A tarantula *Lasiodora* sp. (Araneae, Theraphosidae) feeding on a groundsnake *Atractus pantostictus* (Squamata, Dipsadidae)

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Among terrestrial invertebrates, spiders are one of the main predators of vertebrates (von May et al., 2019; Valdez, 2020), preying on fishes (Nyffeler & Pusey, 2014), anurans (Nyffeler & Altig, 2020), lizards (Bauer, 1990; O'Shea & Kelly, 2017; Bates & Josling, 2021; Reyes-Olivares et al., 2020), snakes (Nyffeler & Gibbons, 2021), birds (Brooks, 2012), and mammals (Nyffeler & Knörnschil, 2013). This is possible due to the ability of most spiders to inoculate paralyzing neurotoxins into their prey (Foelix, 2011; Garb & Hayashi, 2013), and the ability of some spiders to build strong webs to capture prey (Brooks, 2012; Nyffeler & Knornschild, 2013).

There are over 300 records of predation (or attempts) by spiders on snakes around the world, 33% published in scientific journals (Nyffeler & Gibbons, 2021). In Brazil, there are 10 published records (Tab. 1). Here we report the first occurrence of *Lasiodora* sp. (Araneae, Theraphosidae) feeding on *Atractus pantostictus* Fernandes & Puorto, 1993 (Squamata, Dipsadidae).

This record was made on 25 November 2021, approximately 10:35 a.m. among cactuses in a deciduous forest near a calcareous outcrop, in the Parque Estadual da Mata Seca (14.869°S, 44.001°W; 450 m elevation), Minas Gerais, Brazil. A female *Lasiodora* sp. (ca. 100 mm leg span) was observed

climbing up the base of an Imburana tree (*Commiphora leptophloeos*) holding a dead groundsnake (*Atractus pantostictus*; 400 mm total length) by the posterior portion of the body (Fig. 1). As in this case, most records of spiders eating snakes report only the feeding process, making it impossible to determine whether active predation occurred or whether the predator simply benefited from an opportunistic situation (Nyffeler & Altig, 2020). However, theraphosids are known to actively prey on snakes (Nyffeler & Gibbons, 2021).

The event occurred during the rainy season, the period of greatest activity of *A. pantostictus* (Sawaya et al., 2008; Tollero-Vieira et al., 2017) and Lasiodora spp. (Vieira et al., 2012; Ferreira et al., 2004), increasing the chance of interactions between these species. Both specimens were photographed, collected, stored in 70% alcohol, and identified by taxonomists. The spider could not be identified to the species level, because *Lasiodora* presents taxonomic problems and requires revision (Adalberto J. Santos, personal information). The snake was deposited in the Biological Collection of Instituto Federal de Educação, Ciência e Tecnologia do Sul de Minas, Campus Inconfidentes (catalog number 64466/2021). The spider was deposited in the arachnid collection of Centro de Coleções Taxonômicas, Universidade Federal de Minas Gerais (catalog number UFMG 26186).

Atractus pantostictus is endemic to Brazil (Costa et al., 2022), most often found in Cerrado and transitional areas to other biomes (Passos et al., 2010), and there is no information on this species as a food source of spiders. *Lasiodora* comprises some of the largest known tarantulas (Nyffeler & Gibbons, 2021). In Brazil, 23 species are known for this genus (Brescovit et al., 2022), but there are no records of them feeding on snakes (Nyffeler & Gibbons, 2021).

Theridiidae and Theraphosidae are the spider families best known to feed on snakes (McCormick & Polis, 1982; Nyffeler & Gibbons, 2021). The Theraphosidae, known as tarantulas or *caranguejeiras*, are mostly large-sized errant spiders, reaching up to 20 cm of leg span, hunting without webs, mostly on trees and on the ground (Pérez-Miles, 2020). In Brazil, the theraphosid genera *Acanthoscurria*, *Grammostola*, *Pachistopelma*, *Theraphosa* have been recorded feeding on snakes (Tab. 1). Our record of a *Lasiodora* preying on *A. pantostictus* increases to five the number of spider genera reported to feed on snakes in Brazil and is also the second record of *Lasiodora* feeding on a snake (Nyffeler & Gibbons, 2021), probably the first in natural conditions.

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Table 1. Records of spiders preying on snakes in Brazil.

