

published soon and the final results of the complete survey in the spring of 1976. Information gained from the survey will be used in cooperative State/Federal efforts to develop fishery management programs. Details of the survey can be obtained by contacting Statistics and Market News Division, National Marine Fisheries Service, NOAA, Washington, DC 20235.

## Current Fishing Industry Market Prices Available

*Fishery Market News Reports* are now available by subscription according to the National Oceanic and Atmospheric Administration's National Marine Fisheries Service. The reports publish pertinent information on current wholesale market prices, exvessel prices, landings, imports, and movements of fishery products both in the United States and abroad. The data are gathered daily by the Commerce

Department agency, through telephone and personal contact with key fishing ports and markets for fishery products.

In addition to marketing information, *Fishery Market News Reports* contain news items of interest to people in the fishing industry. The reports are published in five cities: Boston; New York; New Orleans; Terminal Island, Calif.; and Seattle, on Monday, Wednesday, and Friday. In addition to the daily information, a weekly summary for each of the cities is published on Fridays.

The New York report specializes in wholesale prices for fresh and frozen fishery products traded in New York merchandising centers. The Boston report carries the Boston fish auction prices, the New Bedford auction prices, exvessel prices, landings in selected New England ports, Chicago market receipts, and frozen wholesale prices for the New England and Chicago areas. The New Orleans report carries

Gulf shrimp landings and exvessel prices and the Terminal Island report specializes in data pertaining to the tuna industry. The Seattle report contains information on the halibut, salmon, groundfish, king crab, and shrimp fisheries in the northwestern United States as well as Alaska. The Seattle report also publishes data on British Columbia fisheries.

Annual subscription rates for three reports per week plus the weekly summary is \$35.00 per report (i.e., Boston, New York, New Orleans, Terminal Island, or Seattle). The weekly summaries are available for \$15.00 per year per report.

Subscriptions may be started by making checks or money orders payable to the Department of Commerce, NOAA, and mailing them to the U.S. Department of Commerce, NOAA, National Marine Fisheries Services, F2x1, Room 404, Page Building 2, Washington, DC 20235.

## Foreign Fishery Developments

### Aid Eyed for Italy's Ailing Marine Fishery

During the past 2 years the Italian high-seas fisheries have been facing increasing difficulties, particularly because of the trend toward the extension of fisheries jurisdictions off West Africa, the traditional grounds for Italian fishing vessels, according to Mario Iandoli, President, Italian National Federation of Fishery Enterprises (FEDERPESCA), writing in *La Pêche Maritime*. This development has forced the Italian fleet to travel to more distant and less abundant grounds off North America and Southern Africa. The Italian fisheries are becoming noncompetitive because of declining catch rates and the lengthening of the distances between home ports and overseas fishing grounds. The time required for each trip has tripled (from 40-50 days to 150-160 days) and costs have increased sharply, reducing profits and causing losses.

Two years ago, 95 Italian vessels fished the Atlantic. The development of such a large fleet had been made possible by assistance from the Government, which gave a 130-150 million lire (US\$200,000-220,000) subsidy

for each high-seas freezer trawler and facilitated the payments on up to 50 percent of the construction costs.

Today, the total number of Italian high-seas fishing vessels has decreased to 65. The vessels having small gross tonnage (particularly those having less than 600 GRT) can no longer operate profitably. Their costs are almost equal to those of larger vessels while their catches are much less. Many such vessels have been sold or were decommissioned.

Several proposals have been made to assist the ailing fishing industry. Joint operations with West African coastal countries have been suggested. Such ventures would especially benefit Italian shipyards and fishing gear factories, and would also permit Italian fleets to continue operations along the West African coast and an Italian entry into African fishery markets. This option would require considerable investments. The Italian government will have to study the possibility of financial and technical assistance to the industry as is being done by the Governments of France, Spain,

Portugal, Greece, Norway, and Japan.

A proposal to build up an Italian fleet of 100 large fishing vessels with a total gross tonnage of 160,000-200,000 tons has been made. The emphasis on larger vessels with an average of 1,600-2,000 GRT was made because vessels of lesser tonnage are no longer profitable. The annual catch could then double from 75,000 to 150,000 metric tons and would be worth over 30 billion lire (\$45 million). This would help to eliminate deficit imports of fish and other fishery products.

