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Review of the genus *Anasta* Emeljanov (Hemiptera: Dictyopharidae: Hastini) from the Australasian region

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Abstract

The dictyopharid planthopper genus *Anasta* Emeljanov from the Australasian region is revised to include six species including a new one: *A. australiaca* (Lallemand, 1935) **comb. nov.** (North Australia), *A. lobosa* **sp. nov.** (Papua New Guinea), *A. minuta* (Lallemand, 1935) **comb. nov.** (Timor, Indonesia), *A. prognatha* (Distant, 1906) (North Australia, Papua New Guinea), *A. timorina* (Lallemand, 1935) (Timor, Indonesia), and *A. vitiensis* Emeljanov et Wilson, 2009 (Fiji). Descriptions or redescriptions of *A. australiaca*, *A. lobosa* **sp. nov.**, and *A. prognatha* are provided together with dorsal habitus and structural illustrations of male genitalia. A key to the species of the genus and distribution map are provided. The biogeography of the genus is discussed.

Key words: Taxonomy, biogeography, new species, new combination, Australasian region

Introduction

The dictyopharid fauna of the Australasian region remains inadequately studied. Total number of 36 species in 17 genera/subgenera was mainly recorded in Australia, New Guinea, and those parts of Indonesia east of the Wallace Line (Fletcher 2009). This number of known species obviously represents only a small fraction of the actual diversity of the whole dictyopharid fauna considering the vast territory and various complex habitats of the Australasian region. Importantly, many of them lack standard revisionary studies, and monophyly of many genera and higher taxa never have been tested cladistically (Liang & Song 2012).

Within Dictyopharinae, the tribe Hastini Emeljanov is a small group containing six genera and no more than 15 species which are distributed in the Australasian region, and other three species in two genera restricted to the Neotropical region (Emeljanov 2008, 2011; Bourgoin 2013). The tribe is likely to be an unnatural group which needs be revised further in near future.

The genus *Anasta* was established by Emeljanov (2008) to comprise two species, *Dictyophara prognatha* Distant, 1906 (type species) from Queensland, Australia, and *Dictyophara timorina* (Lallemand, 1935) from Timor, Indonesia. Emeljanov & Wilson (2009) added the third species, *Anasta vitiensis* from Fiji, and first described and illustrated the male genitalia of the genus. *Anasta* was assigned in Hastini by Emeljanov (2008).

In the present paper, we transfer *Dictyophara australiaca* (Lallemand, 1935) and *Dictyophara minuta* (Lallemand, 1935) to *Anasta*, and describe a new species *Anasta lobosa* **sp. nov.** from Papua New Guinea. Photographs and descriptions (or redescriptions) of three species are provided together with structural illustrations of male genitalia for the first time. A distribution map and key to the species of the genus are provided.

Material and methods

The male genitalia were cleared in 10% KOH at room temperature for ca. 12 hours, rinsed in distilled H₂O, then transferred to glycerol for examination.

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