

The Oriental leafhopper genus *Platfusa* (Hemiptera: Cicadellidae) with descriptions of one new species from China

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Abstract: The Oriental leafhopper genus *Platfusa* Dworakowska, 1993 (Cicadellidae: Typhlocybinae: Dikraneurini) is recorded from China for the first time. One new species, *P. lamellaris* Kang & Zhang **sp. nov.**, are described and illustrated. A checklist and a key to species of *Platfusa* are provided.

Key words: Auchenorrhyncha; Dikraneurini; taxonomy

东洋区宽锤小叶蝉属 *Platfusa* 并记一新种 (半翅目: 叶蝉科)

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摘要: 宽锤小叶蝉属 *Platfusa* Dworakowska, 1993 在中国首次报道, 并记述该属 1 新种: 片突宽锤小叶蝉 *P. lamellaris* Kang & Zhang **sp. nov.**, 绘制了形态特征图。文中还提供了种名录和检索表。

关键词: 头喙亚目; 叉脉叶蝉族; 分类

Introduction

The genus *Platfusa* was established by Dworakowska (1993a) on the basis of the type species from Thailand. To date, there was only one species in this genus. In this paper, we described one new species of the genus *Platfusa* collected from Yunnan in southwestern China.

Material and methods

The type specimens of the new species are deposited in the collections of the Entomological Museum, Northwest A&F University, Yangling, China.

The entire abdomens of the examined male specimens were separated from the body and soaked in 10% NaOH at approximately 80°C for about 1–2 minutes, or at room temperature for

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12–24 hours, rinsed 3 times in water, and then transferred to glycerin for further observation and preservation. Habitus photographs were taken with an autonomous QIMAGING Retiga 4000R digital camera (CCD). Line diagrams of the male genitalia were drawn using an OLYMPUS PM-10AD microscope and Adobe Illustrator CC. All figures were edited using Adobe Photoshop CS6.0 (Adobe Systems).

The terminology of the adult genitalia generally follows Zhang (1990), but wing venation follows Dworakowska (1993b).

Taxonomy

Genus *Platfusa* Dworakowska

Platfusa Dworakowska, 1993a: 109.

Type species. *Platfusa arooni* Dworakowska, 1993.

Type locality. Thailand.

Description. Elongate leafhoppers with head and thorax distinctly patterned (Figs 1A). Head slightly narrower than pronotum with length along midline shorter than distance between eyes (Figs 1C). Crown obtusely rounded with coronal suture distinct (Figs 1C). Face slightly convex dorsally in lateral view (Figs 1D). Pronotum anterior margin prominently arcuate, posterior margin nearly straight or slightly concave (Figs 1C). Forewing with 4th apical cell not reaching apex (Figs 1G, 2A). Hindwing with CuA branched, submarginal vein complete, extending along costal margin and around apex (Figs 1H, 2B). Ventral abdominal apodemes reaching 4th abdominal sternite (Figs 1L, 2F). Male pygofer side broad, apex obtusely rounded, with a macroseta near base of anal tube (Figs 1J, 2D). Subgenital plates broad and basally fused, extending distinctly beyond pygofer, ventral surface finely spiculate and with irregularly arranged central and lateral macrosetae (Figs 1I, 2C). Connective Y-shaped with stem very short (Figs 1K, 2E). Paramere with apophysis elongate, tapered to apex; lateral lobe absent (Figs 1O, 2I). Aedeagus simple with shaft short and curved, gonopore apical; dorsal apodeme well developed, expanded laterally at apex (Figs 1M, 1N, 2G, 2H).

Remarks. The genus *Platfusa* can be distinguished by male pygofer side with a macroseta near base of anal tube and subgenital plates fused to each other. Body proportions are similar to members of *Aruena* Anufriev, 1972 and the wing venation is as in *Igutettix* Matsumura, 1932 (Dworakowska 1993a).

Check list to species of *Platfusa*

Platfusa arooni Dworakowska, 1993a: 109 (figs 126–140) — Thailand.

Platfusa lamellaris Kang and Zhang **sp. nov.** — China (Yunnan).