The restructuring of the Italian fishing fleet, however, requires a plan of coordination under which the Government provides at least a part of the investments especially in the form of easy credit. Large and effective grants must be made to compensate partially for the disadvantages resulting from longer trips to grounds very far from Italy.

Urgent action is necessary. Delivery contracts for fish cannot be deferred—the processing industry must continue to produce, or it runs the risk of depriving the market of an important source of food, and causing strikes. Positive action would help Italian shipyards, repair yards, and related industries.

## Canada Implements Fishery Subsidies

On 1 January 1975, Canada implemented a C\$20 million short-term assistance plan for Canadian fishermen, trawler operators, and processors to help rehabilitate the Canadian groundfish industry.<sup>1</sup> The plan was designed to keep the groundfish fleets in operation during the winter months by partially offsetting rapidly rising costs for fishermen, and by assisting processors in reopening seasonal plants hard hit in 1974 by late ice conditions. This plan terminated on April 30.

On 1 May, a new C\$50 million subsidy plan, designed to provide both long-term financial assistance and economic planning for the future, went into effect. Canadian Fisheries Minister Romeo Le Blanc stated that new initiatives with respect to resource management, harvesting, processing, and marketing were necessary to achieve the long-term goal of reestablishing a healthy fishing industry.

The new C\$50 million assistance plan involves two programs. First, the groundfish program will provide support of up to C\$28 million for inshore and offshore fishermen owning vessels

<sup>1</sup>In the fall of 1974 the Canadian Government spent C\$15 million in an initial attempt to shore up the fishing industry.

## Philippines Fishery Development Assistance Reported

The Annual Report on Development Assistance to the Philippines for 1974 has recently been published by the Manila Office of the United Nations Development Program (UNDP). The total amount committed for fisheries projects (for which statistics are avail-

and producing first-quality fish. This program also provides up to C\$12 million in assistance to those processing plants which agree to maintain 1 July 1974 prices for fishermen. Selective fisheries on both the Atlantic and Pacific coast will receive benefits; however, most of the funds will be used to assist the ailing Atlantic provinces.

Second, a sum of C\$10 million will be provided "to help solve marketing problems encountered by other segments of the industry throughout Canada, and will involve deficiency payments, inventory financing, and the processing of fish for use in international food aid programs."

## MOROCCO LOBSTER EXPORTS LISTED

Three species of lobster are commonly caught in Moroccan waters: (1) Norway lobster, *Nephrops norvegicus*; (2) European lobster, *Homarus vulgaris*; (3) European spiny lobster, *Palinurus mauritanicus*, called "langouste" in Morocco.

In 1973, total Moroccan lobster exports amounted to about 150 metric tons valued at roughly US\$1.3 million. The U.S. Regional Fisheries Attache reports that lobster is difficult to find in Casablanca's hotels and restaurants because of limited landings and heavy exports. Most lobster exports go to

France, Spain, Italy, and Portugal. Tables 1 and 2 provide a detailed breakdown of Morocco's 1973 lobster exports.

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Table 1.—Moroccan exports of lobster<sup>1</sup>, by quantity and value, 1973.

Commodity	Quantity (kg)	Value	
		Dirhams <sup>2</sup>	US\$
Lobster tails	451	15,120	3,780
Lobster, live	47,827	1,297,150	324,288
Lobster, whole	2,687	59,690	14,923
Lobster, whole, nes	305	9,030	2,258
Langouste, whole	103,681	3,882,260	970,565
Total	148,951	5,263,250	1,315,814

<sup>1</sup>Source: MAROC. Ministère des Finances. Office des Changes. *Statistiques du Commerce Extérieur*, Rabat, 1974.

<sup>2</sup>US\$1.00 : 4 Dirhams.

Table 2.—Average price of Morocco's lobster exports<sup>1</sup>, 1973.

