Book Review


This book is part of a series ‘Guides to the identification of the Microinvertebrates of the Continental Waters of the World’ edited by H. J. F. Dumont. It has a pivotal position in this series because it introduces the reader to the major groupings of the Copepoda, and directs the reader to the relevant guide in the series for species’ identifications. For a book of this type to go to a second printing within six years is an indication of how useful it has been. It is advertised as being revised and enlarged and I was pleased to find that almost every section had been updated.

The book is divided into two parts. The first part introduces the reader to methodology, morphology, biology, reproduction and ecology, and the second is a key to orders, families and genera of the Copepoda.

The methodology section gives sufficient information to complete dissections for identification, and explains the techniques required to manipulate copepods successfully for scanning electron microscopy, transmission electron microscopy, and confocal laser scanning microscopy. Biochemical methods are also described.

I was particularly impressed with revisions made to the morphology section. It has been expanded to include clearly labelled scanning electron micrographs of appendages and reproductive structures. These complement the clearly labelled drawings and if they are used together it should make identification of structures simpler.

The biology chapter deals with development, feeding, diapause and dormancy, and copepod behaviour. Drawings of the developmental stages of calanoid, cyclopoid and harpacticoid copepods are a little smaller in the 2nd edition but they are still easily interpreted. Numerous references are given to work covering the development of a wide range of species. The feeding section has a comprehensive overview of feeding in the Copepoda. The perception of food, the modes of feeding, and variation in diets are all described. Behavioural aspects are well covered in this book both from a descriptive perspective and with quantitative details such as swimming speeds.

Throughout the book attention has been made to present a balanced record of the three groups of copepods found in fresh waters. For example, in the reproductive section the reproductive behaviours of calanoids, cyclopoids and harpacticoids are described separately. Titbits such as the 10-day copulation by the harpacticoid Tigriopus fulvus provide interest.

The ecology chapter is brief and only touches on the responses of copepods to abiotic and biotic factors but still manages to cover the variety of responses found amongst the Copepoda. Extensive reference lists are given for well-studied and/or controversial topics.

DOI:10.1127/archiv-hydrobiol/152/2001/703
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