International

CODEX ALIMENTARIUS COMMISSION

FIRST MEETING HELD ON THE DEVELOPMENT OF WORLDWIDE FOOD STANDARDS:

A four-man Canadian delegation of food experts attended a meeting held in Rome, June 25 to July 3 this year, to develop and simplify work on international food standards. This was the first session of the Codex Alimentarius Commission, which was established jointly by the Food and Agriculture Organization (FAO) and the World Health Organization (WHO).

The Codex Alimentarius Commission was established following a joint FAO/WHO Conference on Food Standards held in Geneva in October 1962. Representatives of 44 member nations of FAO attended, together with observers from 24 international organizations. The Conference fully endorsed the need for an international body to coordinate the development of food standards both on a worldwide and a regional basis. Stress was placed on the importance of this work to developed and developing countries alike.

It was agreed at the Geneva Conference that the new Commission develop two types of standards. The first would be a minimum "platform" standard, and any country accepting it would undertake to ensure that its own corresponding national standard would not be lower. The second, or "trading" standard, would be higher, and its adoption by a government would imply that all products affected must conform to it in order to be imported and sold within its jurisdiction.

At its first session, the new Commission considered priorities for food standards and allocation of priority work on their development to specialized agencies. (Department of Fisheries, Ottawa, June 18, 1963.)

FISH MEAL

WORLD PRODUCTION, APRIL 1963:

World production of fish meal in April 1963 was up 24.7 percent from that in the same month of 1962, according to preliminary data from the International Association of Fish Meal Manufacturers.

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

World Fish Meal Production by Countries, April 1963

Country	April		Jan.-Apr.	
	1963	1962	1963	1962
	(Metric Tons)			
Canada	1,311	2,338	26,924	33,432
Denmark	7,081	3,955	25,692	19,805
France	1,100	1,100	4,400	4,400
German Federal Republic	7,473	6,960	27,345	26,779
Netherlands	1/	500	1/	1,600
Spain	2,180	2,429	9,196	8,898
Sweden	822	482	2,029	1,870
United Kingdom	6,438	6,407	26,441	23,922
United States	7,887	2/5,725	14,962	2/12,340
Angola	1,333	1,891	8,886	10,343
Iceland	8,742	4,040	30,212	17,269
Norway	4,000	3,345	14,370	16,123
Peru	129,104	100,074	442,641	339,090
South Africa (including South-West Africa)	33,237	29,701	81,326	102,651
Total	210,708	168,947	714,424	618,522

1/Data not available.
2/Revised.
Note: Belgium, Chile, Japan, and Morocco do not report their fish meal production to the International Association of Fish Meal Manufacturers at present.

The increase in fish meal production in April 1963 was due mainly to greater output in Peru which accounted for 61.3 percent of world production during the month. In January-April 1963, Peru accounted for 62.0 percent of total fish meal production.

World fish meal production during the first 4 months of 1963 was 15.5 percent greater than in the same period of the previous year. Production in early 1963 was boosted by record landings of anchoveta in Peru and record landings of herring in Iceland. The increase was partly offset by a considerable decline in production in South Africa, Canada, Norway, and Angola.

FISH OIL

WORLD EXPORTS, 1962:

World gross exports of fish oils (including fish-liver oils) reached a record 455,000 short tons in 1962, reflecting the expansion of fish oil shipments from Peru and Iceland, and

International (Contd.):

to a lesser extent from Chile and Denmark. World exports increased by 88,000 tons from the previous high of 1961 and were twice the 1955-59 average.

Peru, the United States, Iceland, the South Africa Republic, Chile, and Portugal are the most important world suppliers of fish oil, accounting for over 95 percent of the world's net exports and over 80 percent of the world's gross exports of fish oil in 1962. Although several European countries export sizable quantities of fish oil, the area as a whole is the world's major market for fish oil. Much of the domestic production of fish oil in Europe is retained for consumption in the country of origin, or exported to other European countries. In addition, Norway, Western Germany, the Netherlands, and Denmark import large quantities of fish oil for further processing and export largely to other European countries.

Peruvian fish oil exports reached a record 164,000 tons in 1962, up 45 percent from the previous high of 1961. Iceland's exports more than doubled in 1962. The increase enabled Iceland to surpass the United States and rank second to Peru as the world's leading supplier of fish oil in 1962. Apart from Chile, shipments from the other major exporting countries declined slightly in 1962. Norway's reported exports of fish oil were down slightly in 1962, but were probably much larger than indicated due to the exclusion of hardened fish oils which are not classified separately in trade statistics.

World Gross Exports of Fish Oil (Including Fish Liver Oils) 1/, Average 1955-59, Annual 1958-62

Continent And Country	2/1962	1961	1960	1959	1958	Average 1955-59
	(1,000 Short Tons)					
North America:						
Canada	3.5	4.6	15.2	14.8	6.0	8.5
Mexico	.2	.8	3/	.7	.7	.7
United States	61.5	61.2	71.8	72.2	47.0	64.1
Total	65.2	66.6	87.0	87.7	53.7	73.3
South America:						
Argentina	.8	.6	1.0	.4	.8	.5
Chile	12.0	5.1	6.6	.1	-	4/ .1
Peru	164.0	112.8	38.6	18.9	1.8	5.5
Total	176.8	118.5	46.2	19.4	2.6	6.0
Europe:						
Denmark	16.8	10.5	7.4	16.1	12.6	12.5
France	2.8	2.7	2.4	1.6	.4	1.1
Germany, West	22.9	25.3	26.2	31.6	17.9	17.9
Iceland	72.5	35.2	54.5	18.9	27.4	21.1
Netherlands 5/6/	2.6	5.2	7.8	16.0	13.0	10.4
Norway 6/	18.6	24.0	18.4	21.8	19.8	21.3
Portugal	6.7	7.4	4.9	5.7	5.5	5.1
Sweden	2.0	3.4	2.5	3.0	2.0	2.5
United Kingdom	2.6	3.2	3.7	3.7	3.6	3.8
Other (incl. U.S.S.R.) 7/	2.9	2.8	2.0	2.3	1.4	1.7
Total	150.4	119.7	129.8	120.7	103.6	97.4
Africa:						
Angola	2.9	3.3	7.3	5.6	9.4	8.1
Morocco	4.9	4.5	5.7	4.3	4.5	2.7
So. Africa Rep. 8/	50.4	51.0	37.4	26.6	18.5	15.2
Total	58.2	58.8	50.4	36.5	32.4	26.0
Asia and Oceania:						
Japan	3.2	2.7	3.8	3.6	6.6	5.8
Other 7/	.7	.8	1.0	1.7	1.2	1.2
Total	3.9	3.5	4.8	5.3	7.8	7.0
World total	454.5	367.1	318.2	269.6	200.1	209.7

1/Hardened fish oils have been included wherever separately classified in export statistics.
2/Preliminary.
3/Under 50 tons.
4/1959 only.
5/May include some whale oil prior to 1960.
6/Excludes sizable quantities of hardened fish oils exported annually which are not separately classified in trade returns.
7/Includes estimates for minor exporting countries.
8/Includes the territory of South-West Africa.
Source: World Agricultural Production and Trade, U. S. Department of Agriculture.

FOOD AND AGRICULTURE ORGANIZATION

EXTENSIVE USE OF SYNTHETIC MATERIALS IN FISH NETTING:

The rapidly increasing use of knotless nets made of synthetic fibers was evident during the Second World Fishing Gear Congress, held in London, May 27-31, 1963, by the Food and Agriculture Organization (FAO).

The discussion on materials which took place during the first day of the Congress embraced standardization of both the numbering systems of twines and of net-testing methods as well as a survey of new net materials and of new developments in lines and ropes, knotless nets, and monofilament nets.

A proposal for a standardized international numbering system for netting twines, applicable to both natural and artificial fibers, was presented to the Congress. This proposal--already adopted by ISO (The International Standards Organization)--is based upon a "tex" system which expresses the weight in grams of 1,000 meters of twine.

In the six years that have elapsed since the first World Fishing Gear Congress in Hamburg, many new types of synthetic materials have come into use for fishing gear, it was stated. Most countries now use synthetic materials for well over half their gear. In Japan this figure approaches 90 percent, while in the important Peruvian purse-seine fisheries nets are made of nylon only.

Many papers presented to the Congress discussed the relative values of different synthetic materials such as nylon, polypropylene, and polyethylene, as well as the different uses that are being made of those materials. It was reported that polyethylene is now extensively used as a trawl-net material in Europe and Japan.

In Japan, 31 million pounds of synthetic nets were produced in 1961 compared with 4.5 million pounds of natural-fiber nets. However, though the conversion to synthetic materials for netting stands at about 90 percent in Japan, this figure shrinks to 20 percent for ropes.

The technical and economic aspects of the two main types of knotless nets--the Japanese type made by twisting and the Raschel type made by crocheting--were discussed at the Congress. It was stated that knotless nets are from 20-30 percent cheaper than knotted ones within certain small-mesh sizes.

One paper stated that Italy is producing 750 tons of knotless nets a year, compared with the production of 500 tons per year of knotted synthetic nets. Production of knotless netting in Norway has increased from 17 to 200 tons a year within a two-year period.

Synthetic fibers have become widely used in the fishing industry mainly, however, in twines made of continuous multifilaments. However, during the past few years, a major breakthrough has been achieved using thick monofilaments, and these are now in extensive use in certain types of gear. One paper from Viet-Nam states that of 11,000 gill nets in operation in that country, about 8,000 are of this (almost invisible) monofilament type, while only 160 are multifilament nets.

International (Contd.):

One paper from Germany reported on the use of plastic materials for constructing creels and pots, replacing traditional materials which deteriorate very quickly.

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SECOND WORLD FISHING GEAR CONGRESS HELD IN LONDON:

The Second World Fishing Gear Congress sponsored by the Food and Agriculture Organization (FAO), was held in London, May 27-31, 1963, six years after the first Congress in Hamburg in 1957. To those who attended both Congresses, the advances were most obvious in synthetic netting twines, knotless netting, fish detection, and fleet operations. There has been progress, but no spectacular developments in the catching of fish. However, purse seining techniques have become much more effective. Stern trawling is well accepted, even for small vessels and midwater trawling is more widespread. Instrumented gear is the subject of much research, but there has been no major breakthrough. Automated vessels are just on the horizon.

Fish behavior remains a fascinating but complex study with a most promising future. Electrical fishing seems ready to move on from its proven use in accelerating the pumping of fish from nets to improving trawl catches significantly, and, possibly, toward the time when it will aid fishermen to herd and harvest fish somewhat like farmers manage their domestic animals.

While much progress has been made in the last six years, the opportunities for making improvements in the arts of locating, luring, and capturing fish not only are great, but they are worthy of much more effort and funds than are being expended.

More than 500 representatives from 52 countries attended the Congress. The 5 full days of meetings were devoted to 3 major topics: Materials, Gear and Fishing, and Gear Research, under the chairmanship of the Director of a Scottish firm which operates the stern trawlers, Fairfree and Fairtry I, II, and III.

Of the 87 papers presented, 11 came from the United States and one from the United States and Canada. They covered the following subjects: large pelagic trawls; prospective developments; improved heavy trawl gear; shrimp behavior; electrical shrimp trawling gear; fish identification from echo sounder recordings; tuna behavior; electricity in commercial sea fishing; air bubble curtains; king crab pots; hydraulic power and fishing gear; and automatic data processing and computer applications.

United States representatives at the Congress numbered about 15 from the domestic industry and three from the United States Government.

After editing at the FAO Fisheries Division in Rome, the papers and the discussions will be published by Fishing News (Books) Ltd., 110 Fleet Street, London, EC4, in England, with French and Spanish abstracts. The same company published the report of the first Congress, Modern Fishing Gear of the World. (Regional Fisheries Attache for Europe, U. S. Embassy, Copenhagen, June 5, 1963.)

Note: Also see Commercial Fisheries Review, February 1958 p. 51.

WORLD FOOD CONGRESS

INTERIOR SECRETARY STRESSES VALUE OF FISH PROTEIN CONCENTRATE:

The World Food Congress sponsored by the Food and Agriculture Organization (FAO), of the United Nations was held in Washington, D.C., June 4-18, 1963. The U. S. Secretary of the Interior spoke to the Congress on June 6 as follows:

"It is a particular pleasure to meet such a broad spectrum of natural resource interest as is represented in this Congress. As Secretary of what in effect is America's department of natural resources, I have had the opportunity for two years of meeting with various groups--organizations that reflect the diversity of Interior's activities.

"In many of these cross country meetings, I note a subtle--if occasionally minute--change. For on the leadership level of such industries as oil, coal, timber, and fisheries I find more and more men whose conversations denote a movement away from parochial self-interest into the more urgent question of how today can this Nation--this world--manage, utilize and at the same time enhance and protect our natural resources. For everywhere today men are slowly realizing that science and economic drives are a team that improperly guided can run roughshod over the very elements that make the world liveable. For this reason, fishermen become treaty makers; an oil company adjusts its operations to save a herd of Alaska moose or a flock of birds, more and more timbermen curry, rather than denude the mountainside. . . .

"To meet one of the world's grave resource challenges, the feeding of a growing army of the hungry, we are charting a new route. Aided by men of science, we have set forth to plumb that 70 percent of the earth that remains unexplored--the ocean depths. Thus, we may better discover and utilize the sea's bounties for the world's hungry.

"As President Kennedy observed recently: 'To meet the vast needs of an expanded population, the bounty of the sea must be made more available. Within two decades, our own Nation will require over a million more tons of seafood than we now harvest.'

"The world picture is increasingly grim and Lord Boyd Orr, former director of the U. N. Food and Agricultural Organization, and Nobel Peace Prize winner, states that within 80 years the world must produce more than eight times the present world food supply.

"Today, we in the Department of the Interior are meeting this challenge in a multi-front drive to raise this Nation's harvest from the sea, and at the same time, pass along to the free world, our scientific findings in this field.

International (Contd.):

"The fisheries research programs now under way number into the hundreds. However, one above all others shines as a beacon of hope for the 80 percent of the world's population today receiving insufficient daily protein diet--which is a rather dainty way of describing spirit-sapping hunger that for millions annually is an epitaph.

"This project, which our scientists in the Bureau of Commercial Fisheries have with limited resources virtually led the world in research, envisions the creation and distribution of a fish protein concentrate (FPC).

"This product is made from a whole fish reduced to a protein-rich powder easily added to cereals of other basic foodstuffs. By utilizing the unharvested fish of United States waters alone, it can provide supplemental animal protein for one billion people for 300 days at the cost of less than one-half cent per person per day. The value of fish as a protein supplement has been recognized since the beginning of time. The problem has been one of distribution.

"Harvesting fish is of only limited value if weight, susceptibility to spoilage, or transportation costs preclude shipping from coastal areas into the interior, where there often is a dense concentration of population. This is a baffling problem. It must be solved before fishery products make their full contribution toward solution of the over-all world food problem.

"Fish protein concentrate, however, would overcome the disadvantages of weight, spoilage, and high costs of distribution that are common to many other products. FPC is nutritious, adaptable to many diets, and easily packaged in various sizes. It is an outstanding example of wise resource use.

"We believe that this food supplement, the intrinsic nutritional value of which is already well established, can eventually be obtained by any one of a number of different processing methods and in a variety of forms ranging from a white, bland-tasting powder to a dark, flavorful paste. Further, it can be manufactured from fish species not now used as food. We are convinced that we are at the threshold of a new and important marine food industry which, if it can be helped safely over the first difficult stages of development, will assume a position of major importance both here in the United States and abroad.

"Today, in many parts of the world, and even off our own coasts, vast and sometimes unassessed fishery resources, capable of being converted into fish protein concentrate, are still available. If we are to alleviate the world's hunger and malnutrition these resources must be used to supplement the crops from the land. It seems obvious that these relatively untouched resources of the sea constitute the last unexploited, readily available source of animal protein. Wisely managed, this large renewable resource will contribute importantly toward solution of the very problems under consideration at this Congress.

"It is especially significant that fish and shellfish provide the high-quality protein so essential as a supplement in the food of millions throughout the world who now depend, of necessity, largely on diets of land crops such as cereals and vegetables.

"Much of the world's hunger, ranging from acute, extreme starvation to chronic, marginal dietary deficiences, is a problem not only of how much food but of what kind. The most serious among the causes of hunger is protein malnutrition, frequently induced by a deficiency of the right kind of proteins, those, in fact that cannot be synthesized by the human organism, and hence should be eaten every day. These essential proteins can be most readily found, in the correct proportions, only in the tissues of animals.

"We in the Department of the Interior are not alone in our research and development work on fish protein concentrate. Other nations, also with both economic and humanitarian motivations, are similarly active. But the Department's program, recently initiated by the Bureau of Commercial Fisheries and now moving into high gear, is accorded a high priority. President Kennedy, in a recent public statement, described the program as vital to this Nation's efforts toward the betterment of mankind. A recent National Academy of Sciences report agrees.

"We are confident that it will be possible to produce a fish protein concentrate containing 90 percent of high-quality proteins at a cost of 10 to 15 cents per pound to the consumer. It has been estimated that the minimum daily requirement of protein, 70 grams, could be supplied through fish protein concentrate at a cost per person of about two cents a day.

"Because a project of this potential and universal significance must be a cooperative

International (Contd.):

effort we have resolved to work in the closest cooperation with the United Nations, and especially the specialized agencies to whom much credit must go for initiating and stimulating new efforts in fish protein concentrate.

"While the idea of manufacturing fish protein concentrate is not new the time has now come to translate that idea into large-scale production of a a product that holds such great promise for the benefit of mankind. This much we owe to ourselves and to our friends throughout the world who look to us for help in solving their hunger problems. The day may never come when hunger will no longer stalk the earth. Nevertheless we must not cease to dedicate our collective minds and energies toward the attainment of that goal."

GREAT LAKES FISHERY COMMISSION

TROUT PLANTING IN LAKE SUPERIOR:

The long-range program to restore the lake trout population of Lake Superior includes a large-scale restocking effort, according to the Assistant Director of the Great Lakes Fishery Commission. This phase of the restoration work was begun in 1958 with the aid of Canadian and United States local and Federal agencies. It has been made feasible by the progress of sea lamprey control. Prior to 1963, nearly 6 million lake trout had been set free in the upper Great Lakes.

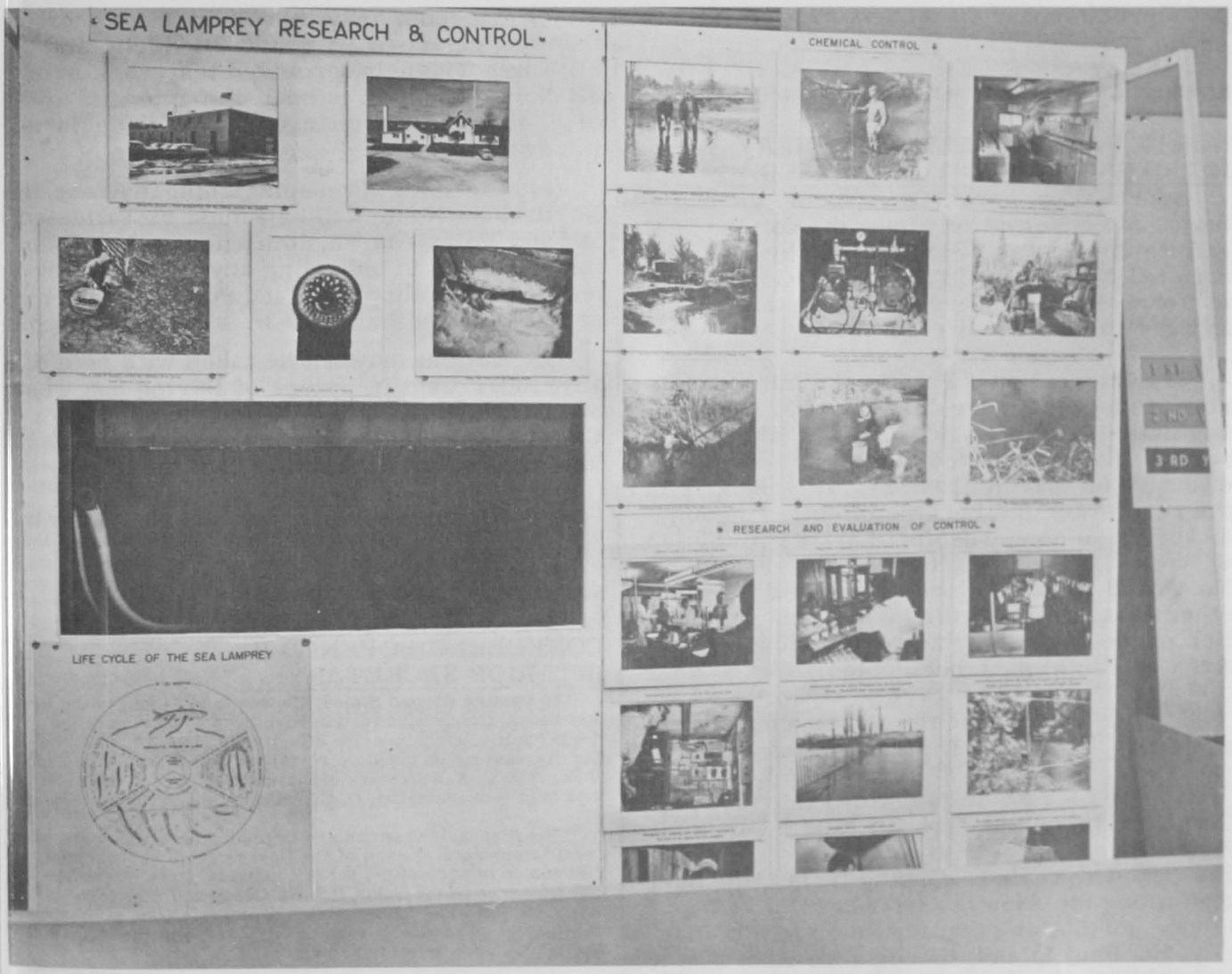

Exhibit showing sea lamprey research and control conducted by the U. S. Bureau of Commercial Fisheries Biological Laboratory, Ann Arbor, Mich.

International (Contd.):

Lake Superior releases during 1963 will include more than 1 million yearling lake trout from state and Federal hatcheries in Michigan. Wisconsin will contribute another 320,000 lake trout. In Canada, the Ontario Department of Lands and Forests will add about 512,000 young trout to Lake Superior waters. In addition, a separate release of 1,500,000 fingerling lake trout in Lake Superior is planned in the fall of 1963.

There are high hopes that lake trout survival will continue to improve in Lake Superior. The rate of lamprey scarring in that Lake has remained low throughout most areas since the fall of 1961 as a result of a chemical treatment program in tributary streams during recent years. (News Bulletin, Michigan Department of Conservation, June 6, 1963.)

INTERNATIONAL PACIFIC HALIBUT COMMISSION

NORTH PACIFIC HALIBUT FISHERY REGULATIONS FOR 1963 REVISED:

Approval by Japan, Canada, and the United States of conservation measures for the eastern Bering Sea as recommended by the International North Pacific Fisheries Commission in February 1963 necessitated certain changes in the Pacific halibut regulations.

