

## Correspondence



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## The tadpole of *Pleurodema cordobae* Valetti, Salas & Martino, 2009 (Anura: Leiuperidae) from Córdoba, Argentina

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The frog genus Pleurodema Tschudi, 1838 is distributed from Panama throughout South America to southern Chile and Argentina and currently is represented by 15 species, of which 10 have been recorded in Argentina (Faivovich et al. 2012). Recently, Valetti et al. (2009) re-described the tetraploid species P. kriegi and described a related cryptic species, the octoploid Pleurodema cordobae. These species are endemic of the Sierra Grande of Córdoba (Ferraro & Casagranda 2009; Valetti et al. 2009; Valetti et al. 2011) and together with the tetraploid P. bibrioni comprise a clade of polyploid cryptic species within the genus (Faivovich et al. 2012). The external morphology has been described for the tadpoles of P. bibrioni and P. kriegi by Kolenc et al. (2009), but the tadpole of P. cordobae remains undescribed. The aim of this work is to describe the larval external morphology and oral disc of new species *P. cordobae*.

Tadpoles were collected in December 2007 from semi-permanent ponds in Estancia los Tabaquillos, Córdoba province (32°23'58.4"S, 64°55'35.1" W, altitude: 2105 m). In this site its cryptic counterpart P. kriegi is not present. They were anesthetized with a 2 % chloroethane solution after capture and later fixed in 10 % buffered formalin. The description was based on 15 specimens at stage 35-38 of development (following Gosner 1960). We measured 18 morphometrical variables: Total length (TL); Body length (BL); Tail length (TAL); Maximum tail height (MTH); Upper fin height (UF); Lower fin height (LF); Tail muscle height (TMH); Tail muscle width (TMW); Body maximum width (BMW); Body maximum height (BMH); Interocular distance (IO, measured between the internal edges of eyes); Internarial distance (IN, measured between the internal edges of narial apertures); Eye diameter (ED); Rostro-spiracular distance (RS, measured horizontally from the tip of the snout to the posterior edge of the spiracular tube); Rostronarial distance (RN); Eye-narinal distance (END); Oral disc width (OD) and dorsal gap (DG). Morphometric measurements were taken on all specimens using a Zeiss SR stereomicroscope with a micrometer to nearest 0.1 mm. Terminology and measurements follows Altig & McDiarmid (1999), Grenat et al. (2009), Kolenc et al. (2009) and Galvani et al. (2012). Specimens were deposited in the herpetological collection of Fundación Miguel Lillo (FML 25039), Tucumán, Argentina.

**Descriptions of tadpole:** At stages 35-38 mean total length is  $38.98 \pm 3.56$  mm, the body length is about 40% of total length (mean BL/TL =  $0.418 \pm 0.02$ ). The body is ovoid in dorsal view with a constriction behind the cephalic region and depressed in lateral view (mean BMH/BMW =  $0.83 \pm 0.037$ ) (Fig. 1A). The maximum width is placed at the posterior portion of the head, behind the eyes. Maximum height is at the last third of the body. Tail length 3.2 times tail height. Dorsal fin is slightly higher than ventral fin (mean UF/LF= $1.106 \pm 0.04$ ). The tail musculature is robust and does not reach the tail end. The snout is trapezoidal in dorsal and ventral view. In lateral view, the end of the snout is truncated and rounded. Eyes are small (mean ED/BMW =  $0.178 \pm 0.012$ ), directed dorsolaterally, and are visible in dorsal and lateral view. Internal borders of the nares slightly elevated. Narinal openings are rounded and located dorsolaterally, more visible dorsally than laterally. Internarial distance are about half between of interocular distance (mean IN/IO =  $0.533 \pm 0.025$ ) and slightly closer to the eyes than to the tip of the snout (mean RN/END =  $1.204 \pm 0.140$ ). Spiracle tube is single, lateral, sinistral, short and posterodorsally directed. The spiracle is placed in the third quarter of the body (mean RS/BL =  $0.565 \pm 0.019$ ). Spiracular opening is positioned medially. The vent tube starts in the mid-posterior region of the abdomen; it is attached to ventral fin, opening medially.

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