



International

INTERNATIONAL PACIFIC SALMON FISHERIES COMMISSION

FISHING REGULATIONS ADAPTED TO PROTECT EARLY RUNS OF SOCKEYE SALMON TO FRASER RIVER:

As of mid-July 1965, all sockeye salmon runs to the Fraser River were both earlier and lighter than those in the brood year of 1961. Normally, the 1965 Fraser River sockeye runs should be later than those of the preceding cycle.

Early arrival of salmon on spawning grounds has been associated with some pre-spawning mortality. Therefore, when the horsefly run of sockeye salmon to the Fraser River arrived early, the International North Pacific Salmon Fisheries Commission granted both United States and Canadian fishermen 48 hours of additional fishing for the week commencing July 18, 1965. However, to provide for adequate escapement, the Commission ruled that no fishing in Convention waters would be allowed in the last week of July until a satisfactory number of the Horsefly run has passed above the fishing boundary in the Fraser River.

GREAT LAKES FISHERY COMMISSION

10TH ANNUAL MEETING:

Lake trout continue to recover in Lake Superior, according to scientists attending the 10th annual meeting of the Great Lakes Fishery Commission, held at Ann Arbor, Mich., June 22-24, 1965. The improvement in recovery is attributed to the 80-percent reduction in sea lamprey populations and the planting of hatchery-reared lake trout to supplement natural spawning in inshore areas.

Canadian and United States scientists carrying out the program reported that all but one of the sea lamprey-producing streams in Lake Superior has been chemically treated

at least once and more than half were treated twice. Although the reduction in sea lampreys was substantial, they were still present in significant numbers in certain isolated areas and possible sources of this continuing infestation were discussed at the meeting. It was agreed that several "problem" streams should be investigated intensively.

Substantial annual plantings of hatchery yearling lake trout are contributing to the fish stocks. An improved natural spawning was noted in the fall of 1964 for the first time since 1959, but it cannot be expected to provide a significant increase in numbers of adult fish for 5 years.

Distinct lake trout populations have been found on isolated offshore grounds which have not been as severely affected by sea lampreys as those near shore. Those grounds are now in a healthy condition and scientists have recommended that they be fished on an experimental basis.

The chemical treatment program which began in Lake Michigan in 1960 has proceeded on schedule and should be completed in June 1966. This past spring, Lake Michigan received its first substantial lake trout planting (1.2 million fish). They were planted in Grand Traverse Bay, off the east shore of Wisconsin's Door Peninsula, along the north shore and in the reef-studded area around Beaver Island.

The Commission's chairman, Donald L. McKernan, Director, U. S. Bureau of Commercial Fisheries, expressed concern at the deterioration of conditions in Lake Erie, once the major commercial producer of fresh-water fish on this continent. In 1955, the Lake Erie catch was 75 million pounds valued at \$9.6 million. In 1964 the catch from that lake was down to only 38.7 million pounds and the value dropped to \$3.6 million. Investigations in Lake Erie have barely been able to follow the changing fish populations and food organ-

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isms resulting mainly from pollution. According to the Commission's chairman, the decline in preferred species in Lake Erie is continuing at such a rapid rate that a reappraisal of the situation should be made and a new approach taken in dealing with its problems. (University of Michigan News Service, June 24, 1965.)

Note: See Commercial Fisheries Review, September 1964 p. 52.

INTERNATIONAL CONVENTION FOR THE NORTHWEST ATLANTIC FISHERIES

WEST GERMANY ADHERES TO PROTOCOL CONCERNING HARP AND HOOD SEALS:

On May 26, 1965, the Federal Republic of Germany deposited adherence to a Protocol to the International Convention for the Northwest Atlantic Fisheries of February 8, 1949. The Protocol (done at Washington, July 15, 1963) relates to harp and hood seals and is intended to bring those species within the responsibility of the Northwest Atlantic Fisheries Commission. The Protocol is not yet in force. (Bulletin, U. S. Department of State, June 14, 1965.)

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

FOOD AND AGRICULTURE ORGANIZATION

PRELIMINARY DRAFT CONVENTION FOR THE CONSERVATION OF ATLANTIC TUNA:

A Working Party of the Food and Agriculture Organization (FAO) agreed July 13, 1965, on a draft international convention for the conservation of Atlantic tuna. The draft will now go before the Conference of FAO which meets in November 1965.

The Working Party has asked the FAO Conference to convene a conference of nations early in 1966 to adopt an Atlantic Tuna Convention. The Government of Brazil has offered to host such a meeting, which might be held in April 1966 at Sao Paulo.

FAO officials point out that there has never been any international action for the protection of Atlantic tuna stocks. Atlantic tuna are fished by many nations and yield an average catch of 300,000 metric tons a year.

The draft convention approved by the FAO Working Party covers the Atlantic Ocean and such adjacent waters as the Caribbean, the Gulf of Mexico, and the Mediterranean. It would set up a new international commission

to deal not only with research but also with recommendations to protect the stocks. It would work in close cooperation with FAO. The commission would be open to all interested member nations of the United Nations and its specialized agencies.

A delegate from Brazil was Chairman of the Working Party Session, July 6-13, 1965. Other delegates attended from France, Japan, Nigeria, Portugal, Senegal, and the United States, together with observers from Cuba, the Federal Republic of Germany, Mexico, and Italy. (Food and Agriculture Organization of the United Nations, Rome, July 13, 1965.)

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GLOBAL REGULATION OF WHALING URGED:

Whaling must be regulated at a worldwide level as soon as possible, declared the chief of the Fisheries Biology Branch of the Food and Agriculture Organization (FAO) at the 17th annual meeting of the International Whaling Commission. The most pressing need, according to FAO officials, is the control of whaling from motherships.

In speaking of global whaling regulations, FAO's Fishery Biology chief said, "This is now very urgent in view of the need to establish, without reasonable doubt, the levels of sustainable yield of each species in the seasons 1966/67 and 1967/68, and pave the way for a long-term regime of regulation which will ensure the attainment as soon as possible, by these stocks, of levels at which they can sustain maximum yields."

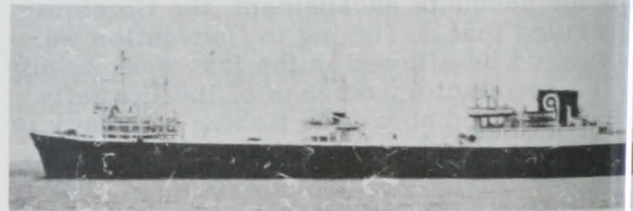


Fig. 1 - Japanese whaling factoryship in Bering Sea.

Referring to the unanimous decision of the International Whaling Commission to restrict whaling quotas during coming seasons, he continued, "We must remember that the price of unanimity in the agreement, was a concession permitting continued overfishing of the sei and fin whale stocks for a further two seasons. We know that this most unfortunate situation was reached because heavy investments were made in new whaling expeditions notwithstanding the warnings of many scientists over many years that the stocks could not stand such hard exploitation."

At a special conference held in London in May 1965 the Commission recommended a limit of 4,500 blue-whale units for the 1965/66 Antarctic season. In the preceding season (1964/65), the whaling nations took 7,000 units. The Commission recommended that quotas should be further reduced for the 1966/67 and 1967/68 seasons, so that by then the catch would be less than the combined sustainable yield of the stocks of fin and

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sei whales. (The whaling industry counts its catch in blue-whale units, one of which equals 2 fin whales or 1 sei whale.) It was pointed out that for years quotas were set far above safe yields, on the grounds that this was economically necessary. Yet most expeditions failed to catch enough whales to justify the high investments.

FAO's Fishery Biology chief said, "Now, the residual stocks will have to bear the brunt of a last-minute attempt to recuperate some of the losses on what turned out to be bad investments. We have to accept this situation and the means now agreed to get out of the dilemma--but we cannot be happy with it. Let us at least learn some lessons from the history of the industry--to develop other fishery industries on the basis of scientific appraisals of the capacity of renewable resources to yield continuously: to take due account, in due time, of the scientific advice."



Fig. 2 - Removing flukes and flensing whale aboard a Japanese factoryship in the Southern Ocean.

The FAO spokesman said his organization urged the advantage of the next two years to make a full appraisal of all available whale stocks, especially of the remaining sperm and blue whales. He pledged FAO's full cooperation in resolving all outstanding questions related to world whaling. If whaling was to survive as a major industry, he said, FAO believes the one immediate need is the establishment of an international observer system to check on observance of new whaling quotas. (Food and Agriculture Organization, Rome, June 29, 1965.)

INTERNATIONAL WHALING COMMISSION

ANNUAL MEETING HELD:

The opening session of the 17th annual meeting of the International Whaling Commission, held in London on July 2-8, 1965, was addressed by the Minister of State for Scotland. He said that at the present time the Antarctic whaling industry was confronted by great difficulties because conservation schemes have not yet been sufficient to maintain the whale stocks at a satisfactory level. Conservation demands immediate sacrifices if whaling is to survive and give an economic return. The agreement at the Commission's Special Meeting in May 1965 that the Antarctic catch limit should be reduced to 4,500 blue-whale units for the next season (1965/66) and that reductions should be made in the following two years to a level which will allow the stocks to recover is a very gratifying one. He concluded by saying that he hoped all concerned would accept the full

implications of the situation and support the further reductions necessary if the stocks are to be rebuilt from their present depleted conditions and that the foundations of a prosperous future might be laid.

A total of 15 expeditions (7 Japanese, 4 Soviet, and 4 Norwegian) operated in the Antarctic in the 1964/65 season and caught a total of 20 blue whales, 7,308 fin whales, and 19,874 sei whales for a total of 6,986 blue-whale units (1 blue-whale equals 2 fin or 6 sei whales). In addition, those expeditions caught 4,211 sperm whales in the Antarctic. In the previous season there were 16 expeditions (7 Japanese, 4 Norwegian, 4 Soviet, and 1 Dutch) which caught a total of 112 blue whales, 13,870 fin whales, 2 humpback whales, 8,286 sei whales amounting to 8,429 blue-whale units in all, and also 6,651 sperm whales. The total production of baleen and sperm oil from the 1964/65 Antarctic pelagic season amounted to 1,158,841 barrels (1 barrel equals about $\frac{1}{6}$ metric ton); this compared with a production of 1,299,476 barrels from the 1963/64 catch.

Two Antarctic land stations at South Georgia were operated by Japanese whaling companies in 1964/65, catching a total of 1,150 whales (503 fin, 506 sei and 141 sperm) yielding 45,806 barrels of oil. That compares with a total of 1,021 whales taken from those two land stations in 1963/64 from which 41,282 barrels of oil were produced. Outside the Antarctic, 36 land stations and 7 factoryships operated in 1964, and a total of 28,527 whales were taken (256 blue, 4,731 fin, 316 humpback, 4,986 sei, 18,054 sperm, and 184 other species). In addition, the Antarctic pelagic expeditions caught 4,316 sperm whales on their way to the Antarctic bringing the total catch outside Antarctic waters to 32,843 whales. Total oil production amounted to 882,159 barrels. Comparable figures for 1963 were 33,433 whales (including 3,659 sperm whales taken by Antarctic pelagic expeditions north of 40° South latitude) and 925,045 barrels of oil.

The regulations of the International Convention for the Regulation of Whaling are contained in a document called the Schedule which is amended from time to time by the Commission. The amendments come into force after 90 days from the date of their notification to the Contracting Governments. If an objection is received within that period, the amendment does not become effective for another 90 days. Any other Contracting Government may object during that time, or before the expiration of 30 days from the date of receipt of the last objection received during the additional 90-day period, whichever date shall be the later. Thereafter the regulation becomes effective for all Contracting Governments who have not objected.

At the 17th Annual Meeting the Commission agreed on several amendments of the Schedule. No quota of blue-whale units for the 1964/65 season in the Antarctic had been agreed upon at the 16th Meeting, but at the Special Meeting in May 1965, Commissioners had agreed to recommend to their Governments that the quota for the 1965/66 Antarctic season should be 4,500 blue-whale units and that further reduction should be made in the 1966/67 and 1967/68 seasons so that the quota for the 1967/68 season would be less than the combined sustainable yields of the fin and sei whale stocks as determined on the basis of more scientific evidence. At the 17th meeting this recommendation of the Special Meeting was implemented by an amendment of the Schedule which was proposed by the Commissioner for the United Kingdom and seconded by the Commissioner for Canada. The amendment was to delete in Paragraph 8 (a) the

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words "10,000 blue-whale units in 1963/64" and add "4,500 blue-whale units in 1965/66. There shall be further reductions for the years 1966/67 and 1967/68 that will assure that the total catch for 1967/68 will be less than the combined sustainable yields of the fin and sei stocks as determined on the basis of more precise scientific evidence." On being put to the vote, all 12 Commissioners present at the meeting were in favor of the amendment.

The Commission agreed without dissent that in Paragraph 4 of the Schedule it would be forbidden to kill blue whales in the Pacific ocean and its dependent waters north of the equator for 5 years beginning with the 1966 season. The proposal was made by the Commissioner for Canada and seconded by the Commissioner for the United States. Also in the Pacific, it was proposed by the Commissioner for Japan and seconded by the Commissioner for Australia that it would be forbidden to kill humpback whales for the 1966 season in the North Pacific ocean and its dependent waters north of the equator. This amendment of Paragraph 4 of the Schedule was carried without dissent.