The International Pacific Halibut Commission issued, effective June 8, 1963, revised regulations for the 1963 fishery. The new regulations superseded those that became effective on March 21, 1963. The changes in the regulation that became effective on June 8, 1963, are concerned primarily with divison of Area 3B North into two areas (Area 3B North and Area 3B North Triangle), but many other changes in wording and in the description of the regulatory areas (particularly Area 3B South) have been made.

Some of the changes in the regulations effective June 8, 1963, are as follows:

(1) Area 3B North is divided into Area 3B North Triangle and Area 3B North. Area 3B North Triangle: a triangular area in Bering Sea bounded by lines running from Cape Sarichef along the Aleutian Islands to 170° W., thence north along that meridian to a point near St. Paul Island, thence a straight line to Cape Sarichef, the point of origin. Area 3B North: Bering Sea, not including Area 3B North Triangle.

(2) An annual catch limit of 11 million pounds is set in Area 3B North Triangle.

(3) The length of the seasons in Bering Sea are as follows:

Area 3B North Triangle: From March 25 to a date to be announced by the Commission when the annual catch limit is taken.

Area 3B North: From March 25 to October 15 (formerly October 15 or at the closure of Area 3A, whichever is later.

(4) The opening and closing times are 6:00 p.m. local standard time in Areas 3B North and 3B North Triangle. Elsewhere they are 6:00 p.m. Pacific Standard Time, as previously.

(5) Licenses may be validated for more than one of Areas 3B South, 3B North, and 3B North Triangle, provided that when Area 3B North Triangle is open the intended area of fishing and any change of area is declared in advance.

(6) Licenses of vessels fishing in Areas 3B North or 3B North Triangle must be validated at Sand Point, Alaska, both prior to such fishing and prior to unloading any halibut at any port or place other than Sand Point, Alaska, regardless of whether Area 3A is open or closed.

(7) Halibut may not be taken with nets of any kind, except in waters of Bering Sea west of 175° W. and north of a line running from Cape Newenham to a point close to St. Paul Island as described in Section 12 of the regulations.

Note: See Commercial Fisheries Review, this issue p. 94; June 1963 pp. 57 and 62; May 1963 pp. 60, 74, and 91; March 1963 pp. 23, 41, 42, and 87.

NORTH PACIFIC FISHERIES CONVENTION

CONFERENCE OPENED BY INTERIOR SECRETARY:

The parties (United States, Canada, and Japan) to the International Convention for the High Seas Fisheries of the North Pacific, which became effective on June 12, 1953, began discussions on possible revisions in the Treaty on June 6, 1963. The U. S. Secretary of the Interior opened the meetings held in Washington, D. C., with the following statement:

"The discussions which are beginning here today are of great importance to each of the Governments represented. Fishermen of each of the three countries carry on important fisheries in the North Pacific Ocean and they form a major part of local or national economies. Also, a substantial number of people in each country are dependent for their livelihoods upon these fisheries.

"As a consequence each of the Governments is deeply concerned with the problem of insuring the continued prosperity of these fisheries. Each is concerned that the fishery resources which support these fisheries continue to be

International (Contd.):

productive. Each is concerned that the legitimate interests and aspirations of its fishermen be advanced. These alone are important considerations.

"But, these discussions are also important in the context of broader considerations. The nature of the relationships--bilateral and trilateral--among the three Governments is of critical importance to each of the three Governments. Each seeks with the others a pattern of relationships characterized by harmony, sympathetic understanding of each other's problems and a minimum of friction. Each recognizes the value of institutions which aid in the solution of common problems.

"The Convention which you will review in the coming discussions is just such an institution for the solution of common problems. It seems to me that in a review of its effectiveness, the extent to which the Convention has contributed to a pattern of harmonious relations between Governments, ought to be considered, as well as the efficiency with which the Convention has moved toward solution of the fishery problems with which it was designed to deal. In both respects the Convention is important to the three Governments, and a review of its ten years of operation is a task of some moment.

"It is our view in the United States that the Convention has served well as a mechanism for the solution of common fishery problems and in so doing has contributed substantially to a pattern of harmonious relations among the three Governments. This is not to say that there has been no friction. We do think, however, that with almost any alternate agreement which we can imagine there would likely have been greater friction, less harmony. This point can hardly be overemphasized. Regardless of the direct benefits which may have or may not have accrued to national fisheries, our countries have benefited from a period of relative harmony in relationships connected with fishery matters as the result of the existence of this Convention.

"As for the extent to which this Convention has been effective as a means for dealing with fishery problems, the United States has on many occasions made clear its view that the Convention has proved to be a most useful means for dealing with many of the critical fishery problems of common interest in the North Pacific Ocean. The President and various other officials, including me, have indicated the United States view that the underlying principle of the Convention--the abstention principle--is peculiarly applicable and is essential in connection with certain of the fishery problems in the area. The circumstances in the North Pacific Ocean off the coast of North America are unique in terms of long-standing Canadian and American fisheries, and unparalleled investments by the two Governments of time, money and talent in the conservation of the resources. Such unique circumstances must be given adequate recognition. As a practical matter, any pattern of international agreement regarding utilization of those resources which fails to take due account of the special contribution to the productivity of the resources such investments represent will not endure.

"The abstention principle does take due account of the special contribution which in this case has been made by the United States and Canada. It thus serves as a valuable procedure for encouraging governments to undertake the burdensome tasks connected with the conservation of marine fishery resources.

"In addition, if the principle or something akin to it is not available for dealing with this kind of problem as it occurs more frequently, the alternative courses of action which governments are likely to take to protect their fisheries will run contrary to the interests of the three Governments represented here and, in the long run, contrary to the interests of mankind.

"In short, we are convinced of the fundamental value of the principle of abstention for the solution of what are today unique fishery problems, but problems which may in the future be all too common.

"We are strengthened in our conviction by the manner in which this Convention has served the three Governments during the past ten years. None of the Governments has found in the functioning of the Convention all that it might have hoped for. Japanese fishermen find defects in the Convention, and so do Canadian and American fishermen. But, within its framework it has been possible for the three national fishing industries to prosper.

"I do not wish to give you the impression that we in the United States consider the Convention to have worked perfectly. Indeed, that is not our view, as all who are familiar with the proceedings of the International North Pacific Fisheries Commission can testify. However, the defects which we perceive are not fundamental. They do not go to the heart of the Convention. They are not defects in principle. They are perhaps weaknesses in the use of the instrument more than weaknesses in the instrument itself.

"These defects can and should be corrected; and no doubt the United States Delegation will have specific proposals to this end. Thus, we welcome this review of the Convention. I would be less than candid, however, if I did not emphasize the fact that in essence the Convention is satisfactory to the United States. Such proposals as the United States Delegation may make for correcting weaknesses will not deal with fundamentals of the Convention. These, in our judgment, are best left intact. It seems to us better to seek to improve upon the instrument with which we are familiar and which has, in fact, served well, than to discard it and seek to create a new instrument. The United States Delegation will, of course, be most interested in hearing the views of the Canadian and Japanese Governments and will give the most careful and sympathetic consideration to proposals which they put forward.

"It is our earnest desire that these discussions result in arrangements for the solution of common fishery problems in the North Pacific Ocean which all of the Governments represented here will consider both well suited to the advancement of common conservation interests and equitable."

* * * * *

REVISION PROBLEMS NOT RESOLVED:

The meeting of the Parties (United States, Canada, and Japan) to the International Convention for the High Seas Fisheries of the North Pacific Ocean which began in Washington, D. C., on June 6, 1963, came to a close on June 21.

During the course of the Meeting, the Delegations from the three countries reviewed the present North Pacific Fisheries Convention and discussed the new draft Convention proposed by the Japanese Delegation to determine whether the Japanese proposal or continuation of the present Convention with appropriate clarifications and understandings would provide the better basis for resolving the North Pacific fisheries problems of the three Parties.

The Japanese Delegation, while recognizing the contribution the present Convention had rendered toward the stabilization of fish-

International (Contd.):

eries relations in the North Pacific Ocean among the three countries, stated that the abstention formula has in it intrinsic irrationality since it is, in their view, actually designed for the protection of fishery industries of certain countries rather than for the conservation of resources. The Japanese Delegation clarified its position that Japan cannot continue the present Convention having the abstention formula as its base, not only because of the above essential reason, but because of the fact that the great changes which have taken place in the factual circumstances surrounding the Convention during the past 10 years have given rise to many problems next to impossible of solution under the abstention formula.

The Japanese Delegation took the position that the most realistic and practical solution is to replace the present Convention with a new one. They explained that in the draft Convention the abstention formula is replaced by the principle that joint conservation measures will be established on a scientific and nondiscriminatory basis, and that the fishery management conducted by Canada and the United States will be given due consideration in determining joint conservation measures.

Throughout the Conference, the Canadian Delegation supported the abstention principle on which the present Convention is based, as a sound, workable principle designed to provide for conservation and rational utilization of special fisheries which could not long survive without it. Regarding certain difficulties in the application of the terms of the Convention which had appeared during the 10-year period since it came into force, the Canadian Delegation expressed confidence that these problems could be solved through agreed understandings and interpretation of the articles of the Convention.

They stated that experience showed that one of the important problems requiring solution was that caused by the intermingling of fully-utilized stocks of halibut, which are under abstention, with other stocks of bottom fish which are not under abstention. The Canadian Delegation proposed that a just solution to this problem would be to agree that Japan, in carrying out fishing operations for bottom fish in the area south and east of the Alaskan peninsula, would not fish for halibut and would conduct the fishing operations in a manner which will not damage the halibut stocks.

After a careful study of the new draft Convention submitted by the Japanese Delegation, the Canadian Delegation stated that the language of the draft Convention was very general and that no clearly defined principle was included which would form the basis for protection and continued development of the Pacific Coast fisheries of interest to Canadian fishermen. It was pointed out that the Canadian salmon, halibut, and herring fisheries had been developed to a productive level as a result of adherence by Canadian fishermen to restrictive fishing practices over many years and through costly development programs.

The United States Delegation commented on the rapid growth of Japanese fisheries under the present Convention. They pointed out that with the understandings and clarifications proposed by the United States Delegation, this Convention would provide an even more effective instrument for resolving the North Pacific fishing problems, including those resulting from the westward migrations of Bristol Bay salmon. The United States Delegation stated that the Japanese draft Convention was unsuitable in many important respects. They considered that such criteria as it included were so general as surely to lead to great difficulties in implementation and would provide little assurance regarding the actual conservation measures which could finally be agreed upon by the Commission established to administer its provisions. They believed that the present Convention including the principle of abstention provides a clearly defined procedure for dealing with special situations where certain stocks of fish have been made more productive by extraordinary efforts directed to research, strict limitations on fishing and other constructive measures. The present Convention also has provisions for conservation of stocks not qualifying for abstention in terms that are simpler and more straightforward than the draft Convention proposed by Japan.

The United States Delegation concluded that the present Convention provided the best basis for resolving current North Pacific fishery problems and would provide sound and progressive precedents for the development of international practice in this field.

The Conference discussed at length the proposals and views of the three Delegations but was unable at this meeting to reach agreement on terms for the future cooperation of the three countries on North Pacific fishery matters. The three Delegations considered that the Conference had been very useful in promoting mutual understanding of the views of each of the three Parties.

International (Contd.):

It was agreed that it would be desirable to give further study to means of resolving the different views of the three countries in the light of the work of this Conference. The Conference therefore decided to adjourn and recommend to the three Governments that efforts to reach agreement be renewed at a second Conference to be convened early in the fall of 1963. (The Conference took note of the hope of the Japanese Delegation that the next meeting be held in Tokyo in September.)

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CANADIAN FISHERIES MINISTER REPORTS ON CONFERENCE:

While Canada, Japan, and the United States agree that a convention between them is necessary to maintain the fisheries of the North Pacific in the interest of the fishing industries of their respective countries, the Canadian Fisheries Minister reported to the House of Commons on June 24, 1963, that no agreement has been reached regarding modification of the International Convention for the High Seas Fisheries of the North Pacific Ocean.

The Convention came into force on June 12, 1953, for a 10-year period, following which it could be terminated on one year's notice by either Canada, Japan, or the United States. The Fisheries Minister said that the 10-year period is now over and the recent conference in Washington was held at the request of Japan to consider the possible need for modification of the Convention.

While no agreement had been reached at the conference, the Fisheries Minister said that the problems, including the special protection for Canada's unique salmon, halibut, and herring fisheries and the conservation of the North Pacific fisheries generally, can be solved within the framework of the present Convention, and that the Canadian delegation will in the discussions planned for later this year, endeavor to bring this about.

In his report to the House of Commons, the Fisheries Minister said: "The present Convention, alone among all fisheries treaties, embodies the principle of abstention. Under this principle if one or more of the parties are exploiting a fish stock to the full and are restricting their fishing by regulations based on scientific research in order to maintain that fish stock at a productive level, the other party or parties will abstain from entering the fishery. In accordance with this principle Japan, under the present Convention, is required to abstain from fishing the important salmon, halibut, and herring stocks of North American origin, and Canada abstains from fishing salmon in the Bering Sea. Our fisheries have in this way had a very large measure of protection from the expanding Japanese high seas fishing operations. There have been some difficulties in the application of the principle of abstention but our experts believe that no stocks which do not qualify now remain under abstention and that all stocks which qualify are under abstention. Continuation of the present Convention including the abstention principle is thus very important to the Pacific fisheries of Canada.

"This Convention has not been popular in Japan because it has restricted the expansion of their fisheries in the northeastern Pacific. Early during the present negotiations the Japanese delegation proposed a revision of the treaty to eliminate the principle of abstention which they claim to be monopolistic and contrary to generally accepted principles of freedom of fishing on the high seas. With this principle removed, the Convention would provide for joint conservation measures but would not afford protection to the fisheries which have been brought by Canada and the United States to high levels of utilization and productivity through great efforts on the part of our two countries. During the negotiations the Canadian delegation supported the principle of abstention claiming that the last ten years have shown it to be an equitable and workable means of maintaining the unique fisheries to which it applies in the North Pacific.

"Our delegation pointed out that the abstention principle had majority support at the Conference on the Law of the Sea and has achieved a large measure of international recognition. The Canadian delegation also pointed out that not only are the stocks of salmon, halibut, and herring, to which the abstention principle applies, fully utilized by our fishermen but have been maintained at their present highly productive levels by strict regulation of our fisheries based on scientific research. Furthermore, our countries have brought these fisheries to their present high levels of utilization and productivity at considerable cost, not only for research and enforcement of restrictions on our fishermen but especially in the case of salmon through positive fish culture measures and through abstaining ourselves from using the rivers in which the salmon are bred for other purposes such as power

International (Contd.):

development, irrigation, waste disposal, etc. The maintenance of these fisheries already difficult and expensive would become almost impossible if the benefits of these measures were not reserved for our own fishermen. The Canadian and United States delegations were in accord in insisting on the continued inclusion of the abstention principle in the North Pacific Treaty.

"During the Conference there has been an exchange of views which has clarified the positions of the three parties. The Convention has defined the problems and indicated in a preliminary way some of the possible means of solving them. One of the most difficult problems is caused by the intermingling on the fishing grounds of halibut, which require protection under the abstention principle, with larger stocks of other bottom fish which are not now intensively fished by the United States and Canada and from which Japan has no obligation to abstain. The problem here is to devise means by which Japan can make use of these stocks some of which are already being fished extensively by the Soviet Union while, at the same time, affording protection to the halibut fisheries which have been maintained at a high level by a Convention between the United States and Canada which is one of the oldest and most successful fisheries treaties in existence.

"Although Canada, Japan, and the United States all agree that a Convention between our three countries is necessary to maintain the fisheries of the North Pacific in the interest of the fishing industries of our three countries, no agreement has yet been reached regarding modification of the present Convention to this end. The Canadian delegation believes that all these problems including both the special protection for our unique salmon, halibut, and herring fisheries and the conservation of the North Pacific fisheries generally can be solved within the framework of the present Convention and will endeavor, in the further discussions planned later this year, to bring this about."

The Fisheries Minister reiterated that any tentative agreements reached during the negotiations will be fully discussed before Canada's Parliamentary Standing Committee on Marine and Fisheries before final acceptance by the Government.

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JAPANESE POLITICAL PARTY'S VIEWS ON REVISION OF TREATY:

The Japanese Socialist Party's Policy Deliberation Committee, on June 11, clarified the Party's views concerning the Japan-United States-Canada Fisheries Treaty (North Pacific Fisheries Convention). Its purpose was to remind the Japanese Government of Japan's unchanged position that the present Treaty is entirely inequitable and that the voluntary abstention principle has no scientific, rational basis. The Japan Socialist Party insists that the Japanese Government should immediately give notice to the United States and Canada of Japan's intention to formally terminate the present Treaty, and that, during the one year between the time the notice is served and a new treaty concluded, the Government should carefully study developments, taking into consideration the views of the Japanese people.

The Socialist Party's proposals for a new treaty are essentially as follows:

(1) To secure maximum sustained productivity and to serve the interest of mankind, the voluntary abstention principle must be eliminated and a new treaty concluded on the basis of equality, reciprocity, and freedom of the high seas.

(2) To ensure sound management of fishing grounds and rational utilization of fishery resources, establishment of regulatory areas by kind of fishery should be permitted when necessary.

(a) Within the regulatory areas, necessary controls, such as area restrictions (closing certain areas), catch restrictions, fishing season, size limits, and catch limits, should be established.

(b) Regulatory areas and enforcement procedures may be changed if such action is warranted by evidence based on scientific studies undertaken by the commission.

(3) In view of the special characteristics of the salmon fishery, salmon resources in the high seas as well as in territorial waters should be managed under a unified system.

(a) Fishery resource management should be conducted under a joint program. This program should be carried out by an international body to be established under

International (Contd.):

the treaty or by the respective contracting parties.

(b) Catch quantity should be determined through agreement among the contracting parties and should be based on evidence obtained from scientific studies of resources in both the high seas and in territorial waters.

(c) Regulatory enforcement on the high seas should be conducted in accordance with the provisions outlined in Item 2.

(4) To preserve and increase fishery resources, the contracting parties should conduct necessary research severally or jointly and exchange data.

(a) The Commission should manage fishery resources in accordance with the provisions of the treaty.

(b) The Commission should conduct scientific investigations necessary to maintain, develop, and conserve fishery resources in treaty waters, collect and analyze data, determine whether it is necessary or advisable to establish joint regulatory measures, and transmit recommendations to the contracting parties.

(c) Decisions of the Commission should be based on the mutual consent of all contracting parties.

(5) Each contracting party, upon receiving notice of the Commission's recommendations, should establish domestic measures to implement such recommendations.

(6) Each contracting party, for the purpose of rendering effective the provisions of the treaty, should enact and enforce necessary laws and regulations, with regard to its nationals and fishing vessels, with appropriate penalties against violations thereof and to transmit to the Commission a report on any action taken by it with regard thereto.

(7) When a person or fishing vessel violates the provisions of the treaty, only authorities of the contracting party to which the offending person or fishing vessel belongs may try said person or vessel and impose penalties.

(8) The new treaty should continue in force for a period of ten years. (Suisan Keizai Shimbun, June 12, 1963.)

* * * * *

AMENDMENT TO CONVENTION ENTERS INTO FORCE:

An amendment of the annex to the International Convention for the High Seas Fisheries of the North Pacific Ocean of May 9, 1952, as amended, permits Japan to fish for halibut in a restricted area of the eastern Bering Sea. The amendment is to paragraphs 1(a) and 1(b) of the annex. It was adopted at Seattle on November 17, 1962, at the ninth meeting of the International North Pacific Ocean Fisheries Commission. Acceptances were deposited by Canada on May 8, 1963; by Japan on February 26, 1963; and by the United States on March 23, 1963. The amendment entered into force on May 8, 1963.

NORTHWEST ATLANTIC FISHERIES COMMISSION

THIRTEENTH ANNUAL MEETING HELD IN HALIFAX, NOVA SCOTIA:

The 13th annual meeting of the International Northwest Atlantic Fisheries Commission was held at Halifax, Nova Scotia, June 3-7, 1963. The Commission is concerned with the investigation and conservation of the major fisheries of the Northwest Atlantic. All 13 member countries were represented. The United States was represented at the meeting by three commissioners, industry advisors, and technical advisors from the U. S. Bureau of Commercial Fisheries.

Some of the actions and discussions at the meeting of interest to the fishing industry were:

(1) The possibilities of establishing minimum trawl mesh sizes in Subarea 5 (Gulf of Maine and Georges Bank south to the vicinity of Block Island) for bottom species other than cod and haddock and minimum ring sizes for sea-scallop dredges. No action was taken inasmuch as there were still insufficient data upon which the Commission could make recommendations.

(2) On the matter of international enforcement of ICNAF regulations further progress was made when it was agreed to seek amendments to the Convention authorizing the Commission to make recommendations to Member Governments for measures of national and international control in the Convention Area.

(3) In discussing problems arising from different fishing customs and interpretations of navigation Rules of the Road by vessels of various nationalities in the Convention Area, it was decided that all Member Nations should be informed of the practices employed by the fishing fleet of each nation. This would draw at-

International (Contd.):

tention to any incompatible fishing procedures which can be taken under advisement by the Commission.

(4) Of interest were preliminary statistics of the Soviet catch in the Georges Bank area for 1962. The catches consisted primarily of 151,000 metric tons of adult sea herring and 42,000 metric tons of silver hake (whiting). The United States has no high-seas fishery for adult herring, but does have an extensive fishery for small herring or the sardines utilized by the Maine canneries. The Soviet catch (44,202 tons) for whiting was nearly equal to that of the United States fleet during the same period. From discussion it was indicated that the Soviet catches of herring and whiting were taken with trawl nets of 40 millimeters (about $1\frac{1}{2}$ inches) stretched mesh size. This is somewhat smaller mesh gear than is used by any of the United States fleet fishing off New England for species other than cod or haddock. The sea herring and whiting fisheries in the Northwest Atlantic Ocean are not regulated by mesh size.

(5) Talks regarding an agreement between the International Council for Exploration of the Sea, the Food and Agriculture Organization, and ICNAF on a joint reporting form for fishery statistics of the North Atlantic resulted in a new form being introduced. It was agreed that all European members of ICNAF would begin using the new form immediately, but that Canada and the United States will continue to use present forms through 1963.

(6) The only new information on long-term mesh assessments issued by the Assessment Working Group during the year were those on ocean perch (redfish) for Subarea 5.

(7) Examination of catch and effort data for Subarea 5 lead to the conclusion that the present level of effort on cod is probably higher than that which would give the maximum sustained catch with $4\frac{1}{2}$" mesh, the legal mesh size. For haddock the present levels of effort appear to provide landings near the sustainable maximum. Further increases in effort would not, in the long run, increase the total landings and could cause them to decrease.

(8) An analysis was made of the differences between natural and synthetic twines. Selection factors for the main types of polyamid (nylon, etc.) and polyester (terylene) were 12 to 20 percent higher than for double manila fibers of the same mesh size--meaning that the synthetics allowed more fish of slightly larger sizes to escape.

