



## A new species of *Cycloramphus* Tschudi (Anura: Cycloramphidae) from the Parque Nacional da Serra dos Órgãos, Southeastern Brazil

LUIZ NORBERTO WEBER<sup>1</sup>, VANESSA KRUTH VERDADE<sup>2</sup>, RODRIGO DE OLIVEIRA LULA SALLES<sup>3</sup>, ANTOINE FOUQUET<sup>4</sup> & SERGIO POTSCH DE CARVALHO-E-SILVA<sup>5</sup>

<sup>1</sup>Universidade Federal da Bahia, Instituto de Ciências Ambientais e Desenvolvimento Sustentável (ICADS), Campus Reitor Edgar Santos, Rua Prof. José Seabra s/n, 47805-100, Barreiras, Bahia, Brasil. E-mail: luiznorbertow@gmail.com

<sup>2</sup>Universidade Federal do ABC, Centro de Ciências Naturais e Humanas, Av. dos Estados 5001, 09210-971, Santo André, São Paulo, Brasil. Corresponding author. E-mail: vverdade@gmail.com

<sup>3</sup>Universidade Federal do Rio de Janeiro, Museu Nacional, Quinta da Boa Vista, 20940-040, Rio de Janeiro, Rio de Janeiro, Brasil. E-mail: sallesbio@gmail.com

<sup>4</sup>Universidade de São Paulo, Instituto de Biociências, Caixa Postal 11461, 05422-970, São Paulo, São Paulo, Brasil. E-mail: fouquet.antoine@gmail.com

<sup>5</sup>Universidade Federal do Rio de Janeiro, Instituto de Biologia, Caixa Postal 68.044, 21944-970, Ilha do Fundão, Rio de Janeiro, Brasil. E-mail: spotsch@gmail.com

### Abstract

We report here the discovery of a new species of frog associated to the open areas of the highlands of the Parque Nacional da Serra dos Órgãos. The new species, *Cycloramphus organensis* is characterized by a unique skin texture, medium size (maximum male and female SVL 26.4 mm and 33.3 mm respectively), dorsal surfaces uniformly brick red colored, uniformly areolate skin on dorsum, pupil horizontal, iris with a menisc on upper margin; no fleshy tubercles on eyelid, tympanic annulus concealed beneath skin, macroglands not visible externally, fingers and toes without fringes and webs; supernumerary palmar and plantar tubercles absent, nuptial spines absent. Despite the presence of an iris menisc, a character shared by frogs of both genera *Cycloramphus* and *Zachaenus* Cope, the combination of morphological characters is so unique that the allocation of the species to any of these genera remains ambiguous. Consequently, we used additional molecular-based phylogenetic analyses to ascertain the position of the new taxon. The new species proved to be embedded within the genus *Cycloramphus*.

**Key words:** Amphibia, *Cycloramphus organensis* sp. nov., taxonomy, Atlantic Forest, open highlands, Osteology

### Introduction

The genus *Cycloramphus* Tschudi is endemic to the Atlantic forest and contains 26 species (Frost 2010), distributed from the State of Bahia to the State of Rio Grande do Sul in Eastern Brazil (Heyer 1983ab; Frost 2010). The species in the genus can be divided into two ecological categories, stream dwellers and forest litter dwellers, both associated to forested areas of sharp relief. *Cycloramphus bandeirensis* Heyer is the only exception known so far, living in the open highlands of the Parque Nacional do Caparaó, located at the junction between the States of Espírito Santo and Minas Gerais (Heyer 1983a; Heyer & Maxson 1983).

When visiting the Parque Nacional da Serra dos Órgãos in 2008, we found a new species of frog associated to the open areas of the park. This conservational unit was created in 1939, and has been visited by many herpetologists since then. On the top of the discovery of a new species of frog in the area, we were thrilled by the general appearance of the specimens, which was so peculiar that it was difficult to promptly assign them to any known genus or family.

The discovery of this singular frog in a well-sampled area brings attention to how far we are to an accurate estimation of the diversity of the Neotropical anurofauna, and more specifically that of the Atlantic forest. Herein, we describe the new species in the genus *Cycloramphus*, the second to live in open highlands of Southeastern Brazil. The new species distinctiveness and relationships within the genus are also discussed.