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Two new Deltocephalini leafhopper genera (Hemiptera: Cicadellidae: Deltocephalinae) from China

YALIN ZHANG[1] & YANI DUAN[2]

Key Laboratory of Plant Protection Resources and Pest Management, Ministry of Education, Entomological Museum, Northwest A & F University, Yangling, Shaanxi 712100, China. E-mail: [1]yalinzh@nwsuaf.edu.cn; [2]duanyani@hotmail.com

Abstract

Two new genera of Deltocephalini, *Yuanamia* **gen. nov.** with *Y. anastoma* **sp. nov.** as type species and *Wyushinamia* **gen. nov.** with *W. bifurcata* **sp. nov.** as type species, are described and illustrated from China.

Key words: Cicadellidae, Deltocephalinae, Deltocephalini, new genus, new species

Introduction

The grass-feeding leafhopper tribe Deltocephalini includes those genera that have a fused aedeagus and connective, the latter with linear arms. During the course of a revision of the Chinese Deltocephalini we discovered two new genera with two new species that are described below. Types of the new species are deposited in the Entomological Museum, Northwest A & F University, Yangling, Shaanxi, China (NWAFU); and The Natural History Museum, London, United Kingdom (BMNH).

Yuanamia gen. nov.

Type species: *Yuanamia anastoma*, Zhang and Duan sp. nov.

Stramineous to ochraceous. Vertex and pronotum with brown longitudinal bands.

Vertex with fore margin acutely rounded, coronal suture long. Forewing with four apical and three anteapical cells, claval veins joined by cross veins, appendix present.

Male genitalia: Pygofer short, without processes, with numerous macrosetae in

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posteroventral region. Valve and subgenital plates fused, subgenital plate with a uniseriate row of marginal macrosetae. Style with long articulatory arm, preapical lobe angled, apical process digitate. Connective linear, fused to aedeagus. Aedeagal shaft elongate, slender, apex forked in dorsal aspect.

Remarks

This genus is similar to *Peitouellus* Vilbaste (1969) and *Miradeltophus* Dash & Viraktamath (1995) in having a fused valve and subgenital plates and very elongate aedeagal shaft. It differs from the former in lacking an articulated apical section of the aedeagal shaft, and from the latter in having bifurcate apex rather than two apical aedeagal processes.

Etymology

The generic name is to be treated as an arbitrary combination of letters; gender feminine.

