



***Bifurcipientatoma*, a new genus of Pentatomini with descriptions of two new species from China (Hemiptera: Heteroptera: Pentatomidae)**

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Abstract

Bifurcipientatoma Fan & Liu, gen. nov., with two new species, *B. nigricornuta* Fan & Liu, sp. nov., and *B. parabrunea* Fan & Liu, sp. nov., are described from China. Three new combinations, *B. acuticornuta* (Zheng & Ling, 1983) comb. nov., *B. brunnea* (Zheng & Ling, 1983) comb. nov., and *B. roseicornuta* (Zheng & Ling, 1983) comb. nov., are proposed and those species are diagnosed. A key to the species and illustrations of each species are provided. The type specimens are deposited in the Institute of Entomology, Nankai University, Tianjin, China (NKUM).

Key words: Heteroptera, Pentatomidae, *Bifurcipientatoma*, new genus, new species, new combination, China, Palearctic Region

Introduction

Pentatoma Olivier, 1789 contains 28 extant species in the Palearctic area (Rider, 2006) before our study. All of them can be found in China and most of them have a restricted distribution in China, while some are also in Northern and/or Southern Asia. *Pentatoma rufipes* (Linnaeus, 1758) is the only widespread species in Palearctic region. In addition to some synonymic problems at specific level, the monophyly of this genus is also questionable. *Pentatoma* was erected by Olivier in 1789, but contained no species originally. Lamarck (1801) first placed *Cimex rufipes* Linnaeus, 1758 in this genus. Later Hahn (1834) erected another genus *Tropicoris* with *Cimex rufipes* Linnaeus as the type species. For a while the two generic names were both used by different scholars until China (1943) determined that according to the Opinion 46 of International Code of Zoological Nomenclature, *Cimex rufipes* Linnaeus should be the type of genus *Pentatoma*. Thus *Tropicoris* Hahn was a junior objective synonym.

Zheng and Ling (1987) first systematically studied 22 species of *Pentatoma* and proposed further group-division within the genus. They concluded the genus contained four groups based on the characters of the humeral angles and the male genitalia, and five groups supported by the results of numerical taxonomy. They then used cladistic analysis to discuss the phylogeny of species in *Pentatoma* and another twelve genera (*Lelia* Walker, 1867, *Priassus* Stål, 1867, *Placosternum* Amyot & Serville, 1843, *Homalagonia* Jakovlev, 1876, *Acrocorisellus* Fieber, 1860, *Okeanos* Distant, 1911, *Glaucias* Kirkaldy, 1908, *Rhynchocoris* Westwood, 1837, *Udonga* Distant, 1921, *Dalpada* Amyot & Serville, 1843, *Amyntor* Walker, 1867 (= *Bolaca* Walker, 1867), *Brachymna* Stål, 1861). Finally, they suggested that at least four species groups of *Pentatoma* could be upgraded to different genera.

We checked the characters of 32 species of *Pentatoma*. Twenty-seven of them could be easily placed in one of seven different groups. The other five species are unique and belong in their own separate group. Therefore, the *rufipes*-group, which includes the type species, *P. rufipes*, and *P. angulata*, *longirostrata*, *montana*, *nigra*, *hingstoni* should be kept in *Pentatoma* s. str.. The other species groups will be upgrade to new genera, or transferred to other genera in the future.

We have already erected one such new genus, *Ramivena* Fan & Liu, 2010, by upgrading a group of species, along with describing two new species. Here, we continue our monograph of *Pentatoma* by erecting a second new genus, *Bifurcipientatoma* gen. nov. The five species included in this new genus are generally distributed in Southern of China, mainly in Guizhou, Guangxi and Sichuan Provinces.