



*Persian J. Acarol.*, 2023, Vol. 12, No. 2, pp. 259–313.  
<https://doi.org/10.22073/pja.v12i2.78237>  
Journal homepage: <http://www.biotaxa.org/pja>



## Article

### A catalog of heterostigmatic mites (Acari: Trombidiformes) of Iran

Vahid Rahiminejad\* , Ahmad Nadimi  and Ali Afshari 

Department of Plant Protection, Faculty of Plant Production, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran; E-mails: [vahidrahiminejad@gau.ac.ir](mailto:vahidrahiminejad@gau.ac.ir), [nadimi@gau.ac.ir](mailto:nadimi@gau.ac.ir), [afshari@gau.ac.ir](mailto:afshari@gau.ac.ir)

\* Corresponding author

#### ABSTRACT

In this study, we conducted a comprehensive review of all heterostigmatic mites that have previously been recorded from Iran. Thus far, 319 species, 70 genera, 12 families and 6 superfamilies of Heterostigmata (Acari: Prostigmata) (of 2265 known world species, 232 genera, 18 families and 8 superfamilies) have been recorded from different regions of Iran. Our study reveals a substantially immense diversity of Iranian heterostigmatic mite fauna, representing 15% and 4% of all heterostigmatic mites recorded and described from Iran, respectively by reviewing research of many scientists during more than 50 years. In addition to Iranian heterostigmatic mite taxa, all genera, families and superfamilies of world's Heterostigmata have been mentioned.

**KEYWORDS:** Biodiversity, fauna, geographical distribution, phoresy, soil invertebrates.

**PAPER INFO.:** Received: 28 November 2022, Accepted: 20 February 2023, Published: 15 April 2023

#### INTRODUCTION

Heterostigmata, is a cohort of mite within supercohort Eleutherengonides and suborder Prostigmata of Acari which includes about 2257 extant and eight extinct species, categorized in 229 (+ 3†) genera, 17 (+ 1†) families and seven (+ 1†) superfamilies (Table 1) (Zhang *et al.* 2011; Sidorchuk *et al.* 2016; Gheblealivand *et al.* 2016c, 2018; Katlav *et al.* 2015c, 2020, 2021; Khaustov and Minor 2018; Seyedein *et al.* 2020, 2021; Khaustov and Abramov 2021; Khaustov *et al.* 2021a, b; Barbosa *et al.* 2021; Khaustov and Frolov 2022; Rahiminejad *et al.* 2022a, etc.). These mites are highly diverse and represent a great variety of lifestyles as well as a diverse range of associations with habitats and hosts, comprising a distinct evolutionarily derived cohort among Actinotrichida (Lindquist 1986; Kaliszewski *et al.* 1995; Walter *et al.* 2009; Zhang *et al.* 2011; Sidorchuk *et al.* 2016; Katlav *et al.* 2020; Khaustov *et al.* 2021). The mites are extremely diverse in their biological and ecological diversification with many species showing fungivory, algivory, phytophagy and predatory (Kaliszewski *et al.* 1995; Lin and Zhang 2002; Khaustov 2008; Walter *et al.* 2009) and many others exhibiting various symbiotic associations (such as kleptoparasitism, parasitism, parasitoidism) with other animals (especially insects) (Krantz and Walter 2009). Moreover, heterostigmatic mites represent a dynamic hereafter phoretic relationship with other animals (mainly insects) that allows them to attach to their hosts' bodies and be transferred from one habitat to another (Kaliszewski *et al.* 1995; Camerik 2010; Walter *et al.* 2009). This adaptive strategy enables mites to spread spatially and access new food resources, escape from antagonistic agents (predators and parasites), decrease the

**How to cite:** Rahiminejad, V., Nadimi, A. & Afshari, A. (2023) A catalog of heterostigmatic mites (Acari: Trombidiformes) of Iran. *Persian Journal of Acarology*, 12(2): 259–313.

pressures of inter/intraspecies competition and also play an important role in dispersal of microorganisms (fungi, nematodes, protozoan and bacteria) (Hofstetter and Moser 2014; Baumann 2018; Pepato *et al.* 2022; Seeman and Walter 2023).

**Table 1.** The number of Iranian and world known heterostigmatic taxa.

Cohort Heterostigmata	Iranian records/Category/(extant + fossil world record)
<b>Superfamily</b> Tarsocheyloidea	1 Family (1); 1 Genus (2); 3 species (16 + 1†)
<b>Superfamily</b> Heterocheyloidea	0 Family (1); 0 Genera (1); 0 Species (26)
<b>Superfamily</b> Dolichocyboidea	1 Family (2); 5 Genera (8); 21 Species (61 + 1†)
<b>Superfamily</b> Trochometridioidea	2 Family (3); 5 Genera (8); 11 species (36)
<b>Superfamily</b> Pygmephoroida	4 Families (4); 36 Genera (117); 178 Species + 28 (~1200)
<b>Superfamily</b> Pyemotoidea	2 Families (3); 4 Genera (9 + 2†); 12 Species (73 + 5†)
<b>Superfamily</b> Tarsonemoidea	2 Families (2); 19 Genera (84); 94 Species (~845)
<b>Superfamily</b> Nasutiacaroida †	0 Family (1†); 0 Genera (1†); 0 Species (1†)
<b>Total</b>	6 + 0† Superfamilies (7 + 1†); 12 Families (17 + 1†); 70 Genera (229 + 3†); 319 Species (~2257 + 8†)

Although Heterostigmata is currently recognized as a specious cohort (Katlav *et al.* 2020), there was not much knowledge about them until 19<sup>th</sup> century, when there was only one family, Tarsonemidae comprising of four genera, *Tarsonemus* Canestrini and Fanzago, 1877, *Pediculoides* Targioni-Tozzetti, 1875, *Pygmephorus* Kramer, 1877 and *Disparipes* Michael, 1884. These mites were classified in four separated families, Tarsonemidae, Pyemotidae, Pygmephoridae and Scutacaridae, during 20<sup>th</sup> century (Lindquist 1986). Cross (1965) divided superfamily Tarsonemoidea into four families, Tarsonemidae, Podapolipidae, Scutacaridae and Pyemotidae. He considered three subfamilies, the Pyemotinae, Acarophenacinae and Pygmephorinae for Pyemotidae and included *Resinacarus*, *Pyemotes*, *Trochometridium*, *Dolichocybe*, *Pavania*, *Siteroptes* into Pyemotinae, *Acarophenax*, *Paracarophenax*, *Adactylidium* and *Caraboacarus* into Acarophenacinae. Moreover, Pygmephorinae has been categorized within three tribes, Pygmephorini with *Pediculaster*, *Pygmephorus* and *Microdispodides*, Microdispini with *Glyphidomastax*, *Perperipes*, *Peponocara*, *Myrmecodispus* and *Microdispus* and eventually, Neopygmephorini with *Acinogaster*, *Neopygmephorus*, *Pseudopygmephorus* and *Parapygmephorus*. He regarded *Acarothorectes* and *Premicrodispus* as subgenera of *Pediculaster* and *Microdispus* genera, respectively. Heterostigmata was retained in Prostigmata and was lowered in hierarchic rank, as a part of Eleutherengonides by Lindquist (1976, 1986). He regarded seven superfamilies within Heterostigmata and included Scutacaridae in the Pygmephoroida and Microdispinae as a separate subfamily in Pygmephoridae. Then Kaliszewski *et al.* (1995) considered 8 superfamilies; raised Microdipidae to the family level and also separated Scutacaridae from Pygmephoroida and placed both of them in the Scutacaroida. In recent years, the classification of the higher taxa has undergone numerous changes. Walter *et al.* (2009) recognized 8 superfamilies and 16 families. They recognized Siteroptidae in the Pygmephoroida while Zhang *et al.* (2011) included Siteroptidae as a subfamily in the Microdispidae. Bemdidiacaridae was also placed in the Trochometridiidae by Walter *et al.* (2009) and Zhang *et al.* (2011). Although Neopygmephoridae has been promoted to family-level by Khaustov (2004) but Walter *et al.* (2009) did not recognize Neopygmephoridae; however, Zhang *et al.* (2011) brought this family in the checklist of world heterostigmatic mites. Recently, Sidorchuk *et al.* (2016) also added a fossil superfamily, Nasutiacaroida, to Heterostigmatina recovered from Cretaceous amber.

In Iran, the first report of heterostigmatic mites was *Pyemotes ventricosus* (Newport, 1850) which was recorded parasitic on xylophagous beetles by Radjabi (1969). Later on, many scattered records of Iranian heterostigmatic mites have been documented in several studies which almost all of them were led by Kamali *et al.* (2001). More specialized studies commenced by Hajiqanbar and his team

(Hajiqanbar 2002) which led to more than 74 new species and six new genera (of 83 and six new species and genera described from Iran) (Table 2). Unfortunately, he sadly passed away on 14 October 2021; yet, his inspirational research impact on study of these mites has never allowed such studies to be discontinued and thus followed by his students and colleagues (Rahiminejad *et al.* 2022).

Currently, no study has collated and cataloged the number of heterostigmatic mite species and the regions of their records in Iran. Therefore, this requirement prompted the current study to prepare, document and gather all the records of Iranian heterostigmatic mites. With regards to many new mite taxa which were described and recorded from Iran during the last two decades after Kamali *et al.* (2001), this paper can be used as a reference for future research and be the first step to prepare the catalog of Iranian Acari.

## MATERIALS AND METHODS

About 250 journal and congress articles along with M. Sc. and Ph. D. theses have been reviewed and their information collated for preparing Iranian heterostigmatic mite catalog. For some references there was not any online format and the hard-copy versions was hardly attainable; thus, data and original documents were hard to access and it took a lot of time to find and examine them.

In this paper, according to information presented in recently published papers, we consider the superfamily Scutacaroida as the family Scutacaridae Oudemans, 1916 and subfamily Neopygmephorinae as a family (Neopygmephoridae Cross, 1965) in superfamily Pygmephoroida (Khaustov 2004, 2008); Siteroptidae as a genus (*Siteroptes* Amerling, 1861) within family Pygmephoridae Cross, 1965 (Khaustov 2015); Bembidiacaridae as a genus (*Bembidiacarus* Khaustov, 2000) in the family Athyreacaridae Lindquist, Kaliszewski & Rack, 1990 (Khaustov and Frolov 2020) and Caraboacaridae Mahunka, 1970 as a family in superfamily Trochometridioidea (Klimov *et al.* 2017) (see Table 2).

