

Results of the first full year of joint research on the tuna and billfish stocks in the Atlantic Ocean under the National Marine Fisheries Service-Woods Hole Oceanographic Institution Cooperative Game Fish Tagging Program are included. Over 1,800 game fish were tagged; 673 of these were sailfish released off the southeast coast of Florida and off Cozumel, Mexico. Seventy-nine recoveries of tagged game fish were recorded in 1974. Amberjacks provided the most returns (25) with small bluefin tuna second (19). One giant bluefin tuna tagged off the Bahamas was recaptured off Norway 461 days later. An amberjack was recaptured by the same captain who tagged and released it exactly 365 days earlier at the same location in the Florida Keys.

Copies of the 1974 Ocean Game Fish Newsletter may be obtained from the Southeast Fisheries Center, National Marine Fisheries Service, NOAA, 75 Virginia Beach Drive, Miami, FL 33149.

King Crab, Salmon, and Lobster Fisheries Called "Conditional"

The Commerce Department has declared the American lobster in the Gulf of Maine; the salmon fishery in Washington, Oregon, and California; and the Alaskan King Crab fishery to be "Conditional Fisheries."

Commerce Department regulations consider a Conditional Fishery as one where there are already sufficient vessels to harvest the available catch. The National Oceanic and Atmospheric Administration's National Marine Fisheries Service has determined that these fisheries have more than enough vessels involved in the harvest.

Being declared a Conditional Fishery means that the NMFS financial assistance programs cannot be used to add more vessels to the fishery's existing fleet, but can be used to assist the vessel owners in the fishery to upgrade existing vessels, or to replace vessels lost or withdrawn from the fleet.

NMFS financial assistance programs offer benefits to help commercial fishermen modernize their vessels. Under the Fishing Vessel Guarantee program, NMFS can now provide lend-

ers an attractive service, fully guaranteeing obligations incurred by fishermen to finance up to 75 percent of the cost of constructing, reconstructing, or reconditioning commercial fishing vessels.

The capital Construction Fund program may be used to obtain deferment of taxes on certain income derived from commercial fishing operations when such income is deposited in a special fund with the intention of using it for constructing, acquiring, or reconditioning a commercial fishing vessel. Notice of these declarations appeared in the Federal Register the week of 22 September 1975.

Director Named for NOAA OCS Environment Program

Rudolf J. Engelmann has been appointed director of the National Oceanic and Atmospheric Administration's Outer Continental Shelf Environmental Assessment Program in Boulder, Colo. The multimillion-dollar study seeks to determine the probable ecological impacts of oil exploration and development activities on Alaska's Outer Continental Shelf.

During the early years of the program, investigators will examine intensively the life forms and physical environment of the Outer Continental Shelf of Alaska, focussing on eight oil leasing areas spread among the Gulf of Alaska, Bering Sea, Chukchi and Beaufort Seas. They will evaluate the roles that natural processes play in spreading contaminants from petroleum development

sites, how marine life would be affected, and what natural hazards face oil development activities in this region. The study is being conducted by the Commerce Department agency's Environmental Research Laboratories for the Interior Department's Bureau of Land Management.

Before joining NOAA, Engelmann was Deputy Manager for the environmental research of the U.S. Energy Research and Development Administration and its predecessor organization, the Atomic Energy Commission. Prior to that he led the agency's Fallout Studies Branch, concerned with planning and managing basic research programs in support of the nation's need for better knowledge of radioactive fallout processes.

Engelmann formerly was employed by Battelle Northwest in Richland, Wash., where he designed and conducted research projects and experiments in meteorology. In the Air Force during the 1950's, he was a weather observer and forecaster in various states and Labrador. Engelmann received a B.A. degree in mathematics from Augsburg College at Minneapolis, Minn., in 1950. He subsequently attended New York University and the University of Washington at Seattle, from which he received a Ph.D. degree in atmospheric physics in 1964. The Kenmare, N.D., native and his wife, Virginia, live with three children in Boulder, Colo. Three other children are in Pennsylvania and Maryland colleges.

Foreign Fishery Developments

Portugal, Canada Discuss Marine Fisheries

Portuguese and Canadian delegations met in Ottawa on 4 and 5 September 1975 to discuss fishery matters, and issued the following joint communique: (The Canadian and Portuguese delegations) "recognized that it was imperative to ensure strict fulfillment of obligations assumed under the International Commission for the Northwest Atlantic Fisheries (ICNAF), particularly in light of serious declines in the stocks." The Portuguese delegation indicated that they were taking measures to improve

their fishing vessel log-book to bring about a fuller reporting of discarded by-catches, and that they would be intensifying their sampling program to improve the assessment of the state of the stocks and the yields they can support. It was agreed that, under the ICNAF Scheme of Joint International Enforcement, steps would be taken to enable Portuguese fisheries inspectors to work with Canadian inspectors in securing improved compliance with ICNAF regulations.

The Portuguese delegation announced the intention of their Government to designate in the near future a Portuguese fisheries official stationed in St. John's, Newfoundland. The representative would deal directly with Canadian fisheries authorities on a day-to-day basis, with regard to the implementation of conservation measures and their enforcement and other related matters.

It was agreed that officials of the two sides would meet from time to time, as needed to:

- 1) Review problems raised by either Government regarding the implementation of agreed measures, and to make recommendations for the resolution of such problems;

- 2) Facilitate the coordination of

statistical and scientific information;

- 3) Improve bilateral cooperation on fisheries matters of mutual interest.

Both delegations attached great importance to their future cooperation in the field of fisheries. The Portuguese delegation stated that, as long as the conservation and rational utilization of the living resources of the sea are assured in the general interests of mankind, Portugal recognizes to Canada, as a coastal state, economic rights, in an area beyond and adjacent to waters now under its fisheries jurisdiction, in accordance with the consensus emerging from the third United Nations Conference of the Law of the Sea. The two sides expressed their readiness to meet at an early opportunity in order to consider the elaboration of a bilateral

agreement of fisheries cooperation that would establish the terms and conditions governing continued fishing by the Portuguese fleet in waters off Canada's Atlantic Coast, taking into account anticipated legal and jurisdictional changes in the regime of fisheries management in such waters and relevant provisions of the 1972 Canada/Portugal fisheries agreement.

