

Reading Matter

- The four publications mentioned under "Recent NMFS Scientific Publications" seem to deserve more extended notice than can be given under the bald listing on page 44. Each represents the fruition of a long-planned publishing project. All are for sale by the Superintendent of Documents, by the way.

- "Ocean Fishery Management: Discussions and Research" contains the papers contributed to a NMFS workshop held late in 1970. Attending the workshop were "virtually all known researchers in Fishery Economics throughout the world, many administrators, and researchers in related disciplines," according to Adam A. Sokoloski, the editor of the publication. Now associated with the Environmental Protection Agency, Sokoloski was at that time a member of the NMFS staff. As Sokoloski says in his preface, "Until recent years only biological or technical aspects of fisheries conservation have advanced beyond esoteric professional journals or smoke-filled back rooms to be given serious consideration when formulating working management programs. In recent years the social sciences, especially economics with its emphasis on rational management, have gained some respectability beyond mere conceptual discussion.

"With the mounting urgency of fishery management problems serving as a catalyst, the National Marine Fisheries Service has multiplied its research in this area, aided in part by the rapidly growing Sea Grant program." This volume is one of the results of that research.

Sokoloski leads off the 173-page volume with a paper, "The status of fisheries management research: an overview." The remaining papers are classified under three topics: "Issues in

fishery management," "Production functions and bioeconomic models: research implications," and "Issues related to fishery management: research results." The range of topics treated is wide.

"Ocean Fishery Management: Discussions and Research" is not, on the whole, easy reading. The authors are specialists writing for specialists. But it is a document worth spending some time on, for it, like other publications appearing these days, reflects the emerging recognition that disciplines other than fishery biology should be brought more strongly to bear on fishery problems.

- "Marine Flora and Fauna of the Northeastern United States. Annelida: Oligochaeta," by David S. Cook and Ralph O. Brinkhurst is a slim pamphlet that is the first in a series of publications designed to provide biology students, biologists, biological oceanographers, informed laymen and others with authoritative manuals enabling them to identify coastal organisms of the northeastern United States. Each manual (several dozen are planned) will be based on recent systematic research and fresh examination of the plants and animals and each will be prepared by an authority on the topic. All will be copiously illustrated.

Preparation of "Marine Flora and Fauna of the Northeastern United States" is being coordinated by a board headed by Melbourne R. Carriker, who recently has become a member of the faculty of the University of Delaware, after some years as head of the Systematics-Ecology Program of the famous Marine Biological Laboratory, Woods Hole, Mass.

The Cook and Brinkhurst publication is a comprehensive key to marine Oligochaeta from New England to Cape Hatteras. According to *Marine Fisheries Review* staff member Mary Ellen Engett, "Oligochaeta is a scientific name for certain types of worms; the word itself is derived from two Greek words: *oligo*, meaning small, and

chaite, meaning mane. Each segment of these worms (except for a portion of the head) contains four bundles of setae or hairs—hence the name.

"The aquatic Oligochaeta are smaller and simpler in structure than the common earthworm, a terrestrial oligochaete. Since the marine species live on the bottom, their survival depends on the availability of suitable substrates and their ability to compete with other water deposit feeders in a given habitat. They seem to have little trouble surviving in polluted areas, however; during one study in the San Francisco Bay system, 97.8 percent of the total bottom fauna contained Tubificidae (an Oligochaeta species). The scientists who conducted this study believe that changes in abundance of certain species may indicate the nature and source of pollution materials."

David G. Cook is affiliated with the National Museum of Natural Science, Ottawa, Canada and the Systematics-Ecological Program of the Marine Biological Laboratory. Ralph O. Brinkhurst is associated with the Department of Zoology, University of Toronto, Canada and the Systematics-Ecology Program. His work on the aquatic oligochaetes of New England was supported by the Ford Foundation and National Science Foundation.

In all, a great deal of learning and information for the small sum of 35 cents, the cost of this first manual in the series. Five more are in press.

- Finally, NMFS scientific publications for the calendar years 1968 and 1969 are listed and indexed in the two publications by Lee C. Thorson and Mary Ellen Engett. They have four more such publications in press, covering the years 1965, 1966, 1967, and 1972 (lists for 1970 and 1971 have previously appeared). When the publications in press appear, there will be in existence detailed lists and subject indexes of all scientific publications of NMFS (and its predecessor agencies) from 1920 through 1972.

T.A.M.