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A new tarantula genus, *Psednocnemis*, from West Malaysia (Araneae: Theraphosidae), with cladistic analyses and biogeography of Selenocosmiinae Simon 1889

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Abstract

The selenocosmiine genus *Psednocnemis* gen. nov. is described from the Sundaland region of South-east Asia. The type species *Psednocnemis davidgohi* sp. nov., which the male was incorrectly identified as *Coremiocnemis hoggi* West & Nunn 2010, is herein described. Cladistic analyses of 46 morphological characters and 39 exemplar taxa from 12 genera were done. The genera analysed were: *Reichlingia* Rudloff 2001; ingroup: *Chilobrachys* Karsch 1891; *Coremiocnemis* Simon 1892; *Haplocosmia* Schmidt & von Wirth 1996; *Lyrognathus* Pocock 1895; *Orphnaecus* Simon 1892; *Phlogiellus* Pocock 1897; *Poecilotheria* Simon 1885; *Psednocnemis* gen. nov.; *Selenobrachys* Schmidt 1999; *Selenocosmia* Ausserer 1871 (in part: Sundaland fauna only); *Yamia* Kishida 1920. The results presented *Psednocnemis* gen. nov. as monophyletic based on presence of a distal embolic spiral curl in males and presence of a distodorsal spiniform brush on the retrolateral surfaces of coxa IV, as well as the reduction in density of hair type 4, located along the proximoventral abdomen of both sexes. Two new tribes are described: Chilobrachini trib. nov. and Phlogiellini trib. nov., based upon basal nodes with strongest branch support that best reflected natural groups. Selenocosmiini Simon 1889 and Poecilotheriini Simon 1889 are revised and redescribed. *Yamia* Kishida 1920 is placed into junior synonymy of *Phlogiellus* (syn. nov.); *Chilocosmia* Schmidt & von Wirth 1992 and *Selenobrachys* Schmidt 1999 are placed into junior synonymy of *Orphnaecus* (syn. nov.); *Selenocosmia xinping* Zhu & Zhang 2008 is transferred to *Phlogiellus*, makng the new combination *Phlogiellus xinping* (Zhu & Zhang 2008) comb. nov.; *Selenocosmia dichromata* (Schmidt & von Wirth 1992) is transferred to *Orphnaecus*, making the new combination *Orphnaecus dichromata* (Schmit & von Wirth 1992) comb. nov.; *Coremiocnemis brachyramosa* West & Nunn 2010, *Coremiocnemis gnathospina* West & Nunn 2010, *Coremiocnemis jeremyhuffi* West & Nunn 2010 and *Selenocosmia imbellis* (Simon 1891) are transferred to *Psednocnemis* gen. *et* comb. nov. Poecilotherinae (Schmidt 1995) is no longer considered a valid subfamily and is replaced into Selenocosmiinae as the tribe Poecilotheriini. *Chilocosmia barensteinerae* Schmidt *et al.* 2010 is considered a Selenocosmiinae species *incertae sedis*. *Ischnocolella senffti* Strand 1907 is considered a *nomen dubium*. All other genera examined were retrieved as monophyletic in the first cladistic analyses exclusive to Selenocosmiinae genera (Australo-Papuan selenocosmiines are outside the scope of this work and are not considered). Biogeography of all Selenocosmiinae is discussed; the group is a potential model North Gondwanan taxon. A key to *Psednocnemis* species is provided.

Key words: mygalomorph, taxonomy, Gondwana, distribution, zoogeography, natural history

Introduction

The theraphosid subfamily Selenocosmiinae Simon 1889 comprises 2 tribes, 12 recognised genera, 119 species and subspecies (Platnick 2012), and can be found from eastern Pakistan, India, Nepal and Sri Lanka across to China and Taiwan (Lanyu Island only), south through Myanmar, Thailand, Vietnam, Laos, Cambodia, West Malaysia, Singapore, Borneo, Philippines and across most of the Indonesian islands, east to New Guinea, the Solomon Islands (Santa Cruz) and Australia (Fig. 54).

Simon (1889) keyed out his new tribes within the subfamily Avicularinae: Selenocosmiini Simon 1889 were primarily defined by scopulate morphology and the “half moon” shape of the procurved foveal groove and

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