



## Description of the tadpoles of *Phyllodytes brevirostris* (Anura: Hylidae)

WASHINGTON L. S. VIEIRA<sup>1,3</sup>, GINDOMAR G. SANTANA<sup>1</sup>, SÔNIA CRISTINA DA NÓBREGA CARNEIRO DOS SANTOS<sup>1</sup>, RÔMULO R. N. ALVES<sup>2</sup> & GENTIL A. PEREIRA-FILHO<sup>1</sup>

<sup>1</sup>Programa de Pós-graduação em Ciências Biológicas (Área de concentração em Zoologia) e Laboratório/Coleção de Herpetologia do Departamento de Sistemática e Ecologia, Universidade Federal da Paraíba, Campus I, João Pessoa, PB, Brasil 58059-900

<sup>2</sup>Departamento de Biologia, Universidade Estadual da Paraíba, Avenida das Baraúnas, Campina Grande, Paraíba 58109-753, Brazil

<sup>3</sup>Corresponding author. E-mail: wlsvieira@yahoo.com.br

The genus *Phyllodytes*, comprises twelve species (Frost 2008), and only the tadpoles of *Phyllodytes auratus*, *P. melanomystax*, *P. gyrinaethes* e *P. edelmoi* were described until now. The present work describes the tadpoles of *P. brevirostris*, using external morphological features and internal oral characteristics, and compares them to other tadpoles of species belonging to the genus.

Tadpoles of *P. brevirostris* (UFPB 4881) were captured (august of 2008) inside of terrestrial bromeliads (*Aechmea patentissima*) in an remnant of Atlantic Forest (07°10'51''S, 35°05'37''W), in the municipality of Cruz do Espírito Santo, Paraíba State, NE Brazil. Analyses of the external morphological characteristics are based on tadpoles in stage 35 (Gosner 1960). Measurements were taken of 40 individuals using a stereoscopic microscope fitted with a 0.8x micrometric lens, except for the measurements of total length and body length, which were made using precision calipers (0.1 mm). Terminology follows Altig & McDiarmid (1999). In order to observe the marginal papillae, the oral disk was stained with a 2% solution of methylene blue. Additionally, four individuals were dissected and stained with a 2% solution of methylene blue in order to observe their internal oral structures. The buccopharyngeal terminology follows Wassersug (1976). Seven tadpoles finished the metamorphose and were identified as *P. brevirostris*. All individuals were fixed in 4% formalin and deposited at the Coleção Herpetológica do Departamento de Sistemática e Ecologia of the Universidade Federal da Paraíba.

**Description of the tadpoles.** Tadpoles at Gosner stage 37 have globular body that are slightly compressed in lateral view, ovoid in a dorsal view (Figs. 1A and B). The snout is short, rounded in dorsal and lateral view, eyes large and dorsally positioned. Nostrils small, rounded, with nostrils dorsally positioned, half way the distance between the eyes and the snout. Spiracle short, sinistral, fused to the body and located laterally at the middle third of the body, with the circular opening dorsally oriented. Cloacal tube median, short, and fused to the tail. Dorsal tail fin higher than lower tail fin.

**Oral disk.** Oral disk ventrally placed, not emarginate, surrounded by marginal papillae interrupted by a dorsal gap. Marginal papillae are arranged in a single row on the upper lip, double row in the lateral and ventral regions of the oral disk (Fig. 1C). Papillae conical, simple and rounded. The tadpoles examined showed a LRTF 2(2)/5. The P-1 row is interrupted medially, and the P-5 row is shorter than the others (Fig. 1C). Upper jaw sheath U-shaped and lower sheath slightly convex.

**Coloration.** In life, the dorsal region of the tadpoles has a light-brown color, with gray to olive-green tones, and dark-brown splotches; flanks the same color as the dorsal region. Dorsal and ventral fins not pigmented; muscular portion of the tail fin with dorsal region more pigmented than the ventral region. Tadpole measurements are listed in table 1.

**Internal Oral Anatomy.** Buccal roof slightly triangular, narrow in the prenarinal arena and caudally wider. Internal nares circular and postnarial arena with 14–20 pustulations. Median ridge small with trapezoidal shape and with 5 pustulations on the free external surface. Buccal roof arena (BRA) poorly defined, with 20–26 pustulations. Glandular zone poorly defined. Dorsal velum gradually curving, interrupted medially and with free edges without pustulations (Fig. 1E).

Buccal floor with one pair of infralabial papillae, conical, with acute tip and margins without pustulations. Two simple, conical lingual papillae with acute tips. Buccal floor arena (BFA) circular, with four long papillae all conical and with acute apices. The medial region of the BFA shows 14 uniformly spaced pustulations. Buccal pocket transversally oriented on the medial region of the buccal floor. Velar surface free, long, and with small marginal projections.