

New NMFS Scientific Reports Published

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NOAA Technical Report NMFS Circular 439. Todd, Ruth, and Doris Low. "**Marine flora and fauna of the northeastern United States. Protozoa: Sarcodina: benthic foraminifera.**" June 1981. 51 p.

Abstract

An illustrated key to nearshore and shelf species includes 133 taxa. Seventy-nine genera are represented. In an annotated list, the distribution and ecology of each species are recorded within the area of Cape Hatteras to Nova Scotia and out to a depth of 50 m on the continental shelf. The key is intended to aid the nonspecialist in identification of the species to be expected in the marshes, estuaries, littoral zone, bays, and inner parts of the continental shelf.

NOAA Technical Report NMFS Circular 440. Bush, Louise F. "**Marine flora and fauna of the northeastern United States. Turbellaria: Acoela and Nemertodermatida.**" July 1981. 71 p.

Abstract

This manual contains an introduction to the general biology, an illustrated key to the genera, and an annotated systematic list of the orders Acoela and Nemertodermatida. The key facilitates identification of 16 families and 75 genera of Acoela and includes the 3 genera of the order Nemertodermatida.

The systematic list includes 173 species which have been described from the North Atlantic, including some more southern species that might be encountered here, and gives the habitat and known distribution for each species.

Some Aspects of the History of Oceanography

"**Oceanography The Past,**" edited by Mary Sears and Daniel Merriman has been published by Springer-Verlag New York Inc., 44 Hartz Way, Secaucus, NJ 07094. This huge 812-page volume springs from the Third International Congress on the History of Oceanography, organized under the auspices of the Woods Hole Oceanographic Institution (WHOI) at Woods Hole, Mass., 22-26 September 1980. The Congress was also a part of the year-long celebration of the Fiftieth Anniversary of the founding of the Institution.

Of the presentations, some 69 were preselected for publication, ranging from several commentaries on WHOI to "Gondwanaland in ancient Indian literature." The topics presented were widely diverse, and the editors have presented them in about the order given—not grouped into particular categories.

An idea of this diversity can be had from some of the titles: The Benjamin Franklin and Timothy Folger charts of the Gulf Stream; Sebastos, the harbor complex of Caesarea Maritima, Israel; siting and development of Mediterranean harbors in antiquity; traditional Chinese ichthyology and its encounter with Jesuit science; Switzerland's contributions to the aquatic sciences over the centuries; the Victorian aquarium in

ecological and social perspective; phytoplankton ecology before 1900; considerations on the medical use of marine invertebrates; the *Meteor* Expedition, an ocean survey; Belgium and the early development of modern oceanography; oceanography development in Peru; early observations and investigations of El Niño: the event of 1925; studies and acceptance of plate tectonics; on the environment and unity in marine research; the history of chlorinated hydrocarbon pollution; marine industrial pollution; studies of the Kuroshio and the Oyashio; North Pacific sea surface temperature observations: a history; meso-scale spatial distribution of plankton; and more.

The quality of the papers vary, as might be expected. Some of the authors were, of course, major figures in shaping these historical events and their contributions provide unique insights into their roles and those of their associates and predecessors. Other presentations are more routine, but in sum the volume helps to document the development of a variety of aspects of a rapidly developing field. It will be of great interest to not only students and teachers but to oceanographers and historians. Indexed, the hardbound volume costs \$37.50 and is available from the publisher.

Seine Net Gear and Its Use

"**Seine Fishing,**" subtitled "bottom fishing with rope warps and wing trawls," is a revision of the volume "The Seine Net—its origin, evolution and use," published in 1969. The changes since the late 1960's have been many, i.e., vessel size, power, electronic and mechanical sophistication, etc. The new volume, published by Fishing News Books Ltd., 1 Long Garden Walk, Farnham, Surrey, England, is authored by David Thompson, a successful Scottish skipper who has trained fishermen around the world for 18 years.

Again, the new volume presents the history and development of the Danish seine and its spread to England, Scotland, Ireland, Sweden, Norway, Iceland,

Russia, Australia, New Zealand, Canada, and the United States. Details are given on the adaptation of the gear to differing needs. Other chapters discuss the Danish anchor-dragging method of seining, Japan's tow-dragging method, fly-dragging, a chapter on seine net designs and gear, vessels and equipment, anchor seiner development, seine net fishing in Scotland, and, finally, costs and earnings of British seine-net vessels.

