

In search of the last Horned Curassows *Pauxi unicornis* in Bolivia

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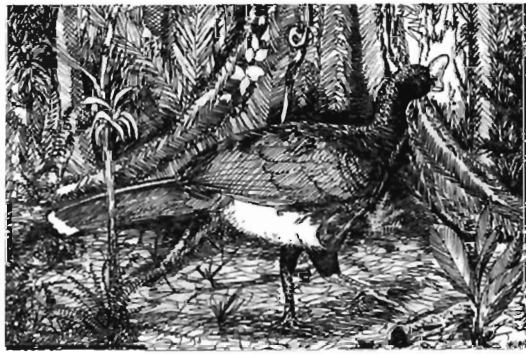
Se presentan observaciones de la Pava Copete de Piedra *Pauxi unicornis* de dos localidades nuevas en Bolivia: Campamento Macuñucú en el PN Amboró y Río Colomelín/Cerro Leñe en el PN Carrasco, confirmando la presencia de una población aparentemente viable de esta especie amenazada en este último parque. En base a registros publicados e información local, inferimos la presencia de una población continua de *P. unicornis* en la zona de piedmonte de los parques previamente mencionados y probablemente en la Cordillera de Mosestenes hacia el noroeste. Sin embargo, hasta el presente no existen registros verificados de los departamentos de La Paz y Beni. Búsquedas específicas recientes en la Reserva de Biósfera y Territorio Indígena Pilón Lajas así como en las Serranías de Eslabón y Mamuque en el PN Madidi no tuvieron éxito. Sugerimos que la prioridad en el estudio de *P. unicornis* en Bolivia es la de delimitar la distribución y el tamaño de las poblaciones, sobre todo en las partes central y occidental del PN Carrasco, en la Cordillera de Mosestenes y en las Serranías del Tigre y de Chepite.

Introduction

Horned Curassow *Pauxi unicornis* is one of the least frequently encountered bird species in South America. The inaccessibility of its preferred habitat—namely humid to wet foothill and lower montane forest at 450–1,200 m in the east Andes of Bolivia and Peru^{2,5}—and its apparent intolerance of human disturbance have made the species one of the Neotropics' most enigmatic birds. Whereas the biology of this globally threatened species² has been studied in Bolivia's Parque Nacional (PN) Amboró, dpto. Santa Cruz^{4,5}, its total population size and precise distribution are unknown. Horned Curassow has been reported from only two Peruvian and a handful of Bolivian localities^{2,5}. The purpose of this paper is to report recent observations of the species, discuss its known and potential distribution, and suggest priority survey areas in Bolivia.

Recent sightings at new localities

Campamento Macuñucú. This park guard station is located on the Río Macuñucú at the east edge of PN Amboró, dpto. Santa Cruz (17°43'S 63°34'W), c.18 km east of the Horned Curassow study area chosen by Cox *et al.*⁵ at the Río Saguayu. Habitat and topography at the Río Macuñucú closely match the description by Cox *et al.*⁵ of the Río Saguayu area. On 28 September 1997, MK flushed a rufous morph female in forest at c.500 m and c.3–3.5 km upriver of the park guard station. The following day, another rufous morph female was flushed by SKH from a perch in the understory 5 m from the river, c.1.5 km upriver of the park guard station and at c.450 m.



Horned Curassow *Pauxi unicornis* (Michael Kessler)

Río Colomelín/Cerro Leñe. This area of pristine evergreen lower foothill forest is in the north-east corner of PN Carrasco, dpto. Cochabamba, at 17°23'S 64°24'W, and is characterized by steep, densely forested slopes with a relatively open understory. Unlike the study area of Cox *et al.*⁵ in PN Amboró, bare cliffs, scree slopes and successional, secondary vegetation were rare and the area was largely covered by mature forest. The Río Colomelín area receives significantly more rainfall than the two localities in eastern PN Amboró, mean annual precipitation being c.3,000–4,000 mm.

Four observations of black morph *P. unicornis*, believed to involve three individuals (two sightings at the same location), were made by SKH on 20–23 September 1997, at 500–750 m, in c.2 km between the Río Colomelín and Cerro Leñe. All records were of singles in mature forest, perhaps indicating that birds had not yet coalesced into the small groups

which typically form in the early breeding season^{3,4}. In addition, no territorial singing (booming) males were heard during the survey (18–25 September 1997). In PN Amboró, the species' breeding season reportedly commences in October⁵. Although the sample size is very small, the frequency with which *P. unicornis* was observed in this area does suggest that a viable population currently exists in eastern PN Carrasco. Below 500 m, *P. unicornis* was replaced by Razor-billed Curassow *Mitu tuberosa*.

