

PREDATION ON A BRAZILIAN PYGMY GECKO, *CHATOGEKKO AMAZONICUS* (SQUAMATA, SPHAERODACTYLIDAE), BY A WOLF-SPIDER, *LYCOSA* SP. (ARANEAE, LYCOSIDAE)

PREDACÃO DE UM GECONÍDEO PIGMEU BRASILEIRO, *CHATOGEKKO AMAZONICUS* (SQUAMATA, SPHAERODACTYLIDAE), POR UMA ARANHA-LOBO, *LYCOSA* SP. (ARANEAE, LYCOSIDAE)

VINÍCIUS A. M. B. DE FIGUEIREDO^{1,*}, KURAZO M. OKADA AGUIAR², RODRIGO TAVARES-PINHEIRO¹, ABDIEL P. FREITAS¹ & CARLOS EDUARDO COSTA-CAMPOS¹

¹Laboratório de Herpetologia, Departamento de Ciências Biológicas e da Saúde, Universidade Federal do Amapá, Campus Marco zero do Equador, 68903-419, Macapá, Amapá, Brazil.

²Amapá BIRDING.

Correspondence: : viniciusantonio31@gmail.com

Received: 2020-12-06. Accepted: 2020-12-06.

Resumo.— Descrevemos um evento de predação de *Chatogekko amazonicus* (Sphaerodactylidae) pela aranha-lobo *Lycosa* sp. (Lycosidae), observado em uma floresta amazônica no estado de Rondônia, norte do Brasil.

Palavras chave.— Predação, lagartixa, aranha-lobo, Brasil.

Abstract.— We describe a predation event on *Chatogekko amazonicus* (Sphaerodactylidae) by the wolf-spider *Lycosa* sp. (Lycosidae), observed in an Amazonian rainforest in the state of Rondônia, northern Brazil.

Keywords.— Predation, gecko, wolf-spider, Brazil.

The predation of vertebrates by spiders is widely documented, both on the webs or directly on the ground (Oliveira et al., 2017; Reyes-Olivares et al., 2020), and the most commonly group reported in the literature is anurans, followed by lizards (Nyffeler & Altig, 2020; Valdez, 2020). The wolf-spiders of the genus *Lycosa* are semi-fossorial, opportunistic predators that dig or use empty holes to hide and wait for prey (Zyuzin, 1990). Reports of these spider preying on lizards have previously been reported (Cabrera-Guzmán & Reynoso, 2007; Bocchiglieri & Mendonça, 2010; Maffei et al., 2010; Koski et al., 2013; Bressan et al., 2017; Galdeano et al., 2017).

The Brazilian pygmy gecko, *Chatogekko amazonicus* (Andersson, 1918), is a very small lizard species (males 22 mm, females 24 mm SVL) belonging to the family Sphaerodactylidae, which comprises the smallest lizards in Brazil (Gonçalves et al., 2012). The species is distributed in northern Brazil (Acre, Amapá, Amazonas, Pará, Rondonia, Roraima), southern Venezuela, Guyana, French Guiana and Surinam, and can be found in the leaf litter of rainforests (Ribeiro Júnior, 2015). Here we report on

an observation of an individual of *C. amazonicus* being preyed upon by a wolf-spider, *Lycosa* sp.

The predation event was observed at the municipality of Cacoal (11°25'27"S; 61°33'46"W), state of Rondônia, northern Brazil, on 17 March 2020 at 9h18min. We found an adult *Lycosa* sp. feeding on an adult *C. amazonicus* in leaf litter, holding the lizard's back with its chelicerae (Fig. 1). The observation lasted about 3 minutes and the lizard remained immobile. Neither the lizard nor the spider was collected.

To our knowledge, this is the first record of predation in *Chatogekko amazonicus* by a wolf-spider, *Lycosa* sp. Predation events such as this may reflect the generalist and opportunistic feeding habits of *Lycosa* spp., as suggested by other studies. Regarding predation of sphaerodactylid lizards by spiders, there are records only of spiders of the family Ctenidae feeding on *C. amazonicus* at the Amazon Forest (Hernández-Ruz et al., 2014) and on *Coleodactylus meridionalis* at the Atlantic Forest (Almeida et al., 2015; Oliveira et al., 2017). The present record contributes to our understanding of the natural history of lizards and spiders.



Figura 1. *Chatogekko amazonicus* adulto sendo atacado por uma aranha, *Lycosa* sp., Em uma floresta no município de Cacoal, estado de Rondônia, norte do Brasil. Foto: Kurazo M. Okada Aguiar

Figure 1. An adult *Chatogekko amazonicus* being preyed upon by a spider, *Lycosa* sp., in a forest in the municipality of Cacoal, state of Rondônia, northern Brazil. Photo: Kurazo M. Okada Aguiar.

