

building, communication, management and public policy topics. Approximately 56 stakeholders from 21 institutions are engaged in contributing to the implementation of these conservation actions. The Action Plan will have a 5-year cycle, which started in June 2023, with annual monitoring. It has been approved by Rio de Janeiro Botanical Garden and formalized through Ordinance N°14 of 12 May 2023, published in the Federal Official Gazette. This initiates the implementation stage, which includes the execution of conservation strategies through actions to mitigate impacts on the target species and their habitats.

ISABELLA SILVA¹ , JOÃO PAULO SOUZA²  and MARCIO VERDI¹  (marcioverdi@jbrj.gov.br)

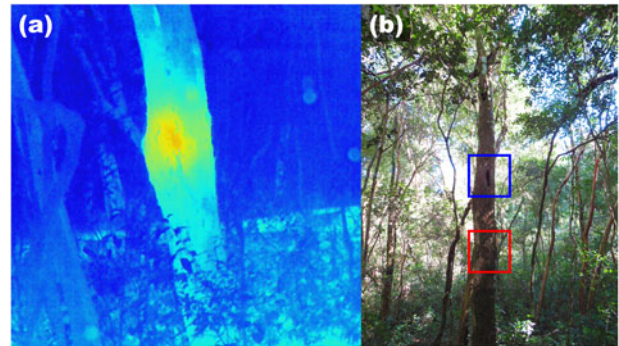
¹Centro Nacional de Conservação da Flora, Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Rio de Janeiro, Brazil. ²Universidade Federal de Viçosa, Florestal, Minas Gerais, Brazil

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Thermal sensors as a potential tool for studying Endangered lion tamarins

Lion tamarins are small frugivorous and insectivorous primates endemic to the Brazilian Atlantic Forest that live in family groups of 2–8 individuals. All four species of the genus *Leontopithecus* are categorized as Endangered on the IUCN Red List because of habitat loss and fragmentation, and poaching for the wildlife trade. Their behaviour of hiding and sleeping in tree hollows protects them against predators and other adversity but hinders the study of them. However, technological advances are providing new tools for field research, including thermal cameras (Melo, 2021, *Oryx*, 55, 171).





To investigate the potential of using thermal cameras to study lion tamarins, we tested the detectability of a group hidden inside a tree hollow in a 33,845-ha forest fragment, in Teodoro Sampaio, São Paulo. We have monitored a group of black lion tamarins *Leontopithecus chrysopygus* comprising three adult males, one adult female and two juveniles (one male and one female) monthly since December 2022. They entered a hollow in a 9-m tall *Plinia rivularis* tree of 22.3 cm diameter at breast height (DBH) at 18.00 on 12 March 2023. The hollow was 2.2 m above the ground and 45 cm below the lowest external opening of the hollow. On the following morning we recorded this group at 6.00 inside the same hollow using the thermal camera on a drone, which had its thrusters off and was held in the hand. Because of the terrain and weather conditions, we were only able to test detection at distances up to 30 m. At this distance the heat contrast of the group inside the hollow remained distinguishable from the temperature of the surrounding environment.



(a) Group of black lion tamarins detected inside a tree hollow using a thermal camera, and (b) the hollow where the group was recorded (lower box) and the external opening of the hollow (upper box) in a *Plinia rivularis* tree. (Readers of the printed journal are referred to the online article for a colour version of this plate.)

At 9.00 one juvenile left the hollow and vocalized, emitting the species' typical long calls.

We recorded the group again on 28 March 2023 in the same tree hollow, confirming the frequent use of this site. On 25 May 2023 we obtained an additional record with a thermal camera of the same group but in a different tree hollow, 6 m above the ground in an unidentified 11-m tall tree of 45.2 cm DBH. These observations indicate the potential use of thermal sensors in lion tamarin research and management.

GABRIELA CABRAL REZENDE¹  (gabriela@ipe.org.br), DANIEL ÂNGELO FELIPPI¹ , FABIANO RODRIGUES DE MELO²  and LEANDRO JERUSALINSKY³ 

¹IPÊ - Instituto de Pesquisas Ecológicas, Nazaré Paulista, São Paulo, Brazil. ²Departamento de Engenharia Florestal, Universidade Federal de Viçosa, Viçosa, Minas Gerais, Brazil. ³Centro Nacional de Pesquisa e Conservação de Primatas Brasileiros, Instituto Chico Mendes de Conservação da Biodiversidade, Cabedelo, Paraíba, Brazil

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Largest known cat geoglyph in Chile identified as the Endangered Andean cat

Prehistoric art is one of the earliest ways in which early humans transmitted messages. Geoglyphs are believed to represent important beliefs in ancient cultures. With respect to Andean cultures, however, colonization often erased evidence of traditions, hindering interpretation.

In February 2023, the largest known geoglyph depicting a felid was discovered in the Atacama Desert in northern Chile. This geoglyph is located at a site known as Cerro Unitas, an important ceremonial site that includes the so-called Atacama giant, an anthropomorphic geoglyph (Briones & Alvarez, 1984, *Estudios Atacameños*, 7, 296–305). First recorded in a drone video, the felid geoglyph