## RESULTS

This study provided information about to all heterostigmatic mites reported from Iran and their host associations (insects or other animals) and/or habitats (soil, litter, stored product, manure pile, etc.) as well their distribution across Iranian provinces. All known families are represented in phylogenetical order as in Kaliszewski *et al.* (1995) and Walter *et al.* (2009). Overall 319 species, 70 genera, 12 families belonging to 6 superfamilies have been recorded (Table 2).

**Table 2.** All heterostigmatic mites recorded from Iran along with their host and reported region. The number of taxa (Iranian and world species) have been added to the genera/families and superfamilies rows.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<b>Cohort Heterostigmata Berlese, 1897</b>			6 + 0 † superfamilies (7 + 1 †); 12 families (17 + 1 †); 70 genera (229 + 3 †); 319 species (~2257 + 8 †)
<b>Superfamily Tarsocheyloidea</b>			1 family (1); 1 genus (2); 3 species (16 + 1 †)
<b>Family Tarsocheylidae Atyeo &amp; Baker, 1964</b>			1 genus (2); 3 species (15 + 1 †)
<i>Hoplocheylus</i> Atyeo & Baker, 1964			3 species (14 + 1 †)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<b><i>H. evansi</i> Arjomandi &amp; Hajiqaanbar, 2017</b>	from nest of <i>Messor denticulatus</i> Santschi (Hym.: Formicidae)	Mazandaran province (Miankaleh peninsula)	Arjomandi <i>et al.</i> (2017b)
<b><i>H. fereshtae</i> Amin, Khanjani &amp; Ueckermann, 2014</b>	from soil under <i>Phragmites australis</i> (Cav.) (Poaceae)	Markazi province (Mahalat)	Amin <i>et al.</i> (2014b)
<b><i>H. logispinus</i> (Atyeo &amp; Baker, 1964)</b>	from litter under <i>Phragmites australis</i> (Poaceae)	Markazi province (Mahalat)	Amin <i>et al.</i> (2014b)
<b><i>Tarsocheylus</i> Berlese, 1904</b>	-	-	0 species (1)
<b>Superfamily</b> Heterocheyoidea			0 family (1); 0 genus (1); 0 species (26)
<b>Family</b> Heterocheylidae			
<b>Tragardh, 1950</b>			
Heterocheylidae <b>Trägårdh, 1950</b>	-	-	0 genus (1)
<i>Heterocheylus</i> <b>Lombardini, 1926</b>	-	-	0 species (26)
<b>Subsection</b> Tarsonemina			
<b>Canestrini &amp; Fanzago, 1877</b>			
<b>Superfamily</b> Dolichocyboidea			1 family (2); 5 genera (7); 21 species (61 + 1†)
<b>Family</b> Dolichocybidae			5 genera (6); 21 species (60 + 1†)
<b>Mahunka, 1970</b>			17 species (48 + 1†)
<b>Subfamily</b> Dolichocybinae			
<b>Mahunka, 1970</b>			
<i>Dolichocybe</i> <b>Krantz, 1957</b>			3 species (12 + 1†)
<b><i>D. orzueeyehiensis</i> Hajiqaanbar, Khaustov &amp; Mortazavi, 2019</b>	<i>Adoretus</i> sp. (Col.: Scarabaeidae)	Kerman Province (Orzueeyeh)	Hajiqaanbar <i>et al.</i> (2019a)
<b><i>D. silvani</i> Rahiminejad &amp; Hajiqaanbar, 2011</b>	<i>Silvanus</i> sp. (Col.: Silvanidae); <i>Bitoma crenata</i> Fabricius (Col.: Zopheridae) & <i>Uleiota planata</i> (L.) (Col.: Silvanidae)	Golestan province (Gorgan); Mazandaran province (Abas Abad)	Rahiminejad <i>et al.</i> (2011a, 2012); Katlav <i>et al.</i> (2015d)
<b><i>D. varkana</i> Rahiminejad &amp; Hajiqaanbar, 2011</b>	<i>Corticeus unicolor</i> (Piller & Mitterpacher) (Col.: Tenebrionidae)	Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2011a, 2012)
<b><i>Pavania</i> Lombardini, 1949</b>			14 species (36)
<b><i>Pavania gymnopleuri</i> species group</b>			3 species (8)
<b><i>P. gymnopleuri</i> Hajiqaanbar &amp; Khaustov, 2010</b>	<i>Gymnopleurus mopsus persianus</i> Reitter, <i>Onthophagus</i> sp., <i>Gymnopleurus mopsus</i> Pallas & <i>Gymnopleurus flagellates</i> (Fabricius) (Col.: Scarabaeidae)	Razavi Khorasan province (Sabzevar); Golestane province (Kalaleh); Ardabil province (Meshguin-shahr)	Hajiqaanbar & Khaustov (2010); Badoodam (2014); Sobhi <i>et al.</i> (2017b)
<b><i>P. onthophagi</i> Hajiqaanbar &amp; Khaustov, 2010</b>	<i>Onthophagus (Euonthophagus) gibbosus gibbosus</i> (Scriba, 1970) and <i>Onthophagus (Euonthophagus) amyntasalces</i> (Fabricius) (Col.: Scarabaeidae) in horse-dung at an equitation club	North Khorasan province (Bojnord and Esfarayen) and Razavi Khorasan province (Shandiz)	Hajiqaanbar & Khaustov (2010); Loghmani <i>et al.</i> (2013)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>P. sabzevarensis</i> Hajiqanbar & Khaustov, 2010	<i>Gymnopleurus mopsus persianus</i> Reitter, <i>Gymnopleurus mopsus</i> (Pallas) and <i>Onthophagus</i> (s. str.) <i>taurus</i> (Schreber) (Col.: Scarabaeidae)	Razavi Khorasan province (Sabzevar and Bajestan)	Hajiqanbar & Khaustov (2010); Loghmani <i>et al.</i> (2013)
<i>Pavania fusiformis</i> species group <i>P. carabidophila</i> Khaustov, 2005	<i>Rhyssmodes orientalis</i> Mulsant & Godart (Col.: Scarabaeidae)	Sistan and Baluchestan province	10 species (27) Tashakor <i>et al.</i> (2013)
<i>P. elongata</i> Hajiqanbar & Khaustov, 2010	An unidentified carabid beetle (Col.: Carabidae)	North Khorasan province (Elevations of Maneh and Samalghan)	Hajiqanbar & Khaustov (2010)
<i>P. khiavensis</i> Sobhi & Hajiqanbar, 2017	Under the metanotum of <i>Euoniticellus fulvus</i> (Goeze) (Coleoptera: Scarabaeidae)	Ardabil province (Meshguin-shahr)	Sobhi <i>et al.</i> (2017b)
<i>P. kamalii</i> Hajiqanbar & Khaustov, 2010	<i>Scarabaeus</i> spp. (Col.: Scarabaeidae)	North Khorasan province (Esfarayen); Mazandaran province (Noor)	Hajiqanbar & Khaustov (2010); Hajiqanbar & Arjomandi (2019a)
<i>P. kermaniensis</i> Hajiqanbar, Khaustov & Mortazavi, 2019	<i>Aphodius cf. lividus</i> (Olivier) (Col.: Scarabaeidae)	Kerman Province (Anbarabad)	Hajiqanbar <i>et al.</i> (2019a)
<i>P. lanceolata</i> Bahramian & Hajiqanbar, 2013	<i>Scarabaeus</i> ( <i>Scarabaeus</i> ) <i>pius</i> (Illiger) (Col.: Scarabaeidae)	Isfahan province (Semiroom)	Bahramian <i>et al.</i> (2015)
<i>P. magowskii</i> Hajiqanbar, Khaustov & Mortazavi, 2019	<i>Trox</i> sp. (Col.: Trogidae)	Kerman Province (Sarcheshmeh)	Hajiqanbar <i>et al.</i> (2019a)
<i>P. megasolenidia</i> Hajiqanbar, Khaustov & Mortazavi, 2019	<i>Aphodius</i> sp. (Col.: Scarabaeidae)	Kerman Province (Anbarabad)	Hajiqanbar <i>et al.</i> (2019a)
<i>P. scarabaeophilus</i> Hajiqanbar, Khaustov & Mortazavi, 2019	<i>Scarabaeus</i> sp. (Col.: Scarabaeidae).	Kerman Province (Rafsanjan and Anbarabad)	Hajiqanbar <i>et al.</i> (2019a)
<i>P. tadjikistanica</i> Sevastianov, 1980	<i>Onthophagus</i> sp.; <i>Onthophagus taurus</i> (Schreber) & <i>Euoniticellus fulvus</i> (Goeze) (Col.: Scarabaeidae)	Isfahan province; Mazandaran province (Abas Abad, Ramsar & Noor)	Tajodin (2013); Katlav <i>et al.</i> (2015d)
<i>Pavania setiformis</i> species group <i>P. setiformis</i> Loghmani & Hajiqanbar, 2013	phoretic on <i>Onthophagus</i> ( <i>Palaeonthophagus</i> ) <i>vitulus</i> F. (Col.: Scarabaeidae)	Razavi Khorasan province (Quchan)	1 species (1) Loghmani <i>et al.</i> (2013)
Subfamily Formicomotinae Sevastianov, 1980			4 species (12)
<i>Acanthomastix</i> Mahunka, 1972 <i>A. derivatus</i> Katlav & Hajiqanbar, 2014	<i>Uloma culinaris</i> (L.) (Col.: Tenebrionidae) and <i>Prostomis</i> sp. (Col.: Prostomidae)	Mazandaran Province (Kelardasht (Abbas-Abad forest) and Noor)	1 species (5) Katlav <i>et al.</i> (2014a)
<i>Dolichomotes</i> Smiley, 1967 <i>D. crossi</i> Rack, 1973	from soil and litter	Golestan province (Gorgan)	2 species (3) Rahiminejad <i>et al.</i> (2022b)
