

NMFS Scientific Reports Published

NOAA Technical Report NMFS SSRF-714. Nelson, Craig S. **"Wind stress and wind stress curl over the California Current."** August 1977. 87 p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

ABSTRACT

Historical surface marine wind observations are summarized by 1-degree square areas and months to describe the seasonal distribution of wind stress over the California Current. Off the coasts of southern California and Baja California, an alongshore equatorward component of surface wind stress is present throughout the year. The distributions of wind stress north of Cape Mendocino are characterized by marked changes in direction and magnitude between summer and winter. The predominant wind stress maximum shifts northward coherently from off Point Conception in March to south of Cape Blanco in September, and extends approximately 500 km in the offshore direction and 1,000 km in the alongshore direction. Maximum values of surface wind stress occur during July near Cape Mendocino. The wind stress curl is positive near the coast and negative in the region offshore. A line of zero wind stress curl parallels the coast 200-300 km offshore, except off central Baja California. The patterns of wind stress curl are consistent with the existence of an equatorward Sverdrup transport offshore and a poleward transport near the coast.

NOAA Technical Report NMFS SSRF-713. Straty, Richard R. **"Current patterns and distribution of river waters in inner Bristol Bay, Alaska."** June 1977. 13 p.

ABSTRACT

Hydrographic studies to determine the distribution of the waters of the major sockeye-salmon-producing river systems in inner Bristol Bay show the net seaward flow of river water is along the northwest (right) side of inner Bristol Bay. The net motion of seawater toward the head of Bristol Bay transports with it the waters of Ugashik and Egegik rivers, which enter the bay on the southeast side. Near Egegik Bay to Middle Bluff, the mixed sea and river waters join the seaward flow of Kvichak and Naknek river waters, which enter at the head of Bristol Bay. Waters of these four rivers, along with the large volume of water from the rivers entering Nushagak Bay, are eventually transported to, and move seaward on, the northwest side of Bristol Bay. Waters of Naknek, Egegik, and Ugashik rivers are similar to each other in the courses followed during ebb and flood tides. Flood tide currents, along with the nontidal current, transport water from Egegik and Ugashik rivers above or north of the entrance to Egegik and Ugashik bays.

Marine Oil Pollution Literature Referenced

A processed report, "Subject Classified Literature References on Effects of Oil Pollution in Arctic and Subarctic Waters," has been compiled by Maurice E. Stansby and Isabel Diamant, of the NMFS Northwest and Alaska Fisheries Center. This 201-page report lists references under 20 subject categories such as effects of oil under ice and snow, effects on physiological processes, weathering of oil, and taint

as a flavor in fish from oil pickup. Copies may be requested from Maurice E. Stansby, Northwest and Alaska Fisheries Center, National Marine Fisheries Service, NOAA, 2725 Montlake Boulevard East, Seattle, WA 98112.

DIATOM BIOLOGY IS EXAMINED

Publication of "The Biology of Diatoms" (Botanical Monographs, Volume 13) has been announced by the University of California Press. Authored by several practicing biologists, the book reviews aspects of diatom biology and describes results of recent research. It was edited by Dietrich Werner, Professor at the Botanisches Institut, Universitat Marburg-L, Germany. Chapters discuss diatom growth and culture, ultrastructure of the diatom cell, silicate metabolism, photosynthesis, heterotrophic nutrition, biochemical composition, movements, sexuality, freshwater diatom ecology, ecological considerations of marine littoral diatoms, and ecology of marine planktonic diatoms. The 505-page indexed volume is available for \$32.50 from the University of California Press, 2223 Fulton Street, Berkeley, CA 94720.

Eels, Their Capture, and Uses Outlined

"Eels, A Natural and Unnatural History," by Christopher Moriarty, has been released by Universe Books, 381 Park Ave. South, New York, NY 10016. The author is assistant inspector of fisheries for Ireland's Department of Agriculture and Fisheries and has studied and worked with eels since 1959.

This book examines eel lore and legend, basic eel biology and migrations, the catching and farming of eels, getting eels to the consumer and eel cooking, and eel classification. Appendices describe length distribution of eels, age distribution, food preferences and a list of food organisms found in

eels. An index and list of references are provided. The hardbound, small-format book has 192 pages, costs \$15.00, and is available from the publisher.

Mexican EEZ Impact on Shrimping; Freshwater Shrimp Diseases Eyed

The expected economic impact of the 200-mile extended jurisdiction limit by Mexico on the U.S. shrimp fleet is explored in "Mexico's 200-Mile Offshore Fishing Zone: Its Economic Impact on the U.S. Gulf of Mexico Shrimp Fishery" (TAMU-SG-77-210), by Wade L. Griffin and Bruce R. Beattie.

