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A new genus and species of winter stoneflies (Plecoptera: Capniidae) from Southwest China, with a commented checklist of the family in the Oriental Realm

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Abstract

A new genus and species of the family Capniidae (Plecoptera), *Sinocapnia kuankuoshui* gen. n., sp. n. is described from the adult male and a female collected in Guizhou Province of southwest China. The new taxon is distinguished from all extant Capniidae genera and the assemblage of species currently included in *Capnia* sensu lato by combination of unique genitalic, wing, and thoracic sclerites characters. No closely related taxon is indicated on the basis of morphological characters. An annotated checklist of the family Capniidae from the Oriental Realm is given.

Key words: Plecoptera, *Sinocapnia kuankuoshui* gen. n., sp. n., Guizhou Province, Himalayan region, distributions

Introduction

The family Capniidae, commonly known as snowflies, is a remarkable group of mostly winter emerging stoneflies (Plecoptera). The family has a Holarctic distribution with a few species known also from northern areas of the Oriental Realm, and nearly 300 recognised species classified in 19 valid recent genera (DeWalt *et al.* 2015). Contrary to several other stonefly families, species distinction within the Capniidae is usually relatively straightforward. However, their generic classification, regarding especially to the type genus *Capnia* Pictet, 1841, is problematic. As the first step towards a generic revision of the family, we presented a synopsis of Nearctic and West Palaearctic genera, including sensu stricto definition of *Capnia*, erection of a new genus and revalidation of a further one (Murányi *et al.* 2014). In a subsequent work redefining the East Palaearctic genera, we found that none of the 97 species retained in the temporary designation *Capnia* sensu lato can be classified in already named genera (Murányi *et al.* 2015).

During early spring field collectings in Guizhou Province of southwestern China, WHL collected a pair of a remarkable new species of snowflies. This species did not fit in any of the named genera in the sense of the definitions and redefinitions of our ongoing generic revision (Murányi *et al.* 2014, 2015), nor was it closely related to any species presently retained in *Capnia* sensu lato. In the present paper, we describe it as a new monotypic genus on the basis of morphological characters and give an annotated checklist concerning Capniidae known from the Oriental Realm.