

INTERNATIONAL

Swedish FPC Used in Biafra

By late November 1968, initial field tests of fish protein concentrate (FPC) in Biafra had produced very satisfactory results. Only half of the 20-metric-ton order had been sent by the Swedish producer ASTRA, but the remainder was scheduled for early delivery.

Tested on Children

Most of the FPC was distributed by the Lutheran Aid Society. However, the Swedish Red Cross distributed half a metric ton to be used under controlled conditions at a field hospital. Two hundred children suffering from protein deficiency were given FPC, and 260 were given protein in the form of milk. Ninety-five percent of the children receiving milk protein suffered from diarrhea and recovered more slowly. No diarrhea appeared in those receiving FPC and, on the average, they recovered 30% faster. The children in both groups were between 1 and 5 years old. They were given the protein supplements together with carbohydrates from indigenous root foods.

Unflavored FPC Favored

It may be desirable to have the FPC in a pure unflavored form, rather than chocolate-flavored, as the initial shipment was. Pure FPC would be easier to use in the field because it could be mixed directly with local root foods.

First Use By People

The FPC distribution in Biafra was the first significant use of Swedish FPC for human consumption. Previous supplies of FPC from ASTRA have been used as a protein additive in livestock feed. (U.S. Embassy, Stockholm, Nov. 26, 1968.)



France & U.S. Will Cooperate in Oceanography

The U.S. and France have agreed to cooperate informally in oceanographic work. The two countries will promote direct contacts between U.S. and French specialists--and annual meetings between the U.S. Marine Council and CNEOX (French National Center for Exploitation of Oceans).

Some possible areas of cooperation include fish protein concentrate (FPC), ocean pollution, research personnel training, and technology of deep diving.

Lucien Laubier, Deputy Director of the Banyuls Laboratory, will be the French contact for the FPC phase of the program. His U.S. counterpart will be H.E. Crowther, Director of BCF. (U.S. Dept. of State, Nov. 9, 1968.)



Shipping Exhibition Scheduled for Greece

An international shipping exhibition, 'Posidonia '69,' will be held in Athens, Greece, June 2-8, 1969. 'Posidonia '69' will set a completely new trend in international shipping exhibitions.

It will be the first international exhibition of its type aimed specifically at the Greek shipping market. Exhibitors will receive free marketing and other expert advice before, during, and after the event. The exhibition will be open evenings only.

Most Space Already Taken

Most of the available stand space has already been filled. Britain, the Netherlands, Italy, West Germany, Norway, Japan, Switzerland, and Greece are taking part. They may be joined by exhibitors from the U.S., Denmark, France, and Spain.

Shipbuilding, ship repairing, marine engineering, all types of equipment, shipbrokering, bunkering, insurance, and banking will be represented.

'Posidonia '69' will give the worldwide marine industry an opportunity to show its wares on the doorstep of the world's second largest shipping market. ("Alieia.")



Conference Slated on Fish Inspection and Quality Control

An FAO-sponsored International Technical Conference on Fish Inspection and Quality Control is to be held in Halifax, N.S., July 15-25, 1969. As many as 300 delegates and observers from 40 countries are expected.

Conference arrangements grew out of the work of the Codex Alimentarius Commission, a joint FAO-World Health Organization body established to formulate international quality standards for food products. Standards for several fishery products should be available in a few years; inspection systems are considered necessary to ensure compliance.

Proposed in 1964

In 1964, the Committee of Experts on International Standards for Fish and Fishery Products recommended an international conference to exchange technical information among technologists, industrialists, and research workers.

The Halifax conference should foster an understanding of fish-inspection principles and general agreement on the most effective inspection techniques. (Canadian Dept. of Fisheries.)



Japanese Tuna Seining Off Africa Slow

In November 1968, 7 Japanese purse-seine units fishing in the eastern Atlantic off west Africa landed about 2,000 tons of tuna, mostly skipjack. Fishing is steadily falling off and no information has been released on fleet operations during the slow fishing season. ("Katsuo-maguro Tsushin," Dec. 13, 1968.)



Japanese Tuna Fishing Off Chile Poor

In Dec. 1968, the exploratory long-liner 'Azuma Maru No. 31' (340 gross tons), seeking new tuna grounds off central Chile, reported poor fishing. Catches averaged 0.5 ton per operation. No bluefin tuna were found. By Dec. 5, 1968, vessel's catch since survey began in late May 1968 was 203 tons--67% big-eyed, 18% albacore, and 15% unclassified. ("Katsuo-maguro Tsushin," Dec. 16, 1968.)



