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A New Record for the Insect Fauna of Türkiye: *Haplothrips caespitis* Priesner, 1936 (Thysanoptera: Phlaeothripidae)

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Abstract

Haplothrips caespitis Priesner, 1936 is recorded from Türkiye for the first time. The specimen of this species was collected on flowers of *Paulownia tomentosa* (Thunberg) Steudel, 1841 (Paulowniaceae) from Izmir Province, western Türkiye.

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Türkiye Böcek Faunası için yeni kayıt: *Haplothrips caespitis* Priesner, 1936 (Thysanoptera: Phlaeothripidae)

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Öz

Bu çalışmada *Haplothrips caespitis* Priesner, 1936 türü Türkiye'den ilk kez bildirilmektedir. Bu türün örneği İzmir'de *Paulownia tomentosa* (Thunberg) Steudel, 1841 (Paulowniaceae) çiçeklerinden elde edilmiştir.

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Introduction

Currently, the family Phlaeothripidae is thought to consist of more than 3800 species that have been identified. Phlaeothripinae, which has 2990 species in 370 genera, and Idolothripinae, which has 740 species in 83 genera, are the two subfamilies that these belong to (ThripsWiki, 2020). Up to now, 54 species belonging to 16 genera of this family have been described from Türkiye (Tunç and Hastenpflug-Vesmanis, 2016; Çinkul et al., 2021; Tezcan, 2024).

Although Thysanoptera were recognized prior to Linnaeus, studies on these insects were first solidified by Uzel's study (1895), which focused mostly on European species. Türkiye's Thysanoptera (thrips) fauna has just recently been studied. The earliest systematic faunistic report on Turkish Thysanoptera was published in 1934 (Bagnall). Several *Haplothrips* species were described and recorded from Türkiye: one species by Bagnall (1934), 11 species by Blunk (1958), seven species by Priesner (1951, 1957, 1964, 1966), two species by zur Strassen (1968, 1983), two species by Cengiz (1974), three species by Tunç and zur Strassen (1984), and one species by Tunç (1988). More recently, Tunç and Hastenpflug-Vesmanis (2016) increased this total by identifying four new *Haplothrips* species from Türkiye. With 31 species, *Haplothrips* Amyot & Serville exhibit a diversity of biologies; two of the identified species appear to be predatory, while the remaining species are phytophagous, especially in the flowers of the Poaceae and Asteraceae families (Minaei and Mound, 2008; Tunç and Hastenpflug-Vesmanis 2016; Çinkul et al., 2021). This figure remains quite low, given the country's size and location, as well as the remarkable diversity of its topography, climate, and vegetation.

In this paper, *Haplothrips caespitis* Priesner, 1936 that was collected from Izmir Province is a new record for fauna of Türkiye.

Material and Method

The material was collected from flowers of *Paulownia tomentosa* (Thunberg) Steudel, 1841 (Figure 1) during the faunistic study carried out on the Ege University Campus (38.4548164° N; 27.2266330° W), Bornova, Izmir, Türkiye, on April 29, 2022.

Figure 1. *Paulownia tomentosa* (Thunberg) Steudel, 1841.

The specimen was placed into eppendorf tube containing preservation fluid, AGA, (9 parts 60% ethyl alcohol, 1-part glycerine, and 1 part acetic acid). After a preliminary inspection and identification with a stereo microscope, the collected sample was preserved in 60% ethyl alcohol. All descriptions, measurements and photos were made with an Olympus SC50 microscope. The material was identified by the third author and deposited in the collection of Plant Protection Research Institute, Bornova, Izmir, Türkiye.

