



## Revision of the Australian Andini (Hemiptera: Fulgoromorpha: Cixiidae) with a description of five new species

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### Abstract

Andini, a tribe comprising two genera, *Andes* Stål, 1866 and *Parandes* Muir, 1925, is primarily distributed through the tropical and subtropical regions of South East Asia, Australia and Africa. One species, *Andes migratorius* (Distant, 1907), was previously known from Australia, the following five Australian species are herein described as new: *Andes dossenus* sp. nov., *A. ikelus* sp. nov., *A. lamondensis* sp. nov., *A. moaensis* sp. nov. and *A. turrondi* sp. nov. Lectotypes are designated for *Brixia migratoria* Distant, 1907 and *Leirioessa tortricomorpha* Kirkaldy, 1907. Maps of the known distribution for each species are given and the close links between the Australian and Asian fauna are discussed.

**Key words:** Auchenorrhyncha, Fulgoroidea, planthopper, morphology, distribution, *Andes*, Australia

### Introduction

The planthopper family Cixiidae comprises more than 150 genera and 2000 species worldwide (Holzinger *et al.* 2002). Some cixiids are economically important due to their ability to transmit plant phytoplasma diseases (Alma 2002, Liefing *et al.* 1998, Maixner *et al.* 1995) or plant pathogenic bacteria (Danet *et al.* 2003). The tribe Andini Emeljanov 2002, represented by the genera *Andes* Stål, 1866 and *Parandes* Muir, 1925, is one of the smaller tribes within Cixiidae.

*Parandes* is monotypic with *Parandes simplicus* Muir, 1925 from West Borneo whereas more than 100 species are described within the genus *Andes*. The two genera differ in the shape and size of the front coxae, which are straight in *Andes* and produced and rounded on the outer edge of the apical half in *Parandes*. *Andes* primarily occurs in the tropical and subtropical regions of South East Asia, Australia and Africa. Major contributors to the knowledge of the genus were Distant (1907, 1911), Fennah (1956, 1957, 1978, 1985), Muir (1921, 1922, 1925b, 1926), Synave (1953a, 1953b, 1960, 1967) and Van Stalle (Van Stalle 1982, 1983, 1984a, 1984b, 1985, 1986; Van Stalle & Synave, 1984).

In 1907, two Australian species, *Brixia migratoria* Distant, 1907 and *Leirioessa tortricomorpha* Kirkaldy, 1907, were described from specimens collected in Queensland. Kirkaldy (1907) characterised the genus *Leirioessa* Kirkaldy, 1907 as “Apparently allied to *Brixia*, but the vertex is broader than an eye and well produced anteriorly. Antennae not exerted, second segment globular. Pronotum of very different structure. Tegmina apically rounded, distinctly widening towards the apex. Hind tibiae with three larger and sometimes one or two smaller spines.” *Leirioessa* was made a junior synonym of *Andes* by Muir (1925b) so that *Leirioessa tor-*