

According to this publication, between 20,000 and 35,000 metric tons of "courbine," Sciaena aquila (probably croaker-like species), Diagramma mediterraneum (probably species of snapper), mullet, and small sharks are caught by Canary Islanders within Mauritania's coastal waters. The catch, which is seasonal, supplies three small industrial fish-drying and salting plants in Port-Etienne, which in turn annually export approximately 3,000 tons to central African markets. In addition, two spiny lobster (langouste) canneries are established in Port-Etienne.

A large number of foreign trawlers operate outside the territorial waters of Mauritania. At one count, there were 80 Spanish, 39 Portuguse, 10 Greek, and 6 Italian vessels fishing for a wide variety of fish. Also, 660 tons of live spiny lobsters and 670 tons of frozen spiny lobster tails were exported and an unregistered amount were caught within the territorial waters of Mauritania.

The publication concludes with an outline of investment costs and equipment available for prospective industry. Offered are lots for construction, and approximate costs for electricity, fresh water, ice, labor and petroleum products are quoted, as are customs dues and taxes.

Although the Mauritanian fishing industry is relatively undeveloped, and recently received a major set-back when a newly-acquired large freezing and canning vessel was completely destroyed by fire, the Government continues to press for added investment in this field. Of particular promise is the spiny lobster industry which is already exploited by the French. (United States Embassy in Dakar, June 30, 1961.)

Malaya

JAPANESE NEGOTIATE FOR ANOTHER TUNA FISHING BASE:

The Japanese Tokushima (Prefecture) Tuna Fishing Cooperative Association plans on sending two of its members to Kuala Lumpur, Federation of Malaya, to investigate the possibility of establishing a joint fishing base at Kuala Lumpur and to negotiate with Malayan officials on this matter. The Association hopes to construct a cold-storage plant and a cannery, and base a fleet of 100-ton tuna fishing vessels at Kuala Lumpur.

Japanese already operate one joint fishing company in Penang located to the north of Kuala Lumpur. This firm, which began operations in February 1960, has a cannery capable of processing tuna. The entire production (canned tuna in soybean oil) of this firm is presently being exported to Europe. In May 1961, the firm was reported to be having difficulty in contracting Japanese tuna fishing vessels to fish for the company. Subsequently, this firm had to shut down for a while due to lack of fish but was expected to resume normal operations. Two tuna fishing vessels, No. 10 Kompira Maru, 149 gross tons, and No. 5 Myojin Maru, 96 gross tons, from Miyagi Prefecture, have agreed to fish for the company. These two vessels were expected to depart Japan for Penang in late July. As of June 1961, only one vessel, No. 2 Fuku Maru, was fishing for the firm. This vessel is operating in the Indian Ocean. (Japanese fishery periodicals Nippon Suisan Shimbun, July 5; Suisan Tsushin, July 11, 1961; and miscellaneous sources.)

Mexico

WEST COAST SHRIMP FISHERY TRENDS, SECOND QUARTER 1961:

Shrimp landings at Mexico's west coast ports of Guaymas and Mazatlan during the second quarter of 1961 were heavier than normal, the shrimp sizes were smaller, and brown shrimp predominated. This resulted in lower prices. As of May 30, 1961, nearly 14,800 metric tons (8,315 tons at Mazatlan and 6,479 tons at Guaymas) had been landed at the two major shrimp ports on the Gulf of California, about 90 percent of the catch from the Gulf and the remainder from estuaries and rivers. Shrimp landings for the 1960/1961 season, which began in the fall of 1960 and

Mexico (Contd.):

ended on July 15, were higher than the previous season, but prices were low--ex-vessel prices for the season through June of this year averaged 56 to 57 U.S. cents a pound as compared to an average of 70 cents a pound for the 1959/1960 season. Few vessels were active in the second quarter of 1961. At least one Mazatlan owner planned to send some of his vessels to the Baja California coast on July 15 when the closed season went into effect on the Gulf of California.

The "closed season" for the shallow estuaries which went into effect on April 15 will continue until October 1. Total landings in those areas rarely exceed 1,000 tons and this ban primarily affects cooperatives and small independent fishermen.

As of July 1, 1961, no information was available on landings by the Topolobampo, Sinaloa, and Puerto Penasco, Sonora, fleets but they account for only a small portion of the total landings on Mexico's west coast.

The project for the exploitation of species of edible fish other than shrimp had not worked well as of early July this year, with heavy losses reported in the Topolobampo area where this type of fishing is concentrated.

New benefits for the shrimp industry were announced in late May 1961, among them a 5-million peso (US$400,000) credit for the construction of 14 new shrimp vessels for the Guaymas fleet. This will increase the number of vessels at Guaymas to 200. Most of the present vessels are over 12 years old.

During the recent campaign tour of the Governor-elect of Sonora, cooperative fishermen in Guaymas requested improved services, a delineation of the fishing boundaries between Sonora and Sinaloa, and the construction of a cooperative freezing plant. (United States Consulate, Nogales, dispatch dated July 6, 1961.)

Netherlands

FOREIGN TRADE, PRODUCTION, AND SUPPLY OF FISH AND MARINE-ANIMAL OILS, 1960:

Imports: In 1960, the Netherlands imported a total of 74,369 metric tons of crude fish and marine-animal oils, valued at US$13 million. Of the total quantity, 27.2 percent was received directly from whaling factoryships, 19.0 percent from the United States, and 14.3 percent from the Soviet Union.

Table 1 - Netherlands Imports of Fish and Marine-Animal Oils, 1960

Product & Origin	Quantity	Value	
	Metric Tons	Guilders 1,000	US$ 1,000
Fish & Marine-Animal Oils, Crude:			
United States	14,147	8,452	2,242
Belgium-Luxembourg	409	230	61
United Kingdom	610	475	126
West Germany	2,388	1,327	352
Iceland	5,034	2,735	725
Norway	1,766	1,325	351
Sweden	32	16	4
Denmark	1,390	700	186
Portugal	851	537	142
U. S. S. R.	10,611	8,018	2,127
Morocco	224	84	22
Angola	36	13	3
South West-Africa	1,923	1,201	318
Union of South Africa	2,352	1,623	430
Canada	618	493	131
Peru	1,820	1,013	269
Chile	248	203	54
Argentine	124	69	18
Japan	5,446	4,199	1,113
Australia	3,411	2,724	722
New Zealand	668	525	139
Landings from whaling factoryships	20,261	13,202	3,502
Total	74,369	49,164	13,037
Fish & Marine-Animal Oils, Refined:			
United Kingdom	78	68	18
West Germany	110	87	23
Norway	342	406	108
Peru	1,688	875	232
Japan	51	556	147
Other	18	17	5
Total	2,287	2,009	533
Spermaceti:			
Belgium-Luxembourg	1/	1	1/
United Kingdom	2	5	1
Other	2	3	1
Total	4	8	2

1/Less than 1 metric ton or US$1,000.
Note: Values converted at rate of 3,771 guilders equals US$1.

