An unexpected encounter: first record of predation on *Hemidactylus mabouia* (Squamata: Gekkonidae) by a juvenile *Mastigodryas boddaerti* (Squamata: Colubridae)

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The Amazon region is one of the most biodiverse forests in the world, hosting a wide variety of snake species (Vitt, 1987; Guedes et al., 2023). Despite this high diversity, little is known about the ecological aspects of this fauna, such as feeding biology (Schmidt & Inger, 1951; Hoge & Nina, 1969; Vitt, 1987; Martins, 1993; Caldwell, 1996; Martins & Oliveira, 1998). Amphibians and lizards are common dietary items for many snakes, although they may also feed on small invertebrates, fish, birds, small mammals, and even other snakes (Duellman, 1978; Martins & Oliveira, 1998). Knowledge of the trophic interactions of snakes would improve the understanding of their natural history and their role in the niche they occupy (Cadle & Greene, 1993; Alencar et al., 2013; Pinto-Coelho et al., 2021).

Mastigodryas boddaerti (Sentzen, 1796) is a snake widely distributed in the Amazon biome, with records in oth-

er biomes (Cerrado, Caatinga and Pantanal) (Nogueira et al., 2019). It occurs in anthropogenic and peri-anthropogenic environments, as well as in primary and secondary forests (Fraga et al., 2013; Guedes et al., 2014). This species is considered a generalist in both habitats and diet, which mainly includes amphibians, lizards, amphisbaenians, birds, and small mammals (Siqueira et al., 2012; Eversole et al., 2023). However, there is little data on its diet during ontogenetic stages (Eversole et al., 2023). This is the first record of the lizard *Hemidactylus mabouia* (Moreau De Jonnès, 1818) as prey of a juvenile *M. boddaerti*.

A juvenile *M. boddaerti* (snout-vent length [SVL] 335 mm; tail length [TL] 124.72 mm) was found dead on a walking trail during a recreational activity in April 2014 in a forest fragment at the Vila Americana plateau site, municipality of Belterra (2°38′19.00″S, 54°56′39.05″W; elevation 166 m, SIRGAS2000), state of Pará, Brazil. The specimen was sent to the Laboratório de Ecologia e Comportamento Animal (LECAn) at the Universidade Federal do Oeste do Pará (UFOPA) and deposited under the accession number UFOPA-H 3352. Examination of the specimen determined that death was caused by ingesting an individual of the wall lizard, *H. mabouia* (SVL 52.07 mm; TL 28.98 mm). The lizard was likely too large for the predator, as its SVL was approximately 25% of the snake's SVL, causing the snake's stomach to rupture, exposing the lizard (Fig. 1A-C) and subsequently leading to the snake's death.

Hemidactylus mabouia is an exotic lizard from the African continent that was introduced to Brazil on slave ships (Vanzolini, 1978; Carranza & Arnold, 2006; Anjos & Rocha 2008). Today, it is widely distributed in all South American countries, and occurs in all Brazilian biomes (Ribeiro-Júnior, 2015;). The species is nocturnal and feeds on invertebrates. It is associated with anthropogenic, peri-anthropogenic and natural environments, often found on walls in anthropogenic areas and on tree trunks in forest environments (Avila-Pires, 1995; Vitt et al., 2008; Bonfiglio et al., 2006).

Snakes often feed on larger prey, for the cost-benefit of consuming larger specimens, which provides a greater food source (Shine, 1991). The genus *Hemidactylus* was previously recorded as an item in the diet of *M. boddaerti* by Siqueira et al. (2012) but those authors were unable to identify the prey at the species level, since two species occur in the Amazon region: *H. mabouia* and *Hemidactylus palaichthus* Kluge, 1969 (Avila-Pires, 1995).

Occasional encounters such as this can provide important data on the ecology of various vertebrates as well as

predation processes. Also, biological collections are important sources of information on the ecological aspects of different groups of animals and are extremely important for conducting research and obtaining data.

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Figura 1. *Mastigodryas boddaerti* UFOPA-H 3352 found dead after feeding on *Hemidactylus mabouia*. A - *Mastigodryas boddaerti* with *Hemidactylus mabouia* expelled from the side of the body. B - Dorsal and ventral views of *Mastigodryas boddaerti*. C - Dorsal and ventral view of *Hemidactylus mabouia*.

Table 1. Records of species predated by *Mastigodryas boddaerti*.

Táxon	Author
AMPHIBIA	
Hylidae	
Scinax nebulosus (Spix, 1824)	Siqueira et al. (2012)
Scinax sp.	Martins & Oliveira (1998)
Leptodactylidae	
Leptodactylus fuscus (Schneider, 1799)	Forti & Kawashita-Ribeiro (2008); Siqueira et al. (2012)
Leptodactylus mystaceus (Spix, 1824)	Siqueira et al. (2012)
Leptodactylus longirostris Boulenger, 1882	Martins & Oliveira (1998)
REPTILIA	
Reptile eggs	Siqueira et al. (2012)
Gekkonidae	
Hemidactylus mabouia (Moreau de Jonnès, 1818)	**Present study**
Hemidactylus sp.	Siqueira et al. (2012)
Scincidae	
Copeoglossum sp.	Siqueira et al. (2012)
Sphaerodactylidae	
Gonatodes humeralis (Guichenot, 1855)	Martins & Oliveira (1998); Siqueira et al. (2012)
Gonatodes sp.	Siqueira et al. (2012)
Teiidae	
Ameiva ameiva (Linnaeus, 1758)	Bernarde & Abe (2010); Siqueira et al. (2012); Eversole et al. (2023)
Cnemidophorus lemniscatus (Linnaeus, 1758)	Martins & Oliveira (1998); Siqueira et al. (2012)
Cnemidophorus sp.	Martins & Oliveira (1998)
Kentropys calcarata Spix, 1825	Martins & Oliveira (1998)
Kentropyx sp.	Siqueira et al. (2012)
Tupinambis sp.	Siqueira et al. (2012)
Tropiduridae	
Uranoscodon superciliosus (Linnaeus, 1758)	Siqueira et al. (2012)
Tropidurus sp.	Siqueira et al. (2012)

Gymnophthalmidae	
Arthrosaura sp.	Martins & Oliveira (1998)
AVES	
Dendrocolaptida*e*	
Glyphorhynchus sp.	Beebe (1946)
Troglodytidae	
Troglodytes musculus Naumann, 1823	Siqueira et al. (2012)
MAMMALIA	
Rodent	Siqueira et al. (2012)
INSECTA	
Caelifera	Beebe (1946)



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