INTERNATIONAL

Super-Seiners Slated for West African Waters

The 'Biscaya,' a 1,082-ton French-flag tuna purse seiner left Bayonne recently for West African waters. Her departure heralds a new phase in European eastern Atlantic tuna fishing. The U.S.-designed tuna seiner, the largest ever built in Europe, is the forerunner of a new fleet of super seiners for the French, Spanish, and Italian fleets.

Previously, only a few purse seiners had sought tuna off West Africa. This has been attributed to insufficient knowledge of the grounds and waters of the Gulf of Guinea, and of fishing with the purse seine.

African Influence

But in 1968, the Americans came with their big modern purse seiners and their helicopters. Their success and obvious efficiency had a tremendous effect. In fact, their success in the Pacific was already being closely scrutinized by European and African fishing interests eager to exploit West African tuna resources.

Japanese Plans

One Japanese owner had sent a new 250-ton-hold capacity tuna purse seiner to operate off West Africa in 1968. He is to replace it this year with one of 1,000-ton-hold capacity—such is the increased overall efficiency of the larger vessels.

Other Countries

Italian interests are planning one or more 1,000-ton-capacity purse seiners as are owners in Spain. One Spanish owner is reported to be studying conversion of the revolutionary suction purse seiner 'Sarasua' into a U.S.-style vessel.

French Operations

The French, who have had perhaps the longest tuna fleet off West Africa, also have been watching developments with these large purse-seiners.

In 1968, there were 35 French tuna freezers, 17 purse seiners, and 18 bait boats in the area. They increased production by 50% over the previous year, due to the conversion of many bait boats into purse seiners. Now, this freezer fleet is to be greatly expanded. France hopes to play a larger role in the production of tuna for both the EC and the international market. They have chosen the most efficient type of vessel available in order to compete on an equal basis.

Characteristics of Biscaya

The all-welded steel-hull Biscaya is 53.95 m. (177 ft.) long overall, 50 m. (164 ft.) bp., and moulded breadth is 10.87 m. (36 ft.). Depth to main deck is 5.89 m. (19 ft.), and draft aft 6.40 m. (21 ft.). She has a two continuous deck construction, the engineroom is forward and all accommodation is in the deckhouse superstructure.

Although fitted with as much European equipment as possible, she still has a good deal of American machinery aboard, notably the fishing gear. ('Fishing News International,' May.)

Atlantic Albacore Fishery Developments

In early June, about 15 Japanese longliners were fishing albacore tuna in the Atlantic off Angola and South Africa. They were catching a daily average of 2.5-3 tons per vessel. This is considered normal for the season, but is somewhat below the same period last year when many small albacore were taken. About 50 Taiwanese and 25 South Korean tuna vessels also were reported fishing albacore in the region.

Prices

In early June, c.&f. prices for frozen round albacore exports to Puerto Rico were around US$510 a short ton for 40-pound fish and $480 for smaller sizes taken off Angola. Export prices for frozen round albacore deliveries to California were about c. & f. $544

Export prices for frozen round albacore deliveries to California were about c. & f. $544 a ton for 30-pound fish. ('Suisan Tsushin,' June 5.)

FAO & USSR Sponsor Caribbean Fishery Study Tour

Fishery scientists from Latin America took part in a study tour aboard a Soviet oceanographic vessel in the Caribbean Sea June 22 to July 25. The group fellowship study tour was sponsored jointly by the USSR and the United Nations Development Program. The USSR, though not a member of FAO, contributes to UNDP.

Fishery Lectures

Some 20 fishery biologists and oceanographers from various Latin American countries, including Brazil, Costa Rica, Cuba, Mexico and Uruguay, were aboard the 3,730-ton research vessel 'Akademik Knipovich'. They heard lectures on modern methods of fishery and marine research, and received instruction in the use of acoustical equipment and other fishing and navigational aids.

They also were scheduled to visit marine and scientific institutions in Belem, Brazil--starting point of the tour--Havana, Cuba, and Vera Cruz, Mexico, where the tour ends.

The Akademik Knipovich carried out exploratory fishing and marine biological research en route. The findings will be published by interested governments.

Third Tour

The tour is the third of its kind. Previous tours were held aboard the Knipovich in the southern Mediterranean Sea last year, and in the Black Sea in 1967. Participants in these tours came from African, Asian and East European countries.

Japan and Mauritania Reopen Negotiations

Japan and Mauritania were scheduled to reopen fishery negotiations at Nouakchott on June 10. This will be the two countries' third attempt to agree on allowing Japanese trawlers to operate in Mauritania's 12-mile exclusive fishery zone.

The first talks were held in Tokyo in fall 1968. The basic understanding was that Japan would pay Mauritania US$277,800 entry fee for 69 trawlers planning to catch 10,000 metric tons of octopus. Talks at Port Etienne in Dec. 1968 were broken off because Mauritania requested fishery assistance over and above that offered by Japan.

The latest negotiations may settle the problem. The 8-man Japanese negotiating team will include 2 government officials. ('Suisan Tsushin,' May 14.)

Japanese Longliners Asked Not to Fish Off New Zealand

The New Zealand Government reportedly has sent a request to the Japanese Foreign Office asking that Japanese tuna long liners fishing off her shores move into other areas. Close to 100 long liners were fishing for southern bluefin off New Zealand. Many of them had shifted from southeast Australia where the southern bluefin resource has declined. Since they operate beyond New Zealand's 12-mile fishing limit there is no legal problem. However, the presence of a large number of Japanese vessels is causing some concern. ('Suisancho Nippo,' May 27.)

Soviet Whaling Flotilla Calls at Las Palmas

Returning from the Antarctic, one of the Soviet whaling factoryships, 'Iurii Dolgorukii', called for 4 days at Las Palmas, Canary Islands. She was accompanied by 15 catcher boats and a support vessel. The whaling flotilla was on its way to home port at Kaliningrad. During past years, the Iurii Dolgoruk-

a usually stopped at Montevideo, Uruguay. The vessel arrived at Kaliningrad on 19.

he Soviets have been using Las Palmas and more since the closure of the Suez l. The exact number of Soviet fishing ls calling at Las Palmas is unknown, but y approach 100 during 1969.

nother Soviet whaling factoryship, the tskaia Ukraina', accompanied by 20 er boats, called at Ceuta, a Spanish port rthern Morocco, on her way to the fleet's port of Odessa.

earch Vessel Visits Cape Town

he 'Bakhchisarai,' research vessel of the ntic Research Institute of Fisheries and nography (ATLANTNIRO), called at Cape n, South Africa in early May. The vessel visited by scientists of the Fisheries and nography Department of Cape Town University. The South Africans said afterwards their research vessel, the 'Thomas B. e,' compares to the Bakhchisarai "like a y compares to a Rolls Royce."

efore leaving Cape Town on May 9, the t scientists and crew toured the city and ed fishery research facilities. Despite xuberant South African appraisal of the t research vessel, some of her crew bers found Cape Town more attractive: missed the vessel's departure and had to ken to her in a sloop.

riatic Fisheries Agreement Signed

Italy & Yugoslavia have signed a 3-year iatic fisheries agreement replacing one expired in December 1968. Under the agreement, the Italians had obtained 195 mits to fish their historic grounds on the oslav side of the Adriatic. Under the new eement the permits will be reduced to 165 969, and 140 in 1971. In addition, the Yugoslavs have limited Italian fishing to vessels not exceeding 80 gross tons with 220 hp. engines. ('La Pesca Italiana,' May 1.)

The Italian Fisheries Association, pointing out that the agreement was the best the Italian delegation could reach, noted that it was not happy with the decrease in fishing permits. It believes Yugoslavia intends to push Italian fishing in Yugoslav waters towards the south Adriatic where resources are less abundant. The Association, recognizing that there is little that can be done to reverse this trend, called on the Italian Government to adopt a policy of "large vision"--a policy that would permit Italians to begin fishing in "more "distant" grounds.

Southeast Asia Fisheries Development Center Operations

The Research Department of the Southeast Asia Fisheries Development Center is scheduled to start functioning by September 1969. Research vessels, contributed by Japan, were to be available for trial runs in July, and fully operational before the end of 1969. A Training Department building is to be started in the summer of 1969 and completed by mid-1970. Crew training will begin in late 1970. The Research Department buildings at Changi are almost complete, and equipment will be installed soon.

U.S. Aid Grant

It has been requested that funds from the projected U.S. contribution of US$100,000 be made available without restrictions on buying fuel and insurance for research vessels. This would enable the Research Department to begin the first year's operations. U.S. AID grant had limited funding to items only of U.S. origin. The grant was not to cover vessel fuel and insurance costs. However, AID has approved lifting the restriction. (U.S. Embassy, Bangkok, Apr. 4 & 14.)

FOREIGN

CANADA

NEW TERRITORIAL SEA AND FISHING LIMIT BASELINES DRAWN

New Canadian baselines delineating territorial sea and fishing limits along the east coast of Nova Scotia and the west coasts of Vancouver Island and Queen Charlotte Islands have been announced. Regulations took effect on June 11.

Existing treaty rights and traditional fishing activities will be recognized, pending conclusion of negotiations with the U.K., Norway, Denmark, France, Portugal, Spain, Italy, and the U.S. (U.S. Embassy, Ottawa, June 4.)