The Portuguese delegation was chaired by J.C.E. Cardoso, Director General, Fisheries General Administration; the Chairman of the Canadian Delegation was M.P. Shepard, Director, International Fisheries Policy, International Fisheries and Marine Directorate, Department of the Environment. (Source: U.S. Embassy, Ottawa.)

ROK Fishing Vessel Is Seized and Fined

Two National Marine Fisheries Service (NMFS) enforcement agents were aboard a U.S. Coast Guard C-130 aircraft on 7 August 1975, when they sighted the Republic of Korea (ROK) stern trawler *Kum Kang San* fishing in an area 10.5 miles off Sisters Island and 7.9 miles off Seal Rock, near Sanak Island, in the western Gulf of Alaska (see map), inside the U.S. Contiguous Fishing Zone (CFZ).

The aircraft notified the *Kum Kang San* by flashing light and message blocks to stop and await the arrival of the Coast Guard Cutter *Confidence*. The *Kum Kang San* retrieved its trawl and proceeded out beyond the CFZ where it stopped.

The *Confidence* seized the *Kum Kang San* on 8 August and escorted it to Kodiak, reaching that port on 10 August. The vessel was moored in Kodiak while the master of the fishing vessel and U.S. witnesses traveled to Anchor-

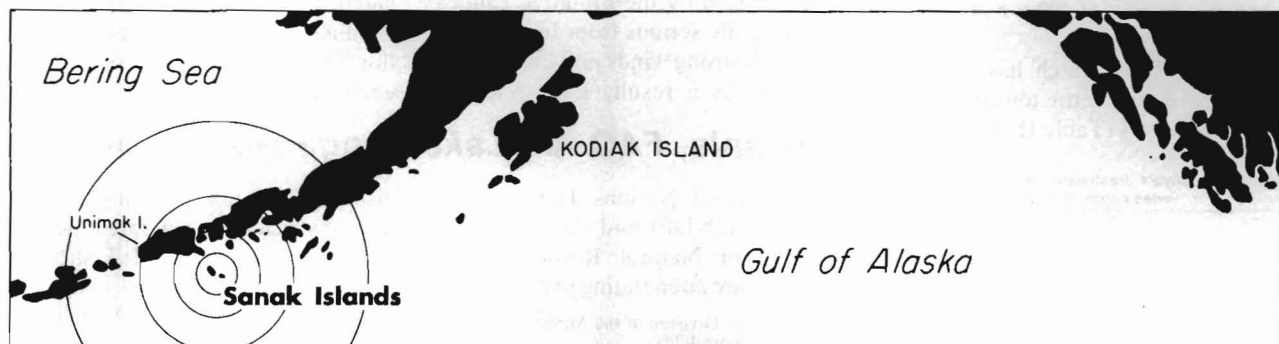
age to appear before the U.S. District Court. The master of the *Kum Kang San* was arraigned 13 August; he entered a plea of not guilty. The vice-president of the Korea Deep Sea Fishing Company (the owner of the fishing vessel) and the company's lawyers discussed an out of court settlement with the U.S. Attorney in Anchorage. The case was settled on 24 September. A criminal penalty of \$8,000 was assessed against the master and a civil penalty of \$407,000 was assessed the owner of the vessel. The *Kum Kang San* departed U.S. waters on 29 September.

According to the NMFS Office of International Fisheries, the *Kum Kang San* had been fishing off Alaska only since 27 July 1975, and had a total catch of 57 metric tons aboard. The catch, valued at approximately \$14,800, was composed of Alaska pollock, sablefish, and red rockfish. The vessel is of Japanese construction, built in 1972,

and is 186 feet long. Its estimated value is \$2 million, for it appears to be in excellent condition.

The Republic of Korea entered the North Pacific fishery on a commercial basis in 1967. For reasons perhaps attributable to their inexperience in the fishery and their incomplete understanding of applicable U.S. laws, ROK fishing vessels were involved in several incidents between 1967 and 1970. The *Kum Kang San* is the second vessel apprehended for a violation of U.S. law since 1973.

In July 1973, the ROK stern trawler *Dong Bang No. 71*, owned by the Dong Bang Ocean Fisheries Company, Ltd., Seoul, was observed fishing 10.5 miles off Yakobi Island in violation of the United States CFZ. The Coast Guard Cutter *Clover* seized the fishing vessel and escorted it to Juneau, Alaska. A total of \$90,000 in criminal and civil penalties were paid to the U.S. District Court. The *Dong Bang No. 71* departed Juneau 3 August 1973.



Kenya Seeks To Increase Fisheries Catch

Matthew J. Ogutu, Kenya's Minister of Tourism and Wildlife, stated during a reception for the Japanese Ambassador that Kenya currently has at its disposal enough experts and equipment to meet the domestic demand for fish, reports the NMFS Office of International Fisheries. He added, however, that the introduction of more modern technology would enable Kenya to further increase its fisheries catch. This is especially important as the "Eat More Fish" campaign, launched last year by the Government, has been successful in increasing the domestic consumption of fish.

The Minister also mentioned to Ambassador Ota that Japanese assistance, especially in providing vessels, could help develop Lake Victoria, Lake Naivasha, and Lake Baringo's fisheries as well as high-seas fishing off Kenya's coast near Mombasa.

The fisheries catch of Kenya increased from 12,600 metric tons in 1960 to 28,600 tons in 1974 (Fig. 1). In the

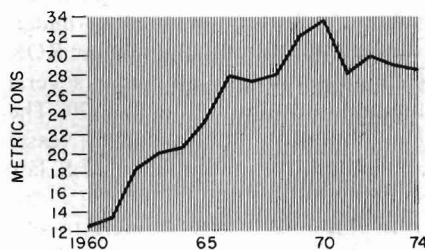


Figure 1.—Fisheries catch of Kenya, 1960-1974, from *FAO Yearbook of Fishery Statistics and Fishing News International*, July 1975.

1960's, the progress was continuous each year (except in 1967) and in some years the catch increased by as much as 10-20 percent. By 1970, Kenya's catches peaked at a record 33,700 tons. Since then, however, Kenya's fisheries catch has declined in 3 out of 4 years. The 1974 catch of 28,600 tons represented a decline of 400 tons from the 1973 catch.

