

mances and pathologies statements in a breeding colony of squirrel monkey (*Saimiri sciureus*). In: *Abstracts. XIVth Congress of the International Primatological Society*, pp.296-297. Strasbourg, France, 16-21 August, 1992.

FIRST DETAILED FIELD DATA ON *CHIROPOTES SATANAS UTAHICKI* HERSHKOVITZ, 1985

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The Xingu-Tocantins interfluvium has been the principal focus of development in eastern Amazonia over the past three decades, with the building of the TransAmazon highway, the Carajás mining project, construction of the Tucuruí hydroelectric dam, and the establishment of cattle ranching in its southern half, currently the principal location of land conflicts in Brazilian Amazonia. Endemic to this interfluvium (Hershkovitz, 1985), Uta Hick's bearded saki, *Chiropotes satanas utahicki*, was assigned the MaceLande category of 'vulnerable' by Rylands *et al.* (1996), based on criterion A1(c): a decline in area of occupancy, extent of occurrence and/or quality of habitat. This clearly reflects the overall situation within this primate's distribution, but, with the exception of a small number of more general surveys (see Ferrari and Lopes, 1996), there are no specific data on the status of wild populations.

With this in mind, *C. s. utahicki* was the focus of a study at two locations, the Ferreira Penna Scientific Station (ECFPn) (01°42'S, 51°28'W) in the Caxiuanã National Forest, and the Fazenda Arataú (03°50'S, 50°20'W) (Fig. 1). They were chosen in order to assess the effects of human colonisation on *C. s. utahicki* populations. Surveys were carried out at these sites between January and October, 1996. While primary *terra firme* forest predominates at both, the 33,000 ha ECFPn is contiguous with the remaining 300,000 ha of the Caxiuanã National Forest, a protected area that suffers only very low levels of human encroachment, while in contrast the 7,000 ha forest reserve on the Fazenda Arataú has not only been isolated from surrounding forest for some twenty years, but has

also been selectively logged.

Data were collected using standard line-transect survey methods (Brockelman and Ali, 1986). A total of 532.9 km were surveyed at the ECFPn, covering both rainy (January to April) and dry seasons (September and October), whereas 101.3 km were surveyed at the Fazenda Arataú during the late wet/early dry season (May to August).

The two surveys revealed some surprising contrasts between the two study sites (Table 1) which, in many respects, were the opposite of the pattern that would be expected according to the ecological characteristics of each species. Black-handed tamarins (*S. m. niger*) normally prefer disturbed and/or secondary forest, for example (Oliveira, 1996), even at Caxiuanã (Ferrari and Lopes, 1996), but they were nevertheless sighted more than twice as frequently at ECFPn than at the Fazenda Arataú. While bearded sakis are thought to be highly intolerant of habitat disturbance (Johns and Ayres, 1987), on the other hand, the sighting rate for *C. s. utahicki* at the Fazenda Arataú was almost twenty times higher than that at Caxiuanã.

C. s. utahicki groups were slightly larger at the ECFPn (mean size 9.3 individuals, $n = 7$ sightings) in comparison with the Fazenda Arataú (mean size 6.9 individuals, $n = 24$), but both values fall within the range for *Chiropotes* recorded in previous studies (Ayres, 1981; Branch, 1983; Lopes, 1993), and there is little to suggest any significant tendency with regard to this variable, especially given the sample size.

The ECFPn survey not only covered the longest total distance of any carried out so far in an area inhabited by bearded sakis, but also encompassed a range of different months. It thus seems reasonable to conclude that the number of sightings recorded is a reliable indication of an enigmatically low density of *C. s. utahicki* at this site. While the survey at the Fazenda Arataú was much shorter, a similar study carried out in January 1996 also indicated that bearded sakis were relatively abundant there (A. F. P. Nunes, pers. comm.).

The reasons for such a striking difference in the apparent abundance of *C. s. utahicki* at the two sites remain unclear, but one factor may be the high density of babaçu (*Orbignya martiana*) palms at the Fazenda Arataú, the fruits of which were regularly eaten by the sakis. Although the forest at the ECFPn may be among the most floristically diverse of eastern Amazonia (Almeida *et al.*, 1983),

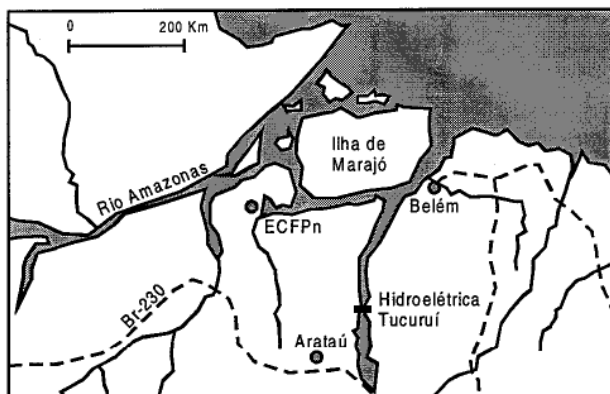


Figure 1. Study sites mentioned in the text. The Ferreira Penna Scientific Station (ECFPn) in the Caxiuanã National Forest, municipality of Melgaço, and the Fazenda Arataú, municipality of Novo Repartimento, Pará, Brazil.

