One new *Aeolothrips* species (Thysanoptera: Aeolothripidae) from Southern Island of Iran, with a list of the new records of Thysanoptera in Iran from 2018 to 2024

JALIL ALAVI[1]*

[1]*Plant Protection Research Department, North Khorasan Agricultural and Natural Resources, Research and Education Center, AREEO, Bojnourd, Iran. E-mail: j.alavi@areeo.ac.ir*
ORCID: 0000-0001-7116-4051
*Corresponding author

Abstract

Aeolothrips kishensis **sp. n.** is described. Thrips diversity in Iran is briefly discussed and a list of 47 species and nine genera described and recorded during 2018 to 2024 is prepared. Diagnostic characters and illustrations for the new species are provided.

Key words: Kish Island, thrips, diversity, fauna, flora

Introduction

Thrips diversity in Iran

In Iran, complex and varied climates, topography and geological formations have brought diverse and unique biodiversity, which has enabled the life of a wide range of animals and plants, including approximately 1130, 25000, and 8000 species of vertebrates, invertebrates and plants, respectively (Elahi *et al*. 2021). The rich flora of Iran is the consequence of the phytogeographical position of Iran among three main floristic regions of the Old World, including Irano-Turanian, Euro-Siberian and Saharo-Sindian, and influencing by Mediterranean and Somalia-Masaei species (Memariani *et al*. 2016). Iran is located in the Palaearctic region, but has some Afro-tropical features in the southwest and subtropical Indo-Malayan species in the southeast (Sarafrazi 2009; Anderson 2012).

Despite discrete taxonomic studies of Thysanoptera in Iran, its fauna has not been studied in most areas. Considering the vastness of Iran, it is predicted that there are many unknown species that are waiting to be discovered. A few scattered findings confirm this; from two small

provinces, Khorasan-e shomali and Hamedan (Mirab-balou *et al*. 2013), 77 and 82 species have been recorded, respectively. For Fars province, this number has reached about 110 (personal communication with K. Minaei, 17.ii.2024).

Taxonomic studies of thrips in Iran have not been consistent. Afshar was the first to report three thrips species, viz. *Thrips tabaci* L., *Thrips flavus* Schrank and *Frankliniella intonsa* (Trybom), from Iran in 1938 as agricultural pests (Bhatti *et al*. 2009). Priesner (1954) reported 13 species including seven new to the world from Iran. The first checklist of Iranian thrips, including 35 species, was provided by Mortazawiha and Dern (1977). Organized faunistic studies of thrips in Iran started with J. Alavi's MSc thesis in 1993. Surprisingly, the result of this research was the report of 53 species from a small area in northeast Iran (Alavi & Kamali 2003). Subsequently, several faunistic student thesis and studies, mainly on living plants, were conducted on this order and consequently the number of known thrips in Iran was increased from 35 species in 1977 to 177 species in 2009 as listed in the checklist prepared by Bhatti *et al*. (2009). Subsequently, three checklists of Iranian thrips, including 201 species and one species group in 70 genera (Minaei 2013), 207 species in 74 genera (Mirab-balou 2013) and 270 species in 82 genera (Mirab-balou 2018) were published. From 2018 until now, 47 species and 9 genera, newly described and recorded, belonging to the three families, Aeolothripidae, Thripidae and Phlaeothripidae, have been added to the fauna of Iran, and three species have been removed from that (Table 1).

A total of 320 species in 91 genera and five families, Aeolothripidae (41 species), Melanthripidae (eight species), Stenurothripidae (one species), Thripidae (194 species) and Phlaeothripidae (76 species) have hitherto been found in Iran, which includes about 5% of extant species in the world. Considering the new species described here, the number of *Aelothrips* species in Iran reaches 35 (see Alavi *et al*. 2024), which includes somewhat more than 11% of the total species recorded in Iran.

