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Predation on *Scinax crospedospilus* (Anura: Hylidae) by *Phoneutria nigriventer* (Aranae: Ctenidae) in an Atlantic Forest fragment in southeastern Brazil

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Scinax crospedospilus (Lutz, 1925) is small species (snout–vent length up to 49 mm; Condez et al., 2009) that is widely distributed in the Brazilian Atlantic Forest. It can generally be found in low bushy vegetation and forest edges near ponds (Heyer et al., 1990). Populations of the spider *Phoneutria nigriventer* (Keyserling, 1891) are found in the southeastern and central regions of Brazil. These spiders are wanderers and opportunistic feeders with imposing appearance, aggressive behaviour, and nocturnal habits (Rego et al., 2005). Their poison has a powerful neurotoxic agent that blocks muscle control, subduing the prey very quickly (Nunes et al., 2008).

We here describe a single predation event, during which an individual of *S. crospedospilus* was attacked and predated by *P. nigriventer* in the Botanic Garden of the Universidade Federal de Juiz de Fora (21.7318º S 43.3706º W), an Atlantic Forest fragment in southeastern Brazil. The event occurred on 9 December 2014 at approximately 2100 h in an axil of a ground bromeliad (*Alcantarea imperialis*). *Scinax crospedospilus* is bromelicolous and is often recorded next to the tanks formed by bromeliads in the Botanical Garden.

At first encounter, the spider held the left leg of the frog with its chelicerae, thus envenomating the frog and preventing its escape. The frog struggled in vain while trying to escape (Fig. 1). The observation was recorded on video and is kept in the media files of the Herpetological Collection / Amphibia of the Department of Zoology at the Federal University of Juiz de Fora (accession number CAUFJF 1656). The specimens were not added to the Herpetological Collection since the spider escaped with the frog after the recording, making it impossible to collect them.

Whereas Santana et al. (2009) recorded a predatory event of *P. nigriventer* on *Dendropsophus elegans*, our record is the first for *S. crospedospilus*. In the case of *D. elegans*, the spider was 2 m above a surface of standing water, whereas in our record, the predator was closer to the ground (about 30 cm), indicating that individuals of *P. nigriventer* may use different habitat strata to forage for prey. Since both *P. nigriventer* and *S. crospedospilus* use bromeliads as living areas, predatory events of this nature may be more common than reported.

Figure 1. Predation of *Scinax crospedospilus* by *Phoneutria nigriventer* in southeasten Brazil, caught in the act. Photo by Isadora Travnik.

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Furthermore, since spiders have pre-oral digestion (Brusca and Brusca, 1990) it is not possible to analyse their stomach contents, and it would be necessary to observe any spider-on-frog predation event as it occurs.

Our observation occurred during the breeding season of *S. crospedospilus*. This is relevant since predation events on anurans occur more often during such periods, when reproductive behaviour substantially increases the encounter frequency with anurans (Toledo, 2003). Spiders have opportunistic hunting habitats and are known frog predators. Gray et al. (2010) showed that the theraphosid spider *Sericopelma rubronitens* even feeds on toxic dendrobatid frogs, despite their poisonous skin secretion, in addition to consuming other frogs on a larger scale. Predation by spiders also seems to occur on in anuran larval stage. O'Shea et al. (2014) recorded a wolf spider that followed the movements of *Fejervarya* tadpoles in a small steam, in a probable attempt to capture the tadpole as prey.

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