



Review of the *Deltocephalus* group of leafhoppers (Hemiptera: Cicadellidae: Deltocephalinae) in China

YALIN ZHANG^{1,3} & YANI DUAN^{1,2}

¹Key Laboratory of Plant Protection Resources and Pest Management of Ministry of Education, Entomological Museum, Northwest A&F University, Yangling, Shaanxi Province 712100, China. co-first author

²School of Plant Protection, Anhui Agricultural University, Hefei, Anhui Province 230036, China

³Corresponding author. E-mail: yalinzh@nwsuaf.edu.cn

Table of contents

Abstract	2
Introduction	2
Checklist of species	2
Key to genera of the <i>Deltocephalus</i> group (Males)	3
<i>Deltocephalus</i> Burmeister	3
Key to species of the <i>Deltocephalus</i> from China (Males)	3
<i>Deltocephalus pulicaris</i> (Fallén)	3
<i>Deltocephalus nigriventris</i> Kuoh	4
<i>Deltocephalus vulgaris</i> Dash & Viraktamath	5
<i>Deltocephalus uncinatus</i> sp. nov.	6
<i>Recilia</i> Edwards	8
<i>Recilia coronifer</i> (Marshall)	8
<i>Maiestas</i> Distant	8
Key to species of the <i>Maiestas</i> from China (Males)	9
<i>Maiestas dorsalis</i> (Motschulsky)	10
<i>Maiestas schmidtgeni</i> (Wagner)	12
<i>Maiestas distincta</i> (Motschulsky)	12
<i>Maiestas obongsanensis</i> (Kwon & Lee)	13
<i>Maiestas glabra</i> (Cai & Britton)	14
<i>Maiestas oryzae</i> (Matsumura)	14
<i>Maiestas latifrons</i> (Matsumura)	15
<i>Maiestas heuksandoensis</i> (Kwon & Lee)	16
<i>Maiestas xanthocephala</i> (Dash & Viraktamath)	17
<i>Maiestas samuelsoni</i> (Knight)	18
<i>Maiestas subviridis</i> (Metcalf)	19
<i>Maiestas tareni</i> (Dash & Viraktamath)	20
<i>Maiestas pileiformis</i> sp. nov.	20
<i>Maiestas cultella</i> sp. nov.	21
<i>Maiestas remigia</i> sp. nov.	22
<i>Maiestas pararemigia</i> sp. nov.	24
<i>Maiestas crura</i> sp. nov.	25
<i>Maiestas rostriformis</i> sp. nov.	26
<i>Maiestas scalpella</i> sp. nov.	29
<i>Maiestas irisa</i> sp. nov.	30
<i>Maiestas bilineata</i> (Dash & Viraktamath)	31
<i>Maiestas brevicula</i> (Dash & Viraktamath)	32
<i>Maiestas webbi</i> sp. nov.	32
<i>Maiestas dinghuensis</i> sp. nov.	34
<i>Maiestas horvathi</i> (Then)	35
<i>Maiestas yangae</i> sp. nov.	36
<i>Maiestas maculata</i> (Pruthi)	37
Acknowledgements	39
References	46

Abstract

The *Deltocephalus* group is revised from China. *Deltocephalus* Burmeister includes 4 species, *Recilia* Edwards includes 1 species and *Maiestas* Distant includes 31 species, of which 12 are new and an additional 13 are newly recorded for China. The new species described are: *D. uncinatus*, *M. crura*, *M. cultella*, *M. dinghuensis*, *M. irisa*, *M. pararemigia*, *M. piliformis*, *M. remigia*, *M. rostriformis*, *M. scalpella*, *M. webbi* and *M. yangae* **spp. nov.** The newly recorded species are: *D. pulicaris* (Fallén), *D. vulgaris* Dash & Viraktamath, *M. bilineata* (Dash & Viraktamath), *M. brevicula* (Dash & Viraktamath), *M. heuksandoensis* (Kwon & Lee), *M. horvathi* (Then), *M. latifrons* (Matsumura), *M. obongsanensis* (Kwon & Lee), *M. samuelsoni* (Knight), *M. subviridis* (Metcalf), *M. tareni* (Dash & Viraktamath), *M. xanthocephala* (Dash & Viraktamath) and *R. coronifer* (Marshall). In addition, one synonym is confirmed: *M. prabha* (Pruthi) is a junior synonym of *M. maculata* (Pruthi). The 32 species known from China are illustrated together with keys for their separation.

Key words: Auchenorrhyncha, taxonomy, morphology, new species

Introduction

The *Deltocephalus* group in the Old World, comprises the following genera: *Deltocephalus* Burmeister (also New World), *Recilia* Edwards and *Maiestas* Distant. These genera are widespread on grasses and the three most common species (*M. dorsalis* (Motschulsky), *M. distincta* (Motschulsky) and *M. oryzae* (Matsumura)) also occur on crops, e.g., rice, wheat, maize, sorghum and sugarcane. Webb & Viraktamath (2009) reviewed the group as part of larger study on Old World Deltocephalini. This paper deals with the *Deltocephalus* group from China. In this region 32 species are recognized including 12 new species and 13 new records. All species are illustrated together with keys for their separation. Morphological terminology follows Oman (1949), Kuoh (1966) and Zhang (1990). As in many cicadellid groups, it is not possible to easily identify females to species in the *Deltocephalus* group; thus identification is based largely on male characters. In general, the character used to distinguish female leafhoppers, i.e. the shape of the seventh sternum, is rectangular with the hind margin slightly undulate in most females, and sometimes there is slight variation in the same species (see Plate V and Plate VI: A–P). However, some females are associated here based on locality and overall appearance, including females of *M. remigia* **sp. nov.**, which have a more distinctive pregenital sternite. Within the Deltocephalini the sculpture pattern of the first valvulae and shape of the second are also uniform, i.e., reticulate and blade shaped respectively (see Plate VI: Q–T); see also Dash & Viraktamath (1998) (Fig. 11) and Webb & Viraktamath (2009) (Figs 46p–s and Figs 49q, 49r).

Depositories. The material examined during the course of this work is deposited in Natural History Museum, London, United Kingdom (BMNH), Guangdong Entomological Institute (GDEI), Institute of Zoology, Chinese Academy of Sciences (IZCAS) and Entomological Museum of Northwest A&F University (NWAUFU).

Checklist of species

Deltocephalus pulicaris (Fallén)
Deltocephalus nigriventris Kuoh
Deltocephalus vulgaris Dash & Viraktamath
Deltocephalus uncinatus **sp. nov.**
Recilia coronifer (Marshall)
Maiestas dorsalis (Motschulsky)
Maiestas schmidtgeni (Wagner)
Maiestas distincta (Motschulsky)
Maiestas obongsanensis (Kwon & Lee)
Maiestas glabra (Cai & Britton)
Maiestas oryzae (Matsumura)
Maiestas latifrons (Matsumura)
Maiestas heuksandoensis (Kwon & Lee)
Maiestas xanthocephala (Dash & Viraktamath)
Maiestas samuelsoni (Knight)