

INTERNATIONAL

British Sport Fishermen Blame Danes for Decline in Salmon Catch

British sport fishermen claim that poor 1969 salmon fishing in British rivers is due to Danish salmon catches off Greenland. They have started a campaign against the purchase of Danish products. Anti-Danish posters reading "Save our Salmon, Boycott Danish Food" have been displayed in the northwestern part of the country. English housewives are refusing to buy Danish butter and bacon.

Danish Ambassador Replies

Erling Kristiansen, the Danish Ambassador in London, said there is no evidence that Danish fishing off Greenland is responsible for the decrease in British salmon catches. Kristiansen is an avid sport fisherman himself. He added that about 1,500 metric tons of salmon are fished off Greenland annually, and 2,000 tons are caught off British coasts. In all probability, most salmon caught off Greenland originate from the rich Canadian salmon areas, he said. Kristiansen also called attention to the spread of ulcerative dermal neurosis (UDN) and the increase in illegal fishing with explosives. Danish trawlers also fish cod and halibut, and other countries fish in the area between Greenland and Scotland.

Charge Unproven

No one from the British Sport Fishermen's Organization has been able to establish any connection between the Danish fishery and the decrease in British salmon stocks. However, British sources point out that, at two conferences held this year in London, Denmark voted against prohibiting open sea salmon fishing. Sweden and West Germany also voted against a prohibition. ('Berlingske Tidende' and 'Børsen,' July 12.)



OECD Reviews 1968 Fisheries

Again in 1968, there was a slight overall improvement in North Atlantic and North Pacific fish catches. The increase resulted from better catches of fish for direct human use (up about 6%). The production of fish for reduction to meal and oil was smaller than in 1967 (down 4%) mainly because some herring fisheries failed.

On the whole, marketing conditions for bulk catches continued unsatisfactory. So fishermen often were no better off than in 1967, a year of poor returns.

OECD Review

The main 1968 fishery developments in the northern hemisphere are described in a Review of Fisheries in countries of the Organization for Economic Cooperation and Development (OECD): Belgium, Canada, Denmark, France, W. Germany, Greece, Iceland, Ireland, Italy, Japan, Netherlands, Norway, Portugal, Spain, Sweden, Turkey, U.K., U.S. These provide about half the world's fish supply and handle around three-quarters the global trade in fish and fish products.

Northern Countries Hurt

Affected most by low prices were the more northern countries: Iceland, Norway, Greenland, and Canada. Their fisheries depend considerably on outlets for frozen cod and similar species, and for fish meal and oil. These products all figure prominently as commodities in international trade and all were affected by poor demand.

In isolated cases--Denmark's reduction industry, for example--it was possible to increase productivity. As a rule, however, the condition of North Atlantic fish stocks allowed only marginal improvement.

More Government Aid

One outcome of the prolonged market depression is that governments have provided more financial aid. How many additional

provisions and their possible repercussions on international trade are now being examined in OECD by the Committee for Fisheries.

Market for Coastal Catches

In 1967, the adverse conditions in the external market had not affected unduly internal demand for high-quality fresh fish caught by coastal water home fleets. This was repeated in 1968. The OECD Review notes the high rate of vessel renewal in this sector--usually a reliable indicator of good economic health. (OECD, June 25.)



World Fish Meal Production and Trade Set Records in 1968

"World Agricultural Production and Trade," July 1969, published by the U.S. Department of Agriculture, contains this summary of world fish meal production and trade in 1968:

SUPPLIES

World fish meal exports (including meal equivalent of fish solubles) were a record 3.9 million short tons in 1968. This was a rise of 694,200 tons, or 22%, from 1967--and more than double the 1960-64 average. The marked increase reflected chiefly Peru's record anchovy catch. Also contributing were substantial recovery in Chile's catch and further expansion by Denmark, South Africa, and South-West Africa. However, herring exports from Norway and Iceland declined sharply.

World production increased by 330,000 tons, or 6.6%.

On Dec. 31, 1968, aggregate stocks of fish meal in primary exporting countries were estimated to be sharply lower. This was evidenced by the fact that world exports in 1968 increased nearly 400,000 tons more than production. In 1968, exports were 73% of 5.3 million tons produced; this compared with 64% in 1967--and only 60% during 1960-64.

IMPORTS

In 1968, fish meal imports into major markets of nearly 3.5 million tons expanded at an accelerated rate: nearly 24% above 1967.

The average annual increase in imports during 1962-68 was 13.2%.

During 1960-68, aggregate imports by some countries have been substantially less than world exports. The annual unaccounted margin, though erratic, has widened sharply. A sizable part of unexplained difference was due to increased imports by nonreporting countries in Eastern Europe.

Of the 66,400-ton net increase in 1968 fish meal imports, the U.S. accounted for 30%, the European Communities countries 22%, the United Kingdom 16%, and Japan 10%.

U.S. imports, the largest market, were up 31% in 1968 to 855,800 tons, or 24.5% of aggregate. This compared with 23.1% in 1967 and only 15.4% in 1962.

In recent months, U.S. imports have declined. This reflects sharply higher prices for Peruvian anchovy meal. In January-May 1969, U.S. imports were only 203,144 short tons--compared with 327,000 tons in 1968 period. However, imports into West Germany--the second largest market--were steady during January-April at 218,500 tons. This compared with 216,200 tons in the 1968 period.

PRICES

The price for fish meal has increased substantially since Jan. 1969. In early July, it was US\$168 a short ton c.i.f. European ports or \$36 above the same period a year ago, and \$47 above the 1968 average annual price. Compared with a year ago, soybean meal prices have not changed appreciably. Therefore, fish meal has become less competitive with soybean meal. This could result in some shift toward heavier use of soybean meal in livestock and poultry rations.

CURRENT SITUATION AND PROSPECTS

Output in major producing countries through May 1969 was slightly less than in 1968 period. Exports were nearly equal to 1968 period despite stocks in major producing countries that are about a quarter-million tons below last year's.

Stocks are expected to be drawn down even more sharply before Oct. 1, when supplies from the 1969/70 season in Peru start moving into export. Since 1963, Peruvian production

the Oct.-Dec. quarter has been erratic. It ranged between 366,000 in 1963 and 806,000 tons in 1967. Peruvian fish meal production during Oct.-Dec. 1968 was 659,000 tons. In the past, sharp price fluctuations have taken place in the Oct.-Dec. quarter; in 1967, European prices in Nov., at \$120 ton, were down \$5 a ton from Sept.



Record World Fish-Oil Production & Exports in 1968

In 1968, net exports of fish oil (including fish liver oil) were 757,800 short tons, or 2,100 tons above 1967 and more than double the 1960-64 average. The increase reflected phenomenal expansion in exports of Peruvian anchovy oil and South African pilchard oil; these were largely offset by sharp reductions in herring oil from Norway and Iceland. Much of the overall increase in exports of fish oil reflected heavy disposal of stocks. These had been largely built up during the big bulge of 1967.

1969 Outlook Clouded

The outlook for 1969 production is clouded as usual by several major uncertainties. The basic question continues: Will low Peruvian anchovy oil yields and a possibly smaller catch there--and reduced quota on S. African pilchard and herring scarcities in Norway and Iceland (if they continue)--more than offset expected increases in oil output from Chile and Denmark? Any substantial recovery by Norway and Iceland could result in another overall increase; if it occurs, it could set a new record.

Export Decline Expected

Although fish-oil output may continue near the 1968 record, exports are expected to decline somewhat in 1969. Peru's exports, which in 1968 exceeded production substantially, are expected to be a major factor influencing this decline. However, movement from Chile and Denmark could increase somewhat. Exports from Iceland and Norway will likely remain substantially below 1966. Exports from S. Africa and South-West Africa are expected to continue large, but these may be somewhat below 1968 record. Sharp spurt in 1968 production of pilchard oil from S. African factories might not be matched in 1969 due

to quota restrictions. In long run, key factor there will be whether present catch limit for pilchard can be maintained without depleting stocks.

Aggregate exports from major producing countries are running substantially less than in 1968 period.

Fish Oil Exports & Prices

In 1968, record fish-oil exports resulted in markedly lower prices. These averaged about 4.5 U.S. cents a pound for Peruvian, semirefined, c.i.f. European ports, compared with 5.8 and 8.9 cents in 1967 and in 1966.

However, prices in recent months have strengthened to 6.1 cents in June and early July. Although prices for most other oils also have strengthened from a year ago, price spreads or discount for fish oil in relation to most competing oils have narrowed substantially. Thus, fish oil prices have become less competitive in world markets. The notable exception is palm oil. This declined to about 7.3 cents a pound, Malaysia 5% bulk c.i.f. Europe, in July, compared with 7.8 cents a year earlier. ('World Agricultural Production and Trade,' U.S. Dept. of Agriculture, July.)



