



Redescription of the tadpole of *Macrogenioglottus alipioi* (Anura: Cycloramphidae), a rare and endemic species of the Brazilian Atlantic Forest

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The monotypic genus *Macrogenioglottus* Carvalho include the species *M. alipioi*, described from Ilhéus, state of Bahia, Brazil (Carvalho, 1946). Its distribution comprises the Atlantic Forest domain (Ab'Sáber, 1967) in the northeastern and southeastern Brazil (Tiburcio *et al.*, 2008). Abravaya and Jackson (1978) described briefly the tadpole of this species. Therefore, a more detailed description of the larval morphology is needed.

Tadpoles were collected in temporary ponds of clear water, as well as muddy water, with average depth of 15 cm, located inside the Mata do Catolé, Maceió, state of Alagoas, Brazil (9°35'S, 35°49'W; 140 m a.s.l.), in July 2006 and September 2010 (collection permits by IBAMA/RAN #184/05 and 24791-1). Two specimens were kept alive through metamorphosis and compared with adult characteristics for species identification. *Macrogenioglottus alipioi* is the only known species of the family occurring in the area. Description and illustrations were made based on five tadpoles in stage 35 (Gosner, 1960); measurements and observations on ontogenetic changes were based on 12 tadpoles between the stages 27 and 42, and two newly metamorphosed (stage 46). Terminology and measurements follows Altig and McDiarmid (1999), except for the interorbital distance, which was measured between the internal borders of the eyes. All measurements were done using a gridded ocular installed on a stereomicroscope, and a digital caliper (0.01mm). Voucher specimens were deposited in the herpetological collection of the Museu de História Natural, Universidade Federal de Alagoas, Brazil (MUFAL 2770–71, two newly metamorphosed; 8430, 8432–35, 9059, lots of tadpoles).

Description. The benthonic tadpoles (fig. 1A, B, C) have a robust and slightly depressed body, with ovoid aspect in lateral, dorsal and ventral views. The body is wider than taller. The snout is subovoid in lateral view and circular in dorsal and ventral views. Eyes are disposed dorsally and directed laterally. Nostrils exhibit circular openings located dorsally. Sinistral spiracle is located at the middle third of the body, right below the midline, with the internal wall present as a slight ridge and a dorso-posteriorly directed elliptical opening. Medium and wide cloacal tube is attached to the right side of the ventral fin in all its extension. Sarcomeres and myosepta are partially visible. Dorsal fin originates at the posterior third of the body, with its highest height at the middle third of the tail; ventral fin originates at the posterior margin of the body; pointed caudal end. Ventral oral disc (fig. 1D) with lateral emarginations, surrounded by a single row of marginal papillae, with broad interruption at the upper lip; conical and distinct papillae; submarginal papillae absent. The labial tooth row formula (LTRF) is 2(2)/3(1), A–2 with a small V-shaped interruption and P–1 with one interruption where about three denticles could fit. Pigmented and serrated jaw sheaths. Upper jaw arch-shaped and lower jaw open V-shaped.

Measurements (in mm) of the tadpoles in developmental stage 35 (n=5) are as follows (mean ± standard deviation (range)): total length 58.4 ± 5.4 (54.0–67.6); body length 26.2 ± 2.3 (23.8–29.9); body height 14.4 ± 0.6 (13.6–15.1); body width 18.6 ± 2.0 (15.8–21.0); tail length 32.2 ± 3.4 (29.1–37.7); tail height 14.2 ± 1.8 (12.4–16.9); dorsal fin height 5.8 ± 0.4 (5.3–6.2); ventral fin height 4.1 ± 1.1 (3.0–5.3); tail musculature height 5.3 ± 0.6 (4.6–6.1); snout-nostril distance 5.3 ± 1.3 (3.0–6.0); internostril distance 1.8 ± 0.3 (1.5–2.1); nostril-eye distance 2.7 ± 0.4 (2.0–2.6); eye diameter 1.9 ± 0.3 (1.5–2.2); interorbital distance 5.3 ± 0.5 (4.8–6.1); oral disc width 4.9 ± 1.2 (4.1–7.1); spiracle length 2.5 ± 1.3 (1.5–4.7); and cloacal tube length 3.2 ± 0.6 (2.5–4.0).

Color. When alive, exhibits a dark brown body. The dorsum has dark punctuations grouped in spots without a defined pattern; such spots are more evident on the tail, which is translucent. The ventral region has a milky color, so it is possible to observe the intestine by transparency. In the preservative solution the body becomes even more translucent.