# PREFACE

Four years after the publication of the first part of this monograph, the second volume is also ready, at last, for publication. Difficulties in completing the project were largely anticipated. The lack of a modern comprehensive monograph for this group, in particular the fact that twenty years ago no author was ready to contribute a chapter on Diplopoda to the well-known series on the *Microscopic Anatomy of Invertebrates*, thus perpetuating the lack of treatment of this group in the original *Traité* directed by Pierre-Paul Grassé — a gap fixed once and for ever by the decision of the publisher to discontinue the production of that series — was clearly a consequence of the immature level of knowledge in many aspects of millipede biology, as well as of the very limited number of specialists worldwide, often overloaded with their original research projects. It was therefore arduous to recruit a team for the long awaited monograph.

Not unexpectedly, this book has been eventually written by a team of authors whose membership has changed in part over the years. Eventually, I have enjoyed the generous participation of several senior researchers (i.e., myriapodologists of my own generation) but also of much younger colleagues who are seriously committed to generate a modern millipede zoology. To any and all of them I acknowledge here in print my deepest gratitude.

Even among the professional zoologists, not very many people are aware of the actual diversity of millipedes. Looking through the clouds of a still unsatisfactory taxonomy we discover indeed a taxon of which the species described to date are more or less as numerous as those of birds, and those that have been estimated to exist are probably in a number comparable to that of the whole of vertebrates.

The readers of this book will become aware of the wonderful diversity of the Diplopoda, not simply under the aspect of external morphology (see colour Plate I at the end of this volume), beginning with number and shape of those unique segmental units into which the trunk of these arthropods is articulated, but also in many other regards ranging from the chemistry of their defensive secretions to the astonishing diversity of their post-embryonic developmental schedules.

At the time I am delivering this manuscript to the publisher, we are still waiting for the first fully sequenced genome of a millipede species. In fact, even if some modern research has been conducted on this group, including gene expression studies on an emerging model species (*Glomeris marginata*), millipede biology is still a wonderfully unexplored area waiting for the efforts of a large number of researchers with diversified interests and skills.

Together with all my co-authors, I present this volume to the scientific community with the hope that our work may represent a useful starting point for future research and a stimulus to go seriously ahead with the study of this largely neglected arthropod group.

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