Concern was expressed about the increased taxation of the stocks of sperm whales. There had been much larger catches in the last year and it was feared that decreased whaling in the Antarctic might divert more factoryships to hunt that species in the area outside the Antarctic where the females and breeding stocks are found. Furthermore, while the minimum size limits of a 38-foot length should be enough to save the great majority of females, massive evidence was available to the Commission to show that this regulation was being broken on a large scale. Although much more information is needed on the state of the stocks of that species, it was pointed out that delaying conservation action until better evidence on depletion is obtained has already shown us examples of having waited until the sustainable yield is no longer economic.

With these arguments before it the Commission therefore considered a Schedule amendment moved by the Commissioner for Australia and seconded by the Commissioner for New Zealand which stated "It is forbidden to use a whale catcher attached to a factoryship for the purpose of killing or attempting to kill sperm whales in the waters between 40° South latitude and 40° North latitude." The amendment was carried by 7 votes to 2 but there were 4 abstentions.

One paragraph in the Schedule to the Convention gives the number of blue-whale units caught in the Antarctic after which daily records of catches must be sent to the Bureau of International Whaling Statistics at Sandefjord, Norway, so that the latter can indicate to the factoryships the day when the total quota will have been reached and they must cease operations. At present the number refers to the quota for 1963/64 and stands at 9,000. For the future, however, it was proposed by the Commissioner for Australia and seconded by the Commissioner for Japan that Paragraph 8(c) of the Schedule should be changed to delete the "9,000" in the third from last line and replace it by the words "85% of whatever total catch limit was imposed by the Commission." The proposal was accepted by all Commissioners present.

In connection with other provisions of the Schedule which were on the Commission's agenda, no action was

taken. This means that for the next Antarctic season the Sanctuary area will remain open and the dates for starting and ending the baleen whale seasons remain the same.

The International Observer Scheme was the subject of a proposal by the Norwegian delegation amended by the Japanese delegation and adopted by the Commission. This drew attention to the agreement made in 1963, its nonimplementation, and the fact that it expires after the 1965/1966 season. It strongly requested the countries concerned to operate it in the forthcoming season and invited each of the active pelagic whaling nations to give a firm assurance at the 17th Meeting to the effect that they would put the scheme into operation in the 1965/66 season in accordance with the rules for the implementation of the International Observer Scheme agreed upon among the 5 countries concerned in Sandefjord on June 26, 1964. Two of the active pelagic whaling nations were able to give this assurance but the Soviet delegation stated that while they were in favor of implementation of the Scheme in the coming season their assurance must be qualified by the reserve that both the quota of the whale catch and the International Observer Scheme should be extended both to factoryships and to all land stations catching Antarctic whales and that to implement the International Observer Scheme it is necessary to solve on a just basis the problem of reallocation of national quotas between the countries concerned. It appears that talks on these matters will be continued but no solution of these problems had been worked out by the end of the Commission's Meeting.

The Commission noted that the catching of Antarctic whales from land stations south of 40° South latitude as well as in other areas of the Southern Hemisphere has increased its importance in the light of the recent situation of whale stocks in the Antarctic. They thought it desirable to set up a special group representing member countries concerned with those land stations to bring into order the catching of whales in those places and to study the setting up of an observer scheme applicable to them. The group should make appropriate suggestions and recommendations for discussion at the 18th Meeting of the Commission.

It was agreed that the Commission shall determine the total catch limit of Antarctic pelagic whaling for the 1966/67 season after taking into consideration the catches of Antarctic whales from the land stations mentioned in the previous paragraph. The Commission also invited the Governments concerned with land stations to take domestic measures on a voluntary basis so that the level of catch for the forthcoming season does not exceed that in the 1964/65 Antarctic season or the average (calculated in blue-whale units) of the catches over the last three seasons, 1963, 1964, and 1965 outside the Antarctic as the case may be.

To countries at present discussing the problems of national quotas, the Commission recommended that for the 1966/67 and 1967/68 seasons they take into consideration the catches of Antarctic whales from land stations situated south of 40° South latitude as well as in other areas of the Southern Hemisphere.

Although the taking of blue whales in the area south of 40° South latitude is forbidden, this provision in the Schedule was objected to after the 16th Meeting by all the Antarctic pelagic whaling countries. The result is that the blue whales are still not protected in Antarctic waters north of 55° South latitude from 0° eastward to 80° East longitude. The Commission therefore agreed

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... meeting to an appeal being sent to the the Ant-
... pelagic countries to withdraw their objection to
... change in the Schedule 6(3) brought about by the de-
... of the words "except in the waters north of 55°
... latitude from 0° eastwards to 80° East longitude."

... view of the Scientific Committee's views on the
... to the whale stocks in the North Pacific area
... for instance, against a catch of 3,991 fin whales
... there was an estimated sustainable yield of
... the Commission considered that the 4 North Pa-
... countries should meet immediately after the meet-
... discuss conservation measures to be taken. It
... also agreed that a Sperm Whale Sub-Committee
... meet either just before or just after the North
... Working Group which should assemble as soon
... as possible after the 1965 season.

... the Commission considered that, in view of the of-
... the Director-General of the Food and Agricul-
... Organization (FAO) to help in a cooperative pro-
... of stock assessment in connection with Antarctic
... whales, provided adequate conservation plans
... in train, the Secretary should be asked to resume
... arrangements similar to those intended at the time of
... that meeting.

... the countries party to the Arrangements for the
... of Antarctic Pelagic Whaling of 1962, repre-
... by their Commissioners, met together before
... during the 17th Meeting to discuss proposals for
... of national quotas but had not been able
... to conclude these discussions by the end of the meeting.

... the proposal of the Commissioner for Australia,
... by the Commissioner for the United States
... with the approval of the Commissioners present,
... it was agreed that the Commission should appeal to
... and Peru to adhere to the 1946 Convention for the
... of Whaling. In the meantime they should be
... to observe the minimum lengths applying to
... whales and continue to supply completed statis-
... data to the Bureau of International Whaling Sta-
... tistics.

... present at the 17th annual meeting were Commis-
... sioners and delegates of Contracting Governments from
... Argentina, Australia, Canada, Denmark, France, Ice-
... land, Japan, Mexico, the Netherlands, New Zealand,
... Norway, South Africa, United Kingdom, United States,
... and the Soviet Union. Observers also attended from
... Italy, Portugal, Peru, the Food and Agriculture
... Organization of the United Nations, the International
... Council for the Exploration of the Sea, and others.
... (For release of International Whaling Commission,
... Bulletin, July 7, 1965.)

... Commercial Fisheries Review, July 1965 p. 59; September 1964

PRODUCTION AND EXPORTS FOR SELECTED COUNTRIES, JANUARY-APRIL 1965:

PRODUCTION AND EXPORTS FOR SELECTED COUNTRIES, JANUARY-APRIL 1965:

... member countries of the Fish Meal Export-
... Organization (FEO) account for about 90
... percent of world exports of fish meal. The
... countries are Chile, Angola, Iceland,

Table 1 - Exports of Fish Meal by Member Countries of the FEO, Jan.-Apr. 1965

Country	April		Jan.-Apr.	
	1965	1964	1965	1964
. . . . (1,000 Metric Tons). . . .				
Chile	9.5	10.1	40.7	53.0
Angola	3.5	2.6	19.7	15.9
Iceland	4.8	8.7	32.1	40.5
Norway	17.5	24.1	60.0	77.8
Peru	163.1	142.4	627.9	532.1
So. Africa (including S.-W. Africa) . . .	24.0	18.1	66.4	62.7
Total	222.4	206.0	846.8	782.0

Table 2 - Production of Fish Meal by Member Countries of the FEO, Jan.-Apr. 1965

Country	April		Jan.-Apr.	
	1965	1964	1965	1964
. . . . (1,000 Metric Tons). . . .				
Chile	3.7	13.3	37.5	60.8
Angola	2.3	2.7	15.6	17.6
Iceland	4.4	10.1	27.2	31.1
Norway	23.2	31.5	79.2	74.8
Peru	149.9	158.8	658.2	654.4
So. Africa (including S.-W. Africa) . . .	37.6	32.8	111.9	96.6
Total	221.1	249.2	929.6	935.3

Norway, Peru, and South Africa/South-West Africa.

Peru accounted for about 74 percent of the 846,800 metric tons of fish meal exported by FEO countries in January-April 1965.

CODEX ALIMENTARIUS COMMISSION

COMMITTEE ON FOOD HYGIENE HOLDS SECOND MEETING:

In connection with work to develop international food standards, the Expert Committee on Food Hygiene held its second meeting, June 14-16, 1965, in Rome, Italy. The Committee, which is under the chairmanship of the United States, is one of the working groups of the FAO/WHO Codex Alimentarius (Food Standards) Commission. Food hygiene is included in the program because that element is essential to insure a food standard that is both effective and acceptable.

The Rome meeting of the Food Hygiene Committee was attended by delegates from Australia, Canada, Cuba, Denmark, France, Israel, the Netherlands, New Zealand, Poland, Sweden, Switzerland, the United Kingdom, and the United States.

The purpose of the meeting was to discuss: (1) the terms of reference of the Committee,

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(2) reports of subcommittees appointed at the first meeting of the Committee (held May 27-28, 1964, in Washington, D. C.), and (3) new work assignments.

The extent of the Hygiene Committee's authority was a major point of discussion during its first meeting. At issue was the relation of the Hygiene Committee to the various Codex Committees on standards for individual commodities. Clarifying directives of the parent Codex Commission were reported at the opening of the second meeting of the Hygiene Committee. Under those directives, the Hygiene Committee may consider specific hygiene requirements when requested by a Commodity Committee, or on its own initiative where no Commodity Committee has been established. The Hygiene Committee may also consider hygiene matters if, in its expert opinion, such matters have not been adequately covered by a Commodity Committee. Although a Commodity Committee is not required to refer hygiene matters to the Hygiene Committee, the former must inform the latter when hygiene matters are being considered.

During the discussion on jurisdiction, the Hygiene Committee decided to request a widening of its authority so that it might examine all hygiene aspects of a commodity as far back as initial production if relevant to standards for the final product.

After considerable discussion, the Hygiene Committee approved a revised draft of General Principles and Guidelines for Food Hygiene Standards. It will be submitted to member Governments for comments, before being prepared in final form at the next meeting of the Committee.

A draft of hygiene standards for fish and fish products was not presented at the meeting. The United Kingdom, which had been assigned that task, reported that the draft standards would be ready for submission at the next meeting. During the discussion, a question arose as to the definition of fish products. An FAO representative said the term as it related to the work of the Hygiene Committee covered fish and crustacea, but not molluscs. To fill the gap, the United Kingdom, with the United States and Canada as collaborators, was assigned the responsibility of preparing draft hygiene standards covering all aspects of the production and processing of molluscs.

Reports by the Netherlands on salmonella and aflatoxin were reviewed briefly. The Committee decided that salmonella should be separately considered as it related to the development of hygiene standards for specific commodities. The Committee postponed a consideration of the aflatoxin problem until the results of additional research are available.

The only specific new work proposal for the coming year involving fish was the assignment for the drafting of standards for molluscs. Fish may be indirectly involved in the preparation of a report on special standards for developing countries. In addition, a report on standards for fish processing plants will be revised during the year.

The third annual meeting of the Hygiene Committee will probably be held in May or June 1966. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, July 7, 1965.)

Note: See Commercial Fisheries Review, Dec. 1964 p. 76, and Sept. 1964 p. 1.



Australia

DEVELOPMENT OF COMMERCIAL SHRIMP FISHERY PROMISING:

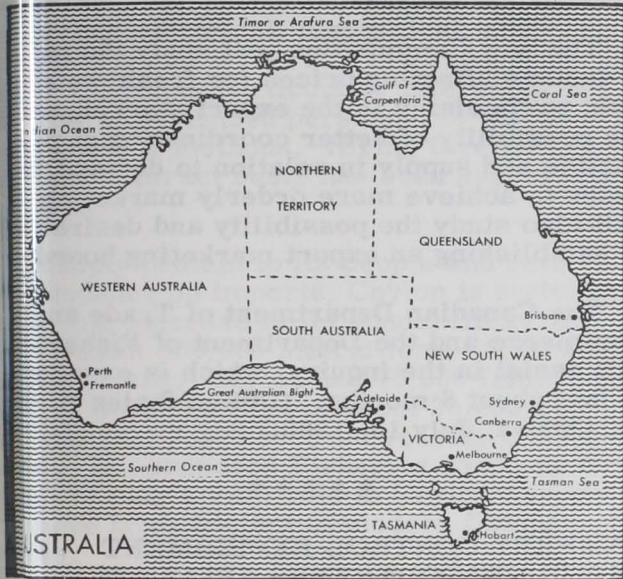
Hopes for the establishment of a commercial shrimp fishing industry in the Gulf of Carpentaria have been strengthened by continued good shrimp catches by the Australian Government's chartered survey vessel Rama and three other trawlers working in that area. The survey is being supervised by a committee made up of representatives of the Commonwealth Department of Primary Industries, the Commonwealth Scientific and Industrial Research Organization, and the Queensland Department of Harbours and Marine.

Encouraged by promising catches in April and early June 1965, the Commonwealth and Queensland Governments have decided to extend the survey until August.

On April 14, the Rama and another vessel each caught nearly 3,000 pounds of banana shrimp (Penaeus merguensis) in single hauls but lost most of them through gear breakage. On May 31, the same two vessels landed 5,000 pounds of shrimp. This was followed early in June by 4 vessels taking between them 10,000

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hundreds of banana shrimp in a morning. Two of the vessels had arrived in the Gulf a few days previously and were unfamiliar with local conditions. Individual drags varied from 50 to 2,000 pounds of banana shrimp.



