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Short Communication

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# *Thrips mazandarani* sp. n. (Thysanoptera: Thripidae): a new species from the southern coast of the Caspian Sea, Iran

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**Abstract.** A new fern-inhabiting species, *Thrips mazandarani* **sp. n.**, is described based on two specimens collected from Mazandaran province. This is the first thrips reported from fern in Iran. This species is easily distinguished from the other 39 Iranian species of the genus *Thrips* by banded fore wings.

**Keywords**: Thripinae, Namak Abrud, fern, fore wings

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*Thrips* Linnaeus (Thys: Thripidae) is the largest genus in the subfamily Thripinae, and currently includes 39 recorded species in Iran (Alavi, 2021). All members of the genus are easily recognized by the absence of ocellar setae pair I, and they all have paired ctenidia on the abdominal tergite VIII that are situated posterior to spiracle (Palmer, 1992). Some thrips species of the genera *Trichromothrips* Priesner, *Pteridothrips* Priesner, *Laplothrips* Bhatti, *Leucothrips* Reuter, *Indusiothrips* Priesner, *Ctenothrips* Franklin, and *Octothrips* Moulton are known to be associated with ferns (Wilson, 1975; Okajima & Urushihara, 1993; Bhatti, 2000; Mound, 2002 a,b). In the genus *Thrips*, there is no member to have adopted ferns as a host, although adults of *T. alatus* Bhatti are sometimes found on ferns (Mound, 2002b) and *T. arorai* Bhatti is also considered to be so (Bhatti, 1980). Little interest has been shown in insects associated with the ferns of Iran. - The flora of northern Iran is very diverse and ferns are also seen in abundance near the southern coast of the Caspian Sea (Akhani *et al.*, 2010). Here, *T. mazandarani* **sp. n.** is described from Iran. Holotype was prepared onto slide using the method of Mirab-balou & Chen (2010) and paratype remounted on Canada balsam. The holotype and paratype are deposited in the collection of Department of Plant Protection, College of Agriculture, Ilam University, Iran (**ILAMU**).

## *Thrips mazandarani* sp.n.

### Female macroptera (Fig. 1A)

Body dark brown, all tarsi and distal part of tibiae yellow, antennal segments III and half of IV yellow (Fig. 1B); fore wings banded, with two dark cross bands and two clear areas.

Head longer than broad, with ocellar setae III situated outside ocellar triangle (Fig. 1C), postocular setae I & III subequal, II scarcely half-length of I. Antennae 7-segmented (Fig. 1B). Pronotum with two long posteroangulars, three pairs of posteromarginals and about 26 discal setae (Fig. 1C). Mesonotum with transverse anastomosing sculpture lines (Fig. 1D). Metanotum transversely striate on anterior half, with longitudinal striations, median setae behind anterior margin, metanotal campaniform sensilla present (Fig. 1D). vein with 7 basal and 3 distal setae, second vein with 11 setae, and clavus with 5+1 setae. Abdominal tergites III–VIII unsculptured medially in posterior half (Fig. 2A); II with 4 lateral marginal setae; VIII with poteromarginal comb complete; IX with two pairs of campaniform sensilla (Fig. 2C); X split longitudinally in distal three-quarters. Pleurotergites without discal setae. Abdominal sternite II without discal setae, sternites III–VII with 8–10 discal setae (Fig. 2B); sternite VII with S1 setae slightly far from posterior margin (Fig. 2D).

### Measurements

(Holotype female, in microns): Length (width). Body 1370. Head 120 (130); ocellar setae III 36, II 23. Pronotum 120 (155); posteroangular setae inner 48, outer 42. Forewings 720 (54), hind wing 620 (39). Antenna 269; antennal segments I to VII as follows: 25 (27), 32 (24), 57 (19), 54 (19), 39 (18), 48 (18), 16 (7).

