



FIG. 1. *Rheohyla miotypanum* displaying abnormal coloration.

that have been recorded in the study locality; therefore, it suggests that this kind of abnormality is rare.

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**RHINELLA GRANULOSA (Granular Toad). PREDATION.** *Rhinella granulosa* breed in permanent and temporary ponds throughout eastern Brazil (Amphibian Species of the World: an Online Reference. Version 6.0 [accessed 27 Oct 2016]. Electronic database accessible at <http://research.amnh.org/herpetology/amphibia/index.html>. American Museum of Natural History, New York). On 14 November 2015, one of us (CZZ) fished a *Hoplias malabaricus* (Erythrinidae; total length = 342 mm) at a permanent pond in Baixo Guandu, Espírito Santo, southeastern Brazil (19.55993°S, 40.92399°W, WGS 84; 173 m elev.) and found an adult *Rhinella granulosa* (SVL = 66.3 mm; Fig. 1) in the fish guts. The female frog had some developed eggs. A congener, *Rhinella ornata*, has also been preyed upon by *Hoplias* spp. (Haddad and Bastos 1997. *Amphibia-Reptilia* 18:295–298). It is noteworthy that *Rhinella* produce toxic skin secretions which generally afford



FIG. 1. Female *Rhinella granulosa* found in the stomach contents of the fish *Hoplias malabaricus* in southeastern Brazil.

protection against predators (Clarke 1997. *Biol. Rev.* 72:365–379). There are reports of *Hoplias* spp. preying upon other anurans such as *Trachycephalus typhonius* (Strictar-Pereira and Oda 2012. *Herpetol. Bull.* 122:38), *Physalaemus biligonigerus* (Queiroz 2012. *Herpetol. Rev.* 43:124), *Leptodactylus macrosternum* (Andrade et al. 2012. *Herpetol. Notes* 5:173–175), and *Pseudis platensis* (Frey-Dargas et al. 2014. *Herpetol. Rev.* 45:306–307). To our knowledge, this is the first report of predation of *Rhinella granulosa* by *Hoplias malabaricus*. The toad specimen (MBML 9442) is deposited in the Zoological Collection of Museu de Biologia Mello Leitão, Brazil.

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**RHINELLA SCHNEIDERI (Cururu Toad). ECTOPARASITISM.** Amphibians are hosts for a wide range of ectoparasites such as mites, ticks, insect larvae, parasitic copepods, and leeches (Densmore and Green 2007. *ILAR J.* 48:235–254). In the last decade, leech-amphibian interactions have been described for a wide variety of anuran species (Merila and Sterner 2002. *Ann. Zool. Fennici* 39:343–346; Rocha et al. 2012. *Comp. Parasitol.* 79:352–356). Herein, we provide the first report of parasitism on *Rhinella schneideri* by leeches (Hirudinea) in a natural environment in southeastern Brazil. *Rhinella schneideri* is a terrestrial species known from Argentina, Bolivia, Brazil, Paraguay, and Uruguay (Aquino et al. 2004. <http://www.iucnredlist.org/details/54755/0>; 25 October 2016).

At 2145 h on 23 February 2016, we observed one leech belonging to the genus *Haementeria* attached to the dorsal surface of an adult *R. schneideri* (SVL = 12 cm; 85 g), in a temporary pool in Parque Estadual de Vassununga (21.71805°S,





FIG. 1. Adult *Rhinella schneideri* being parasitized by a leech of the genus *Haementeria*, Parque Estadual de Vassununga, São Paulo, Brazil. A) Frontal view; B) lateral view.

47.59694°W, WGS 84; 614 m elev.), São Paulo, Brazil. The leech was about 2 cm long and was inserted into the nostril of the toad (Fig. 1). The leech was not turgid and there was no sign of associated wounds, scars, or hemorrhages on the toad, though this would be difficult to visualize inside the nostril. Only one individual of *R. schneideri* was observed in the pond, however, we observed eight other amphibian species: *Dendropsophus jimi* (N = 1), *D. minutus* (N = 5), *D. nanus* (N = 4), *Hypsiboas faber* (N = 10), *Scinax fuscovarius* (N = 8), *Physalaemus cuvieri* (N = 2), *Leptodactylus podicipinus* (N = 6), and *Elachistocleis cesarii* (N = 2) vocalizing in the same pond, but none of them had any leeches.

Although leech parasitism has been registered in the genus *Rhinella* (e.g., Ocegüera-Figueroa 2006. Zootaxa 1110:39–45; Maia-Carneiro et al. 2012. Acta Herpetol. 7:163–169; Velasco et al. 2016. Cuad. Herpetol. 30:17–19), this observation represents the first report of parasitism on *R. schneideri* by leeches.

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**SCAPHIOPUS HOLBROOKII (Eastern Spadefoot). ATTEMPTED PREDATION BY TERRAPENE CAROLINA.** At ca. 1615 h on 18 May 2016, in Okaloosa County, Florida, USA (30.44682°N, 86.64202°W; WGS 84) the sound of rustling leaves could be heard for over three minutes before an adult female Eastern Box Turtle (*Terrapene carolina*) became visible. The turtle was observed walking away from the original location, and as we approached to observe more closely, we noticed a dark object in the turtle's mouth. Upon closer inspection, we realized the object was an adult *Scaphiopus holbrookii*, which the turtle dropped after it stopped walking. The turtle did not attempt to pick up the frog again, and the frog did not appear much to be injured. It had been carried for over 6 m from where we first observed the turtle walking before being dropped, and had been held by the side of the head. The frog maintained a defensive, unmoving body posture with legs held tightly against the body and head tucked down for a few minutes after being dropped. After seeing the frog hop away under cover, we then observed that the turtle was repeatedly opening and closing its mouth and had white foam in its mouth, some of which was visible on both sides of its mouth when the mouth was closed (Fig. 1). The frog dug itself into the ground shortly after taking cover.

Spadefoots had been seen in the same area above ground at night several times in May prior to this observation, with one being seen as recently as the night before. Although *Terrapene ornata* has been observed foraging for and consuming large numbers of spadefoot larvae, a newly metamorphosed spadefoot was rejected by a box turtle (*Terrapene* sp.), though it is unclear whether this was an item offered by a human or one naturally encountered (Dodd 2001. North American Box Turtles: A Natural History. University of Oklahoma Press, Norman, Oklahoma. 231 pp.) To our knowledge, this is the first observation of attempted predation of an adult *S. holbrookii* by *T. carolina*.



FIG. 1. *Terrapene carolina* (Eastern Box Turtle) with residual foam on sides of mouth.

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