

Conservation News

The last remaining southern miquis *Brachyteles arachnoides* from the interior of São Paulo state, Brazil

The southern miquis *Brachyteles arachnoides*, one of the largest primates in the Americas, is categorized as Critically Endangered on the IUCN Red List. It is endemic to the Brazilian Atlantic Forest, where it is restricted to the states of Paraná, São Paulo, Rio de Janeiro and the extreme south of Minas Gerais. The most north-western population in São Paulo state occurs in the Barreiro Rico Environmental Protection Area, a 30,142-ha area including the Barreiro Rico Ecological Station and seven other fragments with a total of 3,818 ha of forest. Intensive agricultural activities (sugar cane, eucalyptus, citrus) and pasture have significantly altered the landscape between the Tietê and Piracicaba Rivers, causing forest fragmentation. Yet despite these environmental changes, the Protection Area has a rich biodiversity and is home to five sympatric primates: the buffy tufted-ear marmoset *Callithrix aurita*, the brown-howler monkey *Alouatta guariba*, the black-fronted titi monkey *Callicebus nigrifrons*, the black-horned capuchin *Sapajus nigritus* and the southern miquis *Brachyteles arachnoides*.

The miquis population at Barreiro Rico is considered a top priority for the species because of its extreme geographical location and isolation (Strier et al., 2017, *PLOS One*, 12, e0188922). The population was first estimated at 50–60 individuals by Aguirre (1971, *Academia Brasileira de Letras*) and subsequent estimates recorded population growth during the 1970s to the early 2000s (Milton, 1984, *International Journal of Primatology*, 5, 491–514; Martins, 2005, *Biodiversity and Conservation*, 14, 2321–2329). However, in 2012 and 2018, two large fires destroyed parts of three forest fragments and one entire fragment, reducing the size and quality of the forest.

In a 2022 census commissioned by the Fundação Florestal (carried out by environmental consulting company Hileia Consultoria Ambiental) only 45 miquis were estimated to remain, in an area of 2,250 ha. These results must be interpreted with caution because of the low rate of sightings.

With funding from the Fundação do Amparo à Pesquisa do Estado de Minas Gerais and Re:wild, and logistical support from the Fundação Florestal do Estado de São Paulo, we used a drone equipped with an infrared and a colour camera to search for southern miquis in the Barreiro Rico Environmental Protection Area during January–August 2024. In 127 flight hours covering 2,947 km we recorded only 12 southern miquis, in two groups in two fragments: the Barreiro Rico Ecological Station, a federal conservation unit of 293 ha, and a private property of 926 ha. We noted other primate species including the black-horned capuchin *Sapajus nigritus* and brown howler monkey *Alouatta guariba* in other fragments, suggesting that our failure to locate miquis in these areas was not because of poor visibility or flight conditions. Our results highlight the precarious status of this unique *Brachyteles arachnoides* population and emphasize the urgent need for conservation and management actions to rescue it.

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