



A new species of *Trachycephalus* (Anura: Hylidae) from the Atlantic Rain Forest in southern Brazil

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Abstract

A new species of *Trachycephalus* is described from the *Araucaria* plateau of northern Rio Grande do Sul and western Santa Catarina states, southern Brazil, where it occurs in forests from about 550 to 950 m a.s.l. The new species was previously confused with *T. imitatrix* and might also occur in adjacent regions of Paraná state and Misiones province, Argentina. It is a large sized hylid (mean SVL 77.6 mm in females, 57.2 mm in males) with greenish to olive or brown dorsal coloration in life, conspicuous dorsal pattern of dark ocelli and spots, and broad, black and white-edged transverse bands on limbs. The yellow iris has a characteristic black reticulated pattern forming a radial symmetric network of four light, petal-like spots. The advertisement call consists of a long series of multi-pulsed notes with duration between 470–760 ms, note intervals between 0.8–3.0 s and note repetition rates of 24–36 per s. The dominant frequency spectrum ranges between 1100 and 1800 Hz, with a peak at about 1550 Hz.

Key words: *Trachycephalus dibernardo* sp. nov., taxonomy, vocalization, Rio Grande do Sul, Santa Catarina, Brazil

Introduction

Currently, the hylid genus *Trachycephalus* contains ten species (Faivovich *et al.*, 2005; Frost, 2008), which are distributed from the lowlands of Mexico, Central and South America east of the Andes, to northern Argentina and southern Brazil: *T. atlas* Bokermann, 1966, *T. coriaceus* (Peters, 1867), *T. hadroceps* (Duellman & Hoogmoed, 1992), *T. imitatrix* (Miranda-Ribeiro, 1926), *T. jordani* (Stejneger & Test, 1891), *T. lepidus* (Pombal, Haddad & Cruz, 2003), *T. mesophaeus* (Hensel, 1867), *T. nigromaculatus* Tschudi, 1838, *T. resinifictrix* (Goeldi, 1907), and *T. venulosus* (Laurenti, 1768). The genus was genetically diagnosed by 37 transformations in nuclear and mitochondrial protein and ribosomal genes by Faivovich *et al.* (2005). The only morphological synapomorphy of *Trachycephalus* seems to be the presence of paired lateral vocal sacs protruding posterior to the angles of the jaws when inflated (Trueb & Duellman, 1971; Tyler, 1971; Faivovich *et al.*, 2005).

During field studies in the Pró Mata reserve in north-eastern Rio Grande do Sul, southern Brazil, we collected three specimens of a distinct, large-sized hylid. Due to morphological similarities with *Trachycephalus imitatrix*, this species was preliminarily referred to *Phrynohyas imitatrix* by Kwet (1997a, b, 1998) and Kwet & Di-Bernardo (1999) or to *Phrynohyas* sp. (aff.) *imitatrix* by Kwet (2001). Additional specimens were later collected during a fauna rescue action in extreme northern Rio Grande do Sul near the border to Santa Catarina, and we also found conspecific frogs in a small amphibian collection from Seara, western Santa Catarina. Further examination of all these specimens revealed significant differences from *T. imitatrix* in external char-