***Yuanamia anastoma* Zhang and Duan sp. nov.**
Figs. 1–8

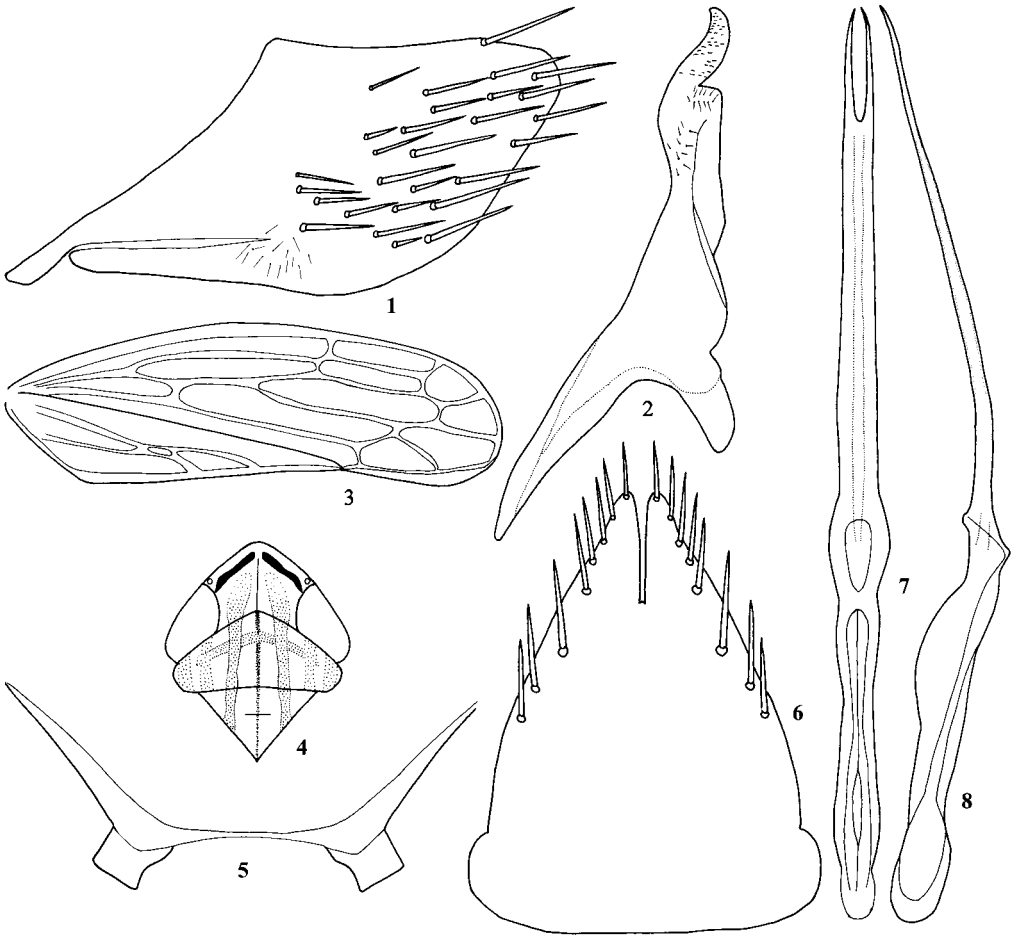
Vertex with a dark brown oblique band on each side of median line near and parallel to anterior margin, posterior to band another, orange or brown, longitudinal band on disc, between eye and midline, extending posteriorly to middle of lateral margin of scutellum; eyes brown, ocelli semitransparent; clypeus with fuscous arcs. Pronotum stramineous with four longitudinal bands in addition to the longitudinal bands originating from vertex, faint orange or brown, and a brown medial longitudinal line from anterior margin of pronotum to apex of scutellum. Scutellum stramineous. Legs marked with brown. Forewings stramineous or brown, cells bordered with brown, veins paler.

Vertex slightly longer than next to eye, coronal suture nearly 3/4 of vertex, ocellus separated from eye by less than ocellus' own diameter; clypellus with sides parallel. Pronotum nearly as long as vertex. Scutellum slightly shorter than vertex. Forewing macropterous, outer anteapical cell more than 1/2 length of central anteapical cell, latter non-constricted, inner anteapical cell open basally, claval veins joined at one or two points.

Sternal apodemes at base of abdomen truncate apically.

Male genitalia: Pygofer side parallelogram-like. Valve, subgenital plates fused forming subtriangular plate with apical thirdfree. Style apical process twisted. Aedeagal shaft nearly twice length of connective, slightly curved dorsally in lateral view, gonopore near base of fork, on dorsal margin.

Female genitalia: Hind margin of seventh sternum of female with V-shape median notch.



FIGURES 1–8. *Yuanamia anastoma* **sp. nov.** 1, male pygofer, lateral view; 2, style, dorsal view; 3, fore wing; 4, head and thorax, dorsal view; 5, male sternal apodemes at base of abdomen; 6, fused valve and subgenital plates; 7, 8, connective and aedeagus, dorsal and lateral view respectively.

Measurement

Male.-Length (including tegmen): 3.9-4.0mm; Female.-Length (including tegmen): 3.9-4.0mm.

Material examined

Holotype ♂, China: Yunnan Prov., Yuanmou Country, Laochengxiang Countryside, 1,290m, 9 August 2005, coll. Yang Meixia (NWAFU). Paratypes: China, Yunnan Prov., Yuanmou Country: 1♂, 2♀♀, same date as holotype (NWAFU); 1♀, Laochengxiang Countryside, Maoyicun Village, 29 March 2005, Li Qingyuan (NWAFU); 1♂, Mazhen Town, Yuelongcun Village, 27 May 2005, coll. Li Qiao (NWAFU); 1♀, Mazhen Town, Yuelongcun Village, 25 July 2005, coll. Li Qiao (BMNH); 1♂, Mazhen Town, Yuelongcun Village, 24 November 2005, coll. Guo Xiao. (BMNH)Remarks

Externally this species resembles some species of *Deltocephalus* from China but differs in having a fused valve and subgenital plates.