Results and Discussion

Taxonomic hierarchy

Class: Insecta Linnaeus, 1758

Order: Thysanoptera Haliday, 1836

Suborder: Tubulifera Haliday, 1836

Family: Phlaeothripidae Uzel, 1895

Genus: *Haplothrips* Amyot & Serville, 1843

Haplothrips caespitis **Priesner, 1936: 94.**

Diagnostic characters

Male macroptera (Figure 2). Body dark brown, all tarsi and half of fore tibiae yellowish brown; antennal segments III-V paler than other segments; major setae shaded. Head with maxillary stylets retracted to the eyes, only one-tenth of the head width apart medially; postocular setae sharp, barely extending beyond the posterior margin of the eyes (Fig. 2A). Antennae 8-segmented, segment III with two sensorium, IV with 4 sense cones. Pronotum with five pairs of major setae (Fig. 2B), pronotal major setae acute and short, epimeral and posteroangular setae longest but scarcely longer than antennal segment III. Metanotum with one pair of setae medially (Fig. 2C). Mesopresternum reduced to two triangles. Fore tarsal tooth minute. Fore wing with six duplicated cilia (Fig. 2E); sub-basal setae arranged in a triangle (Fig. 2D), sharply acute, and shorter than epimeral setae, distal cilia of fore wing smooth. Pelta long triangular. Abdominal tergites VII and VIII with seven or eight minor setae medially; tergite IX setae S1 and S2 are finely acute, measuring around 0.6 times the length of the tube; the tube is 1.6 times the length of the basal width (Fig. 2F).

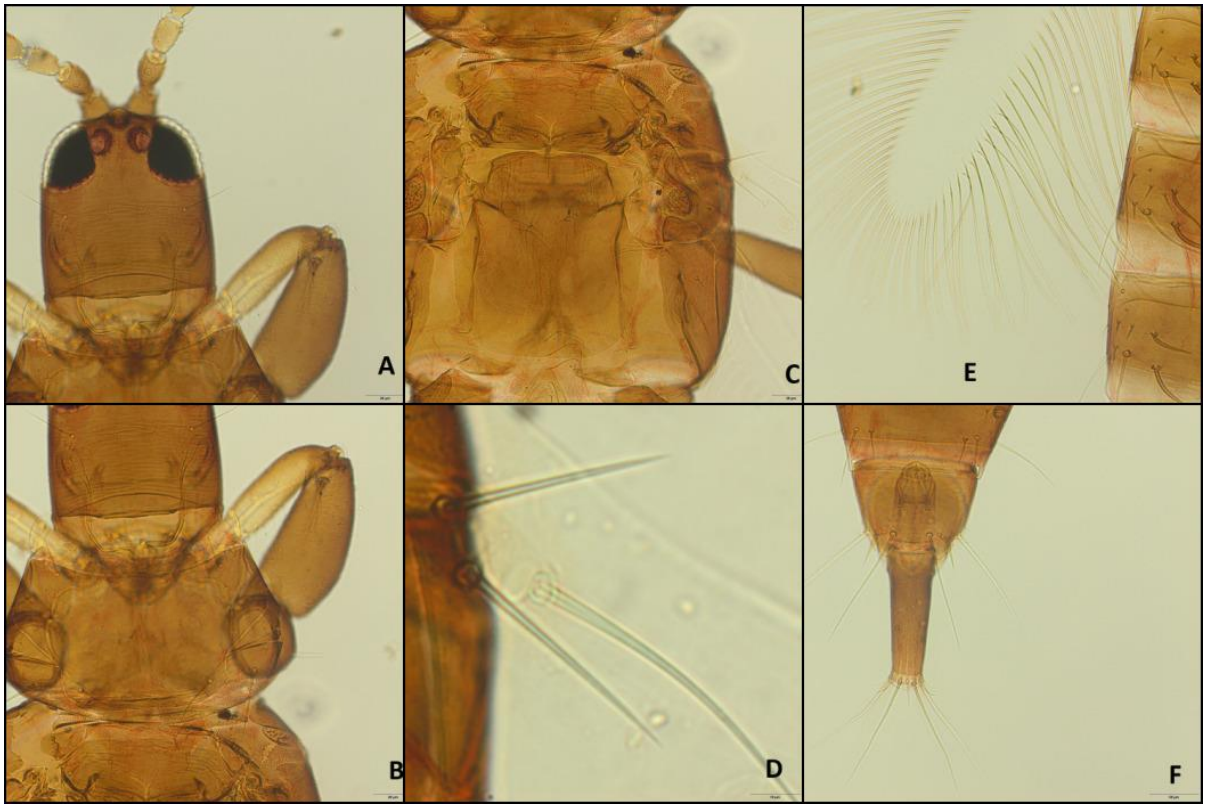

Figure 2. *Haplothrips caespitis* Priesner, 1936, male: head (20 µm) (A); pronotum (50 µm) (B); mesonotum and metanotum (20 µm) (C); fore wing sub-basal setae (100 µm) (D); fore wing (100 µm) (E); tube (200 µm) (F).

