

ATLANTIC BATS: a dataset of bat communities from the Atlantic Forests of South America

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Abstract. Bats are the second most diverse mammal order and they provide vital ecosystem functions (e.g., pollination, seed dispersal, and nutrient flux in caves) and services (e.g., crop pest suppression). Bats are also important vectors of infectious diseases, harboring more than 100 different virus types. In the present study, we compiled information on bat communities from the Atlantic Forests of South America, a species-rich biome that are highly threatened by habitat loss and fragmentation. ATLANTIC BATS dataset comprises 135 quantitative studies carried out in 205 sites, which cover most vegetation types of the tropical and subtropical Atlantic Forest: dense ombrophilous forest, mixed ombrophilous forest, semideciduous forest, deciduous forest, savanna, steppe, and open ombrophilous forest. The dataset includes information on more than 90,000 captures of 98 bat species of 8 families. Species richness averaged 12.1 per site, with a median value of 10 species (ranging from 1 to 53 species). Six species occurred in more than 50% of the communities: *Artibeus lituratus*, *Carollia perspicillata*, *Sturnira lilium*, *Artibeus fimbriatus*, *Glossophaga soricina*, and *Platyrrhinus lineatus*. The number of captures divided by sampling effort, a proxy for abundance, varied from 0.000001 to 0.77 individuals/hour*m² (0.04±0.007 individuals/hour*m²). Our dataset reveals a hyper-dominance of eight species that together that comprise 80% of all captures: *Platyrrhinus lineatus* (2.3%), *Molossus molossus* (2.8%), *Artibeus obscurus* (3.4%), *Artibeus planirostris* (5.2%), *Artibeus fimbriatus* (7%), *Sturnira lilium* (14.5%), *Carollia perspicillata* (15.6%), and *Artibeus lituratus* (29.2%).

Key words: forest fragmentation, mist nets, Chiroptera, Phyllostomidae, biodiversity hotspot, mammal communities, hyper-dominance, emerging diseases, seed dispersal, pollination, crop pest suppression, nutrient flux.

The complete metadata and data are available online at: [*to be completed at proof stage*].

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