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## **A newly recorded species of the genus *Dendrothrips* (Thysanoptera: Thripidae) from Iran**

Majid MIRAB-BALOU & Azra DOSTY

**Abstract:** Two genera and five species of Dendrothripinae (Thysanoptera: Thripidae) are recorded in Iran: *Dendrothrips* with 4 species, and *Pseudodendrothrips* with one species. In this paper, *Dendrothrips jasminum* (RAMAKRISHNA & MARGABANDHU, 1939) collected on dill from Qazvin Province is recorded in Iran for the first time. A key is provided to distinguish Dendrothripine thrips from Iran. Diagnostic morphological characters and geographical distribution of the newly recorded species are briefly discussed.

**Key words:** *Dendrothrips*, new record, identification, Iran.

### **1. Introduction**

The Dendrothripinae (Thysanoptera) is one of the four subfamily recognized in the family Thripidae. The members in this subfamily are leaf-feeding, and can be distinguished by having an enlarged metathoracic furca, which associated with leg muscles; it makes this species with strong jumping abilities (MASUMOTO & OKAJIMA 2003). This subfamily comprises a fauna of 16 genera and 100 species (THRIPSWIKI 2014), of which five species in two genera have been recorded from Iran (Table 1) (MIRAB-BALOU 2013). The members of this subfamily usually feed on dictyledonous tree leaves (MOUND 1997) and also some of them are associated with grasses (such as *Edissa* and *Petrothrips*) (MASUMOTO & OKAJIMA 2003).

The recorded species of this group are not usually considered pests in Iran, although the mulberry thrips, *Pseudodendrothrips mori* is sometimes a minor problem on trees grown for silkworms, and the privet thrips, *Dendrothrips ornatus*, can cause some distortion to the leaves of its host plant (MOUND 1997).

Here, a key is constructed for all Dendrothripine thrips from Iran; with *D. jasminum* is newly recorded for fauna of this country.

### **2. Materials and methods**

The specimens of *D. jasminum* were collected from Qazvin Province, Iran, and prepared and mounted on slide following MIRAB-BALOU & CHEN (2010). The specimens are

deposited in the collection of Department of Plant Protection, College of Agriculture, Ilam University, Iran (ILAMU).

### 3. Results

#### Key to genera of the Iranian Dendrothripinae

- 1 Head usually with 2 pairs of ocellar setae. Fore wing with anterior margin curved at apex to join posterior margin, all cilia at apex small, fringe cilia on anterior margin arise ventrally well behind the margin ..... *Dendrothrips* UZEL
- Head usually with 3 pairs of ocellar setae. Fore wing not curved at apex, with long fringe cilia and stout, long apical setae, fringe cilia on anterior margin arise close to the margin ..... *Pseudodendrothrips* SCHMUTZ

**Table 1:** Dendrothripine thrips recorded from Iran.

Taxa (* new record for Iran)	Distribution in Iran by provinces
<i>Dendrothrips degeeri</i> UZEL	Khorasan-e-Shomali
<i>Dendrothrips jasminum</i> (RAMAKRISHNA & MARGABANDHU) *	Qazvin
<i>Dendrothrips karnyi</i> PRIESNER	Khuzestan
<i>Dendrothrips phyllireae</i> (BAGNALL)	Golestan
<i>Dendrothrips saltator</i> UZEL	Kerman, Hamedan, Khorasan-e-Shomali, Khuzestan
<i>Pseudodendrothrips mori</i> (NIWA)	Guilan, Hamedan, Alborz, Kordestan, Azarbaijan-e-Gharbi

#### *Dendrothrips* UZEL

*Dendrothrips* UZEL, 1895: 159.

This genus currently includes 52 described species in the world (THRIPSWIKI 2014). They are usually found on plants with small hard leaves, such as Oleaceae shrubs and trees, rather than on herbaceous plants (MOUND & KIBBY 1998).

