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New Species and New Record of the Genus *Pedionis* Hamilton, 1980 (Hemiptera: Cicadellidae: Macropsinae) from China, with a Nomenclatural Note

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ABSTRACT

A new macropsinae leafhopper, *Pedionis* (*Pedionis*) *yangi* sp. nov., from Guizhou and Yunnan Provinces, China, is described and illustrated, *P.* (*P.*) *palniensis* Viraktamath, 1981 is reported for the first time from China based on specimens from Guizhou, Yunnan and Sichuan Provinces. The name *P.* (*P.*) *tabulatus* Li, Dai and Li, 2011 is changed to *P.* (*P.*) *tabulata* Li, Dai and Li, 2011, in order that the generic and specific names agree in gender.

Key words: Leafhopper, Macropsini, *Pedionis*, new species, new record, China.

INTRODUCTION

The leafhopper genus *Pedionis* (tribe Macropsini) was established by Hamilton (1980) with *Pediopsis garuda* Distant, 1916 as the type species. Until now, 27 species of *Pedionis* (26 in the subgenus *P.* (*Pedionis*) and one in the subgenus *P.* (*Thyia*)) are known (Kirkaldy, 1907; Matsumura, 1912; Distant, 1916; Evans, 1971, 1974; Hamilton, 1980; Viraktamath, 1981, 1996; Kouh, 1987; Huang and Viraktamath, 1993; Liu and Zhang, 2003; Okudera, 2009; Zhang and Viraktamath, 2010; Li *et al*., 2011; Dai *et al*., 2011; Dai and Li, 2012), including 14 species known from China.

This paper deals with two macropsinae species: *Pedionis* (*Pedionis*) *yangi* sp. nov. from Guizhou and Yunnan Provinces, China, is described and illustrated, *P.* (*P.*) *palniensis* Viraktamath, 1981 is newly recorded in China basing materials from Guizhou, Yunnan and Sichuan Provinces. The name *P.* (*P.*) *tabulatus* Li, Dai and Li, 2011 is changed to *P.* (*P.*) *tabulata* Li, Dai and Li, 2011, in order that the generic and specific names agree in gender.

The morphological terminology follows Hamilton (1980). The type specimens of the new species and materials examined are deposited in the Institute of Entomology, Guizhou University, Guiyang, China (GUGC).

Genus *Pedionis* Hamilton

Pedionis Hamilton, 1980: 891.

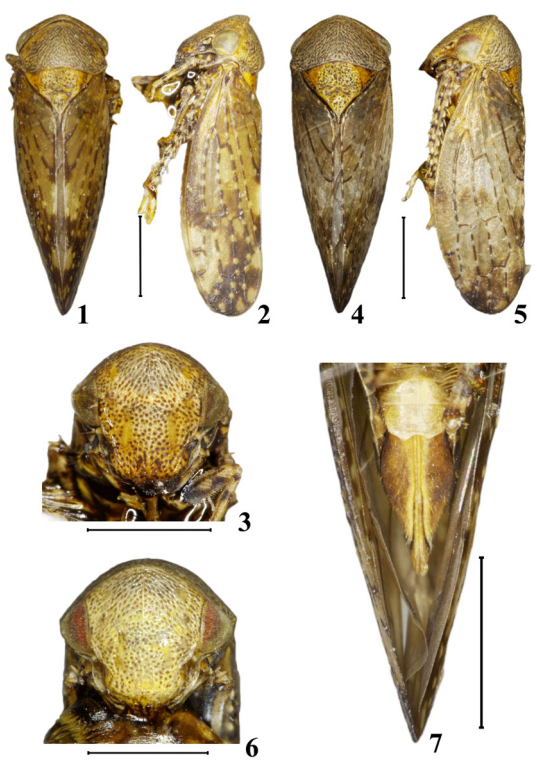
Type species: *Pediopsis garuda* Distant, 1916.

Body stout. Face slightly longer than wide, slightly shorter than width across eyes. Clypellus expanded apically. Pronotum distinctly declivous, weakly curved, striations distinctly oblique. Forewings with 2-3 anteapical cells (2 in subgenus *P*. (*Pedionis*) and 3 in *P*. (*Thyia*)), veins with white spots. Hind tibia with 8 macrosetae on AD row. Male pygofer armed with tiny apical spine or acute apically; dorsal connective segmented, variable at portion reaching upper margin of pygofer.

