

Predation event on tadpole of *Scinax aromothyella* (Anura: Hylidae) by the fishing spider *Thaumasias velox* (Araneae: Pisauridae) in a rainforest of southern Brazil

Miguel Machado^{1*} and Victor Mendes Lipinski²

Anuran tadpoles are an important food source on freshwater communities (Brockelman 1969) and the presence of predators is suggested as a limiting factor and an important pressure to many anuran species (Magnusson and Hero, 1991). According to McCormick and Polis (1982), there are four representative classes of Arthropoda that can be considered as predators of small vertebrates: Arachnida, Insecta, Crustacea and Chilopoda. Between these classes, the order Araneae (Arachnida) stands out. These arachnids are known to prey small lizards, snakes and frogs and records on anuran predation are mostly related to specific cursorial spider families, such as Pisauridae, Ctenidae, Lycosidae, Sparassidae, and Theraphosidae (Menin et al., 2005). Here we report a predation event on a tadpole of *Scinax aromothyella* Faivovich, 2005 by a subadult female spider of Pisauridae family, *Thaumasias velox* Simon, 1898.

Thaumasias velox is known as an opportunistic predator and is a large sized fishing spider, widely distributed at South America (Platnick, 2014). It forages both on the ground and aquatic environments (Aisenberg et al., 2011; Simó et al., 2011), finding the prey through vibrations on water surface (Luiz et al., 2013). *Scinax aromothyella* is a small hylid frog of the *Scinax catharinae* group and the information of natural history of its tadpoles still scarce.

The predation event was observed at daytime, nearly 17:30h at Parque Estadual do Turvo, Derrubadas municipality, at northwestern Rio Grande do Sul State, Brazil. The individuals were found in a semi-permanent water body (30 cm deep) with high dossel coverage (about 80%) and emergent vegetation. At the time of the encounter, *T. velox* (7.5 mm – cephalothorax-abdome length) was holding the *S. aromothyella* tadpole (17.8 mm – snout-vent length) with the pedipalps and the



Figure 1. Subadult female of *Thaumasias velox* (7.5 mm cephalothorax-abdome length) preying on a tadpole of *Scinax aromothyella* (17.8 mm snout-vent length) in a semi-permanent water body at Parque Estadual do Turvo, Rio Grande do Sul State, Brazil. Photo credit: Victor Lipinski.

¹Programa de Pós-Graduação em Zoologia, Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre – RS, Brazil.

² Programa de Pós-Graduação em Biodiversidade Animal, Universidade Federal de Santa Maria, Santa Maria – RS, Brazil.

* Corresponding Author: miguelm.bio2010@hotmail.com

chelicerae were pierced at the ventral side of the tadpole's body, yet alive, and after a short period of time, the tadpole stopped moving. The spider was deposited in the collection of Arachnida and Myriapoda of Museu de Ciências e Tecnologia, PUCRS (voucher #: MCTP 37421) and the tadpole was deposited in the Coleção de Herpetologia da Universidade Federal de Santa Maria (voucher #: ZUFMS 8513).

Regarding the vulnerability of the larval stage of anurans, temporary aquatic habitats (in general more complex) are known to provide a higher protection against predation than the permanent aquatic habitats (Skelly and Werner 1990; Skelly 1997) and may enhance the feeding activity, speeding up the growth and in some cases reducing the predation risk (Skelly, 1997). Predation events of invertebrates on vertebrates are not so frequent in literature, because direct observation in field is needed but usually difficult to register. Records about spiders preying on amphibians are already been published (see Menin et al., 2005; Almeida et al., 2010; Santos-Silva et al., 2013; Luiz et al., 2013), where pisaurids, especially members of *Thaumasia* (Perty, 1833), are known to prey hylid frogs and tadpoles (Bastos et al., 1994), suggesting that these semi-aquatic spiders may serve as model organisms in studies focusing predator-prey interactions (Menin et al., 2005; Bovo et al., 2014).

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