Commodity	Dirhams/kg	US\$/lb
Lobster tails	33.52	3.80
Lobster, live	31.01	3.52
Lobster, whole	22.21	2.52
Lobster, whole, nes	29.60	3.36
Langouste, whole	37.44	4.25

<sup>1</sup>Source: MAROC. Ministère des Finances. Office des Changes. *Statistiques du Commerce Extérieur*, Rabat, 1974.

## Japan Searches for New Fishing Grounds

The Maritime Fishery Resource Development Center of Japan has dispatched a 3,300-gross-ton research vessel to survey deep-sea waters south of New Zealand, the *Japan Times* reports. The *Shinkai Maru* left Tokyo on 9 April for a 5-month voyage during which she will make 6 hauls daily in an area covering 400,000 square kilometers. When the survey is finished, the *Shinkai Maru* will be sent to assess fishery resources of the Southeast Pacific and the North Atlantic.

At present, Japanese vessels catch about 10 million metric tons of fishery products annually; the Maritime Fishery Resource Development Center hopes that its research vessels will discover new deep-sea fishery resources that will help maintain Japan's fishery landings at current levels.

The NMFS Office of International Fisheries reports that Japanese fishermen face the loss of traditional fishing grounds as the countries, off whose coasts they now fish, increase their control over marine resources by extending fishery jurisdictions.

Project/Activity	Source of assistance	Amount (US\$)	Period of commitment	Nature of assistance
Fishermen's Training Center	UNDP	1,019,263	1972-76	Advisory services, fellowships, equipment (in Cavite)
Inland Fishery Biology	UNDP	171,901	1969-74	Advisory services for fish pond production in Luzon and Viscaya
Trap Net Fishing	Govt. of Japan	7,582	1974-75	3 experts to demonstrate above in Panay
Fishery Statistics	Govt. of Japan	17,060	1974-75	One statistician and equipment
Shrimp Culture	Govt. of Japan	345,935	1974	6 experts and equipment
Fisheries Development	Govt. of Japan	10,244	1974	Nets and generators to help trap-net fishing
Fisheries Development	Govt. of Norway	35,000	1974	Services of 5 experts
Total	—	1,606,985	—	—

Source: *Annual Report on Development Assistance to the Philippines* by Donald R. Bergstrom, Resident Representative, UNDP, Manila, April 1975.

The Soviet Union, whose large fishery fleets are faced with the same problem, is also devoting more and more of its fisheries research to deep-water investigations.

## **Problems Plague Japan's Tuna Fishing Industry**

Severe management difficulties confronting Japanese distant-water tuna vessel owners are resulting in mounting cases of bankruptcy, vessel tie-ups, and curtailment of business. Many vessel owners are also reported to be on the verge of bankruptcy. Estimates based on studies made by the Fisheries Agency, lending institutions, and industry indicate that, as of the end of April 1975, there were 36 cases of bankruptcy involving 56 vessels, 23 cases involving 24 vessel tie-ups, and 40 cases of business curtailment affecting 53 vessels, totaling 99 cases and 133 vessels. In addition, about 101 enterprises are threatened with bankruptcy. The removal from the fishery of over 10 percent of the high-seas tuna fleet (of about 1,200 vessels) is indicative of the grave crisis confronting the Japanese fishing industry.

Although tuna imports from South Korea have contributed partly to the plight of the Japanese tuna vessel owners, the Fisheries Agency's view is that the problem was the outcome of weakening management structure compounded by the energy crisis that struck the industry. The Agency, which in 1974 had provided 9 billion yen (US\$30 million) to help the tuna industry recover from the energy crisis, has declared that steps will be taken to aid the industry, but no specific measure had been developed by mid-year.

Japanese frozen tuna exports during January-March 1975 totaled 13,775 tons valued at 1,636 million yen (US\$5.5 million). This is a sharp decline of 66 percent in quantity and 80 percent in value from the comparable 1974 exports of 41,594 tons worth 8,272 million yen (US\$27.6 million). Exports to the U.S. mainland fell drastically, amounting to only 4.3 percent in quantity of the previous year's levels, and exports to Puerto Rico dropped to 43 percent.

