

A further contribution to our knowledge of the subfamily Thripinae (Thysanoptera, Thripidae) of Armenia

Новые данные к познанию подсемейства Thripinae (Thysanoptera, Thripidae) фауны Армении

M. Tigranyan, M. Kalashian
М. Тигранян, М. Калашян

Scientific Centre of Zoology and Hydroecology, P. Sevaka Str. 7, Yerevan 0014 Armenia. E-mail: tigranyanmargarita@gmail.com; mkalashian1@gmail.com

Научный центр зоологии и гидроэкологии, ул. П. Севака 7, Ереван 0014 Армения.

Key words: Thysanoptera, *Thrips*, new records, associated plants, Armenia, Caucasus.

Ключевые слова: Thysanoptera, *Thrips*, новые указания, ассоциированные растения, Армения, Кавказ.

Abstract. New data on the Armenian Thripinae (Thysanoptera, Thripidae) are presented. 16 species of the genus *Thrips* Linnaeus, 1758, 14 of which are recorded for the country for the first time: *T. albopilosus* Uzel 1895, *T. brevicornis* Priesner 1920, *T. conferticornis* Priesner 1922, *T. dubius* Priesner 1927, *T. fulvipes* Bengall 1923, *T. italicus* (Bagnal 1926), *T. major* Uzel 1895, *T. mareoticus* (Priesner 1932), *T. pini* (Uzel 1895), *T. praetermissus* Priesner 1920, *T. simplex* (Morison 1930), *T. trybomi* (Karny 1908), *T. verbasci* (Priesner 1920), and *T. viminalis* Uzel 1895. Data on associated plants are also provided.

Резюме. Представлены новые данные по трипсам подсемейства Thripinae (Thysanoptera, Thripidae) фауны Армении. Обнаружены 16 видов рода *Thrips* Linnaeus, 1758, 14 из них указываются для страны впервые: *T. albopilosus* Uzel 1895, *T. brevicornis* Priesner 1920, *T. conferticornis* Priesner 1922, *T. dubius* Priesner 1927, *T. fulvipes* Bengall 1923, *T. italicus* (Bagnal 1926), *T. major* Uzel 1895, *T. mareoticus* (Priesner 1932), *T. pini* (Uzel 1895), *T. praetermissus* Priesner 1920, *T. simplex* (Morison 1930), *T. trybomi* (Karny 1908), *T. verbasci* (Priesner 1920) и *T. viminalis* Uzel 1895. Приведены сведения об ассоциированных растениях.

Introduction

The order Thysanoptera comprises a globally diverse group of insects, with over 6000 described species playing primary roles as pollinators, herbivores, and vectors for phytopathogens [Classification..., 2018]. Armenia's unique geographical position and varied landscapes support a rich tapestry of wild and cultivated flora, suggesting a high level of insect diversity as well. Despite this potential, the Armenian thrips fauna has remained historically understudied.

Until recently, the documented diversity of Thysanoptera in Armenia was notably sparse. Early literature

recorded only 20 species belonging to the families Aeolothripidae, Thripidae, and Phlaeothripidae [Ananian, 1976; zur Strassen, 2003; EPPO, 2025]. Recently, in publications of Tigranyan [2025] and Tigranyan and Kalashian [2026] 11 species of thrips new for Armenia were added to these numbers from which 10 belong to the subfamily Thripinae.

This figure stands in sharp contrast to the biodiversity profiles of neighboring countries, where more intensive surveying has identified 270 species in Iran [Mirab-balou, 2018] and 193 species in Turkey [Tunç, Hastenpflug-Vesmanis, 2016].

In this article we provided the new data on Armenian thrips fauna devoted to the representatives of the genus *Thrips* Linnaeus, 1758.

Material and methods

Thrips were collected from various habitats, including arable lands, natural vegetation, and urban areas. Several greenhouses were surveyed as well. We used standard methods, such as flower and leaf shaking, brushing [Silva et al., 2021] and crop washing in the mixture of liquid detergent, sodium hypochlorite and water [Burris et al., 1990]. Specimens were pre-conserved in 70 % ethanol and later mounted on microscope slides for identification [Thrips ID, 2025].

