

A new genus of Stigmaeidae (Acari: Prostigmata) from Okinawa Island

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Abstract

A new genus and species, *Gymnostigmaeus akaminei* Ehara & Ueckermann, is described and illustrated from specimens collected on the lawngrass *Zoysia tenuifolia* (Poaceae) on Okinawa Island, Japan. This genus is distinct from any other known genera of the family Stigmaeidae in lacking shields and platelets on the idiosomal dorsum and venter. It is also characterized by an empodium that arises from the tip of a swollen arolium anterior to the claw bases.

Key words: Acari, Stigmaeidae, *Gymnostigmaeus akaminei* n. gen., n. sp., *Zoysia*, Okinawa Island, Japan

Introduction

All known members of the mite family Stigmaeidae are assigned to 29 valid genera (Summers, 1966; Fan & Walter, 2005; Fan & Zhang, 2005). Among these genera at least 3, *Agistemus* Summers, *Mediolata* Canestrini and *Zetzellia* Oudemans include species that are predators of phytophagous mites (Krantz, 1978; Santos & Laing, 1985). In Japan 6 species belonging to the genus *Agistemus* have hitherto been recognized to occur on plants (González-Rodríguez, 1963; Ehara, 1964, 1967, 1985), and among them *A. exsertus* González-Rodríguez and *A. terminalis* (Quayle) are well known predators of phytophagous mites in this country (e.g., Osakabe, 1963; Inoue & Tanaka, 1983).

In this paper a new stigmaeid genus and species are described and illustrated from specimens collected on lawngrass (*Zoysia tenuifolia*) on Okinawa Island. These specimens were collected together with specimens of the false spider mite, *Dolichotetranychus zoysiae* Ehara, which causes serious damage to *Zoysia* species (Ehara, 2004; Akamine *et al.*, 2005).