# DESCRIPTIONS OF TWO NEWSPECIES OF DELPHACIDAE ATTACKING BAMBOO FROM CHINA\* (HOMOPTETA:FULGOROIDEA)

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**Abstract:** In this paper, two new species infesting bamboo in Southwest of China are described and illustrated, Bambusiphaga maculata Chen et Li sp. nov. and Epeurysa jiangjinensis Chen et Chiang sp.nov., which are very harmful to bamboo by sucking sap and laying eggs. All type specimens are deposited in the Institute of Entomology, Guizhou University.

**Key words:** Homoptera, Delphacidae, Bambusi phaga, Epeurysa, New species, Bamboo

## 中国害竹飞虱二新种记述 (同翅目:蜡蝉总科)

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摘 要: 本文记述采自我国西南地区竹子上的飞虱科昆虫 2 新种 : 翅斑竹飞虱 Bambusiphaga maculata Chen et Li sp. nov . 和江津短头飞虱 Epeurysa jiangjinensis Chen et Chiang sp. nov . ,与近似种进行区别,附主要特征图。该 2 新种以刺吸汁液和产卵等方式危害竹子,危害较为严重。模式标本保存在贵州大学昆虫研究所。

关键词: 同翅目,飞虱科,竹飞虱属,短头飞虱属,新种,竹

Bambusiphaga Huang et Ding and Epeurysa Matsumura belong to tribe Tropidocephalini of the subfamily Delphacinae. All the species of two genera feed on bamboo (Huang C L et al., 1979; Matsumura S, 1900). Up to date, 16 species of the genus Bambusiphaga have been recorded in the world. Among them, 14 species were distributed in China (Ding J H, 1982; Ding J H et al., 1982; Ding J H et al., 1986; Ding J H et al., 1987; Kuoh C L, 1980; Kuoh C L et al., 1980; Qin D Z et al., 1999; Yang J T et al., 1986). The genus Epeurysa was established by Matsumura in 1900, with a Japanese species, E. na wii Matsumura as its type species. Previously, 10 species of this genus have been recorded in the world, of which 8 species were recorded from China (Huaung C L et al., 1979; Yang J T et al., 1986; Yang J T, 1992). In this paper, 2 new species belonging to above two genera separately, are reported. All type specimens are deposited in the Institute of Entomology, Guizhou University.

#### 1 Bambusiphaga maculata Chen et Li, sp. nov. (Figs.1 ~ 8)

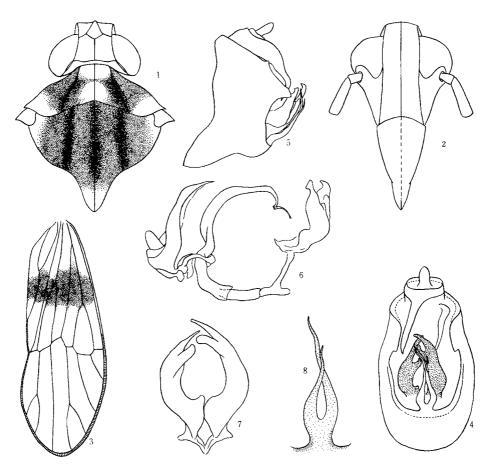
Macrop.f.:body length &2.2 mm, &2.6 mm; includ.teg. &4.4 mm, &4.8 mm; teg men &3.7

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mm, 94.1 mm.

Vertex quadrate, wider at base than length about 1.1:1, narrower at apex than at base (1.2:1), apical margin truncate, carinae distinct, submedian carinae uniting at apex. Frons oblong, longer in middle line than wide at widest part about 2.3:1, slightly narrower at base than at apex, median carina simple. Clypeus developed, postclypeus slightly wider at base than frons at apex, median carina feeble. Antennae cylindrical, second segment 3.4 times as long as first, two segments together reaching to frontoclyeal suture. Pronotum as long as vertex, lateral carinae attaining hind margin. Mesonotum about 1.4 times the length of vertex and pronotum together, median carina attaining the end of scutellum. Spinal formula of hind leg 5-6-4. Post-tibial spur without teeth along posterior margin, but with a apical tooth.

