

**Martin Zimmer**  
**Faouzia Charfi-Cheikhrouha**  
**Stefano Taiti**  
Editors

**Proceedings**  
**of the**  
**International Symposium of**  
**Terrestrial Isopod Biology**  
**ISTIB-07**





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**Martin Zimmer,  
Faouzia Charfi-Cheikhrouha,  
Stefano Taiti  
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Internet: [www.shaker.de](http://www.shaker.de) • e-mail: [info@shaker.de](mailto:info@shaker.de)

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## Preface

About 25 years ago, students of the biology of terrestrial isopods (Isopoda: Oniscidea) started meeting regularly every four years on average. Actually, the first meeting was held in London in 1983, hosted by the Zoological Society of London. During the 6<sup>th</sup> symposium in 2004 in Aveiro, Portugal, Faouzia Charfi, the head of the Tunisian team, offered to organize and host the 7<sup>th</sup> Symposium on Terrestrial Isopod Biology (ISTIB-07) in Tunisia. The majority of the participants of the Aveiro symposium were enthusiastic, and upon taking appointments of the potential participants into account, the last week of March 2007 was agreed upon as time frame for ISTIB-07.

This 7<sup>th</sup> symposium of the world-wide international Oniscidea consortium was the fifth to take place in a Mediterranean country, and the first one on the African continent. Organized by the Research unit of Animal, Systematic and Evolutionary Biology, it was inaugurated by the President of the University of Tunis El Manar in the presence of the Head of the Faculty of Science of Tunis who had agreed to host the symposium. Researchers from all over the world met to discuss and exchange ideas in the relaxed atmosphere of a southern Mediterranean spring. Particularly students benefited from direct contact with experienced scientists and supervisors; for some of them, this was the first occasion to meet and discuss ideas with their role models in science.

Overall, 45 scientists and students participated in the symposium and presented their work in a total of 31 oral communications and 23 posters. Little attention is paid to the biology of isopods, since they do not have any socio-economic relevance, but they provide a valuable model for studying ecological interactions and, in particular, evolutionary processes. In fact, only few invertebrate orders successfully made the evolutionary step to colonize the terrestrial environment, while many are still present in remarkable numbers in the aquatic realm.

Morphological, anatomical and physiological adaptations enable terrestrial isopods to inhabit diverse habitats that range from beaches to deserts and alpine environments. There, they are involved in numerous ecological interactions and contribute to various ecosystem processes. Increasingly used as "bio-indicators" in environmental evaluation, they still keep some of their biological secrets, and our understanding of the morphological, anatomical or physiological basis of their ecological significance is still in its infancy. To this end, terrestrial isopods are

increasingly studied through multi-disciplinary approaches, including modern molecular and biochemical techniques. These various approaches are reflected in the diversity of topics covered by ISTIB-07, such as biodiversity, biogeography, evolution and phylogeny, morphology, ecology, physiology, behaviour, molecular biology and toxicology: While most scientific meetings in biology deal with more or less focussed topics that are investigated in a variety of organisms, ISTIB gathers the whole range of knowledge on the biology of a single animal taxon.

This 7<sup>th</sup> International Symposium on Terrestrial Isopod Biology, as all participants agreed, was a great success with respect to both organisation and scientific content and advance. To this end, Faouzia Charfi, on behalf of the Organizing Committee, expresses her gratitude to the symposium's Steering Committee as well as to all members of the research unit of Animal, Systematic and Evolutionary Biology, in particular to Rym Zakhama. Without their assistance, their devotion and enthusiasm, the 7<sup>th</sup> International Symposium on Terrestrial Isopod Biology would not have been such a success.

Each of the papers published in this volume has undergone peer-review by two independent colleagues, of whom almost everybody evaluated at least two manuscripts. Keeping their identity anonymous, we appreciate their valuable contribution to our proceedings: without their willingness to invest their precious time and energy, it would not have been possible for us to publish papers on such diverse topics of terrestrial isopod biology.

July 2008, the editors,

*M. Zimmer (Kiel, Germany), F. Charfi-Cheikhrouha (Tunis, Tunisia), S. Taiti (Firenze, Italy)*