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UPDATE ON THE STATUS OF THE MARGARITA ISLAND CAPUCHIN, *CEBUS APELLA MARGARITAE*

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Among Venezuela's endemic mammal species, the capuchin monkey from Margarita Island, *Cebus apella margaritae* Hollister, 1914, deserves special attention. It is the only primate inhabiting the island, which is off the north coast of Venezuela. These capuchins are isolated, with the nearest *Cebus apella* populations occurring in the Amazon region, approximately 800 km to the south. This gap is enigmatic and remains unexplained (Bodini and Pérez-Hernández, 1988). The most recent information on wild populations of *C. apella margaritae* comes from Márquez and Sanz (1992) and Sanz and Marquez (1994). According to these authors *C. a. margaritae* populations on Margarita Island are threatened due to habitat degradation, illegal hunting and commerce. Farmers consider the monkeys crop pests and have sold individuals as pets for prices up to US\$41 (Ottocento *et al.*, 1989). Over the past 15 years, an increasing human population has pushed farmers to the borders of the island's reserves. Settlers have already invaded the upper regions of the Cerro El Copey National Park (7,130 ha, created in 1974), at altitudes up to 500 m. The more humid soils found in the mountain ranges of Copey, Tragaplata and Matasiete (a Natural Monument of 1,672 ha, created in 1974) have also encouraged timber cutting for small slash-and-burn agricultural plots. These combined factors are creating significant concern for the capuchins of Margarita Island.

Currently, we are carrying out a study of the genetics and conservation status of the Margarita Island capuchin. The aims of our project are to obtain peripheral blood of pet capuchins in order to investigate the origin of this disjunct island population and to carry out a survey to better under-

stand how illegal hunting and commerce effect the status of the species. In February 1997, we visited homes and small businesses in the eastern part of the island. The selection of places to visit was based on information obtained from settlers (Fig. 1), as well as an interview with the local office of the Ministry of Environmental Resources in Margarita. We interviewed people who admitted having or to have had a pet monkey. When we found a pet we recorded its age, sex, precedence and habits and carried out a physical examination. We also asked for information on prices paid for monkeys, resellers, veterinary care, and general knowledge of Venezuelan laws on the possession of wild animals as pets.

Fourteen pet capuchins were found. To our surprise, only five were *Cebus apella margaritae*: two juvenile males, one adult male, one juvenile female, and one adult female (reported by its owner as a male). The others were weeper capuchins *Cebus olivaceus*, and two were reported to have been captured from Cerro Matasiete. The diet for most of the monkeys consisted of human foods, especially bread and milk (>80% of the diet), and fruits. Only one owner admitted to seeking local veterinary care. Prices for monkeys were as high as US\$270. Some of the people claimed to have shot monkeys either invading their crops or in the vicinity of their fields. Most of those interviewed (especially near to the Cerro El Copey National Park) admitted knowing that Venezuelan laws deem it illegal to own a wild animal as a pet, and that punitive measures could be taken against those found selling or taking monkeys from the park.

We found a eukaryote parasite in the total of four blood samples of *C. a. margaritae*. This microorganism is similar to *Trypanosoma* sp., but a definitive identification has yet to be made. None of the interviewees knew of the taxonomic simi-