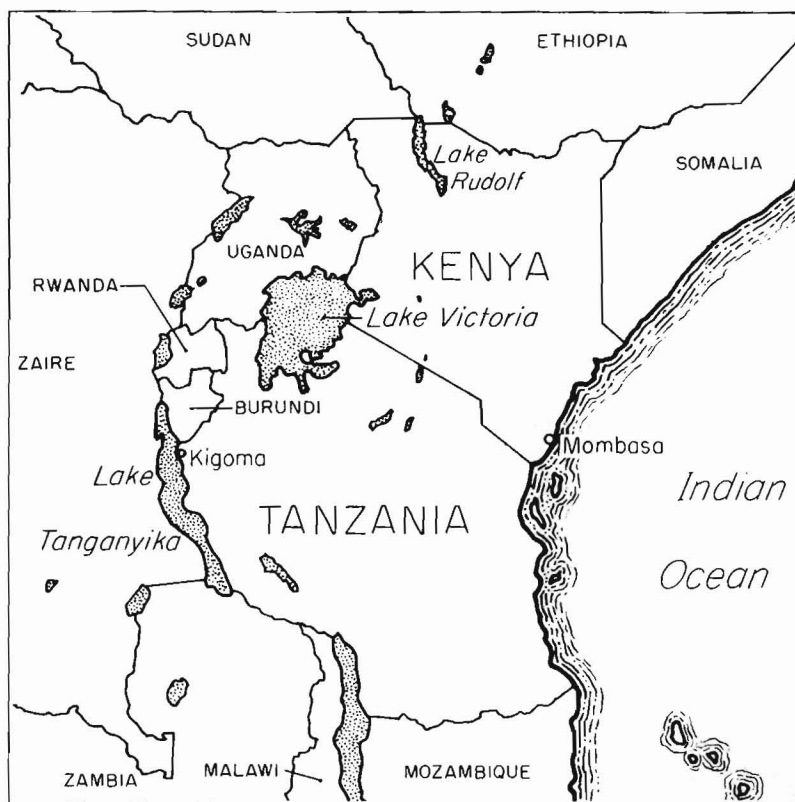
Kenya's marine catch has also declined from 6,900 metric tons in 1971 to 3,400 tons in 1974 (Table 1). As a result,

Table 1.—Kenya's freshwater and marine fisheries catch, 1971-74.

Year	Catch		Total	Percent marine
	Fresh	Marine		
1971	21.3	6.9	28.2	24
1972	22.3	7.7	30.0	26
1973	25.0	4.0	29.0	14
1974	25.2	3.4	28.6	12

only 12 percent of Kenya's total catch came from marine fisheries in 1974. The major reasons for this decline have been inadequate market prices for marine species, the use of dynamite, and the failure of Kenya's marine fishermen to organize effective cooperative societies able to provide credit for the purchase of modern fishing gear.

fishermen concentrate their operations along the shore, where, according to recent reports, serious overfishing may be taking place. Government officials report that fishing is now conducted in estuaries and bays (where the fish breed). Expanding fishing operations in previously underexploited Lake Rudolf (see map), however, have enabled Kenya to show a net gain in its freshwater fisheries catch.



Kenya, Tanzania, Lake Tanganyika, and neighboring nations.

The freshwater catch in Lake Victoria has stabilized in the past few years. The 15- to 20-foot long dugout canoes, used by Kenya's fishermen do not permit operations far from shore. Limitations imposed by the primitive canoes are especially serious from June to August when strong winds prevail on Lake Victoria. As a result, Lake Victoria

Kenya still imports some fishery products. In 1974, fishery imports totaled 3,567 metric tons. This is a 77 percent increase over 1973 when only 2,013 tons were imported. Fishery imports amounted to 15 million Shillings (US\$2.1 million), equal to 43 percent of the total value of the 1974 domestic catch. Only about 1,400 tons of fishery products were exported, bringing 7 million Shillings (US\$1 million) in foreign exchange earnings.

Tanzania, FAO Aid Lake Tanganyika Fishery

The United Nations Development Program (UNDP) and the Tanzanian Ministry of Natural Resources and Tourism¹ are cooperating to expand the

¹The Fisheries Division of the Ministry will have the direct responsibility.

fisheries of Lake Tanganyika to their fullest sustainable potential, the NMFS Office of International Fisheries reports. The U.N.'s Food and Agriculture Organization (FAO) will be the "executing agency." The project en-

tails UNDP contributions of US\$1.4 million and a Tanzania contribution of 3.8 million shillings (equivalent to US\$536,000).

Lake Tanganyika is the second largest lake on the African continent. Tanzania has sovereignty over almost one-half (13,600 km² of the 30,000-km² lake. After two decades of steady increases in production, the lake's fishery stocks—reportedly among the richest in East Africa—remain only lightly exploited. Although adequate information is lacking, a 1974 report indicated that the catch from the Tanzanian part of the lake (comprising the major share of the lake's fisheries catch) amounted to only about 25 percent of the lake's sustainable maximum yield estimated at over 200,000 metric tons per year. While these figures represent only "intelligent guesses" by fishery biologists, the disparity suggested between the estimated yield potential and the actual catch is substantial enough to indicate the possibility of a vigorous development of the lake's fisheries.

The long-range objectives of the pro-

ject include exploring the possibility of fishing the unexploited parts of the lake and to improve catching, processing, and marketing techniques. Although there are two modern fish-processing enterprises at Kigoma as well as some villages which specialize in the catch of large fish, by far the largest portion of the catch consists of small clupeids known as "dagaa."

These herring-like fishes are mostly caught at night when they are attracted by light. There is a strong and growing market for dried dagaa in Tanzania and neighboring countries. The 1970 exports from Tanzania to Zambia are estimated at 22,000 metric tons (fresh weight equivalent). There is little doubt that vastly increased catches could be absorbed at attractive prices, provided the quality of the dried product could be improved.

The potential market for fish products is of special interest when one notes that in each of the four countries bordering the lake—Tanzania, Zaire, Burundi, and Zambia—protein deficiency is widespread.

seeking the use of ports for catch shipments, vessel repairs, and air rotation of the crew. A portion of the catch would be landed in the coastal country, presumably for sale on local markets.

