

New fossil rhopalids (Heteroptera: Coreoidea) from the Middle Jurassic of Inner Mongolia, China

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Abstract

Three new genera and three species of fossil rhopalid, *Originicorizus pyriformis* **gen. & sp. nov.**, *Quatlocellus liae* **gen. & sp. nov.**, and *Grandicaputus bipunctatus* **gen. & sp. nov.**, are described and illustrated. They were discovered from the Middle Jurassic Jiulongshan Formation of Eastern Inner Mongolia, China. The present discovery demonstrates that the early diversification of rhopalids was well underway by the Middle Jurassic.

Key words: Heteroptera, Coreoidea, Rhopalidae, fossil, Middle Jurassic, Jiulongshan Formation, Daohugou, China

Introduction

The extant Rhopalidae contains two subfamilies, the Serinethinae with 3 genera, and the Rhopalinae with 17 genera (Göllner-Scheiding 1983), and most of them occur in the Palearctic Region (Schaefer & Chopra 1982, Schaefer 1992). In China, 36 species of extant rhopalids have been described and most species are distributed in the Inner Mongolia and Xinjiang Autonomous Regions (Liu *et al.* 1994, Hsiao *et al.* 1977, Nonnaizab *et al.* 1988). Only two fossil genera and species of the family Rhopalidae have been recorded from China prior to this study: *Miracorizus punctatus* Yao, Cai & Ren 2006 and *Longiclavula calvata* Yao, Cai & Ren 2006 from the same locality and stratum as the new species described here. According to the distribution pattern of extant rhopalids and fossil data, the most parsimonious hypothesis is that the basal species of this family initially radiated in Northeast China.