The catches were made in the southeastern portion of the Gulf, about 30 miles from Kambamba, at the mouth of the Norman River. Where a shrimp-processing plant has been established by a Sydney food exporting firm.

Bad weather prevented fishing for a while. None of the smaller vessels managed to get out for a brief period and caught so many banana shrimp in a small net on its second trial that the gear broke and all but 100 pounds of shrimp were lost.

Close cooperation of the fishing industry and government has been a feature of the survey and the explorations have been narrowed down to a point where the survey team can indicate with some confidence areas of greatest probability. (Australian Fisheries Newsletter, July 1965.)

See Commercial Fisheries Review, August 1965 p. 67, and September 1965 p. 57.

CONTRIBUTES FUNDS TO START FISH FARMING IN PHILIPPINES:

The Australia Freedom From Hunger Campaign organization will contribute £65,945 (\$147,717) over a three-year period for a project designed to set up fresh-water fish

nurseries in the Philippines so as to provide the population with a source of protein food. A five-year plan has been drawn up to establish 10 fresh-water nurseries, 20 brackish-water nurseries, and 16 oyster farms. Experts will be trained to give demonstrations which will show Philippine farmers the possibilities of starting fish culture on farms.

The Australian Freedom from Hunger Campaign Committee will also support a Catholic Overseas Relief project, estimated to cost £16,337 (\$36,600), which will provide needy fishermen with seaworthy fishing craft and make possible the setting up of new fishing cooperatives in the Philippines. (Australian Fisheries Newsletter, July 1965.)

FOREIGN TRADE IN MARINE OILS, FISCAL YEARS 1962/63 AND 1963/64:

Since the closure of humpback whaling after the 1963 season, Australia has been primarily an importer rather than an exporter of marine oil. In fiscal year 1963/64 (July 1963-June 1964), Australian imports of whale oil showed a gain of 59 percent over the previous year. Imports of other marine oils, with the exception of cod-liver oil, were also up substantially.

Australian Imports of Marine Oil, Fiscal Years 1962/63 and 1963/64		
Commodity	1963/64	1962/63
	. (Imperial Gallons) .	
Whale oil	653,494	410,404
Cod-liver oil (including refined).	86,201	95,396
Other marine oils	164,399	135,445

Australian exports of marine oil are limited and consist largely of small shipments to Pacific Island destinations. (Agricultural Attache, United States Embassy, Canberra, June 15, 1965.)

Note: See Commercial Fisheries Review, May 1965 p. 58.



Canada

FEDERAL-PROVINCIAL PRAIRIE FISHERIES COMMITTEE MEETING:

A further step toward the establishment of a regional export-sales organization for Canadian fresh-water fish products was taken in April 1965 at a meeting in Ottawa of the Federal-Provincial Prairie Fisheries Com-

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mittee. Officials of the Federal Departments of Fisheries, Trade and Commerce, and others concerned will establish a technical group to study the feasibility of such an organization from all points of view and effect a design for consideration by both Federal and provincial governments.

The Committee also considered proposals made by subcommittees on suggested designations of grades of fish and standards of quality for the fishery products of the Prairie Provinces, the Northwest Territories, and north-western Ontario. A report on the concept of provincial loan boards and its possible application to the Prairie Provinces was also considered. At the meeting the Committee also was given an outline of the Federal Government's Fishing Vessel Assistance Plan and the problems associated with its possible extension to the Prairie Provinces.

Another report heard by the committee was on the Federal Government's Fisheries Indemnity Plan for vessels and equipment, and it was agreed that the inland provinces should advise the Federal Government regarding their interest in extension of the plan to their fisheries.

Other matters considered at the meeting were plans for economic research in the fresh-water fisheries of Canada and development of an improved statistical system for those fisheries. Federal-provincial programs in Newfoundland were described for the benefit of the Prairie members of the Committee, and other matters discussed were information, education, and extension services.

The Committee is made up of Deputy Ministers of Federal and provincial departments concerned with fisheries. (Trade News, April 1965.)

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NEW COMMISSION TO STUDY EXPORT MARKETING PROBLEMS OF FRESH-WATER FISHERIES:

On July 9, 1965, the Canadian Prime Minister announced the establishment of a 1-man Commission to consider and report on the export marketing problems of the fresh-water fishing industry in the Provinces of Manitoba, Saskatchewan, Alberta, and Ontario, and the Northwest Territories.

The inquiry arises out of recommendations made by the Federal-Provincial Prairie Fisheries Committee. That Committee has been studying the problems of instability of prices and demand in export trade in fresh-water fishery products, as well as means for improving returns to primary producers by more efficient marketing.

The new Commission will study the nature of factors affecting prices for fresh-water fish, particularly in the export market, and the possibility of better coordination of production and supply in relation to demand, in order to achieve more orderly marketing. It will also study the possibility and desirability of establishing an export marketing board.

The Canadian Department of Trade and Commerce and the Department of Fisheries will assist in the inquiry, which is expected to last about 6 months. (United States Embassy, Ottawa, July 13, 1965.)

* * * * *

LAMPREY CONTROL EXPERIMENT GROUP HEADQUARTERS RELOCATES:

The Lamprey Control Experiment Group of the Fisheries Research Board of Canada, being consolidated in larger quarters at Sault Ste. Marie, Ont., in order to increase the efficiency of its operations, Canada's Fisheries Minister announced July 8, 1965. It will involve the transfer of part of the group's staff from the board's biological station at London, Ont., to Sault Ste. Marie, a more advantageous point from which to direct the lamprey control experiment in the Great Lakes. A new building there was to be completed and the tire staff installed by the beginning of September 1965.

The Fisheries Research Board carries Canada's share of the lamprey control work in the Great Lakes Fishery Commission, a Canadian-United States body which is attempting to control the predatory sea lamprey in the Great Lakes, where it has had serious effects on commercially valuable stocks of lake trout and whitefish. (Canadian Department of Fisheries, Ottawa, July 8, 1965.)



tion

UNITED STATES EXPERTS SOUGHT TO TRAIN CEYLONESE FISHERMEN:

The Government of Ceylon is establishing a Fisheries Training Institute to help develop its fisheries. Ceylon is seeking qualified personnel from the United States and other countries to staff the Institute and teach marine engineering; electrical, mechanical, and refrigeration engineering; and fishing techniques. Ceylon is particularly interested in recruiting experienced personnel to teach modern fishing methods. Hiring foreign experts on a contract basis has been suggested for Ceylon.

To supply protein to its people and relieve its dependence on imports, Ceylon is striving for a 15-fold increase in its annual fisheries catch of about 100,000 metric tons. That will be a major task. Ceylon has 75,000 fishermen operating a fishing fleet of about 20,000 vessels. But only 2,300 of those vessels are modern. The proposed Fisheries Training Institute can play a vital role in Ceylon's move from ancient to modern fishing methods.

Interested persons, firms, or institutions in the United States obtain additional information about the Institute by writing to the Ceylon Fisheries Corporation, P. O. Box 258, Colombo, Ceylon. Information may also be obtained from the American Embassy, Colombo, Ceylon.



FISH MEAL PRODUCTION CONTINUED AT LOW LEVEL IN MAY 1965:

With the anchoveta shortage continuing, fish meal production in May 1965 totaled only 4,152 metric tons--a drop of 71 percent from the 14,501 tons produced in the same month of the previous year. Chilean fish meal production in January-May 1965 amounted to 42,119 tons, as compared with 75,533 tons in the first 5 months of 1964.

The Chilean anchoveta catch in May 1965 totaled 22,347 tons and in January-May 1965 amounted to only 252,789 tons. The Chilean fish meal industry has had only a few months of good fishing during the last 2 years, and there has been a continuous shortage of anchoveta since mid-1964. The dependence of the industry on an inshore fishery has turned out to be a serious problem. (The Continental Shelf is narrow off northern Chile, so Chilean

purse seiners work close to shore. Also, since the vessels have a limited range and do not usually carry ice, they must deliver anchoveta shortly after they are caught.)

At its height, the Chilean fish meal industry employed more than 5,000 people. Unemployment in the industry is now at least 50 percent, according to conservative estimates. (United States Embassy, Santiago, July 14, 1965, and other sources.)



Denmark

POND TROUT SURPLUS LEADS PRODUCERS TO SEEK MINIMUM EXPORT PRICES:

Danish trout producers and exporters are concerned over a surplus production of trout, possibly amounting to 1,000 metric tons, despite increased exports during the first 6 months of 1965. Production has increased more rapidly than exports because the adoption of dry feeds in pellet form as a trout food has reduced mortality during the growing period from 50 percent to about 20 percent. About 700 Danish trout farms, mostly in Jutland, find the dry feeds much more uniform in quality than the raw fish used as feed in the past.

Trout	Exports				Production	
	Jan. -June		Year		Year	
	1965	1964	1965	1964	1965	1964
	(Metric Tons)					
Live	1,024	934	1,771	1,344	1/	1/
Fresh	2,269	1,961	3,896	3,908	1/	1/
Frozen	1,735	1,154	2,527	2,532	1/	1/
Total	5,028	4,049	8,194	7,784	8,400	8,000

1/Breakdown not available.

Market demand for Danish trout was less than the available supplies during the first half of 1965. The surplus trout were kept alive in the ponds, and frozen stocks were not much larger than normal. Although exports increased 24 percent during the first 6 months of 1965 as compared with the same period in 1964, wholesale prices for trout dropped at least 1 krone per kilo (6.6 U. S. cents per pound). Some reports indicated that the price paid trout farmers for 6- to 8-ounce round trout had dropped to as low as 24-26 cents per pound from earlier levels of 40 cents a pound.

Denmark (Contd.):

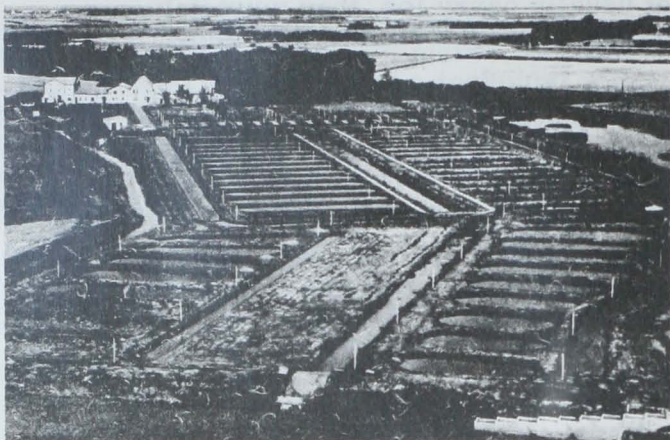


Fig. 1 - A pond trout enterprise in Denmark.

The Danish producers and exporters are seeking a solution to their surplus problem through use of a new Danish fisheries export law which became effective July 1, 1965. It permits the Danish Fisheries Minister to establish minimum prices for exports of fish and fishery products upon the request of the appropriate industry branch association and after discussion with an export committee made up of representatives of the major Danish fisheries associations. The trout producers have not had a representative association since 1961 when marketing problems disrupted the association then in existence. But they are forming a new association to be known as the Trout Producers Association of 1965 (*Ørredproducentforeningen af 1965*). Although the name of the new trout association mentions only "producers," it will also include exporters because practically all of them also are producers. One cooperative owned by several hundred trout farmers produces and markets about 45 percent of the Danish trout production.

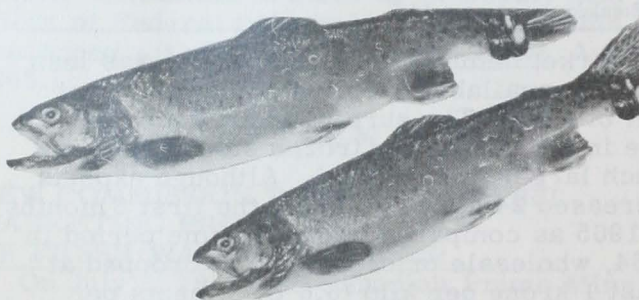


Fig. 2 - Danish pond rainbow trout.

The new trout association is expected to request that minimum prices be established for pond trout exports and that a tax on those exports be collected. The funds collected would be pooled and used to: (1) promote

sales, (2) equalize prices on foreign markets and (3) control production. Minimum export prices would be requested for all types of pond trout exports and for each market. Therefore, prices may differ for different countries. It is expected that the disparity in prices would be adjusted for producers out of the fund developed by the tax on exports. Those selling to certain markets for lower prices would be subsidized from the higher prices paid in other markets. About 80 percent of the Danish trout producers are reported to have agreed to seek minimum export prices. A meeting with the Fisheries Minister was scheduled for the week of July 19, 1965.

Exports of Danish frozen pond trout to the United States during the first 6 months of 1965 totaled 358.8 metric tons as compared with 226.1 tons during the same period in 1964. (United States Regional Fisheries Attaché for Europe, United States Embassy, Copenhagen, July 16, 1965.)



German Federal Republic

INCREASED SUBSIDIES FOR FISHING INDUSTRY ASKED BY COASTAL STATES

Summary: In a memorandum submitted June 9, 1965, to the Federal Government, four German coastal States (Bremen, Hamburg, Lower Saxony, and Schleswig-Holstein) said that the Government support program for the fishing industry in 1961-1964 was inadequate, and that long-term Government aid for the fishing industry is needed. Following submission of the memorandum, the German Bundesrat (upper legislative house) approved a motion presented by a deputy from Bremen requesting increased Federal support for the German fishing industry.