The specimens were prepared using a modified version of the procedure proposed by Bisevac [1997], which includes: clearing in 10 % KOH solution, dehydration in a graded ethanol series, and mounting in Canada balsam. Morphological identification of thrips species was performed using taxonomic keys [Mound et al., 2017, 2025; Thrips ID, 2025; Thrips.net, 2025] and published literature [zur Strassen, 2003].

The material is distributed according to the modern administrative division by regions (marzes) of the Republic of Armenia, including Yerevan as a separate region, in order from northwest to southeast. The species are listed alphabetically, species new for Armenian fauna are marked with asterisk “*”.

The authors declare that they have no conflicts of interest. The article does not contain any studies involving animals in experiments performed by any of the authors.

The present work is registered in ZooBank (www.zoobank.org) under urn:lsid:zoobank.org:pub:0AC6CCE2-2236-4ABA-9455-AC2E0D-7B787E

List of *Thrips* Linnaeus species collected in Armenia

Thysanoptera Haliday: Terebrantia Haliday:

Thripidae Stephens: Thripinae Stephens

Thrips Linnaeus, 1758

**Thrips albopilosus* Uzel, 1895

Material. *Kotayk Region:* Arzakan village, 1635 m a.s.l., arable land, on *Carduus pycnocephalus* L. (Asteraceae), 4.VII.2024 — 4♂♂.

Distribution. Known from Europe and West Siberia, reported from the flowers and cones of *Humulus lupulus* L. (Cannabaceae). Also recorded in Iran [Mirab-balou, 2018; Mound et al., 2025].

**Thrips brevicornis* Priesner, 1920

Material. *Shirak Region:* Artik town, 1926 m a.s.l., mountain steppe, *Seseli* sp. (Apiaceae), 5.VII.2024 — 2♀♀; *Tavush Region:* «Dilijan» National Park, 1345 m a.s.l., forest, on *Doronicum macrophyllum* F. (Asteraceae), 17.VIII.2023 — 1♂; *Ararat Region:* Aparan town, 1879 m a.s.l., pasture, on *Rumex crispus* L. (Polygonaceae), 24.VI.2023 — 1♀; *Kotayk Region:* Akunk village, 1505 m a.s.l., arable land, on *Perideridia* sp. (Apiaceae), 21.VI.2024 — 4♀♀; *Vayots Dzor Region:* Areni village, 987 m a.s.l., mountain steppe, on *Perideridia* sp., 23.VI.2024 — 1♀.

Distribution. Reported from Europe and Mongolia, on the flowers of various grass and tree species [zur Strassen, 2003].

**Thrips conferticornis* Priesner, 1922

Material. *Kotayk Region:* Meghradzor village, Ampasar Mt., 2508 m a.s.l., subalpine meadow, on *Trifolium trichocephalum* M. (Fabaceae), 11.IX.2023 — 13♀♀; Arzakan, 1635 m a.s.l., pasture, on *Achillea millefolium* L. (Asteraceae) — 3♀♀ and *Agrimonia* sp. (Rosaceae) — 1♀, 4.VII.2024.

Distribution. Spread in Europe, found in dry grasslands with short and dry vegetation, on *Pimpinella saxifraga* L. (Apiaceae) [zur Strassen, 2003].

**Thrips dubius* Priesner, 1927

Material. *Kotayk Region:* Akunk village, 1505 m a.s.l., arable land, on *Cichorium intybus* L. (Asteraceae), 21.VI.2024 — 4♀♀.

Distribution. Distributed in Europe and Western Asia. Species is thermophilic, found on *Euphorbia* spp, particularly *Euphorbia cyparissias* L. (Euphorbiaceae) [zur Strassen, 2003].

**Thrips fulvipes* Bengall, 1923

Material. *Ararat Region:* «Khosrov Forest» State Reserve, 1302 m a.s.l., forest, on *Sulfur* sp. (Rosaceae), 22.V.2024 — 7♂♂.

Distribution. Widely distributed in Europe, found on *Mercurialis perennis* L. (Euphorbiaceae) [zur Strassen, 2003].

**Thrips italicus* (Bagnal, 1926)

Material. *Kotayk Region:* Hrazdan town, 1812 m a.s.l., forest, on *Epilobium hirsutum* L. (Onagraceae), 3.IX.2023 — 3♀♀.

Distribution. Known from South-eastern Europe, the Balkans, and the Northern Mediterranean, extending into parts of Western Asia; on the flowers of various plants [zur Strassen, 2003].

