

## New NMFS Scientific Reports Published

The publications listed below may be obtained from either the Superintendent of Documents (address given at end of title paragraph on affected publications) or from D822, User Services Branch, Environmental Science Information Center, NOAA, Rockville, MD 20852. Writing to the agency prior to ordering is advisable to determine availability and price, where appropriate (prices may change and prepayment is required).

NOAA Technical Report NMFS Circular 431. Flescher, Donald D. **"Guide to some trawl-caught marine fishes from Maine to Cape Hatteras, North Carolina."** March 1980. 34 p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

### Abstract

Fishes covered are those regularly caught during trawling operations. Similar shaped fishes are grouped together. On each page the written keys are connected by lines to the fish illustrations; consequently, technical terms in the keys are illustrated as they are used. Notes on the size and range of each fish are included.

NOAA Technical Report NMFS Circular 432. Yoshida, Howard O. **"Synopsis of biological data on bonitos of the genus *Sarda*."** May 1980. 50 p.

### Abstract

Published and some unpublished information on the biology and resources of the three species of *Sarda*, *S. australis*, *S. chiliensis*, and *S. sarda*, are compiled, reviewed, and analyzed in the FAO species synopsis style.

NOAA Technical Report NMFS Circular 433. Setzler, Eileen M., Walter R. Boynton, Kathryn V. Wood, Henry H. Zion, Lawrence Lubbers, Nancy K. Mountford, Phyllis Frere, Luther Tucker, and Joseph A. Mihursky. **"Synopsis of biological data on striped bass, *Morone saxatilis* (Walbaum)."** June 1980. 69 p.

### Abstract

This synopsis reviews literature on the taxonomy, morphology, distribution, life history, population, ecology, recreational and commercial harvest, and culture of the striped bass, *Morone saxatilis* (Walbaum).

The striped bass is an anadromous species distributed along the Atlantic coast from northern Florida to the St. Lawrence Estuary, Canada; along the Gulf of Mexico from western Florida to eastern Louisiana; and along the Pacific coast from Ensenada, Mexico, to British Columbia, Canada. Populations have been established in numerous inland reservoirs and lakes. Striped bass spawn from mid-February in Florida until June or July in Canadian waters, and from mid-March to late July in California waters. Spawning occurs at or near the surface in fresh or nearly fresh waters at temperatures from 10° to 23°C; peak spawning usually occurs between 15° and 20°C. Yolk-sac larvae (prolarvae) range from 2.0 to 3.7 mm TL (total length) at hatching. Larval feeding is usually initiated from 4 to 10 days after hatching. At about 13 mm TL, larval striped bass form small schools and move inshore; during their first summer, juvenile fish move downstream into higher salinity waters in many areas. Most estuarine stocks of striped bass along the Atlantic coast are involved in two types of migration: the upstream spring spawning migration and the offshore coastal migrations which apparently are not associated with spawning activity. Male striped bass reach sexual maturity at an earlier age than females; most males are mature in 2 yr and females in their fourth or fifth year.

## On Managing the Whales

Publication of **"Conservation and Management of Whales,"** by K. Radway Allen, has been announced by the University of Washington Press, Seattle, WA 98195. The author is a member of the Scientific Committee of the International Whaling Commission. He was formerly chief of the Division of Fisheries and Oceanography at Cronulla, New South Wales, Australia.

Based on a series of lectures by the author at the University of Washington in 1978, the book outlines the main concepts and techniques which have gradually evolved in the study of whale populations and reviews their application to the management of whales.

The author briefly discusses the biology of whales and the history of whaling, as well as whale populations and the history of their regulation in chapters 1 and 2. The following four chapters examine population models; methods of estimating populations and vital parameters; problems and sources of error in the estimation of populations and vital parameters; and management strategies, risks, and alternatives.

The 120-page book is available from the publisher for \$12.50.

## Accidents and Safety On and In the Water

Marine safety has long been a NOAA concern. Several new reports on marine-related accidents shed more light on their circumstances and prevention and provide a basis for safer marine research, fishing, and recreation.

### Surviving Hypothermia

Hypothermia has long been recognized as a serious threat to outdoor and maritime workers and recreationists. It is also believed to be a major factor in about one-third of all U.S. drownings. In addition, it claims hikers, mountaineers, and even urban residents and motorists caught in severe winter storms.

The study of hypothermia, and techniques to prevent or treat it is rapidly bearing fruit. In recent months, NOAA researchers have discovered that many "drowning victims" can be successfully resuscitated—some after being under water 20-30 minutes.