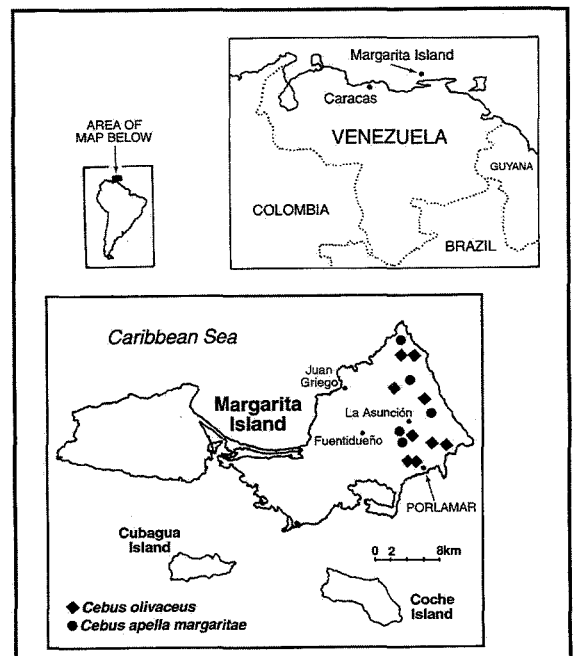


Figure 1. Margarita Island, Venezuela. Locations where *Cebus* monkeys were being kept as pets. Map by Stephen D. Nash.

larity of the *margaritae* monkey to *C. olivaceus* and the presence of the unknown blood parasite in all the samples requires further studies to evaluate the risks of zoonosis, not only for pet owners, but for the entire human population inhabiting the island.

The occurrence of *C. olivaceus* as a pet is evidence of considerable illegal traffic of capuchin monkeys into Margarita Island. This was not mentioned as a threat to *C. a. margaritae* during our interview with the local officer from the Ministry of Environmental Resources, but if feral populations of *C. olivaceus* exist on the island (mentioned by two interviewees), this may be an additional threat to the endemic population of monkeys. The possible occurrence of free ranging *C. olivaceus* may be a recent phenomenon. Several capuchin owners admitted to having released pets into the mountains without knowing the species. Although *Cebus* species are sympatric on the continent (Terborgh, 1981), the amount of deforestation and loss of natural habitat due to farming and human settlement could result in competition between the species on the island.

Surveys of the natural populations of *C. a. margaritae*, and for the possible presence of *C. olivaceus*, are urgently needed, as is an environmental education program to make people aware of the significance of the island's monkey species. The success of similar projects with other endangered species on the island, such as the Margarita parrot (yellow-shouldered parrot, *Amazona barbadensis*), has shown that the people are sensitive towards wildlife in their area and are willing to modify their habits to favor the conservation of species and habitats.

We still do not know whether the Margarita capuchins were isolated prior to the arrival of human settlers or whether they were introduced. The two populations on the island are disjunct; occurring between two widely separated mountain ranges. The increase in human settlements, especially near to the park, small-scale farming and burgeoning tourism and recreation, coupled with the generally poor economy of the island, have resulted in widespread habitat fragmentation, the consequences of which have yet to be assessed (Ottocento *et al.*, 1989; Marquez and Sanz, 1992). There is an urgent need for effective protection and management of the Cerro El Copey and Matasiete reserves. Genetic studies will hopefully give us an idea as to the origin of these monkeys and their unexplained isolation from their closest subspecies, and will allow for the design of a management plan. It is possible that *C. a. margaritae* is suffering from some degree of inbreeding depression, or even that it may be recovering from a population bottleneck (founder effect). The assessment of the genetic status of this endemic and little known monkey is extremely important to answer such questions and for an effective management plan to be put into place.

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PRIMATE RECORDS FROM THE POTARO PLATEAU, WESTERN GUYANA, INCLUDING THE FIRST FOR *CEBUS ALBIFRONS* EAST OF THE RIO BRANCO, BRAZIL

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Introduction

Guyana is one of the few Neotropical countries where substantial tracts of forest remain (Groombridge, 1992, Bowles *et al.*, 1998). Even with recent work (Phillips-Conroy and Sussman, 1995; Sussman and Phillips-Conroy, 1995; Lehman, 1999; Lehman *et al.*, 1995), much of the country remains unsurveyed for primates.

Here we report on the primate fauna of the Potaro Plateau, Guyana, a 1,165 km² outlier of the Pakaraima Mountains, and the eastern-most extension of the Guayana Highlands (see Fig.1), with a basal altitude of some 500 m and higher peaks (2042 m, Mt. Ayanganna; 1594 m, Mt. Kopinang; 1470 m, Mt. Wokamung and others). Like much of the