The States asked the Federal Government to provide (1) DM15 million (US\$3.75 million) in fiscal year 1966 to continue ex-vessel price supports in the form of "quality premiums"; (2) DM1 million (\$250,000) during the next 2 years to continue scrapping premiums for obsolete vessels; (3) DM 5 million (\$1,250,000) a year to support export subsidies designed to remove surplus fish and stabilize domestic market conditions; (4) DM 2.5 to 3.5 million (\$625,000 to \$875,000) to aid in the construction of 8 new cutters; and (5) greater subsidization of interest rates on commercial fishery loans.

German Federal Republic (Contd.):

The four coastal States asserted that the unfavorable position of the German fishing industry is in large measure due to the expansion of fishery imports that followed tariff liberalization. The States claim that even the extensive Government support requested would afford only partial relief; a basic change in the situation cannot be achieved on a national level. Therefore, special emphasis is placed by the memorandum upon the early development of a fish marketing order by the European Common Market (EEC).



Fig. 1 - One of the older trawlers in the German fishing fleet.

Review of Previous Federal and State Support for Fisheries: Summarizing the 3-year support program of the German Federal Government carried out during 1961-1964, the memorandum of the coastal states noted that the program provided scrapping premiums for obsolete vessels and subsidies ("quality premiums") for fish landings. In particular, the objectives of the Federal program were:

TRAWLER FISHERY: To promote an increase in factory-trawlers and freezing fish as well as the modernization of smaller trawlers which land fresh fish.

LUGGER FISHERY: To develop new types of luggers capable of fishing year round, and to improve the marketability of salted herring by preprocessing.

CUTTER FISHERY: To develop new types of cutters, and to improve marketing through cooperatives and similar organizations.

The funds made available by the Federal Government for those purposes have been determined to a significant degree by the coastal States.

Considerable investments in cold-storage facilities were also made by the fishery ports.

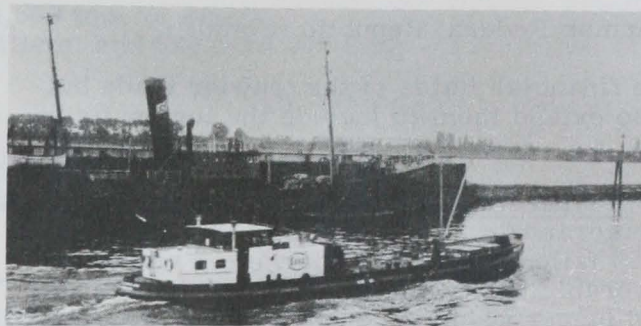


Fig. 2 - German herring lugger behind oil supply boat in foreground in Hamburg-Altona fish harbor.

Furthermore, the coastal States contributed funds to investments necessary to carry out the Federal program.

Continuation of Federal Program: The memorandum asserted that during the initial 3-year period of the Federal program it was possible to complete successfully only certain individual measures, such as the scrapping of obsolete vessels. The memorandum stated that even though some productivity gains were made in domestic fisheries, increased imports made it difficult to create a marketing situation favorable to the fishing industry.

The German trawler fishery is said to have incurred losses amounting to DM 24.5 million (\$6,125,000) in 1963, and losses in 1964 are estimated at about the same amount. Losses incurred by the lugger fishery reportedly amounted to DM 5.6 million (\$1.4 million) and DM 5.1 million (\$1,275,000) in 1963 and 1964, respectively. The situation in the cutter fishery is also believed to have deteriorated in recent years.

The memorandum expressed hope that the adoption of a European Common Market (EEC) fishery policy would permit an improvement in the status of the domestic fisheries. Until that time, however, the German fishing industry will seek Federal support. In order to cover at least part of the losses incurred by the various sectors of the fishing industry, a minimum of DM 15 million (\$3,750,000) in Federal funds in fiscal 1966 is being requested to provide ex-vessel price supports in the form of quality premiums. The memorandum claimed that, in addition, it will be necessary to continue to subsidize the scrapping of obsolete vessels, particularly cutters, at the rate of DM 500,000 (\$125,000) during each of the next 2 fiscal years. It was suggested that the Federal Government not only continue its periodic investigations into

German Federal Republic (Contd.):

the financial status of the trawler trade but also extend them to include the lugger fishery.

Stabilization of Marketing Conditions: The memorandum noted that after the Fish Law of 1955 failed to create a marketing situation favorable to the fishing industry, the trawler and lugger fisheries endeavored to stabilize marketing conditions through the institution of cooperative sales organizations. At first those organizations contributed significantly to a stronger market position. However, the liberalization of fishery imports forced those organizations continuously to take special measures in the interest of market stabilization. Such measures not only included controls on domestic landings, but also the granting of export subsidy payments by the trawler cooperative sales organization totaling DM 7.6 million (\$1.9 million) in 1962, DM 9.8 million (\$2,450,000) in 1963, and DM 7.4 million (\$1,850,000) in 1964.

In order to remove surplus herring supplies from the West German market, the central sales organization of the German lugger fisheries sold salted herring at reduced prices to foreign countries and to East Germany. The "export subsidies" thus granted by the lugger fishery amounted to DM 0.7 million (\$175,000) in 1963 and DM 1.3 million (\$325,000) in 1964.

The memorandum asserted that in spite of the wide range of self-help measures, the fishing industry has not succeeded in stabilizing the market to the necessary degree, and it therefore suggested that the Federal Government appropriate at least DM 5 million (\$1,250,000) a year for that purpose.

Subsidization of Interest Rates on Commercial Loans: The memorandum noted that, as the result of structural changes which have been taking place in the German trawler fleet, investment in new vessels has increased significantly. The construction costs of a modern factory-trawler have increased to DM 8-9 million (\$2.0-2.25 million); those of a fresh-fish trawler or a stern lugger have risen to DM 3.5-5 million (\$0.9-1.2 million). In view of attractive investment opportunities in other sectors of the economy and the comparatively low returns on investments in the fishing industry, it would be possible to attract the capital required by the fishing industry only if

interest rates on commercial fishery loans are subsidized in all cases, rather than having such support subject to individual needs. So far, interest subsidization has been restricted to the construction of new factory-trawlers, luggers, and cutters.

Special Measures for the Cutter Fishery: With regard to the cutter fishery, Government support has merely permitted cutter operators to cover necessary maintenance and repair costs. However, such aid has not prevented the aging of the cutter fleet. On the other hand, cutters may be able to fill the gap in fresh fish production created by the trawler fleet's growing concentration on producing frozen fish. In order to take advantage of that market potential, new and modern cutters are needed. However, the cost of such cutters (patterned upon Danish or Swedish design) far exceeds the financial resources of individual cutter operators even if low-interest loans are granted by the Government. The memorandum therefore suggested that the Federal Government and the coastal States support the foundation of new corporations for the purpose of building new cutters and then chartering them to young and enterprising operators. The cost of such cutters would amount to DM 600,000 to DM 900,000 (\$150,000 to \$225,000) each. The Federal Government would be asked to contribute half of the cost of building eight such cutters.

European Common Market Fisheries Policy: Finally, the memorandum concluded that the unfavorable situation in the German fishing industry is caused by prevailing market conditions. Government aid can afford only partial relief, without effecting a basic change. In view of progressive economic integration within the European Common Market (EEC) and commitments under the German foreign trade policy, such a change can no longer be achieved by legislative measures on a national level. It should rather be an objective of an EEC-wide fish marketing order. (United States Consul, Bremen, July 9, 1965.)

Note: See Commercial Fisheries Review, March 1962 p. 39.



Ghana

RECEIVES FOUR MORE NORWEGIAN-BUILT STERN TRAWLERS:

Four new stern trawlers built for Ghana by a Norwegian shipyard combine were turn-

Ghana (Contd.):

... to a Ghanaian delegation in Norway during early summer 1965. Two other Norwegian-built trawlers of the same type have already been delivered to the government-controlled Ghana Fishing Corporation, and another was to be completed shortly. This will complete the order with Norway for 7 stern trawlers.

The vessels are 231 feet 7 inches long and have a daily freezing capacity of 24 tons of fish. Refrigerated storage space in the vessel measures 35,000 cubic feet and the temperature can be kept down to below 0° F. even in tropical waters. The vessels are powered by diesel engines generating 1,960 hp., coupled to reversible propellers, with a speed of 14 knots, and can accommodate a crew of 52. (The Export Council of Norway Information Service, June 11, 1965.)

See Commercial Fisheries Review, May 1965 p. 67; January 1965 p. 72.



Iceland

EXPORT STOCKS OF PRINCIPAL FISHERY PRODUCTS, MAY 31, 1965:

As of May 31, 1965, Iceland's stocks of frozen groundfish (fillets) for export to the United States totaled 4,880 metric tons, a decrease of 2,220 tons from the stocks on hand May 30, 1965. (United States Embassy, Reykjavik, June 25, 1965.)

Product	Quantity		Value	
	Metric Tons	Million Kr.	US\$ 1,000	
Groundfish, frozen:				
Export to:				
United States	4,880	107.4	2,494.2	
Other countries	3,677	63.6	1,477.0	
Other fish:				
Shrimp	5,800	162.4	3,771.5	
Other products:				
Meal:				
Crabbing	1,846	10.5	243.8	
Other fish				
Crabbing	2,409	17.3	401.8	
Other fish	4,292	23.9	555.0	
Crabbing oil	7,879	65.4	1,518.8	

^{1/} Includes only stocks intended for export.
Icelandic kronur 43.06 equal US\$1.00

The United States imports of frozen groundfish from Iceland in the year 1964 totaled 11,112 tons of groundfish blocks and slabs,

4,669 tons of cod fillets, 2,791 tons of haddock fillets, and 548 tons of ocean perch fillets.

UTILIZATION OF FISHERY LANDINGS, JANUARY 1965:

How Utilized	January	
	1965	1964
. . . (Metric Tons) . . .		
Herring^{1/} for:		
Oil and meal	25,568	24,377
Freezing	5,916	4,828
Salting	1,491	1,108
Groundfish^{2/} for:		
Fresh on ice	3,115	3,687
Freezing and filleting	4,379	10,030
Salting	1,314	3,608
Stockfish (dried unsalted)	500	1,807
Oil and meal	170	235
Shrimp for:		
Freezing	31	20
Canning	5	-
Home consumption	1,330	992
Total production	43,819	50,692

^{1/} Whole fish.
^{2/} Drawn fish.
Source: Aeqir, May 1, 1965.

FISHERY LANDINGS BY PRINCIPAL SPECIES, JANUARY 1965:

Species	January	
	1965	1964
. . . (Metric Tons) . . .		
Cod	5,708	11,074
Haddock	2,744	5,618
Saithe	692	533
Ling	442	789
Wolfish (catfish)	144	202
Cusk	290	930
Ocean perch	562	646
Halibut	49	101
Herring	32,975	30,313
Shrimp	36	20
Other	177	466
Total	43,819	50,692

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

LABOR DISPUTE IN HERRING FISHERY SETTLED:

A 5-day labor dispute involving Icelandic herring vessel captains ended on July 1, 1965, when the Prime Minister announced that an agreement had been reached by all concerned. The main provisions of the agreement were: (1) the summer price of herring for reduction would be 235 kronur (US\$5.46) per mal (150

Iceland (Contd.):

liters which is equivalent to about 40 gallons or 300 pounds); and (2) the Government will see that exact weighing of herring landed at reduction factories will be provided by the summer of 1966. (United States Embassy, Reykjavik, July 7, 1965.)



Italy

TRADE IN JAPANESE CANNED SALMON LIBERALIZED:

At the bilateral trade negotiations conducted in July 1965 at Tokyo between Japan and Italy, Italy agreed to reduce the number of import items it restricts from Japan to 97, effective August 1, 1965. A total of 26 items was said to have been dropped from the restricted list, including canned salmon. (Japan Economic Journal, July 20, 1965.)



Japan

FROZEN TUNA EXPORTS TO U. S. AND PUERTO RICO, MARCH-MAY 1965:

Japan's exports of frozen tuna to the United States and Puerto Rico in May 1965 in-

creased 129 percent in quantity and 119 percent in value as compared with the previous month. Exports of all species of tuna were up from the April 1965 exports except big-eyed. Those to the United States proper were nearly three times more and to Puerto Rico they were double the April exports.

The April exports of frozen tuna to the United States and Puerto Rico were down 2 percent in quantity and 12 percent in value from the previous month's exports. Yellowfin tuna exports increased 69 percent from March to April, but exports of albacore were down 63 percent. (Fisheries Attache, United States Embassy, June 14 and July 1965.)

FISH LANDINGS AT MAJOR TUNA PORT, JUNE 1965:

Landings (mainly tuna) at the Japanese port of Yaizu in June 1965 totaled 17,420 metric tons valued at 1,187 million yen (US\$5.1 million), according to the Yaizu Fishermen Cooperative Association. Compared to June 1964, landings in 1965 dropped 7 percent (1,274 tons) due to smaller catches of macerel and skipjack, but that was offset by the increased catch of albacore. Compared to June 1964, the albacore landings showed a sevenfold increase in quantity and a \$2-mi-

Japan's Exports of Frozen Tuna by Species to United States and Puerto Rico, March-May 1965

Species	May		April		March	
	Quantity	Value	Quantity	Value	Quantity	Value
	Short Tons	US\$1,000	Short Tons	US\$1,000	Short Tons	US\$1,000
Skipjack:						
United States	-	-	-	-	2	-
Puerto Rico	-	-	-	-	-	-
Total	-	-	-	-	2	-
Albacore:						
United States	3,399	1,013	795	237	1,270	-
Puerto Rico	409	119	531	151	2,335	-
Total	3,808	1,132	1,326	389	3,605	1,000
Yellowfin:						
United States	3,593	1,124	2,046	683	1,303	-
Puerto Rico	2,502	708	846	258	405	-
Total	6,095	1,832	2,892	941	1,708	500
Big-eyed:						
United States	46	12	48	12	98	-
Puerto Rico	30	6	92	19	5	-
Total	76	18	140	31	103	-
Total United States	7,038	2,149	2,889	932	2,673	-
Total Puerto Rico	2,941	833	1,469	428	2,745	-
Grand Total	9,979	2,982	4,358	1,360	5,418	1,500

Source: Japan's Bureau of Customs.

