



## The tadpole of *Bokermannohyla capra* Napoli & Pimenta 2009 (Anura, Hylidae)

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*Bokermannohyla capra* is a member of the clade *B. circumdata* group (Faivovich *et al.* 2005) that contains 18 nominal species from the Atlantic Rainforest (Napoli & Pimenta 2009). We describe herein the previously unknown tadpole of *B. capra* and compare it with tadpoles of other species of the group.

We collected *Bokermannohyla capra* tadpoles in October 2008, in one streamlet inside an Atlantic Rainforest fragment in Serra da Jibóia, Santa Terezinha municipality, Bahia State, Brazil, which is a paratype locality. To identify the tadpoles, some were raised in the laboratory till metamorphosis was completed. Studied specimens are housed at Zoological Museum of the State University of Feira de Santana (MZUEFS lot 893). Morphological description follows Altig (1970), McDiarmid & Altig (1999) and Mercês and Juncá (2010). External morphology is based on six tadpoles, stages 34–37 (Limbaugh & Volpe 1957; Gosner 1960). The following measurements were taken in millimeters using a stereoscopic microscope Leica MZ6 and 12 mm micrometrical lens (min–max, average  $\pm$  standard deviation): total length (TL, 46.1–51.0, 48.7  $\pm$  1.7), body length (BL, 14.5–15.6, 15.0  $\pm$  0.4), body maximum height (BH, 8.2–9.8, 9.4  $\pm$  0.6), body width (BW, 10.9–11.6, 11.2  $\pm$  0.3), tail length (TAL, 31.2–36.1, 33.8  $\pm$  1.6), maximum tail height (MTH, 8.6–9.5, 9.0  $\pm$  0.4), tail musculature height (TMH, 6.1–7.2, 6.5  $\pm$  0.4), dorsal fin height (DFH, 2.3–2.8, 2.5  $\pm$  0.2), ventral fin height (VFH, 1.9–2.3, 2.1  $\pm$  0.1), interorbital distance (IOD, 3.3–3.7, 3.6  $\pm$  0.2), eye diameter (E, 1.4–2.2, 1.9  $\pm$  0.1), nostril major axis (N, 0.3–0.5, 0.4  $\pm$  0.3), nostril–snout distance (NS, 2.5–2.8, 2.6  $\pm$  0.8), oral disc width (ODW, 4.6–5.1, 4.9  $\pm$  0.1).

**Description.** Body elliptical in dorsal and ventral views and slightly depressed in lateral view (Fig. 1A–C), wider than high (BH/BW = 0.84  $\pm$  0.05); BH about 60% of BL (BH/BL = 0.63  $\pm$  0.03); BL approximately one third of TL (BL/TL = 0.31  $\pm$  0.01). Snout semicircular in dorsal view, rounded in lateral view. Nostrils dorsally located, oval, with a rounded fleshy projection in the medial margin that gives them a reniform aspect (Fig. 1D), their major axis about 4% of BW (N/BW = 0.04  $\pm$  0.01). NS about 18% of BL (NS/BL = 0.18  $\pm$  0.01). Eyes dorsolaterally located, E 17% of BW (E/BW = 0.17  $\pm$  0.02); IOD about 32% of BW (IO/BW = 0.32  $\pm$  0.01). Spiracle sinistral, short, laterally positioned, located at the approximately in the middle of the body (Fig. 1E). Vent tube medial, opening dextral. Tail large (TAL/TL = 0.69  $\pm$  0.01), slightly higher than BH (TH/BH = 1.04  $\pm$  0.05). Tail musculature considerable (TMH/MTH = 0.72  $\pm$  0.04). Dorsal fin taller than ventral fin (DFH/VFH = 1.18  $\pm$  0.16), beginning after tail–body junction. Ventral fin more arched than dorsal fin, and both fins tapering to the tip of tail in the last third. Tip of tail rounded in profile. Lateral line system easily visible between the nostrils, behind posterior edges of the eyes, along the dorsolateral body, lateral body and lateral tail. Oral disc ventral with symmetrical lateral folds on posterior lip (Fig. 1F), about 44 % of body wide (ODW/BW = 0.44  $\pm$  0.02). Marginal papillae single row in the lateral portion of the anterior lip and in a double row on anterior and posterior lip, with dorsal gap on anterior lip. Submarginal papillae absent or rare. Jaw sheaths pigmented, finely serrated (Fig. 1F). Anterior jaw sheath widely arch-shaped, with long slim lateral process, posterior jaw sheath with free margin V-shaped. Labial tooth row formula 2(2)/4(1).

**Coloration in life.** Body brown in dorsal view, with dark spots and a lighter brown median band on the posterior half of the body; in lateral view, the flanks are lighter than the dorsum. Venter translucent. Caudal musculature with brown blotches and a black horizontal band between epi- and hypaxial musculature running for the first third of the tail's length. Fins translucent. Dorsal fin with black dots and orange rusty blotches. Ventral fin with sparsely dark spots. Tadpole coloration in formalin 5% is faint, but preserves the melanic pattern of the live tadpole.

Tadpoles of eight species of *Bokermannohyla circumdata* species group are formally described (Costa *et al.* 2010). The *B. capra* tadpole differs from *B. hylax* tadpole (Bertoluci *et al.* 2003) because of the labial tooth formula 2(2)/4(1) and marginal papillae of oral disc with dorsal gap on anterior lip in *B. capra* (labial tooth formula 2(2)/4(1) or 2(2)/4(1-2) and oral disc without gap in *B. hylax*). Tadpoles of *B. feioi* (Napoli & Caramaschi 2004), *B. sazimai* (Cardoso & Andrade 1981), and *B. capra* (this study) had labial tooth formula 2(2)/4(1), but *B. feioi* tadpoles had marginal papillae of oral disc