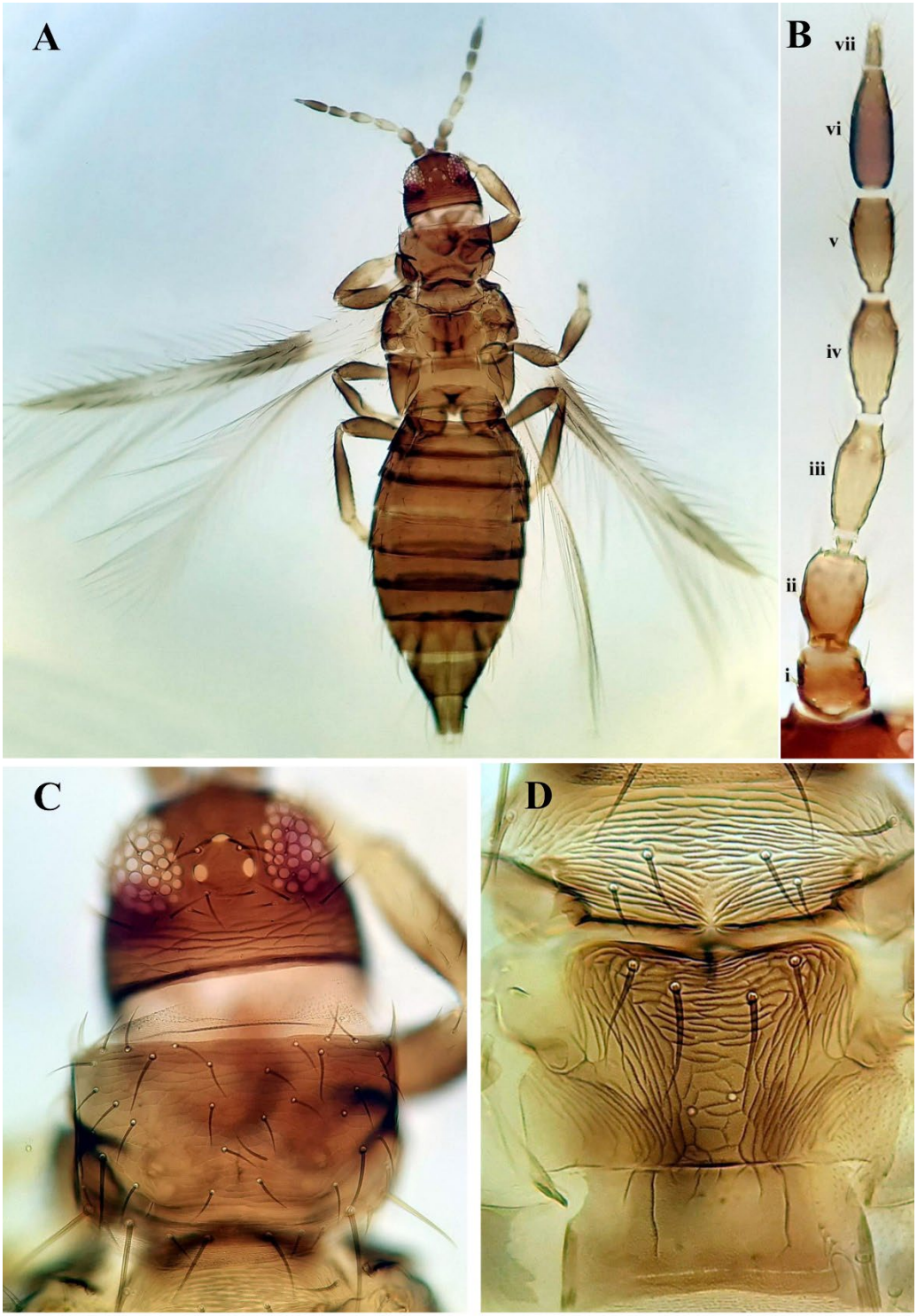


Fig. 1. *Thrips mazandarani* **sp. n.**, **A.** Holotype female, general habitus; **B.** Antenna (right); **C.** Head and pronotum; **D.** Meso- & Metanotum.