Jan (Contd.):

Fish Landings at Yaizu, Japan, June 1965			
Species	Landings	Value	Average Price
		US\$ 1,000	\$/M.T.
Albacore	Metric Tons 9,575.7	2,559	267
Yellowfin	2,662.6	837	314
Bluefin	4,542.3	1,609	354
Big-eyed	118.8	14	117
Other	520.6	162	311
Total	17,420.0	5,181	-

...increase in value. (Suisan Keizai Shim-
bu July 12, 1965.)

SUMMER ALBACORE TUNA FISHERY CATCH:

The total catch of the Japanese summer pole-and-line albacore tuna fishery, which peaked early July 1965, was estimated at 11,000 metric tons. This was an increase of about 12,000 tons over the 1964 catch. It is estimated that of the 1965 production, about 11,000 metric tons were exported to the United States in the round, 2,000 tons processed in loins for export, 8,000 tons processed in "fushi" and "namaribushi" (dried or acid-dried loins) for the domestic market, 2,000 tons canned, and 2,000 tons held in stock. At the beginning of the fishing season (April), the pole-caught albacore for export to the United States sold for US\$315 a short ton f.o.b. Japan. As the season progressed and catches increased, the export price declined to \$300, then tumbled to \$270, toward season's end as catches declined sharply the price recovered to \$295-298. (Suisan Tsushin, July 7, 1965.)

ATLANTIC LONG-LINE TUNA FISHERY TRENDS:

Data from the Japanese Fisheries Agency indicate that the tuna catch of Japan's portable-carrying tuna motherships operating in the Atlantic Ocean this year declined slightly in June as compared to May. Available data from 40 portable boats showed 5 boats averaged over 3 tons a day, 9 averaged less than 3 tons, and 26 boats caught between 1.5-3 tons a day. But in May, 14 boats averaged over 3 tons a day, 5 boats less than 1.5 tons, and most boats averaging 1.5-2.5 tons. A total of 15 tuna motherships fished in June in the

area between 20°-30° N. latitude and 40°-70° W. longitude. In June albacore led all landings, followed by yellowfin, bluefin, and big-eyed; in May the principal species landed (in order of quantity) were albacore, yellowfin, big-eyed, and bluefin. (Suisan Keizai Shimbun, July 12, 1965.)

MOSTLY ALBACORE TUNA CAUGHT BY LONG-LINE VESSELS IN SOUTH ATLANTIC:

The tuna catch of the Japanese long-line vessels operating in the South Atlantic Ocean was mostly albacore tuna as of early July 1965. Off Angola, albacore made up about 70-80 percent of landings, averaging in weight about 13 kilograms (28 lbs.) per fish, and off Puerto Rico the catch was made up of 60-70 percent albacore.

The price of frozen round albacore transshipped to Puerto Rico was US\$290-295 a short ton f.o.b. port of transshipment. Due to the short supply of yellowfin, gilled-and-gutted yellowfin shipped to Italy were selling for \$410-415 a metric ton c. & f. Bluefin exported to Italy were selling for \$340 a metric ton and big-eyed at about \$280 a ton c. & f. (Suisan Tsushin, July 14, 1965.)

TUNA MOTHERSHIP CATCH IN SOUTH PACIFIC:

A large Japanese fishing company's tuna mothership Yuyo Maru (5,043 gross tons), which departed Tokyo May 11, 1965, began catching in July 1965 an average of 2.8 metric tons of fish (mainly tuna) per catcher vessel per day. The mothership fleet switched its effort from yellowfin to albacore tuna, and had caught as of July 11 a total of 2,374 metric tons of fish, including 1,265 tons of yellowfin, 321 tons of albacore, and 352 tons of other tuna species. (Suisancho Nippo, July 17, 1965.)

PLANS TO STABILIZE ALBACORE TUNA MARKET:

The Japanese Federation of Tuna Fishermen's Cooperative Association (NIKKATSUREN), the Frozen Tuna Producers Association, and the Frozen Tuna Exporters Association held a meeting on June 3, 1965, to discuss ways of coping with the unstable albacore tuna prices resulting from an oversupply of fish due to unusually heavy landings

Japan (Contd.):

of albacore made by the summer pole-and-line fishery off Japan.

Price stabilization measures proposed at the meeting were: (1) Albacore exports from Japan proper over and above the established quota (30,000 short tons) not be permitted; (2) Atlantic albacore transshipments to the United States be limited to 36,000 short tons a year (the allocation of quotas to those engaged in the Atlantic tuna fishery be studied); (3) the minimum export price for Atlantic-caught albacore be set at US\$300 a ton f.o.b. Las Palmas (Canary Islands), and a study undertaken to determine the feasibility of establishing a sales agency to enforce the maintenance of that price--also, an export plan which takes into consideration such factors as country of destination, timing and supply, be established and a standard export price based on actual freight costs to points of destination developed; (4) promotional work aimed at increasing white meat tuna demand in the United States be launched; (5) a suitable quantity of pole-caught albacore be consigned to Japanese packers for processing into canned tuna in oil for domestic consumption, which presently totals only about 100,000 cases a year--also, extensive efforts be directed to promoting domestic demand for that product.

The three Japanese industry organizations again met on June 10 and unanimously agreed to launch a promotional campaign to stimulate domestic demand for tuna packed in oil. Based on the prediction that 50,000 metric tons of pole-caught albacore would be landed in Japan in the 1965 season, NIKKATSUREN expressed the hope that about 15,000 tons could be diverted to the domestic market. Of that quantity, NIKKATSUREN hoped that the large packers would take on consignment the packing and sale of 3,000-4,500 tons which NIKKATSUREN will purchase. One of the larger Japanese packing firms and other large packers were reported to have expressed willingness to cooperate actively in that plan but did not commit themselves as to quantity.

The Atlantic Tuna Committee of the Japanese tuna industry group (representing producers, freezers, packers, and exporters) met June 25, 1965, and agreed to establish a 36,000-short-ton Atlantic albacore export quota (for transshipment to the United States) to be allocated as follows: 30,000-ton actual performance quota (20,000 tons to be allocated

on basis of past export performance record and 10,000 tons to be allocated according to vessel-carrying capacity); 5,500-ton supplementary quota; and 500-tons for newly licensed exporters. Exporters will be permitted to freely transfer their allotted quotas among themselves. The plan was to be implemented August 1, 1965.

The Committee also adopted a plan to ship Atlantic albacore tuna to U. S. west coast packers to avoid an oversupply at Puerto Rico. Atlantic tuna vessel operators will be assessed two yen per kilogram (US\$5 a short ton) on their catch of albacore to help defray the increase in transportation costs. (Suisan Keizai Shimbun, June 4 and June 27; Suisan Tsushin, June 12, 1965.)

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SECOND GOVERNMENT-INDUSTRY TUNA MEETING:

The Japanese Government scheduled a series of Government-industry meetings in 1965 to exchange views and to seek ways as a means of strengthening the tuna industry. On June 28-29, 1965, the second series of meetings was held. Subjects discussed were international tuna fishery regulation, technical assistance to foreign countries, overseas-based fishing operations, and fishing effort. The general consensus was described as follows:

International fishery regulation: Heretofore, Japan has maintained a negative attitude toward tuna fishery regulatory proposals advanced by foreign countries. However, Japan can no longer turn her back on the current trend toward international regulation and must actively cooperate in such programs.

Overseas technical assistance: Japan should cooperate in extending basic technical assistance to other countries. She should be wary about the expansion of tuna fishing operations by foreign countries, such as Formosa and South Korea, but must pursue a policy of utilizing high-seas resources without creating friction with those countries in order to further promote the growth of the Japanese tuna industry.

Overseas-based fishery: Ten years have elapsed since the Japanese tuna base at Saipan was established, but on an overall basis recent developments in the overseas-based fishery have not been very favorable. Other countries are beginning to direct their attention

Jan (Contd.):

to base-type operations so Japan must employ efficient vessels to compete with those countries. In view of the importance of overseas bases for operation of small fishing vessels, Japanese producers and exporters must cooperate with foreign importing firms to secure vessel supplies and recreational facilities for crew members.

Fishing effort: The decline in hook rate has been due to the intensification of fishing effort. Effort should be restricted but it will be difficult to assess the effect any limitations placed on Japanese effort will have without considering developments on a world-wide basis. (Suisan Keizai Shimbun, June 30, 1965.)

CANNED TUNA IN BRINE STOCKS ON HAND:

Japan is reported to have in stock about 1.7 million cases of canned tuna in brine. Of that quantity, 1.5 million cases are said to be consigned to the Canned Tuna Sales Company and about 200,000 cases held in stock by the packer. Exports of canned tuna in brine to the United States, as of early July 1965, were reported to total about 1,240,000 cases.

The market for Japanese canned tuna in the United States was reported in early July as being very soft and export prospects for the remainder of the year not bright. (Suisan Tsushin, July 9 & 12, 1965.)

CANNED TUNA EXPORTERS ASK SUISSAN COMPANY FOR PRICE-QUANTITY ADJUSTMENTS IN JULY SALES:

Chairman of the Tuna Department, Japan Canned Foods Exporters Association, submitted a request in July 1965 to the Japan Canned Tuna Sales Company asking that (1) the quantity of canned tuna to be released in July be limited to a total of 100,000 cases, consisting of 50,000 cases each of white and light meat tuna (note: A total of 250,000 cases were offered for sale for June-July by the Suisan Company); (2) a promotional allowance of \$0.50 a case be granted for the white-meat pack; and (3) a premium of \$0.20 per case be placed on the 7-oz. and 13-oz. light-meat packs to encourage their production.

The request was expected to be taken up for consideration by the executive board of

the Canned Tuna Packers Association. (Suisan Tsushin, July 15, 1965.)

SALMON PACK AVAILABLE FOR EXPORT:

The land-based salmon packers in Japan were expected to have available for consignment to the Canned Salmon Sales Company for sale to foreign countries a total of 300,000 cases of pink salmon, consisting of 200,000 cases of 48 1/2-lb. cans and 100,000 cases of 96 1/4-lb. cans.

The companies operating the salmon mother-ships seem certain to have available for export 250,000 cases of pink salmon, consisting of 200,000 cases of 48 1/2-lb. cans and 50,000 cases of 96 1/4-lb. cans.

On July 16, 1965, the Canned Salmon Sales Company announced that for the first sale of canned pink salmon export prices would be:

Destination	Pack	\$/Case ^{1/}
Europe	48 1/2-lb. cans	2/12.20
Australia-New Zealand	" " " "	12.30
All countries	96 1/4-lb. cans	3/13.50

1/F.o. b. Japan
2/Former price: \$11.50/case.
3/No change in price.

The shipping deadline was September 30, 1965.

Reportedly, the f.o.b. export price of \$12.20 a case for the 1/2-lb. pack, when converted to a c.i.f. price (destination Great Britain) is equal to 94 shillings 3 pence (US\$13.20). The former c.i.f. price was 89 shillings 5 pence (US\$12.52), so the new price represents an increase of \$0.68 a case.

Canadian salmon packers are reported to have offered their product (to be shipped before December 1965) to Great Britain for 97 shillings c.i.f. But since Britain on the Japanese products assesses an import duty of 5 percent, the c.i.f. price of the Japanese 48 1/2-lb. cans actually totals about 99 shillings a case or some 2 shillings (US\$0.28) a case higher than the Canadian product. This price differential is expected to make it somewhat difficult for Japanese trading firms to sell the full amount (approximately 320,000 cases of 48 1/2-lb. cans) of pinks to be offered for the first sale before the shipping deadline of September 30. (Suisan Tsushin, July 13 & 19, 1965.)

Japan (Contd.):

NORTH PACIFIC-BERING SEA
SALMON AND BOTTOMFISH TRENDS:

The 11 Japanese salmon motherships operating in the North Pacific and Bering Sea were expected to reach their catch targets (totaling 45,478 metric tons) towards the end of July 1965 and to return to Japan July 31-August 4, or about 20 days earlier than in 1964. (Suisancho Nippo, July 21, 1965.)

The Japanese Bering Sea mothership-type bottomfish fleet landed, as of July 18, 1965, about 200,200 metric tons of fish, equal to 51 percent of the combined target of 390,000 tons. (Suisancho Nippo, July 21, 1965.)

KING CRAB PRODUCTION TRENDS:

The four Japanese king crab factoryships operating in the Okhotsk Sea were averaging 21.4 crabs a shackle and had packed a total of 205,536 cases as of July 8, 1965. That was equal to 86 percent of their production target of 240,000 cases (48 $\frac{1}{2}$ -pound cans).

The two Japanese crab factoryships, Tainichi Maru (5,859 gross tons) and Tokei Maru (5,385 gross tons), operating in Bristol Bay packed a total of 126,535 cases as of the same date, equal to 68 percent of their combined target of 185,000 cases. They averaged 11.7 crabs a shackle. (Suisan Tsushin, July 12, 1965.)

FIRM TO USE LARGER TRAWLER
FOR GULF OF ALASKA FISHERY:

The Japanese fishing company which was scheduled to use the 560-ton trawler Tatsuta Maru (accompanied by the 276-ton trawler Fukuho Maru) in the Gulf of Alaska in 1965 decided to cancel that vessel's operation and to use a 3,000-ton trawler instead.