TABLE 1. The changes in list of Iranian Thysanoptera since 2018

species	events and references
Aeolothripidae	
***Aeolothrips* Haliday, 1836**	
+ *A. euphorbiae* Mirab-balou, 2019	described by Mirab-balou (2019)
+ *A. intactus* Pelikán, 1963	added by Alavi & Minaei (2019)
+ *A. jajarmi* Alavi & Minaei, 2019	described by Alavi & Minaei (2019)
+ *A. kermanensis* Alavi *et al.*, 2024	added by Alavi *et al.* (2024)
+ *A. kishensis* **sp. n.**	described here
+ *A. naderii* Minaei & Mound, 2019	described by Minaei & Mound (2019)
– *A. neyrizi* Minaei & Alavi, 2017	synonymised with *A. flaviventer* Pelikán, 1983 by Alavi & Minaei (2018)
+ *A. oteri* Alavi & Minaei, 2019	described by Alavi & Minaei (2019)
+ *A. persiae* Alavi & Minaei, 2018	described by Alavi & Minaei (2018)
+ *A. richardi* Alavi *et al.*, 2024	added by Alavi *et al.* (2024)
+ *A. tatari* Alavi & Minaei, 2018	described by Alavi & Minaei (2018)
Thripidae	
***Anaphothrips* Uzel, 1895**	
– *A. microptera* Mirab-balou & Jamali, 2014	synonymised with *A. graminum* Priesner, 1936 by Mirab-balou (2021)
***Aptinothrips* Haliday, 1836**	
+ *A.iraniensis* Alavi, 2020	described by Alavi (2020)
+ ***Bathrips* Bhatti, 1962**	added by Mirab-balou (2020a)
+ *B. melanicornis* (Shumsher, 1946)	added by Mirab-balou (2020a)
+ ***Ctenothrips* Franklin, 1907**	added by Mirab-balou (2021)
+ *C. kwanzanensis* Takahashi, 1938	added by Mirab-balou (2021)
***Dendrothrips* Uzel, 1895**	
+ *D. octosparsus* Wang, Mound & Tong, 2019	added by Mirab-balou & Miri (2020)
+ ***Dichromothrips* Priesner, 1932**	added by Mirab-balou *et al.* (2020)
+ *D. smithi* (Zimmermann, 1900)	added by Mirab-balou *et al.* (2020)
+ ***Fulmekiola* Karny, 1925**	added by Mohammadi Noori *et al*. (2022)
+ *F. serrata* (Kobus, 1893)	added by Mohammadi Noori *et al*. (2022)
Limothrips	
+ *L. consimilis* Priesner, 1926	added by Minaei *et al*. (2018b)
***Mycterothrips* Trybom, 1910**	
+ *M. saadii* Alich & Minaei, 2019	described by Alich & Minaei (2019)
+ *M. albidicornis* (Knechtel, 1923)	added by Minaei (2020a)
***Odontothrips* Amyot & Serville, 1843**	
+ *O. bezii* Alavi & Minaei, 2022	added by Alavi & Minaei (2022)
+ *O. biuncus* John, 1921	added by Mirab-balou (2020b)
+ *O. moritzi* Hakimara & Minaei, 2019	described by Hakimara & Minaei (2019)
+ *O. pitkini* Alavi & Minaei, 2022	added by Alavi & Minaei (2022)
Pezothrips	

