

## **Preface**

Marine and freshwater meiofauna has been a fascinating subject of study since the previous century, mainly by students of morphology and systematics in an evolutionary context. Almost all animal phyla have representatives in the meiofauna and some phyla are exclusively composed of animals of small size; e.g. Gastrotricha, Kinorhyncha and the newly described Loricifera whose existence was announced for the first time at the Gent symposium on which this volume is based. In the last decades much ecological information has been gathered as well and more and more the picture emerges that these small creatures are important in marine sediments, indirectly by processes such as bioturbation and the stimulation of bacterial metabolism but also directly as food sources for higher trophic levels such as shrimp and juvenile fish. They also begin to play an important role in pollution research.

This volume contains 13 papers presented at the Fifth International Meiofauna Conference, held in Gent, Belgium, from 16 to 20 August 1983. These conferences are organized triannually by the International Association of Meibenthologists and previous conferences were in Tunis (1969), York (1973), Hamburg (1977) and Columbia (1980). Only the proceedings of the first conference have been published (Smithsonian Contributions to Zoology) and are widely used as a reference work, so the time was ripe for a new publication. As a logical consequence of the philosophy of these conferences, where highly speculative papers are often presented, only 13 of the 35 papers given at the conference are included. I believe, however, that they provide a good representation of current research in meiofauna biology.

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