Additional records and descriptions of the ant-mimetic plant bug genus
Pilophorus from Thailand (Hemiptera: Heteroptera: Miridae: Phylinae: Pilophorini)

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Abstract

Eleven species of the ant-mimetic plant bug genus Pilophorus Hahn from Thailand are documented, with photographic images of live individuals. Four new species with conventional, moderate antlike shape, Pilophorus meteorus, P. saovapruki, P. subparallelus and P. suwimonae, are described. Two known Thai species, P. alstoni Schuh and P. typicus (Distant), are further reported and diagnosed. Biological information including host association is provided for P. alstoni, P. meteorus, P. saovapruki and P. typicus. A checklist of all currently known species of Pilophorus in Thailand and a key to known Thai species are included. Pilophorus typicus is reported from Singapore for the first time.

Key words: Heteroptera, Miridae, taxonomy, Phylinae, Pilophorini, Pilophorus, new species, Thailand, myrmecomorphy

Introduction

Pilophorus Hahn of the subfamily Phylinae is a well-known plant bug genus, including myrmecomorphic members that frequently co-occur with ants. This genus is currently composed of more than 120 valid species from most zoogeographical regions except for Australia and South America (Schuh, 1991; 1995; Yasunaga & Schuh, 2013).


This paper represents part of recent attempts to document the plant bug fauna of the mirid subfamily Phylinae in Thailand (Yasunaga, 2010, 2012, 2013; Yasunaga et al., 2013a, b), and describes four new species with ‘moderately’ ant-mimetic, conventional shape, subsequent to Yasunaga & Schuh (2013) who particularly treated ‘strikingly’ antlike, or otherwise morphologically novel, particular members of Pilophorus.

Four new species are described as new. Two known species previously recorded from Thailand by Schuh (1984), P. alstoni Schuh and P. typicus (Distant), are further noted, diagnosed, and figured; the latter species is reported also from Singapore for the first time. Biological information is briefly provided for four species, and digital photographic images of live individuals are presented for all treated species. A checklist of all currently known congeners of Pilophorus in Thailand and a key to Thai species are included.
**Biology.** This predaceous pilophorine is not host plant specific, and both adults and immature were found from various agricultural pests and broadleaved trees as well as crops. Because the active stages of *P. typicus* are observed to prey on various agricultural pest insects and mites, it is now regarded to be a candidate as an indigenous natural enemy in biological control programs. This species is assumed to have two genotypes in Japan, although these different races are yet to be determined by morphological characters alone (Ito et al., 2011). Examinations of the male genitalia by the first author TY suggested that the populations in Thailand and many parts of the Oriental Region (including Japanese Ryukyu Islands) may fit the ‘true or broadly conceived’ *typicus*. However, further investigation is required to properly identify some sibling species.


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