species	events and references
+ *P. brunicornis* Mirab-balou & Tong, 2012	added by Mirab-balou & Miri (2018b)
+ ***Plesiothrips* Hood, 1915**	added by Minaei (2017)
+ *P. perplexus* Beach, 1896	added by Minaei (2017)
***Stenchaetothrips* Bagnall, 1926**	
+ *S. faurei* (Bhatti, 1962)	added by Mirab-balou *et al.* (2021)
***Taeniothrips* Amyot & Serville, 1843**	
+ *T. eucharii* (Whetzel, 1923)	added by Miri *et al.* (2020)
***Tenothrips* Bhatti, 1967**	
+ *T. hispanicus* (Bagnall, 1921)	added by Afsharizadeh Bami & Minaei (2020)
+ *T. ononidis* (Bournier, 1962)	added by Minaei (2020b)
***Thrips* Linnaeus, 1758**	
+ *T. praetermissus* Priesner, 1920	added by Minaei *et al*. (2018a)
+ *T. golili* Alavi, 2021	described by Alavi (2021)
+ *T. silybum* Alavi, 2021	described by Alavi (2021)
+ *T. apicatus* Priesner, 1934	added by Alavi (2021)
– *T. juniperinus* Linnaeus, 1758	excluded by Alavi (2021)
Phlaeothripidae	
+ ***Alerothrips* Bhatti, 1995**	added by Mirab-balou (2023)
+ *A. bicoloratus* Mirab-balou, 2023	described by Mirab-balou (2023)
***Cephalothrips* Uzel, 1895**	
+ *C. bicolor* Alavi & Minaei, 2021	described by Alavi & Minaei (2021)
+ *C. corona* Alavi & Minaei, 2021	described by Alavi & Minaei (2021)
***Compsothrips* Reuter, 1901**	
+ *Compsothrips uzeli* (Hood, 1952)	added by Alavi & Amiri-Jami (2022)
***Haplothrips* Amyot & Serville, 1843**	
+ *H. aliakbarii* Mirab-balou & Miri, 2018	described by Mirab-balou & Miri (2018a)
– *H. aliakbarii* Mirab-balou & Miri, 2018	synonymised with *H. globiceps* Bagnall by Minaei & Mound (2021)
+ *H. ilamensis* Mirab-balou & Minaei, 2022	described by Mirab-balou & Minaei (2022)
***Liophloeothrips* Priesner, 1919**	
+ *L. arjancus* Hakimara *et al.*, 2019	described by Hakimara *et al*. (2019)
+ ***Lissothrips* Hood, 1908**	added by Minaei & Mound (2020b)
+ *L. hemingi* Minaei & Mound, 2020	described by Minaei & Mound (2020b)
***Neoheegeria* Schmutz, 1909**	
+ *N. sinaitica* Priesner, 1934	added by Minaei *et al.* (2018)
***Nesothrips* Kirkaldy, 1907**	
+ *N. lativentris* (Karny, 1913)	added by Movahedi *et al*. (2022)
***Phlaeothrips* Haliday, 1836**	
+ *P. annulipes* Reuter, 1880	added by Mirab-balou & Minaei (2021)
+ ***Sinuothrips* Collins, 2001**	added by Hakimara *et al*. (2018b)
+ *S. hasta* Collins, 2000	added by Hakimara *et al*. (2018b)
***Stictothrips* Hood, 1925**	

species	events and references
+ *S. denaeus* Minaei & Mound, 2020	described by Minaei & Mound (2020a)
+ *S. farsi* Hakimara *et al*., 2018	described by Hakimara *et al*. (2018a)
+ ***Tylothrips* Hood, 1937**	added by Mirab-balou *et al*. (2022)
+ *T. osborni* (Hinds, 1902)	added by Mirab-balou *et al*. (2022)

+ and – indicate addition and deletion, respectively

Material and methods

Thrips were collected by beating, preserved in the proposed collection fluid by Bhatti (1999), mounted onto slides in Canada balsam using the protocol given by ThripsWiki (2023). Images were taken using a Motic BA300 microscope equipped with LISSCAM 500-1 digital camera. The holotype slide of the new species is deposited in Hayk Mirzayans Insect Museum (HMIM), Iranian Research Institute of Plant Protection, Tehran, Iran. The slides of paratypes are deposited in the personal collection of the author.

Aeolothrips kishensis sp. n.

(Figs 1–8)

