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BIOGEOGRAPHIC ASSESSMENT OF PUMA ROADKILLS (*Puma concolor*) IN AREAS OF TWO BIODIVERSITY HOTSPOTS IN BRAZIL

Lucas Gonçalves da Silva[1,2]*, Rafaela Cobuci Cerqueira[3], Marcelo Mazzoli[4], Martin Alejandro Montés[2]

1. Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre, Brazil. 2. Universidade Federal Rural de Pernambuco, Recife, Brazil. 3. Universidade Federal de Lavras, Lavras, Brazil. 4. Projeto Puma, Florianópolis, Brazil. *Correspondence to lucas_gonc@yahoo.com.br

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The maintenance of ecosystems dynamic and ecological resources depends on their relationships with wildlife. In this context, roads often represent a relevant threat to natural populations, potentially contributing to habitat loss and fragmentation, as well as other types of biological impacts, and roadkills can be considered as a important threat for many vertebrates, especially carnivores. The puma (*Puma concolor*) is the neotropical mammal with major extension of geographic range, occurring from Canada to Patagonia. In Brazil, pumas can be found in the entire territory in many types of habitats. Actually is categorized as "near threatened" worldwide and "vulnerable" at national level. The present study aimed to assess the geographic pattern of puma roadkills and the association of these records with threatened biomes such as Atlantic Forest and Cerrado (considered as biodiversity hotspots). We computed all available roadkill records spanning the last 15 years (2002-2017) with a opportunistic and descriptive sampling, merged and analyzed with the network roads/highways and the Brazilian biomes. We recorded 49 puma roadkills, encompassing 35 records from Atlantic Forest and 19 from Cerrado. The number of records was larger in the Atlantic Forest, which is likely a consequence of the recently recolonization by the species in many areas of this biome, where was almost extirpated in the last 50 years. The species still occurs in these biomes at rather low densities, associated with relatively well-preserved and inter-connected remnants, which comprise important regions for *P. concolor* persistence in Brazil. Roadkill episodes involving big cats can exert a great impact to biodiversity, when the loss of individuals can accelerate processes of local extinctions. This study illustrate the relevance of roadkill data for wild cat research, must also be a baseline in the context of the threat that roadkilling represents for mammals, and may improve conservation planning and activities.

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