References

Ankel-Simons, F. 2007. *Primate Anatomy: An introduction*. 3rd ed. Durham, North Carolina: Elsevier.

Canizo, R. 2012. Ecologia e comportamento do leãozinho, *Cebuella pygmaea* (Spix, 1823) (Primates, Callitrichidae) em um fragmento florestal. *Dissertação de mestrado*. Universidade Federal do Acre, Rio Branco, Acre.

Canizo, R. and Calouro, A. M. 2011. Observação do comportamento agonístico de *Cebuella pygmaea* sobre *Sciurus spadiceus* em um fragmento florestal no Estado do Acre, Brasil. *Neotrop. Primates* 18: 60–62.

Messias, M. R.; Coragem, J. T.; Gomes, I. S. R.; Oliveira, M. A. Bonavigo, P. H.; Nienow, S. S. and Souza, E. S. 2011. Southern extension of the geographical range of the pygmy marmoset *Cebuella pygmaea niveiventris* (Lönnberg, 1940) in the southwestern Amazon basin, State of Rondônia, Brazil. *Neotrop. Primates* 18: 30–31.

Moynihan, M. 1976. Notes on the ecology and behavior of the pygmy marmoset (*Cebuella pygmaea*) in Amazonian Colombia. In: *Neotropical primates: Field studies and conservation*, R. W. Thorington Jr. and P. G. Heltne (eds.), pp. 79–84. Washington, D.C.: National Academy of Sciences.

Soini, P. 1982. Ecology and population dynamics of the pygmy marmoset, *Cebuella pygmaea*. *Folia Primatol.* 39:1–21.

Soini, P. 1988. The pygmy marmoset, genus *Cebuella*. In: *Ecology and behavior of Neotropical primates*, R. A. Mittermeier; A. B. Rylands; A. F. Coimbra-Filho and G. A. B. Fonseca (eds.), vol. 2, pp. 79–129. Washington, D.C.: World Wildlife Fund.

Townsend, W. R. 2001. *Callithrix pygmaea*. *Mammalian Species* 655:1–6.

Townsen, D, W. R. and Wallace, R. B. 1999. An observation of carnivory by a captive pygmy marmoset (*Callithrix pygmaea*). *Netrop. Primates* 7: 75–76.

Yépez, P.; De La Torre, S. and Snowdon, C. T. 2005. Interpopulation differences in exudate feeding of pygmy marmosets in Ecuadorian Amazonia. *Am. J. Primatol.* 66: 145–158.

Youlatos, D. 2009. Locomotion, postures, and habitat use by pygmy marmosets (*Cebuella pygmaea*). In: *The Smallest Anthropoids: The Marmoset/Callimico Radiation*, S. M. Ford; L. M. Porter and L. C. Davis (eds.), pp. 279–297. New York: Springer.

DEMOGRAPHY OF THE BLACK LION TAMARIN (*LEONTOPITHECUS CHRYSOPYGUS*, MIKAN) IN CAPÃO BONITO NATIONAL FOREST (STATE OF SÃO PAULO)

Lucas Tadeu Pelagio Caldano
Cauê Monticelli
Pedro Manoel Galetti Jr.

Introduction

The black lion tamarin is known to inhabit 11 Atlantic Forest fragments, with a total estimated population of 1,000 individuals in the wild (Kierulff et al., 2008). Its conservation status went from Critically Endangered to Endangered in recent years (IUCN, 2015) due to successful conservation efforts (Kierulff et al., 2008). The largest population of black lion tamarins (~820 animals) inhabits Morro do Diabo State Park (Valladares-Padua and Cullen Jr. 1994). Caetetus Ecological Station houses the second largest population (~40 individuals). The remaining individuals are supposedly distributed in the other nine forest fragments (Kierulff et al, 2008), from which only Capão Bonito National Forest (FLONA-CB) is a protected area and represents the southernmost distribution limit for the species. The population size at FLONA-CB was estimated to be 12 individuals in 2005, but no detailed information is available on how this population was assessed (Population and Habitat Viability Assessment briefing book, 2005). Considering the importance of FLONA-CB in supporting a viable population of black lion tamarins due to its protected status and geographic limit for the species, the purpose of this study was to report the current black lion tamarin population size in this area. Hopefully, this information will be able to contribute to the establishment of a management plan for this site.

Methods

Study area

Capão Bonito National Forest (23º 54'S and 48º 30'W) is located between the municipalities of Capão Bonito and Buri (state of São Paulo), at an altitude of 700 m in southwestern Paranapiacaba Valley. It is inserted in the Atlantic Forest biome and has an area of 4,344 ha. However, since FLONA-CB is a protected area with sustainable use, it is mainly occupied by pine (*Pinus* sp) and araucaria (*Araucaria angustifolia*) plantations. Only 8% (357 ha) of its territory consists of native forests, and these patches are mainly located along the riparian zones of rivers Apiaí-Mirim, Paranapitanga, and other smaller streams.

