

Short Paper

A newly recorded species of the genus *Haplothrips* (Insecta: Thysanoptera) from Iran

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Abstract: *Haplothrips verbasci* (Osborn) is recorded from Iran for the first time. The specimens of this species were collected on flowers of *Verbascum thapsus* (Scrophulariaceae) from Hamedan Province, western Iran.

Keywords: Thysanoptera, medicinal plants, new record, Iran

Introduction

The Thysanoptera constitute a well-defined insect order of considerable economic importance, including those comparatively small-sized insects more frequently referred to as thrips (Stannard, 1968). They are more abundant in the tropics, and around 6,000 species have been recorded all over the world (ThripsWiki, 2014), of these, 217 species have been reported from Iran (Mirab-balou, 2013). Thrips dwell in variable habitats, and several species occur in strictly specialized microhabitats. Some of them are phytophagous, inhabiting tender foliage, flowers, grass sheaths, and plant galls. Others inhabit bark of living and dead trees, drying grass clumps, and leaf litter, or are mycophagous, feeding on spores and fungal hyphae (Ananthakrishnan, 1993). A few are known to be predator, as they feed on other species of thrips, mites, whiteflies, and coccids. Their adaptive diversity has enabled successful exploitation of diverse niches, so that they have established themselves not only in a variety of plant formations, but also in fungus-

infested habitats such as plant litter and in bark of living and dead trees (Reyes, 1994).

The family Phlaeothripidae (suborder Tubulifera) is currently interpreted as comprising about 3500 known species in the world, of these 46 species in 16 genera have been reported from Iran (Mirab-balou, 2013). Most of these species have been recorded from tribe Haplothripini. Among them, *Haplothrips* Amyot & Serville with 26 species (Table 1) have a diversity of biologies, with ten described species apparently predatory and others phytophagous, particularly in the flowers of Asteraceae and Poaceae. Here, *Haplothrips verbasci* (Osborn) that was collected from Hamedan Province is a new record for fauna of Iran.

Materials and Methods

Specimens were collected from Hamedan Province, western Iran, and prepared onto slides using the method of Mirab-balou and Chen (2010). All descriptions, measurements and photos were made with a Leica DM IRB microscope, a Leica MZ APO microscope with a Leica Image 1000 system, EVOS digital inverted microscope and a Nikon Y-IDT microscope with a Q-image CCD. The specimens are deposited in the Institute of

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Haplothrips verbasci (Osborn, 1897), new record for Iran

Phloeothrips verbasci Osborn, 1897: 228.

Trichothrips femoralis Moulton, 1907: 61. (Fig. 1 A–H)

Diagnosis. Female macroptera. Body and legs dark brown, mid tarsi light brown, fore tarsi and two-thirds of fore tibiae yellow; antennal segments I–II dark brown, III–VI yellow, VII pale brown, VIII brown (Fig. 1 F); forewing pale; major setae dark brown.

Table 1 *Haplothrips* species recorded from Iran.

Species	Distribution in Iran by provinces
<i>H. aculeatus</i>	Kerman, Golestan, Fars, Mazandaran, Guilan, Tehran, Hamedan, Azarbaijan-e-Sharghi
<i>H. andresi</i>	Khorasan-e-Shomali
<i>H. caespitis</i>	Khuzestan, Hamedan
<i>H. cahirensis</i>	Fars
<i>H. clarisetis</i>	Kerman, Yazd, Khorasan-e-Shomali, Tehran, Fars, Mazandaran
<i>H. distinguendus</i>	Tehran
<i>H. eragrostidis</i>	Golestan
<i>H. flavicinctus</i>	Khuzestan, Khorasan-e-Shomali, Fars, Guilan, Mazandaran, Tehran, Hamedan, Azarbaijan-e-Sharghi
<i>H. flavitibia</i>	Fars, Hamedan, Kerman, Yazd, Khorasan-e-Shomali, Khuzestan, Tehran
<i>H. ganglbaueri</i>	Khuzestan, Kermanshah, Hamedan, Azarbaijan-e-Sharghi, Fars, Tehran, Alborz
<i>H. globiceps</i>	Tehran, Fars and Alborz, Hamedan
<i>H. herajius</i>	Fars
<i>H. kermanensis</i>	Kerman
<i>H. knechteli</i>	Fars
<i>H. kurdjumovi</i>	Azarbaijan-e-Sharghi, Khorasan-e-Shomali
<i>H. leucanthemi</i>	Hamedan, Kermanshah, Fars, Ardabil, Mazandaran
<i>H. longipes</i>	Khuzestan
<i>H. maroccanus</i>	Khuzestan, Fars, Tehran
<i>H. minutus</i>	Kerman, Fars
<i>H. phyllophilus</i>	Golestan
<i>H. rabinovitchi</i>	Khuzestan
<i>H. reuteri</i>	Widely distributed
<i>H. subtilissimus</i>	Hamedan, Fars, Tehran
<i>H. tamaricinus</i>	Guilan
<i>H. tritici</i>	Widely distributed
<i>H. verbasci</i>	Hamedan
<i>H. vUILLETi</i>	Kermanshah, Hamedan