Etymology

Named for the joined veins of the forewing clavus.

Host

Lindera glauca (Lauraceae); *Eucalyptus spp* (Myrtaceae); *Dodonaea viscose* (Sapindaceae); *Vitex negundo* (Verbenaceae); *Acacia farnesiana* (Mimosaceae).

***Wyushinamia* gen. nov.**

Type species: *Wyushinamia bifurcata,* Zhang and Duan **sp. nov.**

Stramineous to brown. Pronotum with brown longitudinal stripes.

Vertex with fore margin acutely rounded. Forewing with four apical and three anteapical cells, appendix present.

Male genitalia: Pygofer very elongate, without processes, with numerous macrosetae on posteroventral region. Subgenital plate very elongate with uniseriate row of marginal macrosetae. Style with articulatory arm very long, preapical lobe short, apical process short, curved laterally. Connective linear, fused to aedeagus. Aedeagal shaft elongate, slender, apex bifurcate in dorsal aspect.

Remark

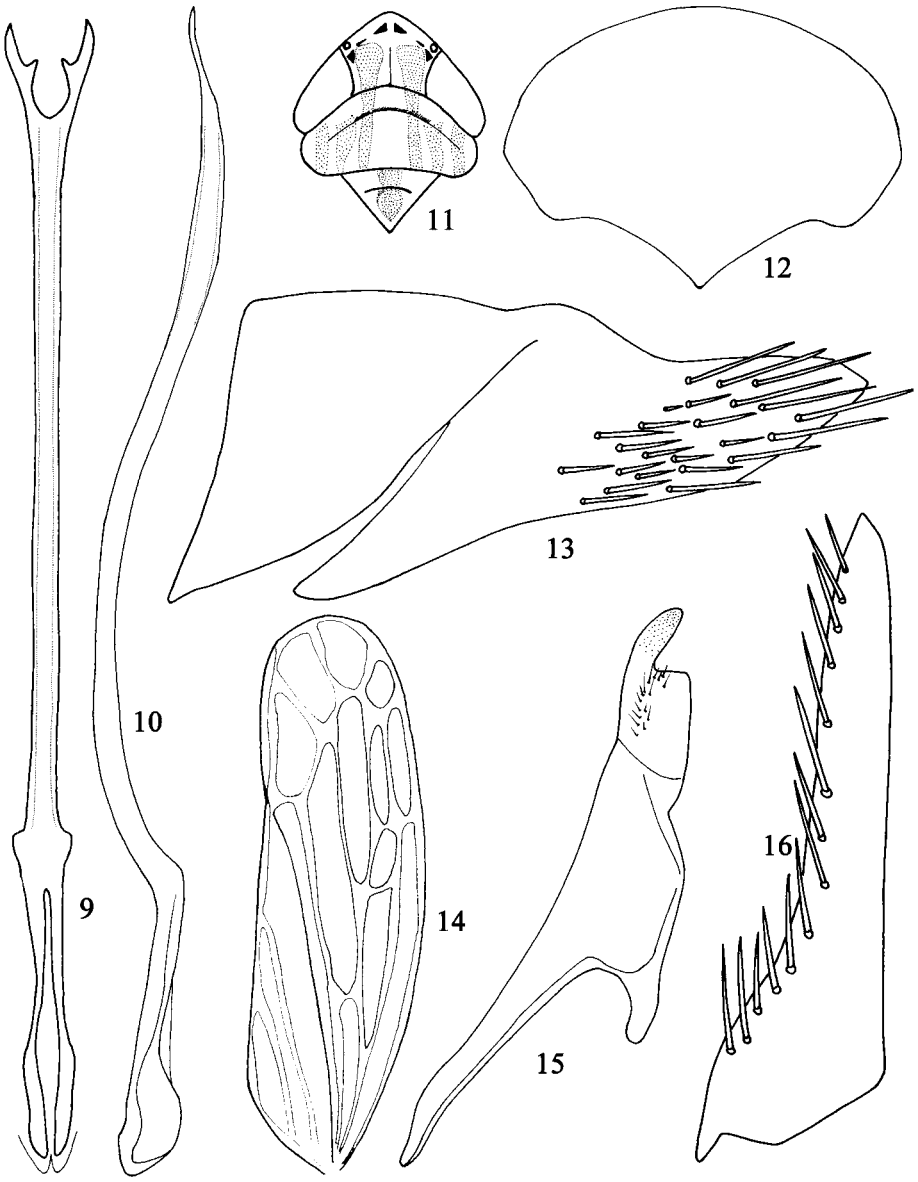
This genus is similar to *Polyamia* DeLong but the fore wing lacks extra cross veins, the aedeagal shaft is cylindrical, and the subgenital plate has several macrosetae. In *Polyamia* the fore wing has extra cross veins, the subgenital plate has only 4-5 macrosetae, and the shaft is flat to troughlike (see Sinada & Blocker, 1994).