Thrips linarius Uzel, 1895

Material. *Shirak Region:* Artik town, 1897 m a.s.l., pasture, on *Perideridia* sp. (Apiaceae) and *Melilotus albus* M. (Fabaceae), 5.VII.2024 — 4♀♀.

Distribution. Distributed in Europe, Turkey, Russia; reported from Armenia without locality data. Found on plants of the genera *Linum* (Linaceae), *Isatis* (Brassicaceae), *Marrubium* (Lamiaceae) and on the species of the family Asteraceae [zur Strassen, 2003].

**Thrips major* Uzel, 1895

Material. *Lori Region:* Vanadzor city, 1411 m a.s.l., botanical garden, on *Taraxacum officinale* W. (Asteraceae), 17.VI.2023 — 2♀♀; *Syunik Region:* «Plane Grove» State Sanctuary, 1346 m a.s.l., forest, on *Prunella vulgaris* L. (Lamiaceae), 29.VI.2023 — 2♀♀.

Distribution. Widespread in the Palearctic, polyphagous and occurs on flowers of various plants [zur Strassen, 2003]. It is reported in Italy as a serious pest of peach and nectarine fruits [Sengonca et al., 2006], and in Tunisia of citrus fruits [Belaam-Kort et al., 2020]. On the other hand, species is mentioned as an important pollinator of *Sambucus nigra* L. [Mound et al., 2025]. From Turkey is recorded from *Sambucus* sp. (Adoxaceae) and *Onobrychis* spp. (Fabaceae) [Tunç, Hastenpflug-Vesmanis, 2016].

**Thrips mareoticus* (Priesner, 1932)

Material. *Shirak Region:* Artik town, 1897 m a.s.l., pasture, on *Scabiosa caucasica* M. (Caprifoliaceae), 5.VII.2024 — 4♀♀; *Ararat Region:* Byurakan village, 2019 m a.s.l., oak forest, on *Ferula* sp. (Apiaceae), 25.VI.2024 — 7♀♀.

Distribution. Widespread in southern Europe, Western Asia, and North Africa. Found in the flowers of plants from the family Asteraceae, particularly from the genera *Anthemis* spp., *Calendula* spp., *Chrysanthemum* spp., *Ferula* spp., and *Matricaria* spp. [zur Strassen, 2003; Tunç, Hastenpflug-Vesmanis, 2016].

Thrips meridionalis Priesner, 1926

Material. *Lori Region:* Margahovit village, 1782 m a.s.l., pasture, on *Melilotus officinalis* L. (Fabaceae), 29.VI.2023 — 1♀; *Gegharkunik Region:* Semyonovka village, 2210 m a.s.l., pasture, on *Taraxacum officinale* W. (Asteraceae), 2.VI.2024 — 2♀♀; *Ararat Region:* Byurakan village, 2019 m a.s.l., forest, on *Gutierrezia* sp. — 10♂♂ and *Anthemis* sp. (Asteraceae) — 20♀♀, 25.VI.2024; *Kotayk Region:* Akunk village, 1505 m a.s.l., arable land, on *Astragalus* sp. (Fabaceae), 21.VI.2024 — 4♀♀; *Armavir Region:* Baghramyan village, 1036 m a.s.l., arable land, on *Plantago* sp. (Plantaginaceae), 13.VI.2024 — 1♀; *Yerevan* city, 1138 m a.s.l., city park, on *Tragopogon reticulatus* B. (Asteraceae), 27.VI.2022 — 1♀; *Ararat Region:* «Khosrov Forest» State Reserve, 1307 m a.s.l., semi desert, on *Brassica rapa* L. (Brassicaceae) — 4♂♂, *Vicia* sp. (Fabaceae) — 7♂♂ and *Rosa x damascena* M. (Rosaceae) — 5♀♀, 22.V.2024; *Vayots Dzor Region:* Artavan village, 1875 m a.s.l., arable land, on *Helianthus annuus* L. (Asteraceae), 23.VIII.2023 — 4♀♀.

Distribution. Spread across Southern and Eastern Europe, the Mediterranean islands, Western and South Asia, and North Africa. From Armenia is reported without locality data [zur Strassen, 2003]. It is mentioned as a pest of flowers of various plants, in particular, Rosaceae (peach, nectarine), Fabaceae

(*Cystus* spp.), Asteraceae and Asparagaceae families [zur Strassen, 2003; Sengonca et al., 2006; Mirab-Balou et al., 2015].

