

**PHYSALAEMUS SPINIGER** (Iguape Dwarf Frog).

**PREDATION.** Anuran eggs, tadpoles, and post-metamorphic individuals are known to be preyed upon by vertebrates, invertebrates, and even carnivorous plants (Toledo et al. 2007. J. Zool. 271:170–177). Herein we here report dipteran maggot predation of *Physalaemus spiniger* eggs in a foam nest and spider (Theraphosidae) predation of an adult male. *Physalaemus spiniger* is a small frog (mean SVL males 18.8 mm; mean SVL females 21.1 mm) (Haddad and Pombal Jr. 1998. J. Herpetol. 32:557–565) that calls on the forest floor near temporary ponds. The eggs are laid in a foam nest that is deposited on the water surface near the edges of ponds, on the humid leaf litter near ponds, or in the axils of terrestrial bromeliads (Haddad and Pombal 2008, *op. cit.*). *Physalaemus spiniger* is known from the states of Paraná (Guaraqueçaba) and São Paulo (Ilha do Cardoso, Cananéia, Estação Ecológica da Juréia, Iguape, Caverna do Diabo, Iporanga, Jacupiranga), southern and southeastern Brazil



FIG. 1. *Physalaemus spiniger* preyed upon by a spider (Theraphosidae). The partially digested left leg is indicated by an arrow.

(Haddad and Pombal 2008, *op. cit.*). The risk of predation by invertebrates is greater during the breeding season (Toledo 2005. Herpetol. Rev. 36:395–400). Spiders are the most important invertebrate predator of post-metamorphic anurans (Toledo et al. 2007, *op. cit.*), and dipteran maggots are common predators of eggs and embryos (Menin and Giaretta 2003. J. Zool. 261:239–243). Reports of predation by invertebrates upon *Physalaemus* spp. have been published (Brasileiro et al. 2003. Herpetol. Rev. 34:137; Toledo 2003, *op. cit.*; Toledo 2005, *op. cit.*), and there is a report of spider predation (Lycosidae) upon *P. spiniger* (Toledo et al. 2007, *op. cit.*). On 27 October 2008 we found a *P. spiniger* foam nest with dipteran maggots that were feeding on the eggs. The following night we observed an adult male *P.*

*spiniger* (SVL 18.5 mm) being preyed upon by a juvenile spider (Theraphosidae; TL 19.5 mm). The *P. spiniger* was calling on the forest floor in Reserva Natural Salto Morato, Guaraqueçaba, Paraná, Southern Brazil (25.186643°S, 48.254730°W) at the edge of a temporary pond when it was captured by its left leg by the spider. Both individuals were captured and deposited in the Museu de Zoologia "Prof. Dr. Adão José Cardoso," at Unicamp, Campinas, Brazil (ZUEC 14578). After collecting the animals, the spider released the now paralyzed anuran, which died three hours after the observation with its left leg partially digested (Fig. 1). The size relationship observed in this predation event is consistent with data presented by Toledo et al. (2007, *op. cit.*) where solitary, venomous, and invertebrate predators generally eat prey that are a little shorter or equal to their own size.

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