

The Plate-billed Mountain Toucan (*Andigena laminirostris*) feeding on a *Caecilia spp* (Gymnophiona: Amphibia)

EL TUCÁN ANDINO PIQUILAMINADO (*ANDIGENA LAMINIROSTRIS*) ALIMENTÁNDOSE DE UN *CAECILIA SP* (GYMNOPHIONA: AMPHIBIA)

Alejandro Solano-Ugalde^{1,2}

¹Fundación Imaymana, Paltapamba 476 San Pedro del Valle Nayón, Quito, Ecuador.

²Natural History of Ecuadorian Mainland Avifauna Group, 721 Foch y Amazonas, Quito, Ecuador.

E-mail: jhalezion@gmail.com

Abstract

In this note I report a feeding event of two Plate-billed Mountain Toucans (*Andigena laminirostris*) upon a Caecilian. Overall, caecilians are poorly known; however at least another bird (*Leucopternis princeps*) has also been reported feeding on them. As predation was not observed, and based on the corpse state it is likely that the prey was killed prior to the take of the toucans.

Keywords: behavior, diet, Ecuador, mountain toucan, new record.

Resumen

En esta nota reporto dos individuos del Tucán Andino Piquilaminado (*Andigena laminirostris*) que fueron observados comiendo a un *Caecilia spp*. Las cecilias son poco conocidos, sin embargo hay registros de otra especie de ave (*Leucopternis princeps*) alimentándose de ellos. Ya que la depredación no fue observada, y dado el estado del cadáver, es posible que la presa haya sido matada antes de que los tucanes la tomaran.

Palabras clave: comportamiento, dieta, Ecuador, nuevo registro, tucán andino.

The genus *Andigena* (mountain-toucans) comprises only four species confined to the northern Andes of South America (Fjeldså & Krabbe 1990). In general, the species replace each other latitudinally, with the greatest concentration found in Colombia, Ecuador and Perú (with three species in each country, Hilty & Brown 1986, Ridgely & Greenfield 2001, Schulenberg *et al* 2007). These toucans are present in narrowly restricted ranges and therefore have been included in different Endemic Bird Areas (EBA's, see BirdLife International & Conservation International 2005). Although *Andigena* mountain-toucans are of relative good size, dressed in colorful plumages and usually utter loud calls, little remains known about their natural history (Short & Home 2002). Plate-billed Mountain Toucan (Fig. 1) is restricted to the Chocó EBA 041 (BirdLife 2003). This species is habitually found on subtropical cloud forest in the south-western part of Colombia and the north-western part of Ecuador (Hilty & Brown 1986, Ridgely & Greenfield 2001). In this note I report a feeding event of two Plate-billed Mountain Toucans (*Andigena laminirostris*) on a caecilian.

On 29 October 2007, while conducting a biological survey along the Bellavista Research Station Road (00°15' N 78°38' W, 2000 m.a.s.l, Pichincha province, Ecuador), 2 km downhill towards Miraflores village, I encountered two individuals of *Andigena laminirostris* eating a *Caecilia sp* in the ground. The observation extended for 12 minutes, and upon first seeing, the prey item was identified as a *Caecilia sp* by the combination of annular grooves and folds that form rings running transversely around the body and a solid compact head with well developed mouth (Savage 2002). During the first minute of observation the birds reacted as surprise due to the presence of the observer and did not move much but interchanged low guttural grunts "kurrr, kurrr, kurrr ...". Two minutes later, both birds resumed to their activities and started to try to bite pieces-off with their stout bills, gaining little results. The following minutes the birds seemed to try to turn-apart the prey item by pulling from both ends but the strategy proofed unsuccessful. The third approach include simultaneous bites and beating against the ground which after a couple of minutes provided rewarding results. As soon as one of

the birds was able to rip apart a piece, it flew to a low perch on the side of the road where it kept biting the piece for close to a minute after which it swallowed it whole. The other bird remained on the ground and waited until the first individual returned to the ground.