* * *

FIRST-QUARTER LANDINGS IN MARITIME PROVINCES WERE AT 1968 LEVEL

Landings in the Canadian Maritime Provinces Jan.-Apr. 1969 were 205 million pounds worth $13.7 million exvessel. In the 1968 period, 205 million pounds worth $12.3 million were landed; in 1967, 141 million pounds valued at $10.3 million.

April 1969

During April 1969, total fish landings in the Maritime Provinces (N.S., N.B., P.E.I.) were 54.1 million pounds worth C$5.3 million exvessel. The April landings included 34.1 million pounds of groundfish, $2.3 million; 15.7 million pounds of pelagic and estuarial species, $195,000; and 4.3 million pounds of shellfish, $2.8 million.

The quantity and value of April 1969 fish landings were below April 1968. The April 1969 catch was 4.3 million pounds below the 3-year (1966-1968) average, but value was $547,000 above the 1966-1968 average.

Fishery Ups & Downs

During April, landings of cod, redfish or ocean perch, halibut, and flatfish were below the 1966-1968 average. Landings of haddock, herring, and lobster were above. Scallop landings were the same.

Landings by trawlers and draggers over ' feet long totaled 29.1 million pounds--81. of groundfish landings and 93.6% of scall landings. (Canadian Dept. of Fisheries a Forestry, May 27.)

* * *

FISHERIES MINISTER WARNS OF OVERFISHING QUEEN CRAB STOCKS

Overfishing queen crab stocks off Canada Atlantic coast is a possibility, warned Ja Davis, Canadian Fisheries Minister, at a re ent meeting in Fredericton, N.B. Despite tenfold increase in production since the ear 1960s, little is known about the resourc Moreover, a threat exists from unlimit entry of Canadian companies into the fisher Davis called for serious consideration limitation of entry into the queen crab fis ery. ('Fisheries of Canada,' Apr.)

* * *

GOVERNMENT BUYS FROZEN GROUNDFISH

Contract awards by the Fisheries Pric Support Board to buy slightly over one mi lion pounds of frozen groundfish produ were announced May 14 by Fisheries a Forestry Minister Jack Davis. The purchas are being made under the Board's program assistance to the industry announced Ap 24. The program objective is to prev distress sales by producers and to stabili market. First tenders were opened on M 12. Further tenders will be opened every weeks for duration of program.

Program's Goal

The Board's initial awards are being ma within a price range of 23.75 to 24.50 cen a pound for frozen-cod blocks. Davis sa he was pleased with improvement in the ma ket since the Government first announced February its decision to intervene. Sin then, the price for cod blocks, deliver Boston, has risen from 21 to 24 cents a pou The program's goal is to raise depress market prices to a level comparable wi costs of efficient producers. Davis sa

Canada (Contd.):

additional purchases will be made until objectives reached. (Canadian Dept. of Fisheries and Forestry, May 14.)

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SALT FISH ADVISORY COMMITTEE FORMED

Formation of a Salt Fish Advisory Committee has been announced by Canada's Fisheries and Forestry Minister, Jack Davis. The Committee consists of 8 members of the Atlantic Coast industry. It will advise the Minister on current problems and on the effectiveness of government assistance programs. A deficiency payment program for the current year was announced on April 25. The Minister said that reorganization of the industry will begin next year. (Fisheries Information Service, June 4.)

* * *

INVESTIGATES DISCOLORED NEWFOUNDLAND HERRING

The occurrence of discolored or red herring in limited areas in Placentia Bay and St. Mary's Bay in Newfoundland has been studied by the Canadian Department of Fisheries and Forestry since early Feb. 1969, when they were first noticed. The occurrence close to a phosphorous plant raised the possibility that the fish deaths were caused by the plant's effluent. However, there is no proof of this.

Investigation Intensified

The Department's investigation is being intensified, and the Federal Department of Health and Welfare has been asked to study the dead fish. As added precaution, fishing in Placentia and St. Mary's Bays is being watched constantly. No fishing boats are allowed there. No fish that could possibly have been contaminated by effluent from the phosphorous plant is being processed for sale. (Canadian Dept. of Fisheries and Forestry, June 1.)

* * *

CONFERENCE ON FISH INSPECTION AND QUALITY CONTROL

Fishery experts from almost 40 countries met in Halifax, Canada, July 15-25, to discuss how to promote and improve inspection services to assure high quality standards for fish and fish products. The experts were attending the first Technical Conference on Fish Inspection and Quality Control. More than 200 fish inspectors, technologists, biologists, administrators and other specialists representing government, industry and private institutions participated.

The conference discussed the organizational aspects of fish inspection, principles of quality control and new, improved methods of determining quality and preserving freshness and edibility. They also reviewed standards and techniques used in different countries of the world.

The need for improving and enforcing inspection services was emphasized in a paper prepared by FAO. In developing countries, especially in the tropics, the paper stated, inspection systems can help to develop modern fishing industries and make a country's products more acceptable in international markets.

Papers were presented on subjects ranging from consumer evaluation of fresh and frozen fish, ultrasonic inspection of parasitized whole fish, and the training of fishery inspectors, to theoretical and practical considerations in the development of grade standards for fishery products.

The significance of the meeting was emphasized by Roy I. Jackson, FAO Assistant Director-General for Fisheries, who said it was "a major first step towards establishing national and international standards for fish inspection and quality control; the need for which is becoming more and more apparent". (FAO News Release, June 30.)

EUROPE

USSR

MAY JOIN INTERNATIONAL MARITIME COMMITTEE

Soviet jurists interested in maritime law created the Soviet Maritime Law Association in 1968. Its president, Andrei Zhudro, has stated that the Association would seek to join the International Maritime Committee, which was scheduled to meet at Tokyo in April 1969. The USSR is party to almost all major conventions and agreements governing navigation and other marine activities. One is the Inter-Governmental Maritime Consultative Organization, which governs the conduct of maritime trade. (TASS, Mar. 11.)

The Soviet Union's fishing fleet is the largest and most modern in the world. Her merchant marine is sixth among maritime nations.

* * *

COOPERATES IN INTERNATIONAL BALTIC SEA RESEARCH

The Soviet research vessel 'Mazirbe' left Riga on May 9 to begin a new phase in unified international research of Baltic. Six countries are participating: Finland, USSR, Sweden, East Germany, Poland, and West Germany.

Systematic international investigation of the Baltic began in 1964. A synoptic-hydrological survey made at that time has helped oceanographers devise methods for calculating the temperature fields of sea waters and currents. These calculations are essential for navigators of merchant and fishing vessels.

Ten permanent hydrological stations have been set up to observe water temperature, currents, salinity, chemical composition and wave patterns. Their aim is the study of the environment of living organisms in the Baltic. This research will be important in the future development of the local fishing industry. ('Pravda,' May 10.)

* * *

NEW ICHTHYOLOGY LABORATORY OPENS

A new ichthyology laboratory to study t biology of valuable commercial North Eur pean fish species has been opened by the Pol Research Institute of Fisheries and Ocean graphy.

To Study Salmon

The laboratory's new station at Por' Guba on the Kola Peninsula (Kandalaksha Gul will conduct research on Atlantic salmo Surveys are planned of the principal salmo spawning grounds on the Ponoy, Varzug Umba, and Kola rivers.

Breeding Studies

Three fish hatcheries on Kola Peninsul are studying the biotechnical aspects of Atla tic salmon breeding. They are releasing f directly into the sea, not into rivers. ('Vodn Transport,' Apr. 5.)

* * *

FISHERMEN ASKED TO AID ACADEMY OF SCIENCES

Rocks caught in the trawl net of a Sov fishing vessel in the southeast Atlantic m contribute to the knowledge of phosphor formation on the ocean bottom, according a scientist of the Oceanology Institute of t Soviet Academy of Sciences. The rocks h been sent to the Institute for analysis.

Rock Samples Sought

The scientist was appealing to Soviet fis ermen to send the Institute samples of roc lifted in nets. He asked for precise data vessel location, trawling depth, and tot weight of "rock catch."

Soviet fishing vessels operate in all ocea at all latitudes and can assist Soviet ocea ologists in exploring various phenomen ('Vodnyi Transport,' Apr. 17.)

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SS R (Contd.):

OIL THYLENE BAGS USED
OIR REEZING FISH

IF the last 2 years, AZCHERRYBA (Black Sea Fisheries Administration) ...s have been wrapping frozen fish ... in polyethylene bags. This makes it ... to store them up to 5-6 months. With ...ional freezing procedures (without ...g), glazing disappears after 2-3 ..., fat becomes rancid more rapidly, the ...ies out, and its quality deteriorates.

...ut 1,500 metric tons of polyethylene-...d frozen fish were put on the Soviet ... in 1967. Chemical laboratories of ... fish-processing plants had approved ... ality after prolonged storaged tests. ...stablished that water vapor maintains ...tant pressure inside the bag. This ...sublimation of the ice and makes it pos-... retain glazing for 5 to 6 months.

... Aboard Trawlers

...ard 2 'Tropik'-class stern trawlers, ...ith sardines and horse mackerel re-... that polyethylene-wrapped frozen fish ... retained its high quality after 5 ... of storage but could be used for can-... smoking without previous sorting. ... on the fish blocks was virtually intact. ...ped fish blocks lost their glazing dur-... period. Frozen unwrapped sardines ...d and smelled slightly of rancid fat; ...se mackerel were dark on the surface ...ght subcutaneous yellowing. Both had ...refully sorted before further process-...

