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## The first record of a species of Perlidae from Jiangsu Province, China: a new species of *Neoperla* (Plecoptera: Perlidae)

ZHI-TENG CHEN<sup>1</sup> & YU-ZHOU DU<sup>1,2</sup>

<sup>1</sup>*School of Horticulture and Plant Protection & Institute of Applied Entomology, Yangzhou University, Yangzhou 225009, China*

<sup>2</sup>*Corresponding author. E-mail: yzdu@yzu.edu.cn*

### Abstract

A new species of *Neoperla* (Plecoptera, Perlidae), *N. jiangsuensis* Chen & Du from Jiangsu Province, China, is described and illustrated. *Neoperla jiangsuensis* is characterized by the aedeagal sac with two C-shaped rows of large stout spines laterally, a patch of small spines, and with an apical double ear-shaped membranous lobes. The new species is the first recorded species of Perlidae known from the eastern coastal province of Jiangsu, China.

**Key words:** Plecoptera, Perlidae, *Neoperla*, new species, China, Jiangsu Province

### Introduction

The genus *Neoperla* Needham (1905) is the second largest genus in Perlidae, primarily distributed in eastern North America, Tropical and Temperate Asia and central Africa, with at least 239 species known (Illies 1966, Zwick 1973, Stark & Gaufin 1976, DeWalt *et al.* 2015). The diagnostic characters for distinguished adult and nymphs of *Neoperla* have been described by Banks (1947), Kawai (1975), Stark & Gaufin (1976), Picker (1980), Zwick (1983, 1984a, 1984b), Zwick & Sivec (1985), Sivec & Zhiltzova (1996), Stark & Baumann (1978) and Stark (1987). The first Chinese species of *Neoperla* was described by Chu (1929), and subsequently by Wu & Claassen (1934), Wu (1935, 1938, 1948, 1962, 1973), Yang & Yang (1992, 1995, 1998), Du (1999, 2000a, 2000b), Du *et al.* (1999, 2001), Du & Sivec (2004, 2005), Du & Wang (2005, 2007), Sivec & Zwick (1987), Li & Wang (2011), Li *et al.* (2011a, 2011b, 2012a, 2012b, 2013a, 2013b, 2014a, 2014b), Li & Zhang (2014), Kong *et al.* (2014), Wang *et al.* (2013a, 2013b), Wang *et al.* (2014), Qin *et al.* (2013). A new species of this genus from Xuyi, Jiangsu Province, China is described. This species is the first recorded species of Perlidae from the eastern coastal province of Jiangsu.

### Material and methods

Specimens used in this study were collected by hand and preserved in 75% ethanol. Abdomens were cleared in 10% NaOH. Details of the morphology were studied with a Leica MZAPO. Images were taken by Leica SZ45. All specimens are preserved in 75% ethanol. The holotype of the new species is deposited in the Insect Collection of Yangzhou University, Jiangsu Province, China.

### Taxonomy

#### *Neoperla jiangsuensis* Chen & Du, sp. nov.

(Figs. 1–9)

**Adult habitus.** General color light yellow patterned with light brown. Head mostly pale yellow except for dark