Key to species of *Platfusa* (male)

1. Aedeagal shaft laterally compressed, with lamellate protrusion dorsally at apex; preatrium long (Figs 1M, 1N)..... *P. lamellaris* **sp. nov.**
- . Aedeagal shaft cylindrical, without lamellate protrusion dorsally at apex; preatrium short (Figs 2G, 2H) ...
..... *P. arooni*

1. *Platfusa lamellaris* Kang & Zhang **sp. nov.** (Fig. 1)

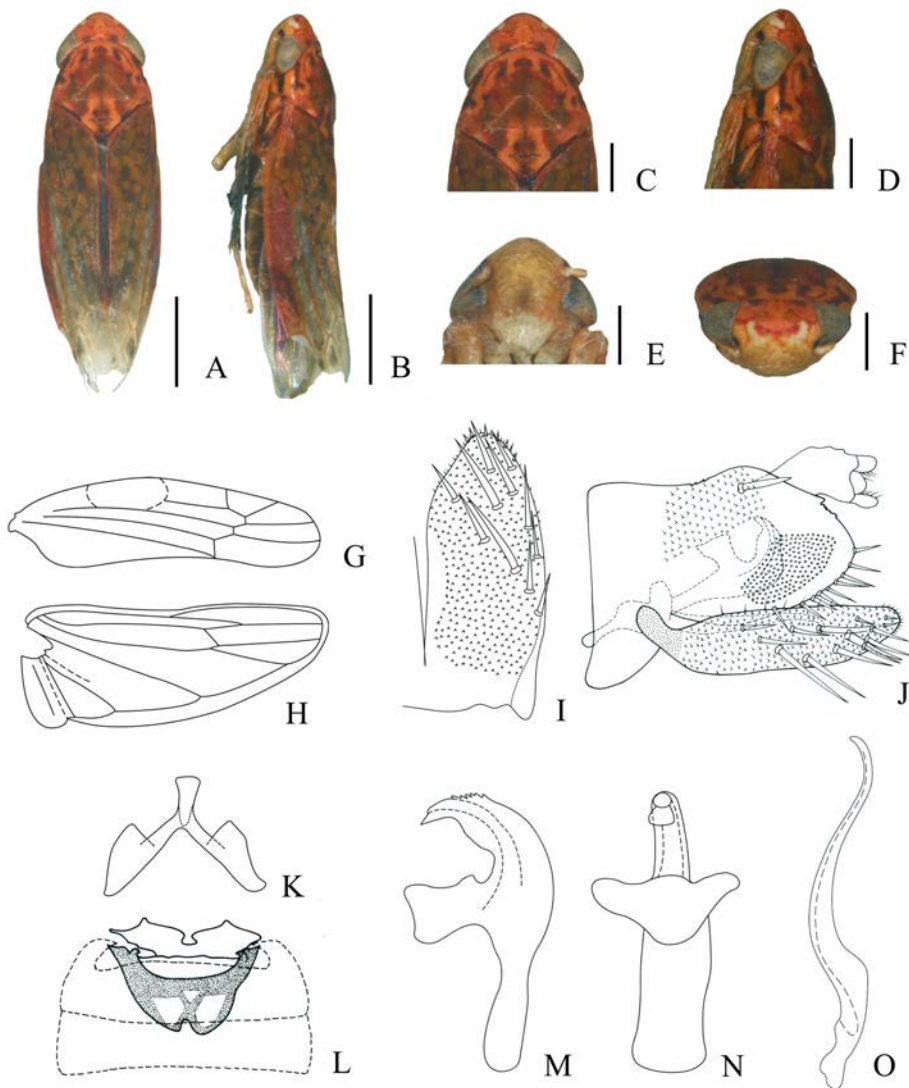


Figure 1. *Platfusa lamellaris* Kang & Zhang **sp. nov.** A. Habitus, dorsal view; B. Habitus, lateral view; C. Head and thorax, dorsal view; D. Head and thorax, lateral view; E. Face; F. Head, anterior view; G. Forewing; H. Hindwing; I. Subgenital plate, ventral view; J. Genital capsule, lateral view; K. Connective; L. Abdominal apodemes; M. Aedeagus, lateral view; N. Aedeagus, dorsal view; O. Paramere. Scale bars = 0.5 mm (A, B); 0.2 mm (C–F).

Measurement. Male. 3.40–3.60 mm (including wings).