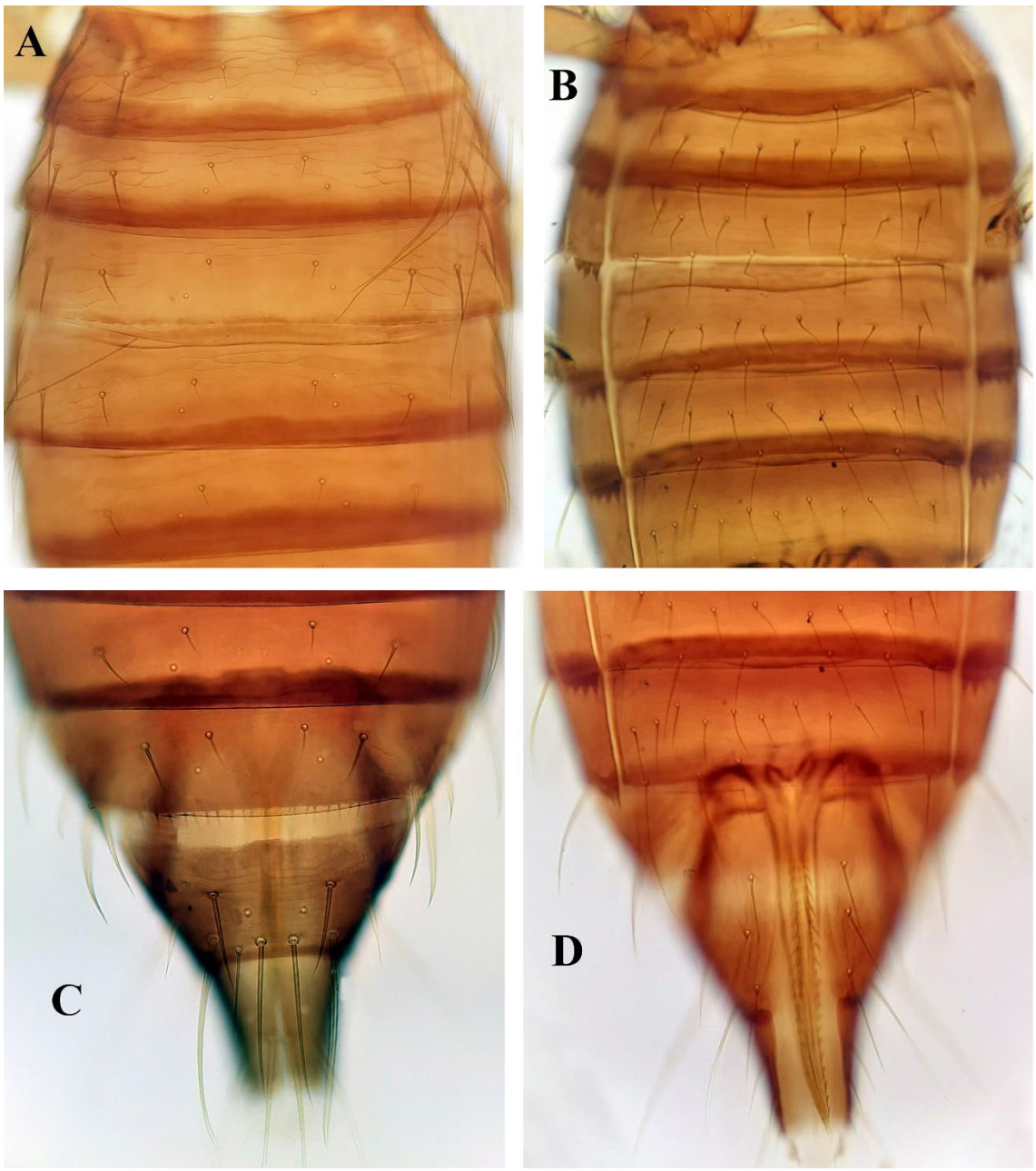


**Fig. 2.** *Thrips mazandarani* **sp. n.**, Holotype female: **A.** Abdominal tergites II–VI; **B.** Abdominal sternites II–VII; **C.** Abdominal tergites VII–X, showing poteromarginal comb, and two pairs of CPS on tergite IX; **D.** Abdominal sternite VI & ovipositor.

## Male

Unknown.

## Material studied

Holotype female: **IRAN**, Mazandaran province, Namak Abrud, Chalus County, on leaves of *Pteridium aquilinum* (Dennstaedtiaceae), 19.viii.2022, M. Mirab-balou. Paratype: one female collected with holotype, same data as holotype.

## Comments

This is the first record of thrips in the family Dennstaedtiaceae (order Polypodiales) from Iran. The species is unique among Iranian *Thrips* species because of the banded fore wings (see Mirab-balou, 2016). The new species is very similar to *T. arorai* Bhatti, which was also collected on fern (Bhatti, 1980) but it is readily distinguished from the latter by the following characters: fore wings banded, with two dark cross bands and two clear areas (vs. three clear areas in *arorai*); all tarsi and distal part of tibiae yellow (vs. legs brown including tarsi in *arorai*); abdominal sternite II without discal setae (vs. with two discal setae in *arorai*); and pronotal posteroangulars longer than those

of *T. arorai*. In the key to Iranian *Thrips* species given by Mirab-balou (2016), *T. mazandarani* sp. n. runs to couplets 16 (*Thrips hawaiiensis* (Morgan), which is widespread in north of Iran, and *Thrips coloratus* Schmutz). This new species is distinguished from above species by color of body and fore wings, color of antennal segments and legs, and shape of metanotal structure.

## Etymology

This species is named after the type of locality (Mazandaran Province, IRAN).

## Author's Contributions

I am grateful to three anonymous reviewers for their useful comments.

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## Data Availability Statement

The specimens examined in this study are deposited in the collection of Department of Plant Protection, College of Agriculture, Ilam University, Iran (ILAMU), and are available by the curator upon request.

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## Ethics Approval

Insects were used in this study. All applicable international, national, and institutional guidelines for the care and use of animals were followed. This article does not contain any studies with human participants performed by the author.

## Conflict of Interest

No conflict of interest.

## Generative AI statement

The authors declare that no Gen AI was used in the creation of this manuscript.

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# تریپس *Thrips mazandarani* sp. n. (Thysanoptera: Thripidae): گونه جدیدی از سواحل جنوبی دریای خزر، ایران

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**چکیده:** گونه‌ی جدیدی از تریپس با نام *Thrips mazandarani* **sp. n.** (Thysanoptera: Thripidae) بر اساس دو نمونه جمع‌آوری شده از استان مازندران، توصیف می‌شود. این اولین تریپس گزارش شده از روی سرخس در ایران است. این گونه با دارا بودن بال‌های جلویی نواری به راحتی از ۳۹ گونه ایرانی دیگر از همین جنس متمایز می‌شود.

**کلمات کلیدی:** Thripinae، نمک آبرود، سرخس، بالهای جلویی

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