In the same year, the Netherlands also imported 2,287 tons of refined fish and marine-animal oils valued at US$533,000. The bulk of these imports came from Peru. In addition, 4 tons of spermaceti were imported valued at US$2,000 (table 1).

Exports: In 1960, the Netherlands exported a total of 6,720 tons of crude fish and marine-animal oils valued at US$1.2 million--West Germany was the principal customer followed by France. In addition, the Netherlands exported 197 tons of fish or refined marine-animal oils valued at US$70,000 and 1 ton of spermaceti (table 2).

Production: The Netherlands production of whale and fish oils from domestic and imported materials amounted to 16,000 tons in

Netherlands (Contd.):

Table 2 - Netherlands Exports of Fish and Marine-Animal Oils, 1960

Product & Destination	Quantity	Value	
	Metric Tons	Guilders 1,000	US$ 1,000
Fish & Marine-Animal Oils, Crude:			
United States	226	181	48
Belgium-Luxembourg	352	202	54
France	2,010	1,607	426
West Germany	3,696	2,107	558
Denmark	98	73	19
Spain	50	40	11
Italy	174	129	34
Egypt	75	63	17
Other	39	23	6
Total	6,720	4,425	1,173
Fish & Marine-Animal Oils, Refined:			
Belgium-Luxembourg	68	71	19
France	15	14	4
Norway	11	70	19
Italy	47	47	12
Canary Islands	30	27	7
Australia	10	15	4
Other	16	20	5
Total	197	264	70
Spermaceti:			
Belgium-Luxembourg	1/	1	1/
Other	1	1	1/
Total	1	2	-

1/Less than 1 metric ton a US$1,000.

1960. Domestic production alone in 1960 amounted to 15,535 tons (11,982 tons of whale oil and 3,553 tons of fish oils) as compared to 24,111 tons (18,894 tons of whale oil, 5,216 tons of fish oils, and 1 ton of sperm oil) in 1959.

Supply and Distribution: In 1960, total distribution of edible whale and fish oils in the Netherlands amounted to 97,607 tons.

Table 3 - Netherlands Edible Whale and Fish Oil Supply and Distribution, 1960

Item	Quantity Metric Tons
Supply:	
Opening Stocks	21,051
Imports	76,656
Production	15,535
Total Supply	113,242
Disposition:	
Exports	6,918
Domestic Utilization:	
As food--hardened refined oil	56,578
Other uses	2,949
Est. exports in mixed products	20,000
Waste, loss in refining & stock calculation error	11,162
Total Distribution	97,607
Closing stocks	15,635

The available supply totaled 113,242 tons (table 3). (U. S. Foreign Agricultural Service Report, The Hague, May 16, 1961.)

Note: See Commercial Fisheries Review, Jan. 1960 p. 81, Aug. 1960 p. 63.

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FISH MEAL PRICES AND PRODUCTION:

In the early part of 1960, consumer prices (free on farm) of fish or whale meal in the Netherlands dropped sharply from US$124 a short ton in January 1960 to a low of $88 a ton in July of that year. Thereafter, the price recovered and remained generally steady until March 1961, when a minor decline set in and continued into April 1961 when the price was $98 a ton (see table).

Monthly Price of Fish Meal 1/, January 1960-April 1961, in the Netherlands

Month	Value	
	Guilders Per 100 Kg.	US$ Per Short Ton
1960:		
January	51.20	124
February	46.00	110
March	44.30	106
April	43.90	106
May	43.60	104
June	40.80	98
July	36.50	88
August	37.60	90
September	42.00	102
October	41.20	100
November	41.70	100
December	42.00	102
1961:		
January	42.30	102
February	42.40	102
March	41.90	100
April	40.90	98

1/Protein content 61.4 percent.
Note: (1) Values converted at rate of 3.771 guilders equal US$1.
(2) Consumer prices free on farm.

Fish and whale meal production dropped drastically from 15,685 metric tons in 1959 to 7,694 tons in 1960. (U. S. Foreign Agricultural Service Report, The Hague, May 16, 1961.)

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WHALE OIL PRICES AND UTILIZATION:

The c. i. f. Rotterdam price of whale oil only declined a fraction of a U. S. cent per pound in the first 9 months of 1960. In November 1960, the price recovered and remained at the higher level until March 1961, when it declined by 0.5 cents. The price again declined slightly in April 1961, reaching 8.9 cents per pound, the lowest price since January 1960 (see table).

The amount of refined hardened whale oil used in producing margarine and food fats for domestic consumption increased slightly from 56,378 metric tons in 1959 to 56,578 tons in 1960. Of the 1960 total, 50,684 tons were used in the manufacture of margarine and 5,894 tons in food fats. In 1959, a total

Netherlands (Contd.):

Monthly Prices of Whale Oil in the Netherlands, January 1960-April 1961

Month	Value	
	Guilders Per 100 Kg.	US Cents Per Pound
1960:		
January	80.00	9.6
February	79.00	9.5
March	77.60	9.3
April	78.25	9.4
May	77.65	9.3
June	77.15	9.3
July	-	-
August	76.50	9.2
September	74.70	9.0
October	74.50	9.0
November	77.80	9.4
December	79.70	9.6
1961:		
January	80.25	9.7
February	79.75	9.6
March	75.25	9.1
April	73.85	8.9

Note: (1) Values converted at rate of 3.771 guilders equal US$1.
(2) Offering c.i.f. Rotterdam prices as reported about the 15th of each month.

of 50,961 tons was used in margarine and 5,417 tons in food fats. (U.S. Foreign Agricultural Service Report, The Hague, May 16, 1961.)

Norway

COD FISHERY TRENDS, JANUARY-JUNE 17, 1961:

The 1961 season's total landings of mature and young cod in Norway January 1-June 17, 1961, amounted to 129,808 metric tons, compared with 111,059 tons for the same period last year. Of this year's landings, 76,261 tons were sold for drying, 25,402 tons for salting, and 28,145 tons for sale fresh or frozen (includes 18,241 tons used for filleting). This season's fishery also yielded 56,319 hectoliters (5,238 metric tons) of cod-liver oil and a substantial quantity of cod roe. (Fiskets Gang, June 22, 1961.)

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FOREIGN TRADE AND PRODUCTION OF MARINE OILS:

Foreign Trade: Norway's total imports of marine oils increased slightly, from 56,506 metric tons valued at US$10.9 million in 1959 to 60,183 tons valued at US$11.2 million in 1960. Imports of crude whale oil and industrial fish-liver oil fell sharply in 1960, while imports of "other marine oils" showed the greatest gain (table 1). The bulk of the marine oil imports consisted mainly of raw material for the hardening industry.

Because of Norway's drastic drop in herring catches, imports of raw herring oil from Iceland (the most important source) were more than three time as high in 1960 than during the previous year, while imports of marine oil from West Germany (the second largest exporter to Norway) declined slightly. United States shipments to Norway also declined in 1960 as did shipments from the United Kingdom.