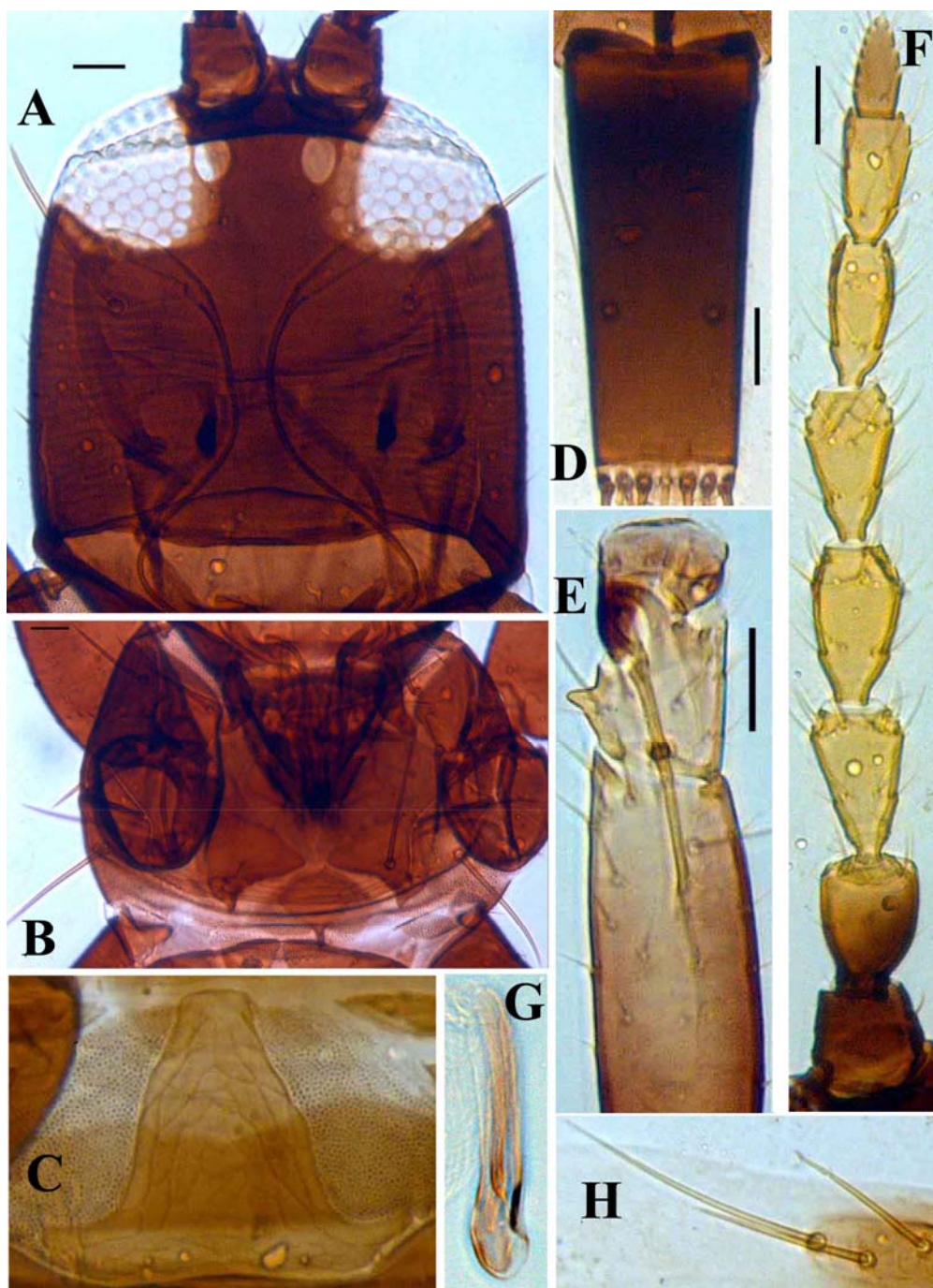


Figure 1 *Haplothrips verbasci*. (A) Head; (B) Pronotum; (C) Pelta; (D) Tube; (E) Fore tarsus; (F) Antenna; (G) Pseudovirga (δ); (H) Fore wing sub-basal setae. (Scale bar = 30 μ m).

Head slightly longer than wide; postocular setae almost twice as long as dorsal eye width, with apex weakly capitate; maxillary stylets retracted to postocular setae, with distinct

maxillary bridge (Fig. 1 A). Antennae 8-segmented, segment III with two sensoria, IV with four sensoria. Pronotum with five pairs of long setae, with weakly capitate apices,

epimeral setae more than half median length of pronotum (Fig. 1 B). Prosternal basantra well developed; mesopraesternum reduced to two lateral triangles connected by slender median area. Fore tarsus with very small tooth near apex. Fore wing constricted medially, with about 11–13 duplicated cilia, sub-basal setae arranged in line (Fig. 1 H), rarely triangle. Pelta triangular with basal lobes (Fig. 1 C); abdominal tergites II–VII each with 2 pairs of sigmoid wing-retaining setae; tergite IX setae S1 blunt, S2 acute, slightly shorter than tube; tube long, about 2.1 times as length as width (Fig. 1 D).

Male. Similar to female, fore tarsal tooth well developed (Fig. 1 E); tergite IX setae S2 short and stout; sternite VIII without glandular area; aedeagus with apex parallel sided but not slender (Fig. 1 G).