The 35-page Texas A&M University report estimates average annual shrimp catch and effort expended by the U.S. fleet in Mexican waters. Also, economic effect on the U.S. shrimp fishery due to shifting the effort from Mexican waters to U.S. waters is estimated in terms of rent loss to the fishery and break-even product prices required to achieve open-access equilibrium.

"Crawfish and Freshwater Shrimp Diseases" (TAMU-SG-77-605), by S. K. Johnson, is designed as an information source and field guide for crustacean culturists, commercial fishermen, and others interested in parasites or abnormal conditions of freshwater crustaceans.

Detailed descriptions, photographs, and illustrations of the common parasites and commensals are given along with information on their life cycles and general biological characteristics in the 20-page handbook. Several diseases of unknown cause are also described. A list giving definitions of terms is included, as are 18 color photos, 30 black-and-white photos, and 10 illustrations. There is no charge for single copies but \$2.00 per copy is charged for orders of from 2 to 10 copies. For larger orders, write for prices.

Both publications are available from the Sea Grant Program, Center for Marine Resources, Texas A&M University, College Station, TX 77843.

Make checks payable to "Texas A&M University."

Other Texas A&M University publications in print are "Stop Shrimp 'Black Spot'" by Ranzell Nickelson II and Bruce Cox (TAMU-SG-77-504), a 4-page advisory bulletin "Freezing Fish and Shellfish" by Ranzell Nickelson and Sally Springer (TAMU-SG-77-503); "Seafood Retailing" (second edition) by Samuel M. Gillespie and William B. Schwartz (TAMU-SG-77-401); and "Bottom Fishing Obstructions: Texas/Louisiana Gulf" by Gary L. Graham (TAMU-SG-76-502).

Joint Soviet-Japan Aquaculture Symposia Proceedings Printed

The proceedings of the Second, Third, Fourth, and Fifth Soviet-Japan Joint Symposia on Aquaculture have been published as a four-volume set by Tokai University, Japan. Each volume contains the papers presented by Soviet and Japanese scientists at one of the annual meetings as well as information on the general program each year. Many of the actual texts are in Russian or Japanese and abstracts in English only accompany the Japanese texts. Information on the contents of these volumes and the previously published proceedings of the First Joint Symposium can be obtained from NMFS Statistics and Market News Offices by sending a self-addressed mailing label and requesting a copy of IFR 78/36.

The symposia were held alternately in the Soviet Union and Japan under the sponsorship of the Russian All-Union Scientific Research Institute of Fisheries and Oceanography (VNIRO) and Japan's Tokai University. The first symposium was held in Tokyo and Shimizu in December 1972; the second in Moscow in November 1973; the third in Tokyo in November 1974; and the fifth in Tokyo and Sapporo in September 1976. The sixth symposium proceedings, not yet published, was held in Moscow and Batumi in October 1977.

Additional information on the pub-

lished symposia and ordering instruction can be obtained from M. Ikematsu, Faculty of Marine Science and Technology, Tokai University, 1000, Orido, Shimizu (424), Japan.

A Forum on Water Resource Problems

The quarterly magazine *Water Spectrum*, published by the Corps of Engineers, Department of the Army, presents a broad range of opinion on water resources issues. Written for both the professional and the interested lay person by experts in the field, recent articles have covered nonpoint pollution, river quality assessment, vanishing plants and animals, nonstructural flood control, the canal system of Finland, flood insurance, the return of the bald eagle, drought, and more.

Water Spectrum is offering a free copy of its latest issue to prospective subscribers. Write the Editor, *Water Spectrum*, Office, Chief of Engineers, Department of the Army, Washington, DC 20314.

EUROPEAN MARINE FISHING REVIEWED

"Fisheries of the European Community," has been published by the White Fish Authority's Fishery Economics Research Unit. The 16-page large format booklet contains a statistical survey of EC fisheries, updating the data published in the last issue of "Fish Industry Review" in mid-1975, and includes new material on the industries of three EC-applicant countries, Greece, Spain, and Portugal.

The EC's common fisheries policy is reviewed by E. Gallagher, EC Director General for Fisheries, and contributions on fisheries from the national standpoints of Ireland, Belgium, France, Netherlands, United Kingdom, and Denmark are presented. The booklet costs £2 and is available from the White Fish Authority, Sea Fisheries House, 10 Young Street, Edinburgh, Scotland EH2 4JQ.