Japan-Mauritania Fishery Talks Break Off

Private negotiations between Japan and Mauritania in progress at Port Etienne since Dec. 5, 1968, to allow Japanese vessels to fish inside Mauritania's 12-mile exclusive fishery zone, were suddenly terminated Dec. 10. Conditions set by Mauritania were unacceptable to Japan. These negotiations followed up earlier talks held in Tokyo, where the Mauritians had shown considerable flexibility.

Japanese Proposals

The Japanese negotiators were seeking Mauritania's permission for Japanese trawlers to fish inside Mauritanian-claimed waters on payment of an entry fee. Also under discussion were extension by Japan of close to US\$278,000 annually in fishery cooperation funds, and arrangements to buy Mauritania's fish.

The Japanese had hoped to reach an agreement enabling 69 Japanese trawlers, operating off west Africa, to fish for octopus in Mauritanian waters in 1969, during the peak season from January to April. ("Suisan Keizai Shimbun," Dec. 16, and "Suisan Tsushin," Dec. 7, 1968.)



El Salvador to Get South Korean Study Team

South Korea planned to send a 3-man fishery study team to El Salvador in late January 1969. Purpose of the month-long visit was to study the possibilities of developing El Salvador's fisheries. Two weeks will be spent in field surveys, one week reviewing the field work, and one week preparing a report.

S. Korean Plans

If all goes well, South Korean boats will operate from El Salvador ports, principally for tuna, and possibly for shrimp and other species. The Koreans will train 2 or 3 El Salvador fishermen/operators, probably at the FAO deep-sea fishery training center in Pusan, South Korea. (U.S. Embassy, Tokyo, Jan. 7, 1969.)



Norwegian-USSR Sealing Commission Meets

The 11th Session of the Norwegian-Soviet Sealing Commission was held in Moscow Dec. 11-13, 1968. It was attended by scientists and fishery administrators from both countries. Seal catches of the two nations in 1968 and plans for 1969 scientific investigations on the sealing stock in the Northeast Atlantic were discussed.

According to the Norwegian press, the Soviet Commissioners expressed a wish for further Norwegian measures to limit seal catches. The Norwegian Commissioners, however, considered their current measures sufficient to preserve the seal stocks.

1968 Catches

Norway has shortened the seal-hunting season. Her participation in Northeast Atlantic sealing is limited to vessels of less than 100 gross registered tons. In 1968, Norwegians caught 15,000 seals with 5 vessels. Soviet seal hunting, which is land-based, is limited to an annual catch of 20,000 animals.

The 12th session of the Commission will be in Oslo in November or December 1969. (U.S. Embassy, Oslo, Dec. 24, 1968.)



USSR & Iceland Renew Trade Agreement

The Soviet-Icelandic trade agreement, scheduled to expire at the end of 1968, was renewed for 3 years (1969-1971) in late August 1968. The agreement covers Soviet exports to Iceland of petroleum products, machinery, and equipment (fish processing machinery, ships and ship equipment, etc.); and Icelandic exports to the Soviet Union of frozen fish, salted and frozen herring, canned or preserved fishery products, fishing gear, etc.

New Import Quotas

A minimum and maximum annual quota range of 4,000-6,000 metric tons for Icelandic exports of whole frozen fish and frozen herring was established under the new agreement. This gives the Soviets greater flexibility in annual purchases than the expired agreement, which provided for an annual 5,000 ton purchase of those items.

The Soviet annual import quota for frozen fish fillets remained unchanged at 12,000-15,000 tons; salted herring quota is 10,000-12,000 (3,000 tons less than under the expired agreement); quota for canned or preserved fishery products ranges from 31.5 to 50 million kroner (US\$552,600-877,000).

Some Quotas Not Set

Fixed annual quotas have not been established for Soviet imports of Icelandic fish nets, lines and ropes, nor for Icelandic imports of Soviet fish processing machinery, ships and ship equipment. (U.S. Embassy, Reykjavik, Sept. 5, 1968.)

Note: It is not known if any arrangements were made with regard to the agreement after Iceland's kroner devaluation on Nov. 12, 1968. Therefore, the old conversion rate of 56.93 kroner to US\$1 has been used.



FOREIGN

CANADA

NEWFOUNDLAND WILL BUY FISH PLANTS

The Newfoundland Government will purchase the facilities of North Eastern Fish Industries, Ltd. (NEFI) to prevent their close-down when Unilever, Ltd., ceases operation at the end of January 1969. The province will buy 4 processing plants: one each at Harbour Grace, Old Perlican, Fermeuse, and Port-de-Grace; the fish-meal plant associated with the Harbour Grace facility; 4 working deep-sea draggers and a training ship; and 18 homes built for NEFI personnel. The estimated value is C\$12 million. No indication was given of the funds' source. At full production, the plants employ about 800 persons and purchase fish from 1,200 inshore fishermen.

