The leafhopper subgenus Empoasca (Matsumurasca) from China (Hemiptera: Cicadellidae: Typhlocybinae: Empoascini), with descriptions of three new species

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Abstract

The empoascine leafhopper subgenus Empoasca (Matsumurasca) Anufriev is redescribed. Four species, including three new species from China are reported: E. (M.) clypeata sp. nov., E. (M.) biloba sp. nov. and E. (M.) quadrifida sp. nov. New distributional records for E. (M.) onukii Matsuda are provided. A key to distinguish all species of the subgenus worldwide is also provided.

Key words: Homoptera, Empoasca (Matsumurasca), distribution, taxonomy, China

Introduction

The empoascine subgenus Matsumurasca of the genus Empoasca Walsh was established by Anufriev (1973), with E. diversa Vilbaste (1968) as the type species, and including some allied species in the Empoasca aino Matsumura (1931) group mentioned by Dworakowska (1971). The subgenus is among the 12 subgenera of Empoasca and is characterized mainly by the stalked or triangular third apical cell of the forewing, subgenital plate being prominently broad at the base and aedeagus often with paired processes (Anufriev, 1973). Empoasca (Matsumurasca) currently contains 9 described species widely distributed in the Palaeartic and Oriental regions: E. (M.) aino Matsumura, E. (M.) onukii Matsuda, E. (M.) dolichi Paoli, E. (M.) conifera Dworakowska, E. (M.) latissima Dworakowska, E. (M.) parvifacia Dworakowska, E. (M.) thapae Dworakowska, E. (M.) schima Thapa, and the type species. Empoasca (M.) onukii reported earlier from Hangzhou, Zhejiang Province, China was studied by Dworakowska (1971, 1982).

In the present paper, the subgenus is redescribed. Four species known to occur to China, including three species new to science are described and illustrated along with new distributional records for E. (M.) onukii.

Material and methods

Except for the nomenclature of the wing, for which we follow Dworakowska (1993), the methods and terminology used in this work follow Zhang (1990). The specimens used in this study are deposited in the Entomological Museum, Northwest A & F University, Yangling, Shaanxi, China (NWAFU) and Institute of Zoology, Chinese Academy of Science, Beijing, China (IZCAS).