...hough wrapping operations have pushed ...zen fish costs 17 rubles (US$18.70) per ...avings resulting from longer storage ...duced waste, and improved quality will ...nsate for the added cost. ('Rybnoe ...istvo,' Feb.)

... Development

...U.S. and Western Europe, fishery prod-...ave been wrapped in plastic bags for ... decade. In USSR, both fishing and mar-... are controlled by state, and most in-...ents have gone into developing a large ... fleet. The movement to improve qual-... packaging is quite recent.

* * *

NEW BOTTOM TRAWL DESIGNED

A new bottom trawl has been designed by the Central Design Office of the Northern Fisheries Administration. Its main feature is the 5.2-meter-high opening, twice that of conventional trawls (2.6 meters) used by Soviet fishing fleet. Tests have shown the catching efficiency of trawl nets with the larger throat considerably greater.

The new bottom trawl was approved for mass production. Its distribution will begin this year. ('Vodnyi Transport,' Apr. 8.)

* * *

TO EXPLOIT NORTHEAST ATLANTIC SNIPEFISH FOR FISH MEAL

Large commercial concentrations of snipefish have been discovered in the northeast Atlantic. The Soviets plan to develop a large-scale fish meal fishery there. Because it is small (8-11 cm. or 3-4 inches), the species appears unsuitable for food.

Area Surveyed

Surveys were conducted Aug.-Dec. 1967 and Mar.-June 1968 by 2 vessels of the Northern Exploratory Fishing Bureau of SEVRYBA (Soviet Northern Fisheries Administration). They covered a wide area of northeast Atlantic, between 33° and 50° N. latitude and 10° to 35° W. longitude. Area includes West European and Iberian Basins, Azores Plateau, Azores Rise, and Azores Islands. In Oct. 1967, large commercial concentrations of snipefish were discovered in an 8,400-square-mile area, west of the Iberian Peninsula. In Apr.-May 1968, large schools were tracked south of 39° N. latitude in a 300-square-mile area on Gettysburg Seamount, north of Madeira, and southeast of Azores.

Electric Light Fishing

At night echo-sounders located snipefish schools both at 30-70 meters and near the surface. Snipefish react to electric light and will gather in large schools in an area lit by blue surface lamps. The school follows the light moving very slowly in a horizontal direction. However, vertical movements are fast, and the school may drop rapidly to 110 meters. If the blue light is switched off and a red light turned on, the school rises rapidly to surface, "boils," makes considerable

USSR (Contd.):

noise, and stays in the illuminated area, circling at 2-3 meters.

Catches

Catches, as high as 10 metric tons per haul, averaged 2 to 5 tons a haul. SRTM-class vessels fishing with electric light can catch 20-30 tons a night. Electric light fishing with pumps, as practiced in the Caspian, has been recommended. ('Rybnoe Khoziaistvo,' Jan.)

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PLANS TO FISH HAKE OFF CAPE TOWN

The R/V 'Atlant' has discovered dense schools of deep-sea hake in a 240 square mile area off Cape Town (South Africa) at depths of 280 to 420 meters (918-1,370 feet). The Soviets have not yet exploited Cape Town fishing grounds commercially, although reportedly these grounds have a great potential.

Atlant is a vessel of the Atlantic Research Institute of Fisheries and Oceanography and the Institute now is drawing up plans for large-scale fishery operations off Cape Town. ('Vodnyi Transport,' May 22.)

* * *

'VITIAZ' IS ON 45TH SCIENTIFIC CRUISE

The Soviet research vessel Vitiaz left Vladivostok on April 23 for the Sea of Okhotsk. Final destination is the Gulf of Alaska and the Aleutian Trench, where scientists will carry out complex oceanographic work and study biological phenomena at great depths.

The vessel returned in March from a 4-month research cruise in equatorial Pacific.

United Kingdom

MERGER CREATES FISHING FLEET OF 120 VESSELS

Arrangements were expected to be completed by July 1 for the merger of Britain's 2 largest deep-sea trawler fleets. Merger under one company would supply about half the white fish landed in Hull and Grimsby a about one-fifth all British-caught suppl

The fleet will number about 120 vess including 10 freezer stern trawlers, on the world's largest.

Reasons for Merger

Talks began in August 1968 with the hel the Industrial Reorganization Corp. The tention was to improve the efficiency productivity of the deep-sea trawler indus by combining its many companies. Th would provide basis of a strong, success company capable of introducing new man gerial and other skills.

Ross & Associated Fisheries

Originally, 3 of the largest compani were involved--the Ross Group, Associat Fisheries, and Boston Deep Sea Fisherie Earlier this year, Boston withdrew.

The fish-distribution interests of bo groups will be operated separately--co peting with each other and the distributi trade. ('Fishing News International,' Ma

Norway

FROZEN FILLET EXPORTS TO U.S. INCREASE

Production and sales of frozen fish fill have been exceptionally high for the p year. There were ample supplies of cod a other groundfish and a brisk demand in ma export markets.

In 1968, exports to the U.S. almost tripl to 22,200 tons. About 25% of the frozen fi fillets exported to the U.S. was supplied "Nordic Group A/L". In Feb. 1968, Nord group was granted export rights to the U. for one year. (These rights have been e tended for another year.)

Frionor's Rising Sales

"Norsk Frossenfisk A/L" (Frionor) e joyed exclusive export rights to the U.S. un last year. Frionor reports that its risi sales in the U.S. are due partly to increas capacity at its New Bedford fish pla

Norway (Contd.):

Fishing also reports changing consumer preferences in the U.S., including an increasing demand for "natural" fish products (whole, unskinned frozen fillets). (U.S. Embassy, Oslo, Apr. 26.)

Denmark

WESTERN TRAWLERS FOR FAROE ISLANDS

The Faroese fleet has been dominated by many wood and steel longline vessels and relatively few large steel side trawlers. By mid-1968, 14 modern steel longline vessels had been converted to power-block purse seining; 5 new purse seiners were on order. Another 2 stern trawlers were delivered during 1968 and 3 were purchased in 1969.

Two of the new vessels will supply herring to a fish-meal plant at Fuglefjord. One is a freezer trawler delivered by Norwegian yard.

The Faroese firm that took delivery of modern freezer stern trawler in late 1968 plans to own and operate about 10 similar vessels within 5 years. The factory freezers were designed primarily to supply U.S. market for frozen cod blocks.

The owner recently commented that U.S. demand for frozen Faroese cod blocks is excellent. His firm had contracts with 9 of the largest U.S. cod block buyers.

Faroese trawler owners claim their operations involve no risk whatsoever. (U.S. Embassy, Copenhagen, May 23.)

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EXPORTS OF FROZEN FILLETS

Danish exports of cod fillets to the U.S. slumped following low prices and stagnation in mid-all 1968. Supply had been greater than demand. The situation improved early in 1969. This was due to steadily growing consumption--and because fisheries on several North Atlantic cod-fishing grounds declined during 1968.

Plaice Fillets Exports Drop

Exports of plaice fillets to Britain have declined as a result of the 10% customs duty applied in late 1968. This duty caused considerable difficulties for Danish fillet exporters. They produce 10,000-11,000 metric tons of plaice fillets per year, much of which has gone to Britain.

New negotiations on the frozen fillet problem began May 20 in London. Arrangements made there will enter into force in Jan. 1970. The Nordic countries, which protested strongly the British duty, hope it will be removed or relaxed. (U.S. Embassy, Copenhagen, May 23.)

Greenland

PROBLEMS CONTINUE IN FISHERIES

The Director of the Royal Greenland Trade Department (RGTD) reported a loss of US$2.7 million during 1968. RGTD processes about 80% of Greenland's catch. The loss was due to a drop in the cod catch and to difficulties on world markets for major Greenlandic fishery products. Fishermen fear that cod have left the Greenland coast, but biologists say it is still present, though the population fluctuates greatly. RGTD purchased 17,500 metric tons of cod in 1968 down 30% from 23,200 in 1967. Private fish processing plants in Greenland reported a 2% decline. Districts north of Godthaab, Greenlandic capital, experienced a 60-80% decline in cod catches, apparently a result of smaller stocks.

West German Competition

West German stern trawlers were said to have accounted for the greatest share of the increase in total catch from waters off Greenland. Their average daily catch was more than 20 tons. The Germans begin fishing as early as December, continue through July, and withdraw during August.

New Stern Trawlers

Biologists have emphasized that the cod stocks have been fully utilized for some years and that if Greenlanders desire greater catches, they must compete with other countries fishing the same grounds. The delivery of 'Nuk,' the Trade Department's large, new

Greenland (Contd.):

Norwegian built, stern trawler should help. The new vessel is fully equipped with modern electronic equipment. She will operate both bottom and midwater trawls. The Nuk is expected to operate at a yearly loss of about US$133 thousand, interest and depreciation included. Her annual catch is estimated at 3,000-4,000 tons. She will be used to train Greenlandic fishermen and will provide experience needed to operate the next two vessels in this series. These are expected to enter the fishery in 1971.

Plans for Future

Despite an unsure future outlook and the great expense of investing in large seagoing vessels, the RGTD Director said it would be wrong to halt development now. Basic concepts have still not yet been tested fully, he added. The Director considers that the Danish Government must support initial development of the high-seas fishery because it is the sole basis for industry in Greenland.