**Generic diagnosis.** Head wider than long, with anterior margin inset between eyes; eyes large; ocelli widely spaced; ocellar setae pair I absent; postocular setae absent. Antennae 7- to 9-segmented; segments III and IV with simple or forked sense cones. Maxillary palps 2-segmented. Mouth cone short to long. Pronotum wider than long, with a pair of distinct posteroangular setae. Mesospinasternum fused to metasternum. Tarsi 1-segmented, hind tarsi not exceptionally elongated. Fore wings with posterior margin straight, costal setae minute; apex of wing without long seta; anterior fringe cilia inserted on ventral side, far from costal margin; posterior fringe cilia straight. Metathoracic furca lyre-shaped. Meso- and metasternal spinulae present. Abdominal tergites granulated with hexagonal reticulations on the sides, tergite VIII with a posterior comb of setae; tergites I-VIII each with setae S1 elongate and closely spaced. Males without sternal pore plates.

### Key to Iranian species of *Dendrothrips* UZEL

- 1 Pronotum in the posterior angles without long setae, or setae that as small as discal setae. Antennae 7, 8- or 9-segmented.....2
- Pronotum in the posterior angles with at least single setae, that clearly longer than discal setae. Antennae 8-segmented.....3
- 2 Antennae 8- or 9-segmented .....*D. degeeri*
- Antennae 7-segmented .....*D. phyllireae*
- 3 Antennal segment II pale brown to dark brown, always clearly darker than I .....4
- Antennal segments I–V uniformly white .....*D. karnyi*
- 4 Antennal segments III and IV with forked sense cones..... *D. jasminum*
- Antennal segments III and IV with simple sense cones ..... *D. saltator*

#### *Dendrothrips jasminum* (RAMAKRISHNA & MARGABANDHU, 1939), new record

*Dendrothripiella jasminum* RAMAKRISHNA & MARGABANDHU, 1939: 36.

**D i a g n o s i s .** Body color grayish yellow, all legs yellowish; antennal segments I, III & IV yellowish, segments II, IV–VIII brown to dark brown; wings transparent and white.

**F e m a l e m a c r o p t e r a .** Head wider than long, with two pairs of ocellar setae; ocelli present; eyes large; mouth cone reaching to prosternum. Antennae 8-segmented; segment II globular and stouter than segment I; segments III and IV with forked sense cones; segments III & IV in equal length. Maxillary palps 2-segmented. Pronotum wider than long, with a pair of distinct posteroangular setae that longer than pronotal discal setae. Mesonotum longitudinally striate; metascutum with small sculpture, median setae situated behind anterior margin. Tarsi 1-segmented. Fore wings first vein with the basal four small setae placed regularly up to the middle of the wing, second vein with 2 small setae at the middle far apart each other; posterior fringe cilia straight. Metathoracic furca lyre-shaped. Meso- and meta-sternal spinulae present. Abdomen elongate and oval-shaped, narrowing towards last segments, with ovipositor well-developed. Abdominal tergites granulated with hexagonal reticulations on the sides, tergite VIII with a comb at posterior margin; tergite I to VIII each with setae S1 elongate and closely spaced; tergite IX with two pairs of setae S1 & S2 long and equal in length; tergite IX with anterior half smooth, posterior half with microtrichia. Abdominal sternites without discal setae, with three pairs of posteromarginal setae; sternite VII with posteromarginal setae situated on posterior margin.

Male. Unknown.

**M a t e r i a l e x a m i n e d :** IRAN: Qazvin Province: Razjerd, 2 ♀♀ Qazvin, from dill, *Anethum graveolens* (Apiaceae), 29.viii.2013, coll. A. Dosty, (in ILAMU).

**D i s t r i b u t i o n .** Iran (Qazvin province); India (RAMAKRISHNA & MARGABANDHU 1939).

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Autors' addresses:

Majid MIRAB-BALOU  
Department of Plant Protection, College of Agriculture,  
Ilam University, Ilam, Iran  
Corresponding author: E-mail: [majid.mirab@gmail.com](mailto:majid.mirab@gmail.com)

Azra DOSTY  
Department of Plant protection, College of Agriculture,  
Takestan Branch, Islamic Azad University, Takestan, Iran