



New and obscure species of the genus *Chilocoris* Mayr in eastern Asia, with the proposal of a “*nitidus*-group” concept (Hemiptera: Heteroptera: Cydnidae)

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Abstract

Comments are presented on four East-Asian species of the genus *Chilocoris* Mayr, of which three are known but have been hardly mentioned—namely *C. alienus* Horváth, *C. birmanus* Lis and *C. nitidulus* Lis. One new species is described here as *C. monticola* n. sp. New distribution records are provided: *C. alienus* is new to China (Liaoning), as well as newly representing the genus in northern China; *C. birmanus* is new to Taiwan; and *C. nitidulus* is new to Vietnam and Thailand. Until recently, *C. monticola* n. sp. found in Japan has been misidentified as *C. nitidus* Mayr, and earlier records of the latter from Japan are really this new species. Male genital structures are described and illustrated for all four species, and additionally female genital structures are also described for *C. birmanus* and *C. monticola*. These East-Asian species are significantly similar to each other in important morphological structures such as the pronotal punctuation, extension of evaporatorium, and the male and female genital organs, yet they can be distinguished from many other congeners by these same structures. It seems plausible, therefore, to group these four species in a species-group named “*nitidus*-group” because of the species’ definite association with *C. nitidus*. This species-group possibly consists at least ten East-Asian and one North American species and exhibits a relictual, trans-Beringian disjunction, suggesting an association of this group with the Tertiary circum-boreal flora. Its distributional pattern may further differentiate the species-group from other congeners.

Key words: Cydnidae, *Chilocoris*, new species, new record, taxonomy, zoogeography

Introduction

The genus *Chilocoris* Mayr is the largest genus of the family Cydnidae Billberg and comprises 84 described species (Lis [1999a, 2002] catalogued them, except for *C. katejai* Lis 2006a, and *C. repetitus* [Uhler 1976]). The majority of these species is distributed over the temperate to tropical parts of the Old World, and a single species represents the genus on the Pacific Coast of North America (Fig. 48). For the Old World species, taxonomic information including detailed descriptions is available (e.g., Horváth 1919; Linnavuori 1993; Lis 1994, 1999b, 2001). However, the information accumulated on the *Chilocoris* species is insufficient because of the rarity and difficulty of collecting a sufficient number of specimens of each species, with the exception of the commonly occurring ones. Often, the rare species are inadequately exemplified by a single holotype. By examining additional materials, this paper provides some comments on selected East-Asian species and describes a new species from Japan.

Significantly, this study focused on recognizing sub-groups within the genus, in order to understand this divergent and complex genus. Intra-generic classification of *Chilocoris* was once proposed by Lis (1994), who divided the Oriental representatives into three subgenera, namely *Amnestoides* Signoret, *Chilocoris* s. str., and *Statanus* Distant. The species treated in this study appear closely associated with the *Chilocoris* s. str. and could indeed compose a supra-specific group within this genus, because of their characteristic sharing of several significant character states. As with the definition of the subgenus *Chilocoris* of Lis (*op. cit.*), this potential group must also consist of *C. nitidus* Mayr and its allies. However, those two groups probably do not correspond wholly to each other, which is discussed further in this paper. Therefore, Lis’ (*op. cit.*) nomenclature was not adopted, and the group is tentatively referred to as “*nitidus*-group.” Furthermore, this species-group appears to possess a zoogeographical significance,