Subsidy Refused

The Greenland fishermen's proposal for State support was refused by the Minister for Greenland recently. The Minister said that fishermen in "South Denmark" do not receive such subsidization. The basis for the fishermen's request was a drop in income from US$4 million to US$2.7 million in 1968. The foreman of the Greenlandic Fishermen's Association pointed out that if the fisheries do not improve significantly in 1969, many members will be unable to meet payments on their vessels. (U.S. Embassy, Copenhagen, May 23.)

West Germany

BUILDS 3 TUNA VESSELS FOR PORTUGAL

Three 34-meter (111.6-ft.) long tuna pu seiners for the Lisbon-based firm, Co Cia de Pesca e Congelacao de Cabe Ve S.A.R.L., have been built in the Bremerha yard of A. G. 'Weser' Work Seebeck. 'Salamanza' was completed at the end February. She left soon after for St. Vin in the Cape Verde Islands. The 'Mordei and the 'Pedro Badejo' were completed ab a month later.

Purse Seining

Each vessel carries a 17-ton, 1,500 (4,920 ft.) long net, accommodated on a spec platform on the afterdeck. Normally in pur seining, the skiff positions the net in a wi circle, while the mothership stays on stat and pays it out. However, because of t great size and weight of the nets this ord will be reversed. The 150-hp. skiff (carri aboard mothership) will stay on station. T net will then be closed and hauled in the usu manner, the fish will be brailed out, and t skiff hoisted aboard. Derricks with a capa ity of 2 tons and 10 tons will be used. T large tuna purse seines will be handled wi a power block.

Freezing Method

The fish is deep-frozen in stages thro brine baths starting at a temperature of C. (30.2° F.) and ending with a brine te perature of -7° C. (19.4° F.). After 72 ho of brine-freezing, the fish are dry-froze -18° C. (-0.4° F.).

Other specifications of the 361 gross t vessels are: breadth 9.30 m. (30.5 ft.), a height to main deck 4.40 m. (14.4 ft.). Th are fitted with 1,000-hp. 380 r.p.m. engin giving a speed of $11\frac{3}{4}$ knots. ('Fishing Ne International,' May.)

Changing Icelandic Fisheries

David K. Sabock

shing, Iceland's most important indus-
accounts for 90% of her exports. His-
cally, fishing has dominated the national
omy, placing Iceland in the vulnerable
tion of a country with a one-crop econo-
That crop is in trouble. Few alterna-
s are available. Landings have declined,
rnational market problems have de-
ped, and the processing industry suffers
n high costs and overinvestment. These
bles have led to extensive government as-
ance to the industry, and caused serious
blems in foreign exchange earnings. For
mple, the kronur had to be devalued twice
e last year--from 43 per US$1.00 to 58
he dollar and, in November 1968, to 88.
s was not enough to prevent a prolifera-
of labor unrest and requests for govern-
nt aid. The fishing industry is so impor-
to the economy that any governmental ac-
or inaction carries heavy political con-
ences.

celand is seeking membership in the
opean Free Trade Association (EFTA).
s has prompted considerable local inter-
in the probable treatment of Iceland's
ducts in intra-EFTA trade, and in duty
quota treatment for frozen-fillet exports
Great Britain in particular. Politically,
e negotiations are among Iceland's most
roversial issues.

or Changes

The industry is undergoing major changes.
ort is shifting away from herring towards
more valuable groundfish species. More
phasis is being given to increased pre-
ort processing of fishery products. A
re efficient processing industry is being
ght through plant closings and mergers.

matic Decline in Landings

Although the catch tripled from 1956 to
6, landings have fallen drastically since.
er a record 1.2 million metric tons in
6, the approximately 6,000 Icelandic fish-
men caught only 599,000 tons in 1968--33%
s than 1967.

Sabock is Foreign Affairs Officer, Office of Foreign Fisheries.

Herring Catches Shrink

The tremendous drop in herring catches since 1966--over 80%--is the primary cause of the decline, just as the large increase in herring catches was responsible for the boom years of the mid-1960s. Despite this, herring still made up almost 25% of the 1968 catch; herring and capelin together supplied nearly 40%. Two years earlier, two-thirds of the catch was herring; in 1967, it was half. Reduced herring catches have been attributed to fluctuating weather conditions adversely affecting the Atlantic-Scandinavian stock migrations. It is possible that the Scandinavian herring resource has shrunk and may not recover in the near future.

Cod Catches Increasing

Cod was the dominant species in 1968 and accounted for 40% of the catch. Over 235,000 tons were landed, 15% above 1967 and slightly better than 1966. This large percentage of cod reflected not only significantly lower herring catches, but a concerted effort to fish other species. Saithe, haddock, and ocean perch were other important landings. These species, with cod, herring and capelin, made up 93% of the landings.

1963-1968 Catches

Year	White Fish	Herring & Capelin	Total
	(1,000 Metric Tons)		
1963	374.8	303.9	679.7
1964	418.5	553.0	971.5
1965	386.3	812.7	1,199.0
1966	344.7	895.6	1,240.3
1967	337.8	558.7	986.5
1968[1/]	378.3	221.0	599.3

1/Preliminary.

Changes in Utilization

In recent years, most of the catch has been used for reduction. It demonstrates a tendency to use herring and capelin for fish meal and oil. This tendency was reversed in 1967 and 1968. The decreased herring catch and low prices in the international fish meal market have combined to reduce the proportion of the catch used for industrial products.

Freezing Increases

Freezing, reduction, and salting are the primary forms of processing, but there have been changes in their relative importance. The amount of fish frozen increased in 1968 over 1967; this replaced reduction as the principal form of processing. The output of salted fish also exceeded the amount used for reduction. In 1968, 34% of the catch was frozen, 24% salted, and 22% processed into fish meal and oil. In 1967, 53% had been reduced, 19% frozen, and 14% salted. Another significant change in 1968 was the large increase in the amount of canned fish. Although still a very small portion of the whole, the importance of canned fish probably will increase over the next few years. The stimulus for this development is the same that caused the other utilization changes in 1968--an emphasis on those forms of processing that command the highest export value and promise the best marketing prospects.

Fish Meal & Oil

For fish meal and oil production, 1968 was the poorest year since 1960. Fish meal production declined 51%; it was 112,800 tons in 1967 and 55,000 in 1968. Oil output dropped 79% from 70,000 to 15,000 tons. Iceland has about 48 plants with individual daily capacities ranging from 100 to 1,500 tons. Eight of the largest plants are state owned.

The almost complete loss of the Nigerian market over the past two years also has cut into stockfish production and exports. The better quality raw material was frozen or salted. Attempts to find or develop alternate African markets have not been successful.

1967 & 1968 Catch Disposition

	1968	1967
Fish:		
Quick frozen	202,237	167,203
Stockfish (unslated)	15,174	59,396
Canned	1,444	882
Smoked	21	19
Salted	115,178	70,454
Reduction	4,431	2,515
Herring:		
Salted	28,834	53,469
Frozen (bait)	9,024	15,735
Reduction	132,631	473,240
Home Consumption (fish)	7,015	8,549
Crustaceans:		
Frozen	4,825	4,155
Canned	113	84
Home Consumption	3	-
Fish landed abroad	78,367	41,625
Total	599,297	896,526

Decreased Exports

Exports of all types of fishery produc (285,000 metric tons in 1968) were down 2 from 1967 and 44% from 1966. Export val in 1968 was US$78.1 million, a 13% decli from 1967's US$89.9 million. Kronur deva uation had its effect on foreign exchange ear ings; kronur value of exports increased 1968. The export decline was due to low shipments of fish meal and oil. Most e ports--43%--go to EFTA countries. T Common Market countries, the U.S., and eas ern European nations each take about 16

1967 & 1968 Exports

	1968	1967
Fish Meal	67,463	130,64
Fish Oil	30,132	78,72
Fillets, frozen	48,271	40,72
Salted Herring	34,706	28,51
Other Salted Fish	29,715	21,73
Iced Fish	32,268	21,93

Changes in Fleet

The purse seine fleet is growing, but th deep-sea trawler fleet is dwindling. Effort to achieve a more profitable operation ar forcing a changeover to small boats that ca fish for better quality products.

Fishing Areas

The principal fishing grounds for Icela are her coastal waters. There are extensi shallow water areas surrounding Iceland particularly long shelf projections radiat from the southeast and southwest coasts. C and other bottomfish are fished along the sou and west coasts. The herring fishery cente off the north and east coasts. Normally thi is a coastal fishery but, in 1967 and 1968 the herring moved from the Jan Mayan are away from Iceland, instead of towards it, a they usually do. Fishermen had to go far int the North and Norwegian Seas. Distance were so great (over 800 miles from Iceland that carrier vessels had to be pressed int service to bring the fish from catcher ves sels to the mainland. The ocean perch fish ery is off the east coast of Greenland and i ICNAF subarea 3K.

Government Assistance

Within the last year, the government ha increased its share of the price equalizatio fund, which is designed to offset fluctuatio

export prices. It has provided money for sing herring carrier vessels, US$3 mil- to alleviate unemployment caused by de- ing catches, and helped processors to re- anize. Along with the November 1968 nur devaluation, the government provided expanded price equalization fund for ex- ts. Although a similar proposal to estab- a broadened price equalization fund for fishery products had been passed in 1967, was overtaken by 'forced' continuation of 7 subsidies through 1968, and by special istance to freezing plants. Previously, y frozen fishery exports had been covered this fund. The devaluation rate for 1968, ntrasted with 1967's, was selected after an ensive study to permit all segments of the ustry to operate without deficits, or sub- ies, or financial aid. The government ped to prevent continuation of the 1967 and 8 legislation covering a variety of sub- ies.

