



The creeping water bugs (Hemiptera: Heteroptera: Naucoridae) of China, with description of a new species

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Abstract

This paper provides description of a new species, *Cheirochela grossa* **sp. nov.** from Yunnan Province. *Cheirochela tonkina* Polhemus, Polhemus & Sites, 2008, *Heleocoris bengalensis montandoni* Lundblad, 1933 and *Thurselinus scutellaris* (Stål, 1860) are reported from China for the first time. The checklist and a key to the species of Naucoridae of China are given. Dorsal habitus photographs of the species are provided, accompanied by illustrations of male genitalic structures and female ventral aspect of posterior abdominal segments (new species).

Key words: Hemiptera, Naucoridae, new species, China

Introduction

There is a particularly high richness of Gerridae, Naucoridae and Helotrephidae, with many undescribed species in these families in the Oriental Region (Polhemus & Polhemus, 2008), with the exception of Thailand (Sites *et al.*, 1997; Sites & Vitheepradit, 2007, 2011) and Philippines (Zettel *et al.*, 1999; Zettel, 2003), where detailed inventories have been published. The creeping water bugs, live on the ground of freshwater, but some exceptions are hygropetric; most Asian species inhabit streams.

Up to now, 12 species of Naucoridae are known from China (Polhemus, 1995; Ding & Liu, 2005; Sites & Vitheepradit, 2011; Zettel, 2012; Aukema *et al.*, 2013; Xie & Liu, 2013). *Cheirochela grossa* **sp. nov.** from Yunnan Province, is described as new to science in the present paper. *Cheirochela tonkina* Polhemus, Polhemus & Sites, 2008, *Heleocoris bengalensis montandoni* Lundblad, 1933 and *Thurselinus scutellaris* (Stål, 1860) are reported from China for the first time. Detailed information is provided for most material examined, including number and sex of specimens.

Material and methods

Illustrations of all male genitalia were made from temporary slides mounted in glycerol, using Zeiss Discovery. V8 microscope. All measurements are in millimeters. A summary of measurements for species is given in Table 1. The digital photographs of specimens (Figs. 1–18) were taken with Zeiss Discovery V20 camera. All the studied specimens are deposited in the Institute of Entomology, Nankai University (NKU), Tianjin, China.

Taxonomy

A checklist of species of Naucoridae of China

1 *Cheirochela feana* Montandon, 1897 (Fig. 1)

Cheirochela feana Montandon, 1897a: 370; Polhemus, 1995: 57; Polhemus *et al.*, 2008: 260.

Distribution. China (Yunnan Province); India; Burma; Vietnam.

broader outer process, with numerous stout bristles; right paramere with long recurved. Subgenital plate symmetry. Subgenital plate slender, apically narrow, with distinct small median notch.

Material examined. CHINA, **Hainan Province:** 1♀, Maoyang Town (N18.94°, E109.51°), Mt. Wuzhishan, alt. 232m, 6.VII. 2010, Zhen YE leg.; 1♂2♀, Nankai township (N19.09°, E109.42°), Baisha country, 8. VII. 2014, Qiang XIE, Yan-hui WANG, Yan-zhuo WU leg.

Distribution. China (Hainan); India; Thailand; Sri Lanka; Philippines; Brunei, Indonesia (Java, Sulawesi).

Discussion. Early literature on aquatic insects of China is rather sparse and widely scattered. Although various groups of aquatic insects have caught the attention of entomologists in China and elsewhere, many groups remained unstudied (Cheng, Yang, Li & Liu, 2006). Until now 12 species of Naucoridae are known from China, form the checklist, we can know 9 species were recorded form Yunnan province, 3 species were recorded form Hainan province and mostly provinces in China with only one species or no record. It is the first step toward elucidating the fauna of China, we have a lot of work to do in the near future.

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