**Thrips pini* (Uzel, 1895)

Material. *Kotayk Region:* Akunk village, 1508 m a.s.l., arable land, on *Salvia* sp. (Lamiaceae), 21.VI.2024 — 3♂♂.

Distribution. Known from Europe, Mongolia, Siberia, North America. Found on coniferous (Pinaceae) trees (*Abies* spp., *Larix* spp., *Picea* spp., *Pinus* spp.), sometimes also on mosses and grasses growing around the trunk [zur Strassen, 2003].

**Thrips praetermissus* Priesner, 1920

Material. *Shirak Region:* Artik town, 2067 m a.s.l., arable land, on *Crepis* sp. (Asteraceae) — 4♀♀ and *Ranunculus* sp. (Ranunculaceae) — 4♂♂, 5.VII.2024; *Kotayk Region:* Akunk village, 1501 m a.s.l., arable land, on *Teucrium* sp. (Lamiaceae), 21.VI.2024 — 2♀♀.

Distribution. Distributed in Central and Eastern Europe, reported from Mongolia, found in the flowers of various plants [zur Strassen, 2003].

**Thrips simplex* (Morison, 1930)

Material. *Kotayk Region:* Arzakan village, 1635 m a.s.l., arable land, on *Verbascum* sp. (Scrophulariaceae), 04.VII.2024 — 3♀♀.

Distribution. Widespread in many European countries, also widespread in North America; known as a pest of some valuable flowering plants, e.g., *Gladiolus* spp. (Iridaceae), *Calla* spp. (Araceae) [Mound et al., 2017], known also from *Pancreatium* spp. (Amaryllidaceae), *Protea* spp. (Proteaceae), as well as *Vitis simplex* (Blanco) Burkill (Vitaceae) [zur Strassen, 2003; Hodges, Ludwig, 2007].

**Thrips trybomi* (Karny, 1908)

Material. *Shirak Region:* Artik town, 2067 m a.s.l., artificial forest, on *Vicia* sp. (Fabaceae), 5.VII.2024 — 5♀♀; *Gegharkunik Region:* Sarnaghbyur village, Gridzor gorge, 2568 m a.s.l., alpine meadow, on *Anthemis* sp. (Asteraceae), 5.IX.2023 — 4♀♀.

Distribution. Occurs in the Alps and highlands of Central and South-eastern Europe, on various plant species [zur Strassen, 2003].

**Thrips verbasci* (Priesner, 1920)

Material. *Vayots Dzor Region:* Her-her village, 1670 m a.s.l., dry steppe, on *Verbascum* sp. (Scrophulariaceae) 14.VII.2023 — 12♀♀.

Distribution. Common in Europe, Turkey, on plants of the genus *Verbascum* [zur Strassen, 2003; Tunç, Hastenpflug-Vesmanis, 2016].

**Thrips viminalis* Uzel, 1895

Material. *Kotayk Region:* Akunk village, 1508 m a.s.l., arable land, on *Medicago sativa sativa* L. (Fabaceae), 21.VI.2024 — 1♀.

Distribution. Distributed in Great Britain, Continental Europe, West Siberia. Found on young branches or leaves of *Salix* spp., *Populus* spp. (Salicaceae), *Alnus* spp. (Betulaceae), or on undergrowth [zur Strassen, 2003; Mound et al., 2025].

Discussion and conclusions

This study significantly advances our understanding of Armenian thrips fauna by documenting numerous species previously unrecorded in the country. These findings not only introduce new regional data and host plant associations but also provide a critical update to

the country's known biodiversity. By establishing this expanded baseline, the research facilitates more effective environmental monitoring and future entomological studies. The following 14 species of the genus *Thrips* are reported as new records for Armenia: *T. albopilosus*, *T. brevicornis*, *T. conferticornis*, *T. dubius*, *T. fulvipes*, *T. italicus*, *T. major*, *T. mareoticus*, *T. pini*, *T. praetermissus*, *T. simplex*, *T. trybomi*, *T. verbasci*, *T. viminalis*. Among the species identified, *T. major*, *T. meridionalis*, and *T. simplex* worth particular attention due to their phytophagous habits and documented capacity for substantial production loss. Taking into account newly provided data the general number of thrips reported from Armenia reached 54 species.