Why Industry Is Slipping

The Government will keep the plants going until a private operator is found. The fish processors claim that foreign subsidies are responsible for the low prices paid for Newfoundland fish in the U.S. market. Other observers contend that conditions in the local industry explain the Europeans' success at Newfoundland's expense. These conditions include: outdated fishing methods and equipment, undersized catch, inferior product, and operating methods unsuited to local conditions, particularly by British parent firms such as Unilever and the Ross Group. (U.S. Consul, St. John's, Dec. 19, 1968.)

* * *

NEWFOUNDLAND SHRIMP

Ever since the Canadian Department of Fisheries began to explore the possibilities of shrimp fisheries along Newfoundland's west coast, rumors have been circulating that it was a large untapped resource. It now appears that the number of shrimp available is relatively small; only supervised commercial exploitation can determine what amount of harvesting the resource can carry. Local fisheries officials do not believe the resource can stand any large-scale commercial exploitation.

Location of Shrimp

Initially, it was thought that shrimp were available only in the area immediately adjacent to Point Riche. New explorations have indicated a considerable quantity of relatively small shrimp available south from Point Riche to Cow Head. A slightly larger variety is found on the south coast east of Ramea, and in St. Mary's Bay.

Lack of Processing Plant

The Canadian Department of Fisheries will continue exploratory work for the next 3 to 4 years. However, it is looking to commercial fishermen to determine by actual trawling the extent to which shrimp can be harvested, particularly along the west coast. One problem is the area's lack of adequate canning or freezing facilities. With a plant available, unshelled shrimp could be frozen and shipped directly. Until one is built there will be no market for commercial exploitation, except for local fresh product sales.

Dangers of Exploitation

Fisheries officials are extremely cautious in discussing shellfish exploitation in Newfoundland because of the recent overexploitation of scallops. They also fear for the lobster harvest as there is constant danger that overeager fishermen will harvest the female before she can lay her eggs. So Department scientists are keeping close watch on all harvesting of shellfish off the coast of Newfoundland. (U.S. Consul, St. John's, Nov. 21, 1968.)

* * *

NEWFOUNDLAND FISH-MEAL PLANT REBUILT

International Fisheries and Fish Meal, Ltd., plans to reopen a fish-meal plant at Port Harmon, Newfoundland, soon. The plant was almost destroyed by fire early in 1968. International Fisheries is a subsidiary of Litton-Grace Industries.

The plant will employ 30 people and provide markets for the local herring fishermen. A small net-repair operation associated with

Canada (Contd.):

the plant has been supplying trawlers based in the area. (U.S. Consul, St. John's, Oct. 30, 1968.)

* * *

CHANGE SALMON LICENSING PROGRAM

The privilege of fishing salmon will be given to all west coast commercial fishing vessels that had recorded landings of any species in 1967 or before September 6, 1968. This extends the salmon license program effected in fall 1968, and allows halibut, herring, groundfish, and shellfish boat owners to fish for salmon. They have until May 31, 1969 to decide.

Salmon Fleet

There are now 7,000 Class 'A' and 'B' salmon boats, a reduction of 1,200 since the salmon restriction license scheme went into effect September 6, 1968. Another category has been added, Class 'C', for boats not wishing to fish salmon. A maximum of about 160 boats, excluded from the initial salmon program, will be affected under this plan if all choose to come in. About 65 halibut boats, 40 that fish for groundfish, 25 shellfish boats, and 30 other type boats will now be able to fish salmon. Boats that come into this scheme will be under the same restrictions announced for salmon boats in September 1968. ("Fisheries News," Nov. 21, 1968.)

* * *

TO CONVERT RETIRED WEATHER SHIPS
TO FPC FACTORY SHIPS

A Vancouver, B.C., firm has purchased 2 surplus weather ships for conversion to FPC factory ships. They will be used on the east and west coasts of Canada. Each ship, trawling for about 200 tons of hake, turbot, herring, dogfish, and perch a day, will convert the catch to 40 tons of powdered FPC and 8 tons of oil.

Target Date: July 1969

The company will operate under a U.S. firm's license. It will hold 7 Canadian patents for the azeotropic solvent extraction process. Communist China may purchase the entire west coast output. First conversion on the west coast should be completed by July 1969. About 28 men will be required for navigation and fishing, and 6 to man 3 shifts in the factory area. ("Fishing News International," Dec. 1968.)

* * *

ARTIFICIAL CULTCH DEVELOPED
FOR OYSTERS

An artificial cultch, developed by the British Columbia Research Council, is said to have many advantages over the mature oyster shells commonly used in oyster farming. The cultch is being tested in Pendrell Sound.