Female macroptera. Body brown (Fig. 1); legs wholly brown including tarsi. Antennal segment I brown, II slightly lighter to yellow at apex, III uniformly yellow, IV light brown to yellow in basal fourth, IV–IX brown, same colour as I (Fig. 2). Fore wings pale with two separate brown transverse bands (Fig. 5). Vertex with 3–4 pairs of preocellar setae, 3–4 pairs of setae between ocellar triangle and eyes, and 1 pair of setae within ocellar triangle situated between anterior and posterior ocelli; postocular area with 6–8 pairs of setae in two transverse rows (Fig. 3). Frontoclypeus with 8 pairs of small discal setae, with mid-lateral pair of distinct setae beside eyes (Fig. 6). Antennal segment III with straight linear sensorium long, extending at most to basal half of segment; IV with sensorium curved at apex, surpassing extreme distal tip of segment, extending at most to basal third of the segments, the sensoria with straight edges (Fig. 2). Pronotum with about 40 minute discal setae, with 5–6 pairs of posteromarginal setae (Fig. 3). Mesonotum with 1 pair of median setae (Fig. 4). Metascutum reticulation equiangular medially, without internal markings (Fig. 4). Fore wing first cross vein lies in middle of first transverse band; second cross vein at beginning of second transverse band (Fig. 5). Abdominal tergite I with median paired campaniform sensilla near to posrerior margin. Sternite I not eroded, with one pair of microsetae; II with 3 pairs of submarginal setae; III–VII with 4 pairs of setae on posterior margins, of which 2–3 lateral pairs far from margins; II–VII without discal setae; VII with 2 pairs of accessory setae medially arising between setae S1 and S2, inner pair slightly ahead of outer; setae S1 on sternite VII somewhat closer to S2 than to each other (Fig. 7). Each abdominal hemisternite VIII with 0–2 discal seta. Spermatheca conical, without spiniform chitinous processes (Fig. 8).

Measurements (holotype female, in microns). Body distended length 2000, Head length (width across cheeks) 162 (192), interocellar setae length 10. Antennal segments I–IX length (width): 30 (37), 55 (30), 93–100 (25), 87 (27), 75 (27), 15 (18), 15 (16), 13 (11), 10 (7). Mesonotum median setae length (interval) 17 (52), strong lateral setae length 30–37. Metascutum anterior marginal setae length (interval) 50 (92), posterior setae length (interval) 12 (37). Fore wing length 930, width across first cross vein 125, across second cross vein 150; transverse bands length along the anterior margin 212 and 262, intervening white area length 125; Fore to hind tibiae length 200, 212 and 325, respectively. Tergite IX median length 130, setae S1 length 137, S2 length 158. Ovipositor length 500.

Male unknown

Material studied. Holotype female: **IRAN**, Hormozgan province, Kish Island, Kariz-e Kish, on flowering *Parkinsonia aculeate* [Fabaceae], 28.iii.2016, J. Alavi. Paratypes: 3 females, same data as holotype.

Comments.

In zur Strassen's (2003) key, *A. kishensis* **sp. n.** runs to *A. qureicola* Bournier. However, according to the original description of the species by Bournier (1971), the new species is easily distinguishable from that by pattern of the forewings: in *A. kishensis* **sp. n.** the two transverse dark bands on the fore wings are separated, while in *A. qureicola* they are connected posteriorly. The new species runs to couplet 19 in the key to Iranian species by Alavi & Minaei (2018). However, it clearly differs in colour of antennal segment III from the species under this couplet, including *A. collaris*, *A. fasciatus*, *A. intermedius* and *A. mongolicus*: in *A. kishensis* **sp. n.** antennal segment III is uniformly yellow, while in the previous species, it is yellow to brownish yellow with dark apex to distal half. Moreover, the antennal segment IV is uniformly dark in the above four species, while in the new species it is yellow in basal fourth, gradually darker toward apex (Fig. 2). The position of the two pairs of accessory setae on abdominal segment VII is also different: in the new species, the setae arising in the posterior third of the sternite close to the posterior margin between the setae S1 and S2 (Fig. 7), but in the above four species the setae arising in the middle third of the sternite far from the posterior margin. The ratio of the length of antennal segment V to lengths VI–IX is different between the new species and the four

mentioned species: 1.4 in *A. kishensis* **sp. n.**, while 1.2 and 1 in *A. collaris* and three other species, respectively. Furthermore, in *A. kishensis* **sp. n.** the distance between setae S1 on sternite VII is at most 1.3 times as long as distance between setae S1 and S2, while this ratio is at least 1.5 in the four mentioned species. Moreover, *A. kishensis* **sp. n.** differs from *A. collaris*, *A. intermedius* and *A. mongolicus* in lacking spiniform processes on the sides of medial groove of spermatheca.

Etymology. This species name refers to the place of the collection. Kish is a resort island of the southern coast of Iran in the Persian Gulf.

