

Current status of the carabali hutia from South of Isla de la Juventud, *Mysateles meridionalis*

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Abstract

The Canarreos Archipelago (Cuba) is the geographic region in the West Indies with greatest diversity of capromyid rodents, with seven taxa. Current status of conservation, distribution, and systematic of the carabali hutia (*Mysateles meridionalis*) of the S of Isla de la Juventud were analyzed and discussed. All the factors that affect this species of hutia are pointed out. Conservation category as IUCN criterion is recommended.

Key words: Capromyid rodent, conservation, Cuba, Isla de la Juventud, *Mysateles meridionalis*.

Resumen. Estado actual de la jutía carabalí del sur de la Isla de la Juventud, *Mysateles meridionalis*.

El Archipiélago de los Canarreos (Cuba) es la región geográfica de las Antillas con mayor diversidad de roedores capromíidos, con un total de siete taxones. En el presente estudio se discute el estado actual de conservación, perturbaciones del hábitat, distribución y sistemática de la jutía carabalí (*Mysateles meridionalis*), de la Isla de la Juventud. Se relacionan todos los factores que afectan a dicha especie. Se recomienda una recalificación de la categoría de conservación según los criterios de la IUCN.

Palabras claves: conservación, Rodenta, Capromyidae, Cuba, Isla de la Juventud, *Mysateles meridionalis*.

Introduction

The Isla de la Juventud (formerly known as Isle of Pines) with 2,199 km² is the most important island of the Canarreos Archipelago. It is located south of the western region of Cuba. The swamp of Lanier divides the Isla de la Juventud into two portions, south and north; which differ from geomorphological, geological and flora points of view, among others. The Canarreos is considered a Special Region of Sustained Floral Development of National Significance and has the

category of Multiple Use Protected Area (Category V of IUCN). Thirteen localities in The Canarreos have different status of Protected Areas (Centro Nacional de Areas Protegidas, 1998).

The Capromyidae family is endemic to the West Indies and includes the rodents commonly named hutias. Cuba houses the greatest number of species (10) that are alive or have survived until recent times assuming that for some species there is not enough information to know the current status of their populations. Other three species of the genus *Geocapromys* and *Plagiodontia* have survived in the West Indies. If these 10 species still exist in Cuba, they would represent 77% of the current diversity of the family.

In Cuba, the geographical zone of greatest importance for the Capromyidae is the Canarreos Archipelago, since in this zone three genus and six capromyids taxa inhabit. In the Isla de la Juventud, four taxa can be found: *Capromys pilorides relictus* Allen, 1911 and *Mysateles prehensilis gundlachi* Chapman, 1901 (return to the former combination after Borroto, 2002), both from the north of the Isla de la Juventud; *Capromys pilorides ciprianoi* Borroto et al., 1992 and *Mysateles meridionalis* (Varona, 1986), both from the south of that Island. The systematic of the family has been analyzed recently in Woods et al. (2001) and Borroto (2002).

Out of the current Cuban species, only two could be considered out of danger, considering the density of their populations and their extensive distribution. They are: the conga hutia (*Capromys pilorides*) with five known subspecies and the carabalí hutia (*Mysateles prehensilis*). The rest of the species are in different degrees of deterioration of their populations, which leads us to think that in some of them the damage is irreversible or will be so if immediate measures are not taken. The status of all taxa of the Canarreos Archipelago has been recently analyzed by Borroto and Ramos (in press).

The information here presented is the result of four expeditions carried out mainly to the S of the Isla de la Juventud between the years 1987 and 1993 with the objective of studying the systematic and the natural history of the capromyid rodents and especially the taxa of the island. Another source of information was the surveys carried out during these years and more recently by researchers, who frequently visit the area, and mainly by peasants, forest rangers, and stealthy hunters of the most important locations. In order to indicate the degree of threat we followed the categories established by the International Union for the Conservation of the Nature (IUCN, 1994), and we offer the criterion established by the IUCN in different periods (IUCN, 1990; Groombridge, 1993).

Species Account:

Mysateles meridionalis (Common name: carabalí hutia of the south of the Isla de la Juventud, sata hutia, tree hutia, prehensile-tailed hutia).

Varona (1986) described this species from five animals collected almost 10 years before, mainly based on the smaller size of the tail, which in relation to the body is of 62% and has 23 caudal vertebral. This feature is considered signifi-

cant taking into consideration that in genus *Mysateles* the number of caudal vertebrae has always been 28. Other characters, such as the length of the nasals, that subsequently exceed the maxilar processes, are variable among different populations of hutias.

The type locality was referred to as the forests north of Caleta Cocodrilo (Jacksonville), towards the western-southern area of the Isla de la Juventud, regarding the zone near Hato, 2 km away from Milián as another zone of distribution. We understand that what is known as Hato de Milián and its surroundings are their only and narrow area of distribution.

Without doubts, the distribution of *M. meridionalis* must have been much wider in the past. The main cause of their reduced current distribution may have been a forest blaze that for several months devastated almost all the south of Isla de la Juventud (except for the Hato de Milian area), early in the past century.