By species, skipjack and albacore

exports dipped particularly heavily. Skipjack, which recorded 10,376 tons during January-March this year, were down 20,000 tons or 66 percent from 1974, and albacore, at 463 tons, were down 6,300 tons or 93 percent. Exports to the U.S. mainland declined to 3.8 percent of last year's levels for skipjack, 2.7 percent for albacore, and 50 percent for yellowfin. Shipments to Puerto Rico fell to 25 percent for skipjack and albacore, and 50 percent for yellowfin. In view of the present U.S. tuna market conditions, Japanese trading firms foresaw no short-term recovery of sales to the United States and felt that tuna exports would suffer devastating setbacks this year.

*Source: Suisan Keizai Shimbun.*

## **Salmon Subsidy Paid Greenland Fishermen**

Greenland was allocated a 1,191-metric-ton catch of migratory salmon by the International Commission for

the Northwest Atlantic Fisheries for the 1974 fishing season. This quota was surpassed (by 8 tons) 3 months before the season officially ended on 30 November, according to the U.S. Embassy, Copenhagen, Denmark. As a result, many small craft fishermen located in remote and isolated areas of northern Greenland had not yet caught their share of the Total Allowable Catch (TAC), when the Danish government ordered all salmon fishing operations to cease.

As these fishermen depend heavily upon salmon revenues for their livelihood, the Fisheries Ministry for Greenland and the Greenland Provincial Council agreed that a one-time cash compensation of \$100,000 would be awarded to the salmon fishermen. Each agency would share half the cost, and while the compensation was awarded on a one-time basis, it was indicated that the award would not prejudice any similar future compensations should they become necessary.

## **Shrimp Operators off Guyana Face Financial Crisis**

Twelve Japanese fishery companies, with a total of 123 trawlers, have been engaged in shrimp fishing off Guyana (northeastern South America) the NMFS Office of International Fisheries reports. Until a few years ago, these trawlers had each landed an average of 45-50 metric tons of shrimp annually realizing profits of 10-12 percent. However, skyrocketing fuel, labor, and fishing gear costs, declining catches (landings have decreased 20-30 percent since mid-1974), and static market prices have caused substantial financial losses to the Japanese companies.

Hit particularly hard are those companies which entered the Guyana shrimp fishery in 1973. The inexperience in managing fleet operations and the burden of payments on loans for newly-built boats have accentuated their financial problems. One of these firms tied up its vessels early this year; two others were expected to suspend operations later. The remaining two companies (Nihon Enyo Gyogyo and Guyana Suisan), both based in Georgetown, Guyana, planned to transfer

their operations to Barranquilla, Colombia, where diesel fuel could be purchased at one-third the Guyana cost. The above 5 companies own a total of 32 fishing vessels and it is believed that they will all either go out of business, or switch to different fishing grounds and/or bases.

To overcome the problem of declining catch, several firms planned to shift their operations from coastal to deep-water fishing, following the example of U.S. shrimp fishermen. The Japanese hope to fish at depths of 150-200 meters and may even try for 300 meters (Japanese trawlers are presently fishing at depths of 50-80 meters). U.S. deep-water shrimp fishing methods and gear modifications will be studied.

An estimated 47 Republic of Korea vessels are also fishing for shrimp off the Guianas. This total may reach 70 to 90 when vessels now being built are added to the fleet. The construction of about 30 of these new vessels reportedly is being financed by Japanese trading firms.

*Sources: Suisan Tsushin, Suisan Keizai Shimbun.*

## Japanese Whale Fishery Extension Explored

A representative of a Japanese whaling company explored the possibility of harvesting gray whales off the coast of Baja California, Mexico this spring according to a report in the *San Diego Union*. The proposal envisioned Japanese whaling and processing vessels operating from shore stations in Mexico and harvesting whales commercially.

According to the International Fisheries Analysis Division, National Marine Fisheries Service, NOAA, the harvesting of California gray whales is banned by the International Whaling Commission, to which Japan belongs. The Japanese Embassy in Washington, D.C. has assured the U.S. Department of State that Japan intends to respect the ban.