The Tatsuta Maru was originally scheduled to fish for shrimp off Kodiak. The vessel is not considered suitable for other types of operation elsewhere in the Gulf due to its small size and consequently will be replaced by a larger vessel. Ten other large Japanese trawlers, accompanied by either 1 or 2 smaller trawlers, are licensed for operation in the northeastern Pacific this year, but those 10 vessels range in size from 1,500-3,000 tons.

(Suisan Tsushin, July 9; Suisan Keizai Shimbun, June 2, 1965.)

BERING SEA SHRIMP FISHERY TRENDS:

The Japanese factoryship fleets operating in the Bering Sea and engaged in the production of canned shrimp reported poor fishing as of early July 1965. The factoryship Eini Maru (7,491 gross tons) is said to have produced about 60 percent of the quantity she produced a year earlier for the same period. At season's end, that factoryship's canned shrimp production is expected to total 250,000-300,000 cases. Estimated shrimp production figures for the factoryship Chichibu Maru (7,472 gross tons) were not available but the factoryship also reported poor fishing. (Suisan Tsushin, July 13, 1965.)

FIRM PLANS TO OPERATE LARGE
TRAWLER IN NORTHWEST ATLANTIC:

A large Japanese fishing company has decided to dispatch a 3,000-ton trawler to the northwest Atlantic in winter 1966. The trawler, to be newly constructed, is scheduled to be based at St. Pierre Island off Newfoundland and will fish for cod. The catch will be processed into fillets on board ship and exported to the United States. In 1963/64 the same firm operated the stern trawler Tenyo Maru No. 3 (3,698 gross tons) in the northwest Atlantic but the vessel, which was a conversion job, was found unsuitable for operation in those waters. (Shin Suisan Shimbun Sokuho, July 1965.)

FISHING VESSELS IN ATLANTIC TO BE
REFUELED AT SEA BY TANKER:

The 900-ton Japanese oil tanker Shotoku Maru (chartered by a trading firm for refueling fishing vessels at sea in the Atlantic Ocean) was scheduled to depart Japan in mid-July 1965. Initially the tanker was to serve tuna long-liners and trawlers operating in waters off South America. Should the tanker operate out of Venezuela, the fuel cost to the participating fishing vessels is expected to run about 17,000 yen a kiloliter (US\$0.18 a gallon). The Shotoku Maru was also expected to supply provisions, fresh water, and engine parts to the Japanese vessels. (Suisan Keizai Shimbun, July 1, 1965.)

Japan (Contd.):

LARGE FISHERY STERN-TRAWLER RESEARCH VESSEL PLANNED:

The Japanese Fisheries Agency is developing specifications for a 2,000-ton stern-trawler research vessel. The vessel is to be constructed over a 3-year period at a total cost of 197 million yen (US\$3 million). For FY 1966 (April 1965-March 1966) about 200 million yen (\$555,000) have been budgeted. If fishing permits, a 2,600-ton vessel may be constructed.

The research vessel will be a stern trawler type and will carry two 15-meter (49-foot) portable boats for tuna long-lining. It will have an electrical propulsion system (to facilitate research) capable of developing a maximum speed of 15 knots, and a cruising range of 10,000 nautical miles. It will be equipped with 75 bunks, 6 experimental rooms, and 4 freezing rooms. (Suisancho Nippo, July 19, 1965.)

REPORTS OF FROZEN RAINBOW TROUT, MAY 1965:

Japan's exports of frozen rainbow trout in May 1965 amounted to 226 short tons valued at \$167,553. The quantity shipped in May was only slightly more than the 222 tons valued at \$171,403 exported the previous month.

Destination by Country	Quantity	Value
	Short Tons	US\$
United States	125	94,211
United Kingdom	38	24,859
Hong Kong	2	2,047
France	18	14,242
Canada	22	16,625
Australia	3	2,198
Denmark	3	2,353
Iceland	13	8,992
Other	2	2,026
Total	226	167,553

Source: Japan's Bureau of Customs.

United States continued during both April and May as the leading export market for that product. (Fisheries Attache, United States Embassy, Tokyo, July 7, 1965.)

DOMESTIC FISH MEAL MARKET TRENDS:

Japanese livestock producers agreed to purchase from the fishing companies operating fish-meal factoryships in the eastern Bering Sea their production of fish meal for 73,000 yen (US\$203) a metric ton. This was an increase of 9,250 yen (\$25.69) a metric ton over the price paid for factoryship-produced meal in spring 1965.

A Japanese trading firm contracted to deliver to a European firm 600 metric tons of factoryship-processed fish meal for US\$214 a metric ton, c.i.f. Rotterdam. Shipping period was to be September-October 1965. The meal was to be transported aboard a Japanese tanker scheduled to deliver whale oil to Europe. Consequently, the transportation cost was expected to be very low. In essence this means that the fishing companies operating the fish-meal factoryships received a better price than the \$203 a ton paid by the Japanese livestock producers. (Suisan Tsushin, July 20; Suisancho Nippo, July 17, 1965.)

FISH MEAL PRICES INCREASE FOR DOMESTIC OFFERINGS OF FACTORYSHIP PRODUCTION:

The three major Japanese fishing companies operating fish-meal factoryships in the eastern Bering Sea have offered to sell their production on the domestic market for 73,000 yen (US\$203) a metric ton. In the spring of 1965, one of the three firms was selling fish-meal for 63,750 yen (\$177) a ton, but Japanese prices increased with the rise in prices for Peruvian fish meal. About 31,000 to 32,000 tons of Japanese factoryship-produced meal are expected to be available for release in the last half of 1965. (Suisan Tsushin, June 25, 1965.)

HOKKAIDO FISHERMEN PROTEST JOINT SOVIET-JAPANESE OKHOTSK SEA FISH-MEAL OPERATIONS:

Representatives of the Hokkaido fishing industry called on the Japanese Fisheries Agency Director on June 21, 1965, to protest the plans of major Japanese fishing firms to cooperate with the Soviet Union in joint fish-meal operations in the Okhotsk Sea. In the spring of 1965 one large Japanese firm, under an agreement concluded in December

Japan (Contd.):

1964, successfully conducted such an operation. After a rendezvous in the Okhotsk Sea, its fish-meal factoryship was supplied with Alaska pollock caught by Russian trawlers. Subsequently, other major Japanese firms have shown great interest in engaging in such an operation, in part to offset their reduction in whaling effort in the Antarctic Ocean. It has been reported that this conflict may be settled on a political level in the fall of 1965. (Suisancho Nippo, June 22, 1965, and other sources.)

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

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NORTH PACIFIC SPERM WHALE STUDY:

The Japanese Government's Whale Research Institute is planning to conduct an ecological and biological study of sperm whales in the North Pacific. Under the plan, which has been approved by the Fisheries Agency, 5 whale catcher vessels from a large Japanese fishing company will be delegated the task of collecting the scientific data. The vessels were scheduled to conduct the studies beginning in mid-August 1965 and would operate mainly off Hokkaido. Japan hopes to gain data on herd, length, and age composition to present to the International Whaling Commission in connection with the problem on harvestable sizes of sperm whales. (Suisan Keizai Shimibun, July 2, 1965.)

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ANTARCTIC WHALING FLEET PRESEASON OPERATION OUT OF SOUTH GEORGIA ISLAND:

A Japanese whaling firm, which has a three-year agreement (beginning in 1964) to conduct whaling operations out of South Georgia Island, has decided to change its operational plans for this year (1965/66 season) and operate a whaling fleet out of that base for about 2½ months prior to the opening of the Antarctic whaling season. Under this change, the whale catchers and support vessels assigned to the South Georgia Island base will be transferred to Antarctic whaling in mid-December 1965, thereby assuring their maximum and most efficient use. (Suisan Tsushin, June 25, 1965.)

* * * * *

WHALE MEAT TO BE PURCHASED FROM NORWEGIAN WHALING FLEET:

A large Japanese fishing company has signed a provisional agreement to purchase whale meat from a Norwegian whaling fleet during the 1965/66 Antarctic whaling season. Under the agreement, the Japanese firm charter to the Norwegian Kosmos IV fleet catcher vessels (including crews) at 255 million yen (US\$708,000) to harvest the equivalent of 255 blue-whale units. The whales will be processed on the Norwegian factoryship and their meat sold back to the Japanese firm for 60,000 yen (US\$167) a metric ton. (Suisan Tsushin, July 9, 1965.)

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WHALE OIL SALES AGREEMENT FOR DOMESTIC MARKET:

The Japanese whaling firms engaged in whaling in the North Pacific and Bering Sea have concluded a contract to sell 7,000 metric tons of their 1964/65 production of fin whale oil for 89,000 yen (US\$247) a metric ton to domestic buyers. (Suisancho Nippo, June 1965.)

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IMPORTS OF MARINE PRODUCTS INCREASING:

The value of Japanese imports of fishery products, which stood at ¥8,030 million (US\$22.3 million) in 1961 and ¥7,810 million (\$21.7 million) in 1962, increased to ¥16,100 million (\$44.9 million) in 1963 and in 1964 rose to ¥25,590 million (\$71 million).

Major import items have been fish meal from Peru, octopus and cuttlefish from Spain and shrimp and spiny lobsters from Mexico and Communist China.

Observers ascribe the increasing imports to the following causes:

(1) A decline in domestic production of fishery products since 1962.

(2) Liberalization of import regulations for marine products.

Rising imports of marine products have been particularly noticeable since the start of 1965. Under barter arrangements completed in early 1965, 9,000 metric tons of

Japan (Contd.):

sea products--chiefly herring and salmon--
which are imported from the Soviet Union during
the year in exchange for exports of Japanese
apples.

Imports of dried cuttlefish and dried laver
are expected from South Korea in the wake of
normalization of diplomatic relations between
Japan and the Republic of Korea.

An import contract for raw fish was con-
cluded by a Japanese trading house with Com-
munist China at the end of May 1965. Under
the contract, 8,000 tons of raw fish are to be
shipped to Japan in the fall of 1965.

The rising trend in imports has disturbed
Japan's coastal fishermen. On the ground
of increasing imports of fishery products
and imposing pressure on small-scale fishing
operations in coastal waters, the All-Japan
Federation of Fishing Cooperatives is ex-
pected to ask the Government for steps to ad-
just imports of marine products. (The Japan
Economic Journal, June 29, 1965.)

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CANNED FISHERY PRODUCTS IN SHORT SUPPLY ON DOMESTIC MARKET:

Following is a report published in Kanaga-
wa Shimbun, June 26, 1965, describing a short-
age of canned fishery products on the Japa-
nese domestic market:

Mackerel, crab, salmon, tuna, and bonito
are among the canned products in short sup-
ply on the Japanese domestic market. The
shortage is due to declining catches in coastal
waters and also in offshore fisheries subject
to international regulation, such as the salmon
fishery. In addition, for species such as
tuna and salmon, the Japanese domestic mar-
ket meets strong competition from export
sales.

Mackerel is the most critical item on the
market with a maximum pack of only 350,000
cases forecast this year, as compared with
1.1 billion cases last year. The pack of crab
is also expected to be down sharply in 1965.

The average price of canned fishery prod-
ucts on the Japanese domestic market has al-
ready increased 10 to 15 percent over the
1964 price level and may increase another 10
percent.

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COMMUNIST CHINA PROTESTS ILLEGAL FISHING BY JAPANESE VESSELS:

In a strongly worded letter dated June 7,
1965, to the Japan-China Fishery Associa-
tion in Japan, the Communist China Fishery
Association sharply criticized the fishing
activities of Japanese fishing vessels oper-
ating off the Chinese coast. The letter charged
that over 20 Japanese vessels had been oper-
ating illegally in waters closed to fishing un-
der the terms of the private fishery agree-
ment concluded between Japan and Communist
China in November 1963, and demanded prompt
withdrawal of the offending vessels in the in-
terest of Japanese-Chinese friendship. It al-
so demanded assurance that the Japanese will
not commit such infractions in the future. It
was reported to be the third time that the
Communist Chinese have protested against
illegal fishing by Japanese vessels.

The Japan-China Fishery Association, con-
cerned over the future of the private fishery
agreement, informed the Communist China
Association that Japan would immediately is-
sue warnings to all Japanese fishing vessels
and would call a special meeting to study suit-
able measures to cope with the problem.
(Suisan Keizai Shimbun, June 11, 1965.)



Republic of Korea

PROGRESS ON FISHING FLEET BEING BUILT BY FRENCH-ITALIAN CONSORTIUM:

By April 1, 1965, ten 98-foot tuna vessels
of 140 gross tons had been launched for Korea
by a French-Italian consortium under a con-
tract signed January 21, 1963, and amended
December 11, 1963, and February 3, 1964.
One of the new tuna long-line vessels sailed
for Korea in the spring of 1965, and the oth-
ers were expected to follow in a short time.

Over 90 vessels are to be built for Korea by
the French-Italian consortium, including
trawlers as well tuna vessels. Construction
has already begun under the contract on two
253-foot stern trawlers, each of which will
have a frozen fish hold capacity of 31,784 cu-
bic feet. One of the stern trawlers is sched-
uled for completion in December 1965 and
the other in February 1966. (The Fishing
News, June 11, 1965.)

Note: See Commercial Fisheries Review, May 1965 p. 81, and
Dec. 1964 p. 105.



