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## A new species of *Tropidophorus* Duméril & Bibron, 1839 (Squamata: Sauria: Scincidae) from Sarawak, East Malaysia (Borneo)

YONG MIN PUI<sup>1</sup>, BENJAMIN R. KARIN<sup>2,3</sup>, AARON M. BAUER<sup>2</sup> & INDRANEIL DAS<sup>1</sup>

<sup>1</sup>Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak, 94300, Kota Samarahan, Sarawak, Malaysia. E-mail: [pui8783ibec@gmail.com](mailto:pui8783ibec@gmail.com); [idas@unimas.my](mailto:idas@unimas.my)

<sup>2</sup>Department of Biology, Villanova University, 800 Lancaster Avenue, PA 19085, USA. E-mail: [aaron.bauer@villanova.edu](mailto:aaron.bauer@villanova.edu)

<sup>3</sup>Museum of Vertebrate Zoology and Department of Integrative Biology, 3101 Valley Life Sciences Building, University of California Berkeley, Berkeley, CA 94720, USA. E-mail: [benkarin@berkeley.edu](mailto:benkarin@berkeley.edu)

### Abstract

A new species of the genus *Tropidophorus* is described from Putai, upper Baleh, Kapit districts, Sarawak, East Malaysia (Borneo). *Tropidophorus sebi* **sp. nov.** is diagnosable from congeners from Borneo by the combination of the following characters: head shields present, dorsal and lateral scales smooth; parietal scales in two pairs; supraciliaries eight; supraoculars four; supralabials seven; infralabials four; postmental undivided; longitudinal scale rows 58; ventrals 53; transverse scale rows at midbody 34; subcaudals 98; preanals enlarged, single; and subdigital lamellae of Toe IV 19. In addition, we determine the phylogenetic position of this species within the *Tropidophorus* group based on mitochondrial markers, and present a key to identification of the known Bornean species in the genus.

**Key words:** Borneo, new species, Scincidae, *Tropidophorus sebi* **sp. nov.**

### Introduction

The water skink genus *Tropidophorus* Duméril & Bibron, 1839 (type species: *T. cocincinensis* Duméril & Bibron, 1839) is diagnosed by the exposure of the tympanum and presence of a single scale at the anterior and posterior corners of the eyelid (see Hikida *et al.* 2002; Greer & Biswas 2004). Remarkable amongst members of its family, these lizards are predominantly aquatic (Barbour 1921a; Bauer & Jackman 2008) and obligates of lowland forests. Currently, the genus comprises 28 nominal species that range from Bangladesh and north-eastern India, through mainland south-east Asia and southern China, southwards to Indo-China, the Malay Peninsula and Borneo, as well as the southern Philippines and Sulawesi (Brown & Alcalá 1980; Honda *et al.* 2006; Ziegler *et al.* 2005; Nguyen *et al.* 2010a). On Borneo, six species of *Tropidophorus* have been recorded—*T. beccarii* Peters, 1871, *T. brookei* (Gray, 1845), *T. iniquus* van Lidth de Jeude, 1905, *T. micropus* van Lidth de Jeude, 1905, *T. mocquardii* Boulenger, 1894 and *T. perplexus* Barbour, 1921 (de Rooij 1915; Das 2004).

In this communication, we describe a new species of *Tropidophorus* from a previously unsurveyed site in central Sarawak, East Malaysia, in northern Borneo. We allocate this species to this nominal genus for showing the following characters that are currently associated with the genus (see Smith 1923, Mittleman 1952; Taylor 1963; Manthey & Grossmann 1997; Hikida *et al.* 2002; Greer & Biswas 2004), in addition to genetic data provided herein: lack of palatine teeth; limbs and eyelids well developed and moveable; lower eyelid scaly; supranasals absent; prefrontals well developed; frontoparietal distinct from interparietal; tympanum large and superficial; and 2–3 large preanals. The new *Tropidophorus* differs from congeners in a combination of size, colour pattern, body proportion and squamation characters. We define a species using the General Lineage Concept of de Queiroz (1998, 1999) as an extension of the Evolutionary Species Concept of Wiley (1978), in which phenotypically divergent populations represent distinct and separately evolving lineages. For the new *Tropidophorus*, we consider the possession of non-overlapping and diagnostic morphological characters relative to its Sundaic congeners to be indicative of speciation.