Norway's 1959-60 imports of high potency (vitamin A) fish-liver oil came mostly from the Union of South Africa; imports of industrial and mixed fish-liver oils came mostly from Iceland; and imports of residual fish-liver oil mainly from Sweden.

Norway in 1960 also received 12,264 tons of "other marine oils" valued $2.6 million. Of the total, 5,412 tons came from West Germany, 4,744 tons from the United States, 1,009 tons from Iceland, and the balance from Denmark, Peru, Chile, and other countries.

Table 1 - Norway's Imports of Marine Oils, 1959-1960

Commodity	1960			1959		
	Quantity	Value		Quantity	Value	
	Metric Tons	1,000 Kr.	US$ 1,000	Metric Tons	1,000 Kr.	US$ 1,000
Whale oil, crude	366	346	48	5,432	8,579	1,202
Sperm & bottlenose oil, crude	672	908	127	50	59	8
Herring oil, crude	41,265	47,579	6,664	39,478	49,752	6,968
High potency (vitamin A) marine-animal oils	1,408	8,125	1,138	961	6,425	900
Cod-liver oil	29	44	6	521	785	110
Veterinary fish-liver oil	87	111	16	1/	1	2/
Industrial fish-liver oil	2,910	3,352	469	7,125	9,698	1,357
Residual fish-liver oil	1,182	606	85	2,199	1,139	160
Other marine oils	12,264	18,565	2,600	740	1,910	268
Total	60,183	79,636	11,153	56,506	78,348	10,973

1/Less than 500 kilograms.
2/Less than US$1,000.

Norway (Contd.):

Table 2 - Norway's Marine Oil Imports by Origin, 1959-1960

Commodity and Country of Origin	1960 Quantity Metric Tons	1960 Value 1,000 Kr.	1960 Value US$ 1,000	1959 Quantity Metric Tons	1959 Value 1,000 Kr.	1959 Value US$ 1,000
Whale oil, crude, total	366	346	48	5,432	8,579	1,202
Sperm & bottlenose oil, total	672	908	127	50	59	8
Herring oil, crude:						
United States (probably menhaden oil)	3,109	3,368	472	12,110	15,394	2,156
Finland	339	398	56	-	-	-
Iceland	21,960	26,223	3,673	1,275	1,615	226
Sweden	1,619	1,402	196	1,861	2,087	292
Portugal	198	193	27	371	354	50
United Kingdom	463	540	76	2,113	2,500	350
West Germany	8,778	9,884	1,384	15,064	19,639	2,751
Chile	450	475	67	-	-	-
Peru	1,183	1,374	192	495	494	69
Others	3,166	3,722	521	6,189	7,669	1,074
Total	41,265	47,579	6,664	39,478	49,752	6,968
High potency (vitamin A) fish-liver oil:						
Union of South Africa	814	2,036	285	792	1,977	277
Japan	444	2,482	348	107	2,436	341
Others	150	3,607	505	62	2,012	282
Total	1,408	8,125	1,138	961	6,425	900
Industrial and mixed fish-liver oils, pale:						
Iceland	2,647	3,071	430	4,992	6,950	973
Others	109	161	23	427	432	61
Total	2,756	3,232	453	5,419	7,382	1,034
Residual fish-liver oils:						
Denmark	116	51	7	179	99	14
Sweden	944	469	66	1,446	736	103
Others	122	86	12	574	304	43
Total	1,182	606	85	2,199	1,139	160
Other marine oils:						
United States	4,744	9,872	1,384	-	-	-
Denmark	558	573	80	26	26	4
Iceland	1,009	1,249	175	-	-	-
West Germany	5,412	6,157	862	200	1,106	155
Peru	222	258	36	505	481	67
Chile	260	289	40	-	-	-
Others	59	167	23	9	297	42
Total	12,264	18,565	2,600	740	1,910	268

Most of the oil from the United States was menhaden oil, and it is believed that some of the oil from West Germany is also re-exports of United States menhaden oil. Since in 1959 only 1,910 tons of "other marine oils" were imported, it is quite evident that the sharp increase in 1960 imports was due to Norway's herring fishery failure (table 2).

Total Norwegian exports of marine oils and marine oil products decreased from 195,200 tons valued at US$42.9 million in 1959 to 149,473 tons valued at US$33.4 million in 1960. The heavy decrease in crude whale oil exports were mainly responsible for this decline. Exports of crude seal oil and edible refined marine oils were the only products whose exports increased in 1960 (table 3).

Table 3 - Norway's Exports of Marine Oils and Products, 1959-1960

Commodity	1960 Quantity Metric Tons	1960 Value 1,000 Kr.	1960 Value US$ 1,000	1959 Quantity Metric Tons	1959 Value 1,000 Kr.	1959 Value US$ 1,000
Whale oil, crude 1/	65,551	93,485	13,093	92,719	131,421	18,408
Sperm & bottlenose oil	8,683	11,901	1,667	13,408	14,890	2,085
Herring oil, crude	200	199	28	625	666	93
Seal oil, crude	3,860	5,255	736	3,248	4,434	621
Fish-liver oils	15,564	29,201	4,090	18,444	33,503	4,692
Refined marine oils, edible	1,442	2,559	358	1,026	1,868	262
Refined marine oils, other	2,358	3,733	523	3,259	3,621	507
Marine animal oils, polymerized, oxidized, etc., edible	77	135	19	678	1,223	171
Hardened fats from marine-animal oils, edible	37,478	69,173	9,688	44,651	85,111	11,920
Hardened fats from marine-animal oils, for technical use	4,336	6,869	962	8,329	14,137	1,980
Fatty acids from marine oils, fatty alcohol	8,000	14,416	2,019	8,056	14,239	1,994
Other products	1,924	1,252	175	777	1,531	214
Total	149,473	238,178	33,358	195,220	306,644	42,947

1/Including sales made directly from the Antarctic.

Norway (Contd.):

