

First record of *Pristimantis rufioculis* (DUELLMAN & PRAMUK, 1999), from Ecuador

The genus *Pristimantis* JIMÉNEZ DE LA ESPADA, 1870, is the most diverse clade of Neotropical, direct-developing frogs containing about 6.7 % of the 7778 described species of amphibians of the world (FROST 2017). Ecuador is home to 201 species of this genus, 112 of which are endemic to the country (RON et al. 2017). Nonetheless, the knowledge on Ecuadorian *Pristimantis* species is still limited, with several species undescribed, unreported, or little known within many explored and unexplored areas (ORTEGA-ANDRADE 2010; ORTEGA-ANDRADE et al. 2015; BRITO et al. 2017a). For example, the southeastern Amazon, Andean slopes and the Cordillera del Condor have extensively been studied in the last ten years (ALMENDARIZ et al. 2014; VALENCIA et al. 2017), and 16 new anuran species were discovered, eleven of which correspond to *Pristimantis* species (e.g., CISNEROS-HEREDIA & MORALES 2008; CISNEROS-HEREDIA et al. 2009; TERÁN-VÁLDEZ & GUAYASAMÍN 2010; JUNGFER 2011; ALMENDARIZ et al. 2012, 2014; BRITO et al. 2014, 2016, 2017 a, 2017b). However, several of these new geographical

records or even new species remained under permanent review or unnamed until clarification of their taxonomic status (ALMENDARIZ et al. 2014). The present note documents the first record of *Pristimantis rufioculis* (DUELLMAN & PRAMUK, 1999) from Ecuador.

A male specimen of *P. rufioculis* was collected on May 21, 2017, at the locality Campanilla (04°03'27" S, 78°47'31" W; 1,747 m a.s.l.), San Carlos, Province of Zamora Chinchipe, on the eastern Andean slopes (Fig. 1) and housed at the Museo de Anfibios y Reptiles, Fundación Herpetológica Gustavo Orcés, Quito, Ecuador (FHGO 12582). The new locality is the third known for the species, and represents an extension of its known geographic range by ca. 75 km SSW from the nearest reported locality. It is an adult male of 18.3 mm SVL identified as *P. rufioculis* by having the following characters as described by DUELLMAN & PRAMUK (1999): "(1) skin of dorsum smooth, that on venter areolate, discoidal fold present, dorsolateral folds absent; (2) tympanic membrane smooth, tympanic annulus visible beneath skin, its length 30 % length of eye; (3) snout moderately long, rounded in dorsal view and in profile; (4) upper eyelid lacking tubercles, narrower than interorbital distance; cranial crests absent; (5) vomerine odontophores elongately ovoid; (6) male lacking vocal slits and nuptial pads; (7) Finger I shorter than II; discs on outer fingers expanded; (8) fingers lacking lateral fringes; (9) ulnar tubercles absent; (10) heel and tarsus lacking tubercles; (11) inner metatarsal tubercle oval, three times the size of the outer metatarsal tubercle; supernumerary plantar tubercles minute; (12) toes bearing narrow lateral fringes; webbing absent; Toe V longer than III; (13) dorsum throat; venter cream suffused with brown; throat brown with cream flecks."

The coloration in life was similar to the pattern of males described by DUELLMAN & LEHR (2009): "...the dorsum is olive with a grayish white snout and tan elbows and heels. The groin and anterior surfaces of the thighs are mottled yellow and dull red, and venter is yellow with brown mottling. The iris is red..." Some minor variation was observed on the Ecuadorian specimen: (1) pale brown blotch on dorsum;