During commercial transplanting of oysters to new beds, the very young oysters are collected in the water on cultch, a solid material, mainly mature oyster shells.

Advantages of New Cultch

The new artificial cultch is uniform in size and shape, permitting convenient packing, and is shaped to minimize silting of surfaces by bottom mud. As it disintegrates in seawater after about a year, individual oysters on the same piece of cultch do not crowd and compete with each other.

* * *

MIDWATER HERRING
TRAWLING SUCCESSFUL

Huge midwater trawl catches of Atlantic herring in the Gulf of St. Lawrence have shown that trials of this method, pioneered by the Departments of Fisheries of Canada and Nova Scotia, have proved successful. A record 1,200-ton catch was made early in November 1968, by the 'J.B. Nickerson,' a 156-foot stern ramp trawler. It showed the method, previously proved feasible with smaller vessels, can be adopted by larger trawlers. J.B. Nickerson is the first of her size to try midwater trawling for herring.

Nickerson Catches

On November 2, 1968, the J.B. Nickerson landed 428 tons of herring. Four days later, she arrived in port with 499 tons and, on November 9, brought in another 300. The 300-ton catch, made in a single night, would have been greater, but bad weather put a stop to fishing. All catches were made at night in the Bird Rock area off the Magdalen Islands. Catches were landed at Caraquet, N.B., for fish meal production. (Canadian Dept. of Fisheries, Nov. 20, 1968.)



EUROPE

Norway

TROUT ARE RAISED IN SEA WATER

A new method of raising trout has been developed in the Sunnmøre district of Norway in the past decade. Instead of keeping the fish in fresh-water tanks and pools, they are reared in sea water rich in the natural nutrient enjoyed by sea trout and salmon. In this way, qualities of pigment, aroma, and taste are achieved that are superior to those of trout raised in fresh water.

The fish are almost all rainbow trout, a particularly adaptable variety. Like salmon, rainbow trout are spawned in fresh water but grow and flourish most noticeably in sea water. They thrive particularly well in the temperate waters of the Gulf Stream zone along the Norwegian west coast.

Co-op Formed

Sunnmøre is the geographical center of the district of the same name. In Sunnmøre's main town, Alesund, the trout farmers have established a cooperative, Norsk Ørretomsetning S/L. Export inquiries are handled by Ferskfiskutvalget, Alesund.

The so-called salmon trout of Sunnmøre differs considerably from ordinary rainbow trout. This is due particularly to the salmon-red coloring of the meat and its taste and texture. Especially when smoked, it can be mistaken for salmon; however, the salmon trout contains fewer calories and is less fatty than salmon.

Output Still Small

Output is modest. Exports have been chiefly to Sweden, where there is a heavy demand for the salmon trout. Production is being increased gradually to satisfy markets in other countries.

Price is higher than for rainbow trout but lower than for salmon. ("Norway Exports.")

* * *

DEVELOPS MACHINE FOR BAITING LONG LINES

A Norwegian firm, Trio Maskinindustri, has developed a machine for baiting long lines. It will bait 2 hooks a second while the vessel maintains a speed of 6 m.p.h. Hooks, on dropper lines one fathom long, are baited with herring. If tests are satisfactory, the machine will be produced to sell for US\$1,060 to \$1,450. (Reg. Fish. Attaché, U.S. Embassy Copenhagen.)



Denmark

LANDS LARGE REFRIGERATED SEA WATER-PRESERVED CATCH

In mid-November 1968, the Faroese power-block purse seiner 'Solborg' landed the largest catch of fish ever brought by a single vessel into the North Sea port of Hirtshals, Denmark. The catch, 260 metric tons of mackerel, preserved in Solborg's refrigerated sea water (RSW) tanks, was expected to be worth about US\$26,600.

RSW-preservation has been hailed as a giant step forward for the Danish fishing industry. The Dutch have offered sharp competition in supplying herring and mackerel to the big West German canning industry. (U.S. Embassy, Copenhagen, Nov. 26, 1968.)

* * *

FAROESE MAY PUSH FOR 16-MILE FISHING LIMIT

The Faroese fishermen's association favors extending the present 12-mile fishing limit to 16. Faroese say that stocks of cod and haddock inside the limit have increased greatly since it was set at 12 miles and foreign fishermen were excluded. No official comment has yet been made on fishermen's demand.

