

## Predation of *Trachycephalus typhonius* (Linnaeus, 1758) (Anura: Hylidae) by a juvenile *Chacophrys pierottii* (Vellard, 1948) (Anura: Ceratophryidae) in the Paraguayan Chaco

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### ABSTRACT

*Chacophrys pierottii* is a medium-sized frog with generalist and opportunistic predation habits, and its diet includes mainly small vertebrates and arthropods. During a fieldtrip in Defensores del Chaco National Park (Alto Paraguay department, Paraguay), at the base of Cerro León we observed a juvenile male *Chacophrys pierottii* feeding on a juvenile *Trachycephalus typhonius* near to a temporary pond, formed by recent heavy rains. Our finding represents the first record of the arboreal frog, *Trachycephalus typhonius* as a prey item of *C. pierottii*. However, more data is necessary to determine if this event is an isolated case product of voracity, or *T. typhonius* juveniles on the ground are common prey during explosive reproduction.

Key Words: *Trachycephalus*; *Ceratophrys*; Predation; Chaco; Paraguay.

*Chacophrys pierottii* is a medium-sized frog with fossorial and nocturnal habits (Norman, 1994), and is endemic to Chacoan ecoregions of Argentina, Bolivia and Paraguay (Ceí, 1980; Brusquetti and Lavilla, 2005). The species is a generalist and opportunistic predator and its diet includes small vertebrates and arthropods (Schalk *et al.*, 2014). Here we report on the first record of predation on *Trachycephalus typhonius* by *C. pierottii*.

Our discovery took place in Defensores del Chaco National Park (Alto Paraguay department, Paraguay), at the base of Cerro León (20°25'57.97"S 60°19'3.31"W) on February 26, 2016 around 07:45-08:00 h. A juvenile male *Chacophrys pierottii* (Snout-vent length (SVL)= 27.4 mm.) was found feeding on a juvenile *Trachycephalus typhonius* (SVL=19.2 mm) near to a temporary pond, formed as a consequence of recent heavy rains occurring in the area two days before. We also observed large activity of many other potential preys, including juveniles of *Leptodactylus fuscus*, *Dermatonotus muelleri*, *Physalaemus* spp., and *Rhinella* spp.

Upon capturing the individual of *C. pierottii*, we noted the presence of a hind limb emerging from its mouth (Fig. 1A). We carefully pull it to determine

the identity of the prey, which turned out to be a juvenile of *Trachycephalus typhonius* in an early process of digestion (Fig. 1B). After prey extraction, we collected and fixed the predator.

Quantitative analysis of the diet of juveniles and adults of *C. pierottii* was summarized by Pueta and Perotti (2013) and Schalk *et al.* (2014) respectively. Both reported a variety of juvenile and adult prey items including arthropods and frogs, being Coleoptera and Hymenoptera the most abundant preys and with the highest index of relative importance, but finding frogs along with Hymenopterans, volumetrically dominant. Until now, the only frogs reported as prey of *C. pierottii* were species with terrestrial and/or aquatic habits such as *Leptodactylus* spp., *Physalaemus* spp. and also co-specifics (Pueta and Perotti, 2013). Our finding represents the first record of the arboreal frog *Trachycephalus typhonius* as a prey item of juvenile *C. pierottii*.

Amphibians represent common part of the diet of most the Ceratophryidae species (Schalk *et al.*, 2014), but there are few records of these anurans feeding on the ones with arboreal habits. Among the terrestrial species, a juvenile *Ceratophrys cornuta* found palatable to *Scinax rubra* in isolated condi-



**Figura 1.** A. Individual of *Chacophrys pierottii* found with a frog hind limb emerging from its mouth. B. Juvenile of *Trachycephalus typhonius* partially digested (white arrow) after being partially extracted from the mouth of *C. pierottii*.

tions (Duellmann and Lizana, 1994) and Schalk *et al.* (2014) reported a case of a metamorphosed *Ceratophrys cranwelli* (SVL = 30 mm) feeding on a recently metamorphosed tailed *Phyllomedusa sauvagii* at the edge of a pond, from where it was suggested he came out the previous night. The latter case resembles ours, suggesting an early voracity and opportunistic behavior, in which the availability of item preys determines in a degree the diet of these predators. However, more data is necessary to determine if this event is an isolated case product of voracity, or *T. typhonius* juveniles on the ground are common prey during explosive reproduction events.

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