



A new species of *Goniagnathus* Fieber (Hemiptera: Cicadellidae: Deltocephalinae: Goniagnathini) from China

YANI DUAN^{1,2} & YALIN ZHANG^{2,3}

¹School of Plant Protection, Anhui Agricultural University, Hefei, Anhui Province 230036, China.

²Key Laboratory of Plant Protection Resources and Pest Management of Ministry of Education, Entomological Museum, Northwest A & F University, Yangling, Shaanxi Province 712100, China.

³Corresponding author: yalinzh@nwsuaf.edu.cn

The deltocephaline leafhoppers of the genus *Goniagnathus* Fieber are common inhabitants of grassland ecosystem in the Palaearctic, Oriental, Afrotropical, and Australian regions. They are robust, squat leafhoppers readily recognized by their short and broad head, fused male subgenital plates, male style with membranous fracture at midlength, connective short and fused with aedeagus.

Emeljanov (1999) divided the Palaearctic species of the genus into five subgenera (in key) and Viraktamath & Gnaneswaran (2009) added another subgenus (*Tropicognathus*) for the Indian species. In a recent review of the small leafhopper tribe Goniagnathini from China, Duan *et al.* (2009) recorded eight species of the genus from the region and provided a key for their separation. Other regional studies of the genus include those of Linnavuori (1978) (Africa), Dash & Viraktamath (2001) (India), and Fletcher & Zahniser (2008) (Australia).

In the present paper one new species is described from Yunnan Province, China and the key to Chinese species (noted above) is revised. Type material of the new species is deposited in the Entomological Museum of Northwest A & F University (NWAUF). Morphological terminology follows Zhang (1990).

Key to subgenera and species of Chinese *Goniagnathus* Fieber (males)

1. Pygofer side without appendage. Fused subgenital plates and valve elongate. *G. (Epitephra) rugulosus*
- Pygofer side with or without appendage. Fused subgenital plates and valve short..... 2
2. Pygofer side without appendage. Style apophysis with apex strongly oblique, subapical lobe well-developed.
..... *G. (Goniagnathus) brevis*
- Pygofer side with dorsocaudal appendage present. Style apophysis with apex not strongly oblique, subapical lobe moderate to weakly developed. *G. (Tropicognathus)*..... 3
3. Style apophysis expanded apically (Fig. 1C)..... 4
- Style apophysis similar in width throughout length. 5
4. Pygofer side constricted at mid-length and broadened caudally. Aedeagal shaft strongly curved caudodorsad and in apical 0.25 strongly curved anteriorly, not bifid apically..... *G. nervosus*
- Pygofer side with caudal lobe rounded (Fig. 1A). Aedeagal shaft arcuate, bifid apically (Figs 1D, 1E).
..... *G. viraktamathi* **sp. n.**
5. Pygofer side appendage elongate. Aedeagal shaft in lateral view with pair of apical linear processes. 6
- Pygofer side appendage robust. Aedeagal shaft in lateral view with pair of apical triangular processes. ... *G. cornutus*
6. Lower aedeagal processes situated at midlength of shaft..... *G. punctifer*
- Lower aedeagal processes situated slightly basad of midlength of shaft. *G. taiwanus*

Goniagnathus (Tropicognathus) viraktamathi sp. n.

(Plate I, Figure 1)

Length (including tegmen): 6.1mm.

Brown, speckled with darker brown (Plate I: A). Anterior margin of head creamy white, transverse stripe across ocelli, thin short transverse stripe between eye and ocellus (Plate I: B). Transverse stripes on frontoclypeus, dark brown (Plate I: D).