<i>D. sinuspersicus</i> Mortazavi & Hajiqanbar, 2015	<i>Sinoxylon pugnax</i> Lesne (Col.: Bostrichidae)	Hormozgan province (Minab)	Mortazavi <i>et al.</i> (2015)
<i>Formicomotes</i> Sevastianov, 1980 <i>F. octipes</i> Sevastianov, 1980	<i>Tetramorium</i> sp. (Hym.: Formicidae)	Golestan province (Bandar-E-Turkmen and Gorgan)	1 species (3) Rahiminejad & Hajiqanbar (2020)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>Rafamastix</i> Magowski, 1997	-	-	0 species (1)
<b>Family</b> Crotalomorphidae <b>Lindquist &amp; Krantz, 2002</b>			0 genus (1); 0 species (1)
<i>Crotalomorpha</i> Lindquist & Krantz, 2002	-	-	-
<b>Superfamily</b> Trochometridioidea			2 family (3); 5 genus (8); 11 species (36)
<b>Family</b> Athyreacaridae <b>Lindquist, Kaliszewski &amp; Rack, 1990</b>	-	-	0 genus (3); 0 species (21)
<i>Athyreacarus</i> Lindquist, Kaliszewski & Rack, 1990	-	-	0 species (19)
<i>Bembidiacarus</i> Khaustov, 2000	-	-	0 species (1)
<i>Neothyreacarus</i> Khaustov & Frolov, 2022	-	-	0 species (1)
<b>Family</b> Caraboacaridae <b>Mahunka, 1970</b>			3 genera (3); 5 species (8)
<i>Caraboacarus</i> Krczal, 1959			3 species (6)
<i>C. karenae</i> Nickel & Elzinga, 1969	Carabid beetle	Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2010a)
<i>C. kraczali</i> Eidelberg, 1994	<i>Calosoma</i> sp. (Col.: Carabidae); <i>Calosoma auropunctatum dsungaricum</i> Gebler (Col.: Carabidae)	Kerman province	Mortazavi <i>et al.</i> (2010b); Mortazavi & Hajiqaanbar (2012b)
<i>C. stammeri</i> Krczal, 1959	An Unidentified carabid beetle; <i>Amara</i> sp., <i>Harpalus</i> sp., <i>Anisodactylus signatus</i> (Panzer), <i>Diachromus germanus</i> (L.) (Col.: Carabidae) & <i>Cicindela (Cylindera) germanica</i> (L.) (Col.: Carabidae: Cicindelinae); <i>Calosoma</i> Weber & <i>Harpalus</i> Latreille, (Col.: Carabidae)	Alborz province (Malard); Mazandaran province (Tonekabon); Ardabil province (Meshguin-shahr); Golestan province (Gorgan)	Mirjamali <i>et al.</i> (2008a); Katlav <i>et al.</i> (2015d); Sobhi <i>et al.</i> (2017e); Rahiminejad & Hajiqaanbar (2020)
<i>Intercaraboacarus</i> Katlav & Hajiqaanbar, 2015			1 species (1)
<i>I. clivinus</i> Katlav & Hajiqaanbar, 2015	<i>Clivina ypsilon</i> Dejean (Col.: Carabidae)	Mazandaran province (Noor forest)	Katlav <i>et al.</i> (2015c)
<i>Minicaraboacarus</i> Hajiqaanbar & Khaustov, 2008			1 species (1)
<i>M. quadridiscalis</i> Hajiqaanbar & Khaustov, 2008	<i>Cymbionotum semelederi</i> (Chaudoir) (Col.: Carabidae); <i>Scarites (Scarites) procerus eurytus</i> Fischer von Waldheim (Col.: Carabidae)	Razavi Khorassan province (Feizabad of Torbat Heidariyeh); Kerman province (Rafsanjan)	Hajiqaanbar <i>et al.</i> (2008c); Mortazavi & Hajiqaanbar (2012b)
<b>Family</b> Trochometridiidae <b>Mahunka, 1970</b>			2 genera (2); 6 species (7)
<i>Neotrochometridium</i> Hajiqaanbar & Khaustov, 2009			1 species (1)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<b><i>N. sensillum</i> Hajiqaanbar &amp; Khaustov, 2009</b>	<i>Cymbionotum semelederi</i> (Chaudoir) and <i>Siagona europaea</i> Dejean (Col.: Carabidae)	Razavi Khorasan Province (Torbat Heidariyeh)	Hajiqaanbar <i>et al.</i> (2009)
<b><i>Trochometridium</i> Cross, 1965</b>			5 species (6)
<b><i>T. chinensis</i> (Mahunka, 1966)</b>	An undetermined earwig (Derm.: Labiduridae)	North Khorasan province (Maneh and Samalghan)	Hajiqaanbar <i>et al.</i> (2009)
<b><i>T. iranikum</i> Hajiqaanbar &amp; Khaustov, 2009</b>	<i>Pseudapis nilotica</i> (Smith) (Hym.: Halictidae); <i>Komarowia tartara</i> (Saussure) (Hym.: Tiphiidae); an undetermined fly (Dip.: Calliphoridae) and <i>Philanthus triangulum</i> (Fabricius) (Hym.: Crabronidae)	Razavi Khorasan province (Sabzevar, Bajestan & Shandiz) and Isfahan province	Hajiqaanbar <i>et al.</i> (2009); Loghmani <i>et al.</i> (2014b); Tajodin <i>et al.</i> (2012)
<b><i>T. kazachstanicum</i> Khaustov &amp; Eidelberg, 2002</b>	<i>Gymnopleurus</i> (s. str.) <i>mopsus persianus</i> Reitter (Col.: Scarabaeidae); <i>Copris lunaris</i> (L.) (Col.: Scarabaeidae)	Razavi Khorasan province (Sabzevar); Mazandaran province (Miankaleh peninsula)	Hajiqaanbar <i>et al.</i> (2009); Hajiqaanbar & Arjomandi (2019a)
<b><i>T. kermanicum</i> Mortazavi &amp; Hajiqaanbar, 2011</b>	<i>Paulusiella</i> sp. (Col.: Elateridae); <i>Komarowia tartara</i> (Saussure) (Hym.: Tiphiidae); <i>Coccobius schreberi</i> (L.) (Col.: Scarabaeidae); <i>Labidura riparia</i> (Pallas) (Derm.: Labiduridae); <i>Gryllus desertus</i> Pallas (Orthoptera: Gryllidae)	Kerman Province (Orzueeyeh & Rafsanjan); Razavi Khorasan province (Bajestan); Mazandaran province (Miankaleh peninsula); Golestan province (Bandar-e-Turkmen)	Mortazavi <i>et al.</i> (2011); Mortazavi & Hajiqaanbar (2012b); Rahiminejad <i>et al.</i> (2014a); Loghmani <i>et al.</i> (2014b); Hajiqaanbar & Arjomandi (2019a); Rahiminejad & Hajiqaanbar (2020)
<b><i>T. mutilliphillum</i> Loghmani &amp; Hajiqaanbar, 2014</b>	<i>Tricholabiodes</i> spp. & <i>Dentilla</i> spp. (Hym. Mutillidae)	Razavi Khorasan province (Bajestan)	Loghmani <i>et al.</i> (2014b)
<b>Superfamily Pygmephoroidae</b>			4 families (4); 36 genera (117); 178 species + 28 (~1200)
<b>Family Pygmephoridae Cross, 1965</b>			13 genera (34); 40 species + 11 (~330)
<b><i>Acarothorectes</i> Cross, 1965</b>			1 species (1)
<b><i>Acarothorectes</i> sp.</b>	Potato's fields	Some parts of Iran (Tehran, Kurdistan, Khorassan Razavi, Esfahan, Markazi, Hamedan & Jiroft)	Baradaran <i>et al.</i> (2010)
<b><i>Apediculaster</i> Rahiminejad &amp; Hajiqaanbar, 2016</b>			1 species (1)
<b><i>A. carpelimus</i> Rahiminejad &amp; Hajiqaanbar, 2016</b>	<i>Carpelimus rivularis</i> (Motschulsky) (Col.: Staphylinidae)	Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2016)
<b><i>Elattoma</i> Mahunka, 1969</b>			3 species (10 + 2)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>Elattoma</i> Mahunka, 1969			3 species (10 + 2)
<i>E. abeskoun</i> Rahiminejad & Hajiqaanbar, 2011	<i>Morimus verecundus</i> (Faldermann) (Col.: Cerambycidae); an undetermined bostrichid beetle (Col.: Bostrichidae) & <i>Xyleborus monographus</i> (Fabricius) (Col.: Curculionidae: Scolytinae)	Golestan province (Gorgan); Mazandaran province (Tonekabon)	Rahiminejad <i>et al.</i> (2011b, 2012); Katlav <i>et al.</i> (2015d)
<i>E. cerambycidum</i> Rahiminejad & Hajiqaanbar, 2011	<i>Morimus verecundus</i> (Faldermann) (Col.: Cerambycidae)	Golestan province (Gorgan); Mazandaran province (Neka)	Rahiminejad <i>et al.</i> (2011b, 2012); Hajiqaanbar & Arjomandi (2019a)
<i>E. kornilovi</i> Khaustov, 2000	<i>Morimus verecundus</i> (Faldermann) (Col.: Cerambycidae)	Golestan province (Gorgan, Bandar-e-Gaz, Kordkoy & Nokandeh)	Rahiminejad <i>et al.</i> (2014b); Rahiminejad & Hajiqaanbar (2020)
<i>Krczaldania</i> Sasa, 1961 <i>K. primitiva</i> (Krczal, 1959)	Associated with <i>Psathyrella</i> sp. (Fungi: Agaricales)	Golestan province (Gorgan)	1 species (2) Majidi <i>et al.</i> (2022b)
<i>Metapygmephorellus</i> Rahiminejad, Hajiqaanbar & Khaustov, 2015			1 species (2)
<i>M. colydius</i> Rahiminejad & Hajiqaanbar, 2015	<i>Colydium elongatum</i> (F.) (Col.: Zopheridae) & <i>Dorcus parallelipipedus</i> (L.) (Col.: Lucanidae); <i>Parandra caspia</i> Ménériès (Col.: Cerambycidae)	Golestan province (Gorgan); Mazandaran province (Kelardasht, Abbas-Abad forest; Noor)	Rahiminejad <i>et al.</i> (2015c); Hajiqaanbar & Arjomandi (2019a)