NOAA, of course, has been at the forefront in funding research into hypothermia problems and solutions. In January 1980 the University of Rhode Island hosted the first International Hypothermia Conference and Workshop which explored cold exposure problems in great depth.

With the proceedings of that important meeting temporarily in limbo, URI opted to produce xerographic copies of the reports and papers, plus a wide collection of additional supportive reports on hypothermia in a three-ring binder. The entire package, over 600 pages, is available postage paid for \$25.00.

If costly, it is also important data. "The information presented is extremely important, up-to-date, and will help save lives," says Neil Ross, conference chairman. The articles range from basic knowledge about hypothermia and its prevention and treatment to highly technical and medical reports.

The notebook has two parts: 1) Technical papers (arranged alphabetically by author), and 2) miscellaneous articles. Reports from many of the world's leading medical researchers and experts on all aspects of accidental hypothermia are presented. The data is important to those who need it for research, education, or survival. The proceedings can be ordered from the URI Marine Advisory Service, Division of Marine Resources, University of Rhode Island, Narragansett, RI 02882.

### Underwater Accidents

The National Underwater Accident Data Center (NUADC) at the University of Rhode Island has collected, investigated, and analyzed data on 1,372 underwater diving fatalities from 1970-78. The result is "**U.S. Underwater Diving Fatality Statistics,**

**1970-78,"** Rep. No. URI-SSR-80-13, available for \$3.00 from NUADC, P.O. Box 68, Kingston, RI 02881.

The 40-page report provides a wealth of accident data by diver age, experience, pursuit, location, surroundings, cause of death, and more. Accident terms are defined and selected accidents are discussed and analyzed. Appendices include an "Underwater Accident Report Form" and "Autopsy Protocol for Victims of Scuba Diving Accidents." A list of additional references is also provided.

Report data shows that one of every three "occupational" diving fatalities involved either commercial fisheries ventures or scientific research by persons associated with an academic institution. Notably, scientific diving for paid consulting purposes was fatality free for the entire period. Not counting diving instruction and unspecified activities, spearfishing, abalone diving, and shell/lobster fishing accounted for about half the nonprofessional diving fatalities between 1970 and 1978.

To be most useful, of course, these data need a point of reference (i.e., how many persons were at risk). As it is, the reader has no way of knowing whether a fisheries scientist, abalone diver, or an underwater welder is most at risk—or why.

### Lightning Summary

EDIS' National Climatic Center (NCC) has published a "**General Summary of Lightning, 1959-1979**" by Henry Vigansky of the center. It includes a narrative of unusual lightning-associated deaths and injuries, tables of occurrences by state for the year 1979, and nationwide statistics (by year) for the period 1959-1979.

Water and trees were most hazardous. During the 21-year period, 15 percent of the 2,210 recorded lightning victims in the United States were standing under trees. But another 12 percent of those killed were either boating, fishing, or swimming.

The year 1979 saw the fewest number of recorded deaths during the 21 years,

63. The greatest number occurred in 1963, when 210 people were reported killed by lightning. The greatest number of deaths from lightning in 1979 were recorded in Texas, where seven people were killed; during the 21-year period Florida, with 223 fatalities, led the list.

A magnetic tape has also been prepared containing lightning statistics for the period 1959-1979. The tape contains the date/time (year, month, day and hour), location (state and county), number of fatalities, number of injuries and estimated amount of property damage for each lightning-associated report appearing in the NCC's *Storm Data* publication. There are about 14,000 individual reports for the 21-year period.

Inquiries about the availability of the summary and tape should be addressed to Henry Vigansky, National Climatic Center, Federal Building, Asheville, NC 28801.

### Aquatic Plants and their Control

Publication of "**Aquatic Plants, Lake Management, and Ecosystem Consequences of Lake Harvesting**" has been announced by the Institute for Environmental Studies, University of Wisconsin—Madison, 120 WARF Building, 610 Walnut, Madison, WI 53706. Edited by J. E. Breck, R. T. Prentki, and O. L. Loucks, it is available for \$6.50, paid in advance. Microfiche copies are also available from NTIS, 5285 Port Royal Road, Springfield, VA 22161 for \$3.50.

The report is divided into six sections: I, Macrophyte biology; II, nutrient loading and flux of phosphorus from sediment; III, effects of harvesting on the consumer community; IV, mechanical harvesting options; V, institutional settings; and VI, overview of the conference findings.

The 435-page report provides a good review of the current status and knowledge of macrophyte biology, harvest practices, nutrient cycling, and the institutional mechanisms for implementing treatments.