Whaling is an important industry in Japan the International Fisheries

Analysis Division reports. According to industry sources, whaling employs 50,000 persons and provides about 10 percent of Japan's total protein consumption. Declining whale populations are causing difficult adjustments to the industry. Already six large Japanese whaling companies have been forced to merge their operations<sup>1</sup>. The Mexican initiative is part of a concerted Japanese effort to seek out new whaling grounds.

Whales have been under the protection of the Mexican Government since 1964 and sanctuary status has been conferred on Scammon's Lagoon in Baja California where the gray whales give birth to their young after the annual Alaskan migration. Accord-

<sup>1</sup>See "Japanese Firms Merge, Halve Fleets," *Marine Fisheries Review*, August 1975, 37(8):38.

ing to the Japanese representative, Motosuki Yuri, some Mexican fishermen would like to see whaling operations as the whales "interfere with fishing operations." However, Porfirio A. Romay of the Mexican Fisheries Commission in San Diego doubts Mexican approval. According to Romay, "the Mexican Government wants to preserve the whales as a precious natural resource." Additionally, the whales represent an important attraction for Baja California's developing tourist economy.

Several United States conservation organizations learned of the proposal and began to organize a protest. Al Prentis, Charter President of the American Cetacean Society, estimates that about 1,000 gray whales could be harvested without endangering the species. However, he is opposed to any whaling because of the difficulty in regulating whaling operations.

### Publications

## Recent NMFS Scientific Publications

NOAA Technical Report NMFS SSRF-687. Reintjes, John W., and Peggy M. Keney. "Annotated Bibliography on the biology of the menhadens, genus *Brevoortia*, 1963-1973." April 1975, 92 p. Individual copies are available from D83, Technical Information Division, Environmental Science Information Center, NOAA, Washington, DC 20235.

### ABSTRACT

A bibliography that consists of 444 references on the classification, distribution, abundance, life history, and ecology of American menhadens, genus *Brevoortia*. Included are references to menhaden published from 1963 through 1973 with those references published prior to 1963 that were omitted from menhaden bibliographies by Reintjes et al. (1960) and Reintjes (1964a). Brief annotations and a subject index are included.

NOAA Technical Report NMFS SSRF-688. Blahm, Theodore H., Robert J. McConnell, and George R. Snyder. "Effect of gas supersaturated Columbia River water on the survival of juvenile chinook and coho salmon."

April 1975, iii + 22 p. Individual copies are available from D83, Technical Information Division, Environmental Science Information Center, NOAA, Washington, DC 20235.

### ABSTRACT

The deleterious effect of high concentrations of dissolved gas on valuable stocks of Columbia River salmon and trout has led pollution control agencies in the Pacific Northwest to consider establishing standards for the amount of dissolved gas in the water. Research has been done with salmonids to define the criteria upon which such standards should be based, but the majority of these studies were carried out in shallow tanks (less than 1 m deep) where supersaturated concentrations of gas had been artificially induced. This report discusses tests that were performed at a field laboratory on the Columbia River. Juvenile chinook, *Oncorhynchus tshawytscha*, and coho, *O. kisutch*, salmon were tested in deep and shallow tanks with river water reflecting the prevailing (and fluctuating) concentrations of dissolved gases. Results indicated that the water depth in a deep (3 m) test tank enhanced the survival of test fish compared to

shallow tanks (< 1 m). These tests support the hypothesis that test conditions in tanks 1 m deep are not representative of all river conditions that directly relate to mortality of juvenile salmon and trout in the Columbia River.

Data Report 101. Wahle, Roy J., William D. Parente, Paula J. Jurich, and Robert R. Vreeland. "Releases of anadromous salmon and trout from Pacific Coast rearing facilities, 1960 to 1973." April 1975. 443 p. on 7 microfiche. For sale by U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Rd., Springfield, VA 22131.

### ABSTRACT

Releases of anadromous salmon, *Oncorhynchus* spp., and trout, *Salmo* spp., from all rearing facilities in Alaska, British Columbia, Washington, Idaho, Oregon, and California are listed for the years 1960 through 1973. A total of 113 hatcheries, 42 rearing ponds, and 2 saltwater rearing pens released anadromous salmon and trout at some time during this 14-yr period. The species of fish, brood year, number, weight and size of fish released, date of release, and release location are presented by rearing facility.