



Species of the *Protohermes sabahensis* group (Megaloptera: Corydalidae) from eastern Malaysia

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Abstract

The *Protohermes sabahensis* species–group is newly proposed from eastern Malaysia. All species of this group are described and illustrated as new to science.

Key words: Corydalinae, Malaysia, new species, *Protohermes*, taxonomy

Introduction

The megalopteran genus *Protohermes* van der Weele is the most species–rich genus within the subfamily Corydalinae, comprising more than 50 described species from eastern, southern, and southeastern Asia. Due to the early revisions of van der Weele (1910), Lestage (1927), and Kimmins (1948), and the recent contributions of Liu and Yang (2005, 2006a, c) and Liu *et al.* (2006, 2007), the taxonomy of the genus is in good shape, except for some Navás' species needing clarification. The recent revisionary works were made by dividing the genus into several species–groups. Currently, seven *Protohermes* species groups have been recognized: the *P. assamensis* group (Liu *et al.* 2007b), the *P. changninganus* group (Liu & Yang 2005), the *P. costalis* group (Liu *et al.* 2007a), the *P. davidi* group (Liu & Yang 2006a), the *P. differentialis* group (Liu & Yang 2006c), the *P. fruhstorferi* group (Liu *et al.* 2007c), and the *P. xanthodes* group (Liu *et al.* 2006). In addition, the authors will soon be describing two new species groups. These species groups include about 80% of the total described species and dozens of undescribed species found during our study of the systematics of Megaloptera from southern and southeastern Asia.

Eastern Malaysia, composed of Sabah and Sarawak states, is located at the northern part of the Island of Borneo and possesses the world's oldest rainforest and highest biodiversity of insects (Bragg 2001). Previously, three genera and six species or subspecies of Megaloptera were recorded from eastern Malaysia (van der Weele 1910, Banks 1931, Navás 1931), namely *Neochauliodes sunndaicus borneensis* van der Weele, 1909, *Nevromus testaceus* Rambur, 1842, *Protohermes bellulus* Banks, 1931, *Protohermes decolor* Navás, 1931, *Protohermes dichrous* (Brauer, 1878), and *Protohermes uniformis* Banks, 1931. Based on the genitalic figures (Weele 1906, Banks 1931, Navás 1931) of *P. bellulus*, *P. dichrous*, and *P. uniformis*, they might be assigned as a distinct species–group by the long band–like male tenth tergum. *Protohermes decolor* might also be a member of the above species–group because it possesses the similar forewing patterns to *P. bellulus* and *P. dichrous*. This species–group should be revised after the types of all group members are re–examined. In this paper, three additional *Protohermes* species from eastern Malaysia, *P. sabahensis*, *P. spectabilis*, and *P.*