The Iranian Dendrothripinae (Thysanoptera: Thripidae) with description of a new genus and species

JALIL ALAVI¹, KAMBIZ MINAEI² & LIDA FEKRAT³
¹Agricultural and Natural Resources Research Center of Khorasan-e Shomali, Bojnourd, Iran. E-mail: j.alavi@areo.ir
²Department of Plant Protection, College of Agriculture, Shiraz University, Shiraz, Iran. E-mail: kminaei@shirazu.ac.ir
³Department of Plant Protection, College of Agriculture, Ferdowsi University of Mashhad, Mashhad, Iran. E-mail: fekrat@ferdowsi.um.ac.ir

Abstract

Iranodendrothrips kamalii gen. et sp. n. is described from northeast of Iran and the morphological relationships among the closely related genera, Dendrothrips and Filicopsothrips, are discussed. Pseudodendrothrips bhattii is reported for the first time from Iran. Illustrated keys are provided to the genera and species of Dendrothripinae from Iran.

Key words: Dendrothripinae, Iranodendrothrips, new record, new species, Pseudodendrothrips

Introduction

The Dendrothripinae, with approximately 100 species is the smallest of the four subfamilies in the family Thripidae (ThripsWiki 2014). They are all leaf-feeding insects, often small and brightly coloured, and commonly associated with young leaves. These thrips are found mainly in the tropics and subtropics of the Old World, between Europe and Australia but with few species recorded from Southeast Asia (Mound 1999).

Species of Dendrothripinae share only one synapomorphy, a remarkably elongate ‘lyre-shaped’ metasternal endofurca. This furca provides the insertion points for muscles involved in the jumping ability of adults. The lateral walls of the metathorax are swollen, and the body surface often bears elaborate sculpture, and the median pair of setae on the abdominal tergites are long and close together (Mound 1999; Mound & Morris 2004).

Earlier authors followed Priesner (1925), and recognized the dendrothripines as tribe Dendrothripini in the subfamily Sericothripinae. Since Bhatti (1989), this group has been recognized as a subfamily. Although the subfamily was recovered as monophyletic in a molecular phylogeny (Buckman et al. 2013), its relationship with other subfamilies within Thripidae is unclear. Some morphological character states, including the lyre-shaped metafurca and the pair of long setae medially on the tergites, occur in some panchaetothripines, suggesting that dendrothripines are most closely related to the members of the subfamily Panchaetothripinae (Mound 1999; Mound & Morris 2004; Mound & Morris 2007).

Bhatti (2006) erected a superfamily Dendrothripoidea for two families, Retithripidae and Dendrothripidae, and placed 10 of the 11 extant dendrothripine genera, except Projectothripoides, in the family Dendrothripidae. However, this classification was discussed and criticized by Mound and Morris (2007).

Dendrothripines are not usually considered important pests, although the widespread mulberry thrips, Pseudodendrothrips mori, is sometimes a minor problem on trees grown for silkworm farming (Mound et al. 2014). Moreover, Dendrothrips ornatus can cause some distortion to the leaves of privet, Ligustrum, a flowering plant in the family Oleaceae, (Mound et al. 2014), and Leucothrips nigripennis is reported as a pest of fern in Australia (Mound 1999). In Iran, Alavi (2002) reported damage by Dendrothrips phylliceae (Bagnall) in olive orchards and nurseries, and also mulberry thrips have been considered the dominant pest of mulberry along the northern coast of the Caspian Sea (Etebary & Matindoost 2004).

In the Dendrothripinae, two genera and five species (Dendrothrips and Pseudodendrothrips) have hitherto
Key to Iranian *Pseudodendrothrips* species

1. Pronotum and interantennal region without brown markings (Fig. 21); antennal segments I–II paler than or as dark as IV–VIII; fore wing uniformly pale, with 24–26 costal setae; hind tarsus about 0.8 times as long as hind tibia. ................. *mori*
- Pronotum with two longitudinal brown markings, head with interantennal region brown (Fig. 20); antennal segments I–II distinctly darker than IV–VIII; fore wing with light brown band in middle, fading towards apex, with 19–22 costal setae; hind tarsus about 0.7 times as long as hind tibia. ................. *bhattii*

*Pseudodendrothrips bhatti*

The characters of female specimens collected in Iran closely conform to the published description of this species by Kudô (1984). However, differences in some characters are as follows: pronotum with 12 discal setae, with about 35 lines of sculpture at middle; fore wing with light brown band, paler at base and distally, clavus pale, shaded at apex; fore and mid tibiae not shaded. In this respect, Iranian specimens of *P. bhattii* are very similar to samples from Pakistan (see Akram et al. 2003). Mound (1999) indicated that *P. bhattii* cannot be distinguished from the Australian species, *P. darci*, but did not synonymise these two because of the difference in host plant records; *P. bhattii* has been reported only on *Morus*, whereas *P. darci* only on *Ficus*. Interestingly, we collected two specimens of *P. bhattii*, one from *Ficus* and another from *Morus*. Observation of this species on these two mentioned plants reinforces the suggestion by Mound (1999) of synonymy of this species with *P. darci.*


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**References**