Acknowledgements

Our thanks are due to S. Manzari (Iranian Research Institute of Plant Protection) for valuable comments and recommendations on the earlier version of this paper. The author would like to express many thanks to the anonymous referees for their corrections and comments on this manuscript. Special thanks to F. Memariani (Ferdowsi University of Mashhad, Iran) for his kind help in identifying the host-plant.

References

Afsharizadeh Bami, A. & Minaei, K. (2020) Occurrence of *Tenothrips hispanicus* (Thysanoptera: Thripidae) in Iran. *Journal of Insect Biodiversity and Systematics*, 6 (1), 1–7. doi: 10.52547/jibs.6.1.1

Alavi, J. (2020) *Aptinothrips iraniensis* sp. n. (Thysanoptera, Thripidae) with a key to the four *Aptinothrips* species known from Iran. *Zootaxa*, 4816 (2), 247–250. doi: 10.11646/zootaxa.4816.2.10

Alavi, J. (2021) Two new species and one new record species of the genus *Thrips* (Thysanoptera, Thripidae) with an updated checklist from Iran. *Journal of Insect Biodiversity and Systematics*, 7 (1), 95–107. doi: 10.52547/jibs.7.1.95

Alavi, J. (2022) The genus *Odontothrips* in Iran with two new species (Thysanoptera: Thripidae). *Zootaxa*, 5125 (4), 379–388. doi: 10.11646/zootaxa.5125.4.2

Alavi, J. & Amiri-Jami, A. (2022) First record of *Compsothrips uzeli* (Hood, 1952) (Thysanoptera: Phlaeothripidae) from Iran. 24th Iranian Plant Protection Congress, 3-6 September 2022, IRIPP, Tehran. p. 156.

Alavi, J. & Kamali, K. (2003) The fauna of Thysanoptera in Bojnourd region of Khorasan province, Iran. *Thrips*, 2, 25–40.

Alavi, J. & Minaei, K. (2018) Studies on the genus *Aeolothrips* (Thysanoptera: Aeolothripidae) in Iran, with a key to species. *Zootaxa*, 4446 (3), 343–360. doi:10.11646/zootaxa.4446.3.3

Alavi, J. & Minaei, K. (2019) Two new species and a new record species of the genus *Aeolothrips* (Thysanoptera: Aeolothripidae) from Iran. *Turkish Journal of Zoology*, 43 (4), 349–355. doi: 10.3906/zoo-1903-16

Alavi, J. & Minaei, K. (2021) *Cephalothrips* (Thysanoptera: Phlaeothripidae) in Iran with two new species and key to species. *Zootaxa*, 4942 (1), 127–134. doi: 10.11646/zootaxa.4942.1.7

Alavi, J. & Minaei, K. (2022) The genus *Odontothrips* in Iran with two new species (Thysanoptera: Thripidae). *Zootaxa*, 5125 (4), 379–388. doi: 10.11646/zootaxa.5125.4.2

Alavi, J., Kasatkin, D. & Farashiani, M.E. (2024) Two new species of the genus *Aeolothrips* (Thysanoptera: Aeolothripidae) from Iran, *Zootaxa*, XXX, XXX, XX–XX. [in press]

Alichi, M. & Minaei, K. (2019) One new species of *Mycterothrips* (Thysanoptera: Thripidae) from southern Iran. *Zootaxa*, 4712 (2), 290–292. doi: 10.11646/zootaxa.4712.2.7

Anderson, S.C. (2012) The Encyclopaedia Iranica; Insects. Available from: https://www.iranicaonline.org/articles/insects (accessed 3 February 2024)

Bhatti, J.S. (1999) Enigmatic complete anterior tentorium and tentorial body in adults of the onion thrips, *Thrips tabaci* (Thripidae), with review of the tentorium in the order Terebrantia. *Thrips*, 1, 15–30.

Bhatti, J.S., Alavi, J., zur Strassen, R. & Telmadarraiy, Z. (2009) Thysanoptera in Iran 1938–2007: An Overview. *Thrips*, 7–8, 1–373.

