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PRIMATES FROM THE VICINITY OF VIÇOSA, MINAS GERAIS, BRAZIL

There is an urgent need for an understanding of the human impacts on animal communities, especially in such as the tropical forests, due to their very high biodiversity and the rapidity and extent of their destruction and fragmentation. Fragmentation of forests on a fine scale results in the confinement of one or few groups of primate species, for example, and limits the genetic flow between populations, accelerating extinction processes on local, regional and national levels. As such, it is most important to verify how these animals are distributed in impacted areas in order to obtain a better understanding of their ability to survive in forest mosaics separated by open vegetation formations and urban environments.

Fragmentation of natural areas is a reality in most of the Brazilian ecosystems, and is most evident in the Atlantic forest, once covering an area of more than 1,200,000 km², but today reduced to forest fragments in less than 8% of its original extent. The city of Viçosa (20° 45' S, 42° 51' W), state of Minas Gerais, lies within the Atlantic Forest, and remnant patches are located on hilltops separated by pasture. Forest can no longer be found in valleys and other areas of low relief.

The project reported here involved a survey of primates in the main fragments remaining in the vicinity of Viçosa which are still able to sustain groups over the mid- to long-term. Four monkey species are believed to occur in the region, following Kinzey (1982) and Coimbra-Filho (1982): *Cebus apella*, *Alouatta fusca*, *Callicebus personatus* and *Callithrix aurita*. Of these, only *C. apella* is not classified as threatened (Rylands *et al.*, 1995). The selected fragments were mapped during July 1993 and June 1994. Selection involved the use of the following parameters: fragment area, topographic location, easy access, vegetation structure, disturbance and successional stage, extent of urbanization near the area, and the probable presence of primates. The data were obtained by interviewing local people, and using maps and aerial photographs. Confirmation of the presence of primates, either through vocalizations or sightings, was by periodic surveys.

Eight forest fragments were chosen and investigated, seven of which were between 15 and 60 ha and just one, the "Mata do Paraíso", covered 194 ha (Fig. 1). Six primates species were recorded: *Alouatta fusca*, *Callicebus personatus nigrifrons*, *Cebus apella nigritus*, *Callithrix aurita*, *C. geoffroyi* and *C. jacchus* (Table 1).

Table 1- Distribution of primates in eight forest fragments in the vicinity of Viçosa, Minas Gerais.

Forest fragment	Species
Mata do Paraíso	<i>Callicebus personatus nigrifrons</i> <i>Cebus apella nigrurus</i>
Fazenda Arruda	<i>Callithrix aurita</i> <i>Alouatta fusca</i>
Área dos Nobres	<i>Callicebus personatus nigrifrons</i> <i>Callithrix</i> sp.
Sítio Cascalho	<i>Callicebus personatus nigrifrons</i> <i>Callithrix</i> sp.
Mata da Biologia	<i>Callicebus personatus nigrifrons</i> <i>Callithrix geoffroyi</i>
Fazenda São Geraldo	<i>Callicebus personatus nigrifrons</i> <i>Callithrix</i> sp.
Sítio Paraíso	<i>Callicebus personatus nigrifrons</i> <i>Callithrix jacchus</i> <i>Callicebus personatus nigrifrons</i>

The occurrence of two of the *Callithrix* species has evidently resulted from introductions: *C. jacchus* and *C. geoffroyi* are species from northeast Brazil and the east of the state of Minas Gerais and Espírito Santo (Vivo, 1991), respectively. This was verified through interviews. The animals were introduced by local people, who feed them in their backyards, and result in the colonization of nearby forest patches.

Only one individual of *C. aurita* (Fazenda Arruda) was observed. It was following a group of *C. personatus nigrifrons*. Interviews and vocalizations pointed, however, to the occurrence of *Callithrix* in three other areas (Fazenda São Geraldo, Área dos Nobres, Sítio Cascalho), but we were unable to identify the species, and the possibility remains that they are *C. aurita* (Vivo, 1991). *C. personatus nigrifrons* was the most abundant species, occurring in all fragments studied, and is probably the most common primate in the region. *C. aurita* and *C. apella nigrurus* were the least abundant, and only a few individuals were seen.

Regarding the conservation status of the native species around Viçosa, we consider all, except for *C. personatus nigrifrons*, to be seriously threatened. Through field surveys and interviews, we have recorded a pronounced population decline for *C. apella* and *A. fusca*, the first recorded in just one fragment with three individuals, and the second only in the northwest of the municipality.

Contacts with local residents revealed that *A. fusca* and *C. apella* were abundant in all regions, and that their current rarity is due mainly to hunting. This is not the only factor, however, and forest fragmentation and possibly even epidemic diseases, such as has been cited for *A. fusca* by Bitetti *et al.* (1994) in Argentina, Hirsch *et al.* (1994) for the Rio Doce State Park in Minas Gerais, and Mendes (1991) in Espírito Santo, also contribute significantly to their decline.

