



Description of the tadpole of *Telmatobius brevirostris* (Anura: Ceratophryidae)

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In Peru most tadpoles of the aquatic frogs genus *Telmatobius* belong to the lentic or lotic benthic guild. Members of this guild have a labial tooth row formula (LTRF) of 2/3, dorsolateral eyes, relative depressed bodies, dorsal fin do not extend beyond tail-body junction and they inhabit non flowing systems or microhabitats of non flowing portions of lotic systems (Altig & Johnson 1989, Aguilar *et al.* 2007, Aguilar & Lehr 2009). Only one species, *T. atahualpai* Wiens, is known to have a lotic rheophilous larva because it has a large oral disc, LTRF of more than 2/3, complete marginal papillae, numerous submarginal papillae and it inhabits streams (Altig & Johnson 1989, Aguilar & Lehr 2009). However, of the 25 *Telmatobius* species present in the Peruvian Andes (Frost 2010), tadpoles of only 11 species (44%) have been described, including the recently described tadpole of *Telmatobius mayoloi* Salas and Sinsch (Aguilar & Lehr 2009). *Telmatobius brevirostris* Vellard is endemic to central Peru, Huánuco region, with an altitudinal distribution ranging from 2000 to 3600 m.a.s.l. (Lehr 2005). Data on adult morphology, tadpole habitat, oral cavity and chondrocranium were given by Lehr (2005) and Aguilar & Valencia (2009), but tadpoles were left undescribed. Herein we describe the tadpole of *T. brevirostris*.

Tadpoles were collected from Huánuco region, Provincia Pachitea, Chaglla, 09°49'48"S, 75°53'32"W, 3070 m. a.s.l., by E. Lehr and C. Aguilar on 21 August 1998 (MUSM 20547, SMF 80589; n = 18); Huánuco region, Provincia Pachitea, Tomayrica, 09°55'48"S, 75°54'11"W, 3310 m a.s.l., by E. Lehr and C. Aguilar on 23 August 1998 (MUSM 20548; n = 7); Huánuco region, Provincia Ambo, Maraypata, 10°10'30"S, 76°08'21"W, 2880 m a.s.l., by E. Lehr and C. Aguilar on 18 August 1998 (MUSM 20546; n = 5). Tadpoles were fixed in 10% formalin and were staged according to Gosner stages (McDiarmid & Altig 1999). In Chaglla, Tomayrica and Maraypata tadpoles were always associated with juveniles and/or adults that match the diagnosis of *T. brevirostris* (Lehr 2005). Another sympatric *Telmatobius* species is *T. punctatus* Vellard, but in those localities none of collected tadpoles were associated with adults and/or juveniles of this species. In Chaglla, Lehr also received live adult specimens of *T. brevirostris* (MUSM 20467, SMF 80493) and *T. punctatus* (MUSM 20463, SMF 80487-88) simultaneously from a local who claimed to have found the specimens in a nearby river (Lehr 2005), but these specimens were not associated with collected tadpoles. Measurements were taken to the nearest 0.1 mm (Table 1), either with an ocular micrometer (eye diameter, interorbital distance, internarial distance, distance between tip of snout and naris, distance between naris and eye, tail muscle height, tail muscle width, oral disc width) or with digital calipers. Tadpole description format follows Aguilar *et al.* (2007). Terminology of external larval features follows Lavilla (1988) and McDiarmid & Altig (1999). Drawings were made using a stereomicroscope with a camera lucida. Museum acronyms are: MUSM = Museo de Historia Natural Universidad Nacional Mayor de San Marcos, and SMF = Forschungsinstitut und Naturmuseum Senckenberg.

Description of tadpoles. The description of the tadpole is based on one specimen at Gosner Stage 34 (MUSM 20548 series, see Fig. 1) that belongs to the exotrophic ecomorphological guild, section I, group B7 (benthic) as defined by Altig and Johnson (1989). For morphometric data of the tadpole series (Gosner stages 26–38) see Table 1. The tadpole of *Telmatobius brevirostris* at stage 34 has a total length of 63.6 mm. Body is slightly depressed (height/body width = 0.8) and oval in dorsal view. Maximum body width is at about midbody, just anterior to the spiracle tube. The snout is rounded in dorsal and lateral views (Fig. 1a). Lateral line organs are slightly visible only at high magnification in dorsal and lateral views. The mouth is located anteroventral and is surrounded by a small oral disc (width of oral disc/body width = 0.5) (Fig. 1b,d). Marginal papillae are interrupted rostrally. Intramarginal papillae present uninterrupted laterally and in mental area. Papillae are simple and conical. The suprarostrodont is longer than wide and convex. The infrarostrodont is U-shaped, convex laterally and concave medially. Both are black and keratinized with small triangular serrations. Keratodonts are small and LTRF is 2(2)/3(1). Nares are oval, small, without projections and inflexions and are dorsolaterally orientated. These are at about the same distance of the snout and eyes (snout-naris distance/naris-eye distance = 1.1). Eyes are small (eye diameter/body width = 0.1) and dorsolaterally orientated. Spiracle is single, sinistral and located at about midbody (snout-spiracle distance/body length = 0.6). Spiracular opening is oval and the inner wall is