<i>Neositeroptes</i> Livshits, Mitrofanov & Sharonov, 1986			2 species (32)
<i>N. opacus</i> Livshits, Mitrovanov & Sharonov, 1986	soil samples from pomegranate orchards	Khorasan Razavi province (Mahvelat region)	Filekesh <i>et al.</i> (2014)
<i>N. crossi</i> (Mahunka, 1969) (Syn.: <i>Siteroptes crossi</i> Mahunka, 1969)	soil sample	Tehran province (Malard); Khorasan Razavi province (Mahvelat region)	Mirjamali <i>et al.</i> (2008b); Filekesh <i>et al.</i> (2014)
<i>Propygmephorus</i> Cross, 1974 <i>P. crossi</i> Katlav & Hajiqaanbar, 2016	<i>Pseudoophonus rufipes</i> (De Geer) & <i>Pterostichus caspius</i> (Menetries) (Col.: Carabidae); <i>Dorcus parallelipipedus</i> (L.) & <i>Lucanus ibericus</i> Motschulsky (Col.: Lucanidae)	Mazandaran province (Kelardasht, Abbas-Abad forest; Sisangan forest); Northern forests of Iran	1 species (2) Katlav <i>et al.</i> (2016); Arjomandi <i>et al.</i> (2017c); Hajiqaanbar & Arjomandi (2019a)
<i>Pediculaster</i> Vitzthum, 1931			15 species + 4 (~100)
<i>P. absentia</i> Rahiminejad & Seyedein, 2021	<i>Helina</i> sp. (Dip.: Muscidae)	Golestan province (Gorgan)	Seyedein <i>et al.</i> (2021)
<i>P. camerikae</i> Khaustov, 2008	<i>Helina</i> sp. (Dip.: Muscidae)	Golestan province (Bandar-e-Turkmen)	Rahiminejad & Hajiqaanbar (2020)
<i>P. dudichi</i> Mahunka, 1970	From soil sample	Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2022b)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>P. flechtmanni</i> (Wicht, 1970)	on button mushroom ( <i>Agaricus bisporus</i> (Lange))	Alborz province (Karaj)	Kheradmand <i>et al.</i> (2007)
<i>P. kneeboni</i> (Wicht, 1970)	on button mushroom ( <i>Agaricus bisporus</i> (Lange, 1926))	Alborz province (Karaj)	Kheradmand <i>et al.</i> (2007)
<i>P. manicatus</i> (Berlese, 1904)	<i>Alhagi</i> sp. (Fabaceae); from soil sample (pomegranate orchards)	Hamedan and Ardabil provinces; Tehran province (Varamin); Razavi Khorasan province (Mahvelat region)	Khanjani (1996); Kheradpir & Pakyari (2011); Filekesh <i>et al.</i> (2014)
<i>P. martyani</i> Khaustov, 2008	<i>Helina</i> sp. (Dip.: Muscidae)	Golestan province (Gorgan)	Seyedein <i>et al.</i> (2021)
<i>P. mesembrinae</i> (Canestrini, 1881)	from Manure pile; Soil sample of alfalfa fields; Soil sample of different crop fields from soil sample (pomegranate orchards)	Hormozgan province (Bandar-Abbas); East Azarbaijan (Western & southwest parts); Razavi Khorasan province (Mahvelat region)	Mahunka & Rohde (1970); Lotfollahi <i>et al.</i> (2008a); Hashemi Khabir <i>et al.</i> (2013); Filekesh <i>et al.</i> (2014)
<i>P. montanus</i> Khaustov, 2008	<i>Helina</i> sp. (Dip.: Muscidae)	Golestan province (Gorgan)	Seyedein <i>et al.</i> (2021)
<i>P. muscarius</i> (Martin, 1978)	<i>Helina</i> sp. (Dip.: Muscidae)	Golestan province (Gorgan)	Seyedein <i>et al.</i> (2021)
<i>P. neutarii</i> Khaustov <i>et al.</i> , 2014	soil sample	Razavi Khorasan province (Jovein city)	Fatehinia <i>et al.</i> (2022)
<i>P. pseudomanicatus</i> Camerik, 2001	from soil sample (pomegranate orchards); <i>Helina</i> sp. (Dip.: Muscidae)	Razavi Khorasan province (Mahvelat region); Golestan province (Bandar-e-Turkmen)	Hajiqaanbar (2002); Haddad Irani-Nejad <i>et al.</i> (2005); Filekesh <i>et al.</i> (2014); Rahiminejad & Hajiqaanbar (2020)
<i>P. ryanovy</i> Samsinak, 1989	on the body of the host fly (Diptera: Heleomyzidae)	Fars province (Eghlid)	Majidi <i>et al.</i> (2018a)
<i>P. sp. nr. gautengensis</i> Camerik, 1996	cotton	Ardabil province	Haddad Irani-Nejad (1998)
<i>P. sp. nr. manicatus</i> (Berlese, 1904)	cotton	Ardabil province	Haddad Irani-Nejad (1998)
<i>Pediculaster</i> sp.	soil	Tehran province (Malard)	Mirjamali <i>et al.</i> (2008b)
<i>Pediculaster</i> sp.	soil sample of alfalfa fields	East Azarbaijan (Western parts)	Lotfollahi <i>et al.</i> (2008a)
<i>Pediculaster</i> sp.	soil	Sistan & Baluchestan province (Sistan region)	Arjmandinejad <i>et al.</i> (2008)
<i>Pediculaster</i> sp.	soil, plant litters, plant leaves and twigs of ornamental plants	Tehran province (some regions of Tehran)	Hamidi <i>et al.</i> (2013)
<i>Pseudopygmephorellus</i> Khaustov, 2008			2 species (8)
<i>P. mazandaranicus</i> Katlav & Hajiqaanbar, 2015	<i>Onthophagus</i> sp., <i>Aphodius depressus</i> (Kugelann) & <i>A. varians</i> Dufschmid (Col.: Scarabaeidae)	Mazandaran province (Kelardasht, Abbas-Abad forest; Mazichal elevations)	Katlav <i>et al.</i> (2015a); Hajiqaanbar & Arjomandi (2019a)
<i>P. szekessyi</i> (Mahunka, 1970)	phoretic on <i>Aphodius vittatus</i> Say (Col.: Scarabaeidae)	Ardabil province (Meshguin-shahr)	Sobhi <i>et al.</i> (2017b)
<i>Pygmephorus</i> Kramer, 1877			2 species (~150)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>Pygmephorus</i> sp.	grape	Khuzestan province	Darvishzadeh (1997)
<i>Pygmephorus</i> sp.	stored wheat	Golestan province (Gorgan)	Ardehsir & Khormali (2008)
<i>Sevastianovella</i> Livshits, Mitrofanov & Sharonov 1986	-	-	1 species (8)
<i>S. bohemicus</i> Mahunka, 1963 (Syn.: <i>Siteroptes bohemicus</i> Mahunka, 1963)	soil	Alborz province (Malard)	Mirjamali <i>et al.</i> (2008b)
<i>Siteroptes</i> Amerling, 1861 <i>S. cerealium</i> (Kirchner, 1864) (Syn.: <i>S. graminum</i> (Reuter))	soil sample	East Azerbaijan province; Khuzestan province (Ahvaz)	1 species + 5 (14) Fathipour (1994); Baharloo <i>et al.</i> (2006)
<i>Siteroptes</i> sp.	cotton, pagoda tree ( <i>Sophora alopecurioides</i> L.)	Ardabil & Hamedan provinces	Khanjani (1996); Haddad-Iraninejad (1998)
<i>Siteroptes</i> sp.	soil samples	Tehran province (Varamin)	Kheradpir & Pakyari (2011)
<i>Siteroptes</i> sp.	samples from Strawberry fields	Kurdistan province	Mansour ghazi <i>et.</i> <i>al.</i> (2006)
<i>Siteroptes</i> sp.	in media cultures of fungus, <i>Nigrospora oryzae</i> (Fungi: Ascomycota)	Khorasan province	Mirzaee <i>et al.</i> (2013)
<i>Siteroptes</i> sp.	potato's fields	some parts of Iran (Tehran, Kurdistan, Khorassan Razavi, Esfahan, Markazi, Hamedan & Kerman provinces)	Baradaran <i>et al.</i> (2010)
<i>Spatulaphorus</i> Rack, 1993 <i>S. copridis</i> Khaustov, 2007	<i>Geotrupes</i> spp. (Col.: Geotrupidae)	Golestan province (Gorgan)	5 species (16) Rahiminejad <i>et al.</i> (2011d, 2013)
<i>S. geotruporum</i> Khaustov, 2005	<i>Geotrupes spiniger</i> (Marsham) (Col.: Geotrupidae)	Golestan province (Gorgan)	Seyedein <i>et al.</i> (2019b)
<i>S. gorganica</i> Rahiminejad & Hajiqanbar, 2011	<i>Geotrupes spiniger</i> (Marsham) (Col.: Geotrupidae)	Golestan province (Gorgan); Mazandaran province (Kelardasht, Abbas Abad)	Rahiminejad <i>et al.</i> (2011c, d); Katlav <i>et al.</i> (2015d)
<i>S. gymnopleuri</i> Sobhi & Hajiqanbar, 2017	<i>Gymnopleurus flagellatus</i> (Fabricius) (Col.: Scarabaeidae)	Ardabil province (Meshguin shahr)	Sobhi <i>et al.</i> (2017f)
<i>S. vladimiri</i> Khaustov, 2005	<i>Geotrupes spiniger</i> (Marsham) (Col.: Geotrupidae)	Mazandaran province (Tonekabon & Ramsar); Golestan province (Gorgan)	Katlav <i>et al.</i> (2015d); Seyedein <i>et al.</i> (2019a); Rahiminejad <i>et al.</i> (2020b)
<i>Asensilla</i> Rack, 1974	-	-	0 species (1)