1968/69 Whale Catches in Antarctic & N. Pacific Reported

On June 13, 1969, the Japanese Fisheries Agency published data on 1968/69 whale catches in the Antarctic and North Pacific Oceans.

The 1968/69 Antarctic catches reflect about a 50% increase in fin whales over the previous season--but a 50% decrease in sei whales.

The Soviet Antarctic catches show practically no change for fin whales--but a decrease of 287 sei whales.

In the 1968 North Pacific mothership whaling, fin whale catches decreased 20% from previous season, sei whale hauls increased 10%, and sperm whale catches were virtually the same. ('Suisan Tsushin,' June 16.)

1968/69 Antarctic and North Pacific Whale Catches

Type of Operation	Catch Quota	Catch			
		Fin Whale	Sei Whale	Total	Sperm Whale
	BWU ^{1/} (Number)		BWU ^{1/}	Number
Antarctic mothership:					
Japan.....	1,493	1,821	3,495	1,493	0
USSR.....	976	1,194	2,275	976.16	Not Available
Norway.....	731	0	0	0	0
Total.....	3,200	3,015	5,770	2,469.16	
North Pacific mothership:					
Japan.....	-	729	3,819	1,001	3,000
USSR.....	-	1,062	1,100	714.33	9,526
Total.....		1,791	4,919	1,715.33	12,526
North Pacific land station:					
Japan.....	-	53	977	189.33	3,747
US.....	-	38	14	21.33	84
USSR.....	-	0	0	0	0
Canada.....	-	0	0	0	0
Total.....		91	991	210.66	3,831

^{1/}Blue-whale units.



Japan to Aid Indonesian Fishery Research & Training

Japan has signed a 3-year agreement with Indonesia to provide technological and material cooperation for Indonesian fisheries research and training projects, according to the Foreign Ministry. The agreement is part of Japan's official program of technological cooperation with Indonesia.

Japan will send 4 fisheries experts and provide some machinery and equipment for Indonesian fisheries research and training institutes. ('Japan Times,' July 11.)



IAFMM Conference Held in Cannes

The International Association of Fish Meal Manufacturers (IAFMM) celebrated its tenth anniversary at the 9th Annual Conference, held in Cannes, October 6-10. Over the past 10 years regular conferences have been held where producers and scientists advising the industry meet to discuss matters of mutual interest. The Executive Council and the Scientific Committee also meet at least once a year between conferences.

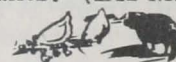
Member Countries

IAFMM member countries are Belgium, Canada, Chile, Denmark, France, Germany, Holland, Iceland, Morocco, Norway, Peru, Portugal, South Africa, Sweden, U.K., and the U.S. Other major producing countries are invited to participate in conferences as observers.

IAFMM Activities

The Association does not engage in actual marketing or price questions. It is primarily concerned with assembling economic, statistical, and general marketing information. The Scientific Committee constantly examines methods of improving processing and quality control to ensure production of high-quality fish meal. The Association has liaison status with FAO, and FAO representatives participate in all conferences and meetings. It cooperates with the Fish Meal Exporters Organization (FEO) in market promotion and technical activities. It maintains close contact with leading fishing industry research institutes.

A symposium for compounders was held in Amsterdam on October 2. Scientists, producers, and technicians in the compounding industry presented papers on fish meal processing, assessment of protein quality, fish meal in poultry rations, fish meal in pig rations, and new developments, such as the use of anti-oxidants. (IAFMM, Aug. 4.)



First Fish-Inspection Conference Held in Canada

The Technical Conference on Fish Inspection and Quality Control, organized by the Food and Agriculture Organization in cooperation with Canada, concluded an eleven day session in Halifax on July 25. About 250 delegates from 45 countries participated.

General Agreements

The Conference, first of its kind, examined the scientific, technical, and legal aspects of fish inspection and quality control. It agreed on the need for efficient, scientifically based inspection systems to assure the highest quality of fish and fish products in the interest of consumers and the fishing industry. It emphasized that better quality control would also help to reduce wastage and facilitate exports, especially by developing countries.

Individual Country Programs

It approved recommendations to establish suitable inspection programs in individual countries, including education and training of personnel. The Conference discussed the question of whether fish-inspection programs could be voluntary or mandatory; it decided this depends on circumstances in each country. In any case, it was emphasized that there could be "no compromise in matters affecting public health".

Glossary

The Conference also recommended that FAO publish a glossary of terms used in fish inspection and quality control which could be applied internationally. The glossary would facilitate understanding by establishing a common language in a very complicated field.

Spoilage

Finally, the possibility of detecting fish spoilage through chemical means was noted. The most promising is trimethylamine, which develops during spoilage of fish, though this method applies only to certain marine species.

Some speakers called for greater research into fish spoilage and development of quick, efficient methods for its detection. Others,

especially from developing countries, emphasized the need for education and training. The participants agreed that the trend is towards more stringent standards for fish quality, and that consumers are becoming more demanding. C. H. Castell, Fisheries Research Board of Canada, predicted that spoilage of fish after catching will be reduced to insignificance eventually, thanks to modern scientific advances; also that consumers will enjoy the same high standards for fish and fish products they now expect and get from meat and poultry products.

General Topics

Almost 100 papers on various aspects of fish inspection and quality determination were discussed. General topics were: the need for inspection and quality control; national fish-inspection programs; general principles and program development; industrial advantages of inspection and quality control; research reports on methods for quality assessment.



USSR Conducts Joint Oceanographic Research With Japan & France

The first Soviet-Japanese oceanographic research team, aboard the 'Hakiko Maru', concluded a 1-month study of the Sea of Japan seabed on June 28. Thirty scientists from the Soviet Academy of Sciences' Institute of Oceanography and oceanographers from Japanese universities conducted geological and geophysical research to obtain data on the origin of the Sea of Japan.

Soviet-French Research

A party of Soviet and French oceanographers left Sevastopol, USSR, on June 28 for a joint research cruise in the Mediterranean. The French scientists went aboard the 'M. Lomonosov' of the Ukrainian Academy of Sciences' Marine Hydrophysical Institute. At the same time, Soviet scientists entered an underwater laboratory designed by Jacques Cousteau for joint underwater research. Both programs are part of a French-Soviet Scientific Cooperation Agreement.



FOREIGN

CANADA

FISHERIES MINISTER URGES INCREASED PENALTIES FOR FOREIGN VESSELS FISHING INSIDE 12-MILE LIMIT

Canada should increase the penalties levied against foreign vessels caught fishing inside the 12-mile zone, says Fisheries Minister Jack Davis. He believes current maximum fines under the Coastal Fisheries Protection Act "are not a sufficient deterrent. We should be free. . .to extract greater penalties for repeated offenses." Maximum fines now are C\$5,000 for a summary conviction, or \$25,000 for conviction on indictment.

4 Vessels Fined

Davis said the maximums are outdated, but declined to spell out what he considered would be reasonable fines. The highest penalty levied this year, against a Japanese vessel caught inside the limit off British Columbia, was \$3,500 and loss of catch. Another Japanese boat and two Russian trawlers were fined \$2,500 each.

The Minister said the matter of increased fines would probably come up at the next sitting of the Commons in Ottawa. "At the very least we should bring all the legislation up to date," he added.

What Act Provides

Under the act, it is an offense for a foreign fishing vessel to be inside the limit, except in case of emergency. The act also provides for confiscation of fish, boat, and gear. "The confiscation of the catch inside territorial waters will continue," Davis said. (Canadian Embassy, Aug. 26.)

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SOVIET TRAWLERS SEIZED AND FINED

On August 4, a Canadian Fisheries Enforcement vessel seized 2 Soviet medium side trawlers 9.4 miles off the Canadian coast. Both vessels were within the 12-mile limit, near Cleland Island, west of Vancouver Island. The captains and crews were arrested,

and the 'Gherman Titov' and the 'Kuzachin' escorted to Victoria, B.C., for inspection and legal charges. Canadian law allows a maximum fine of C\$5,000. The vessels may be confiscated.

Captains Fined

On August 11, the Victoria Court fined each captain C\$2,500. Both pleaded guilty, blaming their violation on nets threatening to foul the propellers and the strong onshore current. Both also claimed that Soviet vessels have standing instructions to remain a minimum of 1.5 miles seaward of the 12-mile limit. Although no fish were found on board, the Court contended that the vessels were preparing to fish because their nets were in the water. The Canadian press noted that this was the first time Soviet fishermen had been found guilty of fishing illegally in Canadian waters. (U.S. Consulate, Vancouver, Aug. 4-11.)

