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

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### 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.