<i>Bochkovlaster</i> Khaustov, 2019	-	-	0 species (1)
<i>Brasilopsis</i> Mahunka, 1975	-	-	0 species (3)
<i>Cerattoma</i> Mahunka, 1972	-	-	0 species (2)
<i>Dudichiana</i> Mahunka, 1970	-	-	0 species (1)
<i>Geotrupophorus</i> Mahunka, 1970	-	-	0 species (1)
<i>Luciaphorus</i> Mahunka, 1981	-	-	0 species (3)
<i>Mahunkania</i> Rack, 1972	-	-	0 species (5)
<i>Mesopotamiophorus</i> Sevastianov & Zahida Al Douri, 1991	-	-	0 species (1)
<i>Metasiteroptes</i> Cross, 1965	-	-	0 species (1)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>Microdispodides</i> Vitzthum, 1914	-	-	0 species (5)
<i>Micropygmephorus</i> Khaustov, Hugo-Coetzee & Ermilov, 2017	-	-	0 species (2)
<i>Parapediculaster</i> Khaustov, 2015	-	-	0 species (1)
<i>Parasiteroptes</i> Livshits, Mitrofanov & Sharonov, 1986	-	-	0 species (1)
<i>Pediculitopsis</i> Mahunka, 1970	-	-	0 species (1)
<i>Pseudoluciaphorus</i> Khaustov, Hugo-Coetzee & Ermilov, 2017	-	-	0 species (1)
<i>Pygmephorellus</i> Cross & Moser, 1971	-	-	0 species (3)
<i>Pygmephoroides</i> Mahunka & Fain, 1989	-	-	0 species (1)
<i>Sasдания</i> Kurosa, 1989	-	-	0 species (1)
<i>Strephocheir</i> Mahunka, 1983	-	-	0 species (1)
<i>Ultrasiteroptes</i> Livshits, Mitrofanov & Sharonov, 1986	-	-	0 species (3)
<b>Family Neopygmephoridae</b>			9 genera (29); 42 species + 8 (~260)
<b>Family Cross, 1965</b>			1 species (11)
<i>Acinogaster</i> Cross, 1965			1 species (11)
<i>A. microchaetosus</i> (Sevastianov, 1967)	<i>Tetramorium</i> sp. & <i>Pheidole</i> sp. (Hym.: Formicidae)	Mazandaran province (Tonekabon, Sehezar forest); Ardabil province (Meshguin-shahr); Golestan province (Gorgan)	Abbasi-Moqadam <i>et al.</i> (2016); Sobhi <i>et al.</i> (2017e); Seyedein <i>et al.</i> (2022)
<i>Allopygmephorus</i> Cross, 1965			6 species (12)
<i>A. heterodactylus</i> Mahunka, 1973	associated with <i>Cercyon</i> sp. (Col.: Hydrophilidae)	Golestan province (Gorgan & Ali-Abad Kenaar-Shahr)	Rahiminejad <i>et al.</i> (2022b)
<i>A. matthesi</i> Kraczal, 1959	associated with <i>Xyleborus</i> sp. (Col.: Curculionidae: Scolytinae)	Golestan province (Gorgan & Sorkhan-Kalateh)	Rahiminejad <i>et al.</i> (2022b)
<i>A. orientalis</i> Mahunka & Mahunka, 1988	soil sample in the vicinity of dry rice cultivation	Golestan province (Gorgan & Nodijeh)	Rahiminejad <i>et al.</i> (2022b)
<i>A. persicus</i> Khaustov & Hajiqanbar, 2005	Undetermined hydrophilid beetle (Coleoptera: Hydrophilidae); <i>Cercyon laminates</i> Sharp, <i>Enochrus bicolor</i> (Fabricius) (Col.: Hydrophilidae) & an unidentified heterocerid beetle (Col.: Heteroceridae); an unidentified hydrophilid beetles (Col.: Hydrophilidae)	Mazandaran province (Galugah, Tonekabon & Noor); Guilan province (Rasht)	Khaustov & Hajiqanbar (2006); Katlav <i>et al.</i> (2015d); Hajizadeh & Hosseini (2022)
<i>A. punctatus</i> Khaustov & Sazhnev, 2016	associated with <i>rasterius bimaculatus</i> and <i>Augyles</i> Col.: Elateridae & Heteroceridae)	Lorestan province (Borujerd)	Navabi <i>et al.</i> (2018b)
<i>A. spinisetus</i> Khaustov & Sazhnev, 2016	associated with <i>rasterius bimaculatus</i> and <i>Augyles</i> Col.: Elateridae & Heteroceridae)	Lorestan province (Borujerd)	Navabi <i>et al.</i> (2018b)
<i>Bakerdania</i> Sasa, 1961			5 species + 3 (~100)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>B. delanyi</i> (Evans, 1952)	soil	West Azarbaijan province (Miandoab plain)	Haddad Irani-Nejad <i>et al.</i> (2005)
<i>B. graciloides</i> Sevastianov, 1974	soil	Tehran province (Parks of Tehran)	Kazemi & Khaustov (2008)
<i>B. uniseta</i> Khaustov & Hajiqanbar, 2004	<i>Pleurophorus anatolicus</i> Petrovitz (Col.; Scarabaeidae)	West Azarbaijan province (Miandoab plain)	Khaustov & Hajiqanbar (2004)
<i>B. sp. nr. intermedia</i> Rack, 1974	Alfalfa, pagoda tree ( <i>Sophora alopecuroides</i> L.)	Hamedan province	Khanjani (1996)
<i>B. sp. nr. jonesi</i> Mahunka, 1975	houses	West-Azerbaijan province	Mirfakhraii (1994)
<i>Bakerdania sp.</i>	Cotton	Ardabil province	Haddad-Iraninejad (1998)
<i>Bakerdania sp.</i>	soil sample from beach of Karun	Khuzestan province (Ahvaz)	Arab Yabarati (2014)
<i>Bakerdania sp.</i>	arboreal & soil sample of wheat & barley crops	Fars province (Jahrom)	Ebrahimi <i>et al.</i> (2010)
<i>Kerdabania</i> Khaustov, 2009			5 species (13)
<i>K. inconspicuus</i> Berlese, 1904 (Syn.: <i>Bakerdania centriger</i> (Cooremann, 1951); <i>B. sellnicki</i> (Krczal, 1958))	chicken & cow manure; Soil sample	Isfahan province (Isfahan); Tehran province Rey county); Alborz province (Malard)	Mahunka & Rohde (1970); Mirjamali <i>et al.</i> 2008b; Zafari <i>et al.</i> (2017)
<i>K. magnifica</i> Khaustov, 2009	Soil sample	Tehran province (Rey county)	Zafari <i>et al.</i> (2017)
<i>K. minuta</i> Khaustov, 2009	<i>Ophion obscuratus</i> Fabricius (Hym.: Ichneumonidae); <i>Geotrupes spiniger</i> (Marsham) (Col.: Geotrupidae)	Razavi Khorasan province (Khalilabad town); Golestan province (Gorgan)	Loghmani <i>et al.</i> (2014); Rahiminejad <i>et al.</i> (2020b); Rahiminejad & Hajiqanbar (2020)
<i>K. quadrata</i> (Ewing, 1917) (Syn.: <i>Bakerdania quadrata</i> Ewing, 1917)	honey bee hive; <i>Scolytus amygdali</i> Guerin-Meneville; Soil sample	Kordistan province; Alborz province (Karaj); West Azarbaijan province (Miandoab plain)	Mosaddegh, 1997; Ahadiyat <i>et al.</i> (2004); Haddad Irani-Nejad <i>et al.</i> (2005)
<i>K. variabilis</i> Khaustov, 2009	Soil samples from pomegranate orchards	Khorasan Razavi province (Mahvelat region)	Filekesh <i>et al.</i> (2014)
<i>Parapygmephorus</i> Cross, 1965			4 species + 1 (8)
<i>P. crossi</i> Mahunka, 1974	<i>Halictus (Halictus) resurgens</i> Nurse & <i>H. patellatus</i> Morawitz (Hym.: Halictidae)	Kohgiluyeh and Boyer Ahmad Province (Yasouj); Chaharmahal & Bakhtiari province	Azhari <i>et al.</i> (2018b); Nazari <i>et al.</i> (2018)
<i>P. delyorum</i> Mahunka, 1980	On the body hairs of an unidentified halictid bee; <i>H. (H.) resurgens</i> Nurse (Hym.: Halictidae)	Isfahan province; Chaharmahal & Bakhtiari province	Hajiqanbar & Rakhshani (2011); Nazari <i>et al.</i> (2018)
<i>P. khorasanicus</i> Hajiqanbar & Khaustov, 2011	In ventral surfaces of mesosoma & metasoma of <i>H. quadricinctus</i> (Hym.: Halictidae); <i>H. (H.) resurgens</i> Nurse & <i>H. patellatus</i> Morawitz (Hym.: Halictidae)	Razavi Khorasan province (Mashhad); Chaharmahal & Bakhtiari province	Hajiqanbar <i>et al.</i> (2011d); Nazari <i>et al.</i> (2018)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<b><i>P. magnisetosus</i> Khaustov &amp; Zaloznaya, 2011</b>	<i>Amigella</i> sp. (Hym.: Apidae); <i>Eucera</i> sp. (Hym.: Apidae), <i>Halictus</i> spp., <i>Lasioglossum</i> sp. (Hym.: Halictidae) and <i>Lithurgus chrysurus</i> Fonscolombe (Hym.: Megachilidae) <i>Halictus resurgens</i> Nurse (Hym.: Halictidae)	Razavi Khorasan province (Kalat Naderi); Daregaz town; Nokhandan town; Jovein town; Shandiz town); North Khorasan province (Shirvan town); South Khorasan province (Qaen town); Fars province; Ardabil province (Meshguin-shahr)	Hajiqanbar <i>et al.</i> (2011a); Loghmani <i>et al.</i> (2014); Kiani Bakiani <i>et al.</i> 2016; Sobhi <i>et al.</i> (2017e);
<b><i>Parapygmephorus</i> sp.</b>	<i>Halictus resurgens</i> Nurse (Hym.: Halictidae)	Fars province	Kiani Bakiani <i>et al.</i> (2016)
