



***Langkawiana maculata* gen. et sp. n. from Malaysia and its systematic position in the tribe Robsonomyiini (Diptera: Keroplatidae)**

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Abstract

A new genus and species of Keroplatidae (Diptera), *Langkawiana maculata* **gen. et sp.n.**, is described and its systematic position is discussed. The description is based on a male collected at Langkawi Island (Malaysia). Diagnostic characters of the new genus are as follows: the absence of ocelli, membraneous area around cerebral sclerite continues behind compound eyes, both orbital sclerite and frons well developed, short palpomeres, wings with dark bands, relatively long radio-median fusion, tibial trichia arranged in regular rows, reduced spurs on mid and hind tibia, and details on male terminalia. A new phylogenetic analysis of the tribe Robsonomyiini is proposed and a key to genera is presented.

Key words: fungus gnats, Sciaroidea, Keroplatidae, Macrocerinae, Robsonomyiini, Oriental region

Introduction

The tribe Robsonomyiini of the subfamily Macrocerinae (Diptera: Keroplatidae) comprises one fossil and 3 recent genera (Matile, 1990): *Kelneria* Matile, 1979, *Robsonomyia* Matile & Vockeroth, 1980, *Micrepimera* Matile, 1990 and *Srilankana* Matile, 1990. Except the fossil *Kelneria* with 4 species (Matile 1979), all the other genera are monotypic and include the following species: *Robsonomyia reducta*, described after two males collected in Canada (Matile & Vockeroth 1980), *Micrepimera punctipennis*, described on the basis of a male collected at Christmas Island in the Indian ocean (Matile 1990) and *Srilankana mirabilis*, described by Matile (1990) after a single male specimen from Sri Lanka.

During a collecting trip to Malaysia in January 2009, I captured a remarkable male specimen of a new species combining characters of all the three above mentioned extant genera of Robsonomyiini and also several characters present in the tribe Macrocerini. That new species is described in this contribution. A new genus is proposed for this species, on the basis of a revised phylogenetic analysis of the tribe.

Material and methods

The type specimen was collected by sweep-netting in a mixed tropical forest near the top of the highest mountain of the Langkawi Island, Gunung Raya. The holotype specimen with cleared terminalia is stored in ethanol and deposited in the collection of the Silesian Museum, Opava, Czech Republic (SMOC). The morphological terminology principally follows that of Matile (1990) and Søli *et al.* (2000).

The phylogenetic analysis is based on 122 morphological characters and their codes used by Matile (1990, pp. 655–656). Characters 123–125 of Matile's matrix referring to female structures were omitted since no females are known for any species of the tribe. The following three characters were added: 123 - ratio of height to width of eye in lateral view (0—less than 1.5, 1—more than 1.5); 124 - orbital sclerite (0—absent, 1