Malaysia

EXPANSION OF SINGAPORE TUNA INDUSTRY PLANNED:

The Singapore Economic Development Board announced earlier this year that it was prepared to invest US\$25 million to develop a tuna fishing industry, based on survey reports by two French consultants who came to Singapore at the invitation of the Board. The Board will provide technical information and financing for the construction of fishing vessels and loans for the purchase of fishing gear. They hope to export both canned and frozen tuna. (United States Consulate, Singapore, April 16, 1965.)

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TUNA FISHING VESSELS BEING PURCHASED FROM JAPAN:

An application to export from Japan 7 used fishing vessels (3 vessels of 350 to 390 tons, 2 of 220 to 260 tons, and 2 of 180 tons) to Malaysia was approved in June 1965, by the Japanese Fisheries Agency. Two of the vessels are expected to be used for training purposes and the remaining 5 for tuna fishing.

The vessels were to be sold to the jointly operated Japanese-Malayan company at Penang which is engaged in the production of frozen and canned tuna. The firm is purchasing the vessels to assure itself of a regular supply of raw material. (Suisan Keizai Shimbun, June 20, 1965.)

Note: See Commercial Fisheries Review, April 1965 p. 77.



Mexico

IMPORTS OF MARINE OIL, 1963-1964:

Cod oil is the main item in Mexican imports of marine oil, and the leading suppliers

Mexican Imports of Marine Oil, 1963-1964		
Commodity & Country	1964	1963
	. (Metric Tons) .	
Sperm oil:		
United States	2.9	1.2
United Kingdom	11.1	12.0
Other countries	5.1	1.8
Total sperm oil	19.1	15.0
Whale, seal, and shark oil:		
United States	52.2	99.9
United Kingdom	80.3	78.4

(Table continued on next column.)

Commodity & Country	1964	1963
	. (Metric Tons) .	
Germany	10.1	65.1
Other countries	21.0	10.7
Total whale, seal, and shark oil . .	163.6	254.8
Cod oil:		
United States	138.4	141.1
Norway	706.6	498.1
United Kingdom	134.2	45.1
Other countries	60.6	22.1
Total cod oil	1,039.8	707.4
Fish-liver oil:		
Ireland	27.7	38.1
Other countries	-	0.1
Total fish-liver oil	27.7	38.2

are Norway, the United States, and the United Kingdom. In 1964, an increase in imports of cod oil more than offset a decline in imports of whale, seal, and shark oil. (Agricultural Attache, United States Embassy, Mexico, D.F., May 21, 1965.)



New Zealand

SCALLOP INDUSTRY:

New Zealand has hopes of establishing an export market for its developing scallop fishery. The New Zealand scallop (*Pecteus novaezelandiae*) grows to a size of 6 inches across the shell.

The New Zealand scallop fishery began in 1960. At that time, the Government issued licenses to a limited number of operators to take scallops off South Island in the vicinity of Nelson and Kaipara Harbor. The fishery is still closely regulated by the Government. Scallop shucking at sea is prohibited to avoid any damage to fishing grounds that might result from dumping shells overboard. A problem in the New Zealand industry is the lack of clear knowledge about the extent of the resource. Also, the high price levels now prevailing for limited production make scallops a luxury item in New Zealand. (New Zealand Commercial Fishing, June 1965.)



Norway

CANNED FISH EXPORTS, JANUARY-MARCH 1964-1965:

Preliminary data show that Norway's total exports of canned fishery products in

Nway (Contd.):

July-March 1965 were up about 24 percent from the same period of the previous year and mainly to larger shipments of smoked sild and brisling.

Products	Jan. 1-Mar. 27 1965	Jan. 1-Mar. 28 1964
..... (Metric Tons)		
King	1,773	1,437
Small sild	3,763	2,835
Red herring	879	716
Saerring roe	56	101
Delicatessen	157	106
Sfish	287	413
Other fishery products	644	484
Total	7,559	6,092

The Norwegian 1965 canning season for sild was scheduled to begin May 1. The herring canning season was to open May 19 and the brisling met certain standards of size and quality. (Norwegian Cannery Export Journal, May 1965.)

FISHING FISHERY TRENDS IN THE NORTH SEA AREA, JANUARY-MAY 1965:

In January-May 1965, the total Norwegian catch of North Sea herring amounted to 115,000 hectoliters (95,325 metric tons), or almost 3 times more than in the same period of 1964. The increased catch of North Sea herring this year has partly been offset by reduced landings of other species of fish (sand eel and Norway pout) for reduction purposes. However, in the first 5 months of 1965, total catches of fish to Norwegian reduction vessels in the North Sea area were 87 percent higher than in the same period of 1964. A substantial part of the Norwegian purse-seine fishery was attracted to the herring fishery in the North Sea. (United States Embassy, Oslo, July 8, 1965.)

LOAN CEILING APPROVED BY THE STATE FISHERIES BANK:

The Norwegian Storting has increased the loan ceiling of the State Fisheries Bank to 850 million kroner (US\$11.2 million) following unanimous recommendations by the Fisheries Committee as well as the Finance Committee. This represents an increase of 20 million kroner (\$2.8 million) in the loan ceiling. (United States Embassy, Oslo, July 8, 1965.)

FISHERIES EXHIBITION, AUGUST 19-29, 1965:

Norway's King Olav V opened his country's 2nd Official Fisheries Fair in Trondheim, August 19-29, 1965. The Fair was sponsored by the Norwegian Ministry of Fishing and organized by the Norwegian Trade Fairs Organization.

The 175 exhibitors from Norway and abroad who participated in the Fair gave a broad picture of technical developments in fisheries all over the world. Important sections of the Fair were devoted to: (1) processing of fishery products, (2) machinery, (3) fishing gear, (4) vessel equipment, and (5) technical aids to navigation.

AIR-BUBBLE CURTAIN EXPERIMENTS PROVE EFFECTIVE:

Experiments conducted by the Norwegian Society for Industrial and Technical Research (SINTEF) show that a "wall" of rising bubbles, made by pressing air through a perforated hose at the sea bottom, will stop fish just as effectively as a fishing net. By moving the hose, 50 coalfish in a 9-foot water tank were driven into a corner, and not even a frogman could scare any of the fish through the air barrier. SINTEF is now trying to make the technique economically feasible for the commercial fisheries. The Norwegian fiords were believed especially well suited for the new method. By installing a hose and an air compressor at the mouth of the fiord, a fence could be "switched on" as soon as one of the large, seasonal shoals of fish moves in. (The Export Council of Norway Information Service, June 11, 1965.)



Territory of Papua and New Guinea

FREEZING AND PROCESSING PLANT FOR SPINY LOBSTERS OPENS:

A freezing and processing plant for spiny lobsters costing £A8,000 (US\$17,900) was opened earlier this summer on Yule Island, one of the Pacific Islands in the Territory of Papua and New Guinea. The area is considered one of the Territory's major spiny lobster grounds.

The plant is owned by a Papua-New Guinea fishing organization (Fishing Society) which plans to build up a spiny lobster industry for

Territory of Papua and New Guinea (Contd.):

export to Australia, the United States, and Europe. The Society was formed in 1961 to develop the commercial potential of the spiny lobster runs that occur each year between October and April. (Australian Fisheries News-letter, July 1965.)



Peru

FISH OIL EXPORTS, JANUARY-APRIL 1965:

Exports of fish oil (crude and semirefined) from Peru during the first 4 months of 1965 totaled 70,100 metric tons, almost twice the 35,300 tons exported in January-April 1964. Much of the increase was due to larger shipments to the Netherlands (up from 14,300 tons to 47,200 tons). The shipments in 1965, however, include quantities destined for Dutch storage warehouses. Shipments to West Germany also rose from 8,800 tons to 12,200 tons. (Foreign Agriculture, July 12, 1965, U. S. Dept. of Agriculture.)



Portugal

CANNED FISH EXPORTS, JANUARY-MARCH 1965:

Portugal's total exports of canned fish in oil or sauce in the first quarter of 1965 were up 18 percent from those in the same period of the previous year, due mainly to larger sardine shipments.

Product	1965		1964	
	Jan. -Mar.		Jan. -Mar.	
	Metric Tons	1,000 Cases	Metric Tons	1,000 Cases
<u>In oil or sauce:</u>				
Sardines	17,485	920	14,055	739
Chinchards	392	20	674	35
Mackerel	1,010	40	878	34
Tuna & tunalike	411	14	360	11
Anchovy fillets	1,020	102	1,138	114
Others	154	8	245	12
Total	20,472	1,104	17,350	945

Portugal's principal canned fish buyers in the first quarter of 1965 were Germany with 4,665 metric tons, the United Kingdom with 2,417 tons, Italy 2,619 tons, France 1,710 tons,

the United States 1,503 tons, and Belgium-Luxembourg 1,494 tons. Germany's purchase of canned fish from Portugal in the first quarter of 1965 increased 44 percent from that in January-March 1964. Purchases by Italy were also up. But purchases by the United States and France were down. (Conservas de Peixe, May 1965.)

CANNED FISH PACK, JANUARY-MARCH 1965:

The Portuguese pack of canned fish in oil or sauce in the first quarter of 1965 totaled 307,000 cases (mostly sardines and anchovy fillets). The Portuguese pack is traditional

Product	1965		1964	
	Jan. -Mar.		Jan. -Mar.	
	Metric Tons	1,000 Cases	Metric Tons	1,000 Cases
<u>In oil or sauce:</u>				
Sardines	2,249	118	3,358	170
Chinchards	79	4	225	11
Mackerel	179	7	198	10
Tuna & tunalike	365	12	998	50
Anchovy fillets	1,463	146	1,008	50
Others	385	20	218	11
Total	4,720	307	6,005	307

light in the first quarter, since the main marketing season begins later in the year. (Conservas de Peixe, May 1965.)



Senegal

CANNED FISH INDUSTRY:

One of the purposes of Senegal's first year development plan, which ended July 1965, was the establishment of a fish-canning industry.

Senegal now has 5 fish-canning plants with a total processing capacity of about 30,000 metric tons. But it is estimated that Senegal's 1964 production of canned fish amounted to only about 15,000 tons, almost all of which was canned tuna. Senegal hopes to export tuna exports to Europe and North America. One Senegalese cannery has decided to produce sardines, of which about 2,000 tons annually are landed at Dakar. The firm plans to export can sardines in either oil or tomato sauce to African markets, and sardine fillets for export to Europe.

eral (Contd.):

Fish processing is also carried out in Seneg... by a number of small firms which are engaged mainly in smoking, salting, and cooking fishery products.

Senegal's fishing fleet comprises three types: proas (Malay-type sailing vessels), motor vessels, and trawlers. Of the country's present annual catch of about 100,000 tons, 80,000 are taken by proas, 15,000 by motor vessels, and 5,000 by trawlers. (The Fishing News, June 18, 1965.)

See Commercial Fisheries Review, Jan. 1965 p. 86 and Feb. 1965 p. 82.



South Africa

PRODUCTION OF LEADING PROCESSED FISHERY PRODUCTS, 1963-1964:

Record production of fish meal and fish-oil in 1964 was reported by the South

Production of Leading Processed Fishery Products in the South Africa Republic and the Territory of South-West Africa, 1963-1964

Item	Unit	South Africa		South-West Africa		Total South Africa and South-West Africa	
		1964	1963	1964	1963	1964	1963
Casein							
Fish meal	Short tons	2,332	8,445	62,130	32,053	64,462	40,498
Molasses	"	1,527	2,090	-	-	1,527	2,090
Molasses	"	8,152	1,719	-	-	8,152	1,719
Salt	"	-	1/	164	1/	164	1/
Shrimp tails	Short tons	2/3,325	1/	2,730	1/	6,055	1/
Fish oil	"	-	1/	1,020	1/	1,020	1/
Fish meal	Short tons	108,803	3/	175,186	3/	283,989	4/262,600
Fish oil	"	9,320	1/	-	-	9,320	1/
Fish oil	Long tons	21,857	3/	48,159	3/	70,016	4/46,878
Fish oil	"	4,122	5,886	-	-	4,122	5,886
Fish oil	"	10,778	10,780	-	-	10,778	10,780

Figures available.



Unloading South African frozen spiny lobster tails at New York City dock.



Fig. 2 - A pilchard-maasbanker cannery and industrial products plant situated on the St. Helena Bay Coast.

Africa Republic (includes the Territory of South-West Africa). There was also a sharp increase in the 1964 pack of canned pilchard. Those increases were due mainly to greater production in South-West Africa.

In 1964, whale oil output was down, while sperm oil production was at about the same level as in 1963. (United States Consulate, Cape Town, July 2, 1965; and other sources.)

Note: See Commercial Fisheries Review, Nov. 1964 p. 110.



South Africa Republic

SHARK FISHERY EXPANDS:

Shark fishing is becoming an increasingly important industry off the Cape coast. Four fishing vessels of one firm unloaded about 2,400 sharks in Cape Town during a week in June 1965. A spokesman for the firm said the sharks were being exported to Italy. (South African Digest, June 25, 1965.)

Note: See Commercial Fisheries Review, June 1965 p. 78.



Spain

FROZEN FISH WINS CONSUMER ACCEPTANCE:

Frozen hake is becoming increasingly popular in Spain. Marketing has been added by the efforts of freezer-trawler operators and retail fish markets to deliver a high-quality product.

The growing use of freezer-trawlers by Spanish firms is rapidly increasing the supply of frozen fish. (Fisheries landings at the

Spain (Contd.):

port of Vigo in January-March 1965 included 8,550 metric tons of frozen fish--mostly small hake--which was more than double the frozen fish landings at Vigo in the first quarter of 1964.)

