

Predation of a *Phyllomedusa nordestina* tadpole (Anura, Hylidae) by a fishing spider, *Thaumasia* sp. (Areneae, Pisauridae), in a temporary pond in the Raso da Catarina, Bahia, Brazil

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Anurans play a fundamentally important role in both terrestrial and aquatic ecosystems, in which they occupy a wide variety of niches, consume an ample diversity of prey, and also serve as prey to a wide variety of predators (Toledo, 2007; Silva and Rossa-Feres, 2007; Santana et al., 2009; Costa-Pereira et al., 2010). A large number of vertebrates and invertebrates are known to prey on anuran larvae (Toledo et al., 2007), although spiders and water beetles appear to be the primary invertebrate predators of anurans (Menin et al., 2005; Toledo, 2007; Pombal Jr., 2007; Maffei et al., 2010).

The event described here was recorded during a long-term study of anuran ecology in the Serra Branca Environmental Protection Area (APA Serra Branca) in Jeremoabo, in the northeastern Brazilian state of Bahia (09°52'57.4"S 038°40'04.4"W, Elevation: 354 m). At 19.34 h on May 26, 2010, a fishing spider (*Thaumasia* sp.; Pisauridae) was observed perching on a macrophyte (*Eclipta alba* (L.)) at the edge of a temporary pool 2 cm above the surface of the water, in which an aggregation of *Phyllomedusa nordestina* tadpoles could be seen. On perceiving the approach of the tadpoles, the spider moved rapidly to the water, captured one of the tadpoles and returned to a lower perch in the same plant at the level of the water, with its two posterior pairs of legs resting on a leaf and the two anterior pairs floating on the surface of the water. Once the event had been observed, the spider and its prey were removed to a more appropriate location for the collection of more detailed data and photography. The spider was holding the tadpole with its right pedipalp, with both chelicerae

embedded laterally in the base of the prey's tail (Fig. 1). Approximately one minute after the predation event was observed, the tadpole had succumbed to the spider's venom, and by the end of the subsequent 15 minutes, when observations were terminated, most of the tadpole's tail had been digested, and remained attached to the body through a thin remnant of the epithelium. The spider is deposited in the collection of arachnids of Universidade Federal de Minas Gerais (UFMG) and what remained of the tadpole was discarded in the field.

The fishing spiders of the genus *Thaumasia* are typically found in waterside habitats, where they feed on small fishes, anurans (adults and tadpoles), insects and other spiders. They are able to float on the surface of the water, but can also remain submerged for up to 20 minutes (Azevedo et al., 2004). While these spiders are known to prey on anurans in a number of ecosystems worldwide (Toledo, 2005; Barej, 2009), this is the first record from the relatively poorly-known Brazilian Caatinga scrublands.

As evidence cannot be obtained from stomach contents, the predation of anurans by spiders can only be confirmed through direct observation (Pombal Jr., 2007; Maffei et al., 2010). As fishing spiders often occur at relatively high densities (Costa-Pereira et al., 2010), it seems reasonable to assume that attacks on tadpoles are more common than implied by the number of published records. While this report provides details on a specific event, it is clear that the potential impact of these spiders on tadpole populations requires closer attention (Toledo, 2007).

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Figure 1. Fishing spider, *Thaumasia* sp. (Pisauridae), carrying a captured *Phyllomedusa nordestina* tadpole in Bahia, Brazil. Photo by C. R. Santos-Silva.

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