



The tadpole of *Melanophryniscus atroluteus* (Miranda Ribeiro, 1902) (Anura: Bufonidae) from Argentina and Uruguay

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Melanophryniscus atroluteus (Miranda-Ribeiro) is a poorly known species of the *M. stelzneri* species group; it inhabits open areas of north-eastern Argentina, southern Brazil, south-eastern Paraguay, and northern Uruguay. In this correspondence we describe the tadpole external morphology of this species for the first time.

Specimens used in the present study and examined for comparison are deposited in Diego Baldo's Collection, housed at Museo de La Plata, La Plata, Argentina (MLP DB) and Vertebrates Zoology Collection, Facultad de Ciencias, Universidad de la República, Montevideo, Uruguay (ZVCB). Larvae description is based on 15 specimens at stages 31–36 (Gosner 1960), from the lot MLP DB 2375, collected at Ñu Pyahú, Candelaria, Misiones, Argentina (27 29 25S, 55 40 06W), on May 12, 2003. Species identification was based on some specimens reared through metamorphosis. Individuals were measured to the nearest 0.1 millimeters, under a stereoscopic microscope with a micrometric ocular. Comparative material from Uruguay (ZVCB 11445–6, 11449–50, 11453, 11455–7; stages 30–41) was collected at Parque Gran Bretaña, Rivera (34 20S; 53 48W), on April 24, 2005. Morphological terminology mainly follows that of Altig and McDiarmid (1999). Twenty two morphometric variables were measured, eight of them according to Altig and McDiarmid (1999): total length (TL), body length (BL), tail length (TAL), tail musculature height (TMH), maximum tail height (MTH), internarial distance (IND, measured between the internal edges of narial apertures), interorbital distance (IOD, distance between interior edges of eyes), and tail musculature width (TMW). The rest were recorded as follows (according to Lavilla & Scrocchi 1986): body maximum width (BMW), body width at nostrils level (BWN), body width at eye level (BWE), body maximum height (BMH), rostro-spiracular distance (RSD, measured horizontally from tip of snout to posterior edge of the tube), fronto-nasal distance (FN, from tip of snout to anterior edge of nostrils), eye-nostril distance (END, from posterior edge of nostril to anterior edge of eye), nostril major axis (N), extra nasal distance (EN, distance between external edges of nares), eye diameter (E), extraocular distance (EO, measured between the external edges of pupils), oral disc width (OD, disc measured folded), dorsal gap length (DG) and ventral gap length (VG). Measures are given as mean \pm SD (range).

Tadpoles of *Melanophryniscus atroluteus* at stages 31–36 (Fig. 1) have a total length about 12 mm (9.39–13.79). Body length slightly larger than a third of total length (BL/TL = 0.4 ± 0.03); body shape oval in dorsal view, with maximum body width at posterior portion of head or at abdominal region; body slightly depressed (BMH/BMW = 0.72 ± 0.07); snout rounded in dorsal and lateral views; and ventral contour of body flat or slightly concave at gular and branchial regions, and convex at abdominal region; eyes large (E/BWE = 0.21 ± 0.02) and placed dorsally (IOD/BWE = 0.33 ± 0.04); nostrils placed dorsolaterally (EN/BWE = 0.45 ± 0.05), rounded, visible in dorsal, lateral and frontal views, with a slightly elevated marginal rim all around, closer to eyes than to tip of snout (FN/END = 1.22 ± 0.19); pineal end organ present (evident as a pigmentless spot between anterior edges of eyes); spiracle single, lateral, sinistral, very short, directed posterodorsally, with its inner wall free, placed on posterior third of the body (RSD/BL = 0.71 ± 0.09); spiracular opening oval, its major axis dorsoventrally oriented, with a diameter smaller than tube diameter, visible in lateral and dorsal views; gut loop on left side of abdominal region; vent tube somewhat wider at its beginning, reaching margin of ventral fin, running along its right side, concealed by it; vent tube opening dextral; tail medium-sized (TAL/TL = 0.59 ± 0.03), slightly higher than body (FH/BMH = 1.11 ± 0.13); tail axis straight, caudal musculature with myotomes evident in anterior half, becoming narrower gradually toward tip of tail, not reaching the end of tail; fins slightly convex, dorsal fin originating on body (expanded), and ventral fin originating on left side of vent tube; tail tip rounded. Oral disc emarginate (Fig. 1D), anteroventral, small (OD/BMW = 0.52 ± 0.03), not visible dorsally; anterior labium larger than