New species and new records of Tetranychidae (Acarina, Prostigmata) from Thailand

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Abstract

Sampling efforts conducted in several provinces from Thailand disclosed three new species of tetranychid mites. Two of them belong to the genus Tetranychus, namely Tetranychus occultaspina sp. nov. and Tetranychus truncatissimus sp. nov., and the third species belongs to the genus Schizotetranychus, Schizotetranychus krungthepensis sp. nov. They were collected on Ipomoea aquatica, Bambusa multiplex and Saccharum officinarum, respectively. New records and new hosts are also mentioned.

Key words: Acari, Schizotetranychus krungthepensis, Tetranychus (Tetranychus) occultaspina, Tetranychus (Tetranychus) truncatissimus, Thailand

Introduction

The Thailand spider mite fauna was mainly investigated by Baker (1975) and by Ehara & Wongsiri (1975) who reported 32 and 26 species (including nine new species) respectively. A new species from Thailand was also described in each of the contributions by Tangkanasing (1988), Ehara & Masaki (2001) and Flechtmann (2013) and Sakagami et al. (2009) mentioned three new records. To date 41 species of Tetranychidae are known from this country (Migeon & Dorkeld 2006–2013).

Among them, nine species are native and only known from this country. In order to increase the knowledge about the spider mite biodiversity from Thailand, mite samples from 12 provinces of Northern, Eastern, North-Eastern and Central parts of Thailand were collected in 2011. Various plants were sampled, including wild plants, cultivated plants, ornamental and perennial plants. In this paper we report the description of three new species of Tetranychidae, one Schizotetranychus and two Tetranychus, and we also mention new records of spider mites collected in Thailand.

Material and methods

Mites were collected directly from field samples in 70% ethyl alcohol. When collected mites were scarce or when males were lacking, females were allowed to oviposit on a detached leaf. Newly emerged adults were picked up and kept in ethanol. Following clearing in lactic acid (50%) for at least 48 hours they were mounted in Hoyer’s medium. The specimens were examined using a Leica DM LB 2 phase contrast microscope and illustrated with the

1. According to Migeon & Dorkeld’s database 42 species are known from Thailand. Oligonychus pratensis is mentioned but this is an error. Baker (1975) reported an unidentified Oligonychus species that belongs to the pratensis group but he never found O. pratensis in Thailand.

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2. The Thailand spider mite fauna was mainly investigated by Baker (1975) and by Ehara & Wongsiri (1975) who reported 32 and 26 species (including nine new species) respectively. A new species from Thailand was also described in each of the contributions by Tangkanasing (1988), Ehara & Masaki (2001) and Flechtmann (2013) and Sakagami et al. (2009) mentioned three new records. To date 41 species of Tetranychidae are known from this country (Migeon & Dorkeld 2006–2013).
FIGURES 48–51. *Tetranychus* (*T.*) *truncatissimus* sp. nov., female. 48, peritreme; 49, palptarsus; 50, flap and anterogenital area; 51, lobes on ventral striation.

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References


http://dx.doi.org/10.1303/aez.2001.251


http://dx.doi.org/10.1051/acarologia/20122039


http://dx.doi.org/10.1046/j.1440-6055.2002.00289.x


http://dx.doi.org/10.1603/008.102.0303

http://dx.doi.org/10.1080/01647958808683798
