



Is a dwarf population of *Corythomantis greeningi* Boulenger, 1896 (Anura, Hylidae) a new species?

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Abstract

We studied the possible existence of a new dwarf species of the monotypic genus *Corythomantis*, based on tadpole morphology and advertisement call characteristics of two populations from State of Bahia: Serra São José (dwarf adults) and Lages (normal adult size). We compared the tadpole morphology and the advertisement call of *Corythomantis greeningi* from Lages with the population of Serra São José. We did not find any differences supporting that the population of Lages could represent a new species of *Corythomantis*. The tadpoles show external morphological characters associated with benthonic habitats and dental formula 5–6(1)/5–8. The advertisement call is composed of one pulsed note with duration of approximately 0.30 s and dominant frequency of approximately 1.00 kHz.

Key words: Casque-head frog, tadpole, advertisement call

Introduction

Corythomantis is a monotypic genus whose distribution is restricted to xeric and sub humid regions of north-eastern Brazil (Frost 2007); it belongs to the tribe Lophiohylini (Hylidae: Hylinae) sensu Frost *et al.* 2006. Recent phylogenetic analyses confirm *Corythomantis greeningi* to be closely related to other casque-head frogs of the genus *Aparasphenodon*, *Argenteohyla*, *Nyctimantis*, *Trachycephalus*, *Osteocephalus*, *Osteopilus*, and *Tepuihyla* (Faivovich *et al.* 2005).

As well as other casque-head frogs, *Corythomantis greeningi* has been widely associated with living in or seeking refuge in bromeliads or tree holes (Jared *et al.* 1999). However, this species reproduces in temporary shallow rivers, which mainly form during the rainy season across wide bare stones locally named “lagedos”. In this environment, males call among rock crevices (Figure 1a) and tadpoles can be observed in small ponds along the drying river bed or in lotic waters (Figure 1b).

A few studies about this species have focused on physiological, ecological and behavioural xeric adaptations, mainly related to the peculiar co-ossification between the dermis and the underlying cranial bones and the associated phragmotic behaviour (De Andrade & Abe 1997; Toledo & Jared 1993; Jared *et al.* 1999; Jared *et al.* 2005). Jared *et al.* 1999 reported some reproductive aspects of this species, including territorial behaviour and a territorial call. However, the tadpole morphology and advertisement calls remain unknown.

During the execution of different studies in the north-eastern semi-arid region of Bahia State, Brazil, we found a *Corythomantis greeningi* population with adult individuals approximately 45 % smaller than the type specimen (SVL=78 mm, Boulenger, 1896) or other specimen from different localities such as Chapadinha (73