Government fishery policy comprises re- ganization of the share payment system, ducting increases in fishing vessel owners' erating costs before crew shares are paid; liance on banks and investment funds for estment in fishery export industries (by special subsidies and government assistance); and special legislation for vessel owners whose foreign debts have been escalated by devaluation. The fleet has been faced with higher costs in recent years, caused partly by new technological requirements, and the owners' part of income has been frozen through share-or-catch agreements. The government is attempting to correct the imbalance in the wage payment system and to lighten the owners' financial troubles.

The Future

The most important fishery development in the future is likely to be increased emphasis on cod fishing: from smaller boats (up to 200 tons), trawlers (the government will shortly bid out the construction of four 500-700-gross-ton stern trawlers), and the larger boats intended originally to catch herring. This increased emphasis is likely to result in greater price differentials between high- and low-quality fish from the vessels. This means more of the catches will be iced in boxes aboard the boats--and should prevent vessels overloading with catches that are undifferentiated in quality.

PRIMARY SOURCES

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LATIN AMERICA

Chile

Pacific Salmon Introduced into Southern Streams

John W. DeWitt

In January 1968, about 30,000 eyed eggs of the coho salmon, Oncorhynchus kisutch, arrived in Chile to begin a new program for the introduction of Pacific salmon. The last liberations of salmon eggs and fry were made many years ago. Several species were stocked then, but there is no clear evidence that establishment occurred, even initially. Investigations in 1966 and 1967 failed to turn up any indication that Pacific salmon were established in Chilean waters at the time, or ever had been, contrary to some reports.

Many Southern Streams Suitable

In 1966, observations along nearly the entire coastline revealed hundreds of streams, apparently suited for Pacific salmon, in Chile's southern third. The fact that most, or perhaps all, of these streams have populations of rainbow, brown, or eastern brook trout attests to their general suitability for salmonids. The presence of sea-run rainbow and brown trout in some areas also indicates that the marine environment is suitable for Pacific salmon. The trout generally are underexploited, mostly because of the sparse population, and the relative inaccessibility of the streams. Establishment of Pacific salmon could produce a new and accessible coastal fishery with these largely inaccessible streams serving as spawning and nurse grounds.

Washington Donated Coho Eggs

The coho eggs shipped last year we donated by the Washington State Departme of Fisheries at the request of the Chilean Di vision of Fisheries. The eggs were incubate and the resulting fish reared to the down stream migration (smolt) stage, in the hatc ery at Rio Blanco. A Peace Corps volunteer Harry Gibson, now is assisting with the rearing and stocking.

About 12,000 coho smolt were liberated Estero de la Zorra, a small stream ne Puerto Montt, last winter (spring in Chil A few others were stocked in spring 196 The stocked fish averaged about 95 mm. length and 85 to the pound. The main resu will be realized when the adult salmon retu to spawn in the Chilean fall of 1970.

An additional 50,000 coho eggs donated b the Oregon State Fish Commission we shipped to the Rio Blanco hatchery in Januar 1969. An excellent hatch occurred and th smolt will enable the program to continu More species, and larger numbers probabl will be stocked if the initial efforts are su cessful.

Dr. DeWitt is Fishery Biologist, Food and Agriculture Organization, Lake Nasser Development Centre, Aswan, Egypt.

rinam

IMP INDUSTRY IS GROWING

A U.S. firm has purchased a controlling rest in Surinam American Industries Ltd. IL), Surinam's only shrimp processing and orting firm. The U.S. firm also acquired outstanding stock of World Wide Marketers . of New York City, SAIL's U.S. importer purchasing agency.

nulates Interest

This move was only one among many made ently that have given new impetus to an ustry with great potential. Most Suri-mers claim it has not developed as rapidly conditions would have permitted. The ex-sive processing and export rights, ac-rded to SAIL in 1956, will expire on Sept. 1971. There is already a flurry of activity other companies are organizing to be off running on that date. Meanwhile, the vernment of Surinam has given written surance to officials of the U.S. firm that the ange of management at SAIL will in no way fect SAIL's exclusive rights.

During April, Surinam news media report-the possible formation of as many as five shrimp companies. At present, only two beyond the planning stage.

w Processing Plant

International Fisheries of Surinam was tablished in early April with two Surinamers directors. The firm's manager is to be a panese with some six years' experience as nt manager of a large fish-and-shrimp com-x in Japan. Five Japanese trawlers have n purchased. Until 1971, catches will be livered to SAIL for processing and export. ans call for the acquisition of more trawlers for the construction of a processing plant pable of handling the catches of 40-60 boats. e plant should be operational by the end of 71.

rvicing Trawlers

A shrimp-boat servicing venture is also be-nd the planning stage. It is headed by a large ultry producer in Surinam. A Government rmit is expected momentarily for the con-ruction of a fuel storage facility, pier, and e plant to service trawlers based in Bar-dos and Trinidad. The Texas Company is build the fuel facility and then lease it to e poultry producer, who will construct the er and ice plant. The venture is already ssured of the business of 120 trawlers that come from Barbados and Trinidad to shrimp in the very productive waters off Surinam. The poultry producer owns a large property adjacent to his chicken-processing plant on which he plans to build a modern shrimp-processing facility.

Aid From Japan

Several other Surinamers have been mentioned during recent weeks as would-be organizers of shrimp companies. However, plans in every case are vague and general. Some reportedly are looking to Japan for the necessary capital and expertise.

The Japanese Ambassador to the Netherlands visited Surinam in March 1969 and promised technical assistance for the fishing industry. Shortly thereafter, the head of the Fisheries Division of the Surinam Ministry of Agriculture, Animal Husbandry and Fisheries, made a quick trip to Japan to confer with Japanese Government officials. Some 15 of the 52 shrimp trawlers now operating out of Surinam fly the Japanese flag. Of some concern to Surinamers interested in the shrimp industry are the Japanese motherships reportedly operating off Surinam.

Licenses

To prevent too great a proliferation of shrimp companies following 1971, the Fisheries Division has indicated that it will probably limit the issuance of licenses to 4 or 5. Some may be split licenses, with one firm given the right to construct a processing plant, another an ice plant, another the maintenance of a shrimp fleet, etc.

SAIL's Processing Facilities

The SAIL's present facilities are among the best to be found anywhere. Officials of the U.S. firm have indicated that they will expand the plant's capacity. It now has two blast freezers capable of freezing 55,000 pounds of shrimp a day. Cold-storage facilities can accommodate 500,000 pounds at once, and four ice plants have a daily output of 100 tons.

Shrimp Fleet

Expansion of processing capacity should mean a corresponding increase in the Surinam-based shrimp fleet. Presumably these vessels will come from either the U.S. or Japan. Of the 52 trawlers that currently claim Paramaribo as home port, 30 fly the U.S. flag; 15 the Japanese; and 7 the Surinam. Among the latter are the 5 trawlers recently acquired by International Fisheries of Surinam.

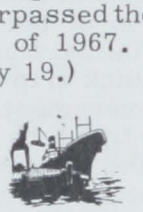
Surinam (Contd.):

Exports

Exports until now have generally shown a healthy buildup from year to year. They should increase even more markedly during the period immediately ahead, with most going

Shrimp Exports		
	1967	Jan.-Sept. 1968
	. . .	(1,000 Lbs.) . . .
Total	2,350	2,584
To U.S.	1,838	2,346

to the U.S. During the first nine months of 1968, exports surpassed the total for the full twelve months of 1967. (U.S. Consulate, Paramaribo, May 19.)



Mexico

SHRIMP PRODUCTION DECLINES

Due to reduced early season catch, Mexico's 1969 shrimp production is unlikely to show much improvement over 1968. As market prices are expected to be strong, an estimated 5% increase in overall value could result. Total volume of Mexican shrimp catches for 1968 was about 36,000 metric tons. This was 6.7% of a total fishery production of 240,071 tons.

Other food fish and shellfish should hold their own with last year. Industrial products are expected to increase about 10% in value. Considering the total value of all segments of the fishing industry, a net growth of about 6% is expected in 1969, compared with a decline of 6% in 1968. (Reg. Fish. Attaché, U.S. Embassy, Mexico, May 27.)

Peru

FISH MEAL OUTPUT & EXPORTS DECLINE SLIGHTLY IN JAN.-APR. 1969

During Jan.-Apr. 1969, Peru's producti and exports of fish meal fell off a little fr the same period in 1968.

	1969	1968	196
	. . . . .	(Metric Tons). . . .	
Fish meal production:			
Jan.	240,495	284,021	287,4
Feb.	17,357	191,575	109,6
Mar.	325,549	155,233	163,5
Apr.	240,763	212,954	226,0
Total	824,164	842,883	786,6
Fish meal exports:			
Jan.	140,283	192,056	100,2
Feb.	185,938	188,222	115,6
Mar.	188,225	170,107	117,2
Apr.	195,925	167,027	118,4
Total	710,371	717,412	451,6
Stocks on hand Apr. 30	490,116	712,506	701,5

April Set Records

April figures set new production and ex port records for that month. Stocks on han April 30 were the lowest for that date in years.

Prices for fish meal reached US$171 p metric ton c. & f. Hamburg in May; pric for deliveries later in the year were som what lower.

The 1968/69 anchovy season closed M 31 and will reopen September 1.

