

SHORT COMMUNICATION

Comments on the diet of juvenile *Erythrolamprus poecilogyrus caesius* (Serpentes: Dipsadidae) in the Paraguayan Chaco

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Erythrolamprus poecilogyrus (Wied-Neuwied, 1825) is a medium-sized South American snake widely distributed from Venezuela to Uruguay and Argentina (Ceï 1993, Cacciali 2009); it is predominantly terrestrial and active by day and by night (Vitt 1983, Pinto and Fernandes 2004, Martins *et al.* 2008, Prieto *et al.* 2012). The species also is widely distributed in Paraguay (Cacciali *et al.* 2016) with two subspecies recorded—*E. poecilogyrus caesius* (Cope, 1862), in the Chaco and *E. poecilogyrus schotti* (Schlegel, 1837), which is restricted to the eastern part of the country, near the Río Parana (Cacciali 2009, Cacciali *et al.* 2016). *Erythrolamprus poecilogyrus* feeds mainly on anurans (Vitt 1983, Vitt and Vangilder 1983, Carreira-Vidal 2002, Pinto and Fernandes 2004, Prieto *et al.* 2012); infrequently, it also feeds on

fish, reptiles, and invertebrates (Cacciali and Motte 2010, Prieto *et al.* 2012, Bellini *et al.* 2015, Corrêa *et al.* 2016). Herein, we describe attempted frog predation by *E. poecilogyrus caesius* in northern Paraguay, and comment on the diet and foraging habits of juveniles of this subspecies.

All observations were made during field trips between July and August 2016 in the Dry Chaco Ecoregion (Figure 1). Voucher specimens are deposited in the Colección Herpetológica del Instituto de Investigación Biológica del Paraguay (IIBP-H) with HCB (Hugo Cabral Beconi) label. The first observation was made on 14 July 2016 at a temporary pond at the Estancia San José (19°28'59" S, 60°31'26" W; Figure 1). At 18:13 h we observed a juvenile *E. poecilogyrus caesius* (HCB 046, SVL = 146 mm) partially emerged from the ground, grabbing the proximal part of the thigh of a *Physalaemus biligonigerus* (Cope, 1861) (HCB 046-1, SVL = 29.5 mm, ratio SVL snake / SVL frog = 4.9) (Figure 2A). During the 10 min while we watched, the frog attempted to

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escape and the snake was unable to swallow the frog.

The second observation occurred on 15 July 2016 at 10:30 h near Estancia San José (19°37'34" S, 60°29'10.9" W; Figure 1) in an open posthole for a cattle fence. A juvenile *E. poecilogyrus caesius* grabbed the left hind limb of a large *Leptodactylus mystacinus* (Burmeister, 1861) (Figure 2B, C); the snake swallowed the entire hind limb but after 5 min, the frog jumped and escaped from the snake. The specimens were not collected.

The third observation was made in Fortín Toledo, Centro Chaqueño para la Conservación e Investigación (22°21'26.75" S, 60°20'32.96" W) (Figure 1) on 16 August 2016 at 19:30 h. A juvenile *E. poecilogyrus caesius* (HCB 055, SVL = 167 mm) was preying on a juvenile *Phyllomedusa sauvagii* Boulenger, 1882 (HCB 055-1, SVL = 26.4 mm, ratio SVL snake / SVL frog = 6.3) (Figure 2D). In this case, the attempt was successful; the snake swallowed the frog headfirst, and we collected the individuals.

A fourth observation was made at an artificial pond in the Estancia Jaguarete Renda (20°45'50.8662" S, 59°59'2.4529" W) (Figure 1) on 17 August 2016. We encountered a large number of *Leptodactylus chaquensis* Cei, 1950 and also found three *E. poecilogyrus caesius* foraging near the lagoon between 19:00 and 20:00 h. The three snakes were collected and placed in separate bags. The first two snakes seemed to be searching for prey, because we found them moving across the ground toward a temporary pond, and the third (HCB 058, SVL = 202 mm) regurgitated a juvenile *L. chaquensis* inside the bag (HCB 058-1, SVL = 32.5 mm, SVL snake / SVL frog = 6.2).

Sazima and Martins (1990) reported juvenile snakes trying to feed on large prey. We classified prey as "large" only when the snake could not swallow it in the following species: *Erythrolamprus almadensis* (Wagler, 1824), *Erythrolamprus miliaris* (Linnaeus, 1758), *Helicops modestus* Günther, 1861, and *Oxyrhopus guibei* Hoge and Romano, 1977. This

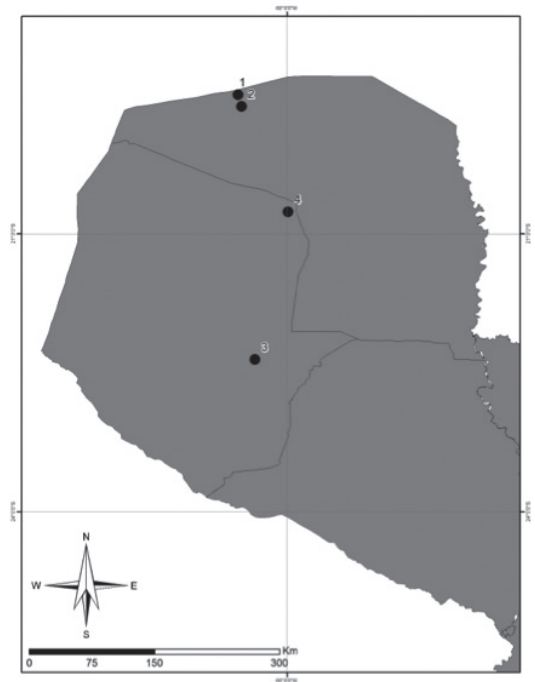


Figure 1. Localities cited in the text: (1) Estancia San José; (2) Línea 6, secondary road near Estancia San José; (3) Fortín Toledo, Centro Chaqueño para la Conservación e Investigación; (4) Estancia Jaguarete Renda.

behavior is more frequent in juveniles, especially those that feed on non-hazardous preys (Sazima and Martins 1990). Prieto *et al.* (2012) also found large prey items twice the width of predator's head inside *E. poecilogyrus*. Our observations are the first record of juvenile *E. poecilogyrus* attempting to feed on large prey, and also the first report of this species attempting to feed on *Leptodactylus mystacinus* and *Phyllomedusa sauvagii*. Hylid frogs usually are arboreal and previously were reported as prey items of *E. poecilogyrus* (Vitt 1983, Carreira-Vidal 2002, Pinto and Fernandes 2004, Prieto *et al.* 2012). However, hylids found on the ground [e.g., *Scinax* and *Pseudis paradoxa* (Linnaeus, 1758)] also have been reported as prey items and




Figure 2. (A) A juvenile *Erythrolamprus poecilogyrus caesius* trying to eat a large *Physalaemus biligonigerus*; the white arrow indicates the head of the snake grabbing the frog. A juvenile *E. p. caesius* grabbing a large *Leptodactylus mystacinus* by the proximal portion of the thigh: (B) the snake capturing the frog; and (C) the frog trying to escape. (D) A juvenile *E. p. caesius* preying on a *Phyllomedusa sauvageii*.

are found in temporary ponds. Maciel *et al.* (2003) mentioned that *E. poecilogyrus* is active the entire year (except August); here we report activity of the snakes in August, when we found individuals active during morning and late afternoon. Our observations also agree with Prieto *et al.* (2012) that *E. poecilogyrus* is a batracophagous specialist with feeding habits that seem to be conservative because their diet does not vary much geographically.

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