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Taxonomic notes on *Pternoscirta pulchripes* Uvarov, 1925 (Orthoptera: Acrididae: Oedipodinae) with proposal of new synonyms in the genera *Flatovertex* and *Mioscirtus*

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Abstract

Based on the examination of types and additional materials, the morphology of *Pternoscirta pulchripes* Uvarov, 1925 and *Flatovertex* species were reviewed. As a result of our study, the genus *Flatovertex* Zheng, 1981 was synonymized with the genus *Pternoscirta* Saussure, 1884, the species *Flatovertex cyaneitibialis* Zhang & Han, 2010 was synonymized with *Pternoscirta caliginosa* (Haan, 1842), *Flatovertex rufotibialis* Zheng, 1981 with *Pternoscirta pulchripes* Uvarov, 1925, and *Flatovertex nigritibialis* Zheng & Zhang, 2006 with *Mioscirtus wagneri wagneri* (Eversmann, 1859), respectively. *Mioscirtus varentzowi* Zubowsky, 1896 was considered as a junior synonym of *Mioscirtus wagneri wagneri* (Eversmann, 1849) but not that of *Mioscirtus wagneri rogenhoferi* (Saussure, 1888).

Key words: Pternoscirta pulchripes, Flatovertex, Flatovertex cyaneitibialis, Flatovertex rufotibialis, Flatovertex nigritibialis, Acrididae, Orthoptera, new synonyms

Introduction

Pternoscirta pulchripes Uvarov, 1925 (Orthoptera: Acrididae: Oedipodinae) was originally described based on a single holotype male from Shuan-dang-chong, Yunnan Province, China. In the last monograph devoted to the Acridoidea fauna of Yunnan (Mao et al, 2011), no material examined was identified as Pternoscirta pulchripes in spite of the long-time and broad-range collection of Acridoidea by the authors in Yunnan. Although the distribution record of the species was once expanded to Guangxi and Sichuan in some monographs (Zheng & Xia, 1994; Jiang & Zheng, 1998), no information on materials examined were provided by the authors. To confirm the distribution of the species in Sichuan and Guangxi, we searched the database of the specimens deposited in Insect Museum of Shanghai (formerly named as Shanghai Institute of Entomology, Academia Sinica), and retrieved ten records of Pternoscirta pulchripes. However, it was found after the examination of those specimens that all records were due to misidentification, six of them from Yunnan and Zhejiang were members of the genus Heteropternis Stål, one nymph from Sichuan was a member of a Tristria species, one nymph from Jiangsu was most likely a member of Pternoscirta caliginosa (Haan, 1842), and the remaining two from Guangxi should also belong to Pternoscirta caliginosa but with the color of the hind tibiae fading to pale yellowish. Fortunately, we did find nine specimens of Pternoscirta pulchripes among those identified as Pternoscirta caliginosa. All of the nine specimens were from Sichuan and evidenced the distribution of *Pternoscirta pulchripes* in this region. However, the distribution in Guangxi remains to be clarified in the future.

The genus *Flatovertex* Zheng, 1981 was originally established to contain only a single member, i.e. the type species *Flatovertex rufotibialis* Zheng, which was described based on a single male individual and the female of which was reported later by Wang & Yang (2005). The second species of the genus was described based on a single male individual from Xinjiang, China (Zheng *et al*, 2006) and the third species was described from Leishan County, Guizhou (Zhang & Han, 2010).