Brazil

TERRITORIAL SEA EXTENDED TO 12 MILES

On April 28, 1969, Brazil extended he territorial sea to 12 nautical miles, measure from the sinuosities of the coastline at mea low water. Brazil previously claimed a 6 mile territorial sea and a contiguous fisheri zone between 6 and 12 miles from shore. N plans are known for greater claims of terri torial sea or fisheries jurisdiction.

Brazil is party to none of the Geneva Con ventions on the Law of the Sea, but she ha adopted domestic legislation closely parallel ing the Convention on the Continental Shel (U.S. Embassy, Rio de Janeiro, Apr. 29, an other sources.)

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...HERY CATCH SET RECORD IN 1968

The fishery catch (excluding whales) ...ched a record 8,553,000 metric tons in ...8. This was 9% over 1967's 7,851,000 ...s--and exceeded 8 million tons for the first ...e. The high was attributed to increased ...dings from the distant-water trawl and off-...re fisheries. These rose 17% and 12% ...r 1967.

1968 Tuna Catch (Includes Billfishes)		
Type of Fishery	1968	1967
	. . (Metric Tons) . .	
...ant-water long line	339,000	354,000
...ant-water pole-and-line skipjack	126,000	142,000
...tal pole-and-line skipjack . . .	70,000	78,000
...tal tuna long line	77,000	75,000

...ecies

The high catch of Alaska pollock (used for ...nced fish) in the Okhotsk Sea, Bering Sea, ...d the North Pacific was particularly note-...rthy. Mackerel and squid landings also ...re good. The 1968 tuna catch declined ...mewhat from 1967. Government statistics ...catches by species should be published in ...gust. ('Suisan Tsushin,' May 2.)

* * *

...LMON PRICES SET FOR 1969

The Japan National Federation of Salmon ...shermen's Cooperative Associations (rep-...senting catcher vessel owners) has agreed ...th Northern Waters Salmon Mothership ...uncil on 1969 prices for fresh whole Pacific ...lmon delivered by catcher vessels to moth-...rships.

The increase--about $\frac{1}{2}$ U.S. cent a pound ...r red salmon--is small, but represents a recovery to the 1967 level. In 1968, the price for reds had declined because of the adverse effect of the British pound devaluation on Japanese canned red salmon exports to pound sterling areas.

Greater price increases for other species were accepted by the mothership firms because of good domestic prices for frozen chums and silvers. ('Suisan Tsushin,' May 9.)

Salmon Delivery Prices		
	1969 Prices	1968 Prices
	. . . .(U.S. Cents/Lb.)	
...d	31.3	30.7
...um	24.5	20.2
...k	15.7	14.9
...ver	25.9	21.0
...g	25.9	21.0

* * *

CANNED TUNA PRODUCTION DROPPED IN 1968

Japanese canned tuna production by Canned Tuna Packers Assoc. members during business year (BY) 1968 (Apr. 1968-Mar. 1969) was 5,051,366 standard cases (48 7-oz. cans). This was about 770,000 cases below previous year's 5,820,662 cases.

The sharp reduction is attributed to: 1) decline in canned light-meat production because of poor skipjack fishing; 2) reduced canned

Table 1 - Canned Tuna Production, BY 1968 and 1967		
Kind of Pack	Quantity	
	BY 1968	BY 1967
	. (No. Standard Cases[1]) .	
Canned tuna in brine:		
For U.S. - white meat	1,728,295	2,082,602
" " - light meat	515,216	488,007
Total	2,243,511	2,570,609
For other countries - white meat. .	4,404	5,403
" " " - light meat . .	29,359	23,571
Total	33,763	28,974
Canned tuna in oil	1,584,842	2,236,652
Specialty pack[2]	1,189,250	984,427
Total pack of canned white meat .	2,091,404	2,497,999
Total pack of canned light meat. .	2,959,962	3,322,663
Grand Total	5,051,366	5,820,662

1/48 7-oz. cases.
2/Over 90% consisted of canned tuna with vegetables and seasoning.

Table 2 - Canned Tuna in Oil Production, BY 1968		
Species	Quantity	
	BY 1968	BY 1967
	. . (No. Actual Cases) . .	
Albacore	380,709	429,991
Yellowfin	21,115	13,944
Big-eyed	447,314	550,750
Skipjack	1,136,465	1,832,402
Total	1,985,603	2,827,087

Japan (Contd.):

whitemeat production, down about 400,000 cases below production target, because of high albacore prices.

Production of specialty packs rose 20,000 cases. Canned tuna in brine for export to the U.S. packed by so-called "outsiders" totaled 99,839 cases. "Outsiders" do not belong to Association. ('Suisan Tsushin,' May 20.)

* * *

SEEK CAUSE FOR POOR TUNA SEINING IN E. PACIFIC

Yellowfin tuna catches in the eastern Pacific regulatory area during the first three months of 1969 totaled 1,469 metric tons. Longline catches, generally good, far exceeded 1968 catches for the same period, but purse-seine fishing was poor. ('Katsuomaguro Tsushin,' Apr. 30.)

Owners of the 4 Japanese seiners that fished yellowfin tuna in the eastern Pacific regulatory area this year are studying the cause of their disappointing performance compared with U.S. seiners. The seiners left the area after harvesting a total of only about 380 metric tons of yellowfin and skipjack in 2 months. Two of the seiners returned to Japan to enter the purse-seine fishery off Japan. The other two left for the eastern Atlantic to fish yellowfin off west Africa.

The Catch

'Hayabusa Maru' (275 gross tons) caught about 60 tons, 'Nissho Maru' (252 gross tons) 40 tons, 'Hakuryu Maru No. 55' (500 gross tons) 150 tons, and 'Gempuku Maru No. 82' (500 gross tons) 130 tons. The owners attribute the poor performance primarily to unfamiliarity with the fishing grounds--but also to unsatisfactory gear and inadequate knowledge of U.S. purse-seining methods.

Speed-Boat Technique

U.S. seiners use speed boats to encircle fish schools. One seiner may carry 4-5 speed boats. The boats are about 6½ feet long, powered with 100-hp. outboard motors capable of 40 knots. The fishermen use the boats to bring the yellowfin together, like cowboys herding cattle. Since herded yellowfin form into a tight school, they can be captured with a small net.

In contrast, Japanese seiners do not ha speed boats, and must use larger nets to su round scattered schools. Some Japanese f that without speed boats, it may be difficult make good catches. In view of reports yellowfin abundance in the eastern Pacifi Japanese purse-seine operators believe th in 2 or 3 years they can overcome the proble of poor fishing experienced this year.

In 1970, Japan-based seiners are sche uled to leave port in late November. Tho fishing off west Africa plan to depart in tim to arrive in eastern Pacific by Jan. 1--th opening data for yellowfin fishing. ('Mina Shimbun,' May 21, 'Shin Suisan Shimbun, May 12.)

* * *

ATLANTIC-CAUGHT ALBACORE EXPORT PRICES ROSE IN MAY

Owing to poor fishing, prices for Japanes Atlantic-caught albacore exports to Puer Rico have been rising. As of mid-May 196 they were quoted at c. & f. US$500, and a high as $510, a short ton for fish over 4 pounds. In the Atlantic, southwest of Bermud Island and off Rio de Janeiro, the Japanes were taking albacore mixed with big-eyed an yellowfin.

Indian Ocean Albacore

In the Indian Ocean between Durban, Sou Africa, and Madagascar, albacore fishing wa picking up. Many vessels reported over tons of catch a day. Fishing conditions ther are likely to affect the albacore export price considerably. ('Suisan Tsushin,' May 18.)

* * *

REORGANIZES EASTERN ATLANTIC PURSE-SEINE FLEET

The Nichiro Fishing Co., tuna seining o west Africa, plans to reorganize that opera tion due to vessel withdrawals. Until earl 1969, the fleet consisted of 2 motherships an 7 purse seiners; in 1968, these had fishe profitably for the first time in 4 years. How ever, early this year, 2 of its large, independ ently operated, seiners--'Hakuryu Maru N 55' and 'Gempuku Maru No. 82,' each 50 gross tons--went to the eastern Pacific t fish for yellowfin. Two others withdrew be cause of poor fishing.

an (Contd.):

lacements Planned

ichiro is seeking permission from the eries Agency to assign to the fleet more ers of 500- to 600-ton size. It would send se to the eastern Pacific during the slow son off west Africa. ('Shin Suisan Shim-,' May 19.)

* * *

MMER ALBACORE FISHERY PROVES, PRICES HIGH

In early May, the pole-and-line summer acore tuna fishery was extremely slow. ndings at Yaizu and Shimizu averaged 50- tons a day. Some observers attributed the r fishing to a cold-water mass in the Sea Enshu. Exvessel prices for pole-caught acore ranged from US$484 to 532 a short . Domestic canners were paying around 4 a ton. They have difficulty operating nomically at the price. ('Suisan Tsushin,' y 13.)

w Through Mid-May

Partly due to the cold-water mass off the e islands, the summer albacore tuna fish- continued slow through mid-May. In late il, 154 pole-and-line vessels were fishing acore off Japan. April 1-May 16 landings Yaizu were 3,130 metric tons, compared h 5,000 tons for same period 1968. The lag landings pushed exvessel prices to about 529 a short ton. The scarcity also sent up ort prices. Direct exports to the U.S. were ted at c.& f. $545 a short ton on May 20. isancho Nippo,' May 21.)

izu in May

May 1969 landings at Yaizu were 14,945 tric tons valued at about US$7.45 million. mpared with May 1968, this was a decrease quantity of 1,338 tons, or 8%, but an in- ease in value of $621,000, or 9%. The de- ease in quantity was due primarily to a cline in southern bluefin tuna landings and poor pole-and-line skipjack catches. The ort supply of southern bluefin and skipjack ove up prices sharply compared with a year o.