<b><i>Petalomium</i> Cross, 1965</b>			16 species (50)
<b><i>P. aleinikovae</i> (Sevastianov, 1967)</b>	<i>Camponotus</i> , <i>Lasius</i> & <i>Messor</i> (Hym.: Formicidae)	Isfahan province	Hajiqanbar & Tajodin (2020)
<b><i>P. camponoti</i> Hajiqanbar &amp; Khaustov, 2013</b>	<i>Camponotus buddhae</i> Forel (Hym.: Formicidae)	North Khorasan province (Shirvan)	Hajiqanbar & Khaustov (2013)
<b><i>P. crinitus</i> Khaustov &amp; Trach, 2013</b>	<i>Lasius</i> sp. & <i>Tetramorium</i> sp. (Hym.; Formicidae); <i>Camponotus</i> , <i>Lasius</i> & <i>Messor</i> (Hym.: Formicidae)	Isfahan province; Golestan province (Gorgan)	Tajodin (2013); Rahiminejad & Hajiqanbar (2020); Hajiqanbar & Tajodin (2020)
<b><i>P. fimbriatum</i> Ebermann &amp; Rack, 1982</b>	<i>Lasius</i> sp. (Hym.: Formicidae)	Mazandaran province (Western parts; Tonekabon, Sehezar Forest)	Abbasi-Moqadam <i>et al.</i> (2015, 2018)
<b><i>P. formicarum</i> (Berlese, 1903)</b>	<i>Camponotus</i> , <i>Lasius</i> & <i>Messor</i> (Hym.: Formicidae)	Isfahan province	Hajiqanbar & Tajodin (2020)
<b><i>P. gottrauxi</i> Mahunka, 1977</b>	<i>Camponotus aethiops</i> (Latreille, 1798) (Hym.: Formicidae); <i>Camponotus</i> sp. (Hym.: Formicidae); <i>Camponotus</i> , <i>Lasius</i> & <i>Messor</i> (Hym.: Formicidae)	North Khorasan province (Shirvan); Ardabil province (Meshguin-shahr); Isfahan province	Hajiqanbar & Khaustov (2013); Sobhi <i>et al.</i> (2017e); Hajiqanbar & Tajodin (2020)
<b><i>P. heterotrichus</i> Mahunka, 1970</b>	<i>Camponotus</i> sp. (Hym.: Formicidae)	Mazandaran province (Alimalat forest, Noor)	Abbasi-Moqadam <i>et al.</i> (2018)
<b><i>P. kurosai</i> Khaustov, 2014</b>	<i>Lasius turcicus</i> Santschi (Hym.: Formicidae)	Mazandaran province (Neka)	Hajiqanbar & Arjomandi (2019a)
<b><i>P. mazandaranicum</i> Abbasi-Moqadam &amp; Hajiqanbar, 2018</b>	<i>Aphaenogaster</i> sp. (Hym.: Formicidae)	Mazandaran province (Tonekabon, Dohezar Forest)	Abbasi-Moqadam <i>et al.</i> (2018)
<b><i>P. nataliae</i> (Sevastianov, 1967)</b>	<i>Tetramorium</i> sp. (Hym.; Formicidae)	Golestan province (Gorgan & Bandar-e-Gaz)	Rahiminejad & Hajiqanbar (2020)
<b><i>P. olszanskii</i> Hajiqanbar &amp; Tajodin, 2020</b>	<i>Camponotus</i> , <i>Lasius</i> & <i>Messor</i> (Hym.: Formicidae)	Isfahan province	Hajiqanbar & Tajodin (2020)
<b><i>P. pseudomyrmecophilus</i> Mahunka, 1970</b>	<i>Lasius umbratus</i> (Nylander) (Hym.: Formicidae)	Ardabil province (Meshguin-shahr)	Sobhi <i>et al.</i> (2017e)
<b><i>P. rarus</i> (Sevastianov, 1967)</b>	<i>Camponotus</i> sp. (Hym.: Formicidae)	Mazandaran province ((Alimalat forest, Noor)	Abbasi-Moqadam <i>et al.</i> (2018)
<b><i>P. sawtschuki</i> (Sevastianov, 1967)</b>	<i>Tetramorium</i> sp. (Hym.: Formicidae)	Mazandaran province (Abbas Abad-Kelardasht Road, Darasara Forest)	Abbasi-Moqadam <i>et al.</i> (2018)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>P. scyphicum</i> (Sevastianov, 1967)	<i>Lasius emarginatus</i> (Olivier) (Hym.: Formicidae)	Mazandaran province (Noor Forest)	Abbasi-Moqadam <i>et al.</i> (2018)
<i>P. tauricum</i> Khaustov, 2005	<i>Lucanus ibericus</i> Motschulsky & <i>Dorcus Parallelipipedus</i> (L.) (Col.: Lucanidae)	Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2020a, b)
<i>Pseudopygmephorus</i> Cross, 1965			3 Species + 4 (17)
<i>P. agarici</i> Zou, Gao & Ma, 1990	<i>Lucanus ibericus</i> Motschulsky & <i>Dorcus Parallelipipedus</i> (L.) (Col.: Lucanidae)	Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2020a, b)
<i>P. tarsalis</i> (Hirst, 1921) (Syn.: <i>Bakerdania tarsalis</i> Hirst, 1921)	soil sample	West Azarbaijan province (Miandoab plain); Tehran province (Malard)	Haddad Irani-Nejad <i>et al.</i> (2005); Mirjamali <i>et al.</i> (2008b)
<i>P. silvestris</i> (Jacot, 1936)	soil sample from Sugar beet fields	West Azerbaijan province (Miandoab)	Hajiqaanbar & Mahunka (2004)
<i>Pseudopygmephorous</i> sp.	potato's fields	Some parts of Iran (Tehran, Kurdistan, Khorassan Razavi, Esfahan, Markazi, Hamedan & Jiroft)	Baradaran <i>et al.</i> (2010)
<i>Pseudopygmephorous</i> sp.	<i>Scarites (Scarites) procerus eurytus</i> Fischer von Waldheim (Col.: Carabidae)	Kerman province (Rafsanjan)	Mortazavi & Hajiqaanbar (2012b)
<i>Pseudopygmephorous</i> sp.	soil sample of different crop fields	East Azarbaijan province (southwest parts)	Hashemi Khabir <i>et al.</i> (2013)
<i>Pseudopygmephorous</i> sp.	soil sample	Tehran province (Rey county)	Zafari <i>et al.</i> (2017)
<i>Scarabadania</i> Khaustov & Frolov, 2018			1 species (1)
<i>S. tenuispina</i> (Sevastianov, 1974) (Syn.: <i>Bakerdania uniseta</i> Khaustov & Hajiqaanbar, 2004)	<i>Pleurophorus anatolicu</i> Petrovitz (Col.; Scarabaeidae)	West Azarbaijan province (Miandoab plain)	Khaustov & Hajiqaanbar (2004)
<i>Troxodania</i> Khaustov & Trach, 2013			1 species (3)
<i>T. decumanus</i> (Krczal, 1959)	<i>Onthophagus furcatus</i> F. (Col.: Scarabaeidae)	Ardabil province (Meshguin-shahr)	Sobhi <i>et al.</i> (2017b)
<i>Aegyptophorus</i> Sevastianov & Abo-Korah, 1984	-	-	0 species (2)
<i>Andrebochkovia</i> Khaustov & Frolov, 2019	-	-	0 species (2)
<i>Coleopygmephorus</i> Khaustov & Mandelshtam, 2017	-	-	0 species (5)
<i>Crossdania</i> Khaustova & Whitaker, 2019	-	-	0 species (1)
<i>Guttacarus</i> Mahunka, 1973	-	-	0 species (1)
<i>Geophilophagus</i> Goux, 1950	-	-	0 species (1)
<i>Insensilla</i> Kurosa, 2009	-	-	0 species (2)
<i>Neobakerdania</i> Khaustov & Minor, 2018	-	-	0 species (1)
<i>Nasutidania</i> Khaustov & Frolov, 2018	-	-	0 species (1)
<i>Nipponophorus</i> Kurosa, 2001	-	-	0 species (2)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>Pseudokerdabania</i> Khaustov & Trach, 2012	-	-	0 species (1)
<i>Protoallopymephorus</i> Khaustov & Sazhnev, 2019	-	-	0 species (1)
<i>Protobakerdania</i> Khaustov & Minor, 2018	-	-	0 species (9)
<i>Rackia</i> Mahunka, 1975	-	-	0 species (4)
<i>Rhinopygmephorus</i> Kurosa, 2001	-	-	0 species (4)
<i>Scarabadania</i> Khaustov & Frolov, 2018	-	-	0 species (1)
<i>Sicilipes</i> Cross, 1965	-	-	0 species (4)
<i>Singhalophorus</i> Mahunka, 1979	-	-	0 species (1)
<i>Theriodania</i> Khaustova & Whitaker, 2019	-	-	0 species (1)
<i>Xystrorostrum</i> Mahunka, 1968	-	-	0 species (1)
<i>Zambedania</i> Mahunka, 1972	-	-	0 species (4)
<b>Family Microdispidae Cross, 1965</b>			7 genera (28); 33 + 1 species (~130)
<i>Caesarodispus</i> Mahunka, 1977			9 + 1 species (13)
<i>C. brevipis</i> Mahunka, 1981	<i>Tetramorium</i> sp. (Hym.: Formicidae)	Lorestan province (Borujerd, Goldasht village)	Navabi <i>et al.</i> (2018d)
<i>C. dilatatus</i> Navabi & Hajiqaanbar, 2018	<i>Pheidole</i> sp. (Hym.: Formicidae)	Lorestan province (Borujerd, Goldasht village)	Navabi <i>et al.</i> (2018d)
<i>C. khaustovi</i> Rahiminejad & Hajiqaanbar, 2015	<i>Tetramorium</i> sp. (Hym.: Formicidae)	Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2015a)
<i>C. minutus</i> (Sevastianov, 1981)	<i>Temnothorax</i> sp. (Hym.: Formicidae); <i>Tetramorium</i> sp. (Hym.: Formicidae); Ants of the subfamily Myrmicinae (Hym.: Formicidae)	Razavi Khorasan province (Kahoo village near Shandiz town); Ardabil province (Gooshe Olia village, vicinity of Meshguin-shahr); Lorestan province (Borujerd, Goldasht village)	Loghmani <i>et al.</i> (2014c); Hajiqaanbar & Sobhi (2018); Navabi <i>et al.</i> (2018d)