Updated and indexed, the 224-page volume contains 114 illustrations plus a short bibliography of other books and articles on seine nets and fishing. Practical and useful, the book is available from the publisher for £14.50 plus £1.45 postage and handling.

Mysid, Euphausiid Biology Reviewed

Volume 18, "**Advances in Marine Biology**," is devoted to "The Biology of Mysids and Euphausiids" by John Mauchline of the Dunstaffnage Marine Research Laboratory, Oban, Argyll, Scotland. The series, published by Academic Press Inc., 111 Fifth Avenue, New York, NY 10003, is edited by J. H. S. Blaxter, Sir Frederick S. Russell, and Sir Maurice Yonge. Superficially similar and once lumped together as the Schizopoda, mysids and euphausiids are now recognized as peracarid and decapod crustaceans, respectively.

Part One of this volume (p. 1-369), "The biology of mysids," introduces the species (780) and presents a key to the genera. It does not, however, contain a treatise on mysid taxonomy, instead, referring readers to appropriate literature. Following chapters review mysid larvae and reproduction, vertical distribution and migration, the gut, food and feeding, chemical composition, internal anatomy, physiology and responses to physical-chemical parameters of the environment, behavior, population dynamics, geographical distribution, predators and parasites, and mysids in the marine economy. Extensive references are provided. Three appendices present a taxo-

nomic list of mysidacea and a classified list of literature for each genus and for geographical regions.

Part Two, "The biology of euphausiids" (p. 371-637), reviews information on the biology of these species published between 1968 and 1978. Volume 7 of the *Advances* reviewed that data up to 1968. Part Two follows the format of that earlier work so it can be easily cross-referenced.

The author reports 85 species of krill, unchanged since 1969, some of which are becoming commercially important. Newer data is presented on the species of krill, their distribution and synonymy, larvae, vertical distribution and migration, food and feeding, chemical composition, vision and bioluminescence, internal anatomy and physiology, growth, maturity and mortality, ecology of distribution, predators and parasites, and their place in the marine economy.

Addenda to the biology of euphausiids and mysids (p. 596-637) presents data from papers published since the manuscripts were completed. Likewise, the data are treated under the same chapter number and headings of the main papers to facilitate cross-referencing. Taxonomic and subject indexes are provided for the volume.

The 680-page volume, a comprehensive and valuable updating of data on the mysids and euphausiids, contains 94 figures (Part One, 63; Part Two, 31) and 67 tables (41 and 26). Priced at \$89, it is available from the publisher.

Data on the Columbia River Estuary

The Columbia River estuary, the nation's ninth largest, is a highway of commerce and for commercially and recreationally important fishes. Anticipating future studies and development there, the Columbia River Estuary Data Development Program (CREDDP) has surveyed the known scientific literature on it and produced three publications relating to its fisheries. They are "**A Litera-**

ture Survey of the Columbia River Estuary, Volume 1, Summary," "Volume II, Annotated Bibliography," and a historical view titled "**Columbia's Gateway, A History of the Columbia River Estuary to 1920.**" The first two were prepared under contract with the Pacific Northwest River Basins Commission, and the last, done by the Oregon Historical Society, places the river's immense salmonid fisheries in perspective with its other resources, navigation, estuarine development, and early exploration.

Besides publications specifically devoted to the Columbia River estuary, the "Literature Survey" includes many references to other studies pertinent to Columbia River research efforts, regardless of where conducted.

Volume I (63 pages, looseleaf) reviews the extent (or lack) of data on the estuary from the Pacific Ocean to the eastern tip of Puget Island, at River Mile 46, by subject: Emergent plant production, benthic primary production, water column primary production, zooplankton and larval fishes, benthic infauna, epibenthic organisms, nonsalmonid fishes, salmonid fishes, avifauna, marine mammals, wildlife, current studies, and sedimentation.

Volume II contains the annotated references, listed by the same subjects and indexed by key words. The 430-page volume (looseleaf) will be of primary interest to the scientific community and researchers dealing with the Columbia River studies and to others interested in estuarine problems.

"Columbia's Gateway," a 65-page paperbound volume, gives a history of the region, its early development and navigation and includes a chapter on the river's immense salmonid fisheries. Appendix C presents 45 maps of early estuary development, hydrographic surveys, exploration, and the river's fisheries. The book includes historical notes and a bibliography, and costs \$13. Volumes I and II of the "Literature Survey" cost \$3 and \$6, respectively, and all can be ordered from the Pacific Northwest River Basins Commission, CREDDP Publications, P.O. Box 908, Vancouver, WA 98666.