Bournier, A. (1971) Thysanoptères de France. V, *Annales de la Société entomologique de France (N.S.)*, 7 (4), 919–933. doi: 10.1080/21686351.1971.12277799

Elahi, M., Elahi, J. & Aliabadian, M. (2021) BDI: A tool for management and conservation of Iran's biodiversity. *Iranian Journal of Animal Biosystematics*, 17 (1), 51–57. doi: 10.22067/ijab.2021.63428.0

Hakimara, M. & Minaei, K. (2019) A new species of *Odontothrips* (Thysanoptera, Thripidae) from Fars province, Iran. *Zootaxa*, 4674 (1), 147–150. doi: 10.11646/zootaxa.4674.1.9

Hakimara, M., Minaei, K., Sadeghi, S. & Mound, L.A. (2018a) Fungus-feeding thrips in Iran with a new species of *Stictothrips* (Thysanoptera: Phlaeothripidae). *Zootaxa*, 4652 (3), 557–567. doi: 10.11646/zootaxa.4652.3.11

Hakimara, M., Minaei, K., Sadeghi, S. & Mound, L.A. (2019) A new species of *Liophloeothrips* (Thysanoptera, Phlaeothripidae) from leaf litter from Iran. *Zootaxa*, 457 (1), 138–142. doi: 10.11646/zootaxa.4571.1.10

Hakimara, M., Sadeghi, S., Minaei, K. & Sahin, I. (2018b) The first report of the genus *Sinuothrips* (Thysanoptera: Phlaeothripidae) from Iran. *Journal of Insect Biodiversity and Systematics*, 4 (3), 197–202. doi: 10.52547/jibs.4.3.197

Memariani, F., Joharchi, M.R. & Akhani, H. (2016) Diversity of Ghorkhod Protected Area, NE Iran. *Phytotaxa*, 249 (1), 118–158. doi: 10.11646/phytotaxa.249.1.6

Minaei, K. (2013) Thrips (Insecta, Thysanoptera) of Iran: a revised and updated checklist. *Zookeys*, 330, 53–74. doi: 10.3897/zookeys.330.5939

Minaei, K. (2017) The First Record of the Genus and Species of *Plesiothrips perplexus* (Thysanoptera: Thripidae) from Iran. *Taxonomy and Biosystematics*, 9 (33), 65–70. doi: 10.22108/TBJ.2019.108580.1051 [In Persian, with English abstract].

Minaei, K. (2020a) First record of *Mycterothrips albidicornis* (Thysanoptera: Thripidae) from Iran. *Journal of Insect Biodiversity and Systematics*, 6 (4), 325–329. doi: 10.52547/jibs.6.4.325

Minaei, K. (2020b) *Tenothrips ononidis* (Thysanoptera: Thripidae): first record from Iran. *Journal of Entomological Society of Iran*, 40 (2), 229–232. doi:10.22117/JESI.2020.341426.1357

Minaei, K. & Mound, L.A. (2019) Reduced antennal segmentation in a new species from Iran of the genus *Aeolothrips* (Thysanoptera: Aeolothripidae). *Zootaxa*, 4683 (3), 447–450. doi: 10.11646/zootaxa.4683.3.9

Minaei, K. & Mound, L.A. (2020a) Key to world *Stictothrips* species with description of a new species from Iran (Thysanoptera: Phlaeothripidae). *Zootaxa*, 4772 (2), 379–384. doi: 10.11646/zootaxa.4772.2.9

Minaei, K. & Mound, L.A. (2020b) Thysanoptera host-plant associations, with an account of species living on *Tamarix*, and a new species of *Lissothrips* (Phlaeothripidae). *Zootaxa*, 4868 (2), 275–283. doi: 10.11646/zootaxa.4868.2.7

Minaei, K. & Mound, L.A. (2021) Character-state evaluation when discriminating Thysanoptera taxa (Insecta). *Zootaxa*, 5061 (2), 377–382. doi: 10.11646/zootaxa.5061.2.10

Minaei, K., Afsharizadeh Bami, A., Bagheri, F. & Zahediayan Nezhad, M. (2018a) The first report of *Thrips praetermissus* (Thysanoptera: Thripidae) from Iran. *Journal of Entomological Society of Iran*, 38 (2), 257–260. doi: 10.22117/JESI.2018.120303.1185

