

Pseudophylline Bushcrickets from Pahang in the Repository of the Natural History Museum, London and Zoologisches Museum Hamburg, Germany (Orthoptera: Tettigoniidae: Pseudophyllinae)

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ABSTRACT

The Pseudophylline bushcrickets from Pahang which are repositied in Natural History Museum, London and Zoologisches Museum Hamburg, Germany are represented. A total of 5 species under 5 genera were recorded from Pahang, Malaysia. The species were Cratioma oculatum Karny, Pseudophyllus hercules (Karny), Onomarchus cretaceus (Serville), Morsimus quadratus quadratus (Rehn) and Typhoptera quadrituberculata (Westwood).

Keywords: Orthoptera, Tettigoniidae, Pseudophyllinae, Pahang, Malaysia.

Introduction

The systematics of the Tettigoniidae from Peninsular Malaysia was started by Stal (1874) who described 3 species (*Phygela haanii* Stal, *Elbenia nigrosignata* Stal and *Psyra melanonota* Stal) from Malacca. It was followed by Brunner (1878, 1895) and Hebard (1922). Since then, a number of species were described or recorded from Peninsular Malaysia (Karny 1923, 1926; De Jong 1939, 1960; Beier 1954, 1962; Heller 1995; Muzamil 1997, 2000, 2001a, 2001b; Muzamil & Mohamed Said 1998). The subfamily Pseudophyllinae and Conocephalinae was last revised by Beier (1962) and Karny (1907), respectively.

This paper presents the Pseudophylline bushcrickets from Pahang which are repositied in the Natural History Museum, London and

Zoologisches Museum Hamburg, Germany. A total of 5 species under 5 genera were recorded from Pahang, Malaysia. The species are *Cratioma oculatum* Karny, *Pseudophyllus hercules* (Karny), *Onomarchus cretaceus* (Serville), *Morsimus quadratus quadratus* (Rehn) and *Typhoptera quadrituberculata* (Westwood).

Materials and Methods

Materials

The materials used in this study were Pseudophylline bushcrickets (Orthoptera: Tettigoniidae: Pseudophyllinae).

Examination

Institutions in which the materials were examined and repositied are abbreviated as follows:

BNHM – Natural History Museum, London.

ZMH – Zoologisches Museum Hamburg, Germany.

Identification

Identification is based on Beier (1954, 1962) and Karny (1923, 1926).

Results and Discussion

Taxonomy Subfamily Pseudophyllinae

Cratioma oculatum Karny

Cratioma oculatum Karny, 1926, Jour. Fed. Malay St. Mus., 13 (2-3): 113 (Pahang).- De Jong, 1938, Indo-Malay. Pterophyll., Leiden: 6 (Borneo).-Beier, 1954, Revis. Pseudophyll., Madrid: 43 (Malacca).- De Jong, 1960, Zool. Verh. Rijksmus. Nat. Hist. Leiden, 45: 7 (Borneo).-Beier, 1962, Tierreich, 73: 31 (Malacca).-Muzamil & Mohamed Said, 1998, Serangga: 114.

Material examined: Pahang, Cameron Highlands, x.1923, H.M. Pendlebury, 1 female (BNHM).

Pseudophyllus hercules (Karny)

Cleandrus hercules Karny, 1923, Jour. Mal. Branch, Roy. As. Soc., 1: 167 (Borneo); 1926, Jour. Fed. Malay St. Mus., 13 (2-3): 114 (Pahang, Selangor).

Pseudophyllus hercules: De Jong, 1938, Indo-Malay. Pterophyll., Leiden: 17 (Sumatra, Borneo). 1939, Zool. Mededeel., 21: 17 (Sumatra, Borneo). -Beier, 1954, Revis. Pseudophyll., Madrid: 55 (Malacca, Sumatra, Borneo); 1962, Tierreich, 73: 41 (Malacca, Sumatra, Borneo). -Muzamil & Mohamedsaid, 1998, Serangga: 115.

Material examined: Pahang, Kuala Tahan, 26.x.1940, N.C.E. Miller, 1 female (BNHM).

Onomarchus cretaceus (Serville)

Pseudophyllus cretaceus Serville, 1839, Hist. Nat. Ins. Orthopt., Paris.: 470 (Java).

Onomarchus cretaceus: De Jong, 1938, Indo-Malay. Pterophyll., Leiden.: 25 (Borneo); 1939, Zool. Mededeel., 21: 25 (Borneo). - Beier, 1962, Tierreich, 73: 46 (Sumatra). -Muzamil & Mohamedsaid, 1998, Serangga: 116.

Brunnea transversalis Karny, 1924, Treubia, 5: 181 (Borneo). -De Jong, 1938, Indo-Malay. Pterophyll., Leiden, : 25 (Borneo) (= *Onomarchus cretaceus*).

Material examined: Perak und Pahang, Camp Jor, Wasserscheide zur. (Malakka-Gabiet), Alb. Grubauer, 30.xii.1902, 1 female (ZMH).

Morsimus quadratus quadratus (Rehn)

Timanthes quadratus Rehn, 1909, Bull. Amer. Mus. Nat. Hist., 26: 198 (Sumatra).- De Jong, 1938, Indo-Malay. Pterophyll., Leiden: 26 (Sumatra, Borneo) (= *Morsimus quadratus*).

Morsimus quadratus quadratus: Beier, 1954, Revis. Pseudophyll., Madrid: 194; 1962, Tierreich, 73: 170 (Sumatra, Borneo, Malayische Halbinsel). -Muzamil & Mohamedsaid, 1998, Serangga: 122.

Morsimus albomarginatus Hebard, 1922, Proc. Acad. Sci. Philad., 74: 206 (Labuan).-De Jong, 1960, Zool. Verh. Rijksmus. Nat. Hist. Leiden, 45: 65 (= *Morsimus quadratus*).

Zatricaprion reticulatus Karny, 1923, Jour. Mal. Branch, Roy. As. Soc., 1: 173 (Selangor).- De Jong, 1938, Indo-Malay. Pterophyll., Leiden: 26 (Sumatra, Borneo) (= *Morsimus quadratus*).

Material examined: Pahang, Fraser's Hills, 17.i.1936, 1 male (BNHM).

Typhoptera quadrituberculata (Westwood)

Pseudophyllus 4-tuberculatus Westwood, 1848, Cabin. Oriental. Entom.,: 34 (Prince of Wales Islands).

Capnoptera quadrituberculata: Brunner v.W., 1895, Monogr. Pseudophyll., Wien,: 95 (Prince of Wales Islands, Borneo).

Typhoptera quadrituberculata: Kirby, 1906, Syn. Cat. Orthopt., 2 : 309.-Karny, 1926, Jour. Fed. Malay St. Mus., 13: 124 (Perak, Selangor).-De Jong, 1938, Indo-Malay. Pterophyll., Leiden: 103 (Sumatra, Borneo); 1939, Zool. Mededeel., 21: 103 (Sumatra, Borneo).-Beier, 1954, Revis. Pseudophyll., Madrid : 265 (Malayische Halbinsel, Perak, Sumatra, Borneo); 1962, Tierreich, 73: 226 (Malayische Halbinsel, Perak, Sumatra, Borneo). -Muzamil & Mohamedsaid, 1998, Seranga: 125.

Material examined: Pahang, Kuantan, 10.vi.1933, N.C.E. Miller, 1 female (BNHM).

This paper reported five (5) species of Malaysian tettigonids which had been collected from 1902 until 1940 and repositied in BNHM and ZMH.

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