(9) Plans for an Environmental Symposium to be held in Rome on January 27 to February 1, 1964, are in an advanced state of preparation. At the meeting it was decided to add another section to the Symposium on "ICNAF Herring and the Environment."

(10) The first phase of the Environmental Survey (NORWESTLANT) in Greenland waters was successfully completed in April and May by vessels of France, Norway, United Kingdom, and U.S.S.R. The second phase involving vessels of Canada, Denmark, Germany, and Iceland was in progress while the meeting was taking place. The third and last phase was planned for July. The results will be published by ICNAF as soon as possible. The Canadian Oceanographic data Center is processing the hydrographic data.

(11) Recommended that the Continuing Working Party (a joint ICES/FAO/ICNAF statistical committee) continue in existence, as being the best means of providing the essential liaison between the three international agencies responsible for compiling and publishing North Atlantic fishery statistics.

(12) Some progress was made in resolving fish age-determination problems and new techniques of otolith preparation and photography were demonstrated. Plans were made for the exchange of otoliths along with black and white photos or transparencies on which different readers can record their interpretation.

(13) Considerable attention was given to chafing gear. All countries were requested to provide the Secretariat diagrams and descriptions of the types of chafing gear now in use aboard their vessels. Changes were proposed in the regulations that would make illegal the use of any top-side chafer that would obstruct or diminish the size of the meshes of the trawl's cod end. Countries will be formally notified of the proposed changes.

(14) It was proposed that ICNAF consider adopting the ICES minimum mesh of 120 mm. (to be adopted by ICES on June 1, 1964) for taking cod and haddock throughout the ICNAF area. Present minimum legal size trawl mesh is $4\frac{1}{2}$" (114 mm.) in Subareas 4 and 5, and 4" (102 mm.) in Subarea 3. Commission members agreed to study these problems during the year and attempt to find solutions at next year's meeting.

New officers elected for coming year (1963/64) and for next year's meeting were: Klaus Sunnanaa, Norway, as Chairman, and Frank P. Briggs, United States, as Vice Chairman.

ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT

FISHERIES COMMITTEE MEETS:

The Fisheries Committee of the Organization for Economic Cooperation and Development (OECD) met at Paris, France, July 1-3, 1963. The agenda for this meeting covered: (1) a study of subsidies and other financial support in member countries; (2) suggestions for the 1963-1964 general program of work; (3) sanitary regulations for canned fish; and (4) operational and technical cooperation programs for 1964.

The United States representative at the meeting was A. W. Anderson, Regional Fisheries Attache, United States Embassy, Copenhagen.

INTERNATIONAL PACIFIC SALMON FISHERIES COMMISSION

RESEARCH PROGRAM REORGANIZED:

A reorganization of the research program of the International Pacific Salmon Fisheries Commission is under way to meet the conservation problems arising from rapid industri-

International (Contd.):

alization of the Fraser River Basin, according to the chairman of the Commission.

Many of the problems of salmon management have been solved on the Fraser River, the chairman stated. However, he added, we are still faced with the growing problem of pollution, the failure of hatcheries to replace successfully natural spawning grounds, and our inability to transplant successfully large self-sustaining runs of either sockeye or pink salmon.

In 1962, the Commission completed an experimental laboratory at Cultus Lake and has been searching for highly trained men to expand the research into several special problems facing the Commission. During the first year of operation at Cultus Lake Laboratory, most of the research has been directed to finding the weaknesses inherent in salmon hatchery methods. A scientist, who is receiving his doctorate in physiology at the University of British Columbia, is in charge of both the hatchery research and the over-all operations of the research station.

The Commission chairman stated, "that with the growth of industry and towns in the Fraser watershed, the Commission was obligated to the Federal Government and to the people for aiding in the technical solution of the highly varied and growing pollution problem." "We must work as partners with government and industry toward the proper control of waste products," added the head of the new pollution research program.

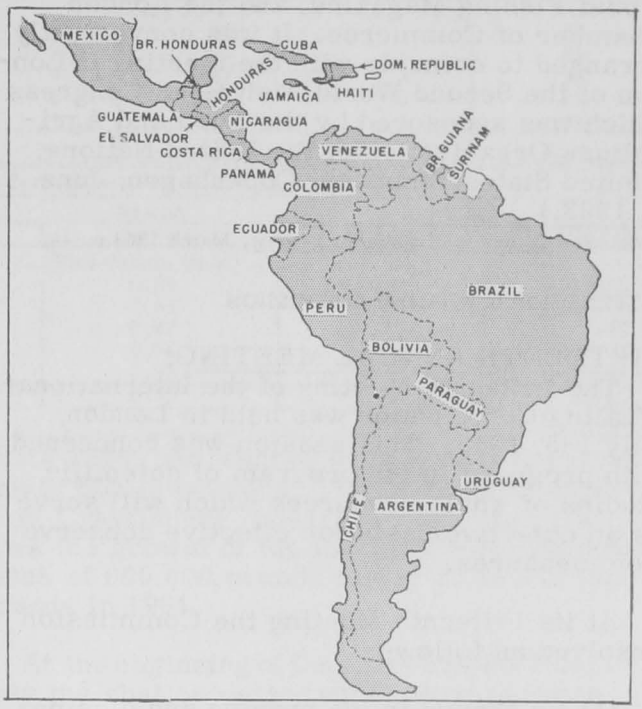
A scientist from the University of Toronto will be in charge of a research section dealing with the problems involved in the transplantation of salmon and their tolerances to environmental changes.

The Commission's decision to expand its research effort was based on the fact that sufficient data were not being obtained from outside sources to meet the Commission's technical requirements for protecting Fraser River sockeye and pink salmon.

TERRITORIAL WATERS

ECUADOR, CHILE, AND PERU MAY BAN FOREIGN VESSELS FROM "TERRITORIAL" WATERS:

Chile, Peru, and Ecuador are reported to be formulating plans to shut out foreign fishing vessels from offshore waters claimed as territorial seas (jurisdiction over 200 miles off their coasts) by those countries. Concerning foreign fishing operations in offshore waters bordering those countries, the Foreign Minister of the Chilean Government on May 28 is said to have remarked as follows:



"The United States and European fishing vessels are ravaging the fishery resources belonging to Chile, Peru, and Ecuador. Wanton intrusions by those foreign vessels into our territorial waters have dealt a grave blow to the fisheries of our three countries. The Chilean Government, in cooperation with Peru and Ecuador, plans to shut out foreign fishing vessels from territorial waters bordering our three nations." (Reported by the Japanese periodical Suisan Keizai Shimbun, May 30, 1963.)

TRADE FAIRS

WORLD FISHING EXHIBITION HELD IN LONDON, ENGLAND, MAY 27-31, 1963:

A wide variety of marine engines, fishing nets, gear, and equipment was shown by over 200 exhibitors from major manufacturing countries at the World Fishing Exhibition which was held at Earls Court, London, England, May 27-31, 1963. The items displayed included filleting machines, freeze-drying equipment, net-making machines, and an electronic device for testing the freshness of fish. This device, according to the West Ger-

International (Contd.):

man manufacturer, "measures the freshness of fish instantly (one second)."

The Exhibition was sponsored by leading fisheries organizations in the United Kingdom, World Fishing Magazine, and the London Chamber of Commerce. It was conveniently arranged to coincide with the meeting in London of the Second World Fish Gear Congress which was sponsored by the Food and Agriculture Organization of the United Nations. (United States Embassy, Copenhagen, June 5, 1963.)

Note: See Commercial Fisheries Review, March 1963 p. 44.

INTERNATIONAL WHALING COMMISSION

FIFTEENTH ANNUAL MEETING:

The Fifteenth Meeting of the International Whaling Commission was held in London, July 1-5, 1963. This session was concerned with progress in the program of scientific studies of whale resources which will serve as an objective basis for effective conservation measures.

At its Fifteenth Meeting the Commission resolved as follows:

(1) No change in the opening and closing dates of the Antarctic baleen whaling season.

(2) Complete suspension of whaling for humpbacks in the Southern Hemisphere. At the end of three years the Commission should review the position to determine whether any other action should be undertaken.

(3) Complete suspension of whaling for blue whales in the waters south of 40 degrees south latitude except in the waters north of 55 degrees south latitude from 0 degrees longitude eastwards to 80 degrees east longitude.

(4) By July 1964, the Commission's regulations on whaling should be consistent with the conclusions of the work on assessment of whale stocks carried out by the Committee of Three (composed of one man each from the United States, Canada, and the Food and Agriculture Organization).

(5) Catch limit of 10,000 blue-whale units for the 1963/64 season.

(6) Accepted the invitation from the Government of Norway to hold the Sixteenth Annual Meeting in Sandefjord, Norway, during the week of June 22, 1964.

The United States delegation consisted of A. Remington Kellogg, United States Commissioner, J. Laurence McHugh, Deputy Commissioner, and three United States Government officials who acted as advisers.

The International Whaling Commission was established in 1948 for the purpose of preserving the dwindling whale stocks through scientific study and regulation of catches.

UNESCO INTERNATIONAL OCEANOGRAPHIC COMMISSION

MEETING OF INTERNATIONAL COOPERATIVE INVESTIGATIONS OF THE TROPICAL ATLANTIC:

A meeting of the International Cooperative Investigations of the Tropical Atlantic (ICITA), a component of the UNESCO International Oceanographic Commission, was held in Paris, France, July 2-5, 1963. The purpose of the meeting was to: (1) review EQUALANT I Midwinter Survey of the Equatorial Atlantic, consisting of some 14 ships of 7 nations between 20° North and 20° South, and between West Africa and South America; (2) review proposals for EQUALANT II (scheduled for August 1, 1963), involving the same geographic area as EQUALANT I and some change in vessels; (3) review proposals for EQUALANT III (scheduled for midwinter of 1964), to be centered in the area of the Gulf of Guinea north to the Canary Islands; and (4) review proposals of the National Oceanographic Data Center for preparation and publication of ICITA Data Reports and Atlases.

The United States was represented by Thomas S. Austin, Chairman, International Coordinator of the Exploration of the Tropical Atlantic, and two advisers (one from the Department of State and one from the National Oceanographic Data Center).

WHALING

ANTARCTIC CATCH, 1962/63 SEASON:

The expeditions of the 5 nations participating in Antarctic whaling caught a total of 11,299 blue whale units during the 1962/63 season, compared with an Antarctic catch of 15,253 units in the 1961/62 and 16,453 units in the 1960/61 seasons. The decline in the catch was due mainly to a reduction in the number of operating fleets (table).

International (Contd.):

Antarctic Whaling Fleets, 1962/63 Season With Comparisons

Country	Factoryships and Catcher Vessels, by Countries, 1960/61-1962/63					
	Season					
	1962/63		1961/62		1960/61	
	Factoryships	Catcher Vessels	Factoryships	Catcher Vessels	Factoryships	Catcher Vessel
	(Number)					
Japan	7	79	7	86	7	83
Norway	4	32	7	71	8	81
U. S. S. R.	4	70	4	67	3	52
United Kingdom	1	9	2	22	2	22
Netherlands	1	11	1	15	1	14
Total	17	201	21	261	21	252

Country	Average Catch Per Catcher Vessel Per Day, 1958/59-1962/63				
	Season				
	1962/63	1961/62	1960/61	1959/60	1958/59
	(Blue-Whale Units)				
Japan	0.70	0.69	0.86	1.06	0.99
Norway	0.42	0.45	0.64	0.64	0.92
U. S. S. R.	0.34	0.42	0.57	0.87	0.97
United Kingdom	0.48	0.42	0.66	0.60	0.73
Netherlands	0.36	0.35	0.56	0.65	1.17
Average catch, all countries	0.50	0.51	0.69	0.73	0.95

The similarity between the average catch rate per unit of effort during the last two seasons may give a deceptive picture of present whale stocks. With the reduction in operating fleets, it would be reasonable to assume that the least efficient units were eliminated. Under equal conditions, such a reduction in catcher vessels ought to have resulted in a somewhat larger average catch per day's effort. But this did not occur, and steadily declining catch rates are sharply evident when comparisons are made with earlier seasons.

The 1962/63 Antarctic season opened on December 12, 1962, for fin and sei whales, and on February 1, 1963, for blue whales. Humpback whales were completely protected in certain areas, and in the other areas they could be taken only during a very limited period in late January. Whaling operations were completed on April 7, 1963. During the 1962/63 Antarctic season, the average hunting period for participating vessels was 111 days. (Norwegian Whaling Gazette, April 1963.)

Note: See Commercial Fisheries Review, June 1963 p. 85, Sept. 1962 p. 59.

Australia

MARINE BIOLOGIST WARNS OF DECLINE IN SPINY LOBSTER RESOURCE:

A Perth, Australia, marine biologist, who has been studying the spiny lobster fishery since 1944, has warned of depletion in his recently published book, "The Western Australian Crayfishery, 1944-61." The study follows the growth of the industry from the initial catch of 600,000 pounds to one of 19 million pounds in 1961.

At the beginning of the spiny lobster fishery, only the shallow-water reefs close to shore were fished. Now, powerful vessels fish the offshore reefs, where the risks and the costs are big, but the catch is often small.

The statistical tables in the book show that in the easily fished reefs, the spiny lobsters have declined, and there are more fishermen hunting for them.

The biologist points out that the market for spiny lobster is a luxury market and that good prices have been paid. He says that this has offset the high costs and wasteful competition between all the vessels.

There is no guarantee that prices will stay high; he considers they will fall. The present annual export of frozen spiny lobster tails is about 6 million pounds. He estimates that, in a few years, the market will shrink to three-quarters or half that figure.

People will be driven out of the industry. In other fisheries, experience has shown that others are always prepared to take their place, and live at lower standards. He feels that wise management is helping to offset this tendency.

Australia (Contd.):

The biologist considers that the Government can get nowhere without the support of the fishermen and says that there are laws designed to conserve spiny lobster stocks, but they are hard to enforce.

Fishermen need to understand and obey them voluntarily, for their own good, he states. He added, there can be no security while the immature spiny lobsters are being killed.

He says he would like to see bigger escape gaps in the lobster pots, which would let all the small spiny lobsters escape before the pots are pulled up. Big escape gaps have been made compulsory in parts of Europe, he says, and these should be tested commercially in Australia.

The inner Abrolhos waters are already overfished, and so are the shallow reefs near Fremantle and Geraldton. But north of Geraldton, about 20 miles from shore, the spiny lobsters are still abundant. (Fish Trades Review, April 1963.)

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DEVELOPMENT OF A DEEP-WATER TUNA FISHERY BEING STUDIED:

An Australian team of experts will investigate the possibility of developing deep-water tuna fishing in waters near Australia, the Minister for Primary Industry, announced in May this year.

The Minister states, "Tuna are known to be present in large quantities off the Australian coast, but the types of vessel and gear required to catch them, and especially the costs of such operations, present problems.

"The live bait and pole method used by Australian fishermen to catch tuna in the shallow waters close to the coast is not applicable to deep-water fishery.

"A team of experts will visit Japan, Hawaii, and Samoa to investigate the technical and economic aspects of introducing to Australia the longline method of catching tuna.

"It is expected that the investigations will take about three months and that the experts' report will indicate to the Government and to the fishing industry the prospects of successfully developing a deep-water tuna fishery on a commercial basis." (Pacific Islands Monthly, June 1963.)

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WHALE OIL INDUSTRY TRENDS, FISCAL YEAR 1962/63:

Australian whale oil production has fallen rapidly in the last two seasons and is expected to drop even further in fiscal year 1963/64 (July 1963-June 1964). Only two whaling stations (both on the west coast) are expected to operate this season. With the help of a research grant from the Australian Government, an attempt is being made to improve the west coast operation by concentrating on sperm whale stocks.

On the Australian eastern seaboard, where humpback whales have been very scarce, the whaling stations at Byron Bay, Tangalooma, and Norfolk Island have been shut down and their assets have been offered for sale.

Declining production is expected to sharply reduce Australia's whale oil exports in fiscal year 1963/1964, while whale oil imports should show a moderate increase. New Zealand has been Australia's leading supplier of imported whale oil. (United States Embassy, Canberra, May 8, 1963.)

Australian Supply and Distribution of Whale Oil, Fiscal Years 1959/60 Through 1962/63

	1/1962/63	1961/62	1960/61	1959/60
	(1,000 Lbs.)			
Supply:				
Opening stocks1/	4,849	4,354	6,142	11,391
Production2/	11,581	24,893	29,261	33,297
Imports	2,500	1,678	1,280	754
Total supply	18,920	30,925	36,683	45,442
Distribution:				
Exports	8,500	17,576	21,255	28,265
Domestic consumption:				
Margarine and shortening	8,000	8,000	10,274	10,235
Other uses1/	500	500	800	800
Closing stocks1/	1,920	4,849	4,354	6,142
Total distribution	18,920	30,925	36,683	45,442

1/Estimated.
2/Includes production on Norfolk Island.
Note: Official data in Imperial gallons, converted to pounds with the factor 9.25.

Note: See Commercial Fisheries Review, May 1963 p. 58, October 1962 p. 47.

Brazil

COMMITTEE TO STUDY ADHERENCE TO GENEVA CONVENTION ON LAW OF THE SEA:

On June 11, 1963, the Brazilian Foreign Office announced that (pursuant to Decree No. 52.052 of May 24, 1963), a Commission with a mandate of six months has been formed to study and to make recommendations as to Brazil's "eventual adhesion" to the 1958 Geneva Conventions on the Law of the Sea. The Commission is composed of a chairman, 10 members, and a secretary. (United States Embassy, Rio de Janeiro, June 14, 1963.)

Canada

BRITISH COLUMBIA FISHING INDUSTRY SPOKESMEN OBJECT TO NORTH PACIFIC FISHERIES TREATY REVISION:

Spokesmen for the British Columbia fishing industry are reported as having stated that acceptance of the new North Pacific Ocean fishing regulations proposed by Japan would be a disaster for Canada. The press report adds that the spokesmen said Canada and the United States should do their utmost to keep Japanese fishermen out of the eastern Pacific.

One of the spokesmen was identified as the Secretary-Manager of the Fisheries Association of British Columbia who reportedly said, "If the Japanese were able to fish for salmon on the high seas it would be disastrous for Canada's Pacific fishing industry. We will just have to hope that Canada and the United States can keep the abstention principle in the treaty itself."

The leader of the Fishermen's Union reportedly made the following statement to the press: "The Japanese draft shows Japan is out to seize all Canada's fishery resources. The Fisheries Minister should tell the Japanese that, treaty or no treaty, any action as they have announced will be considered as contrary to the interests of Canada and will be dealt with accordingly. Canada should set forth a minimum proposal for a four-nation treaty, including Russia, banning all mid-ocean fishing."

* * * * *

FISHERY SCHOLARSHIPS AWARDED:

The Fisheries Research Board of Canada has awarded 11 scholarships for 1963/64 to graduate students in various fields of marine biology and oceanography. The scholarships, valued at $2,400 each, are awarded annually through competition based on scholastic ability. (Information Service, Canadian Department of Fisheries, Ottawa, June 3, 1963.)

* * * * *

GREAT LAKES INSTITUTE RESEARCH PROGRAM FOR 1963:

In 1960, the Great Lakes Institute was established in the University of Toronto. The Institute was charged with the responsibility of encouraging research on the Great Lakes, and supplying research facilities for graduate students in limnology and oceanography.

An important aid to the Institute's studies is the use of the research vessel Porte Dauphine, which is operated by the Canadian Department of Transport. A number of launches and small boats provide support for smaller field studies. Cooperating universities, the Ontario Water Resources Commission, and the Ontario Department of Lands and Forests also make laboratories and facilities available to Great Lakes Institute personnel.

A major part of the Institute's 1963 program consists of general purpose lakewide surveys of Lake Erie and Lake Huron. At approximately one-month intervals, about 60 stations are occupied in each lake to collect physical and chemical data, meteorological data, zooplankton samples, and bottom samples for bottom fauna and geological studies.

Water temperature data and meteorological data are being combined in studies of the energy budgets of the lakes, ice formation, and the influence of the lakes upon weather.

A magnetometer survey is being conducted in Georgian Bay and Lake Huron. Seismic (sparker) surveys are planned for parts of Lake Erie in conjunction with geologic studies of the bottom sediments in that lake. The Institute is also supporting studies of diffusion in water by dye techniques in western Lake Erie.

Special physical, meteorological, and biological studies are being carried on concur-

Canada (Contd.):

rently at Douglas Point in Lake Huron at the site of an atomic reactor power plant. Another project is concerned with the development of suitable shallow-water and deep-water towers for use in the continuous recording of meteorological and limnological data out in the open waters of the Great Lakes. The instrumentation for the towers is also under test.

The University of Toronto maintains an office to process and record the Institute's research data which is later published in annual reports. (Newsletter, National Oceanographic Data Center, May 31, 1963.)

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JOINT LAKE ERIE RESEARCH PROJECT WITH UNITED STATES PROPOSED:

The Canadian Department of External Affairs has proposed a joint Canadian-United States project for study of Lake Erie on a broad scientific basis, to be carried out during 1963 and 1964. Approval by the Canadian Government of this project is probable. (United States Embassy, Ottawa, June 4, 1963.)

* * * * *

1962 PACK OF PINK SALMON CAUSES MARKETING PROBLEMS:

The very large pack of British Columbia canned pink salmon in 1962, despite somewhat improved market prospects due both to the devaluation of the Canadian dollar and to the lower prices, presented the canners with a major marketing problem.

The over-all result of the good 1962 pack was that by the end of April 1963, only 648,564 cases of pink salmon had been sold, leaving an inventory of 612,375 cases. In terms of past experience, it was believed that at the end of the marketing year, June 30, 1963, Canadian canners would have about 450,000 to 525,000 cases of pinks still unsold.

The price of canned pink salmon has been lowered steadily in order to meet the Japanese and United States competition, and to sell as many cases as possible. In August 1962, due to the fact that the companies were paying higher prices for pinks and had recently granted wage increases to both shoreworkers and tendermen, the export prices were set at C$27.50 for halves (8-oz. 96 cans/cs.), and $26.00 for talls (16-oz. 48 cans/cs.), a moderate increase over 1961. By the end of August 1962, it was clear that the Canadian and United States packs would be very large, and prices were reduced immediately to $26.00 and $24.00 for halves and talls, respectively. In October 1962, in order to stimulate greater sales in the United Kingdom, a promotional allowance of 60 cents per case was offered on minimum purchases of 2,500 cases.

In April 1963, in an effort to achieve an increased distribution of Canadian pink talls in the British market, a special price of $22.00, less a promotional allowance of $1.50 a case, was set. The effect of this price reduction of $3.50 per case is an anticipated sale of at least 25,000 cases of this size in the United Kingdom, traditionally a half-pound and quarter-pound market.

The Japanese who had a carryover of about 200,000 cases (98 cans/cs.) of pink halves from the 1962 pack reduced their price in May 1963 by $2.00 per case to export markets. In an endeavor to meet this competition, Canadian packers further reduced their price on pink halves by $2.50 per case.