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SALMONID IMPORTS RESTRICTED

A new Canadian law prohibits imports of live or dead salmonids or salmon eggs, unless they meet specific requirements, to protect against the spread of disease. Similar legislation became effective in the U.S. in mid-1967.

The New Law

The Canadian legislation defines 'salmonids' as fish of the family Salmonidae. Live or dead salmonids, or salmonid eggs, may be imported only if (a) they have been processed by a method that destroys the protozoan 'Myxosoma cerebralis' and the virus causing viral hemorrhagic septicemia; or (b) they are accompanied by a certificate, signed by a fisheries pathologist in the country where the fish were caught, stating that the fish or eggs are free of 'Myxosoma cerebralis' and the viral hemorrhagic septicemia virus. A specimen of the pathologist's signature must be filed with the Department of Fisheries and Forestry in Ottawa.

The regulations do not apply to salmonids caught in the wild in North America. ('Fisheries Council of Canada Bulletin,' July-Aug.

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Canada (Contd.):

KELP PROCESSING STARTED IN BRITISH COLUMBIA

A 1,000-ton kelp cutter vessel has been launched and a plant built at Masset on Canada's Queen Charlotte Islands to process 40,000 short tons of kelp this year and 200,000 tons in 1970.

The product will be algin, used in ice cream, chocolate milk, cheese, icings, salad dressings, candy, puddings, aspirin tablets and other pharmaceuticals, paint, tires, food packages, and adhesives. Also produced will be kelp meal for fertilizer, animal feed, and for humans.

The New Plant

At the new plant, chopped kelp will be pumped from the harvesting vessel into two 100-ton-capacity storage tanks. From there it will be washed in fresh water and fed into shredders. The shredded kelp will be led into a hot air stream. A collecting cyclone there will drop the diced kelp into a 50-ton silo. From the silo the kelp will be ground and bagged.

Storage capacity of the warehouse is 2,000 tons of bagged kelp meal in pellets.

Each ton of wet kelp harvested will produce two 100-pound bags of kelp meal; 2,000 pounds of dried kelp meal are required to extract 400 pounds of algin.

Canadian Market Yet

According to the British Columbia Research Council, the market for alginates in Canada has not been established. Gross sales of seaweed colloids in the U.S. have been estimated at \$10-\$20 million a year. (Sea Harvest and Ocean Science, Aug.-Sept.)

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FIRST-HALF 1969 MARITIME PROVINCES' LANDINGS ABOUT SAME AS 1968

Landings in Canada's Maritime Provinces for the first-half 1969 were 427 million pounds worth C\$34.4 million. Statistics for the same period of 1968 were 431 million pounds, worth C\$33.3 million; for 1967, 299 million pounds worth C\$25.3 million.

June 1969 Catch

June 1969 landings were 140.4 million pounds worth C\$11.5 million. Included were 51.6 million pounds of groundfish, C\$2.5 million; 73.1 million pounds of pelagic and estuarial species, C\$7.1 million. The quantity and value of the June catch were above June 1968 by 27.4 million pounds and C\$2.3 million. The catch also was above the 3-year (1966-1968) June average by 35.8 million pounds and C\$2.8 million.

Species & Vessels Used

During June, landings of cod, redfish or ocean perch, flatfish, mackerel, herring, swordfish, scallops, and lobsters were above the 1966-1968 June average; landings of haddock, halibut, pollock, and salmon were below the 3-year average.

Landings by trawlers and draggers over 70 feet long totaled 29.1 million pounds. Their catch represented 53.7% of groundfish landings and 85.8% of scallop landings. (Department of Fisheries & Forestry, Halifax, N.S., July 24.)

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FISHING RETURNS TO NORMAL IN NEWFOUNDLAND'S PLACENTIA BAY

Normal fishing resumed in Newfoundland's Placentia Bay, Jack Davis, Canada's Fisheries and Forestry Minister, announced. Phosphorus pollution from the plant at Long Harbour forced closure in early May of a large Bay area. The fishery was reopened June 16. Since then, the Department bought all fish.

The area's fishery products have been declared safe for human consumption. The Department's purchases were scheduled to end July 12. Its 'buy program' permitted smooth transition to normal operations.

Fish Tested

All fish at time of closure were bought by the government and destroyed. Fish caught after the reopening on June 16 have been purchased and held by the government to permit exhaustive tests by the Food and Drug Directorate of Department of National Health and Welfare. (Canadian Dept. of Fisheries and Forestry, July 1.)

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EUROPE

United Kingdom

LARGER FISH SUPPLIES EXCEED DEMAND

Britain's deep-sea fishermen increased their catch in 1968, but supply was not matched by demand. The White Fish Authority (WFA) announced this in its report for the year ended March 31, 1969.

All 3 sections of the deep-sea fleet increased landings. But only the middle-water operators escaped a drop in revenue. The average value of landings by deep-sea vessels declined more than 3%.

There are 3 categories of vessels in the deep-sea fleet: distant-water (more than 140'), middle water (110' to 140'), and near water (80' to 110').

Deep-Sea Fleet Declined

During 1968, the deep-sea fleet lost 34 vessels. WFA approved only one grant to construct a vessel more than 80 ft. long. Its report states: "It is to be hoped that improved profitability, assisted by the new subsidy arrangements, will encourage owners to undertake new building during the coming year."

Inshore Fleet

For the inshore fleet, it was a more favorable year. Landings were slightly up. The average value was 5% above 1967. One seiner and 63 trawlers were added to the fleet.

Fresh & Frozen White Fish

In 1968, supplies of fresh and frozen white fish, excluding shellfish, were 929,559 metric tons worth US\$175 million. Of that, imports were 165,966 tons valued at US\$44 million. Compared to 1967, supplies increased 36,311 tons and value US\$5.7 million; increased imports accounted for 20,760 tons worth US\$4.6 million.

Of 383,000 tons used for fish meal, 232,200 tons were offal, 1,600 tons condemned fish, and 59,000 tons surplus fish with no buyers.

Fish Exports

Fish exports rose more than 6,000 tons (21%). This was an increase of 22% in value to US\$21 million. Shellfish landings worth US\$11.6 million, compared with US\$10.6 million for 1967.

Loans to the industry during 1968 worth US\$1.3 million. These included US\$1 million for construction and replacement of motor vessels of inshore vessels. US\$355,000 went for processing and ice plants. Gross expenditures on grants for vessels were US\$8.6 million. (Charles Barker City Ltd., June 24, 1969)

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RANGER CO. PLANS INCREASE IN TRAWLER FLEET

If fleet-expansion plans of Ranger Fish Co. of North Shields are approved by the White Fish Authority (WFA), a Lowestoft shipyard will get the most valuable single order yet placed by a British trawler owner. The order is for four 215-ft.-long factory stern trawlers.

The firm already has 3 factory trawlers. It has been considering an increase. WFA approval is necessary to get the 35% building grant. In this case, it would amount to more than \$2,400,000. This probably would be spread over the 2- to 3-year building period.

The Ranger Fleet

The 3 vessels in the Ranger fleet were built in 1965 and 1966. They are small factory trawlers 171 ft. long with a fish hold capacity of 13,000 cu. ft. In the 3½ years since they first entered service, the firm has accumulated considerable experience. Its dock has been modernized. It has put up a cold storage room able to hold 800 metric tons of fish landed. Fillet packs ready for distribution to fish processors.

Factory Trawler Operations

While the trend in other large British trawler ports has been towards the wharf fish freezer, North Shields now seems destined to become the base of an efficient factory trawler operation. This includes

United Kingdom (Contd.):

inger Training Center at the fish quay, where recruits are given instruction in specialized work aboard the factoryship. ('Fishing News,' May 23.)

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SCOTTISH BOARD HAS INVESTED \$3.6 MILLION IN FISHERIES

The Scottish Highlands and Islands Development Board reports that it had invested \$3.6 million in the fishing industry since Nov. 1965; \$485,854 in grants; \$3,083,926 in loans, and \$48,000 in equity participation. The investment has provided 850 jobs, half sea-going.

About \$1,965,600 directly assisted vessel purchase; the remainder went to shore-based projects.

Board's Report

The Board assisted catching, ancillary trades, processing, and fish farming.

Of the 24 new vessels approved--19 for the Western Isles fleet--15 had been launched and were fishing; 5 were under construction. Sixty-two fully experienced fishermen had been helped to buy secondhand boats. Although these have a shorter working life, they created jobs at a lower overall cost than most other assistance.

The Board helped purchase 10 new 16-ft. seaweed boats. Their yield raised productivity of the 3 processing factories in the Western Isles by an estimated 15%.

The Board approved building 20 "dual purpose vessels"--lightly built boats up to 35 ft. which can be used for creel-fishing, tourist trips, sea-angling, or short-distance ferrying. Seven of these had gone to Caithness County because of the great interest in sea-angling there.