Anal segment of male ring like, left lateroapical angle produced into a very long process. Pygofer in profile much longer ventrally than dorsally, strongly produced caudad in middle of posterior margin, in posterior view opening longer than wide, medioventral process developed, forked near base, right branch longer than left branch. Aedeagus slender, very long, apical one-fourth bent ventrad, sinuate. Genital styles moderately long, forked at apex, pliers-like, left style with basal angle produced slightly, shape as in figures.



Figs .1 ~ 8 Bambusi phaga maculata Chen et Li sp. nov. 1. Head and thorax, dorsal view; 2. Frons and clypeus; 3. Teg men; 4. Male genitalia posterior view; 5. The same, lateral view; 6. Male anal seg ment aedeagus and genital styles, lateral view; 7. Genital styles,

posterior view; 8. Medioventral process, ventral view.

General color pale yellowish white, with slightly brown. Vertex, from, genae and antennae pale yellowish white. Ocelli, eyes reddish brown. Pronotum with the areas round lateral carinae, mesonotum

with central areas largely blackish brown. Teg mina with a large markings dark brown at basal one-third. Fore and midcoxae pale brown. Abdomen with dorsal areas brown, pygofer dark brown, anal seg ment and anal style yellowish brown.

Host plant: Sinoba mbusa kunishii (Hayata) Naki.

Holotype  $\delta$ , Huixiangping of Fanjing Mountain (27°53′ N,108°44′ E,1800 m), Guizhou Province, 1998-  $\forall 4$ , coll. Chen Xiangsheng; paratypes 2  $\delta$   $\delta$ , 2  $\circ$   $\circ$  , same data as for holotype.

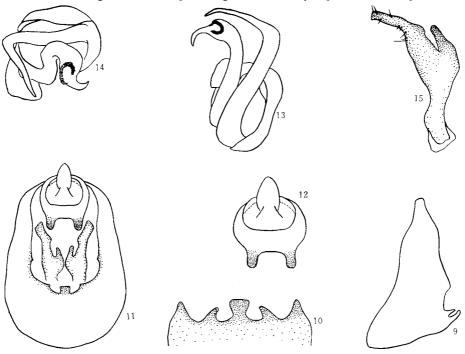
This new species is related to *B*. fascia Huang et Tian, but can be separated from the latter by: face without any markings; tegmen with a large dark brown markings at basal one-third; pygofer with developed medioventral process; genital styles forked at apex; and the shape of aedeagus.

### 2 Epeurysa jiangjinensis Chen et Chiang, sp.nov. (Figs. 9 ~ 15)

Macrop. f.: body length & 2.7 mm, & 3.2 mm; includ.teg. &4.3 mm, &4.8 ~ 5.0 mm; tegmen &3.6 mm, &4.0 ~ 4.3 mm.

Vertex wider at base than long submedially about 2.8:1, slightly wider at base than at apex, apical margin evenly convex, carinae distinct. Frons in middle line longer than wide at widest part about 1.3:1, widest at level of eye, slight wider at base than at apex, median carina forked at extremely base. Postclypeus wider at base than frons at apex. Antennae cylindrical, first segment almost as wide as long, second segment about twice as long as first, two segments together reaching to frontoclypeus suture, Pronotum longer than vertex medially (1.8:1), lateral carinae not attaining hind margin. Mesonotum longer in middle line than pronotum and vertex together (2.0:1). Spinal formula of hind leg 5-6-4. Posttibial spur without teeth along posterior margin, but with a small apical tooth.

Anal segment of male ring-like lateroapical angles moderately separated, each produced into a short,



Figs .9 ~ 15 Epeurysa jiangjinensis Chen et Chiang, sp.nov.