According to the NMFS Office of International Fisheries, Poland plans to continue expanding her fisheries into the 1990's when a catch of 2-3 million metric tons is being planned. By 1980, Polish fishermen are scheduled to catch 1.1 million metric tons—almost double the 1974 catch of about 600,000 tons—mostly by expanding their traditional Atlantic fisheries into the Pacific and Indian Oceans. This expansion will be made possible by adding to the existing Polish fishing fleet new stern factory trawlers built in Polish shipyards at the rate of two a month. In the 1950's and early 1960's, Poland delivered most of her new fishing and fishery support vessels to the Soviet Union; since the mid-1960's, however, a much larger proportion of the new fishing vessels is being built for the domestic fleet or for export to West European countries (France, Iceland, UK, etc.).

Poland's fishery expansion plans could be endangered by the establishment of wider national fisheries jurisdic-

tions and by the possible adoption at the forthcoming Law of the Sea Conference of a 200-mile Economic Zone, where fisheries will be strictly regulated by the coastal states making it impossible for the high-seas fishing nations like Poland, USSR, East Germany, Japan, and others to obtain the same large catches as they used to in the past from adjacent grounds. Polish fishery officials have determined that the best solution to this problem is to develop joint ventures in those countries off whose coasts there are large resources of fish stocks.

Argentina, which proclaimed a 200-mile Territorial Sea in 1967 and kept all foreign fishing vessels out of its waters, rich with abundant resources of Patagonian hake and other species, was a primary target for East European fishing countries anxious to secure their sources of raw materials. Polish failure to obtain a joint venture in Argentina must be viewed as a setback in her long-term fishery development plans.

Russia and Singapore Okay Fishery Venture

Sovrybflot, the foreign trading branch of the Soviet Ministry of Fisheries, and Straits Fisheries, Ltd., a company that is partly owned by the Development Bank of Singapore, have agreed to set up a \$12 million (Singapore dollars) joint fisheries venture, according to reports in Singapore's *Primary Production Bulletin* and on Radio Singapore.

Under an agreement signed in Singapore on 19 June 1975, a new seafood-processing firm called Marisco (Pte.¹), Ltd. was to be formed. This company will not only process, but also package and sell on the international market various kinds of fish, lobsters, squid, cuttlefish, prawns and by-products, including fish meal. A large cold-storage plant will be built in the Jurong Port complex to provide processing facilities and warehouse space for fishery catches unloaded from Soviet trawlers. The two partners, Straits Fisheries Ltd. and Sovrybflot, will own the company jointly on an equal share (50-50) basis.

The President of Sovrybflot, S. A. Babaev, has mentioned that the venture will profit from being located in Singapore, a position half-way between the

¹Pte. refers to the fact that Marisco is a private company under English Law: it does not sell its shares to the public nor allow shareholders to transfer their holdings.

Argentina Rejects Polish Joint Fish Venture Offer

A Polish fisheries delegation visited Argentina in January 1975 to discuss a joint-venture proposal made by the Board of Polish Fisheries. Under the Polish proposal Argentina would have to charter Polish fishing vessels and motherships as well as permit Polish organizations to market processed fish in Europe. The Poles would use Argentine ports for bunkering and resupplying of their fishing vessels. In return, the Fisheries Board offered to construct a modern fish-processing plant in either Puerto Deseado or Río Gallegos, both located in Santa Cruz Province. The proposal was considered unacceptable by the Argentine National Fisheries Service as well as by the Province of Santa Cruz, according to the U.S. Embassy in Buenos Aires.

The Polish News Service reports that Poland has been making a concerted effort to develop joint fishery ventures. In exchange for access to fishing grounds claimed by coastal states, Poland is offering to develop local fishing industries by supplying vessels, capital equipment, and expertise. The Poles are also

Indian and Pacific Oceans. The Soviet fishing fleet operates extensively in both areas.

The Jurong Fishing Port and Central Fish Market opened on 26 February 1969, replacing the old Fisheries Port Office at Telok Ayer Basin and two wholesale fish markets in the city of Singapore itself. The complex is de-

signed to serve as the main fish landing and wholesale distribution point in Singapore for both foreign and domestic vessels. After an initial period of slow growth, the Jurong Port expanded rapidly. By 1973, six fish processing plants and one ice plant were in operation and eight additional processing plants were under construction.

Mozambique Sets New Shrimp Grades, Costs

On 21 June 1975 the Export Division of the Mozambique Department of Commerce established new grades and minimum fob prices for shrimp exports from Mozambique, which supersede those established on 3 November 1973.

All exportable shrimp from Mozam-

bique whether headless or with heads-on, are divided into eight (formerly seven) grades or sizes as follows: Jumbo (Gigante), Extra Large (Grande 1), Large (Grande 2), Extra Medium (Medio 1), Medium (Medio 2), Extra Small (Pequeno 1), Small (Pequeno 2), and Very Small (Miúdo).

New prices are reflected in the following tables:

Table 1.—Minimum export prices (fob) for heads-on shrimp.

No. per lb	No. per kg	Grades	Code letters	Minimum prices
				US\$/kg
Less than 6	Less than 13	Jumbo	TG	4.80
7 to 9	14 to 20	Extra large	G	3.40
10 to 12	21 to 26	Large	GG	3.40
13 to 15	27 to 33	Extra medium	M	3.00
16 to 18	34 to 40	Medium	MM	3.00
19 to 21	41 to 46	Extra small	P	2.40
22 to 24	47 to 53	Small	PP	2.40
25 to 42	54 to 92	Very small	X	2.00

Table 2.—Minimum prices (fob) for heads-off shrimp.

No. per lb	No. per kg	Grades	Code letters	Minimum prices
				US\$/kg
Less than 10	Less than 22	Jumbo	TG	7.20
11 to 15	23 to 33	Extra large	G	5.00
16 to 20	34 to 44	Large	GG	5.00
21 to 25	45 to 55	Extra medium	M	4.40
26 to 30	56 to 66	Medium	MM	4.40
31 to 35	67 to 77	Extra small	P	3.60
36 to 40	78 to 88	Small	PP	3.60
41 to 70	89 to 154	Very small	X	3.00

Table 3.—Changes in minimum shrimp prices (fob), 1973-74, in U.S. dollars per kilogram.

