



A new flat mite genus, *Acaricis* (Prostigmata: Tenuipalpidae), from Australian sedges (Cyperaceae)

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Summary

We describe two new species of false spider mite in a new genus, *Acaricis* gen. nov., collected from native Australian sedges (Cyperaceae). The new genus shares morphological characters with the genera *Tenuipalpus* Donnadieu and *Prolixus* Beard, Fan & Walter. All three genera have dorsal opisthosomal seta *h2* long and attenuate. *Acaricis* shares the presence of a rostral shield with *Tenuipalpus*; and shares with *Prolixus* an elongate body shape, absence of dorsal seta *c1*, genua I with two setae, nude genua IV, and setae *g1* being inserted anterior to *g2*. *Acaricis* differs from both genera in having four palpal segments, as opposed to one to three.

Key words: False spider mite, *Prolixus*, *Tenuipalpus*, Tetranychoida

Introduction

Despite their agricultural importance as plant pests and vectors of some plant viruses, the Tenuipalpidae, commonly known as flat mites or false spider mites, like other groups in the superfamily Tetranychoida, is one of the least known mite families in Australia. Currently there are 889 species assignable to 33 genera of Tenuipalpidae known worldwide (Mesa *et al.* 2009). The known Australian fauna currently consists of a total of 26 species in 13 genera (Smiley & Gerson 1995; Smiley, Frost & Gerson 1996; Beard, Fan & Walter 2006; Mesa *et al.* 2009), representing approximately 3% of the total world fauna. With relatively little collecting effort targeted at native flora, the discovery of eight endemic genera in Australia strongly suggests that many more forms remain to be discovered. Here we describe the features of a new genus, *Acaricis*, collected from native Australian sedges (Cyperaceae).

The two species of the new genus described here, *Acaricis*, were collected from two different genera of native Australian sedge (Cyperaceae), *Acaricis danutae* **sp. nov.** from *Carex* sp. and *A. plana* **sp. nov.** from *Scleria sphacelata* F. Muell. *Acaricis* shares a couple of morphological characters with the large genus *Tenuipalpus* Donnadieu, but appears to be more closely related, both morphologically and biologically, to *Prolixus* Beard, Fan & Walter, a genus of elongate flat mites recently described from a related species of Australian sedge, *Gahnia aspera* sensu lato (Cyperaceae).

Materials and methods

Mites were collected and mounted in either PVA or Hoyer's medium (Krantz 1978) directly from field collected samples, and were examined at 1000 times using a DIC Zeiss Axioscope. All measurements are given in micrometers (µm) as a range. Setae were measured from the centre of the setal base to the tip of the