For the rest of the observation period (4 min), the two individuals alternated to rip, fly to a perch, and swallow pieces of their prey. The observation finished when a vehicle approached to within 20 m from the birds and they did not return after 15 min.



Figure 1. Adult Plate-billed Mountain Toucan (*Andigena laminirostris*) near Bellavista Research Station Rd, Pichincha province, Ecuador. 2100 m.a.s.l (Photo: AS-U).

Caecilians have been termed as poorly known in correspondence to their cryptic fossorial habits (Savage 2002). Only recently, Gelis & Greeney (2007), found that Caecilians were an important component in the diet of nestling stage Barred Hawk (*Leucopternis princeps*). Observations at a nest of Black-billed Mountain Toucan (*Andigena nigrirostris*) in eastern Ecuador revealed that earthworms were among the items delivered to the nest (J. Simabaña in. prep.), in the other hand the detailed study of Beltrán (1994) showed that the Plate billed Mountain Toucan had a diet mostly of fruits, even so

during the breeding months but at the latter also added insect prey.

The reasons for which the Plate billed Mountain Toucans preyed on a caecilian might have been opportunistic and may not regularly represent part of the diet. When inspected, the remains of the caecilian corpse seemed as if first kill by a vehicle driving over. Based on this, it is possible to suggest that fossorial animals are not easily accessible for mountain toucans and that the caecilian taken could have been mistaken for an earthworm, however the possibility that at least this

species of mountain-toucan could be learning to exploit road kill resources arises. More information is yet to be presented on the natural history of Neotropical birds from which we can better assess and understand the requirements of many species, several of the tropical species being of special interest as they have been listed as threatened species.

Acknowledgements

I am in debt with A. Arcos for continuous support in the research of Neotropical birds. J. Freile commented on the original version of the note and provided important feedback to improve it. J. Simbaña and NHEMA group helped with access to literature. This note was written under partial auspice of National Geography Grant W38-08.

Literature cited

- Beltrán, J. W. 1994. Natural history of the Plate-billed Mountain Toucan *Andigena laminirostris* in Colombia. Misc. Pubs. Cent. Stu. Trop. Birds 2:1-91.
- BirdLife International. 2003. *BirdLife's online World Bird Database: the site for bird conservation*. Version 2.0. Cambridge, UK: BirdLife International. Available: <http://www.birdlife.org> (accessed 19/9/2008).
- BirdLife International & Conservation International. 2005. Áreas Importantes para la Conservación de las Aves: sitios prioritarios para la conservación de la biodiversidad. Quito, Ecuador: Birdlife International (Serie de Conservación de BirdLife No. 14).
- Hilty, S. & W. Brown. 1986. A guide to the birds of Colombia. Princeton University Press, New Jersey.
- Fjeldsá, J. & N. Krabbe. 1990. The birds of the high Andes. A manual to the birds of the temperate zone of the Andes and Patagonia, South America. Apollo Books, Copenhagen.
- Gelis, R. A. & H. F. Greeney. 2007. Nesting of Barred Hawk (*Leucopternis princeps*) in northeast Ecuador. *Ornitología Neotropical* 18:607-612.
- Ridgely, R. S. & P. J. Greenfield. 2001. The birds of Ecuador, Vol. 1 and 2. Cornell University Press, Ithaca, NY.
- Savage, J. M. 2002. The Amphibians and Reptiles of Costa Rica: A Herpetofauna between Two Continents and Two Seas. University of Chicago Press, Chicago.
- Short, L. & J. Horne. 2002. Family Ramphastidae (toucans). In: del Hoyo J., Elliott, A. & Sargatal, J. (eds.) Handbook of the birds of the world, 7. Barcelona: Lynx Edicions.
- Schulenberg, T. S., Stotz, D. F., Lane, D. F., O'Neill, J. P. & T. A. Parker III. 2007. Birds of Perú. Princeton University Press, New Jersey.