Size of Shrimp	Heads-on		Heads-off	
	1974	1973	1974	1973
Jumbo	4.80	4.00	7.20	4.80
Extra large and large	3.40	2.80	5.00	3.68
Extra medium and medium	3.00	2.40	4.40	3.28
Extra small and small	2.40	2.00	3.60	2.80
Very small	2.00	2.00	3.00	2.80

Status of India's Fishery Resource Surveys Told

The Indian Government's Central Advisory Committee on Exploratory Fishing held its fifth meeting at Panaji, Goa, on 16 August 1975, the U.S. Consulate in Bombay reports. The meeting was presided over by P.C. George, Joint Commissioner, Union Ministry of

Agriculture and Irrigation, New Delhi.

The pelagic fisheries project involving the survey of the continental shelf from Ratnagiri (150 miles south of Bombay) down to the southern tip of the west coast, covering part of Maharashtra, Karnataka, and Kerala

states, for such marine resources as sardine and mackerel will be completed with United Nations Development Program (UNDP) assistance. The UNDP has agreed to extend the project deadline to March 1979 and will also bear the total cost of the survey, estimated at Rs. 25 million (US\$3.3 million).

Negotiations are being held under the Indo-Polish Marine Fisheries Agreement for Polish assistance to survey seas north of Ratnagiri and along the coastline of Gujarat. With the conclusion of this agreement, the entire west coast will be brought under the pelagic fishery survey.

While the UNDP has agreed to consider providing assistance for the survey of the lower part of the east coast covering part of Andhra Pradesh and Tamil Nadu (Madras), the Indian Government is planning to bring the upper east coast (part of Andhra Pradesh, Orissa, and West Bengal) under the regional survey program of the Indian Ocean Survey, financed by the Swedish International Development Agency (SIDA).

To develop expertise in the construction of exploratory survey vessels, construction of two large deep-sea vessels was begun last year by the Goa Shipyard, a subsidiary of the government-owned Mazagaon Docks Ltd., Bombay. Part of the available Norwegian aid will buy components and shipbuilding expertise for this project. While urging the need for these fishery resource surveys, P.C. George also expected the U.N. Law of the Sea Conference to reach agreement on large exclusive fishing zones for coastal nations.

Whale Meeting Sets Provisional Quotas

Representatives from Japan, the Soviet Union, Brazil, and South Africa met in Tokyo, 14-15 August 1975, to determine catch quotas for certain whale species. The total world whale catch quotas for sei and minke whales were determined at the July 1975 meeting of the International Whaling Commission (IWC) in London. The purpose of the Tokyo meeting was to divide the total quotas for sei and minke whales in the Southern Hemisphere among the

countries harvesting whales there. Provisional quotas were set, but Brazil objected to them, demanding a larger share of the whale harvest for itself (Tables 1, 2). Negotiations continued through diplomatic channels.

Table 1.—Sei whale catch quotas for the southern hemisphere by country, 1974 and 1975.

Country	Number of whales		Percent change from 1974
	1974	1975	
Japan	2,392	1,331	-44%
USSR	1,608	895	-44
Brazil	3	4 (132)	+33 (1+967)
S. Africa	—	—	—
Total ³	4,003	2,230	-44%

¹Brazil's request for higher quota.

²Total catch quota set by the IWC in London, July 1975.

³Does not include whales caught by Peru.

Table 2.—Minke whale catch quotas for the southern hemisphere by country, 1974 and 1975.

Country	Number of whales		Percent change from 1974
	1974	1975	
Japan	3,500	3,017	-14%
USSR	3,500	3,017	-14
Brazil	765	642 (1,030)	-16 (1+35)
S. Africa	117	134	+15
Total	7,882	26,810	-14%

¹Brazil's request for higher quota.

²Total catch quota set by the IWC in London, July 1975.

Table 3.—Japan's whale meat imports in 1974, by country of origin.

Country	Quantity (metric tons)	Percent of total
Soviet Union	18,572	65%
Iceland	3,016	11
Peru	2,508	8
Other n.s.	4,482	16
Total imports	28,578	100%
Total domestic production	54,422	
Total consumption	80,000	

¹This total was worth 4,557 million yen (US\$15.3 million at 297 Yen = US\$1.00). Source: Kyodo News Service.

The NMFS Office of International Fisheries reported that Japan had begun talks with the Soviet Union and other whaling nations to increase imports of whale meat to satisfy Japan's domestic demand, estimated at 100,000 metric tons in 1975. The Japanese consumed 80,000 metric tons of whale meat in 1974, but imports accounted for nearly a third of this total, or about 29,000 metric tons. Because of reduced whaling in the southern hemisphere, Japan's annual production of whale meat for 1975 is estimated at only 40,000 metric tons, 15,000 less than in 1974. Such companies as Taiyo Gyogyo and Tokyo Maruichi Shoji are hoping to import

19,000 metric tons of whale meat from the Soviet Union this year, an increase of 12,500 metric tons over the 1974 im-

ports (Table 3). Nippon Suisan and Kyokuyo are planning to import whale meat from Iceland and South Africa.

France Reports 1974 Fisheries Statistics

The French Committee of Fisheries' annual fisheries statistics for 1974 have been reported by *Le Marin*. Landings of fish, crustaceans, and shellfish declined 1.4 percent from 569,300 tons in 1973 to 561,200 tons in 1974, but the value increased from 1.68 billion francs (US\$420 million) to 2.002 billion francs (US\$500 million), or by 19.2 percent. A large part of that increase must, however, be attributed to inflation.

Oyster farming was the highlight of 1974. The harvest of that mollusk increased from 72,000 tons in 1973 to 79,100 in 1974, while value rose to 649 million francs (US\$162 million), or almost double the 1973 value of 384 mil-

lion francs (US\$96 million).

The 1974 deficit in the fisheries trade was 1.308 billion francs (US\$325 million), almost 80 million francs (US\$20 million) more than in 1973. However, in a favorable development, the ratio of exports to imports increased from 25.9 percent to 29.3 percent in 1974.

Although the fisheries trade amounted to only 0.72 percent of total French imports and 0.24 percent of exports, it accounted for 8.2 percent of the entire French trade deficit. The trade outlook for 1975 showed few signs of improvement. A complete table of French fishery landings is printed below.

Landings in metric tons and value in francs¹ of French maritime fisheries products, 1973-74.