Table 4 - Norway's Exports of Marine Oils by Destination, 1959-1960

Commodity and Destination	1960			1959		
	Quantity	Value		Quantity	Value	
	Metric Tons	1,000 Kr.	US$ 1,000	Metric Tons	1,000 Kr.	US$ 1,000
Whale oil, crude, total1/	65,551	93,485	13,093	92,719	131,421	18,406
Sperm & bottlenose oil, crude, total1/	8,683	11,901	1,667	13,408	14,890	2,085
Seal oil, crude:						
France	121	184	26	196	304	43
West Germany	3,637	4,923	689	3,016	4,069	570
Others	102	148	21	36	61	8
Total	3,860	5,255	736	3,248	4,434	621
Medicinal cod-liver oil:						
United States	533	1,177	165	729	1,552	216
Finland	110	347	49	115	354	50
Netherlands	295	591	83	301	593	83
Czechoslovakia	525	1,089	153	571	1,193	167
Turkey	177	533	75	440	1,061	149
West Germany	185	413	58	155	357	50
Brazil	169	342	48	167	335	47
Others	1,737	3,645	509	1,691	3,581	502
Total	3,731	8,137	1,140	4,169	9,026	1,264
Veterinary cod-liver oil:						
Denmark	1,371	2,301	322	1,353	2,244	314
Finland	110	347	49	151	306	43
Sweden	1,414	2,180	305	1,449	2,226	313
Italy	404	603	84	545	825	116
Netherlands	94	168	24	147	244	34
United Kingdom	2	3	2/	101	159	22
Switzerland	388	563	79	477	715	100
Austria	128	206	29	144	229	32
Brazil	2	3	2/	106	164	23
Hong Kong	259	412	58	138	237	33
Singapore	338	555	78	74	133	19
Mexico	203	366	51	157	288	40
Others	489	682	96	661	1,138	159
Total	5,202	8,389	1,175	5,503	8,908	1,248
Other fish-liver oil (except residual & brown):						
Sweden	103	306	43	133	387	54
France	139	290	41	137	382	54
Italy	520	634	89	490	720	101
Netherlands	291	1,129	158	226	1,016	142
Poland	1,256	1,527	213	503	708	99
United Kingdom	100	1,404	197	72	1,296	182
Czechoslovakia	1,066	1,737	243	1,947	2,921	409
West Germany	976	1,444	202	2,158	2,920	409
Mexico	182	276	39	260	372	52
Brazil	331	459	64	465	697	98
Others	1,667	3,469	486	2,381	4,150	581
Total	6,631	12,675	1,775	8,772	15,569	2,181
Residual fish-liver oils, total1/	952	694	97	704	594	83
Edible marine fats & oils, total1/	37,478	69,173	9,688	44,651	85,111	11,920
Other marine fats & oils, total1/	4,336	6,869	962	8,329	14,137	1,980

1/Distribution by countries not available.
2/Less than $1,000.

In 1959 and 1960, most crude seal oil exports went to West Germany; the United States was the largest buyer of medicinal cod with 729 tons valued at US$216,000 in 1959 and 533 tons valued at US$165,000 in 1960; Denmark and Sweden were the leading purchasers of veterinary cod-liver oil, with Czechoslovakia and West Germany buying most of the "other fish-liver oil" (excepting residual and brown)--table 4.

Table 5 - Distribution of Norwegian-Produced Antarctic Whale Oil, 1959-1960

	1960	1959
	. . . (Long tons) . . .	
Norway	39,533	33,123
West Germany	10,465	30,111
United Kingdom	24,869	31,064
Sweden	-	5,018
Denmark	2,997	7,021
France	-	10,937
Netherlands	19,929	6,104
Belgium-Luxemburg	5,167	-
Total	102,960	123,378

Norway (Contd.):

Table 6 - Distribution of Norwegian-Produced Sperm Oil, 1959-1960

	1960	1959
	. . . (Long Tons), . .	
United States	1,482	3,701
Norway	4,920	6,959
France	-	504
Netherlands	2,014	2,683
United Kingdom	1,885	-
West Germany	500	1,000
Total	10,801	14,847

Production: Norway's total marine oil production has generally declined over the past few years, mostly due to the depletion of the winter herring off the coast of Norway. Although the 1960 production of herring oil was 8,000 tons more than in 1959, the Antarctic whale- oil production was so much smaller that the year-end result was only 188,894 tons of marine oils as compared to 205,720 tons in 1959 (table 7). Because of the scarcity of winter herring, the herring off Iceland and the small and fat herring off Norway were fished more extensively. It is anticipated that the decline in marine-oil production will continue into 1961. Total marine-oil production is expected to amount to 158,200 metric tons in 1961, some 100,000 tons less than in 1957.

Total fish-oil production is expected to decrease to 41,400 tons in 1961 due to the anticipated decline in herring oil production. Seal oil and sperm oil production should remain fairly constant in 1961, while total whale oil production will be down some 5,000 tons.

Norway's 1961 winter herring season ended with a surprisingly small catch. Only 7,068 tons of winter herring were used for fish meal and oil, a fraction of the 130,200 tons used in 1959 and the 213,900 tons used in 1960. Therefore, the amount of herring oil produced in 1961 from Norway's winter herring fishery was negligible. In April 1961 there was some interest among Norwegian fishermen to fish for herring off Iceland.

Norway's production of Antarctic whale oil amounted to 100,280 metric tons for the 1959/60 season. There was a steady decrease in production since the 1956/57 season. Antarctic sperm oil production amounted to 10,777 tons in 1959/60, continuing a downward trend which started in 1958/59.

Norwegian whale oil production from Husvik Harbor, South Georgia Island, declined from 10,523 tons in 1955/56 to 4,199 tons in 1958/59. This production leveled off in 1959/60. Sperm oil production from that area increased in 1958/59, but fell off sharply in 1959/60.

Production of whale oil from the shore stations in Norway tended to level off during 1956-1958, nearly doubled in 1959, but declined again in 1960. On the other hand, sperm oil production from the shore stations reached a peak in 1958 and 1960 (table 8).

Norway's production of whale oil and sperm oil was sold, as issued, through the whaling companies' common marketing pool.

Table 7 - Norway's Production of Marine Oils, 1957-1961

Commodity	1961 3/	1960 2/	1959	1958	1957
			(Metric Tons)		
Cold cleared cod-liver oil	15,000	15,000	15,900	11,900	10,300
Other fish-liver oils	1,400	1,400	1,400	4,600	3,700
Herring oil	25,000	50,000	42,000 1/	34,000	67,424
Total fish oils	41,400	66,400	59,300 1/	50,500	81,424
Seal oil	5,000	5,000	4,500	5,500	4,700
Sperm oil:					
Antarctic	10,500 4/	10,984	15,097	20,751	16,874
Norwegian shore stations	500	698	216	672	227
Total sperm oil	11,000	11,682	15,313	21,423	17,101
Whale oil:					
Antarctic	100,000	105,043	125,480	123,946	153,167
Norwegian shore stations	800	769	1,127	612	769
Total whale oil	100,800 5/	105,812	126,607	124,558	153,936
Total Marine Oils	158,200	188,894	205,720	201,981	257,161

1/Revised.
2/Preliminary.
3/Estimate.
4/Already sold.
5/90,000 tons sold by April 1961.

Norway (Contd.)

Table 8 - Norway's Whale Oil and Sperm Oil Production, 1955/56-1959/60 Seasons

	Whale Oil	Sperm Oil	Total Oil
	(Metric Tons)		
Pelagic Production, Antarctic:			
1959/60[1/]	100,280	10,777	111,057
1958/59	120,721	14,310	135,030
1957/58	123,976	20,756	144,732
1956/57	145,181	16,642	161,822
1955/56	111,405	22,271	133,676
Husvik Harbor, South Georgia:			
1959/60[1/]	4,294	159	4,453
1958/59	4,199	720	4,920
1957/58[2/]	-	-	-
1956/57	8,024	236	8,259
1955/56	10,523	303	10,826
Shore Stations in Norway:			
1960[1/]	766	695	1,461
1959	1,122	215	1,337
1958	609	669	1,278
1957	766	226	993
1956	649	496	1,145
1955	1,043	310	1,353

1/Preliminary figures.
2/The Norwegian shore station at Husvik Harbor was not in operation.
Note: Data converted from barrels--1 metric ton equals 5.90523 barrels.

