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Taxonomic study of the genus *Oecleopsis* Emeljanov, 1971 (Hemiptera: Fulgoromorpha: Cixiidae: Pentastirini), with descriptions of three new species from China

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Abstract

This paper reviews the cixiid planthopper genus *Oecleopsis* Emeljanov, 1971. Twelve species are recognized in the genus worldwide, of which three new species from China are described and illustrated: *O. spinosus* **sp. nov.**, *O. tiantaiensis* **sp. nov.,** *O. wuyiensis* **sp. nov.** A key to all known species of this genus is presented.

Key words: planthopper, Homoptera, Auchenorrhyncha, Fulgoroidea, new record

Introduction

The cixiid planthopper genus *Oecleopsis* was established by Emeljanov (1971) for *Oliarus artemisiae* Matsumura, 1914, and belongs to the tribe Pentastirini in the family Cixiidae. Van Stalle (1991) described the new species *Oecleopsis articara*, and transferred the following seven species from the genus *Oliarus* Stål, 1862 into the genus *Oecleopsis*: *Oecleopsis yoshikawai* (Ishihara, 1961), *O. petasatus* (Noualhier, 1896), *O. mori* (Matsumura, 1914), *O. sinicus* (Jacobi, 1944), *O. bifidus* (Tsaur, Hsu & Van Stalle, 1988), *O. chiangi* (Tsaur, Hsu & Van Stalle, 1988) and *O. elevatus* (Tsaur, Hsu & Van Stalle, 1988).

While sorting and identifying Cixiidae from material in the Entomological Museum, Northwest A & F University (NWAFU), we found three new species of *Oecleopsis*, which are herein described and illustrated. Furthermore, all previously known species of *Oecleopsis* occurring in China are redescribed except for *O. chiangi* (no specimens available).

Material and methods

Specimens were dissected by cutting off the abdomen with the help of a pin. The abdomen was then macerated in a 1.5ml PVC centrifuge tube, containing 10% NaOH, for about 12 hours or put in a centrifuge tube which was placed into a thermos bottle, containing boiled water, for 10 to 20 minutes. Prior to examination of the aedeagus, the abdomen was washed in distilled water 3 to 5 times and a drawing made of the anal segment and pygofer (this was necessary in case the pygofer was damaged upon removal of the aedeagus). The aedeagus was carefully removed by using pins and forceps. Observations and drawings were done in glycerine under a LEICA MZ12.5 anatomy stereoscopic microscope fitted with a drawing tube and mirror. After examination the abdomen was stored in a PVC microvial containing a small amount of glycerine and reassociated with the mounted specimen.

Morphological terminology follows that of Anufriev *et al.* (1988) and Van Stalle (1991).

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