

## A New Species of *Alishania* (Hemiptera: Cicadellidae: Deltocephalinae) from China with a Key to Species of the Genus

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### ABSTRACT

In the present paper, a new species *Alishania attenuata* sp. n. is described and illustrated. A key is given to distinguish all species of the genus, and illustrations of male genitalia (aedeagus and style) are provided.

*Key words:* Homoptera, morphology, taxonomy, *Alishania*, China

### INTRODUCTION

The leafhopper genus *Alishania*, belonging to tribe Opsiini of subfamily Deltocephalinae (Hemiptera: Cicadellidae), was established by Vilbaste (1969) for a single species, *Thamnotettix formosanus* Matsumura, from Taiwan. Recently, Xing, Dai & Li (2010) described a second species *Alishania fodingensis* from China. So far, this genus included only two species. Here we described and illustrated a new species *Alishania attenuata* sp. n. from Guizhou Province, China. The type specimens of the new species are deposited in the Institute of Entomology, Guizhou University, Guiyang, China (GUGC). The genus *Alishania* now contains three species. A key is given to separate all species.

### RESULTS

#### *Alishania* Vilbaste

*Alishania* Vilbaste, 1969: 5; Xing, Dai and Li, 2010: 65

Type species: *Thamnotettix formosanus* Matsumura, 1914

Distribution. Oriental Region.

For the relationship and diagnosis of *Alishania* see Vilbaste (1969: 5) and Xing, Dai and Li (2010: 65).

**World checklist of the genus *Alishania* Ball**

*A. formosana* (Matsumura, 1914) Figs 1-4 Distribution: China (Taiwan), Japan.

*A. fodingensis* Xing, Dai & Li, 2010 Figs 5-8 Distribution: China (Guizhou).

*A. attenuata* sp. n. Figs 9-19 Distribution: China (Guizhou).

**Key to species (male) of *Alishania***

1. Aedeagal shafts each with retrorse process (Figs.1,2).....  
.....*A. formosana* (Matsumura)
- Aedeagal shafts without appendage (Figs. 5, 6, 12, 13).....2
2. Style with medial appendage unforked (Figs.15,16); Aedeagal shafts elongate and gradually attenuate (Figs.12,13).....*A. attenuata* sp. n.
- Style with medial appendage forked (Figs.7,8); Aedeagal shafts short (Figs. 5,6).....  
.....*A. fodingensis* Xing, Dai and Li

***Alishania attenuata* sp. n.**

Figs. 9-19.

Description. Body yellowish brown, vertex with six black spots along anterior margin. Eyes yellow-brown; ocelli pale yellow. Pronotum and scutellum yellowish, without brown black stripes. Dorsal surface of abdomen yellow, ventral surface dark brown medially. Forewings pale yellow, the second subapical cells with a dark-brown spot. Legs dark brown.

Vertex triangular and produced. Head including eyes slightly wider than pronotum. Eyes large. Ocelli located on lateral margin of vertex, separated from adjacent eye by approximately their own diameter. Face without transverse streaks. Frontoclypeus narrow, longer than width between eyes. Anteclypeus more or less parallel-sided. Antennae arising near lower corner of eye. Pronotum slightly longer than vertex, anterior margin roundly produced and posterior margin slightly concave. Scutellum triangular, slightly shorter than pronotum, with transverse suture curved and depressed. Forewings with four apical cells and two subapical cells, MCu subapical lack, appendix well developed, clavus without transverse veins. Hind wings with three apical cells, macropterous, with two anteapical cells, inner anteapical cell closed basally. Hind femur formula 2+2+1.

*Male genitalia.* Pygofer side elongate, slightly narrowed caudally in lateral aspect, posterior margin with many macrosetae (Fig.9). Valve large, its posterior margin sinuate produced (Fig.10). Subgenital plates consisting of four small plates, fused basally, on both sides of small plates shorter and truncated at apex (Fig.11). Aedeagus with paired shafts, forked with two gonopores, gonopores subapical on ventral surface, each aedeagal shaft elongate and curved dorsad, gradually attenuate (Figs.12, 13). Connective Y-shaped, its stem slightly longer than arms. (Fig.14). Style elongate, apophysis long, tapered to acute apex, medial margin with long appendage (Figs.15,16).

