

RHINELLA FERNANDEZAE (Garden Toad). EGGS AND EMBRYOS PREDATION BY LEECHES. Predation of eggs and embryos is one reason for early mortality in anurans, and it is known that embryos of several amphibian species can accelerate their hatching as a mechanism to reduce predation risk (Warkentin 2000. *Anim. Behav.* 60:503–510; Chivers et al. 2001. *Oikos* 92:135–142). Several authors have documented that hirudinids of several genera like *Batrachobdella*, *Desserobdella*, *Erpobdella*, *Haemopsis*, *Hirudo*, *Macrobdella*, *Phyllobdella*, and *Oxyptychus* can incorporate amphibians as prey at all stages of the amphibian life cycle, consuming eggs, attacking tadpoles, and even sucking blood of adult frogs (Tuverville and Briggler 2003. *J. Freshw. Ecol.* 18:155–159; Romano and Di Cerbo 2007. *Curr. Zool.* 53:750–754; Soler et al. 2014. *Cuad. Herpetol.* 28:39–41; Masetti et al. 2015. *Herpetol. Rev.* 46: 614–615; Velazco et al. 2016. *Cuad. Herpetol.* 30:17–19). In egg predation, although eggs are protected by a gelatinous coat, leeches manage to bypass the gelatinous capsules surrounding the eggs, and perforate them with their jaws (Masetti et al. 2015, *op. cit.*). Particularly, Neotropical regions with intensive livestock farming are an optimal habitat for leeches; however, data about predation by leeches on eggs and embryos in anurans from this region are scarce (Loebmann et al. 2008. *Amphibia* 7:31–34; Soler et al. 2014, *op. cit.*; Masetti et al. 2015, *op. cit.*).

In this study, we report the first event of predation by *Oxyptychus inexpectatus* (Macrobdellidae) on eggs and embryos of *Rhinella fernandezae*. Our observations took place on 6 November 2014 (between 2200 to 2400 h) in a



FIG. 1. A) *Oxyptychus inexpectatus* predating eggs; and B) embryos of *Rhinella fernandezae*.

semi-permanent pond located in the vicinity of La Plata city (34.9957°S, 57.8619°W; WGS 84), Buenos Aires province, Argentina. The pond was characterized by aquatic vegetation composed mainly of *Eleocharis* sp., *Potamogeton* sp., *Sagittaria montevidensis*, and *Myriophyllum aquaticum*. According to our previous observations of the study site, it functions as a breeding site for several anurans such as *Ceratophrys ornata*, *Hypsiboas pulchellus*, *Leptodactylus gracilis*, *L. latinasus*, *L. latrans*, *Pseudis minutus*, *Pseudopaludicola falcipes*, *R. fernandezae*, *Scinax granulatus*, and *S. squalirostris*.

On the day of the predation event, *L. latrans* and *P. falcipes* were vocalizing and breeding, and eggs and tadpoles of *R. fernandezae* and *L. latrans* were present. We observed 10 clutches of *R. fernandezae*, five of which were being predated, each by a separate leech. No *L. latrans* eggs were being predated by leeches. Specifically, the predation events consisted of five individuals of *O. inexpectatus* predated eggs and embryos of *R. fernandezae*. In all cases, the feeding behavior corresponded to the observations made previously by other researchers (Soler et al. 2014, *op. cit.*; Masetti et al. 2015, *op. cit.*), where leeches anchor one end of the body to vegetation, and extend the body into water attaching to the eggs chain or embryos for feeding (Fig. 1). The individuals observed were photographed, collected, fixed in 10% formaldehyde, and preserved in 70% ethyl alcohol. The specimens of leeches, as well as eggs and embryos of *R. fernandezae*, were deposited in the Helminthological (MLP-Oi4085) and Herpetological (MLP-A5867) Sections of the Collection of the Museum of La Plata, respectively.

Previous records of predation by species of the genus *Oxyptychus* on eggs have been observed in bufonids such as *Rhinella arenarum* and *R. dorbygnyi* (Loebmann et al. 2008, *op. cit.*; Soler et al. 2014, *op. cit.*; Masetti et al. 2015, *op. cit.*), and in hylids such as *Hypsiboas pulchellus* (Soler et al. 2014, *op. cit.*). However, this is the first report showing predation by *O. inexpectatus* on *R. fernandezae* eggs and embryos.

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RHINELLA MAJOR (Granulated Toad). PREDATION. *Rhinella major* is a terrestrial species reaching about 35.8–72.8 mm SVL in adult males and 33.9–81.1 mm SVL in adult females, belonging to the *Rhinella granulosa* group, occurring in Bolivia, Brazil, and the Chaco region of Argentina and Paraguay (Narvaes and Rodrigues 2009. *Arq. Zool.* 40:1–73). Frogs of this genus have toxins that are produced and stored in the paratoid glands as a defense mechanism against predators (Gadelha and Soto-Blanco 2012. *Clín. Vet.* 100:46–54). *Leptodactylus podicipinus* (Pointedbelly Frog) is a small to moderate-sized species (SVL = 24–54 mm) of