Minaei, K., Aleosfoor, M., Alichi, M. & Alavi, J. (2018b) Grass-living genus *Limothrips* (Thysanoptera: Thripidae) in Iran with a new record and key to Iranian species. *Zoology and Ecology*, 28 (1), 259–264. doi: 10.1080/21658005.2018.1494429

Minaei, K., Fekrat, L. & Mound, L.A. (2018) The genus *Neoheegeria* with a new species from Iran exhibiting wing-dimorphism (Thysanoptera: Phlaeothripidae). *Zootaxa*, 4455 (3), 563–570. doi: 10.11646/zootaxa.4455.3.12

Mirab-balou, M. (2013) A checklist of Iranian thrips (Insecta: Thysanoptera). *Far Eastern Entomologist*, 267, 1–27.

Mirab-balou, M. (2018) An updated checklist of Iranian thrips (Insecta: Thysanoptera). *Far Eastern Entomologist*, 361, 12–36. doi: org/10.25221/fee.361.2

Mirab-balou, M. (2019) A key to species of the genus *Aeolothrips* Haliday (Thysanoptera: Aeolothripidae) from Iran with description of a new species. *Far Eastern Entomologist*, 380, 1–7. doi: 10.25221/fee.380.1

Mirab-balou, M. (2020a) *Bathrips melanicornis* (Shumsher) (Thysanoptera, Thripidae): first records of the genus and species from Iran. *Entomological Review*, 100 (7), 1000–1004. doi: 10.1134/S0013873820070052

Mirab-balou, M. (2020b) First report of *Odontothrips biuncus* John (Thysanoptera: Thripidae) from Iran, with an updated key to *Odontothrips* species. *Iranian Journal of Animal Biosystematics*, 16 (2), 171–175. doi:10.22067/IJAB.V16I2.86199

Mirab-balou, M. (2021) Thripinae in Iran (Thysanoptera: Thripidae): an updated key to genera, checklist, new synonymy and new records. *Oriental Insects*, 56 (2), 143–159. doi: 10.1080/00305316.2021.1921632

Mirab-balou, M. (2023) The Asian *Alerothrips* Bhatti recorded from Iran with a description of the fourth fungal-feeding species in this genus (Thysanoptera: Phlaeothripidae), *Oriental Insects*, doi: 10.1080/00305316.2023.2290664

Mirab-balou, M., Abbasi, Kh., Alizamani, T. & Afzalinia, S. (2021) *Stenchaetothrips faurei* (Bhatti) (Thysanoptera: Thripidae): a newly recorded species on rice fields in Iran. *Plant Pest Research*, 11 (2), 79–82. doi: 10.22124/IPRJ.2021.5039 [In Persian, with English abstract]

Mirab-balou, M. & Minaei, K. (2021) First report of the fungus-feeding thrips, *Phlaeothrips annulipes* (Thysanoptera: Phlaeothripidae) from Iran. *Journal of Entomological Society of Iran*, 41 (2), 193–197. doi:10.22117/JESI.2021.355586.1425

Mirab-balou, M. & Minaei, K. (2022). An unusual new species of *Haplothrips* (Thysanoptera, Phlaeothripidae) from Iran. *Zootaxa*, 5174 (4), 447–450. doi: 10.11646/zootaxa.5174.4.8

Mirab-balou, M., Minaei, K. & Ulitzka, M.R. (2022) A first record of the fungus-feeding genus *Tylothrips* (Thysanoptera, Phlaeothripidae) from Iran. *Journal of Insect Biodiversity and Systematics*, 8 (2), 183–189. dio: 10.52547/jibs.8.2.183

Mirab-balou, M. & Miri, B. (2018a) *Haplothrips aliakbarii* sp. nov. (Thysanoptera: Phlaeothripidae): a new thrips on oak trees from Ilam province (western Iran). *Turkish Journal of Zoology*, 42 (5), 608–613. doi: 10.3906/zoo-1805-27

Mirab-balou, M. & Miri, B. (2018b) *Pezothrips brunicornis* Mirab-balou et Tong (Thysanoptera, Thripidae): a newly recorded from Iran species. *Entomological Review*, 98 (7), 868–871. doi: 10.1134/S0013873818070072

Mirab-balou, M. & Miri, B. (2020) The first report of *Dendrothrips octosparsus* (Thysanoptera: Thripidae) from Iran, with an updated key to the species reported from Iran. *Taxonomy and Biosystematics*, 12 (43), 45–52. doi: 10.22108/TBJ.2021.126362.1142 [In Persian, with English abstract].