Table 1. Sightings of primates at the two study sites.

Species	Sightings (per 10 km) at	
	ECFPn ¹	Fazenda Arataú ²
<i>Alouatta belzebul belzebul</i>	111(2.08)	10 (1.00)
<i>Cebus apella apella</i>	25 (0.47)	18 (1.78)
<i>Chiropotes satanas utahicki</i>	6 (0.11)	21 (2.07)
<i>Saguinus midas niger</i>	59 (1.11)	5 (0.50)
<i>Saimiri sciureus sciureus</i>	-	4 (0.40)
Total	201 (3.77)	58 (5.73)

¹Total transect length = 532.9 km;

²Total transect length = 101.3 km.

certain characteristics of the Arataú forest may be more beneficial specifically to *C. s. utahicki* (and perhaps also to other taxa). Thus, while the Caxiuaná National Forest may be the most important protected area in the region, effective conservation of *C. s. utahicki* - and possibly other fauna - may depend on the establishment of further reserves, and the development of effective alternative measures in other areas of the Xingu-Tocantins interfluvium.

Acknowledgments: This study was supported by the Goeldi Museum/ECFPn and the Grupo Queiroz Galvão, and by grants from WWF-US and the Brazilian Higher Education Authority - CAPES. We would also like to thank Olavo Galvão, Luciano Tavares and Andréa Nunes.

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PRIMATES OF THE SERRA DO BRIGADEIRO STATE PARK, MINAS GERAIS, BRAZIL

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Aguirre (1971) pointed to the Serra do Brigadeiro, in the south-east of the state of Minas Gerais, as one of the few localities where the muriqui, *Brachyteles arachnoides*, still survives. Aguirre (1971) had suggested the existence of 50-60 individuals of *B. arachnoides* in a 2,400 ha forest at Araçonga. The exact localities proved impossible to identify, and it was only in the last decade, that its continued occurrence in the region was confirmed, when a female juvenile was captured during surveys by the Centro de Estudos Ecológicos e Educação Ambiental (CECO), based at Carangola, Minas Gerais.

The Serra do Brigadeiro State Park (PESB), 13,210 ha, was created by the State Government of Minas Gerais, through the State Forestry Institute (IEF) on 27 September, 1996 (Fig. 1). The park covers part of the municipalities of Ervália, Fervedouro, Sericita, Araçonga, Miradouro,

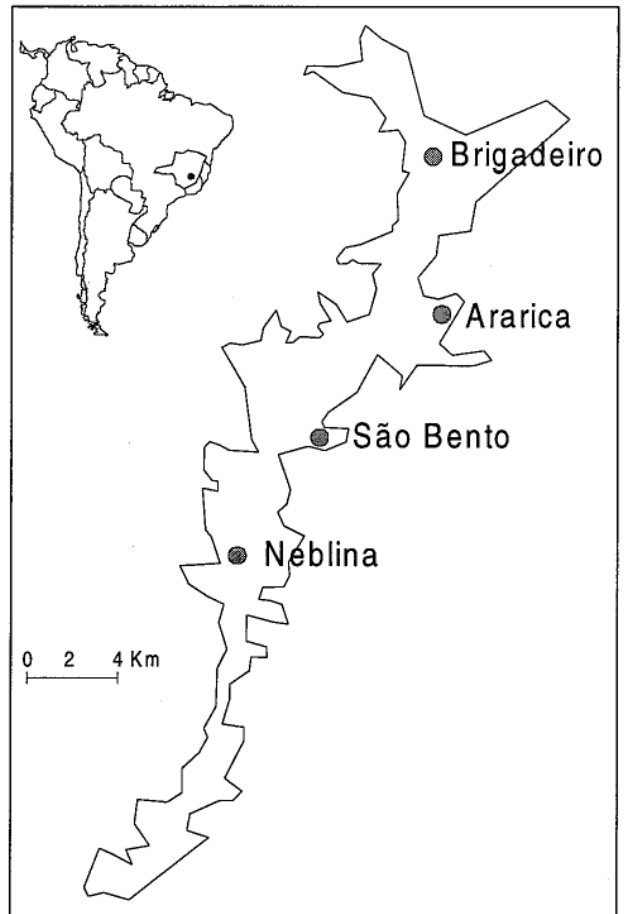


Figure 1: Location and limits (approximately between 42°22'S and 42°32'S, and between 20°34'W and 20°53'W) of the Serra do Brigadeiro State Park, Zona da Mata, Minas Gerais, southeast Brazil. Note the four sampling areas.