SPIDER	**SNAKE**	**SOURCE**
Theraphosidae		
Acanthoscurria sp.	*Bothrops moojeni* Hoge, 1966 (Viperidae)	Avila & Porfirio (2008)
Acanthoscurria sp.	*Drymoluber dichrous* (Peters, 1863) (Colubridae)	Barbosa et al. (2021)
Grammostola quirogai Montes De Oca, D'Elía & Pérez-Miles, 2016	*Erythrolamprus almadensis* Wagler, 1824 (Dipsadidae)	Borges et al. (2016)
Lasiodora sp.	*Atractus pantostictus* Fernandes & Puorto, 1993 (Dipsadidae)	This study
Pachistopelma rufonigrum Pocock, 1901	*Micrurus ibiboboca* Merrem, 1820 (Elapidae)	Nunes et al. (2010)
Theraphosa blondi (Latreille, 1804)	*Atractus torquatus* (Duméril, Bibron & Duméril, 1854) (Dipsadidae)	Jorge et al. (2016)
Theraphosa blondi (Latreille, 1804)	*Drymoluber dichrous* (Peters, 1863) (Colubridae)	Bilci et al. (2021)
Theraphosa blondi (Latreille, 1804)	*Leptodeira annulata* (Linnaeus, 1758) (Dipsadidae)	Da Silva et al. (2019)
Theraphosa stirmi Rudloff & Weinmann, 2010	*Bothrops atrox* (Linnaeus, 1758) (Viperidae)	Almeida et al. (2019)
Theraphosidae unidentified	*Oxyrhopus* sp. (Dipsadidae)	Pinto et al. (2017)
Theridiidae		
Latrodectus geometricus (Koch, 1841)	*Tantilla melanocephala* (Linnaeus, 1758) (Colubridae)	Rocha et al. (2017)

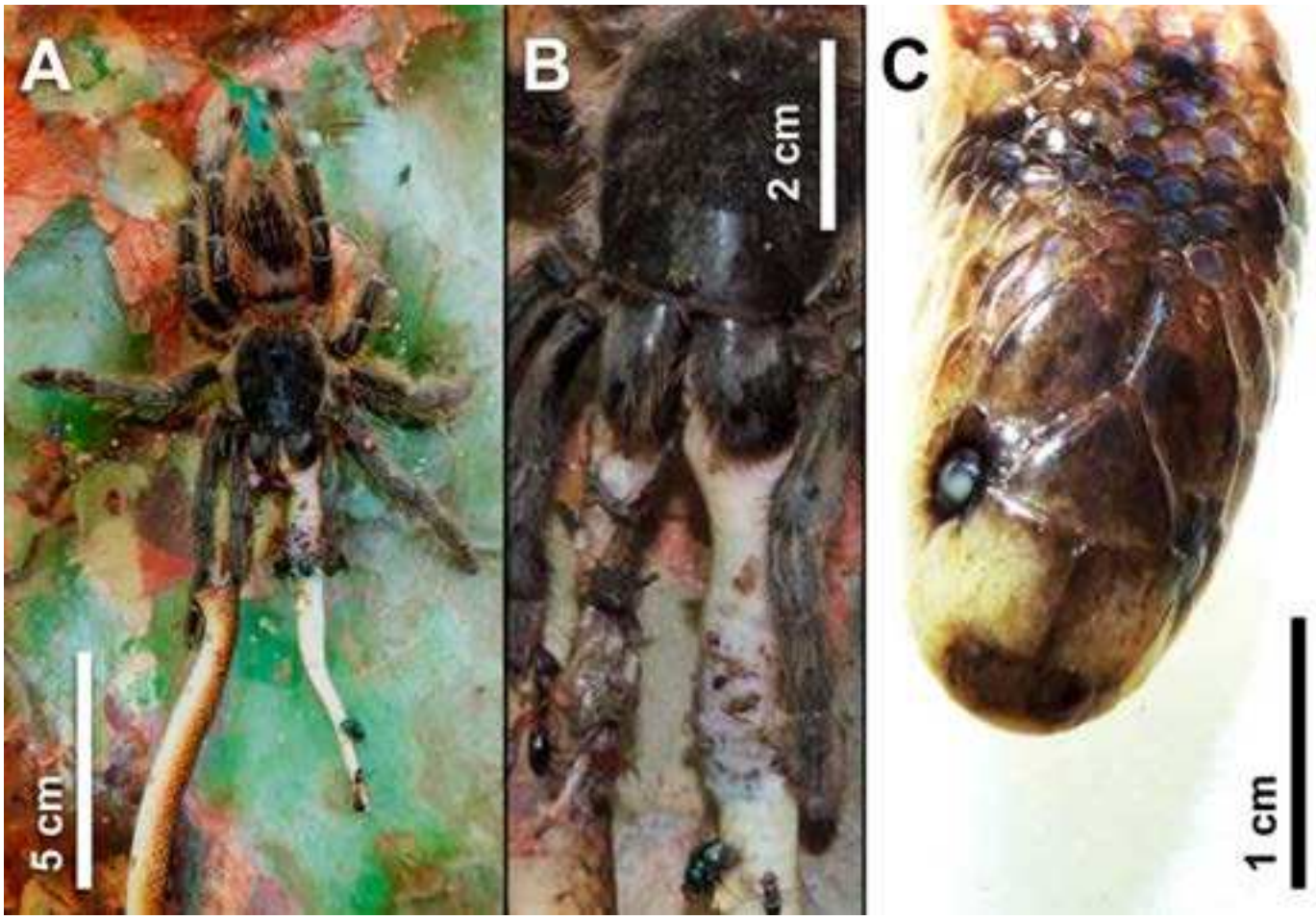


Figure 1. Lasiodora sp. (Araneae, Theraphosidae) feeding on *Atractus pantostictus* (Squamata, Dipsadidae). A) Overall view; B) detail; C) Head of *A. pantostictus* in dor.