Mirab-balou, M., Miri, B., Moeini-Naghadeh, N. & Vahedi, H.A. (2020) The first record of the genus and species of *Dichromothrips smithi* (Thysanoptera: Thripidae) from Iran. *Journal of Crop Protection*, 9 (3), 550–555.

Mirab-balou, M., Tong, X.L. & Chen, X.X. (2013) A checklist of Thysanoptera (Insecta) in Hamedan province, Iran. *Natura Montenegrina*, 12 (1), 71–95.

Miri, B., Moeini-Naghadeh, N., Vahedi, H.A. & Mirab-balou, M. (2020) *Taeniothrips eucharii* (Whetzel) (Thysanoptera: Thripidae): a newly recorded species on rangeland plants in Iran. *Journal of Insect Biodiversity and Systematics*, 6 (1), 21–26. doi: 10.52547/jibs.6.1.21

Mohammadi Noori, H., Jafari, Sh. & Mirab-balou, M. (2022) A newly recorded genus of the *Thrips* genus-group (Thysanoptera, Thripidae) from Iran. *Journal of Insect Biodiversity and Systematics*, 8 (3), 389–394. doi: 10.52547/jibs.8.3.389

Mortazawiha, A. & Dern, R. (1977) Ein beitrag zur Thysanopteren fauna des Irans. *Entomologie et Phytopathologie Appliquées*, 45, 8–13.

Movahedi, L., Ramezani, L. & Mirab-balou, M. (2022) The report on the fungivorous thrips *Nesothrips lativentris* (Karny) from Iran (Thysanoptera: Phlaeothripidae). *Taxonomy and Biosystematics*, 13 (4), 87–90. doi: 10.22108/TBJ.2022.132869.1194

Priesner, H. (1954) On some Thysanoptera from Persia. *Annals and Magazine of Natural History*, 7, 49–57. doi: 10.1080/00222935408651689

Sarafrazi, A.M. (2009) Insects of Iran: The list of Hemiptera-Heteroptera in the Hayk Mirzayans Insect Museum. Pentatomidae (I), subfamilies: Podopinae, Asopinae, Phyllocephinae. Iranian Research Institute of Plant Protection, Tehran, 17, 53 pp.

ThripsWiki (2023) ThripsWiki-providing information on the World's thrips. Available from: https://web.archive.org/web/20230926184940/https://thrips.info/wiki/Main_Page [Accessed 2 October 2023]

zur Strassen, R. (2003) Die terebranten Thysanopteren Europas und des Mittelmeer-Gebietes. *Die Tierwelt Deutschlands*, 74, 1–271. [in German]

یک گونه جدید *Aeolothrips* (Thysanoptera: Aeolothripidae) از جزیره جنوبی ایران، با فهرستی از گزارش‌های جدید بال‌ریشکداران از ایران طی سال‌های ۲۰۱۸ تا ۲۰۲۴

چکیده

گونه جدید ***Aeolothrips kishensis* sp. n.** توصیف شده است. تنوع تریپس‌ها در ایران به اختصار مورد بحث قرار گرفته است. فهرستی از ٤٧ گونه و ۹ جنس توصیف و ثبت شده طی سال های ۲۰۱۸ تا ۲۰۲٤ تهیه شده است. ویژگی هاي افتراقی و تصاویر گونه جدید ارائه گردیده است.

Figure Legends:

FIGURES 1–8. *Aeolothrips kishensis* **sp. n.,** Female: (1) general habitus, (2) antenna, (3) head & pronotum, (4) mesonotum and metascutum, (5) fore wing, (6) ventral surface of head (arrows indicate mid-lateral pair of distinct setae on frontoclypeus), (7) abdominal sternite VII, (8) spermatheca.