The Norwegian whaling companies reported that as of April 1961 they had sold 90,000 long tons of whale oil at £73 10s. (US$205.80) a long ton. Of the amount sold, 30,000 tons went to Norwegian buyers and 60,000 tons to a large British firm. Of the sperm oil production, 10,500 long tons also had been sold.

The average price for Norwegian whale oil for the 1959/60 Antarctic season was £72 13s. 2d. (US$203.44) a long ton as compared with £73 2s. 4d. ($204.72), £72 2d. ($201.62), and £85 16s. 5d. ($240.30) a long ton for the three previous seasons. The total value of the 1959/60 whale oil production was 149 million kroner ($20.9 million) as compared with 180 million kroner ($25.2 million) for the previous season.

The average price of Norwegian sperm oil for the 1959/60 production season was £66 4s. 11d. ($185.48) as compared with £50 1s. 3d. ($140.17) a long ton for the previous season's production.

Marine oils are the primary source of raw material for Norway's production of margarine and edible fats. The use of marine oils increased in 1959 due to low prices, despite

Table 9 - Norwegian Production of Margarine and Edible Fats and Amount of Marine Oils Utilized, 1958-1960

	1960	1959	1958
	(Metric Tons)		
Production:			
Margarine	92,184	92,460	93,415
Cooking fats	3,128	2,902	3,079
Emulsified fats	1,686	1,598	1,578
Total	96,998	96,960	98,072
Marine oils used	57,170	57,091	52,681

a smaller production of margarine and fats that year. Use of marine oils leveled off at 57,170 tons in 1960 (table 9). (U. S. Foreign Service Dispatch, Copenhagen, April 7, 1961.)

Note: Values in Norwegian kroner converted at 7.14 kroner equals US$1, and values in English £1 equals US$2.80.

* * * * *

MARINE-OIL OUTPUT CONTINUES DOWNWARD:

Norwegian production of marine oils continued to trend downward in 1960, and a further decline is forecast for 1961.

There is some controversy as to whether the traditional sources of supply--the winter herring areas off the coast of Norway and the Antarctic whaling grounds--have been excessively used or whether the small catches are due to temporary natural causes. In recent years, the output of herring oil from the winter catch has declined sharply--the 1961 catch was the smallest since the near-failure of 1934. However, other grounds, such as the summer herring areas off the coast of Iceland and to a lesser extent Norway, are being expanded rapidly. The summer herring catch provided most of the fish oil produced in 1960.

Large stocks of marine oils will partially offset the lower outturn expected in 1961. Nev-

Norway's Supply and Distribution of Marine Oils, Annual 1955-60 and Forecast 1961

Item	Forecast 1961	1960[1/]	1959	1958	1957	1956	1955
	(1,000 Short Tons)						
Supply:							
Stocks, January 1	75.6	42.5	49.5	79.5	75.4	56.7	54.3
Production	192.0	208.1	226.8	222.6	283.5	306.7	269.5
Imports	-	66.4	62.3	17.3	22.6	21.1	50.1
Total supply	-	317.1	338.6	319.4	381.5	384.5	373.9
Distribution:							
Exports	-	164.8	215.2	212.2	236.1	223.1	227.5
Domestic consumption	-	76.8	80.8	57.7	65.9	86.0	89.7
Stocks, December 31	-	75.5	42.6	49.5	79.5	75.4	56.7
Total distribution	-	317.1	338.6	319.4	381.5	384.5	373.9

1/Preliminary.

Norway (Contd.):

ertheless, imports of fish oils will probably increase sharply to fulfill Norway's trade commitments with the U. S. S. R. and other European countries. The major portion of marine-oil imports in 1960 was crude herring oil from Iceland and West Germany. Imports from the United States declined sharply, but they may increase in 1961.

The margarine industry uses most of the marine oils consumed in Norway. In 1960, over 70 percent of the total fats and oils used in the production of margarine was of marine origin.

About 27,240 short tons, or over one-half of Norway's exports of hardened marine oils, was shipped to the U. S. S. R. in 1960. The traditional buyers of Norway's antarctic whale oil are the United Kingdom, the Netherlands, and West Germany. (Foreign Crops and Markets, July 3, 1961, U. S. Department of Agriculture.)

Note: See Commercial Fisheries Review, December 1960 p. 85.

Peru

FISH MEAL PRICES AND SALES, APRIL 16-May 15, 1961:

The following fish meal prices and sales in the European market and United States markets were included in the May 15, 1961, issue of the Boletin Informativo, published by the Consorcio Pesquero del Peru S. A.

Table 1 - Peruvian Fish Meal Prices, April 16-May 15, 1961

Period and Destination	Unit	Price Range in US$			
		Opening	Highest	Lowest	Closing
Flat Market Prices 1/:					
United States East Coast Shipments:					
May 1-15	short ton c&f.	111.13	111.13	111.13	111.13
" " "	" " f.o.b. 2/	90.72	90.72	90.72	90.72
April 16-30	" " c&f.	N	N	N	N
Japanese Shipments 3/:					
May 1-15	short ton c&f.	121.56	121.56	121.56	121.56
April 16-30	" " c&f.	N	N	N	N
European Shipments:					
May 1-15	short ton c&f.	109.77	113.40	109.77	113.40
" " "	" " f.o.b. 2/	90.72	94.35	90.72	94.35
April 16-30	" " c&f.	96.16	111.13	96.16	109.77
" " "	" " f.o.b. 2/	77.11	92.08	77.11	90.72
Protein Market Prices 4/:					
United States Shipments:					
May 1-15	protein unit c&f.	1.796	1.796	1.796	1.796
" " "	short ton c&f.	116.74	116.74	116.74	116.74
" " "	short ton f.o.b. 2/	90.43	90.43	90.43	90.43
April 16-30	(same as for May 1-15)				
European Shipments:					
May 1-15	protein unit c&f.	N	N	N	N
April 16-30	" " c&f.	N	N	N	N

"N" - No sales.

1/"Flat" market is for sales made with a guaranteed minimum of protein (usually 65 percent). Any excess of protein is to the buyer's advantage. The most important flat markets for Peruvian fish meal are the east coast of the United States and West Germany.

2/The Boletin Informativo showed prices in metric tons c&f. F.o.b. prices were calculated by subtracting US$19.05 a short ton (equal to $21.00 a metric ton) for cost of freight to Europe, $26.31 a short ton (equal to $29.00 a metric ton) for freight to the United States west coast, and $20.41 a short ton (equal to $22.50 a metric ton) for freight to U. S. Gulf of Mexico ports. Prices per unit converted to prices per short ton on basis of 65 percent protein meal.

3/Freight rates to Japan not available.