<sup>9.</sup> Pygofer, lateral view; 10. The same, ventral view; 11. Male genitalia, posterior view; 12. Anal segment, ventral view; 13. Aedeagus, laterodorsal view; 14. The same, caudal view; 15. Genital style, caudolateral view.

stout process, nipple-like. Pygofer in profile much longer ventrally than dorsally, in posterior view with opening longer than wide obviously. Ventral margin with 3 medioventral processes, lateral ones tooth-like, tapering apically, median one enlarging at apex, apical margin truncate. Aedeagus moderately long, phallus tubular, simple, directed to left caudad, then deflect mid-ventrad, acute at apex. Phallobasal process subequals to phallus in length and size, arising basally, directed caudad, with a se micircular node at apex, then protruding a distal limb, in dorsal view, distal limb turned to right side. The widest part of phalllobasal process near node wider than length of distal limb (about 1: 0.93). Genital styles moderately long, with basal angles strongly produced thumb-like, shape as in figures.

General color yellowish brown. Vertex, pronotum and mesonotum yellowish brown, frons, genae and clypeus brown. Antennae with apex of first segment brown. Thorax with ventral areas, legs brown. Tegmina yellowish brown, with anteroapical part infumatus. Abdomen with dorsal areas blackish brown, pygofer dark brown.

Host plant: Phyllostachys makinoi Hayata.

Holotype  $\, \delta \,$ , Simian Mountain, (29°14′ N,106°15′ E,1300 m) Jiangjin, Chongqin, 1998- VF17, coll. Chen Xingsheng; paratypes 2  $\, \delta \, \delta \,$ ,4  $\, \circ \, \circ \,$  , same data as for holotype.

This new species resembles E.infumata Huang et Ding, but differs from the latter in the following aspects: midian one of medioventral processes enlarging at apex; apical margin truncate; distal limb of phallobasal process short; and the shape of genital styles.

#### References

Ding J H. Two new species of the tribe Tropidocephalini (Homoptera: Delphacidae). Journal of Nanjing Agricultural College, 1982, 4:42 ~ 45

Ding J H and Hu G W. A new species of the genus Bambusiphaga from Yunnan (Homoptera: Delphacidae). Acta Entomologica Sinica, 1982, 25

(4):443 ~ 444

Ding J H, Yang L F and Hu C L. Descriptions of new genera and species of Delphacidae attacking bamboo from Yunnan Province, China. Acta Entomologica Sinica, 1986, 29(4):415 ~ 425

Ding J H and Hu C L. Note on male Bambusiphaga fascia Huang et Tian(Homoptera: Delphacidae). Entomotaxonomia, 1987, 9(2):106
Huang C L, Tian L X and Ding J H. Descriptions of a new genus and species of Delphacidae attacking bamboo from China. Acta Zootaxonomica

Sinica , 1979 ,4(2) :170 ~179

Kuoh C L. Descriptions of five new species of Delphacidae( Homoptera). Acta Entomologica Sinica, 1980, 23(2):195 ~ 201

Kuoh C L, Huang CL, Tian LX et al. New species and new genus of Delphacidae from China. Acta Entomologica Sinica, 1980, 23(4):413 ~

Matsumura, S. Uebersicht der Fulgoriden Japan. Ent. Nachr., 1900, 26:257 ~ 269

Qin D Z and Yuan F. One new species of the genus Bambusi phaga (Homoptera: Delphacidae) from China. Entomotaxonomia, 1999, 21(1):33

 $Yang\ J\ T\ and\ Yang\ C\ T.\ Delphacidae\ of\ Taiwan(I)\ Asiracinae\ and\ the\ tribe\ Tropidocephalini(Homoptera:Fulgoroidea)$ . Taiwan Mus. Spec. Publ., 1986, 6:1 ~ 79

Yang J T. A new species of the genus Epeurysa (Homoptera: Fulgoroidea; Delphacidae). Chinese J. Entomol., 1992, 12:13 ~16