<i>C. modestus</i> (Berlese, 1903)	Ant; <i>Messor</i> sp. (Hym.: Formicidae)	Golestan province (Kalaleh); Ardabil province (Koli Olia village, near Meshguin-shahr)	Badoodam <i>et al.</i> (2014); Hajiqaanbar & Sobhi (2018)
<i>C. nodijensis</i> Rahiminejad & Hajiqaanbar, 2015	<i>Tetramorium</i> sp. (Hym.: Formicidae)	Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2015a)
<i>C. pheidolei</i> Rahiminejad & Hajiqaanbar, 2015	<i>Pheidole</i> sp. (Hym.: Formicidae)	Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2015a)
<i>C. samsinaki</i> (Mahunka, 1967)	<i>Furmica rufa</i> L. & <i>Formica</i> sp. (Hym.: Formicidae);	Ardabile province (Meshguin-shahr)	Sobhi <i>et al.</i> (2016a); Hajiqaanbar & Sobhi (2018)
<i>C. shandizensis</i> Loghmani & Hajiqaanbar, 2014	<i>Temnothorax</i> Mayr (Hym.: Formicidae)	Razavi Khorasan province (Kahoo village near Shandiz town)	Loghmani <i>et al.</i> (2014c)
<i>Caesarodispus</i> sp.	soil sample of different crop fields	East Azarbaijan province (southwest parts)	Hashemi Khabir <i>et al.</i> (2013)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>Neomicrodispus</i> <b>Hajiqanbar &amp; Hosseininaveh, 2014</b>			2 species (3)
<i>N. iranicus</i> <b>Hajiqanbar &amp; Hosseininaveh, 2014</b>	<i>Oryctes nasicornis</i> L. (Col.: Scarabaeidae); <i>Lucanus ibericus</i> Motschulsky (Col.: Lucanidae); <i>Geotrupes spiniger</i> (Marsham) (Col.: Geotrupidae)	Golestan province (Gorgan)	Hajiqanbar & Hosseininaveh (2014); Rahiminejad et al. (2020a, b)
<i>N. lucani</i> <b>Rahiminejad &amp; Seyedein, 2020</b>	<i>Lucanus ibericus</i> Motschulsky (Col.: Lucanidae)	Golestan province (Gorgan)	Seyedein et al. (2020)
<i>Paramicrodispus</i> <b>Khaustov, 2009</b>			2 species (3)
<i>P. crenulatus</i> (Savulkina, 1978)	<i>Lucanus ibericus</i> Motschulsky (Col.: Lucanidae); <i>Oryctes nasicornis</i> L. (Col.: Scarabaeidae); <i>Gnorimus subcostatus</i> (Mentries) (Col.: Scarabaeidae) & <i>Parandra caspia</i> Ménétrières (Col.: Cerambycidae); <i>Geotrupes spiniger</i> (Marsham) (Col.: Geotrupidae); soil sample; from a soil sample in vicinity of dry rice cultivation	Golestan province (Gorgan, Sorkhan-Kalateh); Mazandaran province (Noor & Behshahr)	Rahiminejad et al. (2011b, d); Hajiqanbar et al. (2012a); Hajiqanbar & Arjomandi, (2019a, b); Seyedein et al. (2019a); Rahiminejad et al. (2020b); Rahiminejad et al. (2022b)
<i>P. scarabidophilus</i> <b>Hajiqanbar &amp; Rahiminejad, 2012</b>	<i>Oryctes nasicornis</i> L., <i>Gnorimus subcostatus</i> (Menetries) (Col.: Scarabaeidae) and <i>Dorcus parallelus</i> (Say) (Col.: Lucanidae); soil sample under Hornbeam trees ( <i>Carpinus</i> sp.); <i>Geotrupes spiniger</i> (Marsham, 1802) (Col.: Geotrupidae)	Golestan province (Gorgan & Golestan forest); Mazandaran province (Tonekabon)	Hajiqanbar et al. (2012a, d); Badoodam et al. (2015); Katlav et al. (2015d); Rahiminejad et al. (2020a); Rahiminejad et al. (2020b)
<i>Promicrodispus</i> <b>Khaustov, 2017</b>			1 species (4)
<i>P. pumilis</i> (Sevastianov, 1975)	in a rotten log and a soil sample under Oak trees ( <i>Quercus</i> sp.)	Golestan province (Gorgan)	Rahiminejad et al. (2020b)
<i>Premicrodispus</i> <b>Cross, 1965</b>			16 species (36)
<b>Subgenus</b> <i>Premicrodispus</i> ( <i>Premicrodispoides</i> ) <b>Khaustov &amp; Maslov, 2013</b>			0 species (1)
<b>Subgenus</b> <i>Premicrodispulus</i> <b>Khaustov &amp; Chydyrov, 2010</b>			1 species (2)
<i>P. (Premicrodispulus) reductus</i> <b>Khaustov &amp; Chydyrov, 2010</b>	soil sample	Razavi Khorasan province (Jovein city)	Fatehinia et al. (2022)
<b>Subgenus</b> <i>P. (Premicrodispus)</i> <b>Cross, 1965</b>			15 species (33)
<i>P. (Premicrodispus) acuitisetus</i> <b>Khaustov, 2009</b>	<i>Pleurophorus anatolicus</i> Petrovitz	Golestan province (Gonbad'e Kavous)	Badoodam et al. (2015)
<i>P. (P.) akermanae</i> (Sevastianov & Al Douri, 1988)	soil sample; <i>Oryctes nasicornis</i> L. (Col.: Scarabaeidae)	Golestan province (Gorgan)	Hosseininaveh et al. (2013); Rahiminejad et al. (2020a, b)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<b><i>P. (P.) brevisetus</i> Khaustov, 2012</b>	<i>Oxythyrea cinctella</i> Schaum & <i>Oryctes nasicornis</i> L. (Col.: Scarabaeidae); soil sample; <i>Lucanus ibericus</i> Motschulsky (Col.: Lucanidae)	Mazandaran province (Tonekabon); Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2010b, 2011d); Katlav <i>et al.</i> (2015d); Seyedein <i>et al.</i> (2019a); Rahiminejad <i>et al.</i> (2020b)
<b><i>P. (P.) gorganiensis</i> Rahiminejad &amp; Seyedein, 2020</b>	<i>Lucanus ibericus</i> Motschulsky (Col.: Lucanidae)	Golestan province (Gorgan)	Seyedein <i>et al.</i> (2020)
<b><i>P. (P.) heterocaudatus</i> Khaustov &amp; Chydyrov, 2010</b>	Soil sample	Golestan province (Gorgan)	Seyedein <i>et al.</i> (2019a)
<b><i>P. (P.) kaszabi</i> (Mahunka, 1964)</b>	soil sample from Sugar beet fields	West Azerbaijan province (Miandoab)	Hajiqanbar & Mahunka (2004)
<b><i>P. (P.) krezali</i> Khaustov, 2006</b>	<i>Oxythyrea cinctella</i> Schaum (Col.: Scarabaeidae)	Razavi Khorasan province (Shandiz town)	Loghmani <i>et al.</i> (2014)
<b><i>P. (P.) lineatus</i> (Mahunka, 1986)</b>	soil (vineyards)	Razavi Khorasan province (Kashmar)	Hajiqanbar <i>et al.</i> (2012b)
<b><i>P. (P.) longicaudus</i> Khaustov, 2006</b>	soil samples from pomegranate orchards; <i>Lucanus ibericus</i> Motschulsky, 1845 (Col.: Lucanidae); <i>Geotrupes spiniger</i> (Marsham) (Col.: Geotrupidae)	Khorasan Razavi province (Mahvelat region); Golestan province (Gorgan)	Filekesh <i>et al.</i> (2014); Rahiminejad <i>et al.</i> (2020b); Rahiminejad & Hajiqanbar (2020)
<b><i>P. (P.) montanus</i> Khaustov, 2006</b>	soil sample in pine timberland	Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2020b)
<b><i>P. (P.) paramaevi</i> Hosseiniaveh &amp; Hajiqanbar, 2014</b>	<i>Lucanus ibericus</i> Motschulsky (Col.: Lucanidae); <i>Oryctes nasicornis</i> L. (Col.: Scarabaeidae)	Golestan province (Gorgan)	Hosseiniaveh <i>et al.</i> (2014); Rahiminejad <i>et al.</i> (2020b)
<b><i>P. (P.) rackae</i> Khaustov, 2006</b>	<i>Oryctes nasicornis</i> L. (Col.: Scarabaeidae); <i>Caccobius schreberi</i> L.) (Col.: Scarabaeidae); Soil sample; <i>Geotrupes spiniger</i> (Marsham) (Col.: Geotrupidae);	Golestan province (Golestan forest); Ardabil province (Meshguin-shahr)	Badoodam <i>et al.</i> (2015); Sobhi <i>et al.</i> (2017e); Seyedein <i>et al.</i> (2019a); Rahiminejad <i>et al.</i> (2020b); Rahiminejad & Hajiqanbar (2020)
<b><i>P. (P.) spinosus</i> Hosseiniaveh &amp; Hajiqanbar, 2014</b>	<i>Corticeus unicolor</i> Piller & Mitterpacher (Col.: Tenebrionidae); <i>Oryctes nasicornis</i> L. (Col.: Scarabaeidae); <i>Lucanus ibericus</i> Motschulsky 1845 (Col.: Lucanidae); <i>Geotrupes spiniger</i> (Marsham) (Col.: Geotrupidae)	Golestan province (Gorgan)	Hosseiniaveh <i>et al.</i> (2014); Rahiminejad <i>et al.</i> (2020b)
<b><i>P. (P.) stenops</i> (Mahunka, 1969)</b>	soil sample under Poplar trees ( <i>Populus</i> sp.), Soil sample of <i>Tetramorium</i> Mayr (Insecta: Hym.: Formicidae) nest	Golestan province (Gorgan, Sorkhan-Kalateh & Kalalleh)	Rahiminejad <i>et al.</i> 2022b; Janghorbani <i>et al.</i> (2022)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<b><i>P. (P.) turkmenus</i> Badoodam &amp; Hajiqanbar, 2015</b>	<i>Lucanus ibericus</i> Motschulsky (Col.: Lucanidae)	Golestan province (Kallaleh)	Badoodam <i>et al.</i> (2015)