4/"Protein" market is based on the price per unit of protein and buyers must pay for any excess protein found by laboratory analysis of shipments on arrival. The most important market on this basis is the west coast of the United States.

Peru (Contd.):

Table 2 - Peruvian Fish Meal Sales 1/, Feb. 14-May 15, 1961

	May 2-15	Feb. 14-Mar.15	Total
		(Metric Tons)	
Flat Market Sales:			
To U. S.	3,000	700	3,700
" Europe	3,350	20,687	24,037
" Japan	100	N	100
Protein Market Sales:			
To U. S.	900	8,600	9,500
" Europe	N	5,200	5,200
Total	7,350	35,187	45,537

1/Exclusive of future contracts made prior to February 15, 1961.
"N" - No sales.

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FISH MEAL PRICES AND SALES, MAY 1-JUNE 15, 1961:

The following fish meal prices and sales in the European market and United States markets were included in the June 15, 1961, issue of the Boletin Informativo, published by the Consorcio Pesquero del Peru S. A. (Consortium).

From May 16 to June 15, 1961, the Consortium received 194 firm offers for fish meal of which 125 for 69,387 metric tons were approved as follows: June 12,637 tons; July 15,050 tons; August 16,350 tons; September 16,400 tons; October 7,350 tons; November 1,000 tons; and December 600 tons. Included in the total sales are 800 tons of steam-dried fish meal and 1,000 tons of bonito fish meal sold to the European "flat"

Table 1 - Peruvian Fish Meal Prices, May 1-June 15, 1961

Period and Destination	Unit	Price Range in US$			
		Opening	Highest	Lowest	Closing
Flat Market Prices 1/:					
United States East Coast Shipments:					
May 16-June 15	short ton c&f.	N	N	N	N
May 1-15	" " c&f.	111.13	111.13	111.13	111.13
" " "	" " f.o.b. 2/	90.72	90.72	90.72	90.72
European Shipments:					
May 16-June 15	short ton c&f.	113.40	121.56	109.77	116.12
" " " "	" " f.o.b. 2/	94.35	102.51	3/90.72	97.07
May 1-15	" " c&f.	109.77	113.40	109.77	113.40
" " "	" " f.o.b. 2/	90.72	94.35	90.72	94.35
Protein Market Prices 4/:					
United States Shipments:					
May 16-June 15	protein unit c&f.	1.796	1.842	1.796	1.842
" " " "	short ton c&f.	116.74	119.73	116.74	119.73
" " " "	short ton f.o.b. 2/	90.43	93.42	90.43	93.42
May 1-15	protein unit c&f.	1.796	1.796	1.796	1.796
" " "	short ton c&f.	116.74	116.74	116.74	116.74
" " "	" " f.o.b. 2/	90.43	90.43	90.43	90.43
European Shipments:					
May 16-June 15	protein unit c&f.	1.669	1.751	1.669	1.751
" " " "	short ton c&f.	108.49	113.82	108.49	113.82
" " " "	" " f.o.b. 2/	89.44	94.77	89.44	94.77
May 1-15	protein unit c&f.	N	N	N	N

"N" - No sales.
1/ "Flat" market is for sales made with a guaranteeed minimum of protein (usually 65 percent). Any excess of protein is to the buyer's advantage. The most important flat markets for Peruvian fish meal are the east coast of the United States and West Germany.
2/ The Boletin Informativo showed prices in metric tons c&f. F.o.b. prices were calculated by subtracting US$19.05 a short ton (equal to $21.00 a metric ton) for cost of freight to Europe, $26.31 a short ton (equal to $29.00 a metric ton) for freight to the United States west coast, and $20.41 a short ton (equal to $22.50 a metric ton) for freight to U. S. Gulf of Mexico ports. Prices per unit converted to prices per short ton on basis of 65 percent protein meal.
3/ Revised from $92.72.
4/ "Protein" market is based on the price per unit of protein and buyers must pay for any excess protein found by laboratory analysis of shipments on arrival. The most important market on this basis is the west coast of the United States.

Peru (Contd.):

market. During the May 16- June 15, 1961, period, 5,100 tons were sold to Japan at $104.00 a metric ton f.a.s. or about $94.35 a short ton. The average f.o.b. price for all shipments of fish meal made between March and May this year was $76.49 a metric ton (US$69.39 a short ton).

Singapore

FISHING INDUSTRY, 1960:

Landings of fish and shellfish in 1960 in Singapore amounted to 9,100 metric tons (includes landings by all principal types of fishing gear), according to estimates provided by the Singapore Director of Primary Industry. Consumption of fishery products in 1960 amounted to about 37,300 tons. In 1959, landings of fish and shellfish were estimated at 11,300 tons and consumption of fishery products at 38,900 tons.

The licensed fishing fleet in 1960 consisted of 1,774 non-powered vessels, 603 vessels powered with outboard motors, and 164 vessels powered with inboard motors. Comparable figures for 1959 were: 1,904 non-powered vessels, 639 vessels with outboard motors, and 154 vessels with inboard motors. (United States Consulate in Singapore, June 9, 1961.)

South Pacific Islands Territories

TRAINING CENTER STUDIES FISHERY IMPROVEMENT FOR MELANESIANS:

A 10-week training center to instruct Melanesian fishermen in the operation of improved fishing gear and mechanized fishing craft was held beginning August 23, 1961, in Tulagi, British Solomon Islands Protectorate. It was sponsored jointly by the Food and Agriculture Organization (FAO) and the South Pacific Commission (SPC). The South Pacific Commission, representing the governments of Australia, France, the Netherlands, New Zealand, the United Kingdom, and the United States, administers the South Sea Islands Territories.

"Fishing is an important activity for subsistence in an island economy," said the chief of FAO's fishing gear section. "The soil is limited on coral atolls and with increasing island populations, the Melanesians have to turn even more to the sea for food.

"The inshore reefs and lagoons are generally overfished. The island fisherman lacks the proper equipment and the training for fishing in deep water, where mechanized boats are needed."

The training center was conducted on a practical level and included a maximum of training at sea under commercial fishing conditions. It was for island fishermen from the Melanesian archipelago.

The training center in Tulagi was the second such center held this year by FAO's fishing gear section. The other center was held in Viet Nam.

South-West Africa

CANNED FISH INDUSTRY OPTIMISTIC ABOUT 1961 SALES:

South-West African fish canners are optimistic about this year's sales prospects and are hoping to do better even than in 1960, a record year. In early June this year, 4,000 tons of canned fish left Walvis Bay for the Philippines which the chairman of one of the fishery firms calls "unquestionably the largest market available under present conditions to South-West Africa." (United States Embassy in Pretoria, June 29, 1961.)