Ancillary Trades

Before the Board adopted its various schemes, the boatyards had been limited basically to their local markets. The problems of transport, cost, and basic communications had worked against expansion. Now the market extends to all 7 crofting counties. The \$336,000 invested provided 99 jobs.

Thirty vessels, 28 under 35 ft., had been built, or were on order. Help to other ancillary industries totaling about \$117,600 involved 38 jobs, including marine engineering and ice-making. ('Fishing News,' May 23.)



Norway

STATE SUPPORT FOR FISHERIES IS INCREASED

Increased state support to the Norwegian fisheries for June 1, 1969, through May 31, 1970, has been approved unanimously by the Storting (Parliament). As in previous years, the bill was based on negotiations between the Norwegian Fishermen's Union and the Ministry of Fisheries. State subsidization of fisheries is estimated at US\$35.7 million for the year ending May 31, 1970. This does not include the extraordinary support measures for the stockfish industry previously adopted.

1969/70 Aid High

The 1969/70 fisheries subsidies are US\$3.5 million higher than those originally voted for 1968/69. However, including aid to the stockfish industry (US\$4.2 million), fishery payments were officially estimated at US\$36.4 million in 1968/69.

Other Aid

The Storting also approved a US\$2.8 million loan arrangement for owners of fishing vessels hit hard by failures in major fisheries in 1968/69. A similar arrangement of US\$1.4 million was voted for herring curers affected by the complete failure of this year's winter herring fishery. (U.S. Embassy, Oslo, July 1.)

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USES MORE SEA WEED

A new factory using sea weeds as raw material is operating near Haugesund in southern Norway. Owned by Protan & Fager-tun, it will produce 1,000 metric tons of alginate a year. Using its older factory and the new one, the firm now can produce 15% of world's need for alginate. It is the world's largest company of its kind.

Norway (Contd.):

The Firm's Operation

The firm has a new experimental trawler and 8-10 other vessels gathering sea weeds for alginate production. It employs 300 persons; 1,500 other persons gather sea weeds.

As much as 95% of production is exported. The textile industry is one of the largest buyers of alginate. It uses the product to thicken and print textiles with special colors. The food industry, another important buyer, uses it as an ingredient in jelly, instant desserts, and ice cream. The paper industry, a major customer, uses it in surface treatment of paper and cardboard.

Exports to developing nations are increasing. Eastern Europe also is becoming a large customer. The company is working to increase sales to the U.S. ('News of Norway,' June 23.)

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POLAR COD FISHERY DEVELOPS

Norway is rapidly developing a new industrial fishery for polar cod in Arctic Ocean. These fish are suitable for meal and oil--not human use. So far, 20 to 30 boats have caught 2,325-2,790 metric tons. Biggest single catch was 558 metric tons. ('News of Norway,' June 23.)

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FROZEN FISH EXPORTS TO U.S. RISE

Norwegian exports of frozen-fish products to the U.S. are expected to be 25,000 to 30,000 metric tons this year. Annual exports before 1967 were about 7,000 tons.

Partly responsible is Nordic Group, a combination of 21 companies in the frozen fish business. In its first year of operation, it has exported 8,000 tons.

Total Nordic Group exports for 1969 are expected to be 12,000 tons, nearly half national total. A large part of export products, such as "haddock fillets," had not been produced in Norway. ('News of Norway,' June 23.)



Denmark

INDUSTRIAL FISH LANDINGS
DOWN IN EARLY 1969

Unusually poor weather caused a considerable drop in industrial fish landings in early 1969. In 1968, the fishery had started on January 2, but this year it did not begin until April. Landings in first 4 months were 194,000 metric tons, a drop of 68,000 tons from the 262,000 landed in same period 1968. Even if the remainder of the year should prove unusually profitable, the loss can not be made up. The largest decrease was in April, when catch reached only about 35,000 tons. It had been 77,000 tons in April 1968.

Fish Meal & Oil

Fish meal and oil production dropped markedly as a result of the light landings. Exports of herring meal were 62,500 tons worth US\$890,000 in first 5 months 1968 ('Børsen,' July 15)



Greenland

HER FIRST MODERN TRAWLER
WILL TRAIN LOCAL FISHERMEN

Greenland's first modern trawler 'Nuk' will help Eskimos become up-to-date fishermen. Nuk, registered in Godthaab, will be training vessel. Initially, she will be manned by Faroese who will teach the Eskimos to operate her.

Cost and Construction

The vessel cost about US\$1.2 million, including US\$360,000 for equipment. She is 16 ft. long, 31 ft. wide; depth to main deck is 1 ft., deadweight 433 gross tons, and speed 15-16 knots. Constructed as a shelter decker with elongated afterend, she is equipped with trap nets and floating trawl. Before she sailed to Greenland, tests were made with the 'net-sonde' equipped trawl.

Processing Equipment

The 300-cubic meter storage compartment below is insulated. The work deck has 9 hydraulic movable bleeding tanks, gutting

Greenland (Contd.):

...bles, cutting and gutting machines, wash-
...es, and cold-storage equipment. Conveyor
...als connect the bleeding tanks to the storage
...om. The fish hatches and stern gate move
...draulically. Final processing will take
...ce at land-based plants.

Operating Plans

The vessel will operate primarily on fish-
...grounds off Greenland's west coast, mak-
...g relatively short trips. Depending on the
...ccess of the experiments and training,
...er Nuk-type trawlers may be constructed.
(Fiskaren, ' May 5.)



Iceland

PROMINENT ICELANDERS VISIT U.S.

The Icelandic Freezing Plants Corp., one
...the country's major fish-exporting firms,
...ganized a visit to the U.S. in late Sept. for
...out 90 persons. The trip marked the 25th
...niversary of the Coldwater Seafood Corp.
...Scarsdale, N.Y., and Cambridge, Md., the
...S. affiliate.

Prominent Visitors

Participants included officials of the Min-
...try of Fisheries and its Economic Institute;
...ournalists; representatives of the Central
...ank and 2 principal commercial banks; and
...rectors of the 60 fish-processing plants
...at are corporation members. (U.S. Em-
...assy, Reykjavik, July 24.)



West Germany

TRADE MINISTER OUTLINES FISHERY POLICIES

The West German Minister of Trade has
...sued this summary of his nation's fishery
...licy and its concern with the proposed
...uropean Communities (EC) fishery policy:

"West Germany's Common Market part-
...ners are today already large purchasers of

German fisheries products and the trade with-
...in the EC will expand even more as the re-
...maining barriers are removed. At the pres-
...ent time, we can not foresee the effects of
...the planned market organization for fisheries
...products. The Federal Government is skep-
...tical toward the EC Commission's proposals
...with respect to a common fisheries policy be-
...cause such proposals would imply a centrally
...directed structural policy and a complicated
...system for protection of prices based on
...public funds. The proposals are to a con-
...siderable degree based on already existing
...market arrangements--far from having been
...successful in all aspects--and therefore are
...subject to an extensive revision. Before con-
...clusive evidence of such a revision is reached,
...we cannot determine any new market arrange-
...ments."

Wants Simple System

"The Federal Government advocates a
...simple and liberal system which should be
...limited to the most important fish species.
...We must consider the Regional differences
...in the fishery of the Atlantic Ocean, the Medi-
...terranean, and the coastal waters of the As-
...sociated African states. The responsibility
...of the fishing industry must be based on ef-
...forts to stabilize the market as well as the
...prices. Therefore, establishment of producer
...organizations should be encouraged. The
...Federal Government is a definite adversary to
...public intervention efforts in the fisheries
...sector because such efforts after experiences
...with market support under the German fish-
...eries law lead to a large-scale fishery with-
...out consideration to demand."

Recommends Coordinated Efforts

"Of particular importance for a well ar-
...ranged and outlined marketing place for fish-
...eries products is unity in quality norms,
...packaging, sorting, etc. Because EC is in
...need of fisheries products, the aim should be
...toward achieving liberal arrangements in
...relation to their countries. While negotia-
...tions take place with the most important sup-
...plier countries, EC should stabilize unity ar-
...rangements of the reference price system,
...for example like those which have been
...practiced successfully in the herring trade
...between Denmark and the Federal Republic.
...In principal, the structural policy should be
...the private matter of each member country
...within a certain frame so that distortions in

West Germany (Contd.):

competition may be avoided. Through closer cooperation, the possibilities of creating more effective fisheries protection and research work will be greater. A coordination of efforts from each member country would strengthen the EC's economic and political importance in international unity. Aside from some unavoidable transitional difficulties, the Common Market would generally offer advantages to the German fishing industry."