Product	Landings			Value		
	1973	1974	Percent difference	1973	1974	Percent difference
Fresh fish	415,300	395,800	- 4.7	1,111.3	1,288.0	+ 15.9
Frozen fish	57,000	80,200	+ 40.7	184.3	322.6	+ 75.0
Cod, pollock, and other	20,600	29,200	+ 41.7	93.8	171.2	+ 82.5
Tropical tuna	31,400	46,700	+ 48.7	85.0	139.0	+ 63.5
Sardine	5,000	4,300	- 14.0	5.5	12.4	+125.5
Salted fish	6,600	5,700	- 13.6	24.0	35.7	+ 48.7
Crustaceans	29,300	29,400	+ 0.3	206.7	217.1	+ 5.0
Shell fish	43,600	35,600	- 18.3	108.4	97.9	- 9.7
Cephalopods	14,600	9,500	- 34.8	37.8	31.5	- 16.7
Tunicates and sea urchins	600	700	+ 16.7	2.0	2.3	+ 15.0
Fish meal	2,200	4,100	+ 86.4	5.4	7.0	+ 29.6
Fish oil	100	200	+100.0	0.1	0.3	+200.0
Total	569,300	561,200	- 1.4	1,680.0	2,002.4	+ 19.2
Oyster culture	72,000	79,100	+ 9.9	384.0	649.0	+ 69.0
Mussel culture	41,000	39,000	- 4.9	57.4	57.7	+ 0.5
Seaweed	13,700	10,200	- 25.5	6.1	5.6	- 8.2
Total volume of marine fisheries trade				2,127.5	2,714.7	+ 27.6

¹US\$1.00 = 4,005 francs.

Canada, USSR Form Consultative Commission

Canadian and Soviet delegations met at Ottawa 25-27 August 1975 to discuss fishery matters of mutual concern, and agreed to initiate the formation of a "Joint Fisheries Consultative Commission" and to establish "new methods of cooperation." The closure of Canada's Atlantic ports to Soviet vessels on 28 July precipitated the talks, and Canada has agreed to reopen its ports if the Soviets cooperate in protecting fishery resources off Canada's coasts as they

have promised in these recent discussions.

Specifically, the Canadians and the Soviets agreed to adhere strictly to ICNAF (International Commission for the Northwest Atlantic Fisheries) measures and quotas; this was one of the key issues which caused the Canadians to close their ports. Both sides also agreed to coordinate statistical and scientific information, to improve bilateral cooperation under the ICNAF

Joint International Enforcement Scheme, and to cooperate more closely on problems of gear damage and the settlement of claims advanced by Canadian fishermen. Finally, the two governments agreed to promptly discontinue fishing when the national quota for a fisheries stock has been taken.

Both sides reviewed the Canadian proposals for the conservation and management of fishery stocks off Canada's Atlantic coast and scheduled further discussions at the Special ICNAF Meeting which was held in Montreal during the last week in September. The Soviet delegation was headed by Aleksei A. Volkov, Deputy Chief of the External Relations Department, Ministry of Fisheries, and the Canadian delegation by L.H. Legault,

Director General, International Fisheries and Marine Directorate, Department of the Environment. (Source: Communique, Canadian Department of External Affairs.)

The NMFS Office of International Fisheries notes that the Canadians have received pledges of cooperation from the Soviets in several important areas and have taken initial steps toward a bilateral agreement on fisheries cooperation. By recommending the formation of a "Joint Fisheries Consultative Commission," the Canadian Government is establishing a means of addressing its complaints and protests to the proper Soviet channels. In addition, the Canadians and the Soviets have agreed to develop procedures to standardize catch information on which implementation of quotas is based.

The Cubans have indicated that as many as 15 Cuban vessels may fish in the ICNAF area in 1976. The expansion of the Cuban high-seas fleet provides Cuba with the potential to expand their efforts in ICNAF. In July, a new Spanish-built trawler arrived in Havana, bringing the Cuban high-seas fleet to 24 trawlers and 4 refrigerated transports. Press reports indicate that 24 more trawlers are currently under construction in Spain.

Soviet Vessel Seized for CSFR Violation

The *Zaraysk*, a Soviet stern factory trawler, was seized 17 August for a Continental Shelf Fisheries Resources (CSFR) violation and taken to Governor's Island, N.Y., the NMFS Office of International Fisheries reports. The vessel was squid fishing about 80 miles off the coast of New Jersey when it was seized by the U.S. Coast Guard for an incidental catch of 25 pounds of red and stone crabs which were not returned to the sea. A U.S. Government civil forfeiture action was filed against the vessel, but on 29 August a settlement was reached and the *Zaraysk* departed Governor's Island. Analysis by NMFS laboratories of fish meal found aboard vessel has not revealed a significant amount of shellfish fragments.

The *Zaraysk* was also served with a \$50,000 writ of attachment for damage done by the Soviet fishing trawlers to fixed U.S. lobster gear. The plaintiff in that private suit is Cormier Fisheries Company of Montauk, Long Island. Although this attachment was removed after attorneys representing the Soviet Fishing Fleet (Sovrybflot) posted a letter of indemnity, final settlement of the case is still pending.

Under the Bartlett Act, U.S. Code 1081-1086, a vessel seized for a CSFR violation is subject to forfeiture together with its gear and cargo. In addition, the captain of the vessel can be personally fined up to \$100,000, or be imprisoned for up to one year, or face both fine and imprisonment. The prosecution of the *Zaraysk's* captain has been deferred for one year, although the forfeiture was settled with the payment of the \$100,000 fine.

CSFR Violation Trips Cuban Factory Trawler

The U.S. Coast Guard seized on 17 August the *Playa de Verdadero*, a 270-foot, *Atlantik*-class stern factory trawler, built for Cuba in East Germany. The seizure took place 55 miles east of Cape Cod, Mass. by the Coast Guard cutter *Vigorous* for a Continental Shelf fisheries resource (CSFR) violation. The *Playa de Verdadero* attempted to evade boarding attempts by ignoring signals to stop. Once aboard the Cuban vessel, the U.S. inspection team found lobster parts in various locations; the Coast Guard described the crew's attitude as uncooperative. The Cuban vessel was escorted to Boston.

The Captain, Ivan Ishchenko and 5 other crew members were found to be Soviet citizens. The presence of the Soviets aboard Cuban vessels is not unusual. Under the current fisheries agreement, the Soviet Union is obligated to train a certain number of Cuban fishermen and navigators in return for the use of the Havana fishing port and for other privileges.

