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A new species of *Leptolalax* (Anura: Megophryidae) from northeastern Cambodia

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Abstract

We describe a new species of megophryid frog in the genus *Leptolalax* from the Kon Tum Plateau in northeastern Cambodia. *Leptolalax melicus* **sp. nov.** is distinguished from its congeners by a combination of an off-white to pale pink ventral surface with diffuse dark brown blotches and distinct white speckling, finger I < II, an absence of webbing and dermal fringes on fingers, slight basal webbing and no dermal fringes on toes, body size (19.5–22.7 mm for seven adult males), an absence of ventrolateral glandular lines, dorsum mostly smooth with no skin ridges, and a unique advertisement call consisting of a single long introductory note containing 8–50 pulses, followed by 3–11 predominantly single-pulsed notes, and with an average dominant frequency of 3560–3610 Hz. *Leptolalax melicus* can be further distinguished from the morphologically similar *L. applebyi* in having more distinct dorsal patterning, and significantly larger pectoral and femoral glands. *Leptolalax melicus* and *L. applebyi* also differ by 6.1% sequence divergence at the 16S mtDNA gene. All specimens of *L. melicus* were found near rocky streams in evergreen forest between 650–850 m elevation. We suggest the new species should be considered Data Deficient following IUCN's Red List categories.

Key words: Acoustics, Anura, *Leptolalax melicus* **sp. nov.**, Ratanakiri, Cambodia, Southeast Asia

Introduction

The genus *Leptolalax* (Dubois 1983) is a group of small, cryptic megophryid frogs associated with small to medium-sized streams in hilly evergreen forests. The genus is distributed throughout Southeast Asia, southern China and northeastern India (Frost 2010). Due to an increase in field surveys in the region, and the incorporation of acoustic and molecular data in delineating species boundaries in amphibians, there has been a rapid increase in the number of *Leptolalax* species described in recent decades. From only four species in 1983 (Dubois 1983), the number of known *Leptolalax* currently stands at 26, nine of which were described in the last decade (Frost 2010).

Many areas of Cambodia remain poorly surveyed and new species of amphibians continue to be discovered, particularly in areas of sufficient geographic relief to contain evergreen forest and swift, rocky streams (e.g. Ohler *et al*. 2002; Stuart *et al*. 2006; Grismer *et al*. 2007). There are three such areas in Cambodia: the Cardamom Mountains in the southwest of Cambodia, the lower slopes of the Da Lat Plateau in the extreme east, and the lower slopes of the Kon Tum Plateau in the northeast. To date, most herpetological surveys in Cambodia have focused on the Cardamom Mountains (Ohler *et al*. 2002; Stuart & Emmett 2006; Grismer *et al*. 2007).

In Cambodia, *Leptolalax* has only been reported from a single metamorphic individual of an undetermined species collected in the Cardamom Mountains (Ohler *et al*. 2002), and two undetermined

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