Optimistic About Future

In conclusion, the Minister of Trade said the German fishing industry is adjusting to changed conditions. He is encouraged by its knowledge and willingness to face future problems. "In view of the fishing industry's position to the problems, I find it easy to recommend assistance supplementary to one's own efforts." ('Fiskets Gang,' May 8.)



France

THEY ARE EATING MORE FRESH FISH

Frenchmen are the most voracious fresh-fish eaters in the European Community (EC), according to the Community's statistical office.

In 1967, Frenchmen averaged 33.9 pounds of fresh fish, compared with 27.1 pounds in Belgium, 25.1 pounds in Italy, and 21.8 pounds in Germany and the Netherlands. In 1967 the Community averaged 26.7 pounds per person, compared with 23.8 pounds in 1960.

1967 EC Landings Down

In 1967, landings of fish by Community fleets were slightly lower than in 1966. This resulted largely from a 10% decline in herring catches.

This decrease was offset partially by an 11,000-ton rise in German cod catches which were 80,000 tons in 1967. ('European Community,' July.)



USSR

BLAMES JAPANESE FOR DEPLETING PACIFIC HERRING & FLOUNDER

Herring and flounder stocks off Soviet Far-Eastern shores--traditional grounds of Kamchatka and Sakhalin--are in jeopardy because of intensive, uncontrolled Japanese fishery for immature herring and groundfish. This was stated bluntly by the official organ of the Soviet Fisheries Ministry, 'Rybn Khoziaistvo,' No. 6, 1969.

The situation has become so grave that people whose livelihood depends on these species face serious economic consequences unless drastic measures are taken to save the resources.

Soviet Suggestion

The Soviets suggest these steps as a minimum remedy: 1) Stop 1969 fishery for immature herring in Shelikhov Bay (Okhotsk Sea, west of Kamchatka) north of line from Cape Utkolokskii to Cape Tolstoy; stop this fishery in Karaginskii Bay (Bering Sea, east of Kamchatka) north of line from Cape Oliutorskii to Cape Ozernyi. 2) Discontinue flounder and other groundfish fishery off western Kamchatka--between 53° and 58° N lat. at depths less than 100 fathoms in winter and less than 50 fathoms in other seasons.

Unilateral Soviet measures restricting their herring and flounder fisheries are no longer sufficient to save resource; Japanese cooperation is imperative.

Another Soviet Complaint

The Soviets also complain about preemption of the fishing grounds: 70 Japanese vessels in Shelikhov Bay had gill nets extending over 60 miles in May-June 1967; over 140 Japanese vessels in May 1968 had nets extending over 250 miles in Korf and Anapka Bays.

* * *

SCIENTISTS PESSIMISTIC ABOUT FUTURE OF NORTH SEA HERRING STOCKS

Scientists of the Soviet All-Union and Atlantic Fisheries and Oceanography Research Institutes (VNIRO and ATLANTNIRO) warn that prospects for the North Sea herring fishery are "bleak" unless--(1) the immature

SSR (Contd.):

Proposes Water Tax

He suggested the solution would be to end "free water" and begin to tax industrial enterprises for the use of water. He proposed "differentiated taxes." Plant managers would be forced to speed construction of water-purification facilities. Price of water would vary from region to region and depend on availability and demand for water.

Suggests New Control Agency

Finally, the author calls for formation of a new ministry-level agency to deal with pollution problems.

One major beneficiary of any new regulations would be Ministry of Fisheries. For years, it has led the fight against waste-discharging enterprises on river shores and coasts of Caspian and Black Seas.

Purification Expensive

Research and planning groups are concentrating on introducing new techniques for water purification. Building costs of waste-processing facilities are extremely high--sometimes 30% of original construction cost of a plant. Costs run as high as 31 to 36 U.S. cents per cubic meter of waste water.

* * *

OIL-OXIDIZING BACTERIA FOUND IN WATER POLLUTION RESEARCH

The Ukrainian Academy of Sciences Institute of Hydrobiology at Kiev has published a paper on microbial oxidation of oil products in the Danube. Soviet scientists isolated and identified cultures of oil-oxidizing bacteria (machine and various mineral oils); most were genus *Pseudomonas*. The distribution and oxidizing properties of 26 species were studied. The capability of some species to oxidize hydrocarbon compounds of oil was found for the first time. ('Gidrobiologicheskii Zhurnal,' Vol. 5 (No. 3) March.)

* * *

erring fishery is discontinued; (2) the fishery for maturing herring is strictly controlled; and (3) bottom trawling for mature herring on spawning grounds during larvae and fry reproduction and growth is reduced or stopped.

Soviets Say Stock Overfished

The Soviets say the stock is overfished. Any increase in effort will have negative effect on quality, quantity, and biology of North Sea herring populations.

The Soviets blame the 1964-66 expansion of Norwegian purse seining for depleting the maturing herring of the 1963 year-class. The harvestable 1960-class that replenished stocks in 1963-64 declined considerably in 1966-67; the abundant 1963 year-class fished intensely in 1964-66 lost commercial value by 1967-68. This is reflected in North Sea herring catches, which increased from 82,000 metric tons in 1963 to over 1.4 million tons in 1965; the catches dropped to 16,000 tons in 1968.

Soviet catch data are exclusive of Bløden Bank, where the West Germans and Danes annually take 100,000 tons of immature herring.

Further declines in North Sea herring fishery must be expected. ('Rybnoe Khoziaistvo,' No. 5, 1969.)

* * *

GRAPPLES WITH WATER POLLUTION PROBLEMS

A Soviet official writing in 'Izvestia' on July 7 called public attention to water-pollution problems caused by industrial waste. He decried uncontrolled dumping of waste that endangers fresh-water supplies and produces "irreversible" biological changes in fresh-water and marine life.

Exhortations, even legal regulations prescribing use of water per unit of factory output, are being ignored, the official said.

USSR (Contd.):

KRILL PASTE IS SUCCESSFUL
ON MOSCOW MARKETS

The All-Union Fisheries and Oceanographic Research Institute (VNIRO) has developed a commercial paste from Antarctic krill "rich in proteins, vitamins, and minerals." The paste, under the brand name "Okean," is selling well in Moscow. It has a pleasant taste and aroma, somewhat like shrimp.

According to VNIRO, the paste has this chemical composition: moisture 65-75%; fats 3-10%; nitrous substances 15-20%; carbohydrates 2%; ash 1.5-3.0%. It also contains potassium, iron, manganese, zinc, etc. Analysis by VNIRO's Laboratory of Fisheries Technology reveals that krill is high in essential amino acids like arginine (9.1%), lysine (12.8%), leucine (16%), and phenylalanine (6.8%).

Fishing & Processing Developments

Other Soviet sources report that Antarctic krill stocks are "practically unlimited". VNIRO is developing a "special trawl for krill fishing"--and a mechanized processing line to produce a semiprocessed krill product with 50% protein content.

Promotion

'Rybnoe Khoziaistvo,' No. 5, 1969 (official organ of the Soviet Fisheries Ministry) carries a full-page ad recommending use of krill paste in sauces, cheese spreads, and hot dishes. The Ministry also recently mixed krill paste with cheese (10% krill, 90% cheese) and claims the product is selling rapidly in Moscow food stores. Its brand name is "Korall."

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FISHING FLEETS NOW
BASED ON CANARY ISLANDS

Spain has agreed to allow Soviet fishing fleets in the Southern Atlantic to base at the port of Santa Cruz de Tenerife in the Canary Islands. A 'Manchester Guardian' correspondent reported from Madrid that details were worked out early this year, but revealed only in early August. At that time, a Soviet delegation at Santa Cruz signed the contract to use the port's facilities.

Equality With Japanese

The agreement will put the Soviets on equal footing with the Japanese, who have operated about 100 fishing vessels for several years. It has been estimated that over 200 Soviet fishing and support vessels are in the southern eastern Atlantic. ('Washington Post,' Aug. 11.)

The official Spanish news agency CIFRA announced "semiofficially" that the Soviets were scheduled to begin using Santa Cruz before the end of August.

* * *

EXPORTS HERRING TO JAPAN

Negotiations to import Soviet herring were concluded in early April by the 11-company Japanese Corporation for Import of Soviet Herring and DALINTORG (Soviet Far Eastern Trade Office).

The USSR will export 7,000 metric tons of fresh and frozen herring to Japan in 1969. In return, she will import fishing gear, fish finders, work clothes, fruits, and household materials. It was the largest transaction for this type of trade made by the two countries.

Prices

According to the Federation of Hokkaido Fisheries Cooperative Association, the import price for 4,000 tons of fresh herring was set at US\$125 a metric ton, or \$3 above the 1968 price. The fish are to be received by Japanese carrier from Soviet vessels off the fishing grounds. Frozen herring (3,000 tons) will be delivered to Wakkanai at \$220 per ton, or 25 dollars above the 1968 price. Total 1969 imports would be 2,500 tons above 1968's.