EFTA Responsibilities

As EFTA members, they would be prevented from extending the limits. They had

Denmark (Contd.):

joined EFTA primarily to avoid British customs duty on frozen fillets. Now that Britain has extended the duty to EFTA countries, there is no reason for the Faroe Islands to continue as members. In fact, a bill has been introduced in parliament to withdraw from EFTA. (Asst. Reg. Fish. Attaché, U.S. Embassy, Copenhagen, Nov. 26, 1968.)

* * *

FAROESE RECEIVE FIRST
FACTORY TRAWLER

The 'Stella Kristina,' the first Faroese factory stern trawler, was built in Norway. It is 203 feet long, has a beam of 33 feet, and is powered by a 2,200-hp. diesel. The vessel can produce 36 tons of frozen fillets in 24 hours and can carry 700 tons in her cold-storage holds. Both bottom and midwater trawls can be operated using 8 remote control winches on the trawl deck. Fish are gutted by hand, but all other operations are by machine. Conveyer systems are used for all transport until the frozen fillets are placed in cold storage.

Modern Equipment

Stella Kristina is equipped with modern fish-finding and navigating equipment, including echo-sounder, ASDIC, netsonde, and a 1,200-watt transmitter. The factory deck has 2 fillet lines, one each for small and large fish. Fillets are collected in the center and packed in 5.5-lb. cartons for the 3 freezer units; each unit can handle 12 tons in 24 hours. After freezing, fillets are removed from the small cartons and repacked in larger boxes before being carried by conveyer to the cold-storage hold.

Sistership

A sistership to Stella Kristina will be delivered in April 1969. There are plans to order a third, and perhaps a fourth, vessel in the series. (U.S. Embassy, Copenhagen, Dec. 30, 1968.)

* * *

INDUSTRIAL FISHERY
IN ESBJERG BOOMING

During the first 10 months of 1968, industrial fishery landings in Esbjerg exceeded 500,000 metric tons. This is considered fantastic by local experts, who had predicted earlier that landings might reach this level by 1980. About 325,000 tons were landed in same period 1967. Reasons for increase include excellent weather in 1968 and great abundance of North Sea stocks of industrial species.

Co-op Busy

At Esbjerg's largest fish meal and oil cooperative, spokesmen noted that landings from their 330 member vessels had exceeded predicted landings by 100,000 tons. The plant has been able to process 1,200-1,300 tons of fish a day throughout the entire year without difficulty. However, experts warn against counting on such landings in future years. (U.S. Embassy, Copenhagen, Nov. 26, 1968.)



France

BRITTANY TO ESTABLISH
SINGLE FISHING POLICY

A single fishing policy is to be established by 14 ports in Brittany to combat generally deteriorating conditions in the area. The ports are Morgat, Douarnenez, Audierne, St. Guenole, Kerity, Guilvienc, Lesconil, Loc-tudy, Concarneau, Moelan, Lorient, Etel, Camret, and Quiberon. Lorient, Concarneau, and Douarnenez are the 2nd, 3rd, and 5th largest ports in France, producing about 15% of the national catch.

In 1968, these ports suffered from low prices and small catches. Lack of cooperation between fishing enterprises in the region has not helped.

New Organization Formed

An organization, 'Groupement des Peches Maritimes Bretonnes,' has been formed to advance the industry. It will include vessel owners, crews, manufacturers, wholesalers, canners, and exporters. About 35,000

France (Contd.):

people-- $\frac{1}{3}$ of all the people employed in fisheries in France--will be affected. The organization intends to use all practical means to facilitate or develop the economic activity of its members, to attract the attention of the European Economic Council, and to help industry members solve their problems jointly. The organization, headquartered in Concarneau, will have a Council of Administration of 14 elected members. ("Fishing News International," Dec. 1968.)



USSR

LONG-LINERS TO FISH COD AND HALIBUT IN NORTH ATLANTIC

A long-liner of the Latvian fishing fleet based at Liepaja, Western Fisheries Administration, left for waters off Iceland early in May 1968. It was equipped only with a 15-kilometer (9.4 miles) long line fitted with over 20,000 hooks. Under favorable conditions, the vessel was expected to catch as much as 6 metric tons of cod or halibut per haul. Another 4 long-liners from the same port were expected to leave for the North Atlantic. ("Rybnoe Khoziaistvo" Sept. 1968.)

Long Lining Not New

Vessels of the Northern Fisheries Administration have been fishing halibut with long lines in the Barents Sea since 1962. These caught 1,760 metric tons that year and nearly double that (3,240 tons) in 1963. The Soviets have been long-lining commercially for cod and halibut in the North Atlantic also.

Tests Conducted

In 1966, the Kaliningrad commercial fisheries administration sent 3 medium trawlers (SRT-692, SRT-172, and SRT-104) to explore the area between Iceland and Greenland and to test long-lining for cod and halibut. A scientist from the ATLANTNIRO participated in the expedition.

