Data Papers

Atlantic small-mammal: a dataset of communities of rodents and marsupials of the Atlantic forests of South America

Ricardo S. Bovendorp,[1,3] Nacho Villar [iD],[1] Edson F. de Abreu-Junior,[2] Carolina Bello,[1]
André L. Regolin [iD],[1] Alexandre R. Percequillo [iD],[2] and Mauro Galetti [iD][1]

[1]*Departamento de Ecologia, Instituto de Biociências, Universidade Estadual Paulista (UNESP),*
CP. 199, Rio Claro, São Paulo 13506-900 Brazil
[2]*Departamento de Ciências Biológicas, Escola Superior de Agricultura "Luiz de Queiroz" (ESALQ),*
Universidade de São Paulo, Piracicaba, São Paulo 13418-900 Brazil

Abstract. The contribution of small mammal ecology to the understanding of macroecological patterns of biodiversity, population dynamics, and community assembly has been hindered by the absence of large datasets of small mammal communities from tropical regions. Here we compile the largest dataset of inventories of small mammal communities for the Neotropical region. The dataset reviews small mammal communities from the Atlantic forest of South America, one of the regions with the highest diversity of small mammals and a global biodiversity hotspot, though currently covering less than 12% of its original area due to anthropogenic pressures. The dataset comprises 136 references from 300 locations covering seven vegetation types of tropical and subtropical Atlantic forests of South America, and presents data on species composition, richness, and relative abundance (captures/trap-nights). One paper was published more than 70 yr ago, but 80% of them were published after 2000. The dataset comprises 53,518 individuals of 124 species of small mammals, including 30 species of marsupials and 94 species of rodents. Species richness averaged 8.2 species (1–21) per site. Only two species occurred in more than 50% of the sites (the common opossum, *Didelphis aurita* and black-footed pigmy rice rat *Oligoryzomys nigripes*). Mean species abundance varied 430-fold, from 4.3 to 0.01 individuals/trap-night. The dataset also revealed a hyper-dominance of 22 species that comprised 78.29% of all individuals captured, with only seven species representing 44% of all captures. The information contained on this dataset can be applied in the study of macroecological patterns of biodiversity, communities, and populations, but also to evaluate the ecological consequences of fragmentation and defaunation, and predict disease outbreaks, trophic interactions and community dynamics in this biodiversity hotspot.

Key words: Atlantic forest; biodiversity dataset; biodiversity hotspot; communities; hyper-dominance; live traps; marsupial; rodent; small mammals; species richness; tropical forest.