* * * * *

PILCHARD FISHING SEASON STARTS:

As of April 1961, the Union of South Africa Cape west coast factories and vessels were reporting their best pelagic shoal fishing season. At the same time, the factories and vessels of South-West Africa's Walvis Bay in March 1961 started after the 375,000 short tons of pilchards and maasbanker which they will be allowed to catch during 1961. But the Walvis Bay 1961 season did not get off to the spectacular start of January fishing off the Cape coast. Due to unusual weather and hydrographic conditions, large mature pilchards were scarce and many very young fish were taken. However, fishing improved considerably in April although the oil yield of 16 to 17 gallons from a ton of raw fish was far below the 25 gallons and more obtained

South-West Africa (Contd.):

from Cape pilchards. With Walvis Bay factories geared to repeat and perhaps improve on their remarkable canning performance of 1960, the appearance of firm, mature fish will be eagerly awaited by the fishing fleets.

The Union of South Africa Cape oil yield coupled with extremely high catches has boosted the early season exports of fish body oil. In March the first bulk shipment, 4,800 tons, was sent to Europe. This was followed by another shipment of 4,000 tons. A third shipment of 5,400 tons from Cape Town and 730 tons from Walvis Bay was also on its way to Europe. (The South African Shipping News and Fishing Industry Review, May 1961.)

Tanganyika

FISHERY PRODUCTION INCREASING:

The Government of Tanganyika has made progress in augmenting its fish production, and plans to conduct a survey this year to determine the potential for enlarging its national fishing industry. The survey will be supervised by an FAO fish marketing specialist.

Tanganyika has a possibility of becoming one of Africa's largest fish producers if it employs all of its resources. Tanganyika either contains or borders on Lake Tanganyika, Nyasa, Rulwa, and Victoria--all large bodies of water with a commercial fishing potential.

Union of South Africa

PILCHARD-MAASBANKER FISHERY LANDINGS, JANUARY-MARCH 1961:

The Union of South Africa Cape west coast pilchard-maasbanker fishery (with about 150 vessels fishing) during the first three months of the 1961 season landed 228,628 short tons pilchards, 11,880 tons maasbanker (jack mackerel), and 12,419 tons mackerel. The total catch was 252,927 tons.

According to figures released by the Division of Fisheries, the March catch was 64,698 tons pilchards, 4,145 tons maasbanker, and 3,663 tons mackerel--a total catch of 72,506 tons. In March 1960 the catch was 66,286 tons pilchards, 12,285 tons maasbanker, and 5,756 tons mackerel; and 34,148 tons pilchards, 5,099 tons maasbanker, and 7,116 tons mackerel in March 1959.

The March catch this year yielded 15,884 short tons fish meal, 1,261,776 imperial gallons fish body oil, 5,648,708 pounds canned pilchards, 1,261,776 pounds canned maasbanker, and 1,515,296 pounds canned mackerel.

Union of South Africa--Products Produced from Pilchard-Maasbanker Fishery Landings, January-March 1961

Fish Meal	Fish Oil	Pilchards	Canned Maasbanker	Mackerel
Short Tons	1,000 Imp. Gals	.....	(1,000 Lbs.)	.....
52,204	4,488	13,669	3,215	7,663

In April, early reports indicated that good catches continued and it was expected that the first four months this year would show landings of well over 300,000 tons of pilchards, maasbanker, and mackerel. More than ever, this year pilchards are accounting for the bulk of the catch. The good condition of the fish and the appearance of schools close to the Cape west coast plants have resulted in increased output of canned fish. (The South African Shipping News and Fishing Industry Review, May 1961.)

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WAREHOUSING AND SHIPPING OF FISH MEAL IN PAPER BAGS:

The principal advantage claimed for paper bags, as opposed to burlap bags, as a package for fish meal is that it substantially eliminates the spontaneous heating hazard according to Memorandum No. 99 of the South Africa Fishing Industry Research Institute.

A well-constructed and properly closed paper bag with an effective bitumen or tar liner acts as a sealed container.

Causes of spontaneous heating depend on the free access of air containing oxygen and moisture. The elimination of air results in stoppage of all spontaneous heating.

The efficacy of bitumen-lined paper bags in reducing spontaneous heating has been demonstrated repeatedly. In all cases it was found that the temperature of meal produced from herring, California sardines, and South African pilchards, when packed in bitumen-lined paper bags, rose only a few degrees above the initial packing temperature before commencing to cool. The rate of cooling is dictated by the size of the bag. It appears that the initial temperature rise is due to the consumption of the oxygen present between the particles of meal in the bag.

Fish meal in bitumen-lined paper bags may be stacked immedicately only if the meal is cool, as prolonged exposure to high tempera-

Union of South Africa (Contd.):

ture (e.g., 140° F. or higher) is known to have an adverse effect on the nutritional quality of the meal. It is chiefly for this reason that it has been advocated that fish meal in paper bags should be stacked as cool as possible. Taking local climatic and other conditions into account, the temperature should not exceed 100° F. Furthermore, high temperatures may dry out and embrittle the paper; may soften the glue or the bitumen which might then creep under pressure, etc. The temperature limit of 100° F. must therefore be strictly adhered to at the time of stacking and storage.

The following conditions pertaining to the bags themselves are required to ensure the safe shipping of fish meal in paper bags, i.e.: (1) The paper bags must be impermeable to oxygen, must have an adequate bitumen lining, and must be of adequate strength. (2) All torn or broken bags must be replaced or filled into "overslip" bags. If an occasional broken bag happens to be overlooked, this will not necessarily endanger the cargo but an accumulation (say ten or more) of broken bags in the center of a stack must be avoided; it is felt that with normal supervision no broken bags need go undetected. Fish meal in suitable bitumen-lined paper bags is a safer and more hygienic cargo than when packed in burlap bags.

Paper bags are known to have certain disadvantages, e.g., liability to breakage and the possibility of staining with very oily fish meal; they are furthermore not as easy to grip as burlap bags due to their smoothness. (The South African Shipping News and Fishing Industry Review, May 1961.)

U. S. S. R.

FISHERY NEWS BRIEFS, JUNE 1961:

Soviet Exploratory Fishing Vessels Sighted in Gulf of Alaska: Soviet exploratory fishing vessels, which generally appear a year or two in advance of their organized fishing fleets, this year have been observed in the Gulf of Alaska off Kodiak Island and Yakutat. These vessels are believed to be forerunners of large Soviet fishing fleets operating north and south of the Aleutian chain.

U. S. S. R. Receives Herring Order From Japan: The Japanese this year placed an order for approximately 1,000 metric tons of salted herring with the Soviet Union's Far Eastern fisheries authority. The Japanese had been negotiating with Alaskans for the herring, but the Soviet bid was lower than anything that the Americans could quote. The price of the herring was reported at between $80 and $95 per metric ton, or an average of about 4½ cents per pound delivered to Hokkaido. The Soviets specified that the herring would be size graded with a minimum length of 10 inches. (Pacific Fisherman, May 1961.)

Soviets Fishing Off Cape Cod: U. S. S. R. fishing vessels in May 1961 were seen about 30 miles in the North Atlantic off Cape Cod. This is the first time Soviet fishing boats have been observed so close to the mainland of the continental United States east coast. In the late 1950's the Soviets began trawling in waters some distance from the northeastern Canadian coast primarily for ocean perch and cod. More recently, U. S. S. R. fishermen moved southward and were believed to be gill-netting for herring and whiting in the vicinity of Georges Bank. (Boston Traveler, May 23, 1961.)

