

# *Rattus rattus* (Mammalia: Rodentia) predation by *Ramphastos vitellinus* (Aves: Ramphastidae) in Santa Teresa Municipality, Espírito Santo, Brazil.

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Received on 22 May 2012. Accepted on 7 June 2012.

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**ABSTRACT:** The Channel-billed Toucan (*Ramphastos vitellinus*) is a frugivorous bird that eventually predaes small vertebrates. This note reports a predatory event of one Channel-billed Toucan upon a black rat (*Rattus rattus*). The bird captured the rat on the ground with its beak, then, it returned to the canopy where it killed the rat beating it against a tree branch. After the rats death, the toucan ingested muscular and visceral tissues. Although the predation upon small vertebrates has been described for this species, the consume of black rats had never been reported; the role of the Channel-billed Toucan in rat population control in urban centres must be evaluated in future studies.

**KEY-WORDS:** black rat, predation, Piciformes.

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Toucans, aracarís and toucanets are members of the Ramphastidae family (Sick 1997, Sigríst 2007). Species of this family are mainly frugivorous and considered good seed dispersers; their long-distance flights facilitate seed establishment in places far away from the mother tree (Galetti *et al.* 2000, Holbrook 2011). The Channel-billed Toucan (*Ramphastos vitellinus* Lichtenstein, 1823) is widely distributed in Brazil, occurring in forests, *Cerrado* (savannah-like vegetation), pastures, plantations and swamps (Sick 1997, Sigríst 2007). Although their diet are consisted predominantly by fruits, they can also ingest arthropods and small vertebrates (bats, rats, bird chicks, lizards and frogs; Remsem *et al.* 1993, Leite *et al.* 2010), capturing them directly from the ground, nests or tree hollows (Alvarenga 2004).

Here we report on a predation event by a Channel-billed Toucan upon a black rat (*Rattus rattus* Linnaeus, 1758) at the Mello Leitão Biology Museum park, located at the Santa Teresa Municipality (19°55'S; 40°35'W), Espírito Santo State, southeastern Brazil, on February 23th, 2011. The Channel-billed Toucan was perched on a tree branch, staring at the ground. After locating the rat, the bird flew down to the ground and captured it, returning to the canopy soon after, with the rat on its beak. The toucan, then, started to beat the rat against the tree branch, killing it. After the rat's death, the bird

started to cut it into pieces using its feet to handle the prey, ingesting pieces of meat thereafter (Figure 1).

Small vertebrate consumption by Ramphastidae members is described by some authors (Sick 1997, Sigríst 2007). According to Remsem *et al.* (1993), Channel-billed Toucan is one of the *Ramphastos* species recorded eating such food items (3.9% of 26 stomachs evaluated showed vertebrate remains, mainly bird nestlings). The consume of black rats had never been reported, and the possible role of the Channel-billed Toucan in rat population control in urban centres must be evaluated in future studies.

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## ACKNOWLEDGEMENTS

We would like to thank the staff of Mello Leitão Biology Museum by their technical support.

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FIGURE 1: Channel-billed toucan (*Ramphastos vitellinus*) ingesting a black rat (*Rattus rattus*). Photos: J. N. S..

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