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Short taxonomic review of little-known Phaneropterinae (Orthoptera: Tettigoniidae) from Malay Peninsula

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Abstract

The taxonomy of three genera of little-known Phaneropterinae from Malay Peninsula (Singapore and Peninsular Malaysia) is reviewed: *Cesasundana* Koçak & Kemal, 2009, *Elbenia* Stål, 1876 and *Macedna* Karsch, 1891. One new species each from the genera *Cesasundana* and *Elbenia* are described from Singapore and Peninsular Malaysia respectively: *Cesasundana lorniensis* sp. n. and *Elbenia fraser* sp. n. Keys to species of *Cesasundana* and *Elbenia* are also included. The taxonomic position of monotypic genus *Macedna* is validated, male is redescribed and the female is described for the first time.

Key words: Phaneropterinae, new species, key, redescription, Malay Peninsula

Introduction

The cosmopolitan and very specious Phaneropterinae is a subfamily of Tettigoniidae. While some taxa are well studied, many others are under studied. Many species of the poorly known genera of Phaneropterinae were described based on single or very few specimens. This may be partly because they are cryptic or that they are aboreal, only occasionally falling from the canopy to the forest floor. However, with an increasing need to understand biodiversity in Southeast Asia due to rapid loss of habitat and species, there is an urgent need to review the taxonomy of these katydids before determining their ecological roles and ascertaining their conservation needs. This involves more intensive survey of its diversity in the region. Recent collection in Singapore and Peninsular Malaysia indicated that true richness of Phaneropterinae in Southeast Asia is still exhaustive and new species from two genera are described here: *Cesasundana lorniensis* sp. n. and *Elbenia fraser* sp. n. Keys were also provided for the known species to the genera. Additionally, descriptions of some species also require revision as they do not meet the current criteria of systematics. One such example from Phaneropterinae is the monotypic genus *Macedna* Karsch, 1891. Before a review of this genus, *Macedna* was considered an invalid genus and that the type species *Macedna martini* Karsch, 1891 is a junior synonym of *Elimaea marmorata* Brunner von Wattenwyl, 1878. With new material, the genus is validated here, male is redescribed and the female is described for the first time. The genus, previously known only from Sumatra, is also now recorded from Malay Peninsula for the first time.

Material and methods

Opportunistic collection and sweep-netting were carried out in Singapore and Bukit Fraser, Pahang (Peninsular Malaysia). Photographic images were done using a digital SLR camera with compact macro lens and the Visionary Digital System. Scales given with the images are approximate as the image taken with different equipment had to be adapted to size. Specimens were preserved by drying and pinning. Measurements of specimens were made using a 0.05 mm vernier calipers.

In the measurements, the following abbreviations are used: BL = body length; BWL = body with wing length;

brown with tint of green. Female cerci with apex black. Ovipositor with dorsal area yellow green basally, ventral area yellow brown; apically brown to dark brown.

Measurements (1 male, 2 females from ZRC). See Table 2.

Remarks. This species is more widely distributed than previously described from Sumatra. This represents the first record of this genus and species in Malay Peninsula.

TABLE 2. Measurements *Macedna martini* Karsch, 1891 (in mm, mean values in brackets).

	BL	BWL	PL	PW	TL	HWT	HFL	HTL	OL
Male	18.4	50.4	4.7	3.0	39.1	7.8	27.6	34.4	-
Female (n = 2)	20.4–22.5 (21.5)	49.5–53.1 (51.3)	4.5–4.8 (4.7)	2.9–3.0 (3.0)	38.4–40.3 (39.4)	7.2–7.8 (7.5)	26.8–27.7 (27.3)	32.6–33.1 (32.9)	3.9–4.5 (4.2)

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