

## 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.

## **Russian LOS Volume Available on Loan**

**Oceans, Technology, and Law** by M. I. Lazarev and L. V. Speranskaia (editors), U.S.S.R. Academy of Sciences, Institute of State and Law, International Law of the Sea Section, "Iuridecheskaia Literatura" Publishers, Moscow, 1972, describes and discusses the current international legal regime relating to the sea, and associated problems. It emphasizes problems of international straits and canals, territorial seas, the continental shelf, regulation of increasing use of the seabed, and regulation and protection of the living resources of the sea. Its thesis is that with expanded technological ability to utilize marine resources, increasing legal regulation of those resources is becoming necessary. The following three chapters from the translation will appear in "Ocean Development and International Law Journal," Crane-Russak Co., N.Y., N.Y.: Chapt. 7, "Scientific-technological progress and the search for legal regulation over possible uses of the ocean floor," by M. I. Lazarev; Chapt. 8, "Legal regulation of seabed uses beyond the limits of the continental shelf," by G. F. Kalinkin; and "International-legal regulation of marine fisheries," by A. A. Volkov. The translation, 141 pages, prepared for a private research group based in Washington, D.C., is available on loan from the Language Services Division, F43, Office of International Fisheries, National Marine Fisheries Service, NOAA, Washington, DC 20235.

## **Fishing Vessel Loan Booklet is Published**

The National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) has published an information booklet of interest to commercial fishermen. **Fishing Vessel Obligation Guarantee** is 22 pages of most-asked questions, with detailed answers, concerning the NMFS program available to help fishermen get loans which finance or refinance up to 75 percent of the cost of constructing, reconstructing, or reconditioning commercial fishing vessels, at least 5 net tons or over, at reasonable interest rates and for periods

of time commensurate with a fisherman's ability to repay.

This Department of Commerce booklet may be obtained free of charge from the Financial Assistance Division, National Marine Fisheries Service, NOAA, Washington, DC 20235, or from the Financial Assistance Officer at the NMFS Regional Offices in Seattle, Wash.; Terminal Island, Calif.; Gloucester, Mass.; St. Petersburg, Fla.; and Juneau, Alaska.

## **Recent Volumes Explore Marine Fisheries Law, Management, Mariculture**

The American Society of International Law, a nonprofit scholarly Washington, D.C.-based organization, established a Working Group in June 1973 to explore living marine resource issues addressed by the U.S. Conference on the Law of the Sea. Papers by Working Group members constitute the bulk of **The Future of International Fisheries Management**. Authors are Lee G. Anderson, Robert M. Goldberg, Jon L. Jacobson, Douglas M. Johnson, H. Gary Knight, and Robert H. Neuman. Knight also served as editor. Published under USIL auspices, copies of the 253-page book are available from West Publishing Co., St. Paul, Minn. (price not listed).

The papers, in chapter form cover: (1) development of the law of the sea and international fisheries management; (2) implications of multinational investments for international living marine resource agreements; (3) criteria for maximum economic yield of an internationally exploited fishery; (4) future fishery technology and the third LOS conference; and (5) the role of enforcement in a global fisheries regime. The concluding section discusses an optimum global fisheries management policy.

"If aquaculture ever is to develop grand-scale proportions, it eventually becomes appropriate to consider conducting it in offshore waters," writes Joe A. Hanson, principal author and editor of **Open Sea Mariculture** (Dowden, Hutchison & Ross, Inc., Stroudsburg, Pa., \$24.00). The 410-page book is the product of a NOAA Sea Grant to the Oceanic Foundation of Hawaii to study, from a

systems engineering angle, the possibilities and problems in culturing marine organisms in the open seas. Besides Hanson, who authored or co-authored 10 of the 15 chapters, contributors include Edward D. Stroup, Steven V. Smith, Colin E. Nash, Carol C. Hanson, J. M. Collier, S. B. Ribakoff, G. N. Rothwell, and others. Editorial reviews were provided by Harvey Bullis, Carl Sindermann, Edward Klima, Terrence Nosh, Willis Clark, Ira Dyer, John P. Harville, and others.

Open sea mariculture is treated in four parts. Part I examines the bio-economic, utilitarian (and historical), legal, and political perspectives while Part II covers geological and oceanographical aspects of the open sea environment. Science and Technology, Part III, treats nutrition, crop selection, environmental controls, necessary platforms, housing and energy, and handling and harvesting of crops. Part IV, Prospects for the Future, suggests a broad national mariculture research and development program. Each chapter has a list of references and the book is indexed.

Marine fisheries management has been mainly a matter of introducing restrictive regulations to minimize harmful effects of too much of the wrong kind of fishing says author J. A. Gulland in **The Management of Marine Fisheries**. However, he foresees a more strictly controllable, day-to-day policy of restricting the actual number of fish caught, their size, and where they are caught. Gulland is Chief, Fishery Statistics and Economic Data Branch, Fishery Economics and Institutions Division, FAO, Rome. His 198-page book is published by the University of Washington Press, Seattle, \$16.50.

Gulland briefly reviews problems of fishery management in Chapter 1 while Chapter 2 uses the history of Antarctic whaling as an example of failure to manage and conserve a resource; the North Atlantic trawl fishery is discussed in Chapter 3. After examining the biological basis, the objectives, and the techniques of fishery management, the author discusses international implications and the future of marine fishery management. Author and subject indexes are provided as are references for each chapter.