



Review of the genus *Scolothrips* (Insecta, Thysanoptera, Thripidae) from Japan

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Abstract

Three species of the genus *Scolothrips* Hinds, all predatory on spider mites [Tetranychidae], are recorded here from Japan, with *S. rhagebianus* Priesner newly recorded from this country. These three species, including *S. asura* Ramakrishna & Margabandhu and *S. takahashii* Priesner, are re-described.

Key words: *Scolothrips*, Thysanoptera, Thripidae, Tetranychidae, Japan

Introduction

The family Thripidae, with 1970 species and 287 genera, is the largest group in the suborder Terebrantia (Hoddle *et al.*, 2008). Most of the species are phytophagous, although the members of the genus *Scolothrips* Hinds are well known from around the world as obligate predators of spider mites, species of Tetranychidae or Tenuipalpidae. Thus, *Scolothrips* species may have potential for use in the biological control of these mites. Unfortunately, there is a large problem in the identification of the species, although membership of the genus is easily determined among Thripidae by the presence of 6-pairs of unusually long setae on the pronotum. Not only were many descriptions unsatisfactory, but for 60 years the only revisional study and species identification key (Priesner, 1950) was based on unreliable characters. Moreover, most reference specimens deposited in museums, including the type series, are in poor condition because the fragile bodies of species in this genus are very difficult to prepare onto slides (Mound, 2011). Despite this, a recent key to 14 species (Mound, 2011), based on the type specimens, included new interpretations of some species together with three new synonyms, whilst considering two species as *nomen dubia*.

For a long time, only one species of this genus was known in Japan, and this was referred to as *S. sexmaculatus* (Pergande) (see Kurosawa, 1968). However, Haga (1983) stated that Japanese *S. sexmaculatus* was probably *S. takahashii* Priesner, a species described from Taiwan, but no detailed description of *S. takahashii* was available to facilitate the correct identification. Recently, three members of the genus were recorded from Okinawa, *S. asura* Ramakrishna & Margabandhu, *S. rhagebianus* Priesner, and a species called *S. takahashii*, during studies on the fauna of spider mites on vegetables, fruit crops and other non-crop plants (e.g., Ohno *et al.*, 2009, 2010a, 2010b, 2011, 2012).

The purpose of this paper is to compare Japanese *S. takahashii* with the holotype and to re-describe this species, and to re-describe *S. asura* and *S. rhagebianus*. Moreover, an illustrated key to these three species is also provided.