



A new species of *Leptolalax* (Anura: Megophryidae) from central Vietnam

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Abstract

We describe a new species of megophryid frog in the genus *Leptolalax* from central Vietnam. *Leptolalax applebyi* is distinguished from its congeners by a combination of body size (19.6–20.8 mm for five adult males; 21.7 mm for single adult female), uniformly smooth, dark brown dorsum lacking tubercles, dark brownish pink ventral surface with white speckling, an absence of webbing and dermal fringes on fingers, slight basal webbing and no dermal fringes on toes, and short tibia (TIB:SVL 0.466–0.480). The advertisement call of *L. applebyi* consists of 4–5 notes with a dominant frequency of 3962.1–4306.6 Hz, repeated at a rate of approximately 9 notes per second. All specimens were found at the headwaters of rocky streams in evergreen forest above 1300 m elevation. We suggest the species should be considered Data Deficient following IUCN's Red List categories.

Key words: Acoustics, Anura, *Leptolalax applebyi* sp. nov., Quang Nam, Southeast Asia

Introduction

The Southeast Asian megophryid genus *Leptolalax* Dubois is an assemblage of small, cryptic frogs inhabiting the forest floor. The number of species described in the genus has increased rapidly in recent decades, from only four species in 1983 (Dubois 1983), to over 20 species to date (Frost 2009). This increase is a reflection of both intensified field surveys in the region, and the use of advertisement call analysis in delineating species boundaries (Matsui 1997, 2006; Matsui *et al.* 2009).

Frogs of the genus *Leptolalax* breed in small or medium-sized streams in hilly evergreen forests (Inger & Stuebing 2005). With often specific habitat requirements and apparently localised distributions, it is likely that species within *Leptolalax* are vulnerable to habitat loss and degradation. Of the 23 described *Leptolalax* species, six are considered threatened, three are listed as near-threatened, and a further seven species are too poorly known to assess their conservation status and are listed as data deficient (Stuart *et al.* 2008). The most recently described species (Matsui *et al.* 2009) has yet to be assessed.

Six species of *Leptolalax* are currently known from Vietnam, but only two species, *L. pelodytoides* and *L. tuberosus*, have been reported from the central Annamites of Vietnam (Nguyen *et al.* 2009). During a field survey in central Vietnam, we recorded the calls and collected specimens of a small *Leptolalax* species that differs from all described congeners in morphology and advertisement call.

Materials and methods

We recorded morphological data from specimens preserved in 10% formalin and then stored in 70% ethanol. Morphometric data were taken (to the nearest 0.1 mm) with digital calipers. Measurements include snout-vent