CITED LITERATURE

- Abegg, A.D., C.M. Rosa & L.M. Borges. 2014. Predation of *Dendropsophus minutus* (Anura: Hylidae) by *Aglaotenus oblongus* (Araneae: Lycosidae). *Herpetology Notes* 7:605-606.
- Almeida, S.C., Y.F. Messas & P.J.P. Cicchi. 2010. Predation on newly metamorphosed toad *Rhinella ornata* (Anura: Bufonidae) by the spider, *Lycosa erythrogna* (Araneae: Lycosidae). *Herpetology Notes* 3:173-174.
- Almeida, R.P.S., I.R. Rosário & E.J.R. Dias. 2015. *Coleodactylus meridionalis*. Predation. *Herpetological Review* 46:432-433.
- Assis, R.A., R.E. Borges, M.B. Souza, J.F. Barros & L.R.S. Santos. 2018. Registro de predação de *Pseudopaludicola saltica* (Anura: Leptodactylidae) por aranha-lobo (Araneae: Lycosidae). *Oecologia Australis* 22:291-295.
- Aucone, B. & W. Card. 2002. *Scinax cruentomma* (NCN). Predation. *Herpetological Review* 33:48.
- Bocchiglieri, A. & A.F. Mendonça. 2010. *Tropidurus oreadicus* (Neotropical Ground Lizard). *Herpetological Review* 41:231.
- Bressan, R.F., N.R. Matias, L.F. Lang, L. Verrastro & R.C. Francisco. 2017. *Cercosaura schreibersii* (Schreibers' Many-fingered Teiid). Predation. *Herpetological Review* 48:187-188.
- Cabrera-Guzmán, E. & V.H. Reynoso. 2007. *Lepidophyma tuxtlae* (Tuxtla Tropical Night Lizard). Predation. *Herpetological Review* 38:458.
- Galdeano, A.P., R. Gómez-Alés, J.C. Acosta & G. Blanco. 2017. *Aurivela longicauda* (Long-tailed Whiptail). Predation. *Herpetological Review* 48:844-845.
- Gonçalves, U., S. Torquato, G. Skuk & G.A. Sena. 2012. A new species of *Coleodactylus* Parker, 1926 (Squamata: Sphaerodactylidae) from the Atlantic Forest of northeast Brazil. *Zootaxa* 3204:20-30.
- Hernández-Ruz, E.J., J.C. Carvalho, E.A. & Oliveira. 2014. *Chatogekko amazonicus*. Predation. *Herpetological Review* 45:126.

- Koski, D.A., A.P.V. Koski, L. Merçon & Y.F. Messas. 2013. *Hemidactylus mabouia* (Tropical House Gecko). Predation. *Herpetological Review* 44:509.
- Maffei, F., F.K. Ubaid & J. Jim. 2010. Predation of herps by spiders (Araneae) in the Brazilian Cerrado. *Herpetology Notes* 3:167-170.
- McCormick, S. & G.A. Polis. 1982. Invertebrates that preys on vertebrates. *Biological Review of Cambridge Philosophical Society* 57:29-58.
- Nyffeler, M. & R. Altig. 2020. Spiders as frog-eaters: A global perspective. *The Journal of Arachnology* 48:26-42.
- Oliveira, C.N., G.G. Brabosa, I.H.M. Pinto Campos, M.C. Guarnieri & S.C. Ribeiro. 2017. Predation on *Coleodactylus meridionalis* (Squamata: Sphaerodactylidae) by *Ctenus rectipes* (Araneae: Ctenidae) in the Atlantic Forest, northeastern, Brazil *Herpetology Notes* 10:221-223.
- Owen, R.D. & S.A. Johnson. 1997. *Pseudacris ocularis* (Little Grass Frog). Predation. *Herpetological Review* 28:200.
- Raven, R.J. 1990. Spider predators of reptiles and amphibia. *Memoirs of the Queensland Museum* 29: 448.
- Reyes-Olivares, C., A. Guajardo-Santibáñez, B. Segura, N. Zañartu, M. Penna & A. Labra. 2020. Lizard predation by spiders: A review from the Neotropical and Andean regions. *Ecology and Evolution* 10:10953-10964.
- Ribeiro Junior, M.A. 2015. Catalogue of distribution of lizards (Reptilia: Squamata) from the Brazilian Amazonia. II. Gekkonidae, Phyllodactylidae, Sphaerodactylidae. *Zootaxa* 3981:1-55.
- Valdez, J.W. 2020. Arthropods as vertebrate predators: A review of global patterns. *Global Ecology and Biogeography* 29:1-13.
- Zyuzin, A.A. 1990. Studies on burrowing spiders of the family Lycosidae (Araneae). I. Preliminary data on structural and functional features. *Acta Zoologica Fennica* 190:419-422.