The Soviets expect to expand the use of long-line gear off Norway, Iceland, Greenland, and Canada to increase substantially

their catch of cod and halibut. The total Soviet North Atlantic halibut catches have decreased in recent years from 27,100 metric tons in 1964 to 10,300 tons in 1966.

* * *

PREPARES FOR 1968/69 WHALING SEASON

The USSR is preparing for the Antarctic whaling season. Fleets will be sent to Antarctica from Kaliningrad, Odessa, and Vladivostok.

Only 3 whaling motherships will go to the Antarctic: 'Iurii Dolgorukii' from Kaliningrad, 'Sovetskaia Ukraina' from Odessa, and 'Sovetskaia Rossiia' from Vladivostok. Four whaling motherships will be operating in the North Pacific.

International Quota

To prevent further depletion of whale resources, the Soviet Union and other Antarctic whaling countries are restricted to a total catch of 3,200 blue-whale units during the 1968/69 season.

* * *

THE FRESH-WATER CRAYFISH INDUSTRY

Fresh-water fishery landings from the lower reaches of the Volga River had reached 173,000 metric tons by the end of October 1968. Fishing for crayfish on a commercial scale has been a new development on this river and its tributaries. Crayfish are washed, sorted into 3 sizes, and sent live by air to Moscow and other large cities of the USSR. Because of the high temperatures in summer, they must reach market, still alive, within 4 days. A demand for Soviet crayfish has developed in Finland, Norway, and France. ("Fishing News International," Dec. 1968.)

Decrease in Caspian Catches

Data for total fresh-water fishery catches in the Lower Volga for 1967 are not available, so it is not known whether catches in 1968 were larger or smaller than in 1967. It is known, however, that 1967 landings for the

USSR (Contd.):

entire Caspian Sea lagged behind 1963 landings. In 1963, the Soviets caught about 380,000 metric tons in the Caspian. Preliminary data for 1967 show only about 370,000 tons landed.

Crayfish Catches

Crayfish catches in the Lower Volga and the Caspian are small, probably not exceeding 200-300 metric tons a year.

More is known about the crayfish resources in the River Don. In 1967, "Rybnoe Khoziaistvo," a Soviet fishery periodical published an article by V.P. Negrobov stating that "in 1966 the catches of river crayfish in the Rostov Region were only 14% of 1930 catches." The decline was due to overfishing by "unorganized amateurs" who caught twice as many crayfish as the fishery cooperatives (kolkhozes).

Recommendations for Management of the Fishery

Negrobov recommended fishing licenses for amateur fishermen and restrictions as to location, length of time, and type of gear to be used. Negrobov also accused Azovrybvod, the organization responsible for protection and preservation of fishery stocks in the Sea of Azov and nearby reservoirs, of not knowing either the total catches of crayfish in its control area nor the maximum sustainable yield. He noted that, as a result, Azovrybvod

can not properly protect the species (the so-called Kuban crayfish) from overexploitation. He suggested an annual catch limit of about 150 metric tons of crayfish for the Don River, its tributaries, and storage lakes. The Kuban crayfish (the word comes from the Caucasian river Kuban) molt and mate at different times every year so the closed season must be newly determined each year.

Negrobov also suggested an expanded transplantation program for various species of crayfish inhabiting the Azov-Caspian Sea basin and modernization of fishing gear and vessels.

* * *

TROUT BRED IN CAGES

In Ropsha, a suburb of Leningrad, the Soviets have begun breeding rainbow trout in cages as chicken and other poultry are bred. Each cage, the size of an average desk, is stocked with close to 2,000 fish. Although the fish are hampered in their movements, this does not impair their appetite or growth. They devour every bit of feed supplied at regular intervals. It is not known how many cages are planned to be set up. ("Rybnoe Khoziaistvo," Oct. 1968.)



HOW MUCH POWER (ENERGY) IS IN A WAVE?

The kinetic energy in waves is tremendous. A 4-foot, 10-second wave striking a coast expends more than 35,000 horsepower per mile of coast.

The power of waves can best be visualized by viewing the damage they cause. On the coast of Scotland, a block of cemented stone weighing 1,350 tons was broken loose and moved by waves. Five years later the replacement pier, weighing 2,600 tons, was carried away. Engineers have measured the force of breakers along this coast of Scotland at 6,000 pounds per square foot.

Off the coast of Oregon, the roof of a lighthouse 91 feet above low water was damaged by a rock weighing 135 pounds.

An attempt has been made to harness the energy of waves along the Algerian coast. Waves are funneled through a V-shaped concrete structure into a reservoir. The water flowing out of the reservoir operates a turbine which generates power. ("Questions About The Oceans," U.S. Naval Oceanographic Office.)

