



<http://dx.doi.org/10.11646/zootaxa.3780.2.2>

<http://zoobank.org/urn:lsid:zoobank.org:pub:2DAC4576-56F3-45EF-9B62-87C6A1D9414D>

## Four new species of *Alebroides* Matsumura (Hemiptera: Cicadellidae: Typhlocybinae) from China

XIAOFEI YU<sup>1,2</sup> & MAOFA YANG<sup>1,2</sup>

1. Institute of Entomology, Guizhou University, Guiyang Guizhou, 550025, P. R. China;

2. Guizhou Provincial Key Laboratory for Agricultural Pest Management of the Mountainous Region, Guiyang Guizhou, 550025, P. R. China.

\*Corresponding author: Maofa Yang ([yangmaofa@sohu.com](mailto:yangmaofa@sohu.com))

### Abstract

Four new species of the empoascine leafhopper genus *Alebroides* Matsumura are reported from China: *A. strumae* Yu & Yang, sp. nov., *A. chiasmaticus* Yu & Yang, sp. nov., *A. serrulatus* Yu & Yang, sp. nov. and *A. spanner* Yu & Yang, sp. nov. A list of all Chinese species of the genus is provided.

**Key words:** Auchenorrhyncha, leafhopper, Empoascini, taxonomy, description

### Introduction

The Empoascini genus *Alebroides* was established by Matsumura in 1931 based on the type species *A. marginatus* Matsumura. According to Dworakowska (1997), 75 species have been reported worldwide. The Chinese *Alebroides* were studied by Matsumura (1931), Dworakowska (1970, 1979, 1982, 1997), Chou & Zhang (1987), and Cai & Shen (1999), totalling 22 species. Qin & Zhang (2011) added two new species, five new records for China, proposed three new synonymies and also provided a key to all Chinese *Alebroides* species except *A. shokanus*. To date, 27 species have been reported in China.

Although the new species described in the paper are each known only from one or two specimens, they are distinctly different from previously described species of the genus and their formal recognition seems well justified.

### Material and methods

The methods and terminology follow Zhang (1990) except for the nomenclature of the wing, for which we follow Dworakowska (1993). Male specimens were dissected under a MOTIC B1 SMS-168 SERIES microscope. Figures were made using OLYMPUS CX41 and enhanced using Adobe Illustrator CS4. Pictures were taken with a VHX-1000C digital camera and edited with Adobe Illustrator CS4. The body length is measured from the apex of the head to the apex of the forewing, all the examined species are deposited in Institute of Entomology of Guizhou University, Guiyang, P.R. China (GUGC).

### Results

Genus *Alebroides* Matsumura, 1931

*Alebroides* Matsumura, 1931: 68

*Empoanara* Mahmood, 1967: 42

*Paolia* Vilbaste, 1968: 80

***A. toroensis* Matsumura, 1931**

*Alebroides toroensis* Matsumura, 1931: 70

Distribution. China (Taiwan), Japan.

***A. ursulae* Dworakowska, 1997**

*Alebroides ursulae* Dworakowska, 1997: 313

Distribution: China (Taiwan).

***A. vicarius* Dworakowska, 1997**

*Alebroides vicarius* Dworakowska, 1997: 271

Distribution. China (Yunnan), Burma.

***A. waimingi* Dworakowska, 1997**

*Alebroides waimingi* Dworakowska, 1997: 297

Distribution. China (Hong Kong).

***A. wushensis* Dworakowska, 1997**

*Alebroides wushensis* Dworakowska, 1997: 312

Distribution. China (Taiwan).

***A. yanglinginus* Chou & Zhang, 1987**

*Alebroides yanglinginus* Chou & Zhang, 1987: 290

*Alebroides taibaiensis* Chou & Zhang, 1987: 295

Distribution. China (Shaanxi, Gansu, Hubei).

## Acknowledgements

We are very grateful to Chris Dietrich, Illinois Natural History Survey, University of Illinois, USA, and an anonymous referee for reviewing the manuscript and suggesting improvements. We also thank Rong Huang, Institute of Entomology, Guizhou University, Guiyang, Guizhou, P. R. China for collecting study materials and Chang Han, Bin Yan, Institute of Entomology, Guizhou University, Guiyang, Guizhou, P. R. China for arranging materials.

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