Alaska Herring

The herring import quota is 8,000 tons for this year. To fill the balance, Mitsubishi Shoji began negotiations to import 1,000 tons of frozen herring from Alaska. The 1,000 tons at \$200-210 a ton were scheduled to be imported into Japan by the end of May or early June. ('Minato Shimbun,' Apr. 8.)



LATIN AMERICA

Cuba

REPORT ON FISHING INDUSTRY TRENDS

During the 1969 Spring Fair at Leipzig, East Germany, the correspondent of the British 'Fishing News International' interviewed the Cuban delegation.

Some interview highlights:

(1) Cuba and East Germany seem bent on increasing cooperation to develop the Cuban industry. E. Germany may possibly replace some Soviet fishery aid Cuba has received over the past 9 years;

(2) Cuban shrimp fishing will be concentrated in offshore waters, off Guyanas, and the Gulf of Mexico;

(3) Fishing vessels delivered to Cuba by E. German shipyards will be paid for by Cuban fishery exports (E. Germans especially want tuna);

(4) Processing and freezing capacity of Cuban industry has quadrupled in past few years;

(5) A School of Fishing to provide pupils and apprentices for expanding fleets has been organized. Over 5,000 pupils with elementary education are attending classes. A new Fisheries College trains captains, navigators, engineers, technologists, and electronics specialists;

(6) Cuba is assisting Guinea. It is running a training school at Conakry. Cuba also plans to aid fishing industries of developing countries in Central and South America, but details were not disclosed.

Buying Vessels

In July 1969, the Cuban high-seas fleet had 143 vessels: about 30 were fishing tuna; 90 were new shrimp trawlers bought from Spain. On order are 5 sternfreezer trawlers and 15 'fish meal cutters' from E. Germany, 30 shrimp vessels from France, and a few vessels from Spain.

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SALTED COD INDUSTRY DEVELOPS

Dried and salted cod, a traditional dish in Cuba, is an important factor in supplying the protein needs of the people. Heretofore, cod was imported, but now Cuba is developing her own fisheries and establishing her own salting industry.

FAO Aid

The government of Cuba has asked for FAO assistance to improve all areas of cod production--catching, preparation and salting, and product distribution. Salted cod is produced primarily for domestic consumption; other Cuban fisheries cater to the export market.

Production

Annual capacity of existing salted cod plants in Cuba is about 5,000 metric tons; most is produced by one plant in Havana. With a new plant under construction in Antilla, it is hoped that production will reach 20,000 metric tons. The new plant production will equal current imports. ('Industrias Pesqueras,' Apr. 15.)



Chile

FISH-MEAL PRODUCTION DECLINED IN JAN.-APR.

North Chile's anchovy catch and fish-meal production continued to decline from January through April. This followed the trend of the previous 2 years.

For the first 4 months of 1969, the 4 plants in Arica averaged 15 working days per month; the 9 Iquique plants 16 days per month; and Antofagasta averaged 10, 17, and 22 working days per month.

Protein content of anchovy meal averaged 65%. Prices c. & f. per metric ton were: US\$132-146 in January; US\$142-145 in February; US\$130-140 in March; and US\$110-132 in April. (Instituto de Fomento Pesquero, Informe Mensual Nos. 2, 3, 4, 1969.)



ASIA

Japan

1970 FISHERY BUDGET WILL BE LARGER

The Japanese Fisheries Agency prepared a budget asking for about US\$138.9 million for fiscal year 1970 (Apr. 1970-Mar. 1971). This was over \$44 million more than the \$94 million budgeted for FY 1969. The budget request was scheduled to be submitted to the Finance Ministry in early September.

1970 Budget Items

Important items in the 1970 budget and funds requested are: (1) vessel construction and remodelling, \$2.4 million; (2) a new program of cultivating deep-sea fishery resources--salmon, tuna, crab and euphausid--\$342,000; (3) fishing ground development: \$892,000 for operating 2 purse seiners in northwest Pacific and off New Zealand, \$212,400 subsidy for saury survey in Pacific east of 180° long., \$181,400 for tuna research, and \$878,400 for 2 trawl explorations off New Zealand and in northeast Atlantic; and (4) fishery imports countermeasure, \$16,100. This would establish an import system to cope with impending liberalization of fishery imports. ('Shin Suisan Shimbum,' July 28.)

* * *

NEW DISTANT-WATER GROUNDS MAY HELP DEPRESSED SAURY FISHERY

The Japanese coastal saury fishermen, who could not make money when catches were very good, are now poor because they can't catch enough fish. Saury landings peaked in 1958 with 575,000 metric tons. Later, landings started to decline and, in 1968, slumped to a record low of 130,000 tons.

Cause of Decline Unknown

The fall-off is attributed by some to heavy Soviet fishing off Japan, but Fisheries Agency data show the Soviet catch also has not been good. Despite continued investigations of coastal saury resources, the cause of decline is unknown. Saury fishermen fear there is no hope for recovery.

Tokyo Aids Fishery

In April 1969, to help the depressed fishery, the Fisheries Agency launched a US\$50,000 resource survey program to develop new grounds. Six survey cruises were scheduled in offshore waters. However, the industry feels the effort is inadequate. It wants to conduct a separate survey over a much wider Pacific area with major fishery firms. Some large firms have offered to cooperate.

Firms Seek New Grounds

Meanwhile, some leading firms are seeking to develop new grounds in the eastern Pacific. Nihon Suisan has plans to conduct saury fishing in the eastern Pacific and is optimistic about distant-water operations. If downward catch trend continues, the firm believes, the price would remain sufficiently high.

For example, medium saury of 50-60 count per 7.5-kilogram (16.5-pound) box would bring \$2.78-3.33 on food-fish market; catches of 130-140 count per 10-kilogram (22-pound) box could be sold for \$4.16-5.56 as bait fish.

If Nihon Suisan's expedition develops new grounds for enough home-based vessels, it will help stabilize Japanese saury fleets.

Year	Catch	Value
	Metric Tons	US\$1,000
1968	130,200	18,288
1967	220,087	29,455
1966	241,840	29,000
1965	231,377	26,588
1964	210,689	17,572
1963	384,548	30,911
1962	483,160	18,355
1961	473,792	28,722
1960	287,071	27,900
1959	522,567	27,570
1958	575,087	19,388

Source: 1958-67--Ministry of Agriculture and Forestry Statistics; 1968--Japan Saury Association.

Experimental Fishing Planned

Nihon Suisan applied to Fisheries Agency for a permit to fish experimentally for saury with stick-held dip nets in eastern Pacific from early July 1969. The 538-gross-ton

Japan (Contd.):

rawler 'Shinano Maru' and the 84-ton saury vessel 'Koshu Maru No. 8' would spend 1½ months in area extending southeast from Aleutian Islands to southern coast of California. (One trade journal reported the vessels would fish from July until Dec. with target of 280 tons.)

The Agency reportedly intended to license the operation. The saury fishing industry indicated it would support the venture if it would not affect adversely the coastal saury fishermen and would develop new grounds for them. Nihon Suisan has agreed to make all data available to the industry and to take aboard a representative.

Nichiro Interested

Nichiro Fishing Co. also informed the Agency of its desire to explore saury resources in eastern Pacific. It is considering using three 500-ton trawlers. ('Suisan Shuho,' June 15, and 'Suisancho Nippo,' June 19 & 20.)

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SALMON MOTHERSHIPS
REACH 1969 QUOTA

The 11 Japanese salmon motherships in Area A (north of 45° N. lat.) of the North Pacific attained their 1969 fleet target of 44,000 metric tons in late Aug. By end of Aug., all fleets had returned to Japan.

By species, the fleet catches averaged 30% reds, 30% chums, 30% pinks, and 10% silvers and kings.

Compared with 1967

Compared with the previous good pink salmon year of 1967, pink salmon catches were up, but red salmon landings were down sharply. In 1967, the fleet catches averaged 46% reds, 32% chums, 20% pinks, and 2% silvers and kings.

The 1969 high-seas salmon fishery was hampered by stormy weather and wide dispersion of fish because of cold-water masses. ('Suisan Keizai Shimibun,' Aug. 7.)

* * *

CANNED RED SALMON
EXPORT PRICES RISE

On Aug. 1, 1969, the Japan Canned Salmon and Crab Sales Co. adopted new export prices for fancy-grade canned red salmon to the United Kingdom.

The new prices (c.i.f. plus commission) are: US\$24.20 a case for 48 ½-pound cans, and \$13.30 a case for 48 ¼-pound cans. They are about \$5.60 and \$1.00 a case above 1968 prices and new highs.