Remark. *Pedionis* can be distinguished from all other macropsine genera by possessing 2-3 anteapical cells, the presence of white spots on the veins, the shape of the pygofer and the dorsal connective.

Distribution. Palaearctic, Oriental and Australian regions.

***Pedionis* (*Pedionis*) *yangi* sp. nov.**



Figs. 1-7. Male dorsal, lateral, facial view and female 7th sternite. 1-3. *Pedionis* (*Pedionis*) *yangi* sp. nov.; 4-7. *Pedionis* (*Pedionis*) *palniensis* Viraktamath, 1981, scale bar = 1.0 mm.

Description

Body yellowish-brown, striations on body surface dark brown (Figs. 1-3). Head and pronotum brown. Face yellow, crown dark brown, ocelli and eyes brown. Scutellum yellow, with dark punctures, lateral corners orange. Forewings yellowish-brown, distal region brown, veins deep brown. Legs brown, with black spots.

Body form typical of genus (Figs. 1-3). Head, face and pronotum with surface densely striate. Head as wide as pronotum, anterior margin prominently convex, posterior margin concave. Face foveolate, distance between ocelli six times as long as that between ocellus and adjacent eye. Pronotum wider than long, with a longitudinal carina. Scutellum nearly triangular, with deep notch on posterior region, striations sparse on lateral corners. Forewings semi-hyaline. Hind tibia with 8 macrosetae on AD row.

Male genitalia. Pygofer broad, caudal margin acute to spine-like, caudoventral margin with several macrosetae (Fig. 8). Subgenital plates slender with many marginal setae (Fig. 9). Aedeagus sagittate, broader basally, shaft tubular, slightly tapering apically, apex sharply pointed, with pair of processes laterally in ventral aspect; in lateral aspect, shaft acutely angled dorsally in apical 1/4, gonopore apical (Figs. 10-11). Dorsal connective slender, apical half serrated dorsally (Fig. 13). Style long, lateral margins parallel, angled in apical third, apex slightly inflated, beaked (Fig. 12). Connective broad basally, subtriangular, with digitate protrusion medially, lateral arms twisted mesally (Figs. 14-15).

Female unknown.

Length (including forewings): ♂, 4.0-4.1 mm.

Host. Unknown shrub on which the species were found.

Material examined. Holotype ♂, China: Guizhou, Fanjingshan National Natural Reserve, Huixiangping, 01-VIII-2001, collected by Yang Maofa. Paratypes: 1 ♂, same data as holotype; 1 ♂, China: Yunnan, Lushui, Pianma town, 17-VIII-?, collected by Yang Maofa.

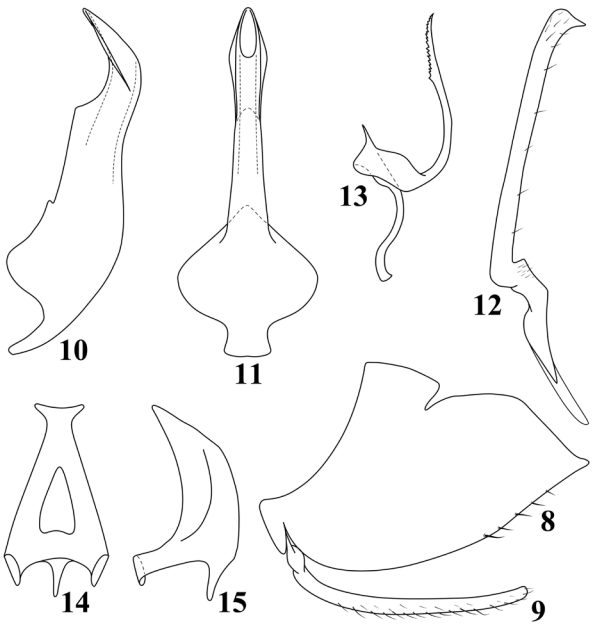
Distribution. China (Guizhou and Yunnan Provinces).

Diagnosis. The new species is similar to *Pedionis* (*Pedionis*) *palniensis* Viraktamath in body coloration, and to *P*. (*P*.) *serrata* Viraktamath in male genitalia features. Comparing with *P*. (*P*.) *palniensis*, *P.* (*P*.) *yangi* has a fully different male genitalia including pygofer lobe, aedeagus and dorsal connective in shape; from *P*. (*P*.) *serrata*, the new species can be distinguished by the aedeagal shaft, which is not inflated medially, has a sharply pointed apex, and the ventral margin has a weak constriction medially in lateral aspect.