Demographic situation

In order to conduct a direct count of the existing black lion tamarin groups and the number of individuals in each of them, transects were performed in all areas of potential habitat for this species within the limits of FLONA-CB:

the riparian forests of Apiaí-Mirim and Paranapitanga rivers and small streams. Five field expeditions were carried out between November 2012 and November 2013, with the duration of 30 days per campaign, and a search effort of at least 12 hours daily. To increase the chances of sighting groups of black lion tamarins during the surveys, a device (adapted MP3 Philips) was used to playback the species long call vocalization (Kierulff and Rylands, 2003; Neves, 2008), which intended to attract the area's resident group responding to playback to protect its territory. Once a group was found, the following information was recorded – geographic coordinates (GPS Garmin Etrex 30), season, number of individuals, and presence of infants (mother dependent individuals being carried on the back or belly).

Results and discussion

The direct count totalized 35 individuals of *L. chrysopygus*, distributed in seven groups in different areas of FLONA-CB (average of five individuals per group). Although five field expeditions were conducted, the total number of groups and individuals was already reached at the 3rd expedition. The number of individuals found inside FLONA-CB was higher than the one estimated in 2005 (12 individuals distributed in three social groups). Such difference may be explained either by an increase in population size during this last decade or by variations between the methodologies used for counting the animals. As the entire area was covered by the expeditions, the counts are expected to be quite realistic, showing that Capão Bonito National Forest is able to support a significant number of *L. chrysopygus* individuals.

Black lion tamarin groups were only found in the riparian forests along the Apiaí Mirim river and minor streams. Five groups were found in the riparian forests of the Apiaí Mirim river, where the home range of each group extended through the river's borders, since trees and branches that fall across the rivers can facilitate crossing. Two other groups were found in the riparian forests of two small streams, connected to the riparian forest of Apiaí Mirim river. No sightings of black lion tamarins occurred in the riparian forest along Paranapitanga river, as well as the pine and araucaria plantation areas.

A total of twelve infants were sighted in four groups inhabiting Apiaí Mirim river's riparian forest. Four sets of twins were observed in October 2012 in four different groups, two infants were sighted in one group in July 2013 and two infants (twins) in November 2013, indicating at least two breeding events in 2013. No infants were observed in the other groups during the study's expeditions.

In this manner, although it represents a relatively small area (~ 4.5 ha), FLONA-CB supports an important parcel of the black lion tamarin population. In the same geographic region, the presence of black lion tamarins has been reported in a few small fragments (e.g. Lima et al., 2003). The implementation of ecological corridors connecting these fragments and improving habitat quality may be a definitive strategy for the management of these populations. In this scenario, FLONA-CB's population may play an important role in preventing local extinction and helping in this species' its long-term conservation.

Lucas Tadeu Pelagio Caldano, Departamento de Genética e Evolução, Universidade Federal de São Carlos, 13565-905 São Carlos, SP, Brazil, **Cauê Monticelli**, Fundação Parque Zoológico de São Paulo, 04301-905, São Paulo, SP, Brazil, E-mail: <cmchelli@uol.com.br>, and **Pedro Manoel Galetti Jr.**, Departamento de Genética e Evolução, Universidade Federal de São Carlos, 13565-905 São Carlos, SP, Brazil

References

IUCN, 2015. The IUCN Red List of Threatened Species. Website: http://www.iucnredlist.org/details/11505/0. Accessed 12 June 2015.

Kierulff, M. C. M. and Rylands, A. B. 2003. Census and distribution of golden lion tamarin (*Leontopithecus rosalia*). *Am. J. Primatol.* 59: 29–44.

Kierulff, M. C. M., Rylands, A. B., Mendes, S. L. and de Oliveira, M. M. 2008. *Leontopithecus chrysopygus*. The IUCN Red List of Threatened Species. Version 2014.3. Website: http://www.iucnredlist.org. Accessed on 12 June 2014.

Lima, F. S., Silva, I. C., Martins, C. S. and Valladares-Pádua, C. 2003. On the occurrence of the black lion tamarin (*Leontopithecus chrysopygus*) in Buri, São Paulo, Brazil. *Neotrop. Primates* 1: 76–77.

Neves, L. G. 2008. Distribuição geográfica e conservação de *Callithrix kuhlli* (Coimbra-Filho, 1985) (Primates, Callitrichidae) no Sul da Bahia, Brasil. Dissertação de mestrado, Universidade Estadual de Santa Cruz, Ilhéus, BA.

Valladares-Pádua, C. B. and Cullen Jr., L. 1994. Distribution, abundance and minimum viable metapopulation of the black lion tamarin *Leontopithecus chrysopygus*. Dodo, J. Wildl. Preserv. Trust 30: 80–88.

LOS MONOS ARAÑA (*ATELES GEOFFROYI*) BEBEN AGUA DE CAVIDADES EN LOS TRONCOS DE LOS ÁRBOLES. REPORTE ANECDÓTICO DE CAMPO

Rosa Icela Ojeda Martínez
Merit Nefernefer Becerril Tello
Luís Alberto Vargas Guadarrama

Introducción

Desde 2006 hemos realizado trabajo sobre aprendizaje y comunicación social de monos araña en Calakmul,