Why Increase Adopted

The increase was adopted for 2 reasons: 1) to make up for unreasonably low export prices set in 1968; 2) to cope with reduced canned red salmon production by mother-ships. Their catches this year were largely frozen because of strong domestic demand. ('Suisan Keizai Shimibun,' Aug. 5.)

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CANNED WHITE TUNA
STOCKS EXHAUSTED, PRICES RISE

The Tokyo Canned Tuna Sales Co. had sold all its canned white meat tuna by mid-June as a result of heavy buying by major firms. Since the new business year began April 1969, the Sales Co. received from packers canned white-meat tuna consignments of about one million cases. About 600,000 cases were sold during April, May, and early June; the remaining 400,000 cases were sold in mid-June in one week. Canned light-meat tuna stocks dropped to several thousand cases.

Why Sudden Mass Buying?

On June 24, the Sales Co. directors met to assess situation and to develop counter-measures. They stopped sales of future consignments temporarily until a sufficient supply could be accumulated. Then they would renew selling price and method of sales. General opinion is that trading firms, noting unpromising summer albacore fishery, feared possible shortage and bought early to meet sales targets.

Some Higher Prices

On June 3, 1969, the Sales Co. increased prices for two can sizes of canned white meat

Japan (Contd.):

tuna packed in brine: US\$0.28 for 66½-oz. 6's; \$0.50 for 6.6-lb. 6's; and \$0.45 for chunk white meat tuna in 6.6-lb. 6's. The new prices, exwarehouse Shimizu, are:

Tuna in Brine	\$/Case
	Exwarehouse
White meat solid, 66½-oz. 6's	12.34
White meat solid, 6.6-lb. 6's	21.17
White meat chunk, 6.6-lb. 6's	18.94

('Suisancho Nippo,' and 'Suisan Tsushin,' June 27.)

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CANNED FISH EXPORTS
TO WEST GERMANY INCREASE

In 1968, Japanese canned-fish exports to West Germany totaled 13,679 metric tons worth about US\$10.9 million. This was an increase of 2,126 tons and \$1.6 million over 1967, and 2,257 tons and \$1.86 million over 1966.

Canned Tuna & Mackerel

Canned tuna exports to West Germany in 1968 were 94% of her total value of canned-tuna imports. This compared with 91% in 1967 and 83% in 1966. Canned-mackerel exports to West Germany in 1967 and 1968 (none exported in 1966) were 65% of the value of her imports of that product. ('Suisan Tsushin,' July 26.)

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TO SURVEY U.S. CANNED
TUNA INDUSTRY

The Japan External Trade Organization, a government agency, is scheduled to survey the U.S. canned tuna industry in fiscal year 1969 (April 1969-March 1970). Major tuna packers in Terminal Island, Calif., and in Puerto Rico will be selected to gain better knowledge of the competitive power of U.S. canned tuna.

The survey will include case studies: (1) plant history, (2) importance to company of tuna-packing plant and its products, (3) source of its major raw materials, (4) manufacture of byproducts and development of new products, (5) cost study, and (6) sales network. ('Nihon Suisan Shimbun,' June 18.)

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CONTRACTS TO BUY
SHRIMP FROM CUBA

The Taiyo Fishing Co. recently concluded a long-term shrimp-purchase contract with Cuba. Reportedly it already has taken delivery of 600 metric tons worth about US\$500,000. The contract provides for purchase of 1,000-2,000 tons of Cuban shrimp and miscellaneous fish through a triangular trade involving a British agent.

Taiyo's Part

In return, Taiyo will export to Cuba fishing vessels and gear, port machinery, canning plants, and shrimp culture equipment; also it will provide technical assistance.

Cuba is promoting her fisheries. The shrimp contract is said to be aimed primarily at obtaining technical assistance for their development. ('Suisancho Nippo,' July 30.)

* * *

RESOURCE SURVEYS PLANNED
IN 6 COUNTRIES

To promote expansion of distant-water fisheries, the Japan Fisheries Association plans to send resource survey teams to six countries during fiscal year 1969 (Apr. 1969-Mar. 1970). Total cost is almost US\$144,900; the government is expected to contribute half.

The Surveys

The 6 countries are: Indonesia, New Guinea (Papua), New Zealand, Spanish Sahara, Mauritania, and Chile. ('Suisan Tsushin,' July 29.)



Thailand

BEGINS LARGE-SCALE
CARP BREEDING

Large-scale induced breeding of Chinese carp is beginning in Thailand. Several government fisheries stations, the University of Agriculture, and 3 private hatcheries have adopted the technique; about 1,500,000 fry have been produced in 1969. As a result, the market price of fry has dropped about 75%.

Thailand (Contd.):

Catfish Fry

The Bung Borapet and Chiangmai Fisheries Stations continue induced breeding of "Pangasius"--a large catfish greatly appreciated as food fish--and produced about 100,000 fry. Chiangmai Station also breeds "Tilapia gonionotus," a variety of carp; it produced about 500,000 fry. ('FAO Fish Culture Bulletin,' vol. 1, no. 3, Apr. 1969.)



South Vietnam

OFFSHORE FISHERY
TO BE DEVELOPED

An Offshore Fishery Development Project is now underway in South Vietnam. It is administered by the Food and Agriculture Organization of the United Nations (FAO) under the United Nations Development Program (UNDP). Total funding is US\$4.2 million--the U.S. contributes \$2 million, the Netherlands \$220,000, South Vietnam about \$33,000, and about \$1 million comes from the UNDP Special Fund.

Purposes

The project is to last 3 to 4 years. Its purposes are: (a) to conduct exploratory deep-sea fishing, mainly trawling for demersal--snappers, cuttlefish, shrimp, etc.--and pelagic species--tuna, mackerel, sardines, etc.; (b) to conduct exploratory coastal trawling and purse seining; (c) to study the commercial feasibility of introducing modern craft and fishing methods to exploit newly found resources; (d) to study current marketing problems, and assess prospects for marketing increased landings, and (e) to train Vietnamese fisheries staff and fishermen.

Survey Areas

A survey area has been designated in the South China Sea within the limits of South Vietnam's Continental Shelf. It has been divided into 3 sections, each corresponding to

a phase of the project. Phase 1 includes the area east and south of the Mekong Delta between 105° and 110° E. long., and 5° and 10° N. lat. This area has been divided into 105 grids, with 4 stations in each grid. Phase 2 involves the area south and west of the Mekong Delta in the Gulf of Siam. Phase 3 extends north of the phase 1 area along the east coast. At the stations, the vessels trawl, take depth soundings, measure water temperature, salinity, etc.

Project Vessels

The project requires 2 vessels. One will be needed for 3 years, another for 2, and a third for 1 year. The first is the 'Kyoshin Maru,' a 300-ton stern trawler chartered from the Japanese firm Kyokuyo Hogei. She arrived in December 1968 and operates out of Singapore because the Japanese Seamen's Union insisted that a non-Vietnamese port be selected as her operating base. The 'Hau Nghi,' a 120-ton trawler contributed by the Netherlands, arrived at Singapore in May. She, too, is based in Singapore. Upon completion of the project she will be donated to South Vietnam. The third vessel, considerably smaller than the first two, will be used for purse seining during phase 3. Phase 3 is scheduled to begin by January 1971.

Cruises Underway

Kyoshin Maru has completed 6 of 12 planned cruises in the first of the 3 survey areas. Her initial findings are very encouraging: several commercially important fishing grounds have been discovered. Even at this stage, studies seem to indicate both the economic and technical feasibility of developing South Vietnam's fishing industry to the point of doubling the yearly fisheries catch. It is now 400,000 metric tons. The training of South Vietnamese fishermen, fishery administrators, and specialists, however, is running behind schedule because of the general mobilization. (U.S. Embassy, Saigon, Aug. 5.)



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South Korea

MARINE CATCH ROSE OVER 11% IN 1968

South Korea's 1968 marine fisheries catch was 852,291 metric tons, 13.6% more than the 750,349 tons caught in 1967. In reporting these data, the Central Association of Fishery Cooperatives noted that Korea's marine catch growth rate has averaged 13.5% a year since 1962. ('Suisan Keizai,' April 24.)

Planned 1968 fisheries production, including fish culture, was 859,000 tons. Fish culture was to contribute 93,000 tons, or 11%. Actual marine catch in 1968 exceeded planned by 86,000 tons--more than 11.2%.

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S. KOREA TO SEND SURVEY TEAM TO NEW GUINEA

S. Korea plans to send a 3-man survey team to Papua, New Guinea, in Oct. 1969 for one month. The survey follows agreement on fishery cooperation between S. Korea and Australia during Korean President Park's visit to Australia in Sept. 1968.

