

FACETS OF TERRESTRIAL ISOPOD BIOLOGY

EDITED BY

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Ligidium hypnorum (Cuvier, 1792)

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Terrestrial isopods (woodlice) are the only group within the subphylum Crustacea fully adapted to life on land. Nearly 4000 species are known worldwide but every year numerous new species are found and many more are to be described especially in tropical and circum-Mediterranean regions. Terrestrial isopods are a major component of the soil macrofauna and crucial for fundamental ecosystem processes, such as litter decomposition, nutrient cycling, water retention, and bioturbation. For many of these functions we are only beginning to grasp their importance in different terrestrial ecosystems. Our knowledge on terrestrial isopod distribution at different spatial scales is increasing year after year. Model organisms are crucial to monitor our fast-changing world, and terrestrial isopods, with their relatively well-known taxonomy, are ideal candidates to study responses of soil organisms to natural and anthropogenic environmental change. For instance, due to their unique position in the Crustacea, terrestrial isopods represent a perfect model system to study transition of life from sea to land. Being excellent indicators for environmental pollution, isopods are frequently used in soil ecotoxicology. Their local distribution and activity are often limited by air humidity and soil moisture, and, together with their limited ability to disperse they help us understanding the effects of habitat fragmentation, land use change, and urbanization on biodiversity.

This special issue comprises twelve papers on isopodology research presented at the 11th International Symposium on Terrestrial Isopod Biology (ISTIB) held in Ghent, Belgium. Due to the Covid-19 pandemic, the terrestrial isopod community decided to organise an online symposium. In this way, participants could still share recent results of their research, exchange ideas and facilitate new collaborations. Spinicornis, the Belgian Terrestrial Isopod group, supported by the Forest & Nature Laboratory of Ghent University took up the challenge to organize a three-day online symposium. Over 110 people from 25 countries across the globe attended. Although online symposia have a different flow and atmosphere than the in-person meetings we are accustomed to, the pandemic did not stop terrestrial isopod research and its community from moving forward.

11th
ISTIB 2021
ONLINE EDITION Hosted from Ghent, Belgium

Spinicornis
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Paper within conference proceedings: Orr AG (2006) Odonata in Bornean tropical rain forest formations: Diversity, endemism and applications for conservation management. In Cordero Rivera A (Ed) Forest and Dragonflies. Fourth WDA International Symposium on Odonatology, Pontevedra (Spain), July 2005. Pensoft Publishers, Sofia-Moscow, 51–78.

Book chapters: Mayr E (2000) The biological species concept. In: Wheeler QD, Meier R (Eds) Species Concepts and Phylogenetic Theory: A Debate. Columbia University Press, New York, 17–29.

Books: Goix N, Klimaszewski J (2007) Catalogue of Aleocharine Rove Beetles of Canada and Alaska. Pensoft Publishers, Sofia-Moscow, 166 pp.

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PhD thesis: Dalebout ML (2002) Species identity, genetic diversity and molecular systematic relationships among the Ziphiidae (beaked whales). PhD thesis, Auckland, New Zealand: University of Auckland.

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