Due to the small amount of lobsters found on board, the civil suit against the vessel was withdrawn and the criminal charges against the captain were dismissed. On 23 August, the *Playa Verdadero* departed U.S. waters under a Coast Guard escort.

According to the NMFS Office of International Fisheries, the *Playa de Verdadero* was the seventh foreign fishing

vessel seized by the U.S. Coast Guard since January 1975, for a CSFR violation¹. The seizures are based upon the Bartlett Act which prohibits foreign fishermen from taking lobster and other protected shellfish on the U.S. Continental Shelf. The Bartlett Act was enacted in 1964, but the law was enforced only against foreign fishermen who were intentionally taking protected shellfish. The new, stricter enforcement guidelines, require not only that lobster taken as an incidental catch be returned to the sea, but that foreign vessels reset their trawl in a different location when an "area of concentration" of lobsters is encountered. The Act provides for fines of up to \$100,000 and/or imprisonment of up to one year. Additionally, the vessel, her gear, and her catch are liable to forfeiture. Most cases, however, are settled out of court. Such court-approved settlements have provided for fines ranging from \$25,000 for an Italian vessel caught with 25 pounds of lobsters to \$425,000 for a Bulgarian vessel which had nearly 500 pounds of lobsters on board.

The presence of the Cuban trawler off Boston is an indication of growing Cuban interest in the ICNAF fisheries. Three Cuban vessels have fished there so far this year, the first time since 1972.

¹An additional five foreign vessels have been seized within the U.S. 12-mile fishery limits where fishing by foreign vessels is prohibited.

Taiwan Fishing Industry Reports Gradual Recovery

Taiwan's fisheries catch totaled 366,000 metric tons during the first half of 1975, an increase of 9.7 percent over the comparable period in 1974, reflecting the gradual recovery of Taiwan's fishing industry, according to the *China Post*. The Provincial Fisheries Bureau set the target for this year's total catch at 750,000 metric tons and the first half year's results represent 48.8 percent of the target. Deep-sea fishing topped the list with 164,000 metric tons. Inshore fishing ranked second with 138,000 metric tons, followed by fish culture with 9,000 metric tons and coastal fishing with 15,000 metric tons.

Taiwan is expected to export 7,500 metric tons of eels this year, earning over US\$70 million in foreign exchange. By early August some 5,000 metric tons had already been exported, mainly to Japan. The price of eels is also higher than in 1974. The present export price is US\$6.50 per kilogram, compared with US\$5.00 in 1974. Taiwan has eel ponds totaling about 3,000 acres. In 1974, 6,800 metric tons of eels worth US\$42 million were exported.

The Joint Commission on Rural Reconstruction (JCRR) and the Food Industry Research Institute will study the possibility of using microwave energy to maintain the freshness of shrimp. In the meantime, the JCRR will continue to give loans to fishermen for installation of refrigeration equipment on their shrimp vessels. Borax, to preserve shrimp freshness, has been banned by Taiwan.

Denmark Objects to NEAFC Herring Cuts

The Government of Denmark filed objections on 27 August, with the Northeast Atlantic Fisheries Commission (NEAFC), on the issues of herring quotas and minimum mesh size, the U.S. Embassy in Copenhagen reports. The Danish note said that its North Sea and Skagerrak quota of herring for human consumption of 69,000 metric tons (including the Faroes) for the period of 1 July 1975 to 31 December 1976 was unacceptable both in an absolute sense and also in relation to herring quotas which other NEAFC members have been allocated. Denmark stressed

its concern for North Sea herring stock by pointing to its acceptance of a ban on the fishing of herring for reduction. The Danish Government suggested that quotas be renegotiated at the special NEAFC meeting in November.

Until resolution of the matter, the Danes vowed to maintain the prohibition issued on 10 July 1975 on directed fishing of herring for reduction and have set a limit on herring for human consumption at 45,000 metric tons for Denmark and 8,000 tons for the Faroes for the period of 1 July 1975 to 31 December 1975.

The Danish note also objected to the NEAFC recommendation for a 20 mm (0.8-inch) minimum mesh size claiming the recommendation was hastily drafted and did not include the normal transition time to phase out old nets. The Danes also claimed the regulation would prevent fishing for certain species.

According to the NMFS Office of International Fisheries, the reduction industry accounts for about 45 percent by value of the total Danish catch, and the NEAFC recommendations are thus affecting a large sector of the fishing industry. In 1974, Danish fishermen landed 24,000 tons of herring for human consumption and 155,000 tons for reduction: a quota of 69,000 tons for 18 months is a definite restriction.

Japan's 1974 Marine Fish Catch Declines

Data compiled by the Japanese Agriculture and Forestry Ministry's Statistics and Information Division show that marine fisheries catch during January-December 1974 totaled 9,636,000 metric tons, a decrease of 15,700 tons or 2 percent from 1973. Significant gains were recorded for jack mackerel, shrimp, yellowfin tuna (young), and Pacific mackerel, while sharp declines occurred in saury and yellowtail, among other species.

The most important species landed, in terms of quantity, was Alaska pollock, with a catch of 2,825,000 metric tons. However, compared with 1973, landings were down by 196,000 tons or 6 percent. Second in importance was Pacific mackerel, with 1,294,000 tons, up 159,000 tons or 14 percent above 1973.

Tuna (excluding skipjack) landings were 358,000 metric tons. Landings since 1970, the year when a low of 291,000 tons was reached, began to increase annually by over 10,000 tons, recording 308,000 tons in 1971, 318,000 in 1972, and 343,000 tons in 1973. Skipjack tuna landings, which totaled 347,000 tons, were 8 percent ahead of the 1973 catch of 322,000 tons and up 56 percent over the 223,000 tons for 1972.

Sources: *Suisan Tsushin*, and *Suisan Keizai Shimbun*, and others.

Japan's 1974 and 1973 marine fisheries catch of selected species.