<b><i>Punicodoxa</i> Mahunka, 1978</b>			1 species (3)
<b><i>P. termitophila</i> Azhari &amp; Hajiqanbar, 2018</b>	<i>Anacanthotermes</i> sp. (Isoptera: Hodotermitidae)	Kohgiluyeh and Boyer-Ahmad Province (Gachsaran, Dill village)	Azhari <i>et al.</i> (2018a)
<b><i>Unguidispus</i> Mahunka, 1970</b>			2 species (6)
<b><i>U. japonicus</i> Kurosa, 1979</b>	<i>Lasius obscuratus</i> Stitz (Hym.: Formicidae)	Ardabil province (Summering of Sabalan Mountain, near Meshguin shahr)	Hajiqanbar & Sobhi (2018)
<b><i>U. okumura</i> Kurosa, 1979</b>	associated with ants extracted from rotten logs	Mazandaran province (Western parts)	Abbasi-Moqadam <i>et al.</i> (2014)
<b><i>Afrodispus</i> Khaustov, 2017</b>	-	-	0 species (1)
<b><i>Cochlodispus</i> Mahunka, 1972</b>	-	-	0 species (11)
<b><i>Dolichodispus</i> Khaustov, 2006</b>	-	-	0 species (2)
<b><i>Ethiodispus</i> Khaustov, 2017</b>	-	-	0 species (1)
<b><i>Glyphidomastax</i> Cross, 1965</b>	-	-	0 species (1)
<b><i>Microdispus</i> Paoli, 1911</b>	-	-	0 species (15)
<b><i>Myrmecodispus</i> Cross, 1965</b>	-	-	0 species (1)
<b><i>Paraphyllodispus</i> Khaustov &amp; Minor, 2016</b>	-	-	0 species (1)
<b><i>Parapunicodoxa</i> Khaustov <i>et al.</i>, 2018</b>	-	-	0 species (1)
<b><i>Peponocara</i> Cross, 1965</b>	-	-	
<b><i>Perperipes</i> Cross, 1965</b>	-	-	0 Species (1)
<b><i>Phyllodispus</i> Mahunka, 1970</b>	-	-	0 species (8)
<b><i>Proreductodispus</i> Khaustov &amp; Tolstikov, 2015</b>	-	-	0 species (1)
<b><i>Pseudomicrodispus</i> Khaustov, 2017</b>	-	-	0 species (3)
<b><i>Reductodispus</i> Mahunka, 1977</b>	-	-	0 species (1)
<b><i>Rhombomicrodispus</i> Khaustov, 2017</b>	-	-	0 species (1)
<b><i>Rostrodispus</i> Mahunka, 1969</b>	-	-	0 species (5)
<b><i>Sidorchukdispus</i> Khaustov <i>et al.</i>, 2019</b>	-	-	0 species (1)
<b><i>Scutodispus</i> Mahunka &amp; Mahunka-Papp, 1994</b>	-	-	0 species (1)
<b><i>Tubulodispus</i> Mahunka, 1975</b>	-	-	0 species (1)
<b><i>Vietodispus</i> Mahunka, 1975</b>	-	-	0 species (1)
<b>Family Scutacaridae Oudemans, 1916</b>			7 genera (26); 63 species + 8 (> 810)
<b><i>Archidispus</i> Karafiat, 1959</b>			11 species (~70)
<b><i>A. armatus</i> (Karafiat, 1959)</b>	an unidentified staphylinid beetle (Col.: Staphylinidae)	Mazandaran province (Tonekabon)	Katlav <i>et al.</i> (2015d)
<b><i>A. bembidii</i> (Karafiat, 1959)</b>	<i>Acuapalpus</i> sp. & <i>Pterostichus</i> sp. (Col.: Carabidae)	Mazandaran province (Tonekabon)	Katlav <i>et al.</i> (2015d); Katlav <i>et al.</i> (2014b)
<b><i>A. conspicuous</i> Kurosa, 1978</b>	an unidentified carabid beetle	Mazandaran province (Tonekabon)	Katlav <i>et al.</i> (2015d)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<b><i>A. esfarayenicus</i> Hajiqanbar &amp; Khaustov, 2014</b>	under elytra of a carabid beetle, <i>Elaphropus (Tachyura) diabrachys</i> (Kolenati) (Col.: Carabidae)	North Khorasan province (Esfarayen)	Hajiqanbar & Khaustov (2014)
<b><i>A. insolitus</i> (Kurosa, 1974)</b>	under elytra and on mesothorax of beetles of the families Tenebrionidae, Elateridae, Meloidae & Scarabaeidae	Hormozgan province (Sirik)	Mortazavi <i>et al.</i> (2014a)
<b><i>A. insulanus</i> (Delfinado, Baker &amp; Abbatiello, 1976)</b>	soil, herbal and litter samples of crops	East Azarbaijan province	Bagheri <i>et al.</i> (2006)
<b><i>A. irregularis</i> Katlav &amp; Hajiqanbar, 2016</b>	<i>Bledius</i> sp. (Col.: Staphylinidae)	Mazandaran province (Tonekabon)	Katlav <i>et al.</i> (2016)
<b><i>A. longitarsus</i> (Delfinado, Baker &amp; Abbatiello, 1976)</b>	soil, herbal and litter samples of crops	East Azarbaijan province	Bagheri <i>et al.</i> (2006)
<b><i>A. minor</i> (Karafiat, 1959)</b>	<i>Amara (Amara)</i> sp., <i>Harpalus</i> sp. (Col.: Carabidae)	Razavi Khorasan province (Shandiz town); Mazandaran province (Miankaleh peninsula)	Loghmani <i>et al.</i> (2014); Hajiqanbar & Arjomandi (2019a)
<b><i>A. parapicola</i> (Delfinado, Baker &amp; Abbatiello, 1976)</b>	soil, herbal and litter samples of crops	East Azarbaijan province	Bagheri <i>et al.</i> (2006)
<b><i>A. szaboi</i> Mahunka, 1977</b>	<i>Amara</i> sp. (Col.: Carabidae)	Golestan province (Bandar-e-Turkmen)	Rahiminejad & Hajiqanbar (2020) 2 species (35)
<b><i>Heterodispus</i> Paoli, 1911</b>			
<b><i>H. turkmenistaniensis</i> Khaustov &amp; Chydyrov, 2005</b>	<i>Scarites (Scarites) procerus eurytus</i> Fischer von Waldheim (Col.: Carabidae); <i>Adoretus persicus</i> Reitter (Col.: Scarabaeidae); <i>Blaps mortisaga</i> Reitter (Col.: Tenebrionidae)	Kerman province (Rafsanjan); Lorestan province (Borujerd); Ardabil provinces (Meshguin-shahr, Koli Olia village)	Mortazavi & Hajiqanbar (2012b); Navabi <i>et al.</i> (2017); Sobhi <i>et al.</i> (2017a)
<b><i>H. verrucosus</i> Mahunka &amp; Rohde, 1970</b>	Pagoda tree ( <i>Sophora alopecuroides</i> L.); cotton field soil samples	Ardabil & Hamedan provinces	Mahunka & Rohde (1970); Haddad-Iraninejad (1998); Khanjani (1996) 24 species + 8 (~200)
<b><i>Imparipes</i> Berlese, 1903</b>			
<b>Subgenus <i>I. (Telodispus)</i> Karafiat, 1959</b>			0 species (17)
<b>Subgenus <i>I. (Apidacarus)</i> Ebermann &amp; Fain, 2002</b>			1 species (3)
<b><i>I. (A.) paulyi</i> Ebermann &amp; Fain, 2002</b>	<i>Halictus</i> spp. & <i>Nomiapis</i> sp. (Hym.: Halictidae)	Razavi Khorasan province (Dargaz and Nokhandan towns)	Loghmani <i>et al.</i> (2014)
<b>Subgenus <i>I. (Sporichneuthes)</i> Ebermann, 1998</b>			1 species (6)
<b><i>I. (S.) intermedius</i> Paoli, 1911</b>	<i>Onthophagus</i> sp. (Col.: Scarabaeidae)	Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2015b); Rahiminejad & Hajiqanbar (2020) 22 species + 8 (~200)
<b>Subgenus <i>I. (Imparipes)</i></b>			
<b><i>I. (Imparipes) burgeri</i> Ebermann &amp; Jagersbacher-Baumann, 2013</b>	Bees ( <i>Lasioglossum clypeiferellum</i> (Strand))	Fars province	Kiani Bakiani <i>et al.</i> (2016)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>I. (I.) comatus</i> Mahunka, 1970	ants ( <i>Formica</i> sp.)	Ardabil province (Meshguin-shahr)	Sobhi <i>et al.</i> (2017a)
<i>I. (I.) dilatatus</i> Mahunka & Zaki, 1982	soil samples	Mazandaran province (Chahar Dangeh)	Davari <i>et al.</i> (2022)
<i>I. (I.) gagati</i> Khaustov, 2008	<i>Messor caducus</i> (Victor) (Hym.: Formicidae)	Lorestan Province (Borujerd, Fial village)	Navabi <i>et al.</i> (2018a)
<i>I. (I.) hajiqaanbari</i> Rahiminejad, 2022	alates of <i>Lasius</i> sp. (Hym.: Formicidae)	Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2022a)
<i>I. (I.) histricinus</i> Berlese, 1903	<i>Cataglyphis</i> cf. <i>nodus</i> (Brulle), <i>Temnothorax</i> sp., <i>Messor</i> sp. & alates of <i>Lasius</i> sp. (Hym.: Formicidae)	Razavi Khorasan province (Sabzevar & Dargaz towns); Ardabil Province (Meshguin-shahr); Golestan province (Gorgan)	Hajiqaanbar (2010b); Loghmani <i>et al.</i> (2014); Sobhi <i>et al.</i> (2017a); Rahiminejad <i>et al.</i> (2022a)
<i>I. (I.) ignotus</i> Khaustov & Chydyrov, 2004	ants ( <i>Camponotus</i> sp.)	Lorestan Province (Borujerd, Sheykh Miri-ye