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NEW FIELD RECORDS OF NIGHT MONKEYS, GENUS *AOTUS*, IN NORTHERN BRAZIL

According to Hershkovitz (1983), the night monkeys, *Aotus*, are comprised of nine allopatric species, of two natural groups distinguishable by karyotype, phenotype and geographic distribution. The first group includes the gray-neck species: *A.lemurinus* (*A.l.lemurinus* and *A.l.griseimembra*), *A.trivirgatus*, *A.vociferans*, and *A.brumbacki*. The second group, the derived red-neck species, includes: *A.azarae* (*A.a.azarae* and *A.a.boliviensis*), *A.miconax*, *A.nigriceps*, *A.infulatus*, and *A.nancymai*. In Brazil, night

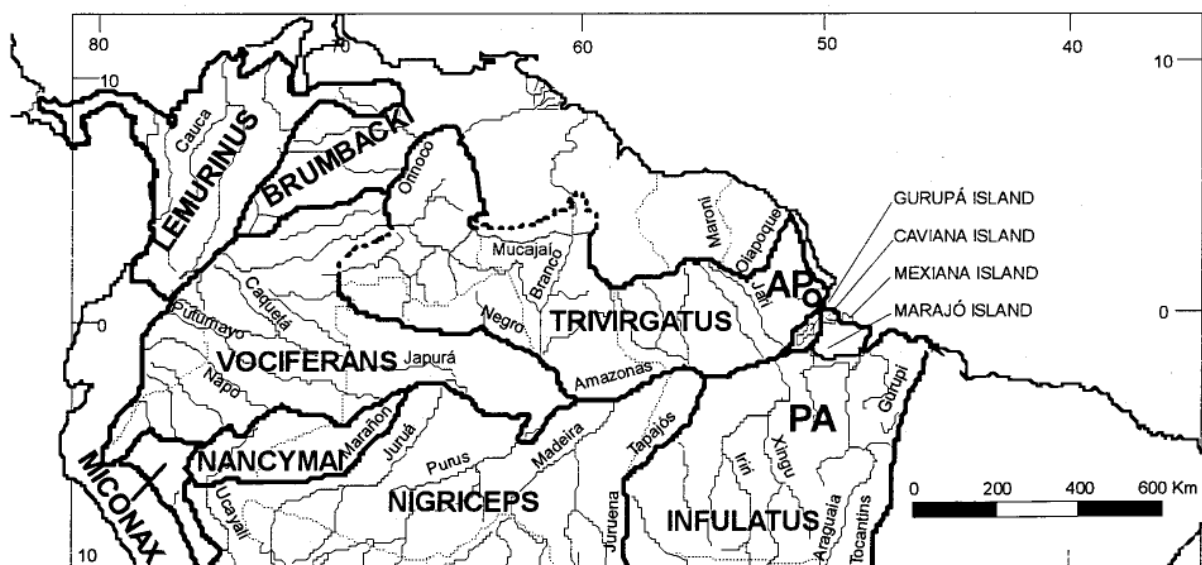


Figure 1. Map showing part of the distribution of the genus *Aotus* according to Hershkovitz (1983).
O = Carmo do Macacoari. AP = state of Amapá and PA = state of Pará.

monkeys occur in the Amazon basin, south as far as the state of Mato Grosso (Wright, 1981). Primate surveys in Guyana (Muckenhirn *et al.*, 1975), French Guiana (Roussilhon, 1988), and Suriname (Mittermeier and van Roosmalen, 1981), have suggested that night monkeys do not occur in these countries. In addition, Hershkovitz (1983) was unable to confirm their presence in northern Roraima, northwestern Pará, and the state of Amapá in north and northeastern Brazil. There is, however, no apparent barrier to night monkeys extending their distribution to the east as far as the state of Amapá, and this gap in the geographic distribution may be merely a result of the absence of collecting localities. Here, I report on the presence of night monkeys in the state of Amapá, and present information on their occurrence in the Marajó archipelago, at the mouth of the Rio Amazonas.

Specimens of night monkeys were collected on Caviana Island in the Marajó archipelago, Pará, between 16 July and 4 August 1992, and in the village of Carmo do Macacoari, municipality of Itaubal, eastern Amapá during 5-24 May 1993 (see Fig. 1). They were deposited in the collection of the Museu Paraense Emílio Goeldi (MPEG) except for one (skin and skull) from Carmo do Macacoari which was donated to the Instituto de Estudos e Pesquisas do Estado do Amapá (IEPA). Field collections on the island of Gurupá (Fazenda Mariony) were carried out from 1-10 November 1992, and information from Mexiana Island was provided by L.M.P. Henriques during a survey of the avifauna at the Fazenda Santana, from 19 November to 20 December 1992. Specimens from Marajó Island already in the collection of MPEG were also used in order to delineate the range of *Aotus* in the Marajó archipelago. According to Wright (1981), night monkeys have permanent sleeping areas as well as defined sleeping trees.

Information on sleeping trees provided by local people allowed me to locate *Aotus* groups in the late afternoon. The animals were collected between 1700 and 1800 hours, either during diurnal foraging (Carmo do Macacoari) or while they were resting near the sleeping tree (Caviana Island).