Species	Catch		Comparison
	1974	1973	1974 over 1973
	1,000 metric tons		Percent
Alaska pollock	2,825	3,021	94
Pac. mackerel	1,294	1,135	114
Sardine	725	731	99
Saury	135	406	33
Flatfish	348	380	92
Jack mackerel	253	183	138
Tuna			
Skipjack	347	322	108
Bigeye	114	105	109
Albacore	98	95	103
Yellowfin	75	76	99
Bluefin	47	49	96
Yellowfin	24	18	133
Salmon	134	136	99
Rockfish	111	101	110
Herring	84	83	101
Shark	41	42	98
Squid	478	486	98
Crab	84	78	108
Shrimp	78	62	126
Sea urchin	24	26	92
Mollusk	309	261	118
Seaweed	198	221	90

EEC Extends Pollock, Cod Export Subsidies

The European Economic Community is continuing its export subsidies on cod and pollock (saithe and coalfish) fillets, according to Regulation (EEC) No. 2440/75 of the EC Commission, dated 25 September 1975. As of 1 October 1975 the subsidy is 8 Units of Account (UA) per 100 kg (net) for cod and 6 UA for pollock. This is about 4.4 and 3.3 cents per pound respectively at current exchange rates. (Source: US Embassy, Copenhagen.)

Canadian Fishermen Win Soviet Claims Settlement

The Soviet Government last fall settled several claims of Canadian lobstermen for approximately C\$130,000, according to the U.S. Consulate in Halifax, Nova Scotia. The lobstermen claimed that the Soviet fishing fleet had destroyed or damaged the

Canadians' gear while conducting their own trawling operations.

Claims filed by October 1975 totalled \$400,000, and some remained unsettled. Additional claims had been submitted since the negotiations began, and the Soviets agreed to "examine" additional claims submitted by Canadian fishermen. The negotiations were held in Halifax, Nova Scotia.

Australia Regulates Rock Lobster Fishery

Commercial catch statistics and catch samplings in 1972 showed that annual catches of rock lobster, particularly in Tasmanian waters, had reached a stage where they were almost wholly dependent on the annual recruitment from undersized stocks. It is possible that this factor was partially responsible for the decrease in Western Australian rock lobster catches within the past two years.

New standards were set on the minimum lengths of rock lobsters caught in southern and western Australian waters in an effort to prevent the depletion of juvenile lobster stocks. The new legal size, measured as the total carapace length, is 110 mm for male and 105 mm for female rock lobsters in Tasmania, and 100 mm for all "southern" rock lobsters from the waters off Southern and Western Australia. Previous minimum lengths were measured as rostral carapace length. (The above regulations are in metric units because on 1 November 1974 Tasmania changed from the so-called British imperial measuring system to the metric system.)

The new method of measuring carapace length has been used by research scientists for many years. Its legal application to Australian commercial fisheries will prevent the evasion of legal requirements through the willful breaking off of rostral horns from caught lobsters.

Most Australian lobster catches are exported because of high overseas demand resulting in high prices. Over 95 percent of all exports are "lobster tails" shipped to the United States. During the 1973-74 season, the value of Australia's lobster tail exports decreased by 15 percent below that of the previous year (from \$30.2 million to \$25.9 million).

The remaining 10 percent of lobster exports were "whole lobsters" shipped mostly to Japan (53 percent of all "whole lobster" exports, or about 200 metric tons). The traditional Australian

exports of "whole lobsters" to France were negligible largely because the Cuban government sells its spiny lobster there at a lower price.

Sources: *Tasmanian Fisheries Research and Australian Fisheries.*

Fishery Notes

Alaska's 1975 Salmon Catch Best in 3 Years

Alaska's 1975 salmon catch—25.6 million fish—was the largest in three years despite depressed fisheries in several areas, the Department of Fish and Game has announced. The catch surpassed the near-record low harvests of 22.3 million in 1973 and 21.9 million in 1974 and exceeded the preseason forecast of 19.0 million fish.

Good escapements of Bristol Bay sockeye, record chum catches and escapements in the Arctic-Yukon-Kuskokwim region, and strong showings of pink salmon in Prince William Sound and lower Cook Inlet were highlights of the salmon season. Low catches in the Kodiak area and near-record lows in southeastern Alaska, the Chignik area, and the south side of the Alaska Peninsula combined to reduce the statewide total.

Southeastern Alaska had one of its poorest seasons since the turn of the century. Sockeye, coho, and chum salmon runs, expected to offset the predicted poor return of pink salmon, also produced some of the lowest catches on record. In contrast, pink returns in southern southeastern Alaska exceeded escapement requirements and 3.1 million pinks were harvested. With good survival, the southern pink escapement, 4.5 million, could well produce a strong return in 1977. The pink return to northern southeastern Alaska was weaker than anticipated, and only 0.6 million salmon were harvested from isolated areas where escapement goals were reached. Pink salmon escapement there is estimated at 1.5 million, about 2.5 million short of the goal. The Yakutat red salmon harvest was also below average¹. Total catch for all salmon species in the southeastern and Yakutat areas was 5.3 million compared to an average of 12.8 million.

A strong early pink salmon run to

Prince William Sound produced the largest catch there since 1971, and the pink salmon escapement goal there was met. Chum returns, however, were lower than expected. The Copper River king (chinook) salmon catch was about average, but poor sockeye and coho catches brought the total catch to less than half of average. The total Bering River catch was also less than half of average. The total area catch, 5.2 million, was above the 5-year 3.9 million fish average.

A strong pink salmon run in lower Cook Inlet, combined with above-average coho and chum catches, produced the largest harvest there since 1970. Pink escapement goals were reached in all lower Cook Inlet streams, but sockeye escapements lagged in the major Kenai Peninsula river systems. Total catch was 3.3 million compared to a 2.2 million fish average.

The Kodiak catch was depressed for the fourth consecutive year. Because of a poor red salmon run, there were no openings for sockeye and the incidental sockeye catch of 136,300 was the lowest since 1882. Despite the complete closure, overall escapement goals were not achieved in any of the major sockeye systems. The pink salmon catch was the highest since 1971, and the total return of 3.7 million was above the pre-season forecast of 3.0 million. Pink salmon escapement was also good, but chum salmon catch and escapement were weak. Total Kodiak catch was 3.2 million salmon.

The Chignik fishery produced one of the smallest salmon catches in recent years. Early Black Lake sockeye escapement lagged at 309,000 versus a goal of 400,000 despite complete closure of the fishery. The later Chignik Lake red salmon run was considerably stronger, with the escapement goal of 225,000 being reached. Almost 400,000 late-run reds were harvested. Pink and chum salmon catches and escapements

¹In this report, "average catches" refer to those of 1970-74.