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Hyla arborea (tree frog). Blowfly parasitism

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parental behaviors would have occurred. Finally, we are also unable to determine whether the nest in the field failed or hatched, or whether our disturbance of the nest played any significant role in its fate.

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ELEUTHERODACTYLUS cf. PARVUS (Girard's Robber Frog). **PREDATION.** Predation on anuran amphibians by spiders has been reported many times in the literature and appears to be a common phenomenon in the neotropics (Menin et al. 2005. *Phylomedusa* 4:39–47; Costa et al. 2006. *Herpetol. Rev.* 37:337–338; Pazin 2006. *Herpetol. Rev.* 37:336). Herein, we present another case of predation of an anuran by a spider, adding another neotropical frog species to the list of amphibians known to be preyed upon by spiders.

On 18 Aug 2005, at the Reserva Ecológica de Rio das Pedras (22.98333°S, 44.1°W; 370 m elev, SAD 69), municipality of Mangaratiba, State of Rio de Janeiro, Brazil, one of us (JALP) captured a spider, *Oligoctenus medius* (Ctenidae) with a live frog, *Eleutherodactylus cf. parvus*, being held between its chelicerae. The spider and its prey were found on the leaf litter at 1910 h. The frog, which was being held by the abdominal region in the spider's chelicerae, was released when the spider was picked up by the observer, and remained alive for about 15 h afterwards, until being euthanized. The spider (female; body length = 31 mm; mass = 2.7 g) was later deposited at the arachnological collection of the Museu Nacional, Rio de Janeiro (MNRJ 03085), whereas the frog (unsexed; SVL = 15.4 mm; mass = 0.37 g) was deposited in the herpetological collection (MNRJ 40177).

Members of the families Ctenidae, Pisauridae, Sparassidae, Lycosidae, and Theraphosidae (especially the first two) appear to be the most common arachnid predators of neotropical anurans (Brescovit et al. 2004. *In* Marques and Duleba [eds.], *Estação Ecológica Juréia-Itatins. Ambiente Físico, Flora e Fauna*, pp. 198–221. Holos Editora, Ribeirão Preto; Menin et al. 2005, *op. cit.*; Costa et al. 2006, *op. cit.*), and the present report agrees with this trend. Menin et al. 2005. (*op. cit.*) observed a trend for spiders preying on frogs in the neotropics to be about the same size or slightly smaller than its prey, but our report does not concur with the apparent trend, as the spider was considerably larger than its anuran prey. Since the frog remained alive and apparently in good health after being released by the spider, it is possible that the spider had not yet injected it with venom by the time it was captured, as the venom of ctenid spiders is frequently quite potent and can cause paralysis and death in small vertebrates within a short time (Massary 1999. *Herpetol. Rev.* 30:167; Teixeira et al. 2003. *Herpetol. Rev.* 34:368–369; Menin et al. 2005, *op. cit.*).

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HYLA ARBOREA (Tree Frog). **BLOWFLY PARASITISM.** *Lucilia*-fly parasitism on *Bufo bufo* in Europe is well documented and most often concerns the blowfly *Lucilia bufonivora* which seems to favor *B. bufo*. Incidentally, infections by maggots in the nostrils of other amphibians, including *B. calamita*, *B. viridis*, *Alytes obstetricans*, *Pelobates fuscus*, *Rana arvalis*, *R. esculenta*, *R. temporaria*, and *Salamandra salamandra* are reported (Koskela et al. 1974. *Ann. Zool. Fennici.* 11:105–106; Garanin and Shaldybin 1976. *Parazitologiya* 10:286–288; Krous 2007. *J. Nat. Hist.* 41:1863–1874). There is one report on the presence of *Lucilia* eggs on *Hyla arborea* in Switzerland (Meisterhans and Heusser 1970. *Mt. Schweiz. ent. Ges.* 43:41–44). This frog was kept in captivity to study the development of the *Lucilia* infection. After Day 3 the eggs were gone, and on Day 10 the *H. arborea* was healthy with no sign of *Lucilia* maggots in the nostrils or other forms of myiasis. The authors suggested the eggs were less strongly attached to the frogs' skin, as compared to earlier observations on bufonids.

On 13 August 2007, an infected *H. arborea* (Fig. 1) was found in De Doort, middle part of Limburg, The Netherlands. This is the first documented report of a *Lucilia* infection on *H. arborea*. The frog or maggots were not collected and thus the species of *Lucilia* remains uncertain.

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FIG. 1. *Hyla arborea* infected by *Lucilia* blowfly; maggots are visible in the nostrils. Photograph by Jan Vandewall.