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## ***Bicoloratum* Dai and Li, a new synonym of the leafhopper genus *Scaphoideus* Uhler (Hemiptera, Cicadellidae, Deltocephalinae), with description of two new species**

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### **Abstract**

*Bicoloratum* Dai and Li, 2011 is considered to be a junior synonym of *Scaphoideus* Uhler, 1889 based on study of specimens of two new species, one of which is morphologically very similar to the type species of *Bicoloratum*, *B. pingtungisis* Dai and Li 2011. Three valid species now included within the genus *Scaphoideus* are: *S. dinghuensis* **sp. nov.**, *S. taishanensis* **sp. nov.** and *S. pingtungisis* (Dai and Li, 2011) **n. comb.** The detailed morphology of the two new species is described, and photographs of their external habitus and male and female genitalia are also given.

**Key words:** Hemiptera, Auchenorrhyncha, leafhoppers, *Scaphoideus*, *Bicoloratum*, new species

### **Introduction**

Deltocephalinae is the most speciose subfamily of Cicadellidae, with species distributed on all continents but being especially diverse in the tropics, subtropical and temperate forest ecosystems, including 38 tribes, 923 genera, and approximately 6700 valid species (Zahniser and Dietrich, 2010, 2013). The tribe Scaphoideini is one of the more controversial groups. Because it was erected by Oman (1943) in his published abstract where its generic description and diagnosis were not provided, its definition and composition were uncertain and several genera not related to *Scaphoideus* were included previously. Conversely, many closely related genera were excluded from the tribe. Recently, the circumscription and morphological characterization of Scaphoideini Oman were substantially revised by Zahniser and Dietrich (2013), including 61 genera and 631 species. The cosmopolitan genus *Scaphoideus* Uhler is the most diverse genus in this tribe (Kitbamroong & Freytag, 1978; Viraktamath & Mohan, 2004; Li *et al.*, 2011; Kamitani & Hayashi, 2013), comprising 197 species described to date (Chen *et al.*, 2015). Further studies of this group are needed to elucidate the status and composition of the genus.

The genus *Bicoloratum* was erected within Deltocephalinae, but without tribal placement, by Dai & Li (Li *et al.* 2011) to hold only the type species and included in the tribe Athysanini by Zahniser & Dietrich (2013). It was characterized and differentiated from the similar genera *Scaphoideus* and *Scaphotettix* by the distinctly bicolored forewing, face without stripes, anterior radial veins not reflexed or at right angles, and style long and slender with a slender preapical lateral lobe (Li *et al.* 2011).

During our larger studies on Oriental Deltocephalinae, we discovered several specimens from China which closely resemble *Bicoloratum pingtungisis* in both color pattern and male genitalia structure. Comparison of these specimens, as well as the original illustrations and description of *B. pingtungisis*, to species of *Scaphoideus* revealed no characters other than wing coloration to separate the two genera and they are here treated as synonyms. Viraktamath & Mohan (2004) had previously included an Indian *Scaphoideus* species with similar color pattern and male genitalia: *Scaphoideus bicoloratus* Viraktamath & Mohan.

In this paper we describe two new species from China with distinctly bicolored forewings. Four valid species having this color pattern are now included within the genus *Scaphoideus*: *S. dinghuensis* **sp. nov.**, *S. taishanensis* **sp. nov.**, *S. bicoloratus* Viraktamath & Mohan, and *S. pingtungisis* (Dai and Li, 2011) **n. comb.**