However, albacore landings were 2,500 s above the same month last year due to the sharp improvement in the summer albacore fishery from the latter part of May. ('Nihon Suisan Shimbun,' June 11.)

Improves in Late May

The fishery began improving from around May 20; landings at Yaizu were 400 to 800 metric tons a day. May landings at Yaizu, Shimizu, and Numazu totaled 8,300 tons. While this does not compare with the 15,000 tons landed at these ports in May 1965 (an excellent catch year), they were far ahead of the past 15-year average of 5,400 tons for the same month. The fishermen are hopeful that, with continued good fishing, this year's supply will be the highest since 1965, when the season's catch totaled 36,000 tons.

Cold-Water Mass Bypassed

The improvement in fishing was attributed to the landward movement of the Kuroshio current bypassing the cold-water mass. This produced a good run near the home islands, where even small boats could engage in the fishery. In addition, sizable albacore concentrations were encountered farther offshore in scattered waters near 32° N. latitude and 144°-155° E. longitude.

Prices

Exvessel prices at Yaizu for pole-caught albacore were around US$479-492 a short ton in late May. Even damaged fish sold around $454 a ton. Cost calculations are based on the current f.o.b. Japan price of $11.80 a case (7-oz., 48's) for canned whitemeat tuna exports to the U.S. These calculations show that raw albacore prices would have to be around $454 a ton for packers to make a profit. Those who pay more are losing money.

Packers Wary

Despite forecasts that June landings would reach 10,000 tons and that this season's total landings would likely surpass 20,000 tons, the packers do not think that present good fishing will continue long--judging from the fish size and meat condition. Therefore, they want to stock up as much canned tuna as they can before the peach-packing season begins in mid-July. Thus, stimulated by a strong demand, the albacore price in Japan continues high, particularly since domestic packers have not been able to obtain much skipjack this year because of poor fishing. In recent months,

Japan (Contd.):

they have been operating only from day to day and have no cold storage inventory.

Export Pack

To meet production requirements for canned tuna exports to the U.S. and Europe, as well as to supply the growing domestic demand for tuna packed in oil, it is estimated that Japanese packers will have to pack at least 2 million cases of whitemeat tuna this year. Assuming that it takes 35-40 pounds of raw albacore to pack one case of whitemeat tuna, the packers would need a minimum of 34,000 metric tons of albacore. Even if the summer pole-and-line fishery supplies 20-30,000 tons of albacore this season, the packers may still not be able to buy the fish at as low a price as they would like to pay. The present high-price level has become the norm, and packers will have to streamline operations and improve organizational structures. ('Suisan Keizai Shimbun,' June 10.)

* * *

SOUTHERN BLUEFIN FISHERY DEVELOPMENTS

Because southern bluefin tuna are less abundant in the Tasman Sea off southeast Australia, about 200 Japanese longliners have shifted to other grounds. About 50 are fishing for bluefin off New Zealand's southeastern coast. Despite declining bluefin catch in that region, which was averaging 0.8 ton per vessel per day, those vessels continue to concentrate on that species because of high price in Japan. The vessels are equipped with extra-low temperature freezer units and modern labor-saving devices.

Other vessels have shifted to Banda Sea and northwestern Indian Ocean seeking big-eyed tuna. ('Suisan Keizai Shimbun,' May 28.)

* * *

KING CRABBING IN BERING SEA

In mid-May 1969, the 2 Japanese crab factoryships 'Keiko Maru' (7,536 gross tons) and 'Koyo Maru' (7,658 gross tons) licensed for 1969 eastern Bering Sea crab fishery were taking king crab and tanner crab.

The Keiko Maru fleet (operated jointly b Nihon Suisan, Hokuyo Suisan, Hokoku Suisa and Kyokuyo Hogei) began fishing Mar. 12. was assigned a production quota of 43,4(cases (48 $\frac{1}{2}$-lb. cans) of king crab and 8 million tanner crab (including a 5% allowance) The fleet was not doing well in the king-cra fishery. It was concentrating on pot fishir for tanner crab.

Koyo Maru Fleet

The Koyo Maru fleet (Taiyo, Nichiro, Hok kaido Gyogyo Kosha, Hoko Suisan, and Kokusa Gyogyo) commenced fishing Mar. 15. Its pro duction quota was 41,596 cases (48 $\frac{1}{2}$-lb. cans of king crab and 8.2 million tanner crab (in cluding a 5% allowance). It was making rela tively good catches of king crab; tanner cra pot fishing was also satisfactory.

Tanner Crabs Good

The tanner crabs are large and good qual ity. If their present high price in Japan stay ahead of high processing and transportatio costs, the 2 fleets may not suffer as severel from the sharply reduced 1969 king cra quotas as feared. ('Nihon Suisan Shimbun, May 19.)

* * *

SEEK SAURY IN EASTERN PACIFIC

The fishery firm Nippon Suisan is plan ning experimental mothership-type saur fishing (night fishing with lights) in the east ern Pacific, August to December 1969. Th firm will send one 539-gross-ton trawler a a mothership, and one or two 100-gross-to trawlers, to the area east of 170° E. longitude toward the California coast. It will be th first distant-water saury fishing expeditio undertaken by any Japanese fishery firm. ('Rafu Shimpo,' June 4.)

* * *

MORE SHELLFISH CULTURE SEABED AREAS ARE DEVELOPED

The Hokkaido Prefectural Fisheries De partment and the Japan Land Development Co are planning to sample shellfish cultures b plowing the bottom with a specially designe marine bulldozer.

Jap (Contd.):

Japan Land Development Co. developed ototype "marine bulldozer" for about 000 and tested it in October 1968. It erate at a depth of 5 meters and will mpleted in July 1969. Company re- ers will cooperate with engineers of itachi Works to develop a new model by er 1970 capable of operating at 20 s. The "bulldozer" is operated from a rship using 4 cables.

the marine bulldozer proves efficient, sheries Department will attempt to cul- shellfish at points along the Hokkaido previously considered too rocky to use. Consul, Sapporo, May 15.)

* * *

BUILD TUNA
/ POLE FISHING VESSEL

o fishery firms, Nichiro Gyogyo and Gyogyo, may build a combination purse / pole-and-line tuna vessel. It would be rst of its kind in Japan. The vessel will 0 gross tons, or possibly 500 tons, de- g on policy the Fisheries Agency may for such a vessel. The two firms plan rate the combination seiner on a year- basis. It will alternate between the n Atlantic off west Africa and the east- acific. Their idea is to build a vessel an either seine or pole fish, depending hing conditions. They hope to reduce oblem of uneven fishing previously ex- iced by Japanese seiners.

ries Agency Policy

wever, operation of such a vessel pre- a problem for the Fisheries Agency. gency's original policy was against in- sing scale of experimental purse seining est Africa beyond present level. Feeling ther firms may also want to build com- ion seiners, if they can achieve greater ency, the Agency plans to study immedi- the effect this would have in Japan and ad. They are particularly concerned be- of the world trend toward restricting catches. ('Shin Suisan Shimbun Sokuho,' 22.)

* * *

SHRIMP VENTURE
IN INDONESIA PLANNED

The Japanese trading firm Toyomenka is scheduled to establish a local corporation in Jakarta to fish shrimp. Toyomenka recently completed one year's experimental shrimping in Indonesian waters with 3 trawlers owned by Kyokuyo Hogei Fishing Co.

The corporation--Tomen Public Fishing Company Industry--will be formed with total capital of US$27 million. This will be fully invested in 10 years ($10 million the first year). It will operate about 10 native vessels and 6-8 Japanese shrimp trawlers southwest of Borneo. Production is expected to total $1.7-1.9 million annually.

Toyomenka-Indonesia Agreement

Toyomenka agreed provisionally with Indonesia in August 1968 to invest 100%. The condition was that on the 10th year it will sell to Indonesia 49% of corporation's shares and, on 16th year, up to 52%.

The Plans

Plans call for establishment of 5 shrimp-fishing bases, and construction of cold storages, processing plants, net manufacturing plants, radio station for fishing vessels, fuel and water supply facilities, and operation of a training center for fishery technicians. Also, 12 vessels (ten 75 feet and 2 carriers) will be built for corporation. All projects are to be completed in 10 years. To maintain these facilities, company reportedly would have to produce annually at least $2.8 million worth of shrimp. ('Minato Shimbun,' May 8.)

日本

India

SHRIMP TRENDS

India's seafood industry seems to be prosperous. It has enjoyed steady growth from the very beginning. The number of plants, exporters, and foreign buyers has increased. However, seafood exports are shrimp. Take away shrimp--and very little remains.

Total exports have been increasing yearly. But this does not mean that shrimp availability

India (Contd.):

is no problem. An analysis of exports by sizes from Cochin 1965-1968 reveals no shortage of shrimp. Exports of sizes under 15 count to 26/30 count have gone up. However, this is no indication that catches of the large sizes off Kerala have increased.

