



## New Australian spore-feeding Thysanoptera (Phlaeothripidae: Idolothripinae)

LAURENCE A. MOUND

CSIRO Entomology, GPO Box 1700, Canberra ACT, Australia 2601

### Abstract

Two new genera and six new species of spore-feeding Thysanoptera are described from Australia, with Australian records of two further species, one from California and one from New Zealand. In the Tribe Pygothripini, subtribe Pygothripina, *Ecacleistothrips glorious* **gen. et sp. n.** is a large and highly polymorphic rainforest thrips: the apterous male has a transverse first abdominal tergite, in contrast to the females that have a reduced pelta as is typical of most Phlaeothripidae. Also in this subtribe, *Heptathrips cumberi* Mound & Walker from New Zealand is recorded widely around the southern coasts of Australia. A key is provided to the six genera of Pygothripini subtribe Allothripina in which the terminal sensorium of the maxillary palps is unusually large. In this group, four wingless species are considered: *Minaeithrips alicae* **gen. et sp. n.** and *M. driesseni* **sp.n.** in which the maxillary stylets are wide apart, *Allothrips hamideae* **sp. n.** in which the third antennal segment has a basal flange unlike any other member of this widespread genus, and *Priesneriella citricauda* Hood that was previously known only from California. In the Pygothripini subtribe Macrothripina, *Polytrichothrips geoffri* **sp. n.** is described from rainforest; this genus was known previously from a single species in Sarawak. A further rainforest species, *Malesiathrips australis* **sp.n.**, is described in the Tribe Idolothripini, subtribe Elaphrothripina; this genus was known previously from three species in the Asian and Pacific regions.

**Key words:** Thysanoptera, Idolothripinae, Australia, California, polymorphism

### Introduction

Thrips are commonly thought of as plant pests, yet fungus-feeding species are estimated to comprise almost 50% of the 5500 species listed in the insect order Thysanoptera (Morse & Hoddle, 2006). Of the 700 thrips species listed from Australia (ABRS, 2007) at least 130 feed only on either fungal hyphae or on fungal spores, and this fungus-feeding component is particularly diverse in tropical areas. These thrips live on dead branches and dead leaves, and many live only in leaf litter or at the bases of tussocky grasses and similar plants. The hyphal-feeding species are all members of the subfamily Phlaeothripinae in the suborder Tubulifera, and a few of these have been considered in individual papers (Mound, 1972b, 1995; Mound & Minaei, 2006). However, there is no overview or generic key for this group, and many Australian taxa remain un-described. In contrast, the Australian Idolothripinae, the spore-feeding Phlaeothripidae, have been reviewed (Mound, 1974), and the generic classification of this worldwide subfamily of over 600 species has been revised (Mound & Palmer, 1983).

The taxa described below illustrate the disparate elements that comprise the Australian thrips fauna (Austin et al., 2004). Two of the new species represent a northern tropical element that has strong relationships with the South East Asian fauna (see Mound & Tree, 2007). Two species represent a southern element involving faunal relationships with New Zealand (see Mound 2006), and there is an extensive endemic thrips fauna of uniquely Australian taxa (Crespi et al., 2004). The objective of this paper is to describe from Australia six new Idolothripinae species, also two new genera, and to record from Australia for the first time one species