In summary, in August 1962, the initial export prices were set at $27.50 for halves, and $26.00 for talls, slightly higher than in 1961. Since then, in an effort to promote and increase the market for pinks, the prices were gradually reduced to the May 1963 prices of $23.50 for halves and $20.50 for talls.

In the Canadian market, too, the price of pinks has been reduced over the year in order to move the large stocks which remained unsold, and on which the storage costs were heavy.

It can be said, therefore, that in the export and domestic markets, the canners have been realistic in their efforts to promote sales. In addition, Canadian representatives traveled to all the Common Market countries, to the United Kingdom, as well as to both Australia and New Zealand.

In addition to the large carryover of pinks, there will likely be about 70,000 cases of sockeye which remain unsold from the 1962 season, and the carryover of coho will be in the vicinity of 100,000 cases. (Fisheries Association of B. C., May 1963.)

* * * * *

Canada (Contd.):

MARKET FOR FISHERY PRODUCTS IN UNITED KINGDOM, 1961-62:

Landings of fishery products in the United Kingdom rank slightly below Canada and constitute only one-quarter of one percent of the gross national product. The industry employs a great many people, however, and adds much to the British diet. Per capita consumption of fish exceeds 18 pounds a year.

Annual landings of fresh and frozen fish total about 850,000 long tons, 15 percent of which is supplied by other countries. Nearly half of the foreign landings are made directly by fishing vessels.

Nearly 85 percent of the fish landed in Britain is still eaten fresh and the short distances from the ports to the main consumption areas make it possible for deliveries to be made within 24 hours. Because of restrictions on some traditional fishing grounds, British trawlers now have to make longer voyages. There are improved methods of freezing a larger portion of the catch at sea, but the installation of these facilities will necessarily take some time. Meanwhile housewives are beginning to realize that fish frozen on the day it is caught is a better buy, even though it may have traveled hundreds of miles after freezing. This has led to larger imports of frozen fish from Iceland, Norway, and a number of other countries, including Canada.

The production of quick-frozen fish has increased sharply in recent years and an unofficial estimate puts the 1962 figure for frozen fish sticks at 44 million pounds. There are 30 brands of frozen fish packs produced in Britain, using 15 types of fish in various forms as well as shellfish specialties. The sizes range from three ounces for smoked salmon to 16 ounces for fillets of cod, haddock, plaice, and lemon sole, but the majority of fish products are put up in 8-ounce and 14-ounce packs. In addition, cod and haddock, the most popular varieties, are marketed in 7-ounce and 12-ounce packs, skinless and boneless cod in 6-ounce, and skinless cod in $7\frac{1}{2}$-ounce and 13-ounce packs.

Britain's exports of fish and fish preparations increased in value from C$18.9 million in 1961 to $21 million in 1962. They are far outweighed by imports, which rose from C$128.4 million to $180.6 million over the same period. Japan was the principal supplier of 1962 imports with shipments valued at $80.7 million, followed by Norway ($21 million) and Denmark ($14.7 million). Canada, with $13.8 million, ranked fourth and increased its sales by $3.6 million over the previous year.

Out of total fisheries imports of C$180.6 million, canned salmon accounted for $90 million, almost double the 1961 figure. The quantity rose from 47 million pounds to 93.2 million pounds, and Japan was responsible for nearly four-fifths of the trade in both years. The table gives the value of imports from the main suppliers in 1957 (the last full year in which canned salmon was under import quota) and in the last two years.

Imports of Canned Salmon into Britain

Origin	1962	1961	1957
		(C$'000)	
Canada	10,050	6,684	8,028
Japan	71,184	33,438	13,851
United States	5,151	4,101	3,891
U.S.S.R.	3,555	1,434	7,236
Others	120	174	240
Total	90,060	45,831	33,246

British import statistics do not list the various species of salmon separately, but the latest available information on Canadian exports shows that, although shipments of canned chum salmon were made at approximately the same rate as in 1961, the amount of cohoe increased by 50 percent. The demand for pinks rose throughout 1962 and the 1961 figure was exceeded in the first six months. The efforts of Canadian exporters to dispose of the record pack of pinks resulted in increased shipments during the later months and by the end of November the total was three times the 1961 figure. The demand for sockeye, Canadian shipments of which exceeded all other varieties combined in 1961, could not be satisfied in 1962 because of the small pack and Canadian sales fell by 30 percent.

There has been a growing trend in recent years to market canned salmon in Britain under the importer's label and consequently only a small proportion of Canadian shipments appears on the shelves with the packer's own label.

With the rising standard of living in Britain, there is a continuing demand for canned lobster, and imports from Canada in 1962 amounted to over $500,000, double the 1961 figure. In 1961, the demand for Canadian canned sild (sardines) could not be met because

Canada (Contd.):

of the poor season, but in 1962 the supply position improved considerably and this enabled Canadian exporters to double their shipments. A small amount of business was done in other Canadian canned products, including kipper snacks and lobster paste.

Britain's imports of chilled or frozen fish totaled nearly 35,000 long tons in 1961; two-thirds was in the form of fillets. Canada's share of the total was more than 3,800 tons valued at C$3 million and was made up of 1,800 tons of fillets (principally cod but including some haddock), 800 tons of whole or dressed salmon, and 1,200 tons of other forms (mainly cod blocks). Norway and Iceland are the principal suppliers of frozen cod and haddock fillets, with Denmark supplying the bulk of the plaice. Imports of all fillets from these and other European countries rose in 1962 but imports from Canada fell considerably, partly because the prices obtainable in the United States were higher.

Imports of frozen salmon in 1961 totaled 2,800 tons, 800 of which came from Canada, 1,000 from Japan, 750 from Norway, and 100 each from the United States and Poland. There was a record run of salmon in Scotland and Ireland in 1962 and at one stage it looked as if the proportion being sent for freezing would seriously curtail imports. The 1962 import figures are incomplete but it is clear that, although imports of Atlantic salmon from Canada and Norway were smaller, imports of Pacific salmon increased and the total of all types imported from Canada was greater than in 1961.

About 40 percent of the frozen salmon imported into Britain, including nearly all weighing 6 pounds or more, goes into the production of smoked salmon. Although there is some preference for Japanese chum over the Canadian on the grounds of greater uniformity of color, the smoking trade in Britain considers that Canadian troll-caught cohoe or silver salmon is more suitable than Japanese chum because of uniformity of size, quality, and color as well as more attractive prices. In 1962, Canadian exporters took advantage of this preference for their cohoe by trebling shipments over the 1961 figure.

British importers are equally interested in buying frozen halibut from Canada but they were not prepared to pay the high prices in 1962 and the bulk of their purchases were made in Japan. Frozen lobster meat from Canada is also in demand in Britain but the available supplies did not permit an increase in exports in 1962.

The outlook for Canadian canned and frozen fish in the British market appears generally encouraging. Shipments of frozen fillets may fluctuate with the supply on both sides of the Atlantic, but there is a growing demand for specialty items, including shrimp, cod roe, eels, and live lobsters. (Foreign Trade, a Canadian Government periodical, March 9, 1963.)

Note: British pounds converted to Canadian dollars at rate of £1 equals C$3.00.

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BRITISH COLUMBIA WHALING COMPANY HOPES FOR BETTER SEASON IN 1963:

Five vessels of a British Columbia whaling company left to hunt whales in late April this year, confident of a better season than they had in 1962.

At west coast Canadian whaling station skilled workers use flensing knives to strip off blubber. Giant calipers are used to measure whale.

Two factors gave them some hope that 1963 will prove a better year. The weather was poor last year and there are prospects of some improvement. The other encouraging factor is the acquisition of two new and faster catcher vessels. These, according to an official of the firm, are capable of almost five knots more than the previous vessels and speed is essential in capturing the whales and making a quick delivery to the company's station at Coal Harbor for processing.

The sixth vessel of the 1963 fleet was due to join the fleet later in the season.

Canada (Contd.):

According to the general manager of the firm, there will be no change in the plan of operation this year. The agreement with the fishermen's union with respect to wages and benefits remains practically unchanged from 1962. The only significant change, according to Union officials, was a reduction of C$6.00 in board charges. However, the contract comes up for revision before any whaling operation gets under way in 1964. (Canadian Fisherman, June 1963.)

Caroline Islands

U. S. FIRM TO ESTABLISH A TUNA FREEZING AND FISHING PROJECT:

A west coast United States firm is to establish a commercial fisheries project at Koror, Palau, in the Caroline Islands Group of the United States Trust Territory of the Pacific.

A contract between the Trust Territory Government and the United States firm calls for the establishment of extensive fishing operations, a plant for freezing tuna, and the training of Micronesians both ashore and afloat. Fish frozen at Koror will probably be exported to the United States firm's canneries elsewhere.

An official press release says: "The opening of Palau to commercial fishing marks the first major step towards large-scale development of the most important natural resource of the Trust Territory, and is expected to lead to similar enterprises in other districts of the Territory, thus stimulating the local economy through increased employment and a higher level of income." (Pacific Islands Monthly, May 1963.)

Chile

PLANS TO TIGHTEN CONTROL OVER FOREIGN FISHING VESSEL LICENSES:

Provisions designating the Chilean Ministry of Agriculture as the sole authorizing agency for foreign fishing vessel permits were contained in Decree No. 332 signed by the President June 4, 1963, and sent to the Chilean Office of the Comptroller General for approval. These would permit foreign vessels (not working for national plants) to operate within Chile's declared 200-mile fishing limits. The permits had been available from the Chilean Consul at the home port of foreign vessels. Under the new Decree, requests for permits may be forwarded through the Consul or sent directly to the Ministry of Agriculture by mail.

Chile expects a substantial increase in its tuna fleet and feels that there must be more effective protection of its marine resources. Only two licenses were sold to United States vessels in 1962. The general thinking along the northern coast of Chile is that foreign fishing fleets are taking fish which eventually would be caught by Chilean fishermen. (United States Embassy, Santiago, June 29, 1963.)

Denmark

BALTIC FISHERMEN REPORT SOVIET INTERFERENCE:

During the last week in May 1963, Danish newspapers carried reports of Danish fishing vessels being forced from fishing grounds in the southeastern portion of the Baltic Sea near Poland by Soviet warships because naval exercises were to be held in the area. The first report stated a number of cutters from Bornholm, Danish island in the Baltic south of Sweden, were forced to depart in haste, leaving their gear in the sea. One cutter was reported to have been taken to a Polish harbor. Another vessel left 3,000 cod hooks in the water. The skipper was informed he could pick them up again in three days. A salmon cutter left long-lines with about 10,000 hooks. A few cutters were permitted to haul their gear before being sent out of the exercise area which reached 21 nautical miles out from the coast.

A second report stated that warning shots were fired after Danish trawler skippers ignored three Soviet requests to leave. The trawlers then departed from the area, leaving their gear. Danish naval authorities on Bornholm had not heard of shots being fired.

Denmark (Contd.):

A third report stated that the cutter Talone had returned to Bornholm on May 27 after being forced from the area by Soviet warships. It reported that on May 23 a Russian vessel made clear to the Danish vessels that they should depart. Since the latter were in international waters they did not move. Shortly afterwards, the Russian vessel fired at the cutter, presumably tracer bullets. One hit the forward rail of the vessel but did no damage. A larger Russian warship then approached the cutter in such a manner that it was forced to sail away. The cutter had its salmon long-lines out but had started to haul back when the Soviet vessel appeared, so it left 2,400 hooks in the water.

Swedish vessels were reported to have had similar difficulties. The Swedish coastal fishermen's central association had complained to the Foreign Ministry, requesting that a protest be made to the Soviet Union. The Bornholm Fisheries Association had not yet received a complaint from the damaged fishermen but doubted the possibility of favorable action. The Chairman said that complaints had been made before through the main association and the Foreign Ministry but nothing had resulted. Since losses were greater this time, perhaps a complaint would be made.

The fourth report was based on the experiences of two cutters which returned to the Danish port of Lemvig in Jutland on May 29. The Karen Bodil (34 tons) and the Mette Kruse (31 tons) had set their salmon gill nets in the southeast part of the Baltic Sea when, early in the morning they were hailed by a Russian torpedo boat or speedboat which ordered them away from the area because a fleet exercise was to be held. The skippers of the cutters stated they were in international waters since they were more than 12 nautical miles from the coast and explained to the Russians that, at least, they must have time enough to haul their gear. The Russian captain, who had boarded the Karen Bodil, moved his watch hands to eight to indicate that the cutters must be out of the area by then. They were ordered to sail 24 nautical miles farther to the West. Before the crew had finished hauling the gear, the Russian vessel returned and said the cutters must depart at once or it would tow them away. It maneuvered in such a way that it backed into the Karen Bodil and damaged the starboard side. The Russian vessel then took the cutter in tow in a reckless manner under full speed so that water came in over the cutter and the situation became dangerous.

In the meantime, the Mette Kruse had hauled all its gear and also hauled the 70 gill nets which the Karen Bodil had been forced to leave. The Mette Kruse also came in contact with one of the Russian vessels which bumped it but did only minor damage. (Regional Fisheries Attache for Europe, U.S. Embassy, Copenhagen. June 5, 1963.)

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DISTANT-WATER FISHING TRIAL DISAPPOINTING:

In early 1963, a Danish steel cutter of 95 gross tons made a month-long trial trip to the Barents Sea with unsatisfactory results. The catch of 44,000 pounds of plaice was sold in Grimsby, England, for only US$2,900. No new long-distance trips were planned for the vessel in the near future. Few Danish craft participate in distant-water fisheries since fishing in the North Sea and other nearby waters yields better returns. (Regional Fisheries Attache, United States Embassy, Copenhagen, May 29, 1963.)

* * * * *

FISHERMEN SEEK LOWER TAXES ON LANDINGS:

The West Jutland Fisheries Association made a strong plea at its general meeting in Hirtshals for a lowering of Government landing taxes in Danish fishing ports. Claiming that fishermen pay no landing tax to their Governments in Norway, Sweden, and West Germany, and a relatively low tax in England, a reduction to 1 percent of the catch's value was sought. The present landing tax is 2 percent plus $\frac{1}{2}$ percent for the auction hall.

The Association supported its position by pointing out that the fishing industry in Denmark was not subsidized like agriculture, and it had not benefited from wage increases given other industrial activities. Furthermore, it was claimed that the fishermen should not pay for harbors to which their activities draw many other persons and provide numerous jobs. (Regional Fisheries Attache, United States Embassy, Copenhagen, June 12, 1963.)

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FISHERMEN SEEK SALMON OFF NORWAY:

Twelve Danish salmon cutters fishing for salmon off the Lofoten Islands in northern Norway with gill nets have had very poor catches despite the reports of good salmon fishing which led them to test the area. The 65-foot cutters carry a crew of four and 300-400 gill nets. They fish outside of Norway's 12-mile fisheries limit and, according to the latest newspaper reports, will not be given permission to land their catches in Norwegian ports. (Regional Fisheries Attache, United States Embassy, Copenhagen, June 12, 1963.)

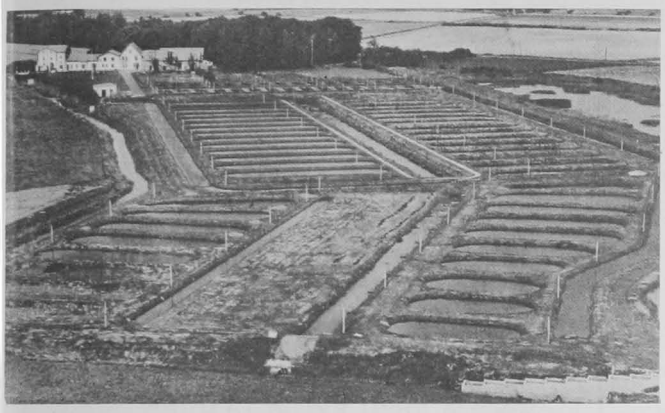
* * * * *

LOWER PRODUCTION OF POND TROUT PREDICTED DUE TO SEVERE WINTER:

Danish pond trout culture has suffered from the effects of a severe winter. It is difficult to estimate the loss, but the total trout output in 1963 may be down 10 to 20 percent from 1962. The normal winter mortality was believed to have increased about 20 percent because it was difficult to feed trout in the fro-

Denmark (Contd.):

zen ponds for about 4 months. Trout egg production was also expected to drop about 20 percent in 1963. However, about 40 million trout eggs were exported to the United States during the spring of this year.



Fresh-water rainbow trout pond at Brøns, Denmark, about 45 miles south of Esbjerg. Originally started by trout pond operators as a research station, it was later offered to the Danish Government for research. Now it is jointly operated by the Government and trout growers. Research is conducted to obtain better growth by experiments in genetics--mating best growers. Dry food from the United States is fed to the young trout, but older trout get fresh fish from Esbjerg.

Danish pond trout exports to the United States in the first quarter of 1963 totaled about 690,000 pounds, as compared with only about 390,000 pounds in the first quarter of 1962. Total pond trout exports to all countries amounted to about 3,380,000 pounds in January-March 1963, only 10,000 pounds less than in the same period of 1962.

About 100 tons of pond trout were killed in early 1963 when an agricultural pesticide contaminated the river supplying water to numerous trout ponds in Jutland. Newspaper reports estimated the total loss at about US$435,000. (United States Embassy, Copenhagen, May 29, 1963.)

Faroe Islands

REGULATIONS ON 12-MILE FISHING LIMIT ISSUED:

Regulations establishing a 12-mile fishing limit around the Faroe Islands, beginning March 12, 1964, are given in Regulation No. 156 issued April 24, 1963, by Denmark's Foreign Ministry. Regulation No. 156 (printed in Danish) lists the points between which the baseline is drawn and also includes a

Shows baseline and 12 mile fishing limit around Faroe Islands.

map showing the baseline and the 12-mile limit. (Regional Fisheries Attache, Copenhagen, July 10, 1963.)

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DOMESTIC ACTIVITY STIMULATED BY THREAT OF BAN ON LANDINGS IN UNITED KINGDOM:

Faroese representatives have asked the Danish Government for a loan of Kr. 4 million (US$579,000) to expand a private fishery firm in Klaksvig. The company has fish canning, drying, and filleting facilities, as well as a fleet of trawlers. Half of the loan would be used to improve the firm's fish-drying operation and the balance would be used to expand its filleting and canning activities. The possible loss of landing rights in the United Kingdom has led the Faroese to seek modernization of their domestic facilities as rapidly as possible. The expiration of British fishing rights in the 6- to 12-mile zone around the Faroese Islands after March 12, 1964, has stirred resentment in some segments of the British fishing industry. (Regional Fisheries

Faroe Islands (Contd.):

Attache, United States Embassy, Copenhagen, May 29, 1963.)

French Guiana

SHRIMP FIRM ESTABLISHED BY UNITED STATES INTERESTS EXPANDS:

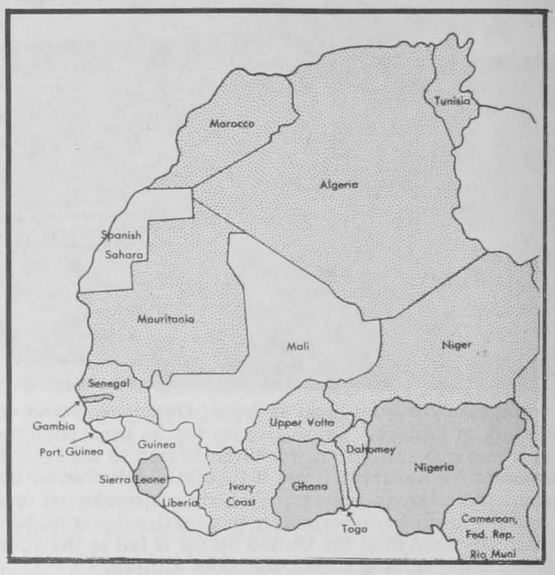
Shrimp: About 3 million pounds of shrimp is the 1963 production target set by the United States shrimp firm at St. Laurent, French Guiana. For 1964, the firm hopes to pack and freeze 5 million pounds. To accomplish these goals, the company is expanding its plant facilities located there. Thirty trawlers, 22 of which

will be all new 68- and 72-footers, are expected to be working out of French Guiana bases by the end of this year. The fleet strength expected to be built up for 1964 is 50 trawlers. The processing plant is located about 8 hours from proven shrimping grounds off the coast of French Guiana, about 21 miles from the coast. The St. Laurent firm started freezing shrimp in December 1962, and already is being expanded. Freezing capacity is being doubled to allow for freezing up to 60,000 pounds of headless shrimp (in 5-pound cartons) at one time.

Ghana

FISH MEAL AND CANNERY PLANTS INCLUDED IN CONSTRUCTION CONTRACT:

The Government of Ghana has signed a US$40 million contract with a West German company for the construction of a six-factory



complex in Tema. Included are a fish meal plant and a fish cannery. Ghana will pay for the complex on an installment basis after operations begin. (United States Embassy, Accra, May 2, 1963.)

Greenland

FISHING LIMITS LAW MODIFIED TO CONSIDER HISTORIC FISHING RIGHTS:

On May 21, 1963, the Danish Government announced that the extension of Greenland's fisheries limits from 3 to 12 miles would become effective on June 1, 1963. Two modifications of earlier proposals were made. The 7 countries with historic fishing rights off Greenland--France, Iceland, Norway, Portugal, Spain, the United Kingdom, and West Germany--will be permitted to fish in the 6- to 12-mile zone until May 31, 1973, rather than only until October 31, 1970. Line fishermen may fish up to the 3-mile line until October 31, 1963. In connection with its approval of the new fisheries limits, the Greenland National Council asked that scientific fishery investigations be intensified in order that early measures might be taken if overfishing was indicated.

Greenland (Contd.):

West German trawlers and Portuguese line fishermen will benefit most from the concessions. A Government delegation from West Germany had stressed the need for at least 10 years to recoup the investment in large trawlers constructed primarily for fishing off Greenland. Denmark's large exports of fish to West Germany may have influenced the extension of the exemption to 10 years. Portugal's delegation pointed out the difficulties which would be encountered by their line fishermen who work from small dories carried by a large mothership.

The regulations issued are:

(1) Regulation Number 191, May 27, 1963, effective June 1, 1963, establishing Greenland's outer territorial sea as the area within three nautical miles from a baseline drawn between the points listed in section 2.

(2) Announcement Number 192, Ministry for Greenland, May 27, 1963, effective June 1, 1963, limiting fishing, hunting, and whaling in the waters within 12 nautical miles of the inner baseline.

(3) Announcement Number 193, Ministry for Greenland, May 27, 1963, effective June 1, 1963, permitting fishing vessels registered in Iceland, Norway, the United Kingdom, West Germany, France, Spain, and Portugal to fish up to six nautical miles from the inner baseline until May 31, 1973, and to fish with long lines and hand lines up to three nautical miles from the inner baseline until October 31, 1963. (United States Embassy, Copenhagen, May 29 and July 10, 1963.)

Honduras

SHRIMP FISHERY EXPANDS:

The owner of a fish-processing plant in Caratasca has made plans to purchase up to six shrimp vessels from the United States.

