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A new genus of Thripinae (Thysanoptera, Thripidae) collected from *Pandanus* in Japan, Malaysia and Australia, with three new species

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Abstract

Pandanothrips gen. n. is described, with three new species inhabiting Pandanus: P. ryukyuensis sp. n. from Japan, P. wangi sp. n. from Malaysia, and P. hallingi sp. n. from Australia. This new genus shows no relationship to Projectothrips Moulton, the only other Thripinae genus known to be associated with Pandanus. Pandanothrips is superficially similar to Danothrips Bhatti, a genus of leaf feeding thrips. The morphological relationships among these genera are discussed, and an illustrated key to the species of Pandanothrips is provided.

Key words: Thysanoptera, Thripidae, Pandanus, Pandanothrips, Japan, Malaysia, Australia

Introduction

The plant genus *Pandanus* is one of four genera in the Pandanaceae, and comprises 600 species of small to medium sized shrubs and trees that are native to Old World tropical and subtropical areas (Susanti & Miyamoto 2009). Many species of this genus are grown widely, with several species planted in various public areas such as community gardens, schools, and house yards. *P. amaryllifolius* or fragrant pandan is one of the most important ingredients for traditional dishes in the Asia Pacific area, because of its sweet and pleasant aroma. In Japan, three species are native, *P. odoratissimus*, which is widespread in Southeast Asia to Ryukyu Islands and Pacific Islands, *P. boninensis*, which is endemic to Ogasawara Islands, and *P. daitoensis*, which is endemic to Daito Islands. Moreover, *P. centrifugalis* (=*P. concretus concretus*) was introduced to Chichi-jima Island in Ogasawara Islands although originally from Madagascar (Susanti & Miyamoto 2009). Beside these species, several other species such as *P. utilis* that is originally from Madagascar, are also planted in parks or along the road-side in the Ryukyus, and *P. boninensis* is also artificially found in the Ryukyus.

Previously, the only thrips genus known to be associated with the flowers of *Pandanus* was *Projectothrips* Moulton, with nine species from the Oriental and Pacific Regions (Bhatti 1973; Mound & Ng 2009; Mound & Tree 2011). This genus is distinctive because of its unusually long antennal segment VIII, and a series of many microsetae on the paramere of the male genitalia (Bhatti 1973).

In 2009, Masumoto had an opportunity to observe a poorly mounted female of unknown thripine species collected from *P. ulitis* in Miyako-jima Island, Ryukyus. Thereafter, good series of this species was collected from the flowers and young fruit of *P. boninensis* planted along the road-side in Okinawa-hontou Island, Ryukyus. Moreover, shortly after this further species of the same genus were collected from *Pandanus* in Malaysia and Australia. In this paper, we describe from *Pandanus* a new genus, *Pandanothrips* **gen. n.**, together with three new species: *P. hallingi* **sp. n.** from Australia, *P. ryukyuensis* **sp. n.** from Japan and *P. wangi* **sp. n.** from Malaysia.