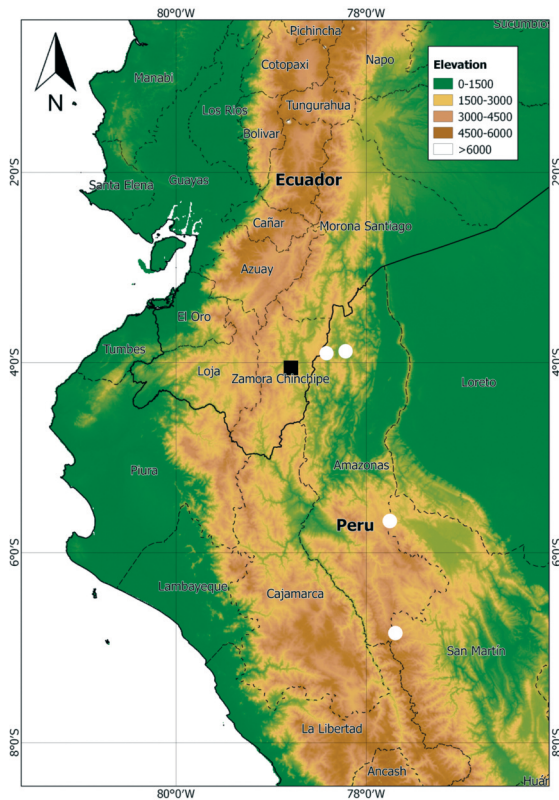


Fig. 1: Records of *Pristimantis rufioculis* (DUELLMAN & PRAMUK, 1999), in Ecuador (black square) and Perú (white dots).

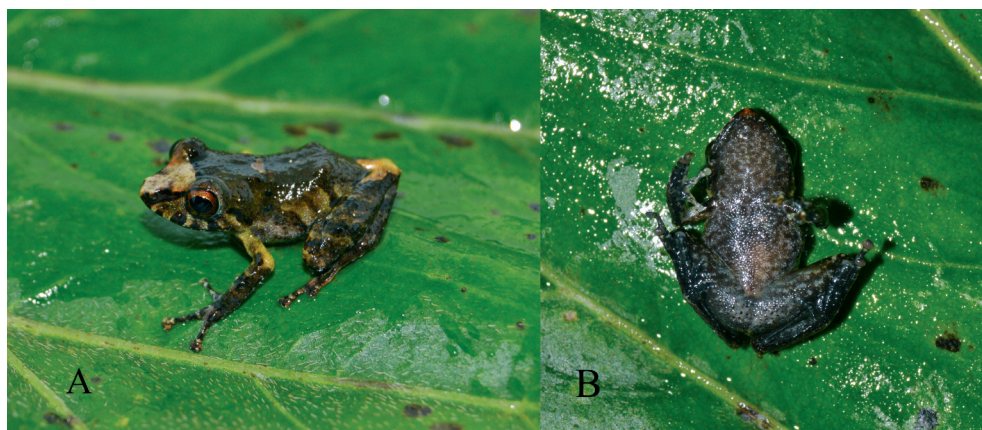


Fig. 2: Male adult of *Pristimantis rufioculis* (FHGO 12582) from Ecuador; SVL: 18.3 mm. A - dorsolateral view, B - ventral view.

(2) labial bars strongly defined; (3) throat strongly mottled with brown; (4) interorbital stripe slightly defined (Fig. 2).

The Ecuadorian specimen was found by the first author at 20:49 h in a secondary evergreen low montane forest of the eastern Andean slopes (MINISTERIO DEL AMBIENTE ECUADOR 2013) where it was perched on a leaf, 0.7 m above the ground. At the new locality, *P. rufioculis* was sympatric with other three species of the genus, *P. condor* (LYNCH & DUELLMAN, 1980), *P. prolatus* (LYNCH & DUELLMAN, 1980) and *P. trachyblepharis* (BOULENGER, 1918).

*Pristimantis rufioculis* was described on the basis of two specimens, a subadult female (holotype), and an adult male (paratype) from Abra Pardo de Miguel, Departamento San Martín in the northern part of the Cordillera Central, and six additional referred specimens from Río Comainas, Provincia Condorcanqui, Departamento Amazonas, on the eastern slopes of the Cordillera del Condor, both localities in northern Perú, at elevations between 1.138 to 2.870 m (DUELLMAN & PRAMUK 1999; DUELLMAN & LEHR 2009). The Peruvian specimens were found in humid upper montane and humid montane forests, perching on low vegetation up to one meter high (DUELLMAN & LEHR 2009). No other information is available for *P. rufioculis*.

*Pristimantis rufioculis* is listed as Data Deficient (DD) under IUCN criteria in Perú (RODRIGUEZ et al. 2014) which equally applies to Ecuador. The only specimen collected was found in a remnant of secondary forest where a gold mining company is operating. Gold and copper mining adversely affect the habitat of amphibians due to intensive logging that destroys several ecosystems. Also, irreversible and negative impact has been observed on the water bodies (rivers, streams, marshes and seasonal ponds), due to the increase in suspended solids during mining operations, producing a rapid and dramatic decline of amphibian populations (VALENCIA et al. 2017).

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