Three specimens of *A. trivirgatus* were collected in the municipality of Itaubal, confirming their occurrence in the state of Amapá (see Table 1). The islands of Marajó, Caviana, Mexiana, and Gurupá (= Ilha Grande de Gurupá) were also visited in order to determine the extent of their presence in the Marajó archipelago. Hill (1960) and Hershkovitz (1983) pointed out that *Aotus infulatus* was the night monkey inhabiting Marajó. This was confirmed by five specimens deposited in the zoological collection of MPEG: MG99, MG100, MG8875, MG8876, and MG8877. Two recently collected specimens also confirmed the occurrence of *A. infulatus* on Caviana Island (Table 1). However, no evidence could be obtained for the presence of *Aotus* on the islands of Gurupá and Mexiana.

Regarding the occurrence of *Aotus* in northern Roraima, Nunes *et al.* (1988) were unable to confirm its presence, although local people reported it for the island of Maracá (Rio Uraricoera) and the Rio Apiaú. Its presence in the northeastern part of the state is unlikely due to the predominance of savanna vegetation. Night monkeys do, however, inhabit the dry upland forests (*terra firme*) in the municipality of Mazagão, Amapá, where they are considered common, and it would seem likely that they inhabit the majority of forested areas in the state of Amapá, except for mangrove forests.

L.M.P. Henriques kindly provided information

Table 1. Measurements of night monkeys, *Aotus*, recently collected in the states of Amapá and Pará. (Deposited in the Museu Paraense Emílio Goeldi, Belém, Pará, except for PC066 donated to IEPA).

Specimens	Head & Body (mm)	Tail (mm)	Hindfoot (mm)	Forefoot (mm)	Ear (mm)	Weight (g)	Sex/Age
Pará (Caviana)							
MG22039	320	420	100	70	30	1240	F/Ad
MG22040	320	420	100	70	30	1190	M/Ad
Amapá (Itaubal)							
MG22522	310	400	100	70	35	1000	F/Ad
MG22523	310	400	100	70	35	1200	M/Ad
PC066*	220	340	90	60	30	700	F/Juv

*Field number of individual donated to the Instituto de Estudos e Pesquisas do Estado do Amapá (IEPA).

from Mexiana Island, and I thank M. Morelli (Caviana), Ms. Teté and J. Lima (Gurupá), and F. Lobato (Mexiana) for giving permission and logistic support to work on their ranches. Field research in Amapá was supported by the Museu Paraense Emílio Goeldi (MPEG/CNPq) and the Instituto de Estudos e Pesquisas do Estado do Amapá (IEPA).

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PRIMATE CONSERVATION IN EASTERN BRAZILIAN AMAZONIA

The recent discovery of the Ka'apor capuchin (*Cebus kaapori* Queiroz, 1992) has put a very different light on primate conservation in eastern Brazilian Amazonia, defined here as the region to the east of the Rio Tocantins (eastern Pará and western Maranhão). In addition to five relatively widespread species (*Alouatta belzebul*, *Aotus infulatus*, *Cebus apella*, *Saguinus midas* and *Saimiri sciureus*), this region's primate fauna includes the endemic southern bearded saki,

Chiropotes satanas satanas. This pitheciine was considered by Johns and Ayres (1987) to be Amazonia's most endangered primate taxon, given both its vulnerability to habitat degradation and hunting pressure, and the degree of deforestation within its geographical range.

Queiroz (1992) restricted the present-day range of *Cebus kaapori* to the western portion of Maranhão, a much smaller area than that of *Chiropotes s. satanas*, although recent fieldwork¹ (Lopes, 1993; Lopes and Ferrari, submitted) has shown that this species is found as far west as the Rio Tocantins, in the state of Pará. The lack of records from the region of Tucuruí (Mascarenhas and Puerto, 1988) nevertheless indicates that the geographical distribution of *Cebus kaapori* is smaller than that of *Chiropotes s. satanas*. Surveys at five sites in Pará and Maranhão also indicated that *Cebus kaapori* is significantly rarer locally than *Chiropotes*. The presence of both primates was reported by residents at all five sites, although *Cebus kaapori* was recorded just three times over a total of 1404 km of trails censused, while bearded sakis were observed on forty-two occasions. Although data are limited, group size also appears to be significantly smaller in *Cebus kaapori*, in comparison with *Chiropotes*. These findings appear to leave little doubt that the situation of *Cebus kaapori* is even more precarious. The study also revealed that populations of *Alouatta belzebul* are being decimated by hunting at many sites.

With its long history of colonisation, eastern Brazilian Amazonia is not only the basin's most densely-populated region, but has also suffered its highest rates of deforestation (Johns and Ayres, 1987). In the present day, little more than half of the original forest cover may survive (Lopes, 1993). Much of this remaining forest is subject to selective logging, and hunting is almost universal. The region's only protected area, the Gurupi Biological Reserve (GBR), receives little or no fiscalisation and is regularly encroached by squatters and loggers (Oren, 1988; Queiroz, 1992; per. obs.). Such encroachment is also frequently a serious problem on both indian reservations and private land.

Nevertheless, adequate protection of the contiguous area of more than 1,000,000 ha encompassed by the GBR and adjacent indian reservations (Alto Turiaçu, Awá, and Carú) in western Maranhão will be crucial for the conservation of the region's primates. Extrapolating cautiously from the results