



Casuarinicola, a new genus of jumping plant lice (Hemiptera: Triozidae) from *Casuarina* (Casuarinaceae)

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Abstract

A new genus, *Casuarinicola* Taylor **gen. nov.**, comprising five new species of jumping plant lice (Hemiptera: Triozidae) from *Casuarina* s.s. (Casuarinaceae) from Australia and New Caledonia, is described. New species are: *C. australis* Taylor **sp. nov.**, *C. nigrimaculatus* Taylor **sp. nov.**, *C. mucronalatus* Taylor **sp. nov.**, *C. novacaledonica* Taylor **sp. nov.** and *C. warrigalensis* Taylor **sp. nov.** The genus is characterised by the following combination of characters: antenna short, 1.1–1.5 times width of head, genal processes short, conical, 0.2–0.5 times length of vertex, fore wing with broadly rounded to subangular apex, mottled with dark markings (in females of most species) or clear (in males of most species), male proctiger short, with broad lateral expansions, parameres simple, and female proctiger short, broadly rounded, pointed apically and with a pair of broad, flange-shaped lateral lobes. A key to species is provided, together with notes on host associations and distribution.

Key words: biogeography, host-plant association, new species, Psylloidea, Sheoak, *Trioza*

Introduction

The Casuarinaceae is a significant component of the Australasian flora that represents a relict lineage of Gondwanan origin (Steane *et al.* 2003). Its putative sister group is the northern hemisphere, deciduous Betulaceae + the central American Ticodendraceae with a divergence of some 70 mya (Crisp *et al.* 2004). Given this long divergence, and evolutionary adaptation of the Casuarinaceae to aridification from about 20–30 mya, it is not surprising there is little morphological resemblance to these plant families (Steane *et al.* 2003). The Casuarinaceae comprise four genera: *Gymnostoma* L. Johnson with 18 species: one species from north-eastern Queensland, the remaining from Malesia, the Solomon Islands, Fiji and New Caledonia; *Ceuthostoma* L. Johnson, with two species from Malesia; *Casuarina* L. with 17 species, six from Australia the remainder from south-eastern Asia to Polynesia; and *Allocasuarina* L. Johnson with 58 species endemic to Australia (Steane *et al.* 2003). The monophyly of these genera is supported by matK sequence data (Steane *et al.* 2003).

The family Triozidae is large and diverse, comprising 50 poorly delimited genera with a broad range of host preferences and a worldwide tropical and temperate distribution (Hollis 2004). Defining characters of the family comprise the unique trifurcating veins R, M and Cu of the adult fore wing and the nymphs normally possessing both an anteriorly-produced humeral lobe and a fringe of wax-producing sectasetae on the head and body margins (Hollis 1984, White & Hodkinson 1985).