Measurements in micron: length (width). Body ♀ 2750 (520), ♂ 2210 (405); head 230 (250); distance between compound eyes 80; postocular setae 105. Pronotum 160 (350); forewing 990; hind wing 880; tube 180 (80), setae S1 130, S2 130, S3 130. Antennal segments I–VIII as follows: I 45 (46), II 55 (44), III 65 (39), IV 64 (39), V 64 (37), VI 60 (28), VII 56 (28), and VIII 45 (20).

Material examined. IRAN: Hamadan Province, Hamadan, MPGBAS, 23.v.2009, 3♀♀, 1♂, on *Verbascum thapsus* L., leg. M. Mirab-balou, (in ZJUH).

Remarks. This species apparently breeding only on the flowering shoots of *Verbascum* species. It is very similar to *Neoheegeria* but it can be distinguished from *Neoheegeria* by having 2 sense cones on antennal segment III. This species is recorded for fauna of Iran for the first time.

Distribution. Iran (Hamedan Province); Europe and North America (Mound and Marullo, 1996).

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گزارش گونه‌ی جدیدی از جنس *Haplothrips* (Thysanoptera: Phlaeothripidae) از ایران

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چکیده: گونه *Haplothrips verbasci* (Osborn) برای اولین بار از ایران گزارش می‌شود. نمونه‌های این گونه، از روی گل‌های گیاه *Verbascum thapsus* (خانواده Scrophulariaceae) از استان همدان جمع‌آوری شده‌اند.

واژگان کلیدی: بال‌ریشکداران، گیاهان دارویی، گزارش جدید، ایران