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A review of the leafhopper tribe Hyalojassini (Hemiptera: Cicadellidae: Iassinae) with description of new taxa

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Abstract

The morphologically diverse leafhopper tribe Hyalojassini is reinstated from synonymy under Iassini based on distinctive features of the male genitalia and a key to the Oriental genera is given. The previously monotypic genera *Hyalojassus* Evans and *Coriojassus* Evans are revised and redescribed based on study of the type species. The following new genera and species are described from Thailand and China and placed in Hyalojassini: *Kanchanaburiassus maculatus* **gen. nov. & sp. nov.** from Kanchanaburi, Thailand; *Lamelliassus chaingmaiensis* **gen. & sp. nov.** from Chaingmai, Thailand; *Siamassus constanti* **gen. & sp. nov.** from Loei, Thailand; *Declivassus* **gen. nov.** with *D. bipunctatus* **sp. nov.**, *D. maculatus* **sp. nov.**, and *D. nudus* **sp. nov.**, from Thailand; *Trocnassus* **gen. nov.** with *T. shaanxiensis* and *T. henanensis* **sp. nov.**; *Hyalojassus elongatus* **sp. nov.** and *H. punctulatus* **sp. nov.** from Thailand and *H. yunnanensis* **sp. nov.** from China; *Coriojassus loeiensis* **sp. nov.** from Thailand, *C. yunnanensis* **sp. nov.** and *C. zhejiangensis* **sp. nov.** from Yunnan and Zhejiang, China, respectively, the latter representing the first records of the genus from China. *Sinojassus* Dai *et al.* 2010 (nec Zhang 1985) is a junior homonym, thus a new replacement name, *Siniassus* **nom. nov.**, is proposed, the genus is transferred to Hyalojassini, and the following new combinations are made: *Siniassus loberus* (Dai, Zhang & Zhang, 2010), *Siniassus aspinus* (Dai, Zhang & Zhang, 2010), *Siniassus compressus* (Dai, Zhang & Zhang, 2010) and *Siniassus webbi* (Dai & Dietrich, 2010). Detailed morphological descriptions and illustrations for all new taxa are provided. The following New World genera share the diagnostic morphological features of Hyalojassini and are newly placed in this tribe: *Absheta* Blocker, *Aztrania* Blocker, *Baldriga* Blocker, *Bertawolia* Blocker, *Betawala* Blocker, *Comanopa* Blocker, *Daveyoungana* Blocker & Webb, *Derakandra* Blocker, *Donleva* Blocker, *Gargaropsis* Fowler, *Garlica* Blocker, *Gehundra* Blocker, *Goblinaja* Kramer, *Grunchia* Kramer, *Jivena* Blocker, *Julipopa* Blocker, *Maranata* Blocker, *Mogenola* Blocker, *Momoria* Blocker, *Neotrocnada* Krishnankutty & Dietrich, *Penestrangania* Beamer & Lawson, *Redaprata* Blocker, *Straganja* Stål, *Torenadoga* Blocker, and *Webaskola* Blocker.

Key words: Auchenorrhyncha, morphology, taxonomy, distribution

Introduction

The leafhopper subfamily Iassinae comprises ~2,000 described species of strictly arboreal leafhoppers currently placed in eight tribes and 149 genera. Dietrich (2005) provided a key to tribes and treated Hyalojassini Evans, described from Thailand, as a junior synonym of Iassini. Hyalojassini was established by Evans (1972) to draw attention to the unusual structure of the male genital capsule of *Hyalojassus* Evans and *Coriojassus* Evans, which have very short subgenital plates compared to those of other Old World Iassinae but instead resemble those of many New World Iassinae genera studied by Blocker (1979), who did not place them to tribe. The study of type specimens of the two monotypic genera of Hyalojassini described by Evans (1972) indicates that the original figures are not accurate. Moreover, our examination of much additional material from the Oriental region has revealed several additional undescribed genera and species related to those described by Evans (1972). Thus, a revision of these genera seems appropriate. In this paper, the tribe Hyalojassini is reinstated from synonymy under Iassini, *Hyalojassus* and *Coriojassus* are redescribed based on examination of the type specimens of the type species and expanded to include new species, and five new genera and 12 new species are described. Detailed morphological descriptions, illustrations and a key to Oriental tribes of Iassinae and genera of Hyalojassini are provided. Additionally, we transfer most of the New World genera treated by Blocker (1979) to Hyalojassini.

Materials and methods

Morphological terminology follows Dietrich (2005) except for the leg chaetotaxy, which follows the system of Rakitov (1998). Abdomens were cleared in KOH solution, rinsed in water, and suspended in glycerin. Digital photographs were prepared using Automontage (vers. 5.02) with a QImaging Retiga 4000R Digital CCD Camera mounted on a Nikon Eclipse 50i microscope and a Nikon AFX-II stereomicroscope. Hand-drawings of male genitalia were made with a Nikon Eclipse 50i microscope, with a drawing tube attachment. Photographs were modified with Adobe Photoshop CS and additional line drawings were made with Adobe Illustrator 10.

Specimens examined are deposited in the following institutions: NWAU: Northwest A&F University, Yangling, China; BMNH: The Natural History Museum, London, UK; QSBG: Queen Sirikit Botanic Gardens, Chiang Mai, Thailand; INHS: Illinois Natural History Survey, USA.; IOZB: Institute of Zoology, Chinese Academy of Sciences, Beijing; RISB: Museum de Sciences naturelles, Brussels.

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