Survey Objectives

The team will gather data on New Guinea's fisheries, production facilities, marketing and distribution systems to plan for cooperation between the 2 countries.

Speculation in Japan, also planning to send a team to Papua, is that S. Korea may be planning to form a joint venture with Australian interests. ('Katsuo-maguro Tsushin,' July 29.)

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DEEP-SEA FLEET IS EXPANDING RAPIDLY

The Republic of Korea's deep-sea fishing fleet has one of the fastest growth rates in the world. Between January 31 and July 1, 1969, the fleet increased by 19 units (16,926 gross tons) to 209 vessels (63,000)--a 36.5% increase.

Shing Hung Co. Joins Fleet

The largest increase, both vessels and tonnage, resulted from the entry of Shin Hung

Fisheries Co. into the North Pacific with 11 vessels (13,560 gross tons). Not all were new; 11 had been fishing shrimp off Indonesia unprofitably. Five new fishing vessels, and a new processing vessel, were bought from Japanese shipyards. The new vessels began fishing Alaska pollock in the Bering Sea in early June. Five gillnetters engaged in a short-lived salmon fishery in Bristol Bay.

Other Companies Active

Dae Lim Fishery Co., a second newcomer in the high-seas fishery, based one 820 gross-ton trawler at Las Palmas, the Canary Islands.

The Korea Deep-Seas Fisheries Co. expanded more than any other of the 18 South Korean companies already deep-sea fishing on January 31; it added 5 vessels and 1,760 tons.

Demersal (Bottom) Trawling

Demersal trawling, insignificant in January, had expanded eightfold by July. In January 1969, the government-sponsored Korea Marine Industry Development Corp. (KMIDC) was fishing bottom-living species with 2 trawlers (2,000 gross tons) based at Las Palmas. By July, 23 vessels (17,500 gross tons) were bottom fishing. Operations from Pusan, Shing Hung and KMIDC fish Alaska pollock in the North Pacific, and KMIDC and Dae Lim trawled from Las Palmas.

Tuna Fleet

The number of tuna vessels remained about the same--187 in January and 186 in July, but gross tonnage increased from 44,315 to 45,702. The Korean tuna fleet ranges to the world. Thirteen overseas tuna fleet bases were operational in July: American Samoa (about 70 vessels); Fiji Islands (18); New Hebrides (7); Freetown, Sierra Leone (2); Cape Verde Islands (11); Tema, Ghana (4); San Martin, West Indies (4); Abidjan, Ivory Coast (3); Las Palmas (10); Durban, South Africa (20); Tematave, Malagasy (9); Penang, Malaysia (6); and Fortaleza, Brazil (3).

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SOUTH PACIFIC

Australia

TIGHTENS SHRIMP STANDARDS

Health standards for both imported and exported prawns (or shrimp) have been tightened by new regulations at Federal and State levels.

In New South Wales, the Department of Public Health set bacteria limits for frozen shrimp from any source. In Canberra, the Department of Primary Industry set new standards for frozen green shrimp. The standards have been observed voluntarily for years by importers, who have been paying to have all consignments tested as a health safeguard.

Bacteria Standards

The new regulations define prawn or shrimp as crustacea of families Penaeidae or Palaemonidae. When cooked, prawn or shrimp on laboratory examination must comply with following bacteriological standards:

- (1) total plate count at 37° C. (96.8° F.) shall not exceed 500,000 per gram; and
- (2) count of *E. coli* (faecal type) shall not exceed 20 per gram; and
- (3) count of coagulase positive Staphylococci shall not exceed 100 per gram; and
- (4) there must be no salmonella or other pathogenic organisms.

What May Be Added

Permitted additions: Frozen cooked prawn or frozen cooked shrimp may contain ascorbic acid or erythorbic acid (iso-ascorbic acid) or their sodium salts as an antioxidant, in proportion not exceeding 400 parts per million (ppm).

Labelling

- (1) Where ascorbic acid or erythorbic acid (iso-ascorbic acid) or their sodium salts is added to frozen fish fillets, or to frozen cooked prawn, or frozen cooked shrimp, those substances shall be deemed antioxidants in written statement on package, or on label attached to package.

- (2) No statement shall be written on package, or on label attached to package, that ascorbic acid or erythorbic acid (iso-ascorbic acid) or their sodium salts have been added as vitamins.

Need for Export Standards

Australia's Chief Veterinary Officer said the need to protect this valuable trade has concerned his department and the Australian Fishing Industry Council (A.F.I.C.). He stated that ascorbic acid and sulphite compounds are now permitted for prawn held in storage pending final preparation. He warns against their overuse. The department has reservations about the use of sulphides. It is allowing it for the time being on A.F.I.C.'s recommendation. The regulation will be reviewed. In the meantime, discoloration or abnormal flavor or odor resulting from sulphide compounds may bring rejection.

Tolerances Permitted

Tolerances allowed include 2% of "soft-shell" in whole, headless, or prawn cutlets--but only a 1 percent tolerance in "deveined" or "cleaned" prawn. Total plate count of prawn tested bacteriologically must not exceed 100,000 organisms per gram. No pathogenic organisms are permitted. ('Fish Trades Review,' June.)



American Samoa

TUNA PRICES REACHED NEW HIGH IN AUGUST

Japanese tuna suppliers and U.S. packers in American Samoa agreed on a \$5-a-ton price increase for tuna deliveries in August. The new prices per short ton: round albacore: frozen US\$430, iced \$415; gilled-and-gutted yellowfin: frozen \$347.50. Both albacore and yellowfin prices represent new highs. ('Suisan Tsushin,' Aug. 4.)



AFRICA

Ghana

SEEKS JAPANESE ASSISTANCE

The Ghanaian fishery association recently asked the Japanese Fisheries Agency and the Japan Fishery Association to help it get technical assistance from a private Japanese firm.

The Ghanaian association wants to charter vessels with Japanese crews to develop a tuna fishery. It also wants to set up a small net-manufacturing plant. ('Minato Shimbun,' July 29.)



South Africa

JAPANESE CATCH MANY BLUEFIN TUNA OFF S. AFRICA

The Japanese tuna longliner 'Fukuhisa Maru No. 12' (370 gross tons) reported good fishing for southern bluefin tuna early in July southwest of Cape of Good Hope, South Africa. In 72 sets, the vessel took 150 metric tons of southern bluefin. This was double the average catch per day by vessels in the Tasman Sea off southeast Australia and in the Indian Ocean.

Southern Bluefin Found

According to the Yaizu Fishery Cooperative Association, there is considerable interest in the discovery of southern bluefin off the Cape of Good Hope. If examination shows the meat to be the same as bluefin, it would interest even scientists. ('Minato Shimbun,' July 4.)

Fishery Increased in August

By mid-August, numerous Japanese longliners were fishing southern bluefin off southern Africa, according to the Federation of Japan Tuna Fisheries Cooperative Associations (NIKKATSUREN). Between 60 and 70 vessels were on the Indian Ocean side, and about 10 were on the Atlantic side. Some vessels were able to land about US\$417,000 worth in one trip.

Seeking African Port Privileges

NIKKATSUREN, foreseeing increasing fishing activity off Africa, recently sent an official to Lourenco Marques, Mozambique, East London and Port Elizabeth, South Africa, and Walvis Bay, South-West Africa, to secure port entry privileges for Japanese tuna vessels needing supplies. ('Katsuo-maguro Tsushin,' Aug. 15.)

Vessels May Switch From Tasman Sea

The bluefin fishery in the Tasman Sea off southeast Australia continued poor. Daily average was about 2 tons a vessel. In previous years, the longliners had concentrated in that region in August. This year, they were dispersed widely over the entire high-latitude region of the South Pacific. More vessels now are likely to seek the new bluefin grounds in the western Indian and Atlantic oceans. ('Suisan Tsushin,' August 5.)



Albacore Fishery Increases Off Angola & South Africa

Japanese, South Korean, and Taiwanese tuna vessels fishing albacore in the eastern Atlantic were making good catches off Angola and South Africa in July. Combined catch, since season began in early June, was about 15,000 metric tons, ahead of comparable 1968 landings. Although catch per vessel was lower than last year, the number of vessels (especially Taiwanese) had increased considerably. About 15 Japanese, 25 South Korean, and 50 Taiwanese vessels were fishing in early June.

The albacore fishery in the Indian Ocean, near Madagascar, started picking up in late July. Many vessels were averaging 4-5 tons a day.

Export Prices

Export prices for albacore shipments to Puerto Rico held steady in July. They were about US\$530 a short ton c.i.f. for large sized (over 30 pounds), and \$500 a ton for Grade A and \$450 a ton for Grade B smaller sizes.