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A new species and notes on the genus *Aphelocheirus* (Hemiptera: Heteroptera: Aphelocheiridae) from China

TONG-YIN XIE^{1,2} & GUO-QING LIU^{2*}

¹College of Agriculture, Northeast Agricultural University, Harbin 150030, China; 2. Institute of Entomology, Nankai University, Tianjin, 300071, China. E-mail: xietongyin@163.com,

^{2*}Corresponding author. E-mail: liugq@nankai.edu.cn

Abstract

This paper provides the description of a new species, *Aphelocheirus menglaensis* **sp.nov.** from Yunnan Province. *A. gularis* Horváth, 1918 and *A. inops* (Horváth, 1918) are reported from China for the first time. We also reviewed *A. ellipsoideus* Liu & Ding, 2005, include its macropterous forms and brachypterous female. Dorsal habitus photographs of the new species and *A. ellipsoideus* are provided and are accompanied by illustrations of male genitalic structures of both species and the ventral aspect of posterior abdominal segments of the female of only the new species.

Key words: Hemiptera, Nepomorpha, Aphelocheiridae, new species, China

Introduction

The family Aphelocheiridae is distributed exclusively in the Old World and reaches its greatest species richness in the Oriental Region (Sites *et al.*, 2011). It is represented by a single genus *Aphelocheirus*, with 100 species currently described in the world (Xie & Liu, 2014). Biological knowledge of Aphelocheiridae is based mostly on the European species *Aphelocheirus aestivalis* (Fabricius, 1794), which feeds on the larvae of Chironomidae (Diptera), Hydropsychidae (Trichoptera) and various molluscs belonging to the genera *Cyclas*, *Pisidium* and *Viviparus* (Thorpe, 1965). By contrast, knowledge of the biology and ecology of tropical and subtropical species of *Aphelocheirus* is very scarce (Polhemus & Polhemus, 1989; Chen *et al.*, 2005; Sites, 2005).

Up to now, 24 species of the genus *Aphelocheirus* were known from China (Xie & Liu, 2014). In the present paper, *A. menglaensis* **sp.nov.** from Yunnan Province is described as new to science. *Aphelocheirus. gularis* Horváth, 1918 and *A. inops* Horváth, 1918 are reported from China for the first time. So, the genus *Aphelocheirus* represents 27 species in China and 101 in the world.

Material and methods

Illustrations of the male genitalia were examined in glycerol, using a Zeiss Discovery V8 microscope. All measurements are in millimeters, the length of rostrum was measured from the tip of labrum to the apex. A summary of measurements for the new species and *A. ellipsoideus* Liu & Ding are given in Table 1. The digital photographs of specimens (Figs. 1A–F) were taken with a Zeiss Discovery V20 camera. All specimens studied are deposited in the Institute of Entomology, Nankai University (NKU), Tianjin, China.