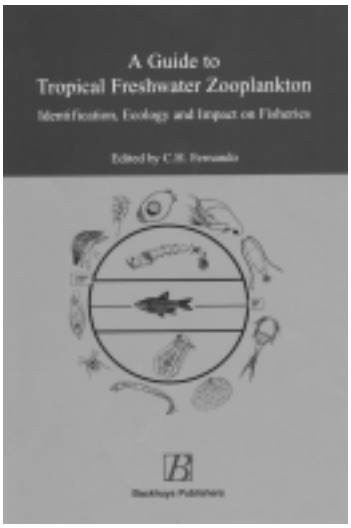

A Guide to Tropical Freshwater Zooplankton – Identification, Ecology and Impact on Fisheries

Ed. Fernando, C. H., 2002. Backhuys Publishers, Leiden, The Netherlands, 291 pages. ISBN 90-5782-117

Fundamental to studying the biology and ecology of organisms, and their use as indicator organisms in pollution studies is the ability to identify organisms. Although taxonomy is crucial to such studies, this area of research is generally not well supported. However, taxonomic studies are better supported in developed, northern temperate countries compared with tropical regions, which are represented by many developing countries. This book is thus a welcome addition to the rather scarce information database on identifying tropical freshwater zooplankton. The book covers the major zooplankton groups (Rotifera, Cladocera, Copepoda, Ostracoda, and Miscellaneous groups representing seven phyla) each written by an expert in the field.

The book comprises seven chapters. Chapter 1 gives a rundown on methods for sampling zooplankton, and their preparation for microscopic examination. Zooplankton ecologists will find the section on determining the secondary production of cladocerans, and notes on the ecology of the main groups useful. Chapter 2 deals with the rotifers, their morphology, collection and preservation, and their biogeography. This is followed by a key to families, genera and species. Chapter 3 introduces cladocerans with short notes on the morphology and distribution of each of the 63 species listed. This is followed by a key to the identification of species. To assist in the identification, a pictorial key is also provided, which I found very useful, particularly for those being introduced to the world of water fleas. Chapter 4 covers the copepods. Because of the fact that the copepod undergoes metamorphosis from naupliar to copepodid through to adult stages, its identification requires familiarity with morphological features; this is dealt with for the three stages at the order level. Keys to species of calanoids and cyclopoids are provided with notes on their zoogeographical distribution, and general comments on the ecology and productivity of the group. Chapter 5 introduces the ostracods by familarising the reader with their taxonomic characteristics before presenting a key and accompanying notes to the identification of various genera. Chapter 6 provides ecological and distributional notes on the less dominant groups generally found in zooplankton samples. These comprise the Protozoa, Coelenterate, Platyhelminthes, Ectoprocta, several orders of Insecta, Arachnida, Mollusca, and parasitic copepods. The last chapter places the zooplankton in the context of tropical freshwater fisheries, with discussions on the role of fish in shaping zooplankton composition and evolution in freshwaters. This chapter also compares trophic relationships of fish and zooplankton between tropical and temperate lakes, and concludes with some insights to the contribution of zooplankton to tropical freshwater fisheries.

The various chapters have copious amounts of illustrations, which will greatly assist the reader in identifying the various taxa. To the tropical zooplankton taxonomist/ecologist this book should contribute to making life easier in identifying the little beasties in your samples. A book worth acquiring for the library or personally.

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