Expansion is also planned by a United States firm which operates a mothership in the shrimp and spiny lobster fisheries off the north coast of Honduras. The United States firm has added two 65-foot shrimp vessels to the operation and plans to continue buying the catch of small local boats. The catch is taken to Tela, Honduras, and then flown to Florida. (United States Embassy, Tegucigalpa, May 4, 1963.)

Hong Kong

FISHERIES TRENDS, FIRST QUARTER 1963:

During the first part of 1963, the new fish-farming industry in Hong Kong was hit hard by extended drought which dried up many of the shallow fish ponds.

Hong Kong's fishing fleet had better luck, increasing its catch slightly to about 24,000 metric tons in the first quarter of 1963. This was done in spite of difficulties with Communist Chinese authorities who detained a number of vessels from both Hong Kong and Macao, ostensibly for not paying the required quota-in-kind for the privilege of working traditional fishing grounds now under Mainland China's control. (United States Consulate, Hong Kong, May 31, 1963.)

Note: See Commercial Fisheries Review, March 1963 p. 65.

Iceland

EXPORTS OF FISHERY PRODUCTS, JANUARY-MARCH 1963:

During January-March 1963, there was a considerable increase in exports of frozen herring and herring meal as compared with the same period in 1962, according to the

Icelandic Fishery Exports, January-March 1963 with Comparisons						
Product	Jan.-Mar. 1963			Jan.-Mar. 1962		
	Qty.	Value f.o.b.		Qty.	Value f.o.b.	
	Metric Tons	1,000 Kr.	US$ 1,000	Metric Tons	1,000 Kr.	US$ 1,000
Salted fish, dried	1,084	21,649	502	834	18,318	425
Salted fish, uncured	2,003	26,252	609	3,216	38,518	894
Salted fish fillets	293	2,313	100	448	6,884	160
Wings, salted	100	1,215	28	158	1,836	43
Stockfish	2,258	60,553	1,405	2,881	74,379	1,726
Herring on ice	6,608	21,880	508	4,742	16,489	383
Other fish on ice	11,598	56,980	1,322	11,554	53,138	1,233
Herring, frozen	14,556	77,953	1,809	9,488	48,026	1,114
Other frozen fish, whole	1,077	13,382	310	788	9,642	224
Frozen fish fillets	9,797	190,934	4,430	11,040	183,489	4,257
Shrimp and lobster, frozen	124	12,040	279	59	5,204	121
Roes, frozen	123	2,383	55	193	3,754	87
Canned fish	93	5,716	133	54	3,368	78
Cod-liver oil	1,817	14,213	330	1,121	9,920	230
Lumpfish roes, salted	24	335	8	54	734	17
Other roes for food, salted	1,005	14,077	327	177	1,600	37
Herring, salted	14,180	135,257	3,138	13,111	119,202	2,766
Herring oil	11,044	42,276	981	13,336	58,844	1,365
Ocean perch oil	64	207	5	15	59	1
Whale oil	883	3,658	85	388	2,558	59
Fish meal	2,344	14,515	337	4,961	30,627	711
Herring meal	20,970	130,084	3,018	14,673	90,930	2,110
Ocean perch meal	-	-	-	5	27	1
Wastes of fish, frozen	347	1,072	25	517	1,426	33
Liver meal	130	908	21	90	588	14
Whale meal	-	-	-	232	1,310	30
Whale meal, frozen	8	48	1	86	602	14

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

Iceland (Contd.):

Statistical Bureau of Iceland's Statistical Bulletin, May 1963. Exports of fish meal and herring oil showed a considerable decrease in the first 3 months of 1963.

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FISHERY LANDINGS BY PRINCIPAL SPECIES, JANUARY 1963:

Species	January	
	1963	1962
	(Metric Tons)	
Cod	9,546	10,144
Haddock	7,545	4,925
Saithe	843	619
Ling	1,098	901
Wolffish (catfish)	251	190
Cusk	1,387	583
Ocean perch	511	384
Halibut	124	105
Herring	48,176	18,222
Shrimp	73	37
Other	328	256
Total	69,882	36,366

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

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FISHERY LANDINGS BY PRINCIPAL SPECIES, JANUARY-FEBRUARY 1963:

Species	January-February	
	1963	1962
	(Metric Tons)	
Cod	23,773	30,554
Haddock	12,265	11,341
Saithe	1,410	2,126
Ling	2,185	2,689
Wolffish (catfish)	948	1,051
Cusk	3,030	1,753
Ocean perch	1,668	1,000
Halibut	235	315
Herring	61,818	23,476
Shrimp	131	127
Other	594	763
Total	108,057	75,195

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

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UTILIZATION OF FISHERY LANDINGS, JANUARY 1963:

Species	January	
	1963	1962
	(Metric Tons)	
Herring1/ for:		
Oil and meal	31,220	10,195
Freezing	8,406	2,827
Salting	4,396	1,721
Fresh on ice	4,154	3,480
Groundfish2/ for:		
Fresh on ice	3,832	4,103
Freezing and filleting	10,604	8,584
Salting	3,107	2,954
Stockfish (dried unsalted)	2,502	1,381
Home consumption	1,365	964
Oil and meal	223	121
Shrimp for:		
Freezing	64	32
Canning	9	4
Total production	69,882	36,366

1/Whole fish. 2/Drawn fish.

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UTILIZATION OF FISHERY LANDINGS, JANUARY-FEBRUARY 1963:

Species	January-February	
	1963	1962
	(Metric Tons)	
Herring1/ for:		
Oil and meal	43,720	10,552
Freezing	8,697	6,043
Salting	4,497	1,721
Fresh on ice	4,904	5,092
Canning	-	69
Groundfish2/ for:		
Fresh on ice	7,178	8,790
Freezing and filleting	23,493	23,927
Salting	7,341	12,307
Stockfish (dried unsalted)	5,333	4,096
Home consumption	2,350	2,133
Oil and meal	413	338
Shrimp for:		
Freezing	113	121
Canning	18	6
Total production	108,057	75,195

1/Whole fish. 2/Drawn fish.

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NEW FREEZER TRAWLER LANDS IN ENGLAND:

The new Icelandic freezer side trawler sailed on her first voyage on May 11, 1963, and after a three-day shakedown cruise near Iceland sailed for Greenland. The new vessel, which is equipped for side-trawling, returned to Reykjavik on June 16 after about 25 days on the fishing grounds. After disembarking half her crew, she sailed for Grimsby, England, where she arrived on June 20. Unloading commenced soon after her arrival and was completed on June 22.

The total quantity of fish landed was 302 tons, all headed except for a few halibut, ocean perch, and dogfish. The fish were mostly medium-size cod, but there were some haddock also. The average daily catch on the fishing grounds was about 16 tons a day and the freezing rate 12 tons a day.

A total of 5,820 fish blocks also was landed. The appearance of the blocks was excellent and was considered better than those landed from the British freezer-trawler Lord Nelson and other vessels, presumably partly due to the improvements in the design of the freezer which ensures better contact between the plates and the fish. Great care had been taken in washing and bleeding before freezing, which also contributed to the excellent appearance. (Note from J. & E. Hall, Ltd., Dartford, Kent, England, June 28, 1963.)

Indonesia

CANNED FISH MARKET LIMITED:

The market for imported canned fish in Indonesia is limited due primarily to restrictions on the use of scarce foreign exchange for such products. Imports of canned fish in 1960 and during the first nine months of 1961 consisted of about 90 percent

Indonesian Imports of Canned Salmon and Sardines, 1960 and January-September 1961

Product and Country of Origin	Quantity		Value	
	Jan.-Sept. 1961	Year 1960	Jan.-Sept. 1961	Year 1960
	(Metric Tons)		(US$1,000)	
Canned Salmon:				
Japan	1	5	2	7
United States	2	1	2	2
Other	-	2	-	2
Total	3	8	4	11
Canned Sardines:				
Japan	498	947	125	232
United States	2	-	1	-
United Kingdom	5	14	2	3
Netherlands	7	64	3	17
Portugal	2	1	1	1
Norway	9	-	6	-
Singapore	-	60	-	13
Other	-	3	-	1
Total	523	1,089	138	267

Japanese canned sardines (believed to be mostly low-value canned saury). Small quantities of canned sardines and salmon were imported from the United States in both 1960 and during the first nine months of 1961. (United States Embassy, Djakarta, June 10, 1963.)

Japan

CANNED TUNA IN BRINE SALES TO UNITED STATES:

The Japan Export Canned Tuna Packers Association held a directors' meeting June 25, 1963, to discuss the sixth sale of canned tuna in brine for export to the United States and to review production plans. The Association directors voted to offer for sale a total of 130,000 cases of canned tuna in brine but did not specify the amount of each kind of pack (white meat or light meat) to be sold. They also decided to hold export prices at the same level as the fifth sale, i.e., $10.50 a case for canned white meat tuna and $7.65 a case for canned light meat tuna both prices f.o.b. Japan, for No. $\frac{1}{2}$ (7-oz.) 48's. Sales of canned tuna in brine up to and including the fifth sale totaled 1,180,000 cases (690,000 cases of white meat tuna and 490,000 cases of light meat tuna).

Slicing cooked tuna loins for canning in a cannery located in Hiroshima, Japan.

Also at that meeting the directors approved the proposal to increase production of institutional-size packs of canned white meat tuna (in view of depressed sales of standard 7-oz. packs) put up by the Shizuoka packers, who pack 75-80 percent of Japan's total canned tuna pack for export. The following production ratio was adopted by the Association:

Pack Size	Production Ratio	
	New	Old
	(Percent)	
White meat, No. $\frac{1}{2}$ (7-oz.) 48's	35	55
White meat, No. 1 (13-oz.) 24's	30	20
White meat, 4-lb., 6's	35	25

Reportedly, as a result of depressed export canned tuna sales and inventory buildup, Japanese tuna packers may soon run short of operating funds. To help finance their operations, they were reported in mid-June to be seeking a 1.5-billion-yen (US$4,167,000) loan from the government. (Suisan Keizai Shimbun, June 18, 21, & 27; Suisan Tsushin, June 26 & 27, 1963.)

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PRICE FOR JUNE-JULY EXPORTS OF CANNED TUNA IN BRINE UNCHANGED:

A meeting of the Japan Canned Foods Exporters Association was held on May 28, 1963, to discuss the 5th sale of canned tuna in brine

Japan (Contd.):

for export to the United States. At this meeting, the Association members agreed to offer for sale 130,000 cases of canned tuna in brine (80,000 cases of white meat tuna and 50,000 cases of light meat tuna) for delivery during June and July 1963. Export prices were US$10.50 per case (7-oz. 48 cans/cs.) for white meat tuna and $7.65 per case (7-oz. 48 cans/cs.) for light meat tuna, f.o.b. Japan. These prices were unchanged from the previous sale of 250,000 cases for May-June 1963 delivery. (Nihon Suisan Shimbun, May 31, 1963.)

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FROZEN TUNA SALES AGREEMENTS WITH U. S. CANNERS CONCLUDED:

The United States import market for frozen tuna was showing clear signs of improvement in late June 1963, according to a Japanese press report. Reportedly, in late June Japanese frozen tuna exporters concluded a number of sales agreements with United States tuna packers involving a total of about 5,000 short tons of albacore. Export prices were reported at $330 a short ton c. & f. Pacific coast ($280 f.o.b. Japan), and $320 a short ton c. & f. Puerto Rico.

The price for tuna deliveries to Samoa in June was reported to be $295 a short ton for round albacore and $250 a short ton for gilled and gutted yellowfin. (Suisan Tsushin, July 1, 1963.)

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FROZEN TUNA EXPORTS TO UNITED STATES, APRIL-JUNE 1963:

Data compiled by the Japan Frozen Tuna Producers Association on frozen tuna approved for export to the United States from Japan proper for April-June 1963 indicate that exports during that period were drastically below similar 1962 exports. (Suisan Tsushin, July 3, 1963.)

Frozen Tuna Approved for Export to U. S. from Japan Proper, April-June 1962 and 1963

Type	April-June 1963	April-June 1962
	(Short Tons)	
Albacore:		
Round	90	3,267
Loin	67	61
Fillet and/or dressed 1/	4	0
Yellowfin:		
Gilled and gutted	3,290	9,907
Loin	278	1,190
Fillet	33	2,199
Dressed 1/	0	371

1/Gilled and gutted with head and tail removed.

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EXPORTS OF FROZEN TUNA TO UNITED STATES LOWER IN JANUARY-MAY 1963:

Exports of frozen tuna to the United States during the first five months of 1963 via Japan amounted to 18,761 short tons as compared with 31,222 tons in the same period of 1962. The drop in direct frozen tuna exports from Japan proper was partially compensated for by an increase in exports transshipped from the Atlantic Ocean tuna fishery. Exports from that source to the United States rose 24.7 percent, or from 15,391 tons in January-May 1962 to 19,199 tons this January-May. Over-all exports (Japan proper and transshipped Atlantic-caught) of frozen tuna to the United States in January-May this year were down 18.6 percent from the same period of 1962.

Japanese Frozen Tuna Exports, 1/ January-May 1963

	Year	Jan.	Feb.	Mar.	Apr.	May	Total
		(Short Tons)					
To United States via Japan:	1963	3,962	4,722	7,139	1,738	1,200	18,761
	1962	5,770	6,488	4,979	8,288	5,697	31,222
To United States from Atlantic Ocean fishery:	1963	4,343	4,284	4,808	3,827	1,937	19,199
	1962	3,844	4,010	4,419	1,844	1,274	15,391
		(Metric Tons)					
To Europe 2/:	1963	4,075	3,335	2,486	5,736	3/5,937	21,569
	1962	3,344	400	2,436	4,212	3,428	13,820

1/Data compiled by Japan Export Frozen Tuna Producers Association.
2/Italy principal market.
3/Includes exports up to May 18 only.

Lower exports of frozen tuna to the United States were partially compensated for by an increase of about 56.0 percent in exports to Europe (chiefly Italy) this January-May as compared with January-May 1962. (Nihon Suisan Shimbun, May 29, 1963.)

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ATLANTIC-CAUGHT FROZEN TUNA PRICES, MID-JUNE 1963:

Export prices of Japanese Atlantic-caught frozen albacore to Italy in mid-June 1963 were quoted at US$365-370 per metric ton, c. & f. Transshipments of Atlantic-caught albacore to the United States were quoted at $285 per short ton, f.o.b. Trinidad, and $270-$275 per short ton, f.o.b. Africa.

A Japanese trading firm was reported to have concluded an agreement with Spain to deliver 450 short tons of Atlantic-caught albacore at $400 per ton, c. & f. The same firm is also reported to have concluded an agreement with Czechoslovakia for 200 short tons of skipjack tuna at $240 per ton, c. & f. The skipjack were caught by pole-and-line vessels based at Freetown, Sierra Leone.

apan (Contd.):

Italy was reported to be offering $200 per hort ton, c. & f., for skipjack. (Suisan Tsushin, June 17 and 19, 1963.)

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XPORTERS REPORT SALE OF S.-CAUGHT FROZEN TUNA TO ITALY:

According to a Japanese periodical, a Unit- States tuna packer is reported to have sold om 1,500 to 2,000 tons of United States- ught tuna to Italy.

Japanese tuna industry members are fol- wing this latest development closely for it ay possibly affect their sales of tuna to aly. They consider that this unusual develop- ent, even though it may only be temporary, oints to the extreme seriousness of the can- ed tuna sales problem in the United States. Suisan Tsushin, June 10, 1963.)

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TALIAN MARKET FOR TLANTIC-CAUGHT TUNA FIRM:

The Italian frozen tuna market in early une 1963 was reported to be quite firm espite earlier forecasts of price weakening n that country. Export prices of Japanese tlantic-caught yellowfin tuna delivered to aly were quoted at US$380-385 per short on, c.i.f. Italy. A later shipment reportedly old for $390 per short ton, c.i.f. Italy.

The executive director of the Italian Pack- rs Association is said to have informed Jap- nese frozen tuna exporters that Italian pack- rs could absorb about 9,000 tons of Japa- ese tuna during July-September 1963, and at they may also purchase a similar quan- ity of frozen tuna during the October-Dec- mber period. This has prompted many Jap- nese packers to reconsider their earlier lan of bringing back to Japan excess quan- ities of Atlantic-caught tuna. (Suisan Tsu- hin, June 6, 1963.)

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TRANSSHIPMENT OF FROZEN TUNA TO SPAIN AUTHORIZED:

The Japanese Government is reported to have authorized frozen tuna exports (trans- shipments) to Spain proper totaling 5,000 short tons per year. The Government's de- cision was made in an attempt to overcome the current sluggishness of frozen tuna ex- ports to Europe and to the United States. Tuna transshipments to mainland Spain had long been sought by Japanese frozen tuna producers and exporters, but the Government had been prohibiting exports to Spain for fear that Jap- anese tuna packed in that country would be ex- ported to the United States where it would com- pete with Japanese canned tuna.

It is reported that the Spanish Government is not likely to issue import licenses until the summer tuna fishing season is over, in order to protect domestic fishermen. (Minato Shimbun, June 1, 1963.)

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SUMMER ALBACORE TUNA FISHERY:

The 1963 summer albacore fishing season, which as of early July was practically over, was described by Japanese press reports as one of the best in recent years. A total of 24,000 metric tons of pole-and-line albacore (iced fish) was landed during the season. This represents a fourfold increase over the 1962 catch and the highest since 1957, when about the same quantity was landed.

Data published by the Japanese Fisheries Agency's field station at the tuna port of Yaizu, Shizuoka Prefecture, indicate that landings at that port for the period April 26-June 30 totaled 11,671 short tons. For the same period in 1962, a total of 2,519 short tons was landed.

According to the Fisheries Agency's data, ex-vessel albacore prices paid at Yaizu held steady for the greater part of June, ranging between 120-135 yen a kilogram (US$302-340 a short ton), but trended downward in late June about $10-20 a short ton. According to fish price quotations in one Japanese periodical, on July 4, a low of 115 yen and high of 119 yen a kilogram (US$290-300 a short ton) were paid for iced fish landed at Yaizu. (Japanese Fisheries Agency Fishing Condition Charts, 1963; Suisan Tsushin, July 2; Suisan Keizai Shimbun, July 5, 1963.)

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LANDINGS OF SUMMER ALBACORE HIGHER AS OF EARLY JUNE 1963:

Good catches of summer albacore were made by Japanese pole-and-line fishermen operating out of home ports in the first 10 days of June 1963. Ex-vessel albacore prices, despite the heavy landings, were reported to be holding relatively steady, ranging from 125-130 yen per kilogram

Japan (Contd.):

(US$315-$328 per short ton). Landings at Yaizu of summer albacore during the first 10 days of June amounted to 3,322 short tons as compared with 820 tons landed in a similar period of 1962. May 1963 albacore landings totaled 5,859 tons or about 84 percent more than the 3,192 tons landed in May 1962. (Suisan Tsushin, June 13, 1963, and other sources.)

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ALBACORE TUNA FISHERY TRENDS, MAY 1963:

A total of 5,169 short tons of pole-and-line caught albacore was landed in May 1963 at the Japanese tuna port of Yaizu, according to data compiled by the Fisheries Agency's summer field station located at that port. Ex-vessel prices trended downward toward the end of the month, closing with a high of 138.5 yen per kilogram (US$349 per short ton) and a low of 123.5 yen per kilogram ($312 per short ton) on May 31. According to a Japanese press report, albacore landed at Yaizu on June 7 sold at prices of from 121-130 yen per kilogram ($305-$328 per short ton); and at Misaki 330 short tons of albacore (iced fish) brought 108-129 yen per kilogram ($272-$325 per short ton).

According to data published by the Fisheries Agency, albacore fishing during the latter part of May was generally conducted in the area bounded by latitudes 31°05' N.-34° N. and longitudes 143° E.-148° E., but the pole-and-line vessels were concentrated mainly along 144° E. longitude between 32° N.-34° N. latitudes. Good catches were reported in that area, with many vessels reporting catches of 10-30 tons per day. (Suisan Keizai Shimbun, June 8, 1963.)

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SMALL TUNA CANNERS COMBINE TO OVERCOME SUPPLY PROBLEM:

In an effort to stabilize prices and to assure a supply of raw material, 18 Shizuoka Prefecture tuna canners contracted with a prominent Tokyo trading firm for 3,500 tons of ship-frozen albacore. The price to be paid for the albacore by the tuna canners will be determined by ex-vessel prices and the export price for canned tuna. The actual price will therefore vary during the contract year (ends March 1964).

The 3,500 tons contracted for is about one-tenth the annual requirements of raw tuna for canning needed by the 18 Shizuoka firms. The Tokyo trading firm has interests in a large cold-storage warehouse at Shimizu and another located in Tokyo.

Frozen tuna at Tokyo Wholesale Fish Market. The fish were landed by the long-liner in the background.

The Shizuoka tuna-packing firms have, in the past, bought tuna for canning at the day-to-day market price. Due to the small size of the individual firms and the lack of capital, they have often failed to purchase supplies when the market price was low. At other times, when supplies were light, the packers were forced to search for fish in several major ports. Under the new contract the supply problems of those small canners (often pack other products such as mandarin oranges) will be partially solved. (Japanese periodical, June 12, 1963.)

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TWO TUNA MOTHERSHIPS LEAVE FOR FISHING GROUNDS OFF MEXICO:

On June 5, 1963, the Japanese tuna mothership Keiyo Maru, with eight 20-ton steel catcher-vessels aboard, left Japan for the tuna fishing grounds off the west coast of Mexico. The Ishiyama Maru, another tuna mothership with the same number of catcher-vessels, was scheduled to depart later for the same area. (United States Embassy, Tokyo, June 6, 1963.)

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HALIBUT FISHERY TRENDS, JUNE 1963:

Japanese fleets operating in the "Triangle Area" in the eastern Bering Sea are reported to have landed a total of 1,230 tons of halibut

Japan (Contd.):

as of June 11, 1963. Japanese motherships believed to be fishing in the new Area 3B North Triangle are: Fuji Maru No. 3, 1,200 gross tons (5 catcher vessels); Chiyoda Maru, 2,068 gross tons (12 catcher vessels); Seifu Maru, 8,269 gross tons (28 catcher vessels); and the Chichibu Maru No. 2, 1,693 gross tons (7 catcher vessels). (Shin Suisan Shimbun, June 17, 1963, and other sources.)

The European halibut market is reported to be brisk and Japanese trading firms are reported to have concluded contracts to deliver several hundred tons of halibut to Europe at 40-42 U. S. cents a pound, c. & f. Japanese-caught halibut delivered to the United States eastern seaboard was quoted at 34-35 cents a pound, or about 10 cents a pound lower than a year ago.

Halibut landed in Japan by the major fishing companies is quoted at about 185 yen per kilogram (23.4 cents a pound), while halibut landed by the smaller vessels is quoted at 140-145 yen per kilogram (17.7-18.3 cents a pound). (Suisan Tsushin, June 18, 1963.)

Editor's Note: The International Pacific Halibut Commission announced that as of June 23, the Japanese had taken 3.2 million pounds out of Area 3B North Triangle and that the 11.0-million-pound quota set for that area had not yet been reached.