Acknowledgements

We would like to express appreciation to the staff of the Scientific Center of Zoology and Hydroecology for continuous help in our studies.

Our work was supported by the Science Committee of the Republic of Armenia, project 23AA-1F041 «Fauna and ecological features of thrips (Insecta, Thysanoptera) in the Republic of Armenia».

References

- Belaam-Kort I., Marullo R., Attia S., Boulahia-Kheder S. 2020. Thrips fauna in citrus orchard in Tunisia: an up-to-date // *Bulletin of Insectology*. Vol.73. No.1. P.1–10.
- Burris E., Pavloff A.M., Leonard B.R., Graves J.B., Church G. 1990. Evaluation of two procedures for monitoring populations of early season insect pests (Thysanoptera: Thripidae and Homoptera: Aphididae) in cotton under selected management strategies // *Journal of Economic Entomology*. Vol.83. No.3. P.1064–1068.
- EPP0. 2025. *Frankliniella occidentalis* (FRANOC). Datasheet. Available online: <https://gd.eppo.int/taxon/FRANOC> Accessed 30.IV.2026.
- Hodges A., Ludwig S. 2007. Pest thrips of the United States: field identification guide. USDA-CSREES Integrated Pest Management Centers. P.1–34.
- Mirab-Balou M., Modarres Najafabadi S.S., Nourollahi K. 2015. Thrips pests on ornamental plants in Mahallat, Markazi Province, Iran // *Journal of Ornamental Plants*. Vol.5. No.4. P.223–229.
- Mirad-balou M. 2018. An updated checklist of Iran thrips (Insecta: Thysanoptera) // *Far Eastern Entomologist*. Vol.361. P.12–36. <https://doi.org/10.25221/fee.361.2>
- Mound L.A., Collins, D.W., Hastings A. 2025. Thysanoptera Britannica et Hibernica — *Thrips* of the British Isles. Available from: https://keys.lucidcentral.org/keys/v3/british_thrips/operating.html Accessed 30.IV.2026.
- Mound L.A., Nielsen M., Hastings A. 2017. Thysanoptera Aotearoa — Thrips of New Zealand. Available from: https://keys.lucidcentral.org/keys/v3/nz_thrips/index.html Accessed 30.IV.2026.
- Sengonca C., Blaeser P., Özden Ö., Kersting U. 2006. Occurrence of thrips (Thysanoptera) infestation on nectarines and its importance to fruit damage in North Cyprus // *Journal of Plant Diseases and Protection*. Vol.113. No.3. P.128–134.
- Silva E.A., Lima E.F.B., Marullo R., Lafuente A.G. 2021. Collecting and sampling methods for thrips // *Measuring arthropod biodiversity: a handbook of sampling methods*. Springer Nature. P.316–333. https://doi.org/10.1007/978-3-030-53226-0_13
- zur Strassen R. 2003. Die terebranten thysanopteren Europas und des Mittelmeer-Gebietes. Goecke & Evers. P.1–271.
- Thrips ID. 2025. Dr. Manfred R. Ulitzka's website on Thysanoptera. Available from: <https://www.thrips-id.com/en/> Accessed 30.IV.2026.

- Thrips.net. 2025. A microcosm of biodiversity. Identification guide: Thysanoptera. Available from: <https://thripsnet.zoologie.uni-halle.de/key-server-neu/data/06050f0b-0c00-4906-890a03000208050c/media/Html/index.html> Accessed 30.IV.2026.
- Tigranyan M. 2025. Annotated checklist of thrips (Tysanoptera) of Armenia // Caucasian Entomological Bulletin (Kavkazskij Entomologiceskij Bulletin). Vol.21. No.1. P.9–96. <https://doi.org/10.5281/zenodo.15113232>
- Tigranyan M.A., Kalashian M.Yu. 2026. New data on the genera *Frankliniella* and *Odontothrips* (Thysanoptera: Thripidae) from Armenia // Ecologica Montenegrina. Vol.94. P.301–308. <https://doi.org/10.37828/em.2026.94.21>
- Tunç I., Hastenpflug-Vesmanis A. 2016. Records and checklist of Tysanoptera in Turkey // Turkish Journal of Zoology. Vol.40. No.5. P.769–778. DOI:10.3906/zoo-1512-37

Поступила в редакцию 9.2.2026