Description. Body dirty orange with mottled spots (Fig. 1A). Eyes grey (Fig. 1D). Crown orange with a dark brown patch and a red band symmetrically along coronal suture, red band on anterior margin of crown and a white arcuate patch on each side of crown apex in anterior view (Figs 1C, 1F). Face yellowish white, anteclypeus white (Fig. 1E). Pronotum central area dark brown, remainder orange (Fig. 1C). Scutellum with two orange bands on center; above scutoscutellar sulcus with two dark brown spots (Fig. 1C). Forewing brown with scattered

orange spots, brochosome area orange-red, apical cell areas brownish hyaline, unspotted (Figs 1A, 1B).

Male pygofer in lateral view with submarginal stout macroseta near base of anal segment and a row of finer macrosetae on lower margin apically (Fig. 1J). Subgenital plate with several irregularly arranged macrosetae apically and laterally, and row of short microsetae along outer margin in ventral view (Figs 1I, 1J). Connective with arms broadened distally (Fig. 1K). Paramere with apophysis sinuate (Fig. 1O). Aedeagal shaft short and robust in lateral view, with an apical lamellate protrusion dorsally, subapically denticulate ventrally; dorsal apodeme subequal in length to aedeagal shaft in lateral view; preatrium well developed (Figs 1M, 1N).

Holotype. ♂, **China**, Yunnan, Mengla, Longmen, 17-V-2009, coll. Wei CUI. **Paratypes.** 4♂, same data as holotype; 1♂, Yunnan, Mengla, Longmen, 930 m, 18-V-2009, coll. Wei CUI; 1♂, Yunnan, Mengla, Yao District, 1300 m, 01-VI-2009, coll. Wei CUI.

Etymology. The specific epithet is derived from the Latin word “*lamella*” which refers to the thin lamellate protrusion on the aedeagal shaft dorsoapically.

Diagnosis. The new species is similar to *P. arooni* (Fig. 2) in the aedeagus but differs from it in having the shaft with a lamellar protrusion dorsoapically.

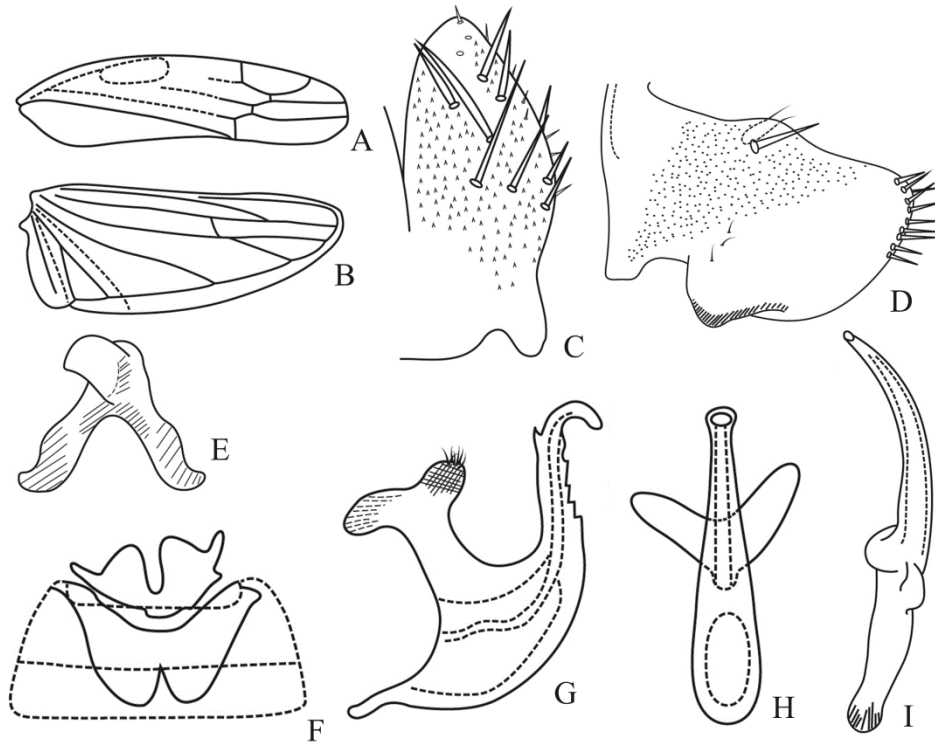


Figure 2. *Platfusa arooni* Dworakowska. A. Forewing; B. Hindwing; C. Subgenital plate; D. Genital capsule, lateral view; E. Connective; F. Abdominal apodemes; G. Aedeagus, lateral view; H. Aedeagus, ventral view; I. Paramere.

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