

Habitat use and behaviour of two groups of northern muriquis (*Brachyteles hypoxanthus*) in an Atlantic forest fragment at the Biological Station of Caratinga – RPPN Feliciano Miguel Abdalla, Caratinga, Minas Gerais, Brazil: Phase II

Carla de Borba Possamai
carlapossamai@gmail.com

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Summary

Northern muriquis (*Brachyteles hypoxanthus*) are among the world's most endangered primates. They are endemic to the remnants of the Atlantic Forest of southeastern Brazil. The muriquis in the Biological Station of Caratinga - Reserva Particular do Patrimônio Natural - Feliciano Miguel Abdala, in Minas Gerais are divided into four multi-male/multi-female groups (Matão, Matão 2, Jaó and Nadir) and one all-male unit. The high density in this reserve results in frequent inter-group encounters, which enables muriquis to avoid inbreeding through extra-group copulations. In addition, female muriquis typically transfer out of their natal groups, thereby promoting gene flow and reducing the likelihood of inbreeding and its consequent deleterious effects.

In this study, I investigated the social relationships in the groups Matão 2 and Nadir, and looked at how the relationships varied between the two groups. Behavioural data were collected using focal-animal sampling and ad-libitum methods. Demographic data were recorded, as was information on encounters between all groups of muriquis. The movements of the groups were recorded using a GPS. For the collection of behavioural data, eleven adult females in each group were selected as focal subjects. Although no significant difference was found in how the females in the two groups spent their time in different activities, an almost statistically significant result was found for their social behaviour. This near significance could be explained by the effect that group size and composition may have on social relationships. However, a decisive explanation could not be reached due to the limited data available.

Home range size was calculated to be 250 ha for Matão 2 group and 251 ha for Nadir group. For primates, it is known that home range size varies with food availability and with group size. However, as for the behavioural data, more information is needed to ascertain the range size of the two groups for certain. The demographic data from the two study groups produced important results that contribute to the knowledge of the demography of the entire population of muriquis in Caratinga.

This project has contributed to the conservation of the northern muriqui, an endangered species, through a better understanding of the social dynamics between adjacent groups in the population. The understanding of the relationships between groups is fundamental for assessing the viability and health of populations, and this knowledge will be essential when formulating future conservation plans for these, and other, northern muriqui populations.



Photograph by: Carla Possamai.