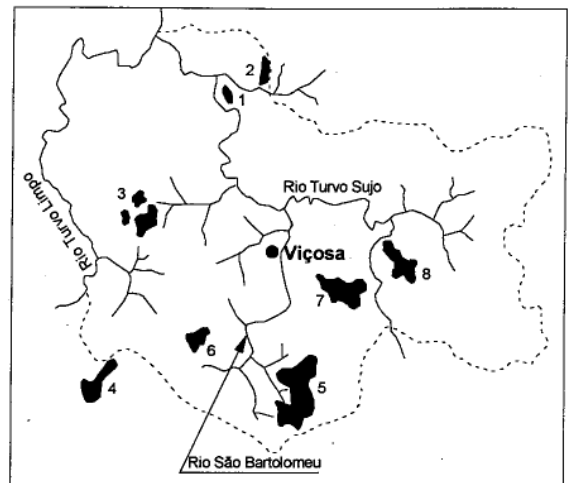


Figure 1. Map showing the fragments selected and investigated in Viçosa, Minas Gerais, Brazil. 1=Fazenda Arruda; 2=Fazenda Tudi; 3=Área dos Nobres; 4=Fazenda São Geraldo; 5=Paraíso; 6=Fazenda Paraíso; 7=Biologia; 8=Fazenda Cascalho. Broken line indicates the municipality of Viçosa.

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SOBRE LA POSIBLE PRESENCIA DE *ALOUATTA CARAYA* EN URUGUAY

Introducción

Si bien existen algunas referencias imprecisas, la presencia del orden Primates nunca ha sido detectada en el país. Aunque existen áreas de bosque indígena de real importancia y en su mayoría asociadas a cursos de agua, el porcentaje con respecto a la superficie territorial total, es muy reducido. Este argumento es el que podría manejarse para suponer que no existiría la cobertura vegetal capaz de soportar poblaciones de monos, dado su régimen alimenticio. Sumado a esto, la presencia de alguna forma perteneciente a este grupo llamaría poderosamente la atención por la atracción que el común de la gente siente por estos mamíferos.

Antecedentes

En el verano de 1993 fue capturado un mono aullador negro (*Alouatta caraya*) en la estancia Charqueada, km 85 de la Ruta Nacional N° 30, próximo a Masoller, departamento de Artigas, 3ª Sección Judicial (aprox. 31°00'S, 56°00'W). El ejemplar fue mantenido cautivo algunos días, escapándose posteriormente. Se obtuvo una fotografía con una cámara sencilla, que pese a presentar algunas deficiencias técnicas permite identificar a un mono aullador negro, adulto, macho. La presencia de un ejemplar aislado permitiría suponer la fuga de un aullador cautivo de algún particular o traficante de animales salvajes, pero es importante destacar la observación de otros individuos en la zona.

Redford y Eisenberg (1992) reportan que *Alouatta* es el género más ampliamente distribuido de los primates del Nuevo Mundo, con un rango que se extiende desde

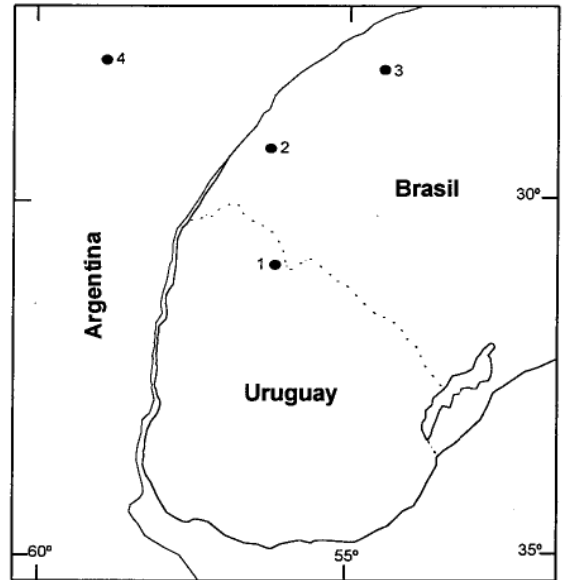


Figure 1. 1. Estancia Charqueada, Departamento Artigas, Uruguay 31°00'S, 56°00'W. 2. Fazenda Casa Branca, Estado Rio Grande del Sur, Brasil, 29°37'S, 56°17'W. 3. Fazenda Morais, Capão Rolador, Estado Rio Grande del Sur, Brasil, 28°25'S, 54°57'W. 4. Isla Yuruhatá, Provincia de Corrientes, Argentina, 28°17'S, 59°07'W.

Veracruz, México, hasta la norte de Argentina. Estas especies toleran un rango de hábitats que varían desde florestas semidecíduas tropicales hasta el multiestrato tropical de florestas siempre verdes. Los autores citados mencionan que *A. caraya* está confinada al sur del Brasil, Paraguay, Bolivia y norte de Argentina. En este último país, se ha encontrado en las provincias de Salta, Formosa, Chaco, Santa Fé y Misiones y a lo largo de florestas en galería hasta el sur de Corrientes. También puede ser encontrado esporádicamente a través de áreas xéricas contiguas al Chaco. Hacen referencia a que el género incluye un cincuenta por ciento de hojas en su dieta.

Nowak y Paradiso (1983), refiriéndose a Mittermeier y Coimbra-Filho (1977), citan a la especie para el este de Bolivia, sur del Brasil, Paraguay y norte de Argentina. Ellos indican que los monos de este género consumen más hojas que ningún otro mono del Nuevo Mundo.

Bicca-Marques y Calegario-Marques (1994) citan un grupo de aulladores en la estancia Casa Branca (29°37'S, 56°17'W), Río Grande del Sur, Brasil, y Hirsch *et al.* (1991) reportan la Fazenda Morais (28°25'S, 54°57'W), Capão Rolador, Río Grande del Sur, Brasil. La primera de las mencionadas sería la localidad más austral para la especie.

Hirsch *et al.* (1991) refieren que *A. caraya* ocupa el Brasil central desde la *catanga* al nordeste pasando por el *cerrado*, pantanal matogrossense, chaco central,