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A new species of *Leptotalax* (Anura: Megophryidae) from Gunung Mulu National Park, Sarawak, East Malaysia (Borneo)

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Abstract

We describe a new species of *Leptotalax* from Gunung Mulu National Park in eastern Sarawak, Malaysian Borneo. The new species had been assigned to *Leptotalax dringi* and *Leptotalax gracilis* in the past. It is shown to differ from both these species and from all other species of the genus by a unique combination of morphological characters including large body size, rounded snout, interorbital distance being smaller than width of upper eyelid, bipartite subgular vocal sac in males, basal toe webbing, shagreened skin with tiny tubercles on dorsum and dorsal side of head, angled supratympanic fold, small pectoral glands, absence of supraaxillary glands and ventrolateral glandular ridges, spotted venter, advertisement call consisting of long series of 8–289 notes, each composed of three or four pulses, and dominant frequency at 7225–9190 Hz, with prominent frequency modulation.

Key words: Amphibia, *Leptotalax fritinniens* sp. n., bioacoustics, advertisement call, Sarawak, Sabah, Brunei

Introduction

Six species of *Leptotalax* have been described from Borneo, all of which appear to be endemic to the island (Günther 1872, Dubois 1987, Malkmus 1992, Matsui 1997, Inger *et al.* 1997, Dehling 2012a, 2012b). Bornean populations of *Leptotalax* had been considered a single species, *L. gracilis*, until Dubois (1987) described *L. dringi* from Gunung Mulu in Sarawak. Subsequently, R. Malkmus and M. Matsui described three new species based on differences in morphology and bioacoustics (Malkmus 1992, Malkmus & Riede 1993, Matsui 1997). Matsui (1997) also described the advertisement calls of *L. gracilis* and of a population from Camp 5 in Gunung Mulu National Park, eastern Sarawak, which he assigned to *L. dringi* using the identification key of Inger *et al.* (1995). Recently, we rediscovered *L. dringi*, re-examined its type series and re-analysed a recording of the advertisement call of one of the paratypes (Matsui & Dehling 2012). The results of our study revealed that the population from Camp 5 in Gunung Mulu National Park is in fact not conspecific with *L. dringi* but represents an undescribed species, which we describe formally herein.

Including the new species, 18 species of anurans have been described from Gunung Mulu National Park, twelve of which are considered endemic (Dring 1983a, 1983b, 1987; Kiew 1984; Dubois 1987; Inger *et al.* 1995; Dehling 2008, 2010, 2011; Matsui & Dehling 2012).

Material and methods

We collected the type specimens during fieldwork in Gunung Mulu National Park between September 2007 and January 2008 and in March 2009 (JMD), and in December 1989, July 1993, August 2010, and February 2011 (MM).