

Predation of *Scinax littoralis* (Anura: Hylidae) by *Eriophora fuliginea* (Arenae: Araneidae) in Southeastern Brazil

Edécio Muscat^{1*}, Elsie Laura Rotenberg¹ and Carlos Alberto Chagas¹

We recorded two predation events in a 100.3-acre private reserve (-45.137450°; -23.461833°; Datum=WGS84; 25 m a.s.l.) on January 2nd, 2014, at 08:30 (Figure 1) and on January 19th, 2014, at 22:40 (Figure 2), in a remnant of lowland Atlantic Forest in Ubatuba, São Paulo. On both events, the spider was found on its web. The first web was woven on shrubs 1.2 m high; the second, 1.1 m high. They were in closed-canopy areas. In both records, the anurans were dead and the spider was feeding on them. The state of decomposition of the amphibian was more evident in the first record. The time it took for the spiders to ingest the amphibians was not recorded, and it was not possible to conclude whether the amphibians were caught in the webs while trying to capture insects or simply when hopping from one shrub to another.

Amphibians are a relevant component of the trophic chain in natural ecosystems (Wells 2007; Haddad et al., 2008). They are preyed by a large variety of arthropods, such as ants, beetles, water insects, spiders and crabs, as well as fish, reptiles, birds, mammals and even carnivorous plants (Duellman and Trueb, 1994; Toledo, 2005). Existing records of anuran predation by invertebrates (Guimarães et al, 2004; Rodrigues and Oliveira Filho, 2004; Pombal Jr., 2007; Rolim et al, 2009) only refer to larger species, such as members of the Leptodactylidae family. Predation on anurans has been recorded more frequently in the last decade (reviewed in Menin et al. 2005; Toledo 2005). Most records of anuran predation in the Neotropics are by

spiders of the families Pisauridae, Ctenidae, Lycosidae, Sparassidae, and Theraphosidae (Menin et al., 2005).

Anurans are more commonly preyed by wandering terrestrial spiders, instead of spiders that weave webs (Toledo 2005; Barbo et al. 2009). However, our records show that traps laid by spiders that weave webs are efficient in capturing anurans that hop between plants when traveling, such as hylids. By the size and strength of its web, *Eriophora fuliginea* could hunt bulkier insects and other larger animals. Records of predation of amphibians by *Eriophora fuliginea* should be further investigated to provide data about the impact of orb weaver spiders on hylids.



Figure 1 First record of *Eriophora fuliginea* preying on a *Scinax littoralis* on which decomposition is more evident

¹ Projeto Dacnis. Estrada do Rio Escuro, 4754, Sertão das Cotias, 11680-000 Ubatuba, SP, Brazil.

* Corresponding author; e-mail: edelciomuscat@terra.com.br



Figure 2 Second record of *Eriophora fuliginea* preying on *Scinax littoralis*

Acknowledgments. We would like to thank Projeto Dacnis for the work opportunity, and Marco A. Freitas and Eduardo C. Francisco for their invaluable suggestions. Célio M. Neto identified the spider.

References

- Barbo, F. E., Guimarães, M.R., Sawaya, R.J. (2009): Predation on *Leptodactylus marmoratus* (Anura: Leptodactylidae) by the spider *Ctenus medius* (Araneae: Ctenidae) in the Atlantic Forest, southeast Brazil, *Herpetology Notes* **2**: 99-100.
- Duellman, W.E., Trueb, L. (1994): *Biology of amphibians*. Baltimore and London: The Johns Hopkins University Press.
- Guimarães, L.D., Pinto, R.M., Juliano, R.F. (2004): *Bufo granulosus* (NCN). Predation. *Herpetol. Rev.* **35**: 259.
- Haddad, C.F.B., Toledo, L.F., Prado, C.P.A. (2008): *Atlantic Forest Amphibians: guide for the Atlantic Forest anurans*. São Paulo: Editora Neotropica.
- Menin, M., Rodrigues, D. J., Azevedo, C. S. (2005): Predation on amphibians by spiders (Arachnida, Araneae) in the Neotropical region. *Phyllomedusa* **4**: 39-47.
- Pombal Jr., J. P. (2007): Notas sobre predação em uma taxocenose de anfíbios anuros no sudeste do Brasil. *Revista Brasileira de Zoologia*, **24** (3): 841-843.
- Rolim, D.C., Almeida, S.C., Jim, J. (2009): *Scinax fuscomarginatus* (NCN). Predation. *Herpetol. Rev.* **40**: 73.
- Toledo, L.F. (2005): Predation of juvenile and adult anurans by invertebrates: current knowledge and perspectives. *Herpetol. Rev.* **36**: 395-400.
- Wells, K.D. (2007): *The Ecology and Behavior of Amphibians*. Chicago, The University of Chicago Press.

*Accepted by Diogo Provete;
Managing Editor: Diogo Provete*