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PRICE REDUCED FOR 1962 PACK OF CANNED PINK SALMON:

The Japanese Canned Salmon Sales Company on May 23, 1963, announced and made effective immediately a price cut of US$1.00 per case (8 oz. 48 cans/cs.) for fancy grade canned pink salmon. The new f.o.b. quotation reduced the price per case from $11.30 to $10.30. The Japanese exporters hoped the price cut would stimulate interest in the United Kingdom market. However, shortly after the drop in the Japanese export price, the Canadian salmon packers decreased their export price for canned pink salmon by $1.25 per 48-can case, thereby nullifying the advantage the Japanese had hoped to gain in the British market.

The Japanese sales company is concerned with the problem of marketing an estimated carryover from the 1962 pack of pink salmon of about 360,000 cases before the marketing season begins for the 1963 pack.

The Japanese salmon motherships engaged in the North Pacific 1963 fishing season report that both pink and chum salmon are abundant. Usually pink salmon are scarce in the early season catches. (Japanese periodical, May 28, 1963.)

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JAPANESE WILL NOT FISH KING CRAB SOUTH OF ALASKA PENINSULA THIS YEAR:

The Japanese Fisheries Agency will defer the issuance of licenses to take king crab south of the Alaska Peninsula, pending further discussion with the United States at the September 1963 meeting on the North Pacific Fisheries Convention. The decision was made after the Fisheries Agency met with its Advisory Committee (Japanese Fisheries Council) on July 10, 1963.

The two fishing companies that had applied for the licenses stated that the action of the Fisheries Agency would prevent king crab operations south of the Alaska Peninsula in 1963. The two companies, therefore, requested permission to take king crabs in Bristol Bay for the remainder of the 1963 season. Their proposal was rejected by the Fisheries Agency because of the high level of the king crab fishing effort and low level of production in Bristol Bay. (United States Embassy, Tokyo, July 12, 1963.)

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NEW RESEARCH VESSEL PLANNED FOR FY 1964:

The Japanese Fisheries Agency is planning to request funds in FY 1964 (April 1964 to March 1965) to construct a 1,500-ton research vessel. The Agency plans to utilize the research vessel for conducting investigations on bottomfish in the Bering Sea during the winter months, and also whale research in the Antarctic area. (Suisan Keizai Shimbun, June 9, 1963.)

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REVISION OF REGULATIONS ON TRAWL FISHERY PROPOSED:

The Japanese Government, which has been studying the problem of its trawl fishery, is reported to be planning on relaxing regulations governing the transfer of vessels to the distant-water trawl fishery (mostly in Atlantic Ocean and New Zealand waters) from other trawl fisheries which employ small draggers, such as the coastal and offshore trawl fisher-

Japan (Contd.):

ies. This measure is being undertaken to assist operators of small and medium trawlers who, heretofore, had been barred from engaging in distant-water trawling due to the limited size of their vessels and their lack of overseas marketing outlets.

Under the proposal being studied by the Japanese Government, which was expected to be put in force in July, operators of small and medium trawlers will be able to build larger trawlers through a vessel conversion program, which basically involves the retirement of so many small vessels for every larger vessel built. The Japanese Government intends to license, under this program, the construction of about 15 trawlers for operation in the Atlantic Ocean and about 10 trawlers for operation in New Zealand waters.

At the present time, approximately 40 large trawlers, mainly in the 1,500- to 3,000-ton class owned by the large fishing firms, are licensed as distant-water trawlers. The majority of those vessels are operating in the Atlantic Ocean off the west coast of Africa. (Nihon Suisan Shimbun, June 12, 1963.)

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TRAWLER IN NORTHWEST ATLANTIC REPORTS GOOD COD CATCHES:

The Japanese stern trawler Aoi Maru No. 2 (1,386 gross tons), which has been fishing in the northwest Atlantic Ocean since late 1962, was reported to be making good catches of cod in the spring of this year. The catches were averaging about 15 tons a day.

Fishery products processed by the Aoi Maru are being exported to the United States. As of the early part of 1963, two shipments had been made. (Shin Suisan Shimbun Sokuho, June 8, 1963.)

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NEW STERN TRAWLER LEAVES FOR WEST AFRICAN AREA:

A large Japanese stern trawler, Kiso Maru (2,500 gross tons), departed Kyushu, Japan, on June 3, 1963, on her maiden voyage to the West African trawl fishing grounds.

The Kiso Maru is the 7th trawler to join the vessel owner's trawler fleet. Another 2,500-ton trawler, Kurama Maru, which was scheduled for completion in August, is being built by the same company. (Minato Shimbun, June 4 and 6, 1963.)

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MODERN CAN-FABRICATING PLANT COMPLETED:

The largest can-fabricating plant in Japan was completed on June 5, 1963. Located in Yokohama, it is designed for the manufacture of cans used for packing food only. The plant has 8 modern automatic can-making lines. The Director of the Japan Export Canned Tuna Manufacturers Association observed: "By this, Japan's can-making industry has attained the top class in the World." The manager of the new plant praised the modern layouts and said that the can-making lines will be increased to 15 in the future. (Japanese periodical, June 6, 1963.)

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AGREEMENT PERMITS HARVESTING OF SEAWEEDS OFF SOVIET ISLAND:

According to a Soviet-Japanese agreement signed in Moscow on June 10, 1963, 300 Japanese vessels are to be permitted to fish for seaweeds off the Soviet Island of Signalny through September 30, 1963 (Tass, June 10, 1963).

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NEW FISHERY LANDINGS RECORD ESTABLISHED IN 1962:

Japan landed a total of 6,860,000 metric tons of fish and shellfish (including seaweed and kelp but not whales) in 1962, a new record according to data released by the Japanese Government's Statistics and Survey Division, Ministry of Ag-

Fig. 1 - Japanese trawler in the Bering Sea with a deckload of flatfish.

Japan (Contd.):

Table 1 - Japanese Landings of Marine & Fresh-Water Fishery Products, 1955-1962

	Year							
	1962	1961	1960	1959	1958	1957	1956	1955
	(1,000 Metric Tons)							
Grand Total	6,864	6,710	6,192	5,884	5,506	5,407	4,772	4,907
Fish 1/	4,979	5,081	4,523	4,326	4,079	3,940	3,500	3,593
Shellfish 2/	509	498	503	464	457	447	388	333
Other marine animals 3/	5/	702	776	753	627	614	555	645
Sea plants 4/	5/	425	387	337	339	403	327	334

1/Includes fresh-water and marine fish. Whales excluded.
2/Includes hard-shelled shellfish (including pearls) but not species listed under "other marine animals."
3/Includes squid, lobster, crab, shrimp, frog, sea urchin, and sea cucumber.
4/Includes seaweed and kelp.
5/Data not available.
Source: Japanese Ministry of Agriculture and Forestry. (Annual Report of Catch Statistics on Fishery and Agriculture, 1961; Suisan Keizai Shimbun, June 30, 1963.)

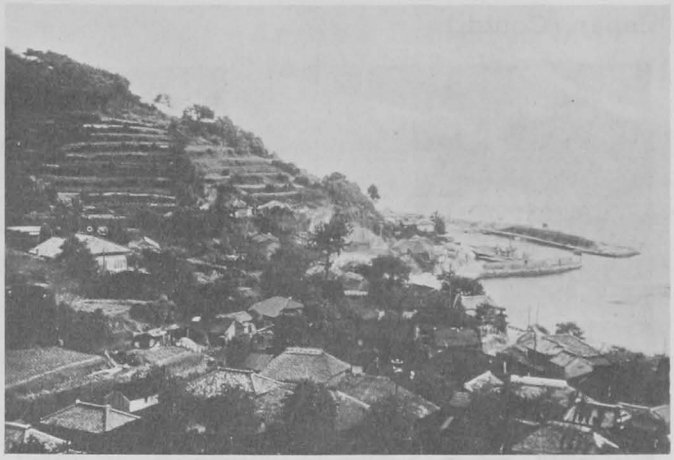

Fig. 2 - A typical Japanese fishing village near Ito.

riculture and Forestry. The 1962 landings represent an increase of 2.3 percent over the 1961 landings of 6,710,000 metric tons. This is the smallest increase since 1958. From 1959 on, Japanese landings of marine and fresh-water products have been increasing at the rate of over five percent annually.

Despite the increase in 1962 in total fish and shellfish landings, landings of finfish actually declined by 102,000 metric tons or two percent, whereas landings of shellfish and other marine products apparently increased.

In 1962, Pacific and jack mackerel led all finfish landings (not including shellfish and sea plants)--their combined landings were about 900,000 metric tons (18 percent of the total fish landings). They were followed by tuna--604,000 metric tons (12 percent); flatfish--501,000 tons (10 percent); saury--483,000 tons (9.7 percent); Alaska pollock (whiting)--452,000 tons (9.1 percent); and anchovy--349,000 tons (6.4 percent). Together those species made up nearly two-thirds (65 percent) of the total 1962 finfish landings.

The large increase in landings (in percentage) since 1955 of Alaska pollock, cod, and flatfish is the result of the accelerated expansion of the so-called northern water (Okhotsk Sea, Bering Sea, and North Pacific Ocean) fisheries.

The decline in salmon catch is the result of imposition of catch quotas by the International Pacific Northwest Fisheries Commission (Japan and the U.S.S.R.).

Table 2 - Japanese Finfish Landings by Species, 1955-1962 1/

Species	2/1962	1961	1960	1959	1958	1957	1956	1955
	(1,000 Metric Tons)							
Alaska pollock	452	353	379	376	284	280	234	231
Anchovy	349	366	349	356	417	430	346	391
Atka mackerel	122	185	115	100	47	105	121	113
Cod	76	67	67	66	60	66	35	39
Croaker	102	115	128	115	106	111	98	103
Flatfish	501	590	509	262	180	159	150	124
Herring	30	97	15	16	38	47	35	46
Mackerel:								
Jack	4/520	510	551	409	282	281	3/	3/
Pacific	408	337	351	294	268	275	266	244
Salmon	123	156	146	179	196	181	150	170
Sand launce	70	108	79	68	98	87	77	58
Sardine	108	127	78	119	136	212	206	211
Saury	483	473	287	522	575	421	327	497
Sea bream:								
Red	10	23	24	26	22	21	21	22
Yellow	10	10	11	16	17	13	11	11
Shark	69	65	69	70	66	76	74	78
Spearfish	5/75	61	55	57	59	53	47	41
Tuna: (Total) 6/	(604)	(562)	(458)	(458)	(414)	(367)	(327)	(279)
Albacore	104	87	89	68	63	77	65	48
Big-eyed	126	113	72	74	72	60	49	42
Bluefin	46	70	65	51	21	34	36	23
Skipjack	170	144	78	166	147	97	97	99
Yellowfin	158	148	154	126	111	99	80	67
Yellowtail	52	53	42	46	43	42	42	46
Other species	815	823	810	744	771	713	933	889
Total	4,979	5,081	4,523	4,326	4,079	3,940	3,500	3,593

1/Principal species only.
2/1962 data obtained from periodical Suisan Keizai Shimbun.
3/Data not available.
4/1962 catch includes scad. Other years do not.
5/1962 catch does not include sailfish. Other years do.
6/Includes tuna caught in Pacific, Indian, and Atlantic Oceans, and landed in Japan and in foreign ports. Does not include tuna listed as "meji" (young tuna).

Japan (Contd.):

Fig. 3 - Yellowfin tuna about to be transferred from catcher boat to Japanese tuna mothership.

Fig. 4 - 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.

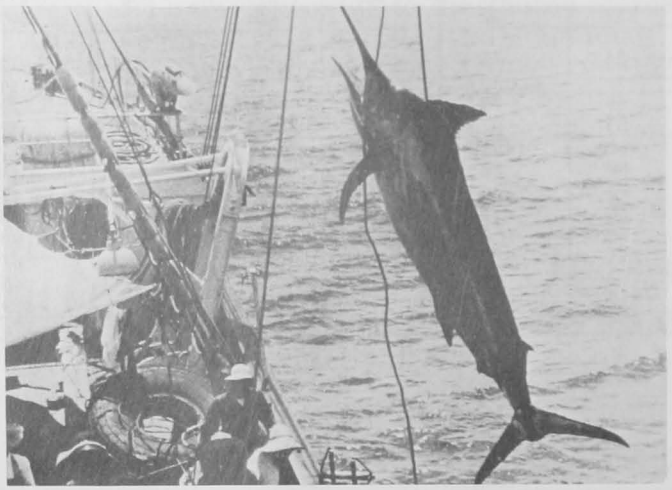

Fig. 5 - A swordfish being hauled aboard a Japanese catcher boat.

Fig. 6 - Weighing black marlin aboard a Japanese tuna mothership.

Fig. 7 - Transferring bait from live box in Tokyo Bay to fishing vessel in background.

Fig. 8 - A big school of yellowtail driven into a net in Kumano-nada, one of Japan's three largest fishing areas.

Beginning in 1960, the Japanese Government began to liberalize regulations governing the tuna industry. For example, it relaxed restrictions on the construction of newer

Japan (Contd.):

Table 3 - Comparison of 1962 Japanese Finfish Landings with 1955

Species	1962 Landings in Relation to:			
	1961 Landing		1955 Landing	
	Increase	Decrease	Increase	Decrease
	(Percent)			
Alaska pollock	28	-	96	-
Anchovy	-	5	-	11
Atka mackerel	-	34	8	-
Cod	13	-	95	-
Croaker	-	11	-	1
Flatfish	-	15	304	-
Herring	-	69	-	35
Pacific mackerel	21	-	67	-
Salmon	-	1/21	-	1/28
Sand launce	-	35	21	-
Sardine	-	15	-	49
Saury	2	-	-	3
Sea bream	-	39	-	39
Shark	6	-	-	12
Tuna:	7	-	116	-
Albacore	20	-	117	-
Big-eyed	11	-	200	-
Bluefin	-	34	100	-
Skipjack	18	-	72	-
Yellowfin	7	-	136	-
Yellowtail	-	2	13	-

1/Decline in salmon catch result of imposition of catch quota.

Fig. 9 - A large catch of yellowtail unloaded on the beach of a fishing village.

and larger tuna vessels to permit more efficient exploitation of distant tuna fishing grounds; and allowed fishermen engaged in other so-called depressed fisheries (like the salmon and coastal fisheries) to engage in tuna fishing. These measures are believed to be responsible in part for the large increase in tuna landings in 1961 and 1962. The 1961 tuna catch exceeded the 1960 catch by 104,000 metric tons (23 percent) and the 1962 tuna catch exceeded the 1961 catch by 42,000 metric tons (7 percent).

日本

Morocco

FROZEN SARDINE EXPORTS TO FRANCE SUSPENDED AGAIN:

Exports of frozen Moroccan sardines to France in June 1963 encountered the opposition of French sardine fishermen as occurred previously in July 1962. In sympathy with protests of the French fishermen, dock workers in Lorient and Nantes refused to unload three Moroccan shipments of frozen sardines. Even though one of the vessels was reported to have landed its cargo after a long delay, the new protests resulted in a decision to stop Moroccan sardine exports to France as of July 5, 1963. It had been agreed earlier that imports of Moroccan sardines would be stopped during the July 15-September 15, 1963, period.

This was a hard blow to the fishing and freezing industries in Morocco. The freezing plants have stopped their purchases of fresh sardines and, according to press reports, 3,000 freezing plant workers and 4,500 fishermen are threatened with a lengthy period of unemployment. (United States Embassy, Rabat, June 28, 1963.)

New Zealand

SOVIETS PLAN SURVEY OF FISHERIES RESOURCES ADJACENT TO COAST:

Soviet scientists are planning to study the prospects of commercial fishing in the waters around New Zealand, says an article in Vodny Transport released by the Soviet Legation in Wellington.

The work is part of a Pacific-wide survey being carried out by the Pacific Research Institute of Fisheries and Oceanography under the direction of the assistant head of the institue. (Map on page 100.)

An institute research vessel, the Orlik, is already surveying the resources of the Great Australian Bight, where according to the director of the expedition, the prospects for commercial fishing appear to be good.

New fisheries have already started in the eastern Bering Sea and elsewhere in the North Pacific following investigations by the Institute. (Commercial Fishing, a New Zealand fishery periodical, May 1963.)

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SURVEY RAISES HOPE FOR SHRIMP FISHERY:

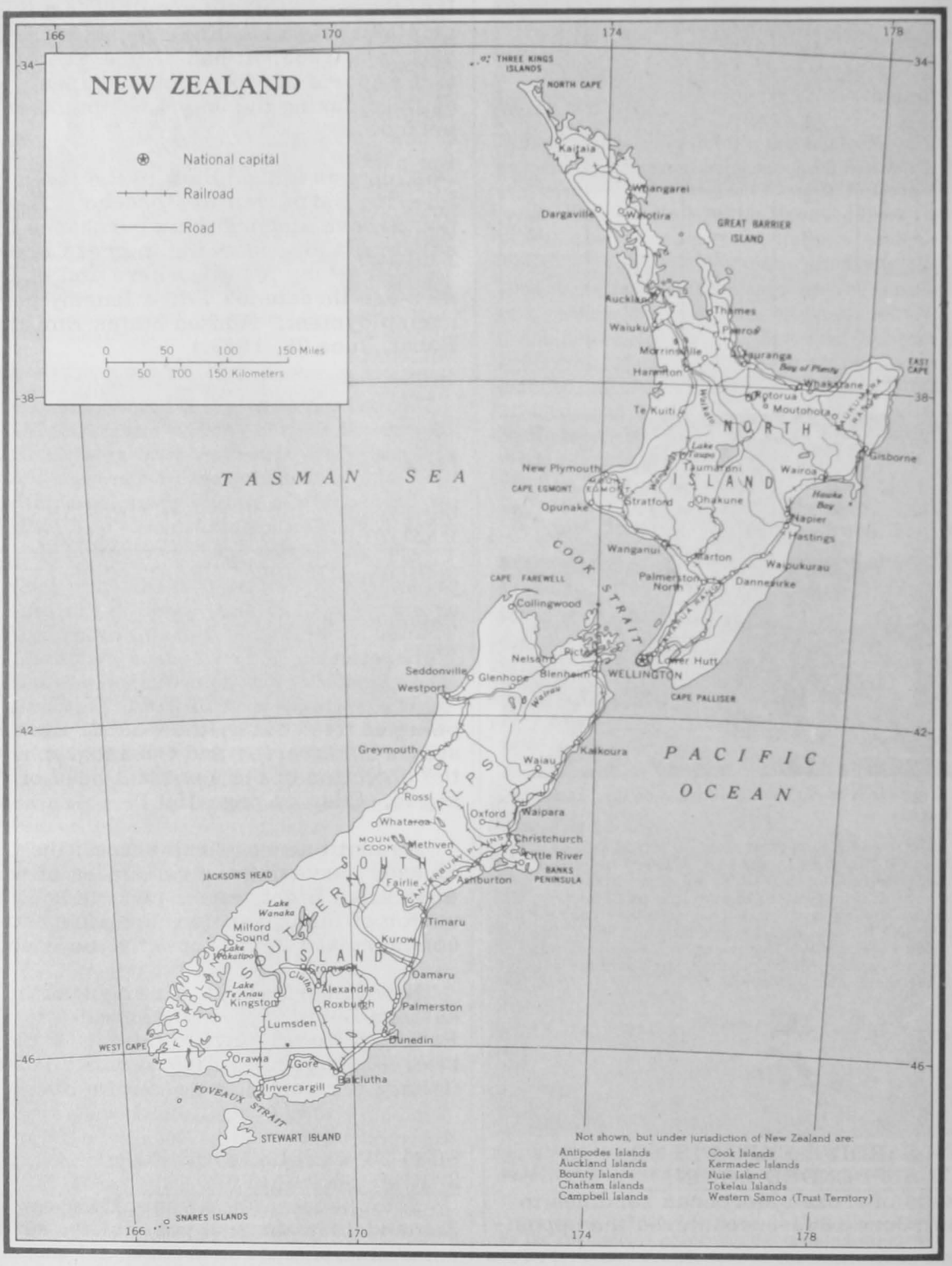
Establishment of a shrimp fishery in New Zealand is a distinct possibility, but as yet

New Zealand (Contd.):

this aspect of the fishing industry is still in the experimental stages.

After conducting investigations early in 1963 between the Lochland Banks, south of Portland Island, and the North Cape, the New Zealand Government research trawler Ikatere caught 12 known species of shrimp. Three were considered to have commercial possibilities.

"We found virtually nothing in the shallow waters," the skipper stated, when the vessel arrived in Gisborne.



New Zealand (Contd.):

He explained that although they caught very few shrimp in about 150 to 160 fathoms, from White Island to the Lochland Banks, it did not necessarily mean that there were no shrimp in those areas.

He added that juvenile shrimp of about two inches in length had been caught and he thought that it might not be the right season for them.

"Fishing from White Island to North Cape showed more potential, but this was in water from 200 to 400 fathoms deep," he added.

"This is the only research vessel in New Zealand and we have to cover all the coastal waters for various types of fish. Our research into shrimp fishing has only just started," he continued.

He stated that the depth of the water could be the deciding factor as to whether the shrimp could be commercialized or not, with profit.

Interest in shrimp fishing in the Gisborne district was aroused when a New Zealand fishing firm was granted a license by the Minister of Marine in October 1962 to fish for shrimp and report its findings to the Fisheries Department.

This was the result of shrimp being caught by trawlers from Gisborne in the coastal waters while on routine trips.

The manager of the Gisborne firm investigated methods of shrimp fishing while in Australia in 1962. Some Australian vessels processed, packed, and froze the shrimp while at sea and others used brine tanks to preserve the catch. (Commercial Fishing, a New Zealand fishery periodical, May 1963.)

Norway

EXPORTS OF CANNED FISH, JANUARY 1-APRIL 27, 1963:

Norway's total exports of canned fish January 1-April 27, 1963, were 11.1 percent less than in the same period of 1962. The decline affected all of Norway's principal canned fish products except canned brisling.

Norwegian Exports of Canned Fish, January 1-April 27, 1962-63

Product	1/1963	1962
	. . . (Metric Tons) . . .	
Brisling	1,822	1,547
Small sild	4,563	4,837
Kippered herring	1,139	1,884
Soft herring roe	195	285
Sild delicatessen	135	156
Other canned fish	1,084	1,160
Shellfish	475	555
Total	9,413	10,424

1/Preliminary.

This year, the small sild canning season opened on May 2. The small sild pack during May 2-25, 1963, amounted to 44,854 cases, up 11.6 percent from the pack of 40,187 cases in the same period of 1962.

The brisling packing season began June 4, 1963. The quality of early brisling catches was excellent and a good brisling year was expected. (Norwegian Canners Export Journal, June 1963.)

* * * * *

COD FISHERY TRENDS, MAY 1963:

Norway's 1963 total young cod fishery as of May 25, 1963, was 22,429 metric tons, compared with 18,006 tons at the same time last year. The total of spawning and young cod

Fig. 1 - Shows a Norwegian line-fishing boat boating cod.

landings as of that same date was 78,662 tons, compared with 84,148 tons in 1962. Of this year's total landings, 43,967 tons were sold for drying, 9,819 tons for salting, and 24,876 tons for fresh and frozen (includes 17,609 tons used for fillets).