High-Seas Fishery Expansion Continues: The Soviet mothership Iokhannes Vares processed 1,740 metric tons of herring and serviced 100 fishing vessels with supplies and technical assistance during a three-months period in the North Atlantic during 1960.

The Soviets are building: (1) a 14,000 gross-ton fish and crab processing vessel to be used in the North Pacific; (2) a 15,000 gross-ton herring factoryship; and (3) a 45,000 gross-ton whaling ship for service in the Antarctic. All three vessels are being built in Soviet shipyards and the herring and whaling ships are scheduled for completion during 1961.

Large freezer-trawlers of the Lyindas Girs type are under construction in Leningrad; these vessels have modern freezing facilities and equipment for manufacturing canned products and fish meal and oil.

The trend in Soviet high-seas fish processing is towards freezing and canning and away from salting, although salting is still second in importance to freezing. Frozen

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

fish may be further processed on shore by canneries, smoking plants, or ready-made food plants. (The Fishing News.)

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CRAB FISHING FLEETS IN BRISTOL BAY:

According to information received from the Japanese fleets operating in the Bristol Bay area in the Bering Sea, the Soviet Union's three crab fishing fleets are operating on a large scale in that same area.

Last year Russian fleets were operating in the same area, but according to information from the Japanese fleets, one more Russian fleet is operating this year with three motherships--one is 18,000 tons and two of 9,000 tons each. Judged on the number and capacity of the motherships, the Japanese estimate the Russian crab fishing fleets are able to catch and process several times what Japan's Tokai Maru crab fleet (jointly operated by three fishery companies) can catch and process.

In addition, four trawling fleets of the Soviet Union have also been reported operating in the same area. (Suisan Keizai Shimbun, June 18, 1961.)

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SOVIET FISHING LIMITS AGREEMENT WITH BRITAIN TO END:

The British-Soviet fishing limits agreement, which allows British trawlers to fish up to three miles from the coast of Russia in certain areas of the Barents Sea, will end on March 12, 1962. This was announced in Moscow on June 30, 1961.

The agreement was implemented in March 1957, and was due to run for five years, with the provision that 12 months' notice would need to be given by either side to terminate it. The Soviets notified the British on March 2, 1961. Russia has given no specific reason for ending the agreement. The treaty would have been automatically extended for a further five years if neither party denounced it.

British trawlers will lose the right to fish to within three miles in two areas in the Barents Sea and will have to stay outside the 12-mile limit. (Fish Trades Gazette, July 8, 1961, and The Fishing News, July 7, 1961; both are British fishery periodicals.)

United Kingdom

FIBERGLASS TRAWLER UNDER CONSTRUCTION:

A trawler built entirely of fiberglass is under construction at Grimsby, England; it will also be the first Diesel-electric vessel to operate in Britain's middle-water fleet.

A break with tradition is made in the internal arrangements of the trawler; her engineroom is amidships, her fishing room aft of the engineroom, and crew accomodations under the foredeck.

The vessel has an over-all length of 130 feet 5 inches and a mean depth of 11 feet 4 inches. Her speed is expected to be 11 knots. Three Diesel engines of 440 B. hp. will drive the generators with an electric propulsion motor developing 800 hp. (Trade News, May 1961, Canadian Department of Fisheries.)

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FISHERY LOANS INTEREST RATES REVISED:

The British White Fish Authority in May 1961 announced that, as a result of changes in the rates of interest charged to them by H.M. Treasury, their own rates of interest on advances made as from June 3, 1961, will be as follows:

Fishing vessels of not more than 140 ft., new engines, nets, and gear:

On loans for not more than 5 years, $5\frac{3}{4}$ percent; no change.

On loans for more than 5 years, but not more than 10 years, $6\frac{1}{4}$ percent; no change.

On loans for more than 10 years, but not more than 15 years, $6\frac{5}{8}$ percent; no change.

On loans for more than 15 years, but not more than 20 years, $6\frac{3}{4}$ percent; no change.

United Kingdom (Contd.):

Processing Plants:

On loans for not more than 15 years, $7\frac{1}{8}$ percent; increase $\frac{1}{8}$ percent.

On loans for more than 15 years, but not more than 20 years, $7\frac{1}{4}$ percent; increase $\frac{1}{4}$ percent.

The rates on advances made before June 3, 1961, are unchanged. (Fish Trades Gazette, June 17, 1961.)

Note: See Commercial Fisheries Review, May 1961 p. 65 and January 1961 p. 84.

Uruguay

TUNA FISHING CONDITIONS AND MARKETS:

The vessel Eikin Maru, 264 gross tons, operated by a large Japanese fishing company from Montevideo, Uruguay, completed its third tuna fishing trip in June 1961. According to reports, the fishing grounds off Uruguay abound with tuna and the Eikin Maru was able to catch 100 tons of tuna on a 30-day trip.

However, Uruguayans do not particularly seem to like tuna, and sales in Uruguay are disappointing, although this may be due to the lack of effective promotion. Yellowfin tuna make up over half of the catch, with some albacore and spearfish. The vessel price is around $280 per metric ton for yellowfin, the same as export prices to Italy. (Suisan Keizai Shimbun, June 30, 1961.)

West Indies

CONSTRUCTION OF JAPANESE TUNA CANNERY IN CURACAO:

A large Japanese fishing company has completed preliminary preparations for establishing a fishing base at Willemstad, Curacao, Netherlands Antilles, in the Caribbean Sea. Construction of a cannery was to start in August and is scheduled to be completed in May 1962. According to an earlier report, the company is also constructing a 1,500-ton capacity cold-storage plant and a fish-sausage plant in Curacao.

The Japanese firm is investing 530,000 guilders (US$147,700) in the fishing base (authorized capital of 2,120,000 guilders or $591,000). The Japanese firm is being granted a monopoly for 10 years by the Netherlands Government and is being exempted from paying taxes on materials. Korean and Communist Chinese currencies, in addition to United States and German currencies, are negotiable in Curacao and this should help operations.

Besides packing canned tuna, the firm plans to transship frozen tuna to the United States and to Europe from Curacao. Tuna unsuitable for export will be used for fish sausages. Because the port of Willemstad is an important port of call for a large number of freighters, frozen tuna can be shipped out without delay. (Suisan Keizai Shimbun, May 27 and July 8, 1961.)

WHAT IS PLANKTON?

Plankton is a term of Greek origin used to describe all the various aquatic plants and animals, both marine and freshwater, which have little motility of their own. They are dependent principally on the tides and currents to transport them from place to place. While some animals classified as plankton have a certain ability to swim, such as some larval fish and certain jellyfishes, this matters little against the powers of oceanic tides and currents. The term nekton is used to describe animals, such as fish and squid, which are not planktonic and have the ability to swim. (Sea Secrets, The Marine Laboratory, University of Miami, Coral Gables, Fla.)