

## A tree frog *Scinax perereca* predated by a wandering spider *Phoneutria keyserlingi* in Brazil

ERICA NAOMI SAITO<sup>1\*</sup>, GUILHERME WILLRICH<sup>1</sup> & ANA LETÍCIA TRIVIA<sup>2</sup>

<sup>1</sup>Caipora Cooperativa para Conservação da Natureza, Avenida Desembargador Vitor Lima, 260/908, 88.040-400, Florianópolis, Santa Catarina, Brazil

<sup>2</sup>Museu de Arqueologia e Etnologia Professor Oswaldo Rodrigues Cabral, Universidade Federal de Santa Catarina, S/N, 88.040-900, Florianópolis, Santa Catarina, Brazil

\*Author e-mail: [ericansaito@gmail.com](mailto:ericansaito@gmail.com)

Amphibians are an important component of food chains in natural ecosystems (Wells, 2007; Haddad et al., 2008). They are preyed upon by a large variety of taxa both vertebrates and invertebrates such as ants, beetles, crabs and spiders (Duellman & Trueb, 1994; Toledo, 2005; Toledo et al., 2007). Spiders of several families have been recorded as anuran predators (Menin et al., 2005) and we present here the first report of the spider *Phoneutria keyserlingi* Perty, 1833 (Araneae, Ctenidae) preying upon the tree frog *Scinax perereca* Pombal, Haddad & Kasahara, 1995 (Anura, Hylidae).

*Scinax perereca* ranges from São Paulo to Rio Grande do Sul states in Brazil, north-eastern Misiones Province in Argentina to southern Paraguay (Frost, 2020; Aquino et al., 2004). It inhabits forests and forest edges between 0 to 1,000 m asl, where it reproduces in temporary or permanent pools and is also commonly observed sheltered in human habitations (Aquino et al., 2004; Pombal et al., 1995). *Phoneutria keyserlingi* is a wandering spider from the Atlantic Forest distributed on the coastal regions of São Paulo, Rio de Janeiro, Paraná and Santa Catarina states in Brazil (Martins & Bertani, 2007).

Our field observations were made on 25th July 2011 at 18:50 h, at Ponta-do-Araçá Environmental Protected Area, municipality of Porto Belo, Santa Catarina state, southern Brazil (27° 07'21.10" S; 48° 30'53.30" W; 70 m asl). We observed a spider (*P. keyserlingi*) that had grasped a tree frog (*S. perereca*) dorsally with its chelicerae in a bromeliad on a tree (Fig. 1), a few meters from a small lake surrounded by secondary growth tropical moist forest. The observation lasted a few minutes, but neither the spider nor the tree frog were collected.

Leaf litter anurans can be a potential prey to ground-dwelling spiders, especially from the families Ctenidae and Pisauridae (Menin et al., 2005). There are at least five published reports of anuran predation by ctenid spiders of the genus *Phoneutria* relating to *Phoneutria nigriventer*, for example Folly et al. (2017). Since the current predation event occurred in a bromeliad at approximately 2 m above the ground, it must be the case that tree frogs such as *S. perereca* are part of the diet of wandering spiders when they are foraging above the forest floor.



Figure 1. Predation of the tree frog *Scinax perereca* by the spider *Phoneutria keyserlingi* in a bromeliad

### ACKNOWLEDGEMENTS

We thank Simbiosis - Empresa Júnior de Ciências Biológicas, Projeto Parques e Fauna, Universidade Federal de Santa Catarina, Maurício Eduardo Graipel and the research team for logistic and financial support.

### REFERENCES

- Aquino, L., Kwet, A., Segalla, M.V., Verdade, V., Faivovich, J. & Baldo, D. (2004). *Scinax perereca*. The IUCN Red List of Threatened Species 2004: e.T55987A11392468, <https://dx.doi.org/10.2305/IUCN.UK.2004.RLTS.T55987A11392468.en>. Accessed on 28 June 2020.
- Duellman, W.E. & Trueb, L. (1994). Biology of Amphibians. Baltimore and London: The Johns Hopkins University Press. 696 pp.
- Folly, H., Arruda, L.F., Gomes, V.F., Neves, M.O. & Feio, R.N. (2017). Predation on *Ololygon carnevallii* (Caramaschi & Kisteumacher, 1989) (Anura, Hylidae) by *Phoneutria nigriventer* (Keyserling, 1891) (Araneae, Ctenidae).

- Herpetology Notes* 10: 365-367.
- Frost, D.R. (2020). Amphibian Species of the World: an Online Reference. Version 6.1. Electronic Database accessible at <https://amphibiansoftheworld.amnh.org/index.php>. American Museum of Natural History, New York, USA. DOI: 10.5531/db.vz.0001. Accessed on 28 June 2020.
- Haddad, C. F. B., Toledo, L. F. & Prado, C. P. A. (2008). Anfíbios da Mata Atlântica. São Paulo, Editora Neotropica, 244 pp.
- Martins, R. & Bertani, R. (2007). The non-Amazonian species of the Brazilian wandering spiders of the genus *Phoneutria* Perty, 1833 (Araneae: Ctenidae), with the description of a new species. *Zootaxa* 1526: 1-36.
- Menin, M., Rodrigues, D.J. & Azevedo, C.S. (2005). Predation on amphibians by spiders (Arachnida, Araneae) in the neotropical regions. *Phyllomedusa* 4(1): 39-47.
- Pombal, J.P.Jr., Haddad, C.F.B. & Kasahara, S. (1995). A new species of *Scinax* (Anura: Hylidae) from southeastern Brazil, with comments on the genus. *Journal of Herpetology* 29: 1-6.
- Toledo, L.F. (2005). Predation of juvenile and adult anurans by invertebrates: current knowledge and perspectives. *Herpetological Review* 36: 395-400.
- Toledo, L.F., Ribeiro, R.S. & Haddad, C.F.B. (2007) Anurans as prey: an exploratory analysis and size relationships between predators and their prey. *Journal of Zoology* 271: 170-177.
- Wells, K.D. (2007). *The Ecology and Behavior of Amphibians*. Chicago, The University of Chicago Press. 1400 pp.

Accepted: 3 November 2020