Etymology. The new species is named in honor of Prof. Yang Maofa, who kindly provided specimens for this study.

***Pedionis* (*Pedionis*) *palniensis* Viraktamath, n. record.**

Pedionis (*Pedionis*) *palniensis*, Viraktamath, 1981: 306.



Figs. 8-15. Male genitalia of *Pedionis* (*Pedionis*) *yangi* sp. nov. 8. Pygofer side, lateral view; 9. Subgenital plate, lateral view; 10. Aedeagus, lateral view; 11. Aedeagus, ventral view; 12. Style, dorsal view; 13. Dorsal connective, lateral view; 14. Connective, dorsal view; 15. Connective, lateral view.

Description

Body form, coloration and male genitalia as described by Viraktamath (1981).

Female. Body coloration and form similar to male. Sternite VII broader basally, length of midline about 2 times longer than sternite VI, concave in middle-posterior margin, ovipositor strongly projecting beyond pygofer (Fig. 7).

Host. Unknown shrub on which the species were found.

Material examined. 1 ♂ 1 ♀, China: Guizhou, Kuankuoshui National Natural Reserve, 07-V-1989, collected by Li Zizhong; 1 ♀, China: Guizhou, Fanjingshan National Natural Reserve, 08-VIII-1994, collected by Li Zizhong; 1 ♀, China: Yunnan, Lushui, Pianma town, 17-VIII-2000, collected by Li Zizhong; 2 ♂♂, China: Guizhou, Fanjingshan National Natural Reserve, Heiwanhe, 03-VIII-2001, collected by Li Zizhong; 1 ♂, China: Sichuan, Yaan city, Fengyongzhai, 1500m, 01-VIII-2005, collected by Zhou Zhonghui.

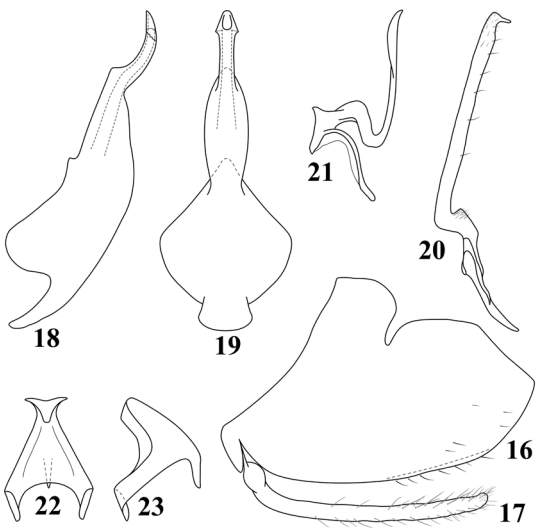
Diagnosis. This species can be easily identified and distinguished from others by the special male genitalia: Caudal margin of pygofer is not very acute like others (Fig. 16); apex of penis produced in to a pair of processes with both lateral margins serrated; in lateral aspect, aedeagal shaft suddenly angled heavily on apical third, sinuated strongly, and twisted dorsally; in ventral aspect, shaft inflated definitely in middle (Figs. 18-19).

Distribution. New records in China (Guizhou, Yunnan and Sichuan Provinces), India (Kodaikanal).

Nomenclatural note

***Pedionis* (*Pedionis*) *tabulata* Li, Dai and Li**

According to the rules of the International Code of Zoological Nomenclature (article 31.2), a species name must be in agreement with the gender of the generic name. The name *Pedionis* is feminine, whereas the suffix of the original name, *tabulatus* (Li *et al*. 2011), is masculine. Thus, the name should be changed to *Pedionis* (*Pedionis*) *tabulata* Li, Dai and Li, 2011.



Figs. 16-23. Male genitalia of *Pedionis (Pedionis) palniensis* Viraktamath, 1981. 16. Pygofer side, lateral view; 17. Subgenital plate, lateral view; 18. Aedeagus, lateral view; 19. Aedeagus, ventral view; 20. Style, dorsal view; 21. Dorsal connective, lateral view; 22. Connective, dorsal view; 23. Connective, lateral view.

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