The only known specimens are the five referred to by Varona in his hypodigm, captured in 1977 and 1978, stored in the collection of the IES (two) and in the Varona collection (three specimens including the holotype). In our first expedition in 1987, local peasants commented that they had seen carabalí hutias two or three years before "near Ismael's house", in Hato de Milián. In our successive visits until 1993, we heard this same reference on several occasions, marking the same place and the peasants continued saying that it had happened two or three years before.

During our four expeditions to the surroundings of Hato de Milián, we never observed evidence of the existence of *Mysateles meridionalis*. We were always guided by peasants and forest rangers who knew the zone very well. But our main difficulty was that the dogs we were able to get were trained to mark the presence of conga hutias (*Capromys pilorides*), of terrestrial habits and very abundant in the zone, and not carabalí hutia, a species of arboreal habits. In the future we will enlarge the exploration area, researching in the narrow strip of mangrove located north of Hato de Milián.

Nevertheless, we could observe the characteristics of the area and some factors that could have influenced the decline of this species in spite of the fact that the forest seems to be well preserved. In our opinion, an important fact was to observe little climbing plants or vines between the trees, some even remained entangled but totally dry. We have verified the close relationship between carabalí hutia and vines in other species of *Mysateles*. These plants occasionally form a complex and thick twining plant around the trunks, branches and foliage of the trees that creates a favorable structural niche for the *Mysateles*. These vines are used by the carabalí hutias as shelter, nests, substratum of many vital activities and allows them to move safely from tree to tree.

The presence of feral dogs and cats was verified, although only the cats seem to affect *M. meridionalis* directly due to their climbing ability. On one occasion, a cat was spotted and shot. It was hiding among the vines, which seemed to be an abandoned hutia nest. The forest workers told us that the feral cats are frequent in that zone. Rat nests (*Rattus rattus*) were also observed among the dead vines, and these escaped quickly when the branches were moved violently.

Another aspect to keep in mind is the high population density reached by the conga hutia of the south (*Capromys pilorides ciprianoi*) in this locality. Although both species do not overlap in their ecological niches completely, extreme densities of the conga hutia could diminish the space possibilities of *M. meridionalis* for their vital activities. At the same time, this situation makes the conga hutia a better hunting target due to its abundance, larger size, and weight. Therefore, this is not considered influential for the *M. meridionalis*.

In August of 1999, Celino Rives, a specialist from Natural Park "Punta Francés" communicated to us that hutias like "carabali" had been seen in the mangrove zone. National Park Punta Francés is the westernmost area of southern Isla de la Juventud, and its area is 6,083 ha. But it is not considered a type locality of *M. meridionalis*. The Park is four km away from Hato de Milían. Mr. Rives' statement needs to be verified and, therefore, we are preparing an expedition to the Park. After this news, *M. meridionalis* has two possible distribution localities: Hato de Milían and Punta Francés (Fig. 1).

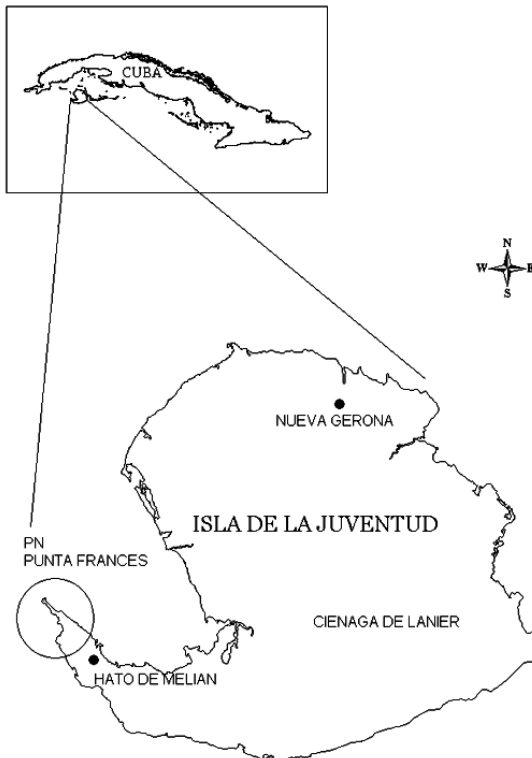


Figure 1. Distribution localities of *Mysateles meridionalis*: Hato de Milían and National Park Punta Francés.

The IUCN in 1990 and 1994 classified *Mysateles meridionalis* as undetermined due to the lack of information (IUCN, 1990; Groombridge, 1993). In 1996 the IUCN classified the species as Lower Risk: near threatened. A report of conservation assessment was planned recently (Borroto & Ramos, 1999). We understand that since there has been no clear evidence of *M. meridionalis* for many years, and as a result of their extremely reduced distribution, their population status should be very near extinction. Thus, we recommend referring to them as critically endangered (CR). Hoping to be on time for protecting the last individuals of this species, we suggest that immediate investigations be carried out in order to know the real conservation status of their population.

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