In keeping with the current trend, retail fish markets in southern Spain have added special stalls for the sale of "frozen-on-board-ship" hake. Each stall has a large frozen-storage cabinet and an electric band-saw. This allows the customer to buy cut-to-order frozen steaks. The frozen headless hake (which weigh from about 1 to 5 pounds) are usually sliced into steaks about $\frac{1}{2}$ -inch thick. They are sliced with an oblique cut which gives a larger steak than the regular cross-section cut. The retail price of the hake range from about 24.5 U.S. cents a pound for the smaller sizes to 38.5 cents a pound for the larger sizes.

The new fishing and marketing techniques are changing the long-established "fresh-fish" preference of Spanish housewives. (Fish Trades Gazette, London, June 19, 1965.)



Taiwan

TUNA VESSEL CONSTRUCTION MATERIALS TO BE PURCHASED FROM JAPAN:

The Formosan Government is planning the construction of 15 200-ton tuna vessels with the construction materials to be purchased from Japan. Under the plan, all the shipbuilding materials, including marine engines, will be imported from Japan and assembled in Formosa. The Cooperative Bank of Formosa is said to have committed a 60-percent vessel construction loan totaling 60 million yen (US\$1.5 million) for this program. (Suisan Keizai Shimibun, July 2, 1965.)

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TUNA VESSELS ORDERED FROM JAPAN:

A Japanese fishing vessel shipbuilding firm has received a construction order for 20 distant-water tuna vessels from Taiwan. Details are not available and the Japanese shipbuilding firm denies having received such an order, but it is reported that a number of Japanese trade representatives in Taiwan filed similar reports concerning the placement of such a

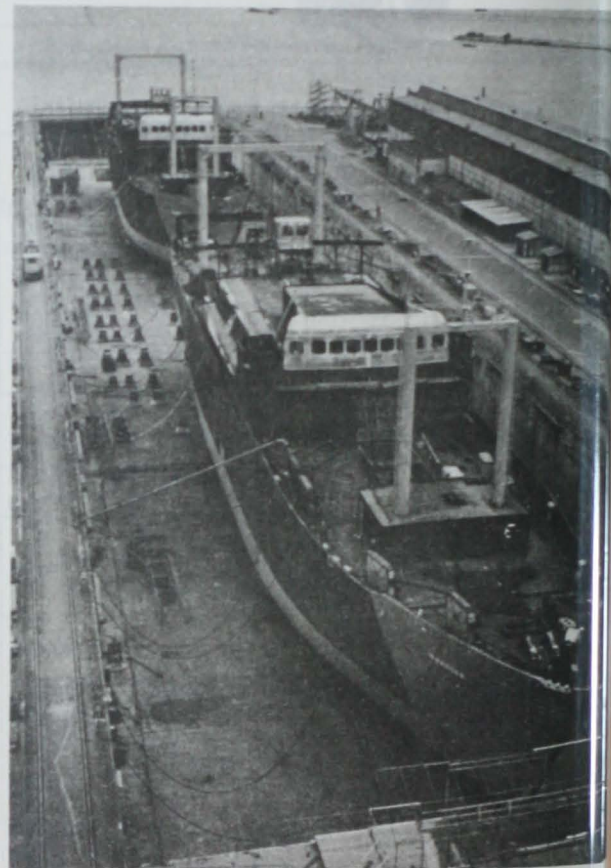
vessel order. (Suisan Keizai Shimibun, July 20, 1965.)



U.S.S.R.

FREEZER-TRAWLERS "PAVLOVO" AND "PRILUKI" BUILT FOR SOVIETS BY DANISH SHIPYARD:

The freezer-trawlers M/S Pavlovo and M/S Priluki were launched June 29, 1965, at a shipyard in Copenhagen, Denmark, for Sudoimport, Moscow. The vessels are part of a series of 15 freezer-trawlers for the U.S.S.R. being built by the Danish shipyard



The M/S Pavlovo and M/S Priluki in construction dock at Copenhagen.

to the following specifications: length between perpendiculars 91 meters (298.5 feet), breadth 16 meters (52.5 feet), and deadweight tonnage 2,550 to 2,600 metric tons. The first in the series was the M/S Skryplev launched May 1962. (Regional Fisheries Attache for the United States Embassy, Copenhagen, July 1965.)

Note: See Commercial Fisheries Review, June 1965 p. 79.

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U.S.R. (Contd.):

INCREASE IN FISHING FLEET AND WHICH PLANNED DURING 1966-70:

The Soviet Union is reported to be finishing the blueprint for the development of her fishing fleet under the 5-Year Plan 1966-1970. During that period, additions are to include 200 support vessels such as freezer-transport vessels, factoryships, and motherships. Emphasis will be on the 43,000-ton displacement Vostock-class motherships. In addition, over 13 different types of fishing vessels will be constructed, including a large factory-trawler (with a displacement of about 7,000 tons) powered by an engine developing 1,000 horsepower and providing a cruising speed of 14 knots. The large trawler will carry freezing and canning equipment.

The Soviet Fisheries Minister announced in an article in *Vodnii Transport*, July 1965, that the increased number of fishing vessels and continued expansion into new fishing areas are expected to allow the U.S.S.R. to bring her yearly catch to 10 million metric tons by 1970, almost double the 1964 catch.



United Kingdom

FREEZER-TRAWLER "VICTORY" LANDS BLOCKS OF WHOLE FROZEN FISH:

After completing her maiden voyage on July 11, 1965, the new British stern-fishing freezer-trawler *Victory* delivered to Grimsby a catch of almost 540 long tons of ground-fish, most of which was frozen into blocks of whole fish. Included were 11,074 frozen blocks of fish, 464 of lingcod, 346 of ocean perch, 252 of fish, and 258 of unclassified fish. The blocks were unloaded with an elevator-conveyor unit similar to that used to unload fish from cargo vessels.

The *Victory* is the first of 6 large freezer-trawlers ordered from British shipyards by a fish fisheries group at a cost of about \$8.4 million (US\$8.4 million).

The *Victory* is equipped with 10 vertical-freezers. It has a diesel-electric propulsion system which develops 2,700 b. hp. The specifications of the vessel are an overall 244³/₄ feet, length between perpendiculars 215 feet, moulded depth



Fig. 1 - New freezer-trawler *Victory* docked at Grimsby.



Fig. 2 - Frozen blocks of whole fish being unloaded from *Victory*. Note elevator-conveyor unit used to remove blocks from the vessel.

to upper deck 27¹/₄ feet, and moulded breadth 41 feet.

Note: See *Commercial Fisheries Review*, May 1964 p. 73; March 1964 p. 76.

United Kingdom (Contd.):

FREEZER-TRAWLERS EMPHASIZED IN DISTANT-WATER FISHERIES:

A total of 22 British freezer-trawlers should be operating by mid-1966. The search for increased productivity to overcome declining yields has led the British to emphasize freezer-trawlers for distant-water fishing. The British White Fish Authority has contributed substantially to the heavy capital investment involved in changing to freezing at sea. During the fiscal year ending March 31, 1965, White Fish Authority grants to the distant-water fleet totaled nearly £1.25 million (US\$3.5 million) and loans £113,000 (\$316,400). It is expected that the use of those vessels will arrest the declining catch of the distant-water fleet, which fell by 8 percent to 336,000 long tons during the past fiscal year, and result in greater price stability.

A strong plea for the control of fishing in international waters was made on June 30, 1965, by the Chairman of the White Fish Authority, as he presented the Authority's report for the year ending March 31, 1965. He said that stocks of fish in North Atlantic waters were being hard hit by a rapid growth in the fishing effort, particularly by Soviet-Bloc countries, and that this not only depleted the stocks but increased fishing costs. (United States Embassy, London, July 9, 1965.)

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CONFERENCE ON DESIGN OF FISHING VESSELS AND THEIR EQUIPMENT IN RELATION TO FISH QUALITY IMPROVEMENT:

A Conference on the Design of Fishing Vessels and Their Equipment in Relation to Improvement of Quality was held in London, May 31-June 1, 1965, under the sponsorship of the British White Fish Authority. Over 200 delegates attended, giving representation to most European countries, the United States, and several more distant areas. The Conference coincided with the 1965 World Fishing Exhibition in London. The meeting focused on ways to maintain fish quality on vessels at sea. Sessions of the meeting were devoted to the following topics:

(1) Design and operation of fishing vessels for stowing the catch on melting ice. (Fish handling, stowage, and unloading were discussed as well as vessel design.)

(2) Other chilling techniques such as chilled sea water, superchilling, antibiotic ice, and gas stowage.

(3) Freezer trawlers and their equipment.

(4) Factory trawlers and motherships. (The discussion extended to the freezing of whole fish and fillets at sea, offal processing, and the economic size of factoryships and catcher vessels.)

The subject under discussion at each session was developed by introductory papers and then amplified by allied papers, comments and a general discussion. The scientific approach in the introductory papers was balanced by comments of fishing industry and manufacturers representatives.

The discussions at the Conference brought out some of the trends in fish preservation at sea on European vessels. On short trips, bulk stowage of fish in ice is still the general practice, but boxing fish at sea is winning favor. Good results with antibiotic ice were reported by one trawler fleet operator. Stowage in chilled sea water is not making any advance. It was pointed out that transferring catches at sea may affect quality if the catch remains long in the sea before being picked up.

Freezing fish at sea is well accepted as a means of producing quality fish, but there is disagreement over techniques. Freezing whole fish at sea is the usual method of British freezer trawlers, while operators from most other European countries favor processing and freezing fillets at sea. Superchilling the catch as an alternative to freezing fish at sea may be useful on some vessels working the North Atlantic. The Portuguese have tried superchilling fish by bulk stowage of fish in ice on freezer plates. British engineers recommend a method of superchilling which circulates cold air over boxed fish.

Delegates also said that more automation in fish handling is needed on shipboard as well as when unloading ashore. It was noted that shore auctions of fish may diminish in importance as boxing and freezing at sea increase. It was pointed out that fleet operations are an efficient way to produce quality fish at long distances from port. This may favor certain countries such as Japan, the U.S.S.R., Spain, and Portugal whose fishermen have experience in spending long periods

United Kingdom (Contd.):

... (Regional Fisheries Attache for Eu-
... United States Embassy, Copenhagen,
... 23, 1965.)

See Commercial Fisheries Review, April 1965 p. 88.

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WORLD FISHING EXHIBITION HELD IN LONDON:

British trade periodical presented a
World Fishing Exhibition in London,
27-June 2, 1965. It was sponsored by a
number of British fishery associations and
open only to members of the fishing industry.
Over 200 exhibitors from a dozen countries
displayed fishing gear, vessel models and de-
vices, marine engines, deck machinery, elec-
tronic navigating and fish-finding devices, and
freezing and processing equipment.

The industrial exhibits covered practically
all phases of the fishing industry. Many ex-
hibits showed new or improved products.
There were numerous displays of transistor-
powered electronic devices. Visitors to the ex-
hibition were particularly interested in labor-
saving devices such as automated engines and
deck machinery; filleting, freezing, and fish-
processing equipment; and new fish box-
es made of aluminum, plastic, and folding
wire.

A number of exhibits by agencies of the
British Government illustrated their work
in the fishing industry to provide loans and
assist in orderly marketing, conduct
laboratory fishing and gear studies, and car-
ry out technological and biological research.

The Soviet Bloc was represented by an
exhibit of a flake-ice machine
and models of fish-reduction and fish-freezing
equipment used on freezer trawlers. The
German ice machine was said to have an
output of 10 metric tons of flake ice every 24
hours from either fresh or sea water. The
Germans displayed a model of a reduc-
tion plant said to have a daily capacity for 35
tons of fish or offal, and requiring only one
operator on shipboard or ashore. (Regional
Fisheries Attache for Europe, United States
Embassy, Copenhagen, June 23, 1965.)

* * * * *

RADIATION-PRESERVATION OF
FROZEN FISH UNDER STUDY:

A British program of research into the ef-
fects of eating fish preserved by irradiation is
being carried out at the Wantage Research
Laboratory, with the backing of the White
Fish Marketing Board.

The Low Temperature Research Station at
Cambridge has already determined the dose of
radiation needed to keep fish palatable for 20
or 30 days, or 4 to 5 times ordinary shelf
life. It is applied by passing the packaged
fish at freezing point through an irradiation
unit.

The aim of the present study, which is
scheduled to continue through 1966, is to sat-
isfy the British Ministry of Health that there
would be no harmful effects if treated fish
were used generally. Experimenters report
the irradiated fish tastes "far better than any-
thing in the average canteen."

If the study can be completed ahead of
schedule, radiation-preserved fish with a low
spoilage rate may appear on the British mar-
ket before the end of 1966. (The Fishing
News, London, July 2, 1965.)

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FISHERY LOAN INTEREST
RATES REVISED:

The British White Fish Authority announced
that their rates of interest on loans made as
from May 8, 1965, would be as follows:

For fishing vessels of not more than 140
feet, new engines, nets and gear: on loans for
not more than 5 years, $7\frac{1}{4}$ percent (decrease
 $\frac{1}{8}$ percent); on loans for more than 5 years
but not more than 10 years, $7\frac{1}{4}$ percent (in-
crease $\frac{1}{8}$ percent); on loans for more than 10
years but not more than 15 years, $7\frac{1}{4}$ percent
(increase $\frac{1}{4}$ percent); on loans for more than
15 years but not more than 20 years, $7\frac{1}{4}$ per-
cent (increase $\frac{1}{4}$ percent).

The rates on advances made before May 8,
1965, are unchanged. (Fish Trades Gazette,
London, May 22, 1965.)

Note: See Commercial Fisheries Review, June 1965 p. 80.

