

# Predation on *Tropidurus semitaeniatus* (Squamata: Tropiduridae) by *Acanthoscurria natalensis* (Aranea: Theraphosidae) in the semiarid Caatinga region of northeastern Brazil

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The use of pitfall traps can be efficient in the sampling of vertebrates such as amphibians, reptiles and small mammals (Mengak and Guynn, 1987; Sousa et al., 2010). Some studies have reported the effectiveness of this method (e.g. Greenberg, Neary and Harris, 1994; Cechin and Martins, 2000), while other studies have exposed problems (Crosswhite, Fox and Thill, 1999) including mortality of animals inside the traps (Enge, 2001) by desiccation (Jenkins, Mcgarigal and Gamble, 2003), predation by vertebrates (Ferguson et al., 2008) and by invertebrates (Bocchiglieri and Mendonça, 2010; Bocchiglieri, Mendonça and Motta, 2010; De-Carvalho et al., 2012).

Numerous works have reported predation events involving invertebrate and herpetofauna especially in Neotropical regions (e.g. Formanowicz et al., 1981; Martins, Sazima and Egler, 1993; Duellman and Trueb, 1994; Del-Grande and Moura, 1997; Pombal Junior, 2007). Spiders are potential predators of a large number of small vertebrates, including herpetofauna (McCormick and Polis, 1982; Shear, 1986; Teixeira, Luigi and Scoemp, 1991), and predation of lizards by spiders has already been reported (Armas and Alayón, 1987; Armas, 2000; Bocchiglieri and Mendonça, 2010; Diniz, 2011; Vieira, Gonçalves and Nóbrega, 2012.).

This short communication reports the first recorded event of the spider *Acanthoscurria natalensis* (Chamberlin, 1917) (Theraphosidae) preying on *Tropidurus semitaeniatus* (Spix, 1825) (Tropiduridae) in a pitfall trap in the semiarid region of northeastern Brazil, and the second lizard predation event by a spider inside a pitfall trap in Brazil.

Herein we report the predation of a juvenile *Tropidurus semitaeniatus* (Squamata, Tropiduridae, 41.72 mm SVL, Fig. 1) by a spider, *Acanthoscurria natalensis* (Araneae: Mygalomorphae: Theraphosidae). The observation occurred in a Caatinga area (xeric shrubland and thorn forest) in northeastern Brazil on January 25, 2013 (16:30) in Monumento Natural Grota do Angico (9°39'50"S, 37°40'57"W; 200 m above sea level; datum SAD-69) between the municipalities Poço Redondo and Canindé do São Francisco, Sergipe, Brazil. The lizard was predated inside the pitfall trap (Fig. 1) by the spider.

The lizard is deposited in the Herpetological Collection of the Federal University of Sergipe, Brazil (accession number CHUFS C3149), and the spider was deposited in the Arachnids and Chilopoda Collection in the Instituto Butantan (accession number IBSP 163567).

*Tropidurus semitaeniatus* Spix, 1825 is distributed in the states of Piauí and Bahia in northeastern Brazil, and is endemic to the Caatinga (Vanzolini, Ramos-Costa and Vitt, 1980; Ribeiro, 2010; Rodrigues, 2003; Daniel, Lima and Borges-Nojosa, 2011). *Acanthoscurria natalensis* Chamberlin, 1917 is distributed in the biomes of Caatinga and Cerrado in the states of Pará, Maranhão, Piauí, Ceará, Rio Grande do Norte, Tocantins, Pernambuco, Paraíba, Mato Grosso, Bahia, Alagoas, Sergipe, Goiás, and Minas Gerais (Mello-Leitão, C.F. de. 1926, Lucas et al., 2011). *Acanthoscurria natalensis*

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**Figure 1.** A) Predation of *Tropidurus semitaeniatus* by the giant crab spider *Acanthoscurria natalensis* (55 mm/cephalothorax + abdomen length), inside the pitfall traps in Monumento Natural Grota do Angico, in the municipality of Poço Redondo and Canindé do São Francisco, Sergipe, northeastern Brazil. B) The juvenile *Tropidurus semitaeniatus* (CHUFS C 3149; 41.72 mm SVL) preying by the spider, showing mutilation at the point where it was attacked by the spider. Photograph: Anthony S. Ferreira.

and *T. semitaeniatus* are syntopic in rock outcrops, and crevices and areas with hyperxerophilic vegetation, which suggests that predation of these lizards by theraphosid spiders may be quite common in nature (Barbo *et al.*, 2009).

There are only two previous published reports of spider predation on this genus of lizards. Bocchiglieri and Mendonça (2010) reported a wolf spider *Lycosa erythrognatha* Lucas, 1836 feeding on an adult *Tropidurus oreadicus* Rodrigues, 1987 in a pitfall trap in southeastern Brazil and Vieira, Gonçalves and Nóbrega (2012) reported an adult female spider *Lasiadora Kluge* Koch, 1841 feeding on an adult female *Tropidurus hispidus* Spix, 1825 amidst leaf litter in an area of arboreal Caatinga. The present report is the third case of spider predation on *Tropidurus* in Brazil, and the second from the Caatinga.

Predation events of invertebrates on vertebrates within in pitfall traps are rarely published. This short communication increases our knowledge of predation and of the trophic interactions that occur between arthropods and lizards in the semiarid Caatinga regions of northeastern Brazil.

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