NOTES

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Natural History

Accidental capture of the arboreal rodent *Rhipidomys* cf. *macrurus* in a mist-net in Silvânia National Forest, Brazil

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Resumen

Describimos un evento de captura incidental de un individuo de *Rhipidomys* cf. *macrurus* en una red de niebla durante muestreo de quirópteros realizado en la Unidad de Conservación del Bosque Nacional Silvânia, municipio de Silvânia, Goiás, Brasil. La captura de animales que no sean aves y murciélagos en redes de niebla es excepcional, por lo que nuestro registro es uno de los pocos reportados en la literatura que involucra a un roedor. Suponemos que el individuo se enredó mientras buscaba alimento en la vegetación que rodeaba la red.

Palabras clave: FLONA-Silvânia, monitoreo, red de niebla, murciélagos, rata.

Abstract

We describe a bycatch event of an individual of *Rhipidomys* cf. *macrurus* in a mist-net during a chiroptera survey carried out in the Conservation Unit Silvânia National Forest, Silvânia municipality, Goiás, Brazil. Catching animals other than birds and bats in mist-nets is exceptional, so our record is one of the few reported in the literature and involving a rodent. Presumable the individual became entangled while foraging in the vegetation surrounding the mis-net.

Key words: FLONA-Silvânia, monitoring, mist net, bats, rat.

Mist-nets have been one of the primary methods for capturing birds (Gosler 2004) and bats (Garcia 1998) due to the fineness of the nylon threads that compose them, which are practically undetectable by eye (Peracchi & Nogueira 2010). Its invention is attributed to Japanese hunters (Low 1957); however, its scientific purpose in the West only came about in the first half of the last century (Peracchi & Nogueira 2010). And so far, only a few studies have reported accidental captures of animals other than birds or bats with these devices

(Sykes 1989, Fernandez & Amarga 2020). In this context, here we report by the first time the capture of a rodent (*Rhipidomys* cf. *macrurus*) in a mist-net during a bat survey in Brazil.

The event was noticed on December 8th, at 8:30 pm during a routine inspection of a mist net installed in a fragment of semi-deciduous forest (16° 38' 25.29" S; 48° 38' 57.24" W) at the Silvânia National Forest Conservation Unit (FLONA-Silvânia), Silvânia, Goiás, Brazil. The Park has an area of 486.37 ha (MMA 2021), exhibiting almost all types of Cerrado vegetation, but mainly savannas and typical forests (Araújo et al. 2012; Bergamini et al. 2017). The rodent was removed from the mist-net, weighed (64 g), and released in the same capture area (Figure 1). Although we don't know exactly how accidental capture occurred, we hypothesize that the rodent was trying to catch some arthropods that previously had become entangled in the mist-net. However, we do not discard that the rodent ended up in the net while moving through the surrounding vegetation.

FIGURA 1. Individual of *Rhipidomys* cf. *macrurus* in a mist-net. A) Captured animal, B) Removing the animal, and C) Animal after being removed from the net.

Rhipidomys macrurus is an arboreal rodent with a body mass between 40 and 130 g, inhabiting forest formations (e.g., gallery forest, woodland savanna, and semi-deciduous forest) from the Cerrado domain in Brazil, occurring in the states of Maranhão, West of Piauí, north of Ceará, east of Bahia, east of Minas Gerais, Tocantins, Goiás, Federal District and southwest of Mato Grosso (Bonvicino et al. 2008, Paglia et al. 2012, Tribe 2015). *R. macrurus* was one of the most abundant rodent species in fragments of semi-deciduous forest in southern Goiás, and in this highly fragmented landscape (~ 13% native vegetation cover), the species is associated with a high canopy cover density, litter cover, and a higher number of fallen logs (Hannibal et al. 2020). Other recent studies also report this species in the Cerrado Goiano (Hannibal et al. 2015, Oliveira et al. 2015), which appear to be common in the region.

In the analysis of five digestive tracts of *R. macrurus*; 80% arthropods were found, from the orders Arachnida, Coleoptera, Hymenoptera, Isoptera, and insect larvae; and in 100% of the treatments, parts of plants were recorded, in addition to seeds of Piperaceae (Claro & Hannibal, unpublished data). Considering the arboreal habits of *R. macrurus,* in which 91% of the catches occurred in the understory (1.5 to 2 m; Hannibal et al. 2020), and the fact of feeding on arthropods (Claro and Hannibal, unpublished data), our two hypotheses about accidental capture could be plausible. Given the rarity of these records, to our knowledge, this study is the first report of this species in a mist-net in Brazil. We emphasize that the use of mist-net must be well planned, considering the place of capture, the distance between the camp and the capture stations, in addition to the time to review the nets to avoid accidental capture, damage, or death of animals.

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