

Predation attempt of *Ameivula cipoensis* (Squamata: Teiidae) by *Tropidurus montanus* (Squamata: Tropiduridae): A citizen science case

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Understanding interspecific interactions, especially predation, provides valuable contributions to the knowledge of biodiversity (Vitt 2000). One such interaction is saurophagy, when a lizard is consumed by another organism, including another lizard (e.g. Siqueira & Rocha 2008; Reis et al. 2017; Guimarães & Srebek-Araujo 2018; Schalk & Cove 2018). Herein we report a saurophagy event between two endemic lizard species from a mountain environment in Brazil: *Tropidurus montanus* Rodrigues, 1987 and *Ameivula cipoensis* Arias et al., 2014.

Tropidurus montanus is a lizard species endemic to the Espinhaço mountain range (Carvalho 2013), which extends for approximately 1500 km in southeastern and northeastern Brazil, with elevations reaching 2000 m above sea level (asl) (Gontijo 2008). It is a saxicolous ambush forager, whose diet is mostly composed of arthropods, especially ants (Van Sluys et al. 2004), although it may prey upon lizards (Kiefer 1998; Reis et al. 2007), including conspecifics (Kiefer & Sazima 2002). The recently described *Ameivula cipoensis* is also endemic to the Espinhaço, but

it has a more restricted known range, reported for Parque Nacional da Serra do Cipó (PNSC) and the municipality of Gouveia, state of Minas Gerais (Arias et al. 2014; Moura & Cruz 2017). The species occurs in low density, observed mostly on shaded rocks, vegetation thickets or sandy soil during the hottest hours of sunny days (Filogonio et al. 2010 [cited as *Cnemidophorus ocellifer*]; Arias et al. 2014). Other than daily activity and microhabitat use (Filogonio et al. 2010; Arias et al. 2014), the natural history of *A. cipoensis* is not known.

On 18 January 2019, at 2 p.m., SMCA was hiking along a trail in a rocky field (“Campo Rupestre”; 19°19'46.81" S, 43°33'40.32" W; datum WGS 84; 1056 m asl) in the municipality of Santana do Riacho, Minas Gerais, southeastern Brazil. He noted an adult *Tropidurus montanus* overcoming an *Ameivula cipoensis* (Fig. 1), tightly holding the tail and hindlimbs of its potential prey in its mouth. Upon noticing the observer, the *Tropidurus* fled, carrying the *Ameivula* in its mouth. It was not possible to confirm if the attempted predation succeeded. SMCA was able to take one photograph of the predation attempt (Fig. 1).

Since *A. cipoensis* is the only species of *Ameivula* occurring at Serra do Cipó, our identification was based on the location of record. There are two species

of *Tropidurus* at Serra do Cipó: *T. hispidus* and *T. montanus* (Rodrigues 1987; Carvalho 2013). *Tropidurus montanus*, however, is the only one known to inhabit rocky outcrops above 1000 m asl at Serra do Cipó (Rodrigues 1987). Moreover, the color pattern of the photographed specimen, a brownish-green ground color with a series of black marks bordered by yellowish-green dots is diagnostic of *T. montanus* (Rodrigues 1987; A. L. G. Carvalho pers. comm.).

Since there are many records of interactions between *Tropidurus* and *Ameivula* (e.g. Santos et al. 2009; Pergentino et al. 2017; Tavares et al. 2017; Guimarães & Srbek-Araujo 2018), the event reported herein is not surprising. It is, however, noteworthy given the lack of information on natural history of *A. cipoensis*, in addition to this being the first report of a predation attempt on *A. cipoensis*.

We highlight that this report was made possible thanks to the observation by SMCA, a tour guide. Locally employed rangers, tour guides, and residents have more opportunity to make natural history observations than professional scientists on sporadic fieldwork. With technological advances like smartphones with high quality cameras and GPS, citizen science observations contribute important data (e.g. Suprayitno et al. 2017; Ward-Fear et al. 2019;

Maritz & Maritz 2020). Moreover, in cases where the citizen scientist observation has a pivotal role, their inclusion in the authorship of the article should be considered, as in this publication (Ward-Fear et al. 2020).

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Figure 1. Tropidurus montanus capturing an *Ameivula cipoensis* in Campo Rupestre (19°19'46.81" S, 43°33'40.32" W) in Parque Nacional da Serra do Cipó, state of Minas Gerais, Brazil.