Sociobiology
An international journal on social insects

Editorial

Special Issue on Termites

Due to their astonishing abundance and typical cellulose-digesting abilities, termites (Blattodea: Isoptera) impact ecosystem functioning, from biogeochemical cycles to species interactions. Their interindividual interactivity provides firm ground for the study of self-organized collective behaviour while their diplo-diploidy foments rich discussion on the evolution of sociality. All this, coupled with termites' economic impact, implies that scientific interest in this prominent group of organisms is burgeoning and will continue to do so.

In this special issue, thirteen articles provide a cross-diciplinary sample of termite studies which, directly or indirectly, shed light on the above subjects. Pequeno et al (page 1) tackle the life-history allocation strategies of termites inspecting, in the field, how growing colonies should invest in growth, reproduction an defense. As for species coexistence, we start from the global question of "how many termite species are there?" (Constantino, page 10). We then proceed with Schyra et al (page 15) analysing at the intra-continental scale, whether southern African termite communities are niche or neutrally assembled and if environmental filtering and or competition influence community structure. At the local scale, Latifian et al (page 24) present a survey of coexisting termite species in Iranian date palm orchads. Finally, drivers of species coexistence are investigated at the intra-termitarium scale, from a behavioural perspective. In doing so, Cruz et al (page 31) and Rosa et al (page 38) inspect, respectively, the strategies employed by inquilines and termitophiles to cohabit termitaria along with its builders.

In another group of articles in this issue, we are offered a thorough analysis of the environmental drivers of termite infestation on live trees (Fernandes et al, page 48), dead trees (Roh et al, page 59), and also in the urban scenario (Botch& Houseman, page 67). In addition to understanding drivers of infestation, we sometimes need to interfere directely to control it. Here, Martins et al (page 79) demonstrated the termiticidal activity of three pure lichen compounds which could, potentially, help efforts in termite control

A special volume on termites would be not complete without a methodological section. Here, Scheffrahn et al (page 88) provides a analysis of the sampling biases for the divergent outcomes in sampling the abundance and diversity of Kalotermitidae compared to other families. As for laboratory methodology, Nunes et al (page 101) propose the use of tympanic arenas for vibroacoustic assays on termites and Carvalho et al (page 108) provides the best light regimes that could be innocuously used for video recording termite bioassays.

In summary, the studies composing this special issue provide important bases for the advancement of termitology at both, theoretical and empirical fronts. This special issue was promoted as part of the IV Symposium of Termitology (IV SymTermes, https://www.zenodo.org/communities/symtermes/), which was held in Viçosa-MG, Brazil, from 7 to 10 November 2017. Some of the above papers were also presented at this symposium. We thank all authors and reviewers for their rich and important contribution for this special issue.

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