

LIVING ON THE EDGE: HABITAT FRAGMENTATION AT THE INTERFACE OF THE SEMI-ARID ZONE OF THE BRAZILIAN NORTHEAST

S.F. Ferrari¹, E.M. Santos Junior¹, E.B. Freitas¹, J.P. Souza-Alves¹, L. Jerusalinsky², R.B. Mendes¹, R.R.D. Chagas¹

¹*Sergipe Federal University, São Cristóvão, Sergipe, Brazil*, ²*Brazilian Primate Protection Centre, João Pessoa, Paraíba, Brazil*

Presenter's Email: ferrari@pitheciineactiongroup.org

The Brazilian Northeast is dominated by the Caatinga, a xeric scrub forest characterized by “semi-arid” climatic conditions, with annual precipitation often below 600 mm, and an unpredictable rainy season. North of 13°S, the Atlantic Forest forms a narrow coastal strip, of only a few dozen kilometres in width, with a relatively humid climate. Both biomes have been subjected to intense anthropogenic habitat fragmentation over the past few decades, although this process has different implications for each ecoregion. In Sergipe, the geographic ranges of two titi species, *Callicebus barbarabrownae* and *Callicebus coimbrai*, appear to correlate with the Caatinga and Atlantic Forest, respectively, although it is unclear whether a contact zone exists. With the aim of understanding the ecological and evolutionary relationship between the two species within the region, dozens of sites were surveyed. Titis are relatively rare in the Caatinga, in terms of both the number of populations and their density. In the lower Rio São Francisco basin, 41.2% of Atlantic Forest fragments (n=17) had titi populations, whereas only 28.1% of Caatinga sites (n=32) had titis. In the ecotone between the two (the Agreste), however, no populations were found (n=21), suggesting a lacuna in their distribution. Overall, the data appear to indicate that, while the survival of titi populations in the Caatinga may be dependent on factors such as fragment size and the presence of groundwater, that of the populations of the Atlantic Forest may be more closely related to more random factors such as the history of colonisation.

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