



Re-assessment of the Reinwardt's Gliding Frog, *Rhacophorus reinwardtii* (Schlegel 1840) (Anura: Rhacophoridae) in Southern Thailand and Peninsular Malaysia and its re-description as a new species

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Abstract

Rhacophorus reinwardtii from Southern Thailand and Peninsular Malaysia is found to be morphologically distinct from Javan and Bornean populations and is herein described as a new species. *Rhacophorus norhayatii* **sp nov.** can be differentiated from *R. reinwardtii* by having a larger maximum SVL in males (64.7 mm vs. 55 mm); lacking spots on dorsum; higher degree of interdigital web pigmentation on hands and feet; and rusty brown markings on the flanks. This study adds to the growing list of taxonomic changes in Sunda Shelf taxa by demonstrating that species previously thought to be widely distributed across Sundaland are indeed distinct lineages worthy of species recognition.

Key words: Malay Peninsula, new species, *Rhacophorus norhayatii*, Sundaland, systematics

Introduction

The genus *Rhacophorus* Kuhl and van Hasselt 1822, contains at least 77 species which collectively range from central and southern China (Chou *et al.* 2007; Zhao *et al.* 2005), Japan (Matsui 1999), southwestern and northeastern India (Vasudevan & Dutta 2000), southward throughout the Indo-Chinese (Ohler & Delorme 2006; Ohler *et al.* 2000; Orlov *et al.* 2001; Wilkinson *et al.* 2001) and Indo-Malayan regions (Berry 1975; Manthey & Grossman 1997; Taylor 1962), including the Philippines (Alcala & Brown 1998), with 20 species occurring in Peninsular Malaysia and the island of Borneo (Chan *et al.* 2010a; Das & Haas 2005; Dehling & Grafe 2008; Inger & Stuebing 2005). Kuhl and Van Hasselt (1822) created the genus *Rhacophorus* for large tree frogs from Java based on two specific nomina. The first nomen, *Rhacophorus reinwardtii*, was not accompanied by any description or definition and was consequently considered a *nomen nudum* (Dubois 1989). The second specific nomen proposed by Kuhl and Van Hasselt (1822), *Rhacophorus moschatus* was only accompanied by a very short anecdote (“dewijl zij eenen sterken Bisamreuk zeer ver verspreidt”, i.e., “because it spreads a strong musky scent very far”), which was sufficient to make the nomen *moschatus* nomenclaturally valid. The specific nomen *reinwardtii* only became available when Schlegel (1840) described this species as *Hyla reinwardtii*. Ohler and Dubois (2006) demonstrated that *Rhacophorus moschatus* should be considered a *nomen oblitum* and *Hyla reinwardtii*, its junior subjective synonym, should be treated as the valid nomen of the Reinwardt's Gliding Frog. To further demonstrate the specific validity of the nomen *Rhacophorus reinwardtii*, Ohler and Dubois (2006) provided a list of references using this nomen as valid and also designated a lectotype and description for *Hyla reinwardtii*.

Rhacophorus reinwardtii (Schlegel 1840) is a medium to large-sized, arboreal tree-frog with dermal appendages on the anterior and posterior limbs and full webbing on the hands and feet. These characters are shared by many other congeners but the lack of proper, morphological scrutiny has led to considerable confusion over the exact distribution and classification of this species. *Rhacophorus reinwardtii* was first