Material examined

Türkiye: Izmir, Bornova (38.4548164° N; 27.2266330° W), 1 male, on flowers of *Paulownia tomentosa*, 19.iv.2022.

Distribution

Iran, Sudan (Mirab-balou, 2018), and Türkiye (this study).

Remarks

With this study, the number of species belong to *Haplothrips* from Türkiye increased to 32, and these are summarized in Table 1. Minaei and Mound (2008) discussed various characters used in the taxonomy of Haplothripini; but in the fore wings - except presence or absence of duplicated cilia and the shape of apical sub-basal setae - the arrangement of bases of fore wing sub-basal setae, in a triangle or in a line, is one of taxonomically characters in Haplothripini. In Türkiye, *Haplothrips reuteri* (Karny, 1907) is widely distributed on different flowers especially on Asteraceae, and it has sub-basal setae in a triangle. *H. caespitis* is very similar to *H. reuteri* but is easily distinguished by distal cilia of fore wing smooth (vs. by plumose distal cilia of fore wing in *reuteri*) (Minaei and Mound, 2008; Mirab-balou et al., 2012).

Table 1. *Haplothrips* species recorded from Türkiye

Species	**First record from Türkiye**
Haplothrips acanthoscelis (Karny, 1910)	Cengiz, 1974
Haplothrips aculeatus (Fabricius, 1803)	Blunck, 1958
Haplothrips alexandrinus Priesner, 1931	Tunç and zur Strassen, 1984
Haplothrips andresi Priesner, 1931	Priesner, 1964
Haplothrips angusticornis Priesner, 1921	Blunck, 1958
Haplothrips anthemidinus Priesner, 1950	Cengiz, 1974
Haplothrips arenarius Priesner, 1920	Tunç and Hastenpflug-Vesmanis, 2016
Haplothrips bluncki Priesner, 1951	Priesner, 1951
Haplothrips bolacophilus Priesner, 1939	Blunck, 1958
Haplothrips caespitis Priesner, 1936	**Current paper**
Haplothrips cottei (Vuillet, 1913)	zur Strassen, 1983
Haplothrips dianthinus Priesner, 1924	Tunç and Hastenpflug-Vesmanis, 2016
Haplothrips distinguendus (Uzel, 1895)	Blunck, 1958
Haplothrips falsarius Priesner, 1966	Priesner, 1966
Haplothrips flavicinctus (Karny, 1910)	Tunç and zur Strassen, 1984
Haplothrips globiceps (Bagnall, 1934)	Bagnall, 1934
Haplothrips gowdeyi (Franklin, 1908)	zur Strassen, 1968
Haplothrips hispanicus Priesner, 1924	Priesner, 1966
Haplothrips knechteli Priesner, 1923	Tunç, 1988
Haplothrips kurdjumovi Karny, 1913	Blunck, 1958
Haplothrips leucanthemi (Schrank, 1781)	Blunck, 1958
Haplothrips niger (Osborn, 1883)	Blunck, 1958

Haplothrips palaestinensis Priesner, 1936	Priesner, 1966
Haplothrips plantaginis Priesner, 1957	Priesner, 1957
Haplothrips priesnerorum Pelikan, 1968	Tunç and Hastenpflug-Vesmanis, 2016
Haplothrips rabinovitchi Priesner, 1936	Tunç and Hastenpflug-Vesmanis, 2016
Haplothrips reuteri (Karny, 1937)	Blunck, 1958
Haplothrips setiger Priesner, 1921	Tunç and zur Strassen, 1984
Haplothrips siwanus Priesner, 1950	Priesner, 1966
Haplothrips tritici (Kurdjumov, 1912)	Blunck, 1958
Haplothrips verbasci (Osborn, 1897)	Blunck, 1958
Haplothrips vuilleti Priesner, 1920	Blunck, 1958

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