*A New Species of Alishania from China with a Key to Species of the Genus*

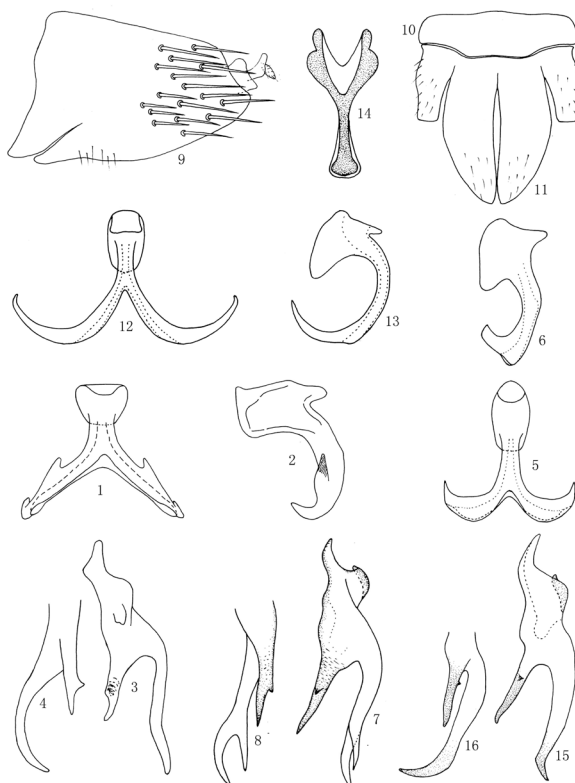
Measurement. Length (including tegmen): ♂, 3.7mm.

Host. Grasses.

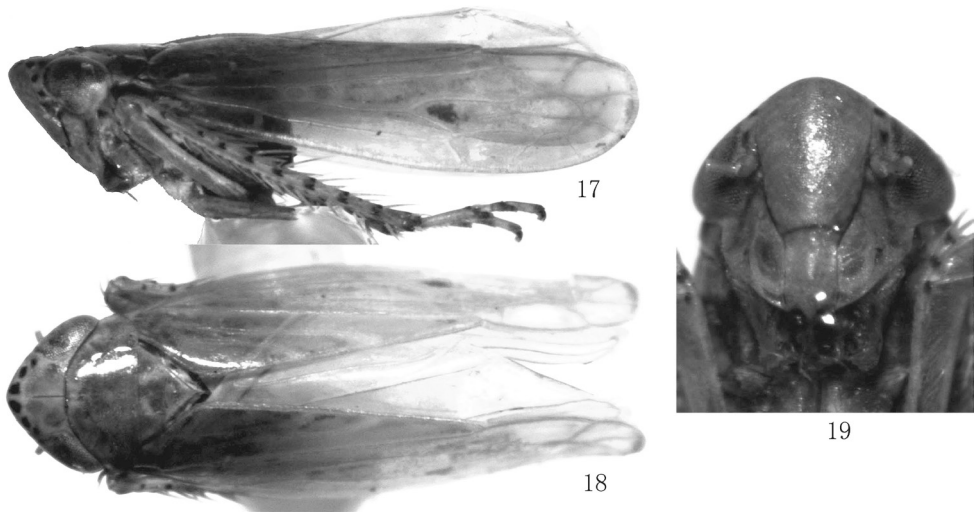
Type Material. Holotype ♂, China: Guizhou Province, Mt. Fanjing, 9 August 1994, coll. Yazhou Zhang (GUGC).

Remarks. This new species is similar to *Alishania fodingensis* Xing, Dai & Li, but can be distinguished by the face without brown transverse stripes, pronotum and scutellum without irregularly brown black stripes, aedeagal shafts elongate and gradually attenuate, and style with medial appendage unforked. It also differs from *Alishania formosana* (Matsumura) in the lateral small plates of subgenital plate truncated at apex, aedeagal shafts without appendage, elongate and gradually attenuate.

Etymology. The species name is derived from the Latin words *attenuata*, indicating that the aedeagal shafts are gradually attenuate.



Figs. 1-16. *Alishania formosana* (Matsumura) 1. Aedeagus, ventral view; 2. Aedeagus, lateral view; 3. Style, ventral view; 4. Tip of the style, lateral view (after Vilbaste, 1969). *Alishania fodingensis* Xing, Dai & Li 5. Aedeagus, ventral view; 6. Aedeagus, lateral view; 7. Style, ventral view; 8. Tip of the style, lateral view. *Alishania attenuata* sp. n. 9. Male pygofer side, lateral view; 10. Valve, ventral view; 11. Subgenital plate, ventral view; 12. Aedeagus, ventral view; 13. Aedeagus, lateral view; 14. Connective; 15. Style, ventral view; 16. Tip of the style, lateral view.



Figs. 17-19. *Alishania attenuata* sp. n. 17. ♂, lateral view; 18. ♂, dorsal view; 19. ♂, face.

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