



## A new species of predatory *Scolothrips* (Thysanoptera, Thripidae) feeding on *Raoiella* mites (Tenuipalpidae) in Australia

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### Abstract

*Scolothrips ochoa* sp. n. is described from Australia feeding on mites of the genus *Raoiella* (Tenuipalpidae). Apparently host-specific, this thrips is unusual within the Thripinae in lacking ocellar setae pairs I and II. Moreover, it differs from other *Scolothrips* species in lacking elongate pronotal midlateral setae, and by having antennal segments III–IV and V–VI broadly joined.

**Key words:** *Scolothrips ochoa*, *Raoiella*, Tenuipalpidae, predatory thrips

### Introduction

The tenuipalpid acarine, *Raoiella indica*, is considered a pest of numerous species of Arecaceae, and thus represents a threat to the extensive horticultural trade in ornamental palms (Etienne & Flechtmann, 2006). The leaflets of affected plants become disfigured with scattered yellow spots on both surfaces, leading to strong yellowish discoloration of the entire leaf in severe infestations (Flechtmann and Etienne, 2004, 2005). Moreover, on certain Caribbean islands this mite species has been found damaging various species of banana trees (*Musa balbisiana*, *M. acuminata*, and *Musa x paradisiaca*) (Welbourn, 2007), and the pest can be expected to become more widely dispersed, both by the wind and on infested plants (Kane *et al.* 2005). For these reasons, it is important to look for potential natural enemies that might be deployed in integrated pest management strategies.

The new species of thrips described here was first observed as a predator of an un-named species of the mite genus *Raoiella* in 2008 by Ron Ochoa and Jenny Beard. These mite specialists found the thrips in association with two undescribed species of *Raoiella* at two widely separated sites in Australia: at Brisbane, Queensland, and south east of Perth, Western Australia. Moreover, during 1995 a single adult female was collected near Narrandera in New South Wales. With the encouragement of Jenny Beard we were able to study a population of the thrips feeding on one of these mite species, on the leaves of *Lophostemon suaveolens* (Myrtaceae) at The Gap, a western suburb of Brisbane. The tree was identified by the Queensland Herbarium and a voucher specimen lodged as – AQ747678. However, the host plant was a tall tree (Fig. 1), thus the mites and thrips were available to us only on foliage within reach from the ground. All stages of the mite including the eggs, are bright red and shiny, and occur on the underside of leaves. The motile stages often have black patches internally, associated with feeding, and eggs are laid in clusters and have a long stipe (Figs 2, 6). Adult and larval thrips were observed to feed particularly on these eggs (Fig. 2) but also on the early instars (larvae and protonymphs) of the mites (Fig. 5). The thrips was not seen to feed on the deutonymphs or adults of the mite, possibly because the mites are too active. The body contents of the thrips larvae are conspicuously red, due to the pigments obtained from their mite prey, but the surface chitin of the larvae is almost without