Brief Summary of Holochlorini (Orthoptera: Tettigoniidae: Phaneropterinae), with Description of Seven New Species from China

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Abstract

Inclusion of the tribe Holochlorini has been questionable, for its complicated history and its controversial important diagnostic character about structure of tibial tympana. Here we briefly introduce its history and summarize its inclusion in the world and in China. We also introduce a newly recorded genus from China, Arnobia, and other two genera in the tribe, Psyrana and Phaulula, provide a list of Chinese species for the three genera, separately, together with the key to species of the three genera. At the same time, we describe seven new species to science in the Holochlorini, i.e., Arnobia hainanensis sp. nov., Arnobia guangxiensis sp. nov., Phaulula apicalis sp. nov., Psyrana magna sp. nov., Psyrana heptagona sp. nov., Parapsyra brevicauda sp. nov., and Sinochlora semicircula sp. nov. Diagnostic illustrations are presented.

Key words: katydids, Holochlorini, Orthoptera, new species, China

Introduction

Bei-Bienko (1954) combined Brunner von Wattenwyl’s (1878) Psyrae and Holochlorae as the tribe Holochlorini and provided detailed description and diagnostic characters of the tribe. At present, inclusion of the tribe Holochlorini needs to be carefully checked out. On one hand, the history of the two groups Psyrae and Holochlorae is very complicated after they were established. On the other hand, the diagnostic character that asymmetric tympana on the fore tibiae is exposed in the exterior side and conchate in the interior side needs to be in careful consideration, as many authors (Ragge 1980, Gorochov & Kang 2002) stated that the structure of tympana is maybe plesiomorphy.

Initially, Brunner von Wattenwyl (1878) stated two groups of genera named Psyrae and Holochlorae, which are characterized by the strong, acute fore coxal spine and by the asymmetric tympana on the fore tibiae, and included 11 genera, i.e., Ancylecha Serville, Phygela Stål, Arnobia Stål, Tapeina Brunner von Wattenwyl (synonymized as Tapiena Bolivar), Casigneta Brunner von Wattenwyl, Elbenia Stål, Phaula Brunner von Wattenwyl (synonymized as Phaulula Bolivar), Psyra Stål (synonymized as Psyra Uvarov), Holochlora Stål, Liotrachela Brunner von Wattenwyl, and Sympaestria Brunner von Wattenwyl. Subsequently, Brunner von Wattenwyl (1891) added 7 genera, i.e., African Weissenbornia Karsch, Asian Pyrgophylax Brunner von Wattenwyl, Dapanera Karsch, Gonatoxia Karsch, Habra Brunner von Wattenwyl, Calopsyra Brunner von Wattenwyl, and Plangioptis Karsch, in the two groups. Dohrn (1892) considered that the genus Pyrgophylax (which was considered as the synonym of Molpa Walker) should be removed from the two groups and put into the genus group Ephippithytae Brunner von Wattenwyl (1878). Kirby (1906) didn’t follow Dohrn (1892) in the respect, and added Dohrn’s 2 genera, Diernropsyra Dohrn, and Poecilopsyra Dohrn, in the two groups in his excellent list. Afterwards, Karny (1925a) treated all of these related genera as a big group “Ancylecha-Holochlora-group”. He considered that the 3 genera, Habra, Sympaestria, and Molpa should be eliminated from the Ancylecha-Holochlora-group, and put into the genus group, Dysmorphae Brunner von Wattenwyl (1878). He also thought other 5 genera Parapsyra Carl, Furnia Stål, Pseudopsyra Hebard, Stictophaula Hebard, and Poecilopsyra should be added in the Ancylecha-Holochlora-group, among which Furnia was previously considered to belong to the genus group Anaolocomerae Brunner von Wattenwyl...