Shrimp Brought to Cochin

In earlier years, shrimp from distant places could not be brought to Cochin for processing; now, without any loss, shrimp can be collected, preserved, and brought to Cochin for processing. The increase in export of larger sizes from Cochin may be due to this development.

Kerala vs. Other Areas

Kerala landings have not shown any consistent increase compared to landings elsewhere. In other areas, landings have gone up according to fishing effort; in Kerala, the landings have declined in relation to fishing effort.

In 1957, a few mechanized boats landed 7,400 tons, mainly in Kerala. In 1967, with over 2,000 shrimp trawlers, Kerala landings increased to only 27,000 tons. The facts suggest a real threat to the existence of the Penaeid shrimp in Kerala waters.

Kerala's & India's Landings of Penaeid Shrimp, 1967-1960

	Kerala	India	Other-than-Kerala Catches
	(1,000 Metric Tons)		
1967	27	62	35
1966	28	56	28
1965	14	38	24
1964	35	63	28
1963	21	41	20
1962	29	48	19
1961	20	39	19
1960	12	31	19

The average catch-per-hour of a boat trawling in Kerala waters has decreased year after year. Fishing effort has increased tremendously, but return per-unit-of-catching effort has dropped considerably.

Future of Prawns

Is there depletion of prawns off Kerala? Nobody knows. Some experts believe yes; others, no. Nobody has studied exhaustively the biological aspects of shrimp--breeding habits, seasonal movements, growth, and death. ('Seafood Export Journal,' April.)

MID EAST

South Yemen

OFFERS POTENTIAL FISHERIES INVESTMENT OPPORTUNITIES

The Gulf of Aden and the adjacent Ocean, considered one of the most prod fishing areas of the world, have been l unexploited. A substantial change is ex in the next 12 months.

The UN Special Fund is undertaking a vey and training project in the area, a Soviet Union is showing interest in waters.

In May South Yemeni officials agre permit a U.S. firm to buy and freeze lobster tails from the coast of the Fift Sixth Provinces. The large Kuwait-o Gulf Fisheries has proposed a large- fisheries project to South Yemen, but t no agreement has been reached. Japa Spanish, and Italian fishing circles also shown their interest. (U.S. Embassy, June 4.)

SOUTH PACIFIC

American Samoa

TUNA PRICES UP IN JUNE

Japanese suppliers and U.S. packe American Samoa have agreed to a $5- increase for albacore and yellowfin tu liveries in June 1969. The prices a sho are: round albacore: frozen $425, iced g. & g. yellowfin: frozen $342.50, iced The prices are an all-time high for the is

With the good albacore season approa in the South Pacific, the number of Jap vessels based at American Samoa is exp to increase. There were 105 long li working out of that base in June, includ Japanese, 41 Taiwanese, and 55 South Ko ('Katsuo-maguro Tsushin,' June 10.)

AFRICA

& South-West Africa

INDUSTRY DEVELOPMENTS

Africa's 1968 catch was 1,190,000 tons (preliminary figure), compared to tons in 1967. Increased catch from South African licensed factoryships an offset lower catches from the rest eet.

-West Africa's catch rose to 1,078,900 from 784,000 tons in 1967. The increase resulted from the granting of 2 additional full pilchard licenses. Each license was given a small anchovy quota as

or Shoal Fishery

most significant development in 1968 record 1,780,000 ton shoal fish catch, ly pilchards, in waters off South-West (Figures are for the pelagic or shoal South and South-West African waters, han where the fish were landed. Fac- catches have been combined with h-West African catch.)

a decade of carefully controlled ex- , the catch was permitted to more than within 3 years. The sharp increase factoryship operation has divided the into two opposing factions, more or ided along the lines of those who have est in the ships and those who do not. er of scientists and South-West Af- ministrators and business men tend with the latter. The principal issue reat to the pilchard resource from overfishing.

ships

factoryships had a most successful rocessing 615,000 tons of fish into short tons of fish meal and 39,629 s of fish oil. The meal probably sold east $100 per ton, f.o.b.

'Suiderkruis,' after correcting some s that had plagued her in 1967, re- took two-thirds of the total. The Barendsz' took a little over 2 weeks trip from the fishing grounds to Cape discharge her meal and oil. Suiderkruis transshipped her production directly to a carrier vessel in Walvis Bay harbor, taking about 2 days for the operation. At the end of 1968, Barendsz' equipment was modified to permit pelletization of meal. Attempts by South-West Africa to patrol catcher vessels from the factoryship fleets were generally ineffective.

Exports

Exports of fish meal and fish oil reached record proportions in 1968: 402,876 short tons of meal, and 107,167 long tons of oil.

Canned pilchard pack for cat food, tested in the U.S. market, proved very successful. As a result, over a million cases are expected to be exported to the U.S. in 1969, and more than 2 million in 1970.

Spiny Lobster Fishery

The spiny lobster industry continued to deteriorate in 1968, despite the apparent recovery in South-West Africa's landings.

South Africa: In April 1969, the Commission of Inquiry into the South African Fisheries suspended other activities and concentrated on the lobster industry. The South African export quota had not been reached since 1961, landings had dropped from 12,701 tons (live weight) in 1965 to about 7,000 tons in 1968, and the 1969 season was poor. Between 1964 and 1968, frozen lobster tail exports decreased from 339,643 cases (20 lbs. each) to 203,490 cases.

South-West Africa: Spiny lobster landings were about 9,500 tons (live weight), compared with 5,889 tons in 1967. Two factors accounted for the sharp rise: (1) the 1967 season had been especially poor, due in part to inclement weather, and (2) size restrictions had been eliminated at the beginning of 1968. The fishermen filled the export quota and took the permissible 15% of the 1969 quota as well. However, the catch was largely small-size lobster.

Hake Fishery

South Africa: Hake landings were 87,000 tons (headed and gutted fish), about the same as in 1967. The 'Harvest Sun,' a 171-ft., 600-gross ton, freezer stern trawler ordered by

South and South-West Africa (Contd.):

the Sea Harvest Corporation, was launched at Durban. Irvin & Johnson (I&J) ordered a prototype stern trawler from a British firm; 6 of this class have been tentatively ordered from South African yards.

South-West Africa: The South-West African administration continued to press white-fish processors at Walvis Bay to combine and form a consortium that could compete effectively both on the fishing grounds and in the market place. A full pilchard quota was awarded to the proposed consortium. Profits from this valuable asset would supply the consortium with the needed capital. After considerable discussion about division or ownership, agreement seemed near in first-half 1969. Work on the consortium's reduction facilities was almost completed, and production of meal and oil was expected to begin in mid-1969.

Quality Controls

Quality-control proposals have been drawn up by the South African Bureau of Standards. They provide for compulsory standard specifications for frozen fish, frozen marine molluscs, and their products, and for frozen spiny lobster products. It was expected that the proposals would take effect around the beginning of 1970. Revised compulsory standards for canned fish and shellfish were published March 29, 1969. They became effective two months later.

Shrimp Fishery

The South African shrimp fishery continued to falter in 1968. Poor fishing and accidents plagued the Saldanha-Durban operation. That company ceased shrimping activity during the first half of 1969, leaving only one company in the fishery. I&J sent one of its trawlers to do some experimental shrimping in waters off the Angolan coast in early 1969.

Change in Administration

In April 1969, administration over the South-West African fisheries passed to South Africa. The South African Division of Sea Fisheries was given control over South-West African fishery research activity. (Regional Fisheries Attache, U.S. Embassy, Abidjan, June 7.) Important benefits are expected to flow from the change in control. They include joint coordinated research in the waters of South and South-West Africa, and better employment of patrol boats and research vessels. General policy of fisheries administration--and functions concerning legislation and procedures--will be correlated with view to rationalizing control. The change so will facilitate discussion of matters of common concern with boat owners and with the industry. ('South African Shipping News and Fishing Industry Review,' May.)

Senegal

NEW SEAFOOD PLANT OPENS

June 6, 1969, marked the formal opening of the new US$390,000 frozen seafood processing plant of the Société Sénégalaise Produits Alimentaires Congelés (S.P.A.). Annual production capacity of the new plant 2,000 metric tons--1,400 tons of shrimp, spiny lobster, 350 tons of fillet of sole, 250 tons of other fish. By 1972, production expected to increase to 3,000 tons provi sales of $5,650,000. Virtually all the pre production is exported to Europe. Howe the company plans to enter the U.S. and anese markets in the future.

French Investment

The new plant is part of the French-o Amerger group. It will bring Amerger's investment in Senegalese fish plants to a $1,000,000. This includes factories in lack (Amerger Sine-Saloum, $100,800) Ziguinchor (Amerger Casamance, $484, (U.S. Embassy, Dakar, June 11.)

Zambia

LAKE TANGANYIKA FISHERIES TO BE DEVELOPED

Zambia's Industrial Corporation (INDE was slated to make an initial investme about US$1.8 million to develop the fis industry on Lake Tanganyika. Developr will be carried out by Lake Fisheries of Z bia Ltd. INDECO holds an 83% intere Lake Fisheries and a Norwegian firm 15

Zambia (Contd.):

The New Company

The new company has acquired all assets, including a factory and boats, of a foreign company that operated on the lake. Lake Fisheries will buy new trawlers, bigger nets, and 5 refrigerated trucks, and install a new fish-processing plant and distribution warehouse. The marketed tonnage of fish from the lake was expected to rise from about 3 to 20 tons daily by July 1969. ('International Financial News Survey,' May 30, from 'African Development,' Mar.)