ASIA

Japan

SURVEYS SHRIMP RESOURCES IN 5 SOUTHEAST ASIAN COUNTRIES

An 8-man Japanese survey mission studying shrimp resources in 5 southeast Asian countries has found room for further resource development. They noted that it would take a long time to improve the quality of shrimp produced by those countries because of their lack of adequately equipped vessels and cold storages. They also thought undue competition by Japanese trading firms should be eliminated, and saw a need to help build up the local shrimp industries.

Thailand

They found that Thailand, ranking next to Mexico as Japan's leading shrimp supplier, can supply Japan with about 5,000 metric tons annually. However, quality suffers due to the distance over which catches, under inadequate refrigeration, must be transported from port to processing plant. A fishery products exporters association has been formed that could seek quality improvement.

Malaysia

The resource is believed to be abundant in Malaysia, but the government is not actively backing shrimp exports. Processing facilities and refrigeration techniques are still in their early stages of development, although in North Borneo most of the shrimp vessels and processing plants are modern and shrimp quality is good.

Singapore

Singapore does not look promising since it is not a producer of raw shrimp. It imports raw shrimp for processing and reexports it to other countries.

Indonesia

Indonesia's resource is abundant. Quality is poor because shrimp are harvested by fishermen living on many scattered islands where cold-storage facilities are inadequate. It is the most promising country for shrimp resource development. Construction of cold storages and other dockside facilities is the biggest problem.

Philippines

Of the 5 nations, the Philippines is the one most actively striving for shrimp export. It hopes to export shrimp to Japan. Despite resource abundance, fishing vessels and cold storages are few, so there is little hope of obtaining shrimp supply from her in the immediate future. The mission observed that some form of assistance should be extended to develop Philippine shrimp resources. ("Suisan Keizai Shimbun," Dec. 6, 1968.)

* * *

1968 WAS GOOD MACKEREL YEAR

Pacific mackerel fishing off Japan in spring and fall of 1968 was good. Canned mackerel production for both domestic sales and exports was over 10 million cases; it was expected to reach 12 million cases by year's end.

Production of export packs had passed 7 million cases and was expected to total 7.5 million. However, exports were not likely to exceed 6.5 million cases because sales to the Philippines and South Vietnam had slowed down since October 1968. This was due to their delay in setting up letters of credit. Thus, at least 1 million cases of export packs were likely to be carried over to 1969. In 1967, Japan produced 8.06 million cases of canned Pacific mackerel; 4.84 million cases were for export. ("Suisan Tsushin," Nov. 9, and "Kanzume Nippo," Dec. 7, 1968.)

* * *

RECORD HIGH PRICES FOR SEA BREEM AND SQUID

A shortage of 'monko' squid and sea bream taken by Japanese trawlers off West Africa was expected to cause domestic market prices to soar by the end of 1968, when demand peaked. Prices for 'monko' squid averaged US\$889-917 a metric ton ex vessel in late November; these were expected to advance to a record \$1,389 a ton by end of 1968.

Red sea bream, around \$611-639 a ton in late November, may have risen to an average of \$833 a ton. ("Minato Shimbun," Nov. 22, 1968.)

* * *

Japan (Contd.):

NEW LARGE LONG-LINERS

One of Japan's most modern tuna longliners, the 'Akitsu Maru No. 7,' 450 gross tons, recently built for Kyokuyo Hogeï Fishing Co., departed Oct. 28, 1968, for the bluefin tuna fishing grounds south of Australia.

The vessel is equipped with labor-saving equipment, such as the hanging-type fish freezing system, and the line winder, a new long-line retrieving gear similar to the auto-reel. It carries a crew of 19, including the skipper; previously, a 300-gross-ton longliner carried 27-28 crewmen.

The vessel is 50.6 meters (166 feet) long, has a beam of 8.9 meters (29 feet), depth of 4.05 meters (13.3 feet), a main engine of 1,250 hp., and maximum speed of 13.1 knots.

Other Vessels

Another large portable-boat-carrying tuna longliner (499 gross tons) was ordered by the Daien Fishing Co. To be named 'Daien Maru No. 11,' she was scheduled to be completed by Miho Shipyard in Shizuoka Prefecture for delivery in January 1969.

A similar-sized longliner, ordered earlier by Daien, was scheduled for delivery in late December 1968. ("Minato Shimbun," Nov. 13, and "Nihon Suisan Shimbun," Nov. 11, 1968.)

