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AN UNUSUAL PRIMATE COMMUNITY AT THE ESTAÇÃO ECOLÓGICA SERRA DOS TRÊS IRMÃOS, RONDÔNIA, BRAZIL

Located in northwestern Rondônia (Figure 1), the 99,813 ha Estação Ecológica Serra dos Três Irmãos was decreed in 1990 as part of statewide network of conservation units. Três Irmãos is the only component of this network located on the left or west bank of the Rio Madeira, which plays an important role in the zoogeography of the region's primates (Rylands and Bernardes, 1989; Ferrari and Lopes, 1992), in addition to a number of other mammals (Emmons, 1990). Most of these taxa are not found elsewhere in Rondônia, which emphasizes the importance of this Ecological Station's role in the conservation of the biodiversity of this state, one of the most intensely colonized areas of Brazilian Amazonia.

Two different areas of the Station were surveyed in October and December 1995 in order to identify its diurnal mammal species and evaluate their population densities. Nine primate species were observed during these surveys (Table 1). In addition to nocturnal sightings, a group of four owl monkeys was seen in activity on one occasion at mid-morning. A tenth species not observed during surveys, *Alouatta seniculus*, was encountered on the left bank of the Madeira, 5 Km from the southern limit of the Ecological Station.

Local residents interviewed all reported that howlers are found only in areas close to the Rio Madeira. This, together with the lack of any indirect evidence (vocalizations or feces) of the occurrence of *Alouatta* within the Ecological Station, which at its closest point is 3 km from the Madeira, indicates that the distribution of *A. seniculus* in this area may be restricted to a relatively narrow corridor, perhaps less than a kilometer in width, on the left bank of this river. Howlers are nevertheless more widespread further downstream (Ferrari and Lopes, 1992).

A similar distribution was indicated by local residents for two other species not observed during the present study - *Ateles belzebuth* and *Cebuella pygmaea*. The presence of *Ateles* would be expected from its known

Table 1. Primates observed in the Três Irmãos Ecological Station, Rondônia.

<i>Aotus nigriceps</i>
<i>Callicebus caligatus</i>
<i>Cebus albifrons</i>
<i>Cebus apella</i>
<i>Lagothrix lagotricha cana</i>
<i>Pithecia irrorata</i>
<i>Saguinus fuscicollis weddelli</i>
<i>Saguinus labiatus labiatus</i>
<i>Saimiri (sciureus) boliviensis</i>

distribution (Kellogg and Goldman, 1944), but that of *Cebuella*, while not improbable (Rylands *et al.*, 1993), would constitute an important extension of its geographical range. It is hoped further fieldwork, planned for 1996, will not only confirm the occurrence of these two species in the area, but will also provide insights into the factors determining their local distribution, and that of others such as *Alouatta seniculus*.

Two-hundred kilometers of line transect censusing were carried out during the present study, during which all but two species - *A. nigriceps* and *C. albifrons* - were recorded. A third species, *S. boliviensis*, was sighted on only one occasion. The most abundant species were *L. lagotricha*, *P. irrorata*, *S. fuscicollis* and *S. labiatus*, which together contributed 86.4% of sightings. *Lagothrix* appeared to be particularly abundant at the site, a good indication of a lack of hunting within the reserve.

The relative scarcity of the *Cebus* species, normally among the most abundant primates in western Amazonian communities, whether hunted or not (Peres, 1990), raises some interesting questions, especially in the light of the local distribution of *Alouatta*, for example. *Pithecia*, on the other hand, was recorded twice as frequently as *Cebus* at Três Irmãos, the opposite of the situation recorded at most other western Amazonian sites.

Fortunately, the Serra dos Três Irmãos Ecological Station is relatively isolated from Rondônia's principal areas of human colonization, which lie to the east/south of the Rio Madeira. The Station is accessible only by boat, and appears to suffer little encroachment, except by local fisherman. The results of the present study nevertheless indicate the need for the extension of the Station's limits to the left bank of the Madeira in order to protect fully the area's mammalian communities. This has been recommended to the state environment secretariat, and is currently under study.

The fieldwork reported here was supported by the United Nations Development Program (PNUD) and SEDAM - Rondônia. We would also like to thank Jorge Lourenço, Renato Cintra, Hélio Pensador, and local residents within the study area.

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PREDATOR (*MUSTELA NIVALIS*) RESPONSES IN CAPTIVE-BRED *CALLITHRIX JACCHUS*

In 1985, a family of common marmosets was moved from a laboratory setting to a "wild" environment (Chamove and Rohrhuber, 1989). The group was composed of a pair of 2-year-old laboratory-born common marmosets (*Callithrix jacchus*) and their first set of laboratory-born twin sons (9 months old). The four lived together in a wire-mesh cage 3 x 2.1 x 1.4 m prior to release and were fed on a normal laboratory diet. Soon after moving to the garden, twins were born and were 1.2 months old at the time of this observation. The outside area included what was once a walled garden - long neglected - containing trees, shrubs, and vines. There was continuous woodland for several kilometers and the animals could move throughout a wide area without needing to go to the ground. Ivy covered most of the wall and extended out from it over 1.4 m in a tangle of old and new stems. Toads (*Bufo vulgaris*) and semi-wild domestic cats were also seen, but were never observed being approached by the monkeys. This is in contrast to Kleiman *et al.* (1986) who reported that lion tamarins showed great interest in toads. (Presumably other indigenous Scottish wildlife were present although not seen). Upon release, the marmoset family appeared to adapt quickly (Wendt, 1962). The most striking change in the behavior of the animals was the branch type they chose to use. When in the cages they spent most of the time on flat mesh surfaces and horizontal branches with infrequent, brief (0.8/min) visits to the floor. Unrestricted outside, they spent most of the time (89%) in the dense network of thin flexible ivy vines, where they could not be seen at a distance. They rarely visited more open shrubs (10%) or trees (1%). The monkeys were never observed on the ground. Although having no prior experience with gums, the monkeys were regularly observed feeding from gouges they had made