Aquaculture: Principles, Practices, and Disease Controls Are Published

"Principles of Warmwater Aquaculture" by Robert R. Stickney, has been published by John Wiley and Sons, Inc. as an introductory text. As such, it examines various subject areas of aquaculture and provides concepts and techniques needed to rear warmwater species in both fresh and marine conditions and under controlled or semi-controlled conditions.

Stickney, Associate Professor in the Department of Wildlife and Fisheries Sciences at Texas A&M University, covers the topic in nine chapters, beginning with basic definitions and an overview of fish culture in Chapter 1. Other chapters discuss water systems; nonconservative aspects of the aquatic environment; feeds, nutrition, and growth; reproduction, selective breeding, and genetics; disease and parasitism; harvesting, processing, and economics; and minnow, goldfish, centrarchid, and striped bass culture.

Each chapter contains an extensive listing of cited literature as well as suggested additional reading material. A glossary defines terms important to aquaculturists. The book costs $22.50 and is available from John Wiley and Sons, 605 3rd Avenue, New York, NY 10016.

The second edition of **"Fish and Invertebrate Culture"** subtitled "Water management in closed systems" by Stephen Spotte, Director, Mystic Marinelife Aquarium, has also been printed by John Wiley and Sons. Unlike its title implies, the volume discusses water quality control in closed-system fresh, brackish, and seawater environments; it does not specifically address the rearing of aquatic animals.

Chapter topics include: Biological and mechanical filtration processes, removal of dissolved organic carbon, methods of disinfection, gas exchange and respiration by aquatic animals, seawater, buffering, toxicity and disease prevention, and aquarium water analytical methods. The text has been updated and rewritten, dealing with applicable theoretical and practical subjects. A new section, "Management Practices," has been added to the end of each chapter. The 179-page volume costs $13.95.

"Aquacultural Engineering" by Frederick W. Wheaton, also published by Wiley, is a state-of-the-art presentation of the technical engineering facets of aquaculture, fisheries, and other aquatic systems. It presents information for putting scientific knowledge into practical and economically feasible systems for producing cultured aquatic crops. Part I discusses how aquatic environmental conditions influence organisms and relates how the organisms adjust to changing environments. Part II describes how to create a desirable aquatic environment. Engineering concepts are applied to the production of aquatic species in fresh, brackish, and seawater. The 708-page volume costs $38.95.

"Handbook of Drugs and Chemicals Used in the Treatment of Fish Diseases" by Nelson Herwig, is subtitled "A manual of fish pharmacology and materia medica." The 272-page volume is published by Charles C. Thomas, 301-327 East Lawrence Avenue, Springfield, IL 62717 and costs $17.50. The author is curator of fishes at the Houston Zoological Gardens, Houston, Tex.

This text provides an extensive list of pharmaceuticals applicable to fish medicine. Part I, "Fish pharmacology" presents chapters on therapeutics in fish diseases, drug therapy, actions and uses of drugs, and toxicology. Part II, "Materia medica" contains an alphabetical annotated listing of drugs and their synonyms ranging from acetarsol to zonite plus doses and treatments, along with remarks and references.

An extensive bibliography is included as are appendices listing viricides, bactericides, algicides, fungicides, protozoacides, anthelminthics, crustacides, insecticides, molluscicides, fish toxicants, disinfectants, fish anaesthetics and tranquilizers, antiseptics, and more. A partial listing of manufacturers and/or distributors of drugs and chemicals is also listed in the text. The volume should be very useful to those dealing with fish disease treatments.

Phytoplankton Manual and Sediment Report Printed

"Phytoplankton Manual" is the sixth of the UNESCO Division of Marine Sciences' monographs on oceanographic methods issued in conjunction with the Scientific Committee on Oceanographic Research (SCOR) in the last 13 years. It covers the quantitative study of phytoplankton from initial planning through interpretation of the results.

The 337-page volume presents 50 contributions by specialists in the following sections: Sampling design and techniques, preservation and storage, concentrating phytoplankton, identification problems, estimating cell numbers, interpreting the observations, and comments on related fields (bacterioplankton, microzooplankton, freshwater phytoplankton).

The Division has also published **"Biogeochemistry of Estuarine Sediments,"** a 293-page, 8¼" × 10½" soft bound volume of the proceedings of a workshop held in Melreux, Belgium, from 29 November to 3 December 1976. It includes contributions on four basic research themes as well as workshop reports which underscore future priorities in estuarine research.

The papers presented are published as four Group Reports: 1) "Forms and species of dissolved elements in estuarine systems"; 2) "Forms and species of particulars in estuarine systems"; 3) "Transfer processes between the water and sediment"; and 4) "The role of organisms in estuarine sedimentation processes". Both volumes are available from Unipub, 345 Park Avenue South, New York, NY 10010. The Phytoplankton Manual costs $18.50 and Biogeochemistry of Estuarine Sediments costs $15.50.