* * *

CANNED TUNA SALES DROPPED IN 6-MONTH PERIOD

Canned tuna in brine sold by the Tokyo Canned Tuna Sales Co. to trading firms during April-September 1968 totaled 1,202,849 (standard) cases. This is a decline of about 700,000 cases from the 1967 period, when sales reached 1,901,722 cases.

Tuna in oil validated for export during April-September 1968 totaled 1,162,045 cases, down 271,700 cases from the comparable 1967 exports.

Tuna specialty packs validated for export during the 1968 period were 644,146 cases, up about 130,000 cases over the comparable 1967 figure.

Tuna in brine validated for export to countries other than the U.S. during April-September 1968 totaled 24,648 cases, compared with 11,730 cases for the 1967 period. ("Suisan Tsushin," Nov. 15, 1968.)

* * *

BUYS MORE MEXICAN SHRIMP

In late October 1968, Japanese trading firms negotiating for Mexican west coast shrimp were believed to have contracted for over 1,000 tons of frozen shrimp for November. The new supply was scheduled to arrive in Japan in December.

The Japan Marine Products Importers Association has set a 1,000-ton monthly ceiling for Mexican shrimp imports. When purchases reach that level, the Association cautions trading firms not to make any further contracts during that month.

Quantity buying in November was due to the delayed opening of the Mexican west coast shrimp fishery. The delay caused competition among trading firms for Mexican shrimp for Japan, where holdings of medium and small shrimp had sharply declined during the preceding months. Mexican shrimp suppliers, anticipating the rush, were reported to have raised prices 2 cents a pound for the 26-30, 31-40, and 41-50 counts. ("Suisan Tsushin," Nov. 29, 1968.)

* * *

FROZEN SHRIMP IMPORTS DROP

In Oct. 1968, Japan imported 2,496 metric tons of frozen shrimp worth about US\$4.79 million; 3,200 tons were imported in Oct. 1967. The decline was attributed to the total absence of shipments from Persian Gulf countries and from Central American countries other than Mexico. Japanese trading firms were reported hustling to buy shrimp, but were having difficulty in rounding up supplies. Leading suppliers in October 1968 were Hong Kong, Thailand, Pakistan, and Communist China. ("Suisancho Nippo," Nov. 22, 1968.)

日本

SOUTH PACIFIC

Australia

FISH MEAL IMPORTS RISING

In the past 5 years, Australia's fish meal imports have increased more than threefold-- from 18.7 million pounds in fiscal year (FY) 1963/64 to 61.7 million pounds in FY 1967/68 (July 1967-June 1968). Imports in FY 1967/68, double the previous year's, equaled about 300 million pounds of fish, round weight; this was 3 times the total annual fish catch.

Australia imported 30,869 short tons of fish meal in FY 1967/68. South Africa supplied 20,608 short tons; Chile, 8,128; American Samoa, 1,042; Peru, 718; and other countries, 373. Average import value dropped from A\$139 a short ton in 1966/67 to A\$104 in 1967/68 (A\$1 = US\$1.12).

Fish Meal Production Steady

Fish meal production was the same in 1967/68 as in 1966/67--2.2 million pounds.

Rapidly growing imports and rising interest in establishment of reduction plants reflect the increased emphasis on scientific livestock feeding methods, particularly for poultry and pigs. ("Australian Fisheries Newsletter.")

* * *

FOREIGN VESSELS IN AUSTRALIA'S 12-MILE ZONE

At least 3 times in 1968, Taiwanese fishing vessels, allegedly fishing or transiting inside Australia's 12-mile territorial seas, created a minor public furor, particularly in Queensland. In the latest incident, in Oct. 1968, 5 vessels were sighted in the general vicinity of Portland Roads, 250 miles north of Cooktown, Queensland.

One Australian trawler reported that crew members of a Taiwanese vessel went ashore on October 31 without the Australian Government's authorization, apparently in search of fresh water.

Public Concern

Continued sightings of Soviet, South Korean, and Taiwanese vessels fishing off Australian coasts have spurred public and industry interest in government action to ensure that such vessels fish only in international waters. While patrol craft are sent to investigate reports of foreign vessels in the 12-mile limit, many commentators believe that Australia's capability is too limited to allow for adequate patrol of offshore waters.



American Samoa

NEW TUNA PRICES

Japanese tuna suppliers and U.S. packers in American Samoa agreed on December 1968 and January 1969 prices. Albacore increased \$20 a ton and yellowfin \$5 a ton in December 1968. There was to be an additional \$5 a ton increase for all January 1969 deliveries.

December prices, per short ton: round albacore--frozen, \$410; iced, \$395; g. & g. yellowfin--frozen, \$335; iced, \$312.50. ("Suisan Keizai Shimbum," Dec. 6, 1968.)

