



Chetoneura shennonggongensis*, a new species of cave-dwelling Keroplatini from China (Diptera: Keroplatidae), with a discussion of the position of *Chetoneura

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Abstract

Chetoneura shennonggongensis Amorim & Niu, sp.n., inhabiting caves in East China, is described based on the adult male and female, plus larva. *Chetoneura* Colless, previously associated with *Orfelia* and known from a single species from caves in Malaysia, is formally transferred to the Keroplatini. This is the first description of the larva and of the general biology of the genus. The larva of this new species is suspended in a roughly horizontal hammock of silken threads amidst mucous coated snare threads from the roof of caves, but is not bioluminescent as some species of other genera in Keroplatidae (e.g., *Arachnocampa*, *Keroplatus*, and *Orfelia*). A key to separate both species of the genus is provided. The position of the genus within the Keroplatini is considered. *Chetoneura* is considered to be closely related to a clade containing *Heteropterna* and *Ctenoceridion*.

Key words: Diptera, Keroplatidae, Keroplatini, *Chetoneura*, cave fauna

Introduction

The family Keroplatidae includes over 950 species in about 87 genera, many of which have worldwide distribution (Matile 1990; Evenhuis 2006). The family is presently divided into the subfamilies Arachnocampinae, Macrocerinae, Keroplatinae, and Sciarokeroplatinae, if we accept subfamilial status of this taxon (see Papp & Ševčík 2005). The Keroplatinae are further divided into the tribes Keroplatini and Orfeliini.

An investigation of Chinese cave fauna by Clarke (2000, 2001a,b, 2002a,b, 2004a,b, 2006a), Li (unpublished) and Niu (unpublished) resulted in the discovery of the immature specimens (larvae) of a non-bioluminescent cave keroplatid. Some recently collected specimens from a cave in the northeast of Jiangxi Province, East China, were reared to adults and clearly belongs in the tribe Keroplatini. The species is described here based on males, females, and larvae, with some information on its biology. Suspended larvae of keroplatids have been found in several other caves in other karst regions of China, but adults had not been positively determined and no live larvae were collected, making rearing impossible, and therefore it remains unclear whether they belong to the same species or to different species of this genus, or perhaps another genus.

The new species described herein is congeneric with *Chetoneura cavernae* Colless (described from two specimens collected in the Batu Caves of Malaysia). In the original description of *Chetoneura*, Colless (1962)