

RHINELLA JIMI (Cururu Toad) and **LEPTODACTYLUS VASTUS** (Northeastern Pepper Frog). **PREDATION ON BATS.** Anurans are primarily sit-and-wait foragers, and capture primarily insect prey (Toft 1981. *J. Herpetol.* 15:139–144). The predation of bats by two anuran species, *Rhinella jimi* and *Leptodactylus vastus*, was observed at the entrance of the Casa de Pedra cavern in Itabaiana, in the Brazilian state of Sergipe (10.833°S, 37.450°W; SAD 69). The cave is ca. 200 m long and has an internal temperature of ca. 39°C. The entrance is ca. 5 m wide × 1.5 m high. The predation of a bat by *L. vastus* was first observed in 1998, and additional observations involving *L. vastus* and *R. jimi* were recorded in 2006 and 2008.

As night falls, individuals of both species position themselves close to the cave entrance to wait for the “explosive” (Fenton et al. 1994. *Anim. Behav.* 48:9–18) exit of the resident bats, which fly outside to forage between 1730 h and 2200 h. As they crowd through the narrow opening, some of the bats collide with each other and may fall to the ground, where the anurans are waiting. As soon as a bat falls to the ground, one of the anurans pounces rapidly forward to seize the animal directly in its mouth, without using its tongue (Fig. 1).

Although anurans are known to prey on many types of vertebrates (Duellman and Trueb 1986. *Biology of Amphibians*. McGraw-Hill, New York. 670 pp.), this appears to be the first record of feeding on bats, and might be related to specific circumstances. Analysis of stomach contents revealed the predation of Wagner’s Mustached Bat (*Pteronotus personatus*) by both anurans. *Leptodactylus vastus* was also observed preying on a Mexican Funnel-eared Bat (*Natalus stramineus*). As records now span a decade, it is clear that a foraging “tradition” has been established in these anuran populations, although more observations are required to assess the importance of this behavior in ecological terms.

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FIG. 1. Two toads (*R. jimi*) at the entrance of the Casa de Pedra cave (A). One of the toads pouncing on (B), seizing (C) and ingesting (D) a bat. Photographs by PAR.

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RHINELLA ORNATA (NCN). **PREDATION.** *Rhinella ornata* is a small bufonid found in the states of São Paulo, Rio de Janeiro, Espírito Santo, and Paraná, Brazil (Baldissera et al. 2004. *Nat. Mus. Rec.* 62:255–282). In the region of Botucatu, SP, Brazil (22.8495°S, 48.4284°W; WGS 84), the species breeds in permanent ponds next to the forest during the dry season, between May and September. The males vocalize from the shallowest edges of the pond, but it is common to see them moving throughout the pond searching for females. In August 2005, a *Salminus brasiliensis* (Characidae) was captured in a pond in the Aquaculture Division of the School of Veterinary and Animal Science in the Paulista State University of Botucatu. This fish had a recently ingested *R. ornata* in its stomach. The anuran was a female with mature eggs in its ovary and was swallowed headfirst (Fig. 1). There are few reports of adult frogs being eaten by fish. The presence of toxic secretions on the skin and especially in the parotid glands, protects the toads from predators. The poison glands of *R. ornata* are not big and the quantity of poison stored can be very small or the poison toxicity can be very low, thus not affecting the fish (Cardoso and Sazima 1977. *Cic. Cult.* 29[10]:1130–1132).

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FIG. 1. Female *Rhinella ornata* eaten by *Salminus brasiliensis*.

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