Known and potential distribution in Bolivia

Considerable confusion exists concerning known Bolivian localities for the species owing to imprecise accounts from depto. Cochabamba². With the exception of SKH's observations at the Río Colomelín, there are only two certain Cochabamba localities: the type-locality, in the hills above Rancho Bolívar Punta near El Palmar¹, which is located just inside PN Carrasco at 17°07'S 65°29'W (the hills above Bolívar are further inside the park). These coordinates differ slightly from those given by Paynter⁷ for the type-locality, which are just outside the park. The second specimen locality is near the Comunidad Guanay⁸ at 17°07'S 65°29'W, and also inside PN Carrasco.

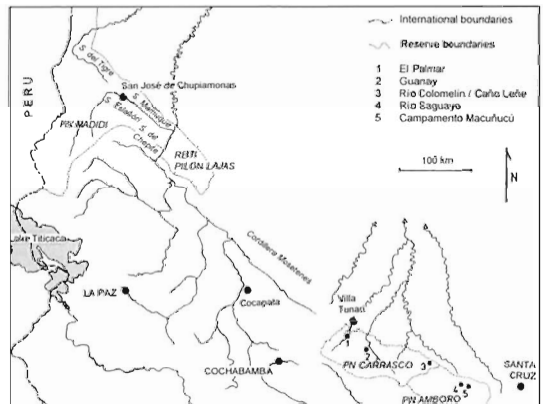
Additionally, several accounts of the species have been reported to us by local people. According to P. Mamani and other park guards stationed at the Cuevas del Repechón near El Palmar in PN Carrasco—who gave adequate descriptions of the species—small numbers of the Horned Curassow persist in the immediate vicinity of the Oilbird *Steatornis caripensis* caves (at 450–500 m). It is reportedly fairly common at an unspecified site c.15 km further inside the park and at higher altitude. The species is also known by local people from Cocapata village (16°49'S 66°38'W, 3,000 m) in north-west depto. Cochabamba, who accurately described casques brought by hunters from the enormous uninhabited and forested foothills north-east of Cocapata toward Cordillera de Mosestenes.

Parker⁶ gives the following account of *P. unicornis* from a 1989 survey in the Serranía del Pilón (c.15°14'S 67°04'W, 300–1,000 m), depto. Beni, along the Caranavi–Yucumo road at the south-east border of the Pilón Lajas Biosphere Reserve and Indigenous Territory: "A man who has lived for one year near the road pass on the Serranía del Pilón accurately described this species and was certain that he had seen (eaten?) it in ridgetop forest several times." However, recent intensive avifaunal surveys in the Pilón Lajas Biosphere Reserve by B. Hennessey and A. Perry (pers. comm.), and our-

selves (unpubl. data) have not produced any records of *P. unicornis*. Additionally, Hennessey and Perry (pers. comm.) conducted indigenous knowledge surveys among the Mosetene and Chimane people inside the reserve, but the species was unknown to them. We conclude that *P. unicornis* does not occur, or is at least exceedingly rare and local, in the Pilón Lajas Biosphere Reserve.

Based on the data presented above, *P. unicornis* probably occurs continuously through the humid foothills of PN Amboró and Carrasco, but confirmation of the species' presence in central and western PN Carrasco is required. The biologically completely unexplored Cordillera de Mosestenes further to the north-west has seemingly significant potential to be another stronghold for the species. However, the Amboró/Carrasco population is likely to be isolated from populations to the north-west by the Cochabamba–Villa Tunari road. The influence of the human population living along this road, especially in the foothill zone, probably serves as a quite effective barrier to dispersal and genetic interchange.

P. unicornis has yet to be found in depto. La Paz. Surveys in the Serranía de Eslabón and the Serranía de Mamuque near San José de Chupiamonas in recent years by A. Perry (pers. comm.) as well as a Conservation International survey of the Serranía de Eslabón in 1997 (C. Quiroga pers. comm.) did not encounter the species. Promising areas with the potential to hold populations of *P. unicornis* in depto. La Paz are the Serranía de Chepite and the Serranía del Tigre, and other foothill areas in PN Madidi near the Peruvian border. Parker's 1992 sight record from depto. Puno, Peru², just c.70 km from Bolivia indicates that *P. unicornis* quite probably occurs inside PN Madidi.



Map of Bolivian localities for Horned Curassow *Pauxi unicornis*

Conclusions

From a conservation standpoint, the currently most urgently needed data are those concerning the species' precise distribution and population densities. Rather than conducting additional studies of the breeding biology of the species, we recommend concentrated surveys in currently unexplored or little-known areas, namely Cordillera de Mosestenes, foothill areas in western PN Madidi (e.g. Serranía del Tigre and Serranía de Chepita), and the foothills of central and western PN Carrasco. Perhaps most urgently required are surveys in the Serranía del Tigre where the adjacent lowlands to the north and north-east are currently being colonised and we observed considerable hunting activity in August 1997. Ideally, such surveys should include a quantitative assessment of population sizes, particularly along gradients of human influence in order to assess the impact of man's activities (especially hunting) on this species. Thus, the development of a standardised survey routine (time of year, time of day, transect length, etc.) is desirable.

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