Etymology

The generic name is an arbitrary combination of letters; gender feminine.

***Wyushinamia bifurcata* Zhang and Duan sp. nov.**
Figs. 9–16

Vertex light yellow with six small dark brown marks on anterior margin, and brown longitudinal band midway between midline and eye extending to posterior margin of pronotum; eyes dark, ocelli light yellow; clypeus with fuscous arcs. Pronotum light yellow with six brown longitudinal stripes including the two middle ones from vertex. Scutellum stramineous. Legs marked with brown. Forewings stramineous or brown, cells bordered with brown, veins paler.



FIGURES 9–16. *Wyushinamia bifurcata* **sp. nov.** 9, 10, connective and aedeagus, dorsal and lateral view respectively; 11**,** head and thorax, dorsal view; 12, valve, ventral view; 13, male pygofer, lateral view; 14, fore wing; 15, style, dorsal view; 16, subgenital plates, ventral view.

Vertex convex, nearly as long as next to eye, ocellus separated from eye by less than ocellus' diameter; apex of clypellus tapered. Pronotum nearly as long as vertex. Scutellum slightly shorter than vertex. Forewing macropterous, outer anteapical cell more than 1/2 central anteapical cell, central anteapical cell constricted, inner anteapical cell open basally, veins conspicuous, discal cell near costal area and with a cross vein.

Male genitalia: Pygofer constricted distally. Subgenital plate with lateral margin concave. Valve with anterior margin arched, posterior margin triangularly produced medially. Aedeagal shaft slender, longer than twice length of connective, apex bifurcate with a toothlike protrusion at inside of each branch, aedeagal shaft sinuate in lateral aspect, gonopore apical on ventral surface.

Measurement

Male Length (including tegmen): 4.1mm.

Material examined

Holotype ♂, China: Fujian Prov., Mt. Wuyishan, Xianfengling, 21 July 2003, coll. Duan Yani (NWAFU). Paratypes: 2 ♂, 1 ♀, China, Fujian Prov., Mt. Wuyishan, Pikeng, 20 July 2006, coll. Yang Meixia.

Remarks

Externally this species resembles some species of *Deltocephalus* but differs in having more elongate male pygofer and subgenital plates, and the aedeagal shaft apex bifurcate with a toothlike protuberance at inside of each branch.

Etymology

The species name is based on the apically bifurcate aedeagal shaft.

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We acknowledge Mick Webb, The Natural History Museum, London, for reviewing the manuscript. The project was supported by the National Natural Science Foundation (30499341), “the Pilot Project of Standardized Curation, Data Integration and Resource Sharing of Zoological Collections by Ministry of Science and Technology of China (2005DKA21402),” and the Innovation Foundation for Postgraduates by Northwest A&F University (05ych004).

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