After the disappointing winter herring and Lofoten cod season, the young cod fishery off Finmark in northern Norway offered Norwe-

Norway (Contd.):

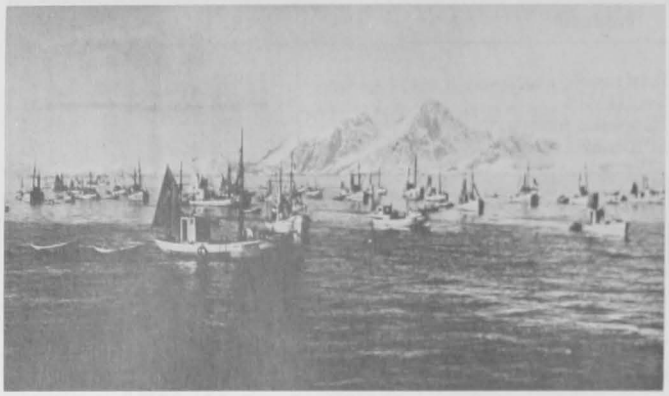


Fig. 2 - A sunny day on the Lofoten Cod fishing grounds.

Norwegian Catch and Disposition of Young and Spawning Cod, as of April 27, 1963, with Comparable Data

Cod	1963	1962
	. . . (Metric Tons) . . .	
Catch as of April 27	64,640	75,693
Disposition of Catch:		
Drying	35,184	28,389
Salting	9,556	20,338
Filleting	12,889	17,114
Icing and fresh	7,011	9,852

gian fishermen some encouragement. Total landings of young cod from the Finmark fishery amounted to 13,149 metric tons as of May 4, 1963, compared with 11,389 tons by the same date one year earlier. But by April 27, the combined 1963 catch of young and spawning cod was still 14.6 percent below that in the comparable period of the previous year. (Fiskets Gang, April 25, May 9 and 30, 1963.)

* * * * *

PROTESTS DISCRIMINATORY TREATMENT BY BRAZIL ON DRY-SALTED COD IMPORTS:

The Norwegian Minister of Commerce informed the Storting on June 12, 1963, that Norway had delivered a protest to the Brazilian Government against alleged preferential treatment of klipfish (dried cod) imports from Denmark.

Norway became a member of the Hague Club in 1958, putting trade and payments with Brazil on a multilateral instead of a bilateral basis, while Denmark has remained outside the Hague Club. The Norwegians allege that the rates of exchange utilized in Brazil discriminate against multilateral trading partners, thus giving the Danish dried cod exports from the Faeroe Islands a price advantage of 15 percent over the traditional Norwegian exports to Brazil, which has long been one of the most important markets for Norwegian cured fish.

In Norway, klipfish is carefully stacked between spells of exposure to the sun.

The Norwegian Ambassador in Rio de Janeiro delivered an initial protest on January 8 of this year, but since the Brazilians have shown no inclination to correct the situation, the Norwegian Government is now contemplating further action along the following lines:

(1) Moral suasion--citing the International Monetary Fund's recommendations for the elimination of bilateral payments agreements;

(2) Negotiations to obtain for Norway advantages similar to those enjoyed by Denmark; and

(3) An implied threat to curtail coffee imports from Brazil, which now supplies 65-75 percent of Norway's coffee consumption. (United States Embassy, Rio de Janeiro, June 14, 1963.)

Panama

SPINY LOBSTER EXPLORATORY FISHING PROJECT CONTINUED:

M/V "Pelican" Cruise 12 (April 18-May 1) and Cruise 13 (May 14-30, 1963): The one-year survey of stocks of spiny lobsters off Panama by the chartered commercial fishing vessel Pelican was continued during April and May 1963 when operations were switched to the Bocas area in the Caribbean Sea. The survey is being conducted by the U. S. Bureau of Commercial Fisheries through an interagency agreement with the U. S. Agency for International Development (AID) Mission to Panama as an Alliance for Progress program. Cruises 12 and 13 were designed to extend exploratory coverage to the Caribbean, as well

Panama (Contd.):

as to obtain some basis for comparing the spiny lobster potential of the Caribbean and Pacific coastal areas of Panama.

Since little evidence of trap fishing was available in the Bocas area off northern Panama, efforts were focused on pure exploration rather than on production-type fishing. The highest catch rates during the Caribbean explorations were achieved during Cruise 13 near the mouth of Bocas del Drago Channel where a 72-trap, 2-day set produced 72 lobsters, all of the species Panulirus argus, except for one specimen of P. guttatus. In contrast to Pacific catches, where males were strongly predominant, Caribbean catches were composed of nearly equal numbers of females and males. Also, although wood traps continued to outfish wire traps, the margin of advantage was markedly lower.

CRUISE 12: A total of 350 lobsters (P. argus) was taken from 589 traps fished in 1- to 3-day sets (1,091 trap days). The 3-day sets were markedly more productive than either 1-day or 2-day sets. Fishing at progressively farther distances from reefs showed that relatively smooth bottom areas from 75 to 200 yards from the reef edges were most productive. Sets made on reefs resulted in only small catches as did sets made at points far removed from the reefs.

Bait trawling yielded small catches of both South American white shrimp (Penaeus schmitti) and sea bobs (Xiphopeneus kroyeri). The best shrimp catch was made between the mouth of Bocas del Drago Channel and the Chanquinola River. It consisted of 10 pounds of white shrimp from a 1-hour tow of a 40-foot trawl. Bait was not as readily available in the Bocas area as it was in the Pacific areas fished on previous cruises.

CRUISE 13: The catch average again was small due to the purely exploratory nature of the investigation. A total of 346 (1,674 trap days) lobsters (P. argus) was taken from 841 traps fished in 2-day sets in the Bocas del Toro Channel area. In the 72-trap set made in the mouth of Bocas del Drago, referred to previously, 43 wood traps caught 54 lobsters in 2 nights while 29 wire traps caught 18 lobsters. Female lobsters averaged 20.5 ounces and males averaged 22.4 ounces. The lobster meat yield averaged 35.2 percent from females and 31.8 percent from males.

Long-line sets solved the bait problem. Seven 3-basket long-line stations yielded 9 sharks--sufficient bait for trap operations throughout the cruise.

Depth-recorder surveys were made of the offshore areas near Isla Colon, Isla Bastimentos, and Cayos Zapatillas to 25 fathoms and in parts of Almirante Bay. The surveys were made to determine reef locations as well as the extent of trawlable bottom that might permit lobster trawling, especially in the event of heavy migratory concentrations. A few isolated trap sets were made off Isla Colon and the southern edge of Cayos Zapatillos with negative results. The depth recorder indications and the limited results of trap explorations indicate that the Bocas del Toro and Bocas del Drago Channel areas have the highest potential for a trap fishery in the area so far explored in the Caribbean Sea off Panama.

Experiments were also conducted during the cruise with a lobster trap made of acrylic plastic. It proved too brittle to withstand rough handling and was removed from service.

M/V "Pelican" Cruise 14 (June 11-26, 1963): During this cruise, the Pelican moved to the Pacific Coast to conduct explorations in the Farallon-San Carlos area of the Gulf of Panama. The catch of 774 lobsters consisted of 321 rock lobsters and 453 spiny lobsters, and they were caught at 150 trap stations (933 traps were set) and 16 trawl drags.

The first week of the cruise was spent working off Farallon where depth-recorder surveys showed the bottom to be primarily smooth mud. Using a 40-foot shrimp trawl, 10 drags of 1 to $1\frac{1}{2}$ hours each, were made in depths of 3 to 10 fathoms. A total of 241 rock lobsters (Scyllarides species) and 62 spiny lobsters (Panulirus gracilis) were caught. Lobster catch rates varied from 1 to 30 per drag for the spiny lobsters and from 2 to 72 for the rock lobsters. Trap fishing yielded poor catches. Only 31 spiny lobsters were taken from 228 traps fished in 2- to 3-night sets at 38 stations. Members of the Farallon Fishery Cooperative came aboard the Pelican each day to observe operations.

During the second week of fishing, the Rio Mar-San Carlos area was explored. A depth-recorder survey showed rock formations scattered throughout the area. The 6 trawl tows attempted in the area in depths of 6 to 14 fathoms produced 9 spiny and 80 rock lobsters.

Panama (Contd.):

Gear damage on the hard bottom precluded further trawling effort. During trap fishing, 112 stations (705 traps set) fishing for 2 to 3 nights produced a total of 351 spiny lobsters. Catch rates at different stations showed wide variations. The best catch consisted of 75 spiny lobsters from a 2-night set of 50 traps in 5 fathoms off Playa la Palma.

The sex ratio for the total lobster catch during the cruise was: spiny lobsters, 246 males/207 females; rock lobsters, 180 males and 141 females. The rock lobster meat yield averaged 45 percent females and 33 percent for males.

Of special interest was the discovery of concentrations of large croakers off Farallon during trawling activities. The concentrations were previously unknown to local fishermen of the area. Five of the ten drags produced fish catches of 1,500 to 3,000 pounds. About 75 percent of the fish catch consisted of marketable species in the 2-pound size range.

Notes: (1) Pelican Cruise 14 concluded the Panamanian lobster survey project initiated in August 1962 under the interagency agreement between the Bureau of Commercial Fisheries and the USAID Mission to Panama. Due to increasing interest by the fishing industry of Panama in the development of a lobster fishery, a continuation of the Bureau-USAID agreement has been arranged, extending the activities of the Pelican off Panama through June 1964. During the extended survey, the emphasis will be on fishing trials, in cooperation with participating Panamanian fishing companies, to evaluate more closely the lobster potential in selected areas.

(2) See Commercial Fisheries Review, June 1963 p. 85.

Peru

TUNA CANNING FACTORYSHIP PURCHASED FROM A UNITED STATES FIRM BEGINS OPERATIONS:

The former United States tuna canning factoryship Neva, which was purchased from a West Coast firm in the early spring of this year by two Peruvian fishing companies, began operations in the vicinity of Zorritos in northern Peru in mid-1963. After arrival in Peru, the Neva was refitted at Callao. As of mid-June 1963, one tuna purse seiner was reported to be fishing for the Neva and 2 or 3 additional seiners were en route to join the mothership fleet.

The two Peruvian fishing companies that purchased the tuna canning factoryship are owned by a long established Lima firm. This parent firm has interests in the fish meal and oil industry, plus the new venture in tuna canning, and also a long established hardware business. (United States Embassy, Lima, June 17, 1963.)

* * * * *

REACTION ON SEIZURE OF U. S. TUNA VESSELS BY ECUADOR:

The incident involving the seizure of two United States tuna fishing vessels by Ecuadoran naval vessels engendered only a minimum of interest in the Lima, Peru, press. There were news items in the leading newspapers almost every day since May 26, 1963, but no editorial or other comment. Most of the news stories were from press agencies originating either in Quito or Santiago, or in the United States. The remainder were local recording comments of the Peruvian Minister of Foreign Relations.

Items from Santiago, Chile, related to the determination of Chilean authorities to adopt energetic measures to end "international piracy" by fishing vessels of other nations which invade Chilean territorial waters. There were statements relating to the intention of Chile to initiate joint action with Peru and Ecuador to defend marine resources of the territorial seas claimed by those countries.

Stories from Quito dealt largely with the seizure of the two United States vessels, the alleged interference of 19 additional United States tuna vessels in their capture, and the refusal of Ecuadoran authorities to release the two vessels while discussions with United States representatives in search of a solution to the problem were being held. A statement of Ecuador's position was published May 30.

The news stories originating in Lima attributed to the Foreign Minister the statement that any measures adopted by Peru to control and supervise the exploitation of marine resources would be in harmony with existing agreements with Chile and Ecuador. This was based on reporters' questions relating to the report from Santiago that Chile intended to propose joint action against foreign fishing fleets. (United States Embassy, Lima, June 6, 1963.)

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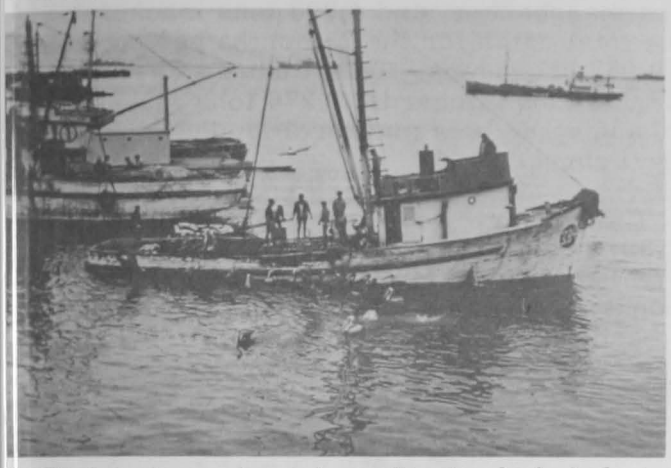
FISH MEAL SUPPLY AND DISTRIBUTION, 1960-1963:

In 1962, fish meal became Peru's most valuable export, and Peruvian fish meal pro-

Peru (Contd.):



At Chimbote, Peru, anchoveta boat waiting to unload. Anchovies are the raw material for fish meal in Peru.

Peruvian Supply and Distribution of Fish Meal, 1960-63

	1/1963	2/1962	2/1961	1960
	(Metric Tons)			
Supply:				
Opening stocks	178,552	157,434	46,985	45,882
Production	1,155,000	1,100,000	839,815	528,256
Total supply	1,333,552	1,257,434	886,800	574,138
Distribution:				
Exports	3/1,200,000	1,055,882	708,366	507,042
Apparent domestic consumption	25,000	23,000	21,000	20,111
Tot. distribution	1,225,000	1,078,882	729,366	527,153
Closing stocks	108,552	178,552	157,434	46,985

1/Forecast.
2/Preliminary.
3/Apparent export availability.

Production and exports were expected to rise even higher in 1963. (United States Embassy, Lima, April 15, 1963.)

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EXPORTS OF PRINCIPAL MARINE PRODUCTS, JANUARY-MARCH 1962-63:

Item	Jan.-Mar. 1963			Jan.-Mar. 1962		
	Qty.	Value 1/		Qty.	Value 1/	
	Metric Tons	Million Soles	US$ 1,000	Metric Tons	Million Soles	US$ 1,000
Fish meal	326,393	861.9	32,136	343,430	844.8	31,499
Fish (frozen, canned, etc.)	7,318	48.9	1,823	7,843	55.7	2,077
Fish oil	56,887	88.9	3,315	40,796	107.1	3,993
Sperm oil	-	-	-	2,463	8.6	321
Whale meal	1,309	2.9	108	1,054	1.7	63
Fertilizer (guano)	760	1.9	71	4,019	10.8	403

1/F.o.b. values converted at rate of 26.82 soles equal US$1.
(United States Embassy, Lima, July 12, 1963.)

Portugal

CANNED FISH EXPORTS, JANUARY-MARCH 1963:

Portugal's exports of canned fish during the first quarter of 1963 increased 15.2 percent from the same period in 1962, due primarily to higher exports of sardines (up 11.3 percent) and a sharp increase in the exports of mackerel (up 369 percent). Sardines accounted for 78.5 percent of the 1963 exports of canned fish, followed by anchovy fillets with 8.7 percent, and mackerel with 7.9 percent.

Portuguese Canned Fish Exports, January-March 1962-1963

Product	Jan.-Mar. 1963		Jan.-Mar. 1962	
	Metric Tons	1,000 Cases	Metric Tons	1,000 Cases
In Oil or Sauce:				
Sardines	13,607	716	12,226	643
Chinchards	331	17	310	16
Mackerel	1,361	54	290	12
Tuna and tuna-like	457	15	487	16
Anchovy fillets	1,506	151	1,664	166
Others	70	4	67	3
Total	17,332	957	15,044	856

Portugal's principal canned fish buyers during the first quarter of 1963 were Germany with 2,589 metric tons, followed by Italy with 2,585 tons, United States 2,209 tons, United Kingdom 1,922 tons, and France 1,651 tons. (Conservas de Peixe, May 1963.)

* * * * *

CANNED FISH PACK, JANUARY-MARCH 1963:

Portugal's total pack of canned fish in oil or sauce for the first quarter of 1963 was down about 31 percent as compared with the same period in 1962. The combined sardine and anchovy fillet pack during January-March 1963 accounted for 91.4 percent of the total pack. Compared with the first quarter of 1962, the January-March 1963 pack of sardines dropped 31 percent and the anchovy pack was down about 24.2 percent. During February and March 1963, a closed season for sardine

Portuguese Canned Fish Pack, January-March 1962-63

Product	Jan.-Mar 1963		Jan.-Mar 1962	
	Metric Tons	1,000 Cases	Metric Tons	1,000 Cases
In Oil or Sauce:				
Sardines	1,177	62	1,699	89
Chinchards	9	-	27	1
Mackerel	32	1	22	1
Tuna and tuna-like	178	6	428	14
Anchovy fillets	1,289	128	1,701	170
Others	13	-	29	1
Total	2,698	197	3,906	276

Portugal (Contd.):

fishing was in effect. The canned tuna pack in the first quarter of 1963 was less than half that of the same period in 1962. (Conservas de Peixe, May 1963.)

South Africa Republic

PILCHARD-MAASBANKER FISHERY, JANUARY-MARCH 1963:

The fish catch off the Cape west coast of South Africa Republic in the first 3 months of 1963 was 170,298 short tons pilchards, 3,997 tons maasbanker, and 14,233 tons mackerel. The total catch for the 3-months period was 188,538 short tons. This compares with 283,613 tons pilchards, 4,451 tons maasbanker, and 9,207 tons mackerel landed in January-March last year.

The January-March 1963 catch yielded 43,477 short tons of fish meal, 2,786,051 imperial gallons of fish body oil, 4,256,568 pounds of canned pilchards, and 4,949,208 pounds of canned mackerel.

The fish catch off the Cape west coast of the South Africa Republic in the first 2 months of 1963 was 115,397 short tons pilchards, 273 tons maasbanker, and 4,293 tons mackerel. The total catch for the 2-months period was 119,963 short tons. This compares with 188,838 tons pilchards, 1,276 tons maasbanker, and 6,187 tons mackerel landed in January-February 1962.

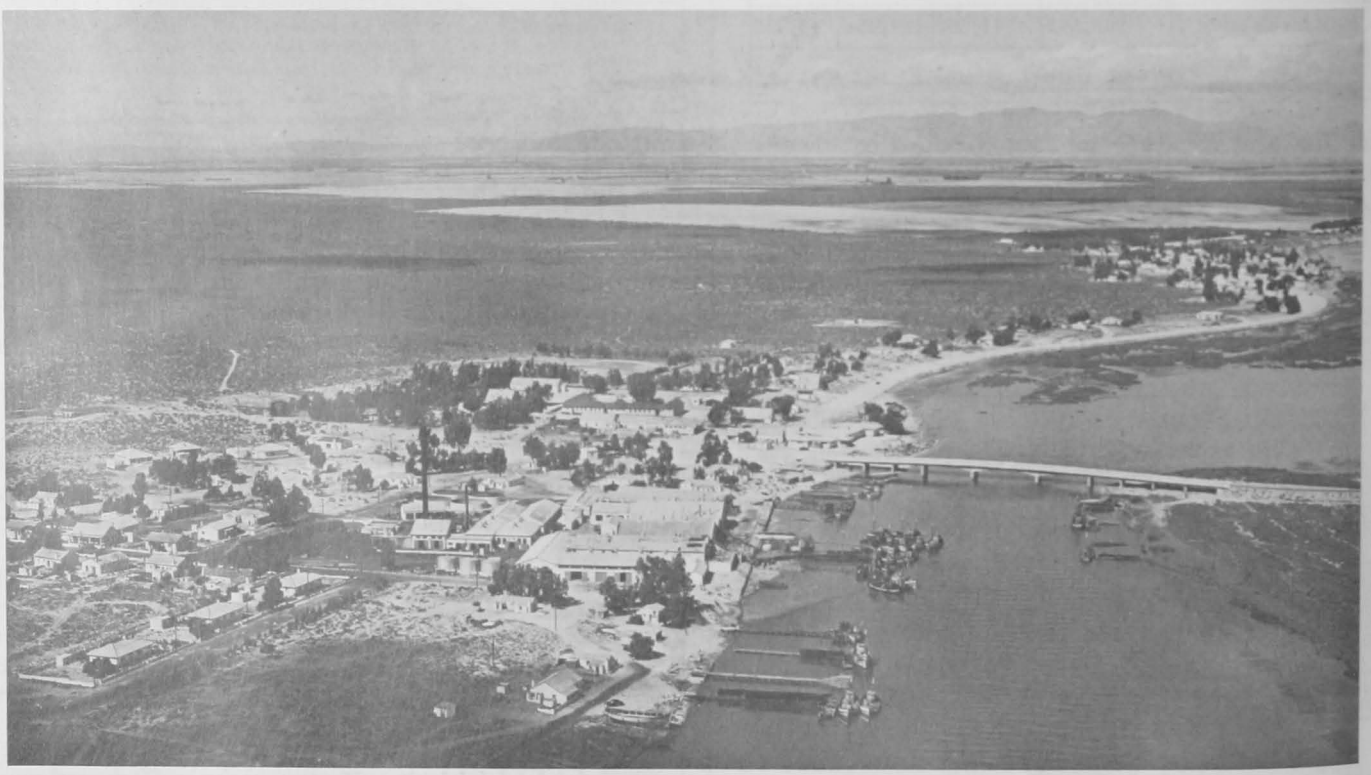
The January-February 1963 catch yielded 27,897 short tons of fish meal, 1,636,818 imperial gallons of fish body oil, 2,577,672 pounds of canned pilchards, and 905,280 pounds of canned mackerel. (The South African Shipping News and Fishing Industry Review, May 1963 and April 1963.)

South-West Africa

FISHERIES TRENDS, APRIL 1963:

As of early April this year, all 6 fish reduction and canning plants at Walvis Bay were active for the 1963 season. The quota fixed by the South-West Africa Administration was raised this year from 435,000 tons to 540,000 tons, divided equally among the 6 factories.

In granting this increase in the quotas, the Administration made it clear to the industry that any further quota would be considered in the light of a possible additional license being granted and that factory operators must bear this in mind when expanding or renewing their plant.



A South African canning and industrial products plant showing mooring jetties.

South-West Africa (Contd.):

Because of the ready market for fish meal the industry his year will concentrate on the production of meal, most f which has already been sold in advance.

The labor trouble and bad weather experienced by the eruvian industry may result in that country falling below s previous high production which could mean an additional mand on South and South-West African supplies in the lat- r part of the year.

According to the Chairman of the South African Fishmeal oducers' Association, it is expected that Peru will lose out 150,000 tons, or from 15 to 20 percent of her produc- on.

Discussing the future of the fish meal industry, the Chair- an said that the growth in demand for this commodity dur- g the period 1960 to 1963 could not be repeated. In the st three years the demand had almost doubled. During the ming years there would only be steady increases which he recast would be from 5 to 10 percent on average. This eant a consolidation and stabilizing of the market, he add- .

