EDITORIAL
SPECIAL ISSUE ON BEHAVIORAL ECOLOGY

Behavioral Ecology emerged as a field of scientific research after the launch of the Tinbergen's Four Questions (Tinbergen, 1963), related to the research of proximate causes, including organism development (ontogenesis) and mechanisms (physiology), and final causes, considering the adaptive value (function) and evolutionary history (phylogenesis), of behavior. Thus, Behavioral Ecology proposes to investigate the proximal and final aspects of animal behavior, considering the ecological pressures underpinning the expression of these behaviors.

In Brazil, Behavioral Ecology began to gain strength with the emergence of important scientific societies, especially the "Sociedade Brasileira de Zoologia", the "Sociedade de Ecologia do Brasil", and the "Sociedade Brasileira de Etologia", founded respectively in 1979, 1988, and 1992. Moreover, other Brazilian scientific societies have certainly contributed to the dissemination of the knowledge produced by researchers in this area of knowledge.

This issue emerged to continue the thematic issue on Behavioral Ecology, launched in 2009 in this journal, presenting reviews and research on distinct animal groups such insects (Bailez; Viana-Bailez & Endringer), reptiles (Cavalheiro & Bessa), amphibians (Oliveira *et al.*), birds (Castilho & Macedo; Rodrigues *et al.*), and mammals (Santori *et al.*; Antunes *et al.*; Barros *et al.*).

Regarding insects, Bailez presents a review about the strategies and tactics in phorid-ant interactions, as host localization, choice and acceptance, and strategies of escape and defense by the host. Viana-Bailez & Endringer review the plasticity of foraging behavior in leaf-cutting ants from genera *Atta* and *Acromyrmex*, and factors that influence it.

An experiment on sexual selection was performed in field by Cavalheiro & Bessa in an urban natural park with transitional vegetation between Cerrado and Amazon forest; the authors test whether the social dominance hierarchy is more important in mate choice by the tortoise *Chelonoidis denticulata* than parasite biomass. Regarding amphibians, Oliveira *et al.* report events of predation of *Rhinella icterica* and *Hypsiboas* sp. by invasive species.

In an elaborate experiment, Castilho & Macedo tested for the presence of behavioral types (i.e., that "refer to consistent differences in behavior shown by individuals across multiple situations") and syndromes (i.e., "correlations of different behavioral types across two or more contexts") in the Neotropical passerine *Volatinia jacarina*. The authors tested for feeding, exploration of environment and sexual receptivity of females within two contextual conditions. In a study developed in the main island of the

Fernando de Noronha archipelago, Rodrigues *et al.* investigate the occurrence of behavioral variation during the later stages of fledgling development of Red-footed boobies *Sula sula*.

Two studies provide advances in the knowledge regarding the aspects of locomotion of small mammals using tests in laboratory to describe performance and postural behavior. The study of Santori *et al.* presents aspects of the swimming behavior and describes the postural behavior in the swimming bound of *N. squamipes* and *N. rattus*. The swimming bound is a behavior that allows a burst of speed and is frequently used to escape predation, involving a specific postural behavior that is described here for the first time by the authors. In the second study, Antunes *et al.* describe for the first time the postural climbing behavior of arboreal, semi-terrestrial and terrestrial didelphid marsupials. Differences on postural behavior in the arboreal locomotion of didelphids are related to the use of the forest strata and morphological specializations. The authors found for the arboreal species some behaviors previously observed and described only in primates. In a third study with mammals, Barros *et al.* report a field observation of a long distance and short time movement of an individual of *Gracilinanus microtarsus*, a small marsupial.

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REFERENCE

Tinbergen, N. 1963. On aims and methods of Ethology. Zeitschrift für Tierpsychologie, 20(4), 410–433. DOI:10.1111/j.1439-0310.1963.tb01161.x