A NEW SPECIES OF BUFO (ANURA: BUFONIDAE) FROM COLOMBIA

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ABSTRACT: We describe a new species of Bufo from the eastern slopes of the Cordillera Oriental in Colombia. The relationship with the phenetic group Bufo typhonius and genus Rhamphophryne is discussed.

Key words: Anura; Bufo cristinae new species; Bufo typhonius group; Bufonidae; Colombia; Taxonomy

Based on morphological and osteological characters, Duellman and Schulte (1992) recognized eight phenetic groups for 54 species of South American Bufo and predicted that “the number will increase with the recognition of many populations now assigned” to Bufo typhonius (Bufo margaritifera; Hass et al., 1995). As part of an investigation on the populations of Bufo typhonius in Colombia (Vélez, 1995, 1999), we confirmed new distributions and identified new species in the country. Colombia is the country with the greatest number of amphibian species of the planet, more than half of the 600 species occur in the area occupied by the Andean cordilleras, with fewer species and a lower level of endemism occurring in the Amazonian lowlands (Ardila-R. and Ruiz-C., 1997; Lynch et al., 1997; Ruiz-C. et al., 1996). Herein we describe one species of Bufo from the slopes of the Cordillera Oriental.

MATERIALS AND METHODS

Specimens are deposited in the Instituto de Ciencias Naturales, Universidad Nacional de Colombia, Santafé de Bogotá (ICN). Measurements of specimens were recorded to the nearest 0.1 mm with dial calipers. Sex and sexual maturity were determined by direct observation of the gonads in both sexes and presence or absence of nuptial excrescencies in males. Abbreviations are as follows: ESD (eye–snout distance, from anterior corner of eye to snout), FML (femur length), FTL (foot length, distance from proximal edge of outer metatarsal tubercle to tip of Toe III), HL (head length, distance from tip of snout to angle of jaw), HW (head width at angles of jaw), PGL (parotoid gland length), PGW (greatest width of parotoid gland), SOCH (supraorbital crest height, greatest height from the ventral margin of the mandible to supraorbital crest), STCD (distance between supratympanic crests), STCH (supratympanic crest height, distance from angle of jaw to greatest height of supratympanic crest), SVL (snout–vent length), TIBL (tibia length). We based descriptions of the species on the adult specimens only and of the skeleton on dissections of a cleared-and-stained male, which was prepared in the manner of Dingerkus and Uhler (1977). Osteological nomenclature follows Fabrezi (1992, 1993), Trewavas (1933), Trueb (1973, 1993), and Wild (1997). We report webbing formulae as described by Myers and Duellman (1982) and inguinal fat bodies following Da Silva and Mendelson III (1999). Types of vegetation are classified following the system of Espinal (1977).

Bufo cristinae sp. nov.

Holotype.—Adult female, ICN 26240, obtained by John D. Lynch, Pedro M. Ruiz-C., and Ricardo Sanchez (field number JDL 17939) on 27 June 1990, at Vereda Tarqui, Km 53–54 on Carretera Alta-