The market for fish oil, the Chairman said, had improved. he prospects at present were bright in comparison with the ll outlook at the beginning of 1963. Whale oil production ad dropped by 90,000 tons and the anticipated production in eru would be lower. This, he said, had led to a sharp re- overy in the market.

"I am confident that all our 1963 fish oil production will e sold at a much better price than we anticipated," said the hairman.

The first shipment this year was made on the Anella the end of April which loaded all the available stock at alvis Bay. The second shipment from Walvis Bay was ade during June. Further shipments will depend entirely on les.

Sales of canned fish, the Chairman commented, had im- oved during January-March and were better than the cor- sponding period last year. Nevertheless, the Far East- n market was both insecure and uncertain. The canning ogram of the industry this year will be cut back.

By the middle of April the condition of the pilchards at lvis Bay was average and the oil yield was from 7 to 8 lons a ton of fish. Canning on a small scale was started three of the factories after Easter.

The first substantial shipment of fish meal was made to gland. (The South African Shipping News and Fishing dustry Review, May 1963.)

* * * * *

OVIET FLEET RESUMES ISHING OFF COAST:

The Soviet fishing fleet off South-West frica, estimated at about 20 vessels, was ctive during April 1963. At one stage no ess than 8 ships were anchored just outside he territorial waters about 10 miles north f Walvis Bay. The trawlers transferred atches to the motherships and at the same ime a small tanker refueled the vessels.

Two trawlers, the Yalta and Feodosia, alled at Walvis Bay during April for fresh water and supplies. The Yalta was built last year in East Germany.

One of the Soviet trawlers, waiting to transfer its catch, tried catching pilchards. Only once before, in July 1961, did the Russians make any attempt to catch pilchards off the South-West African coast. (South African Shipping News and Fishing Industry Review, May 1963.)

Sudan

NEW FISHING HARBOR PLANNED:

The Sudanese have plans to rehabilitate and develop the abandoned Port of Suakin south of Port Sudan on the Red Sea. These plans include the establishment of a fishing harbor and related facilities. The installations are expected to be completed by 1967. (United States Embassy, Khartoum, June 13, 1963.)

Taiwan

FISHERIES TRENDS, FIRST QUARTER 1963:

The yield from Taiwan's fisheries in the first quarter of 1963 was about 7 percent greater than in the same period of the previous year.

Taiwan Fisheries Production, January-March 1963	
	Metric Tons
Offshore and deep-sea fisheries	32,724
Coastal fisheries	34,413
Fish culture	6,100
Total	73,237

Taiwan fisheries production in the first quarter of 1963 did not, however, equal that in the last quarter of 1962, due mainly to a decline in the tuna catch. Taiwan fishermen are concerned over the possibility that their main tuna fishing grounds in the Indian Ocean may be depleted. Because of this, part of the fleet may shift to American Samoa where a new United States cannery was expected to begin operations in mid-1963.

A frost in January 1963 was reported to have killed over 1 million milkfish fingerlings in fish culture wintering ponds. This was expected to reduce the June 1963 harvest by an estimated 20 percent.

In the first quarter of 1963, Taiwan exported over 10 tons of frozen shrimp to Ja-

Taiwan (Contd.):

pan, and exports for the year will probably exceed 50 tons.

Only 4 of the 12 new tuna long-line vessels completed in early 1963 had entered service by March. The others were awaiting installation of refrigeration equipment and processing of crews.

The International Bank for Reconstruction and Development was expected to complete its consideration of the Chinese request for a loan to finance the construction of sixteen 300-ton and two 1,000-ton tuna long-liners some time in May 1963. The proposal had previously been submitted to the International Development Association.

Purse-seine vessels, traveling in pairs, set out from the Tawain port of Nan Fan Ao for fishing in the Pacific Ocean.

The Taiwan Provincial Government Tidal Land Committee has been studying a plan to reopen a 1,200-acre inland sea which has been used for fish culture. The outlet from the inland sea (about 18 miles north of Kaohsiung) has been closed by silt. Failure to reopen the area could cause losses of over US$1,249,000 a year. (United States Embassy, Taipei, May 22, 1963.)

Notes: (1) Taiwan dollar 40.03 equals US$1.00.
(2) See Commercial Fisheries Review, April 1963 p. 74.

Thailand

FISHING FLEETS ALMOST COMPLETELY MOTORIZED:

Thailand has almost completely motorized its fishing fleet. A Food and Agriculture Organization (FAO) expert reports that the colorful sailing junks that dotted the Gulf of Thailand 10 years ago "have been replaced almost 100 percent by mechanized boats."

Fig. 1 - Thai seiner Sindhu Charnchai (10 gross tons) equipped with a 27-hp. Diesel engine.

With modernization, the annual catch made by Thai fishermen climbed from 205,000 tons in 1953 to 305,000 in 1961 (although part of this increase is attributable to improvements in the collection of statistics).

Fig. 2 - Thai seiner Sapsobhon (32 gross tons) equipped with a 120-hp. Diesel engine.

The importance of progress in the fishing industry can be measured by the fact that fish provides more than 70 percent of the animal protein in the Thai diet. The Thai people prepare fish in a wide variety of forms, adding Indian and Chinese recipes to their favorite local dishes.

The wider ranging, faster, motorized fishing fleets now assure Thailand an abundant supply of fish, chiefly chub mackerel. The new boats have airy quarters which are exemplary for crew accommodation in the tropics.

Thailand (Contd.):

The marked changes are the product of an effective combination of national and international efforts. In addition to FAO programs, the United States and Germany have provided the industry with material and technical aid.

"Thailand has a very alert staff of fisheries officers," the FAO expert stated. "They have been eager to learn and quick to accept training opportunities in Japan and the West."

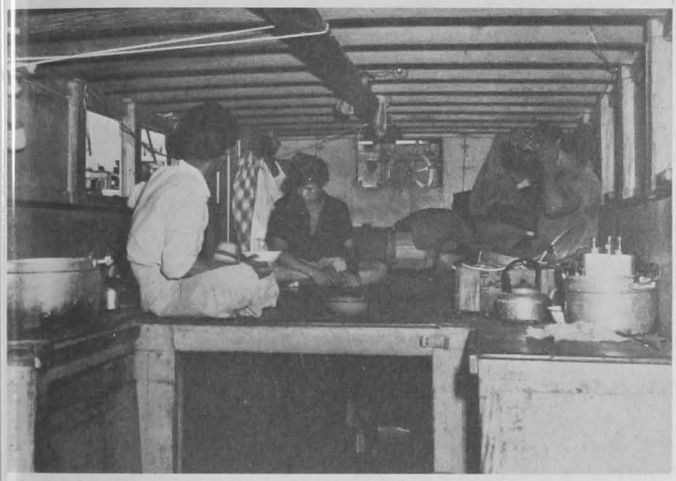


Fig. 3 - Interior view of the Thai seiner Sapsobhon.

Noting that Thai fishermen, with engines of increasing power in their vessels, will tend to range farther out, the FAO expert recommended stronger construction in future boat building so as to make the craft safer during storms. As a result of this and other suggestions by the fishing boat expert, FAO will follow up by sending a Canadian marine architect to assist fishermen when they are building new vessels or modifying existing ones.

The fishing industry is also making progress in the areas of processing and distribution, according to another FAO expert from Pakistan. A technological laboratory has been established to improve handling and preserving fish, he said.

"There are still problems in shipping fish so that it will arrive in good condition in the northern part of the country where there are protein deficiencies in the diet," the Pakistan expert stated. (Food and Agriculture Organization, Rome, Italy, June 21, 1963.)

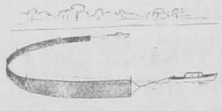
Uganda

FRESH-WATER FISH PRODUCTION, 1961-62:

Uganda has lakes and rivers totaling 13,600 square miles and commercial fishing is now undertaken in all major waters. Lakes Victoria, Edward, George, Albert, and Kyoga are the main producing areas. The most common methods of fishing are gill-netting, beach-seining, basket-trapping, and long-lining. Tilapia is the most valuable species, but many other kinds of fish find ready sale including Nile perch, catfish, lungfish, elephant-snout fish, and the sardine-sized Haplochromis.

A record 63,500 tons of fish with a lakeside value of £2.5 million (US$7.0 million) and a retail value of £3.5 million ($9.8 million) were produced in 1962. This compares with 60,188 tons in 1961 with a lakeside value of £2.4 million ($6.72 million) and retail value of £3.0 million ($8.4 million). Because of continued difficulties in exporting fish to the Congo, fish exports dropped from about 3.3 million pounds, valued at £210,000 ($588,000) in 1961, to about 2 million pounds worth £112,000 ($314,000) in 1962.

Uganda is considered to be more advanced in the mechanization of its fishing fleet than any other country in East or Central Africa with an estimated 1,500 outboard engines now in use. The contrast between Kenyan and Ugandan fishermen is particularly striking. An outboard engine is rarely seen in the Kenya waters of Lake Victoria whereas most fishermen on the Uganda side of the Lake use them regularly. A total of 207 outboard engines were bought by Ugandan fishermen in 1962. (United States Embassy, Kampala, June 1, 1963.)



U.S.S.R.

SOVIET FISHING CONDITIONS:

In the Soviet Union there are two types of ownership of fishing craft and fishing gear. The first type is State ownership, where all vessels, gear, etc., are under fleet administration and the so-called fish combines. The second type is cooperative. Fishery cooperatives not only fish within the territorial limits but they have the same right as the State fleet to fish in international waters.

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

When the fishing fleets return home, repairs may be made at special repair yards. Very often the vessel's crew is in attendance to keep things in order and aid in routine repairs and preventative maintenance. The fishermen are directly interested in seeing that the vessel is maintained in perfect condition and that all work is carried out in the best possible manner.

Repair work is paid for according to the usual piecework-premium system, and payment is made from the fleet administration's funds. Payment for repair work amounts to 70 percent of the maximum tariff, but if the work has been done well and on time, it increases to 100 percent.

It is obvious that the conditions for the vessel crews cannot be uniform, neither while fishing or in port. For example, crews on the whale catching fleet receive a different pay, all according to whether they are en route to the whaling area, if they are whaling, or if they are on the way home.

Fishermen who fish the northern regions get a special seniority supplement. These fishermen, who work in areas near and around the North Pole, get a basic wage which is higher than the pay offered for comparable work in the Soviet Union's central offshore waters.

The crews eat together. Breakfast, lunch, dinner, and supper are served. On board the vessel one can buy sweets, canned goods, sausages, cheese, fruit, etc. On land there are special shops where the fishermen can make purchases.

All the smaller vessels can request technical assistance and medical aid. At the bases of the fishing fleets there are libraries, bathhouses, movie theaters, barber shops, etc.

On the medium-large and large vessels, as a rule, there are 2- and 4-man staterooms for the members of the crew. On smaller vessels the accommodations often are more crowded.

All fishing vessels are equipped with radio and on many there are motion picture projectors. On the larger vessels there are different kinds of instruction, often of a technical character. When the vessel is fishing, crew members have the right, now and then, to talk with friends and relatives over the radio. On their fishing cruises the crews also receive regularly, letters, packages, newspapers, and periodicals.

In the Soviet Union fishermen are a highly respected group. Many fishermen have received orders and medals for their prominent contributions, and many have received titles of honor, such as socialist labor hero. (Vestkysten, Danish newspaper, Esbjerg, Denmark, May 3, 1963.)

* * * * *

SAURY CANNING PLANT ESTABLISHED IN KURIL ISLANDS:

A Moscow news broadcast monitored in Japan announced that the Soviet Union has recently started operating a saury canning plant on Shikotan Island, situated northeast of Hokkaido in the Kuril Islands. The plant is said to have an annual production capacity of 10 million cans.

The Soviet Union is exerting great efforts to expand her coastal fishery processing facilities. Her 1963 investments for construction of refrigeration and fish processing plants represent a 42-percent increase over 1962 investments. (Suisan Tsushin, June 3, 1963.)

United Kingdom

SMALL-TYPE STERN TRAWLERS HAVE MANY NEW FEATURES:

In Great Britain there is a new surge of interest in 80- to 100-foot long stern trawlers for North Sea fishing. These vessels, embodying distinct attempts at automation, were one of the features at the Second World Fishing Congress held in London, May 27-31, 1963.

The first contribution to this type vessel comes from a large British fishing company with their Daring class, the first two of which, now under construction, may well set the pattern in near-water fishing vessels for years to come.

The first of these new type stern trawlers is the Ross Daring which is scheduled to enter service in October 1963, to be followed after a few months by a second vessel of the same class, the Ross Delight. Of combined welded-

United Kingdom (Contd.):

Fig. 1 - Daughter of Ross Group's chairman names vessel Ross Daring on May 25, 1963.

riveted construction, and incorporating the latest techniques in unit assembly, the vessel has a flush deck amidships, single-tier deckhouse, and a clipper-type bar stern. The principal characteristcs of the Ross Daring are:

Length over-all 99'0"; length between perpendiculars 85'0"; molded beam 23'0"; molded depth 12'6"; draft aft 11.0"; draft forward 8'6". Propulsion is by an 8-cylinder type, 4-stroke Diesel engine. Pressure-charged and intercooled it develops 407 s.hp. at 1,200 r.p.m. (at a propeller speed of 300 r.p.m.). Power transmission machinery consists of an ICRVP size 3 gearbox and hydraulic unit giving a 4:1 reduction, and a variable pitch propeller (diameter 6'5$\frac{1}{4}$"). Designed speed is 10$\frac{1}{4}$ knots. Main electric power is supplied by a 20 kw. generator, belt-driven from the main engine. Power for the hydraulic operation of the main winches is provided by a 6-cylinder type Diesel having a maximum output of 87 b. hp. at 1,800 r.p.m.

Fig. 2 - Launching of the Ross Daring at Cochrane's Selby Shipyard on May 25, 1963.

All winches are hydraulically-operated and specially developed. Hauling gear consists of twin "split" winches mounted on each side of the fish deck and remotely-controlled from the bridge. Each drum has an approximate capacity of 400 fathoms of 2$\frac{5}{8}$" cir. warp and has automatic guiding-on gear. A twin-drum hydraulic warping winch, mounted on the center line of the upper deck and aft of the forecastle, is fitted with controls at the winch. The entire engine and pump unit is mounted on a bedplate which also serves as a supply tank for the hydraulic system.

Aimed at making work pleasant for the fishermen, the new stern trawlers include:

(1) An entirely redesigned deck layout which allows the whole of the framework of the trawl to be taken on board with only one set of links to disconnect.

(2) Facilities to enable all the catch to be gutted and washed under cover at waist level, thereby relieving fishermen of the stooping and stretching which has been their experience since trawling began.

(3) A 4,800-cubic-foot fish hold, giving the crew of 4 men ample room for working, and for stowing the fish quickly and efficiently.

Economy in operation, in fact, is the yardstick guiding all aspects of design. Having decided the maximum crew requirements (number, accommodation, etc.) and the feasibility of remote control from the bridge of both winch and sealed engine, it was found that the latest in fishing equipment, ample deck space, and a roomy fish hold could be built into a small vessel requiring far smaller crew than formerly appeared possible.

United Kingdom (Contd.):

Difficulties are anticipated in the initial stages until the crews are familiar with the different skills required. But fishermen are known to be quite adaptable and the basic reasoning behind the new design is expected to prove itself within a very short time.

* * * * *

NEW FISH-DRYING PROCESS DEVELOPED:

A new process for the accelerated mechanical drying of fish has been developed by a Scottish shipbuilding firm in association with the British Government Torry Research Station of the Department of Scientific and Industrial Research at Aberdeen.

The new method will enable fish to be treated under strict hygienic control within hours of being caught. It will prevent the possibility of infestation and retain the protein value of the fish.

This development, it is claimed, will enable countries which have no refrigerated distribution and storage facilities, and which depend on locally-caught fish or naturally dried fish, to be supplied with high protein fish at economic prices. (Fish Trades Gazette, June 8, 1963.)

* * * * *

FISHERY LOANS INTEREST RATES REVISED:

The British White Fish Authority announced that beginning April 27, 1963, their rates of interest on loans for fishing vessels of not more than 140 feet, new engines, nets and gear, would be as follows: on loans for not more than 5 years, $5\frac{1}{4}$ percent (decrease $\frac{1}{8}$ percent); on loans for more than 5 years, but not more than 10 years, $5\frac{1}{2}$ percent (decrease $\frac{1}{8}$ percent); on loans for more than 10 years, but not more than 15 years, 6 percent (decrease $\frac{1}{8}$ percent); and on loans for more than 15 years, but not more than 20 years, $5\frac{7}{8}$ percent (decrease $\frac{1}{4}$ percent).

The rates on loans made before April 27 are unchanged.

In June, the White Fish Authority announced, the following additional changes in rates of interest on loans made as from June 8:

Fishing vessels of not more than 140 feet, new engines, nets and gear: on loans for more than 5 years, but not more than 10 years $5\frac{3}{8}$ percent (decrease $\frac{1}{8}$ percent); on loans for more than 10 years, but not more than 15 years, $5\frac{3}{4}$ percent (decrease $\frac{1}{4}$ percent); on loans for more than 15 years, but not more than 20 years, $5\frac{3}{4}$ percent (decrease $\frac{1}{8}$ percent).

All other rates were unchanged. (Fish Trades Gazette, May 11 and June 22, 1963.)

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

Foreign Fisheries Briefs

SOVIET FISHING IN NORTH PACIFIC AND BERING SEA: In April-July 1963, a total of 180 to 200 Soviet fishing vessels were operating in the Bering Sea and North Pacific Ocean, including the Gulf of Alaska. Of those, about 130 to 140 craft trawled for ocean perch in the Gulf of Alaska. In mid-July, however, two king crab factoryships and their accompanying fishing vessels moved from the Bering Sea into the Gulf of Alaska to a location about 30 miles south of Kodiak Island. This is the first time the Soviets have entered the commercial fishery for king crab south of the Alaska Peninsula. Later in mid-July the Soviet king crab fleets had departed from the area south of Kodiak Island. (Unpublished sources.)

SOVIET FISHING ON GEORGES BANK: During June the Soviet fleet on Georges Bank varied from about 150 to 200 vessels. So far this year 30 or more trawlers have been sighted traveling between the Northwest Atlantic and ports in Cuba. (Unpublished sources.)

SOVIET TRAWLER OFF CALIFORNIA COAST: A 150-foot Soviet trawler was reported off the coast of northern California on June 15, 1963, at a point about 100 miles west of Eureka. The vessel's gear was described as "similar to that used for fishing shrimp." (Unpublished sources.)

SOVIET-CUBAN SCIENTIFIC AGREEMENT: Soviet and Cuban scientists signed a scientific cooperation agreement May 28 providing for joint studies in a number of fields including oceanography. One project provides for a series of joint studies of the ocean near Cuba. (Unpublished sources.)

JAPANESE WILL BUILD SOVIET FISHING VESSELS: The Soviet Union ordered 20 fishing vessels from Japanese shipyards for a total of US$137 million. The Soviets requested the following credit terms: 30 percent down and the rest in 12 semiannual payments of 5 percent of the total price. The Japanese Government accepted the Soviet terms except that the semiannual payments are to be paid in 5-1/2 rather than 6 years, the last payment being the final 10 percent. The following vessels were ordered: 5 tuna factoryships (US$20 million)[1/]; 5 floating canneries (US$40 million); 5 fish-meal factoryships (US$37 million); and 5 refrigerated fish carriers (US$40 million). La Peche Maritime, May 1963.)

FRENCH WILL BUILD SOVIET STERN TRAWLERS: The Soviet Government has concluded a 100-million-franc (about US$20 million) contract with a private French shipyard for 3 factory stern trawlers. The vessels will be about 425 feet long and 63 feet wide each with a crew of 220 persons, 160 of which will be processing workers. They will trawl and purse seine principally for herring and for tropical sardines. The most modern automated processing equipment will include canning, freezing, and fish-reduction facilities. Conveyors will carry empty cans

oreign Fisheries Briefs (Contd.):

d cartons to the processing areas and finished products the storage holds. Each vessel will be equipped with osed circuit television. The first of these 4,250-gross- n vessels will be delivered in 1964. La Peche Mari- e, May 1963.)

LIBERIAN FISHING INDUSTRY TO BE REORGANIZED: ew Bureau of Commercial Fisheries is to be set up in the Liberian Department of Agriculture and Commerce to regulate the fishing industry by centralizing the landing and marketing of fish. It will control the distribution and prices of fish, and will collect statistics. To implement this program, the Government of Liberia has requested the Technical Assistance Board of the United Nations to assign a fisheries expert to that country. (U. S. Embassy, Monrovia, June 9, 1963.)

1/Reports in Japanese periodicals on the building of tuna motherships for U. S. S. R. as reported in Commercial Fisheries Review, July 1963 p. 86, were somewhat different as to detail.

Note: These briefs were abstracted and compiled by the U. S. Bureau of Commercial Fisheries Branch of Foreign Fisheries and Trade.

UNITED STATES FOOD SUPPLY IS BOTH SAFE AND NUTRITIOUS

The American food supply is both safe and nutritious, according to results of "total diet studies" completed by the U. S. Food and Drug Administration (FDA) in November 1962. FDA scientists analyzed market basket samples of foods for pesticide residues and vitamin content.

Pesticide residue content was found well within safe tolerance limits set for specific pesticides on individual foods.

Levels of Vitamin A, thiamin, riboflavin, and niacin were found to be more than two times the Recommended Dietary Allowances of the Food and Nutrition Board of the National Research Council. Vitamins B_6 and B_{12} were well above the amounts estimated as required for good nutrition. (Recommended allowances for B_6 and B_{12} have not been established.) The studies did not include vitamins C and D because the method of sample preparation results in destruction of those vitamins. But FDA nutritionists point out that other studies have shown that those vitamins are adequately supplied by food sources.

The samples analyzed represented the total diet of a 19-year-old boy--the biggest eater in the United States population. "Market basket" samples consisting of about 60 pounds of groceries--a one week's supply--were obtained every three months from chain groceries in the Washington, D. C., area beginning in May 1961. Beginning in May 1962, similar samples were collected also in Atlanta, Minneapolis, St. Louis, and San Francisco.

Commodities and quantities sampled were from the "moderate income" food list furnished by Household Economics Research Division of the Department of Agriculture. The Clinic Kitchen at the National Institutes of Health assisted in preparation of foods normally cooked before consumption.

Determinations were made for residues of 20 chlorinated hydrocarbons, including DDT, and for organic phosphate type insecticides. Most of the samples contained no residues or mere traces of chlorinated hydrocarbons; a few contained amounts measurable by extremely sensitive techniques. Only a few traces of organic phosphate residues were found. FDA scientists interpret the findings as an assurance of confidence in the protection provided by the Pesticides Amendment of the Federal Food, Drug, and Cosmetic Act.

The survey findings also support the conclusion that foods readily available at supermarkets contain ample quantities of vitamins. They contradict the allegations of food faddists that the American food supply is nutritionally depleted.