



A new genus for an Australian thrips (Thysanoptera, Phlaeothripinae) presumed predatory on a waxy eriococcid (Hemiptera, Coccoidea)

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Abstract

Callococithrips gen.n. is erected for the species *Rhynchothrips fuscipennis* Moulton that lives only among the protective waxy secretions of an eriococcid on *Kunzea* in south-eastern Australia. Larvae and adults of this thrips move rapidly amongst the sticky wax strands, and their maxillary stylets are unusually long and convoluted. Circumstantial evidence suggests that the thrips is predatory on immature stages of the eriococcid. Also transferred to this genus is *Liothrips atratus* Moulton, based on a single female from Western Australia.

Key words: Eriococcidae, predation, wax secretion, convoluted stylets, *Teuchothrips*

Introduction

The wingless females of the Australian sap-sucking bug *Callococcus acaciae* (Maskell) appear to be host specific to certain *Kunzea* species (Myrtaceae), particularly to *K. ericoides*, and the specific epithet of the insect presumably results from an early misidentification (Lyn Cook and Penny Gullan in litt.). Listed by Ben Dov (2006) in the family Asterolecaniidae, this coccoid is treated within the Eriococcidae by Cook & Gullan (2004). Each female is covered by a thick protective mass of loosely woven wax filaments (Plate 1). These waxy masses, measuring up to 10mm in diameter, are sometimes abundant in eastern Australia on the stems of the host plant, and the wax is of interest biologically for two reasons. Firstly, a particular species of thrips breeds only beneath these waxy masses, and the larvae and adults of this thrips move quickly and freely between the filaments without adhering to their sticky surfaces. Secondly, unlike many coccoid species in this part of Australia that secrete waxy coverings, ants have never been observed to attend *C. acaciae* despite often walking on the plant stems near them. The objective of these notes is to record field observations made on the thrips, and to erect for it a new monobasic genus, distinguishing the species from other members of the family Phlaeothripidae in Australia.

Despite extensive collecting on many plant species widely across Australia, the thrips species discussed below has never been found other than on *Kunzea ericoides*. All life stages of the thrips have been found amongst the waxy strands of the eriococcid, and only an occasional adult has ever been observed walking on the host plant outside of a wax mass. The thrips species thus seems to be fully dependent on the coccoid. However, although predation by the thrips on the eggs or larvae of the coccid is strongly suspected, we have been unable to demonstrate this convincingly, despite watching the thrips throughout 24-hour periods. Larvae and adults have been observed moving actively among the wax filaments throughout the day and night, but feeding has never been observed. The free movement of the thrips among the sticky wax is particularly remarkable, because any attempt to touch the wax, however lightly, with an implement such as a micropin,