Population density and group structure of the endemic and critically endangered: *Plecturocebus caquetensis* (Family: Pitheciidae) in the Colombian Andean Piedmont.

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The Andean-Amazonian Piedmont has been identified as the portion of Colombia that has experienced the greatest transformation of its forest cover in the last century, due to it being part of the main axes of unplanned colonization, changes in land use associated with extensive livestock farming, the establishment of crops for illicit use and mining and hydrocarbon extraction, as well as being the focus of human relocation in the current post-conflict scenario; all of these negatively affecting the ecosystem. This area harbors one of the highest species richness, including a high number of endemic species. The Caquetá titi monkey, *Plecturocebus caquetensis* (Pitheciidae) is an endemic species of Colombia, recorded in only the Andean-Amazonian Piedmont of the departments of Caquetá and Cauca in the Baja Bota Caucana. It is listed as Critically Endangered by IUCN. Due to the loss and fragmentation of the habitat, it is estimated that only 36% of the titi monkey's distribution (1366 km^2) is currently available to the species, with no conservation areas in its range. Geographically, the efforts to conserve *P. caquetensis* have been concentrated in the southern department of Caquetá. There is no research on this primate in the Baja Bota Caucana area, especially on its ecology and population parameters in fragmented forests. The lack of this information compromises the adequate formulation of conservation strategies that identify the threats to the species. Because of this, the population density of *Plecturocebus caquetensis* was estimated in this study using the linear transects method in secondary vegetation forests and terra firme forests of the Andean-Amazonian Piedmont of Cauca, including in the Indigenous territory of the Ingas Reserves: La Floresta-La Española and Guayuyaco, and agricultural community. The group structure was determined according to the age and sex categories proposed for the genus *Callicebus.* In addition, it was possible to differentiate between the sexes in *P. caquetensis* by the

pattern and distribution of the dorsal-tail coloration. We walked five transects 228 times, a total distance of 206.7 km. We estimated population density using Distance 7.2 by applying a uniform distribution model adjusted with a simple polynomial expansion. To improve the model, we adjusted the distribution of perpendicular distances and selected the model with the lowest Akaike information criteria. In an area of 359 ha, a density of 12.24 individuals/km^2 (CI: 4.9-30.6) and a density of 5.28 groups/km^2 (CI: 2-13.3) were estimated, both with a CV of 34.59% There were 56 individuals in 22 groups, with an average group size of 2.3 individuals (CI: 2-2.6). Just over half (54.5%) of the groups consisted of a monogamous adult couple, 41% of an adult couple with juvenile and 4.5% of an adult couple with two subadult individuals. The composition by sex and age of the groups was 39.3% adult females, 39.3% adult males, 16.1% juveniles and 3.6% subadults, giving an age/sex ratio of: Adult Male-Adult Female Ratio of 1:1 and Immatures-Adult Females of 1: 2.4. The estimated density is low compared to what was reported for *P. caquentesis* in forest fragments of the Caquetá Department, with 34 individuals/km^2, and also low compared to the *cupreus* group as a whole (5-400 individuals/km^2). There tended to be a greater number of groups observed in the fragments of less than 50 ha, with group sizes of less than three individuals; this may reflect selection factors such as predation, inter- and intra-specific competition for resources and available area. The sex ratio agrees with other studies, given the monogamous condition of these primates, however, the proportion of juveniles is low, perhaps due to intra- and inter-annual fluctuations in the birth or survival of juveniles. The population should be studied over time, in order to determine if it is increasing or decreasing. The development of regional strategies for the conservation of this species in the Baja Bota Caucana is fundamental and deserves attention, since the accelerated transformation of its ecosystems harms the presence of the species. The establishment of biological corridors is recommended to ensure connectivity in the Piedmont, this should be done in coordination with indigenous reservations and in consultation with the agricultural community that inhabits the territory. In addition, sustainable economic alternatives such as responsible ecotourism, which has a strong potential in the region, should be established.

At the end of this study, the project was presented to people in the indigenous reserves of La Floresta-La Española, Guayuyaco, and to the agricultural community. In addition, educational and environmental awareness workshops were held with students from the Santo Domingo Sabio School in the area of the study**.** This activity was developed through pictures, videos, slides, a story “No soy una mascota” (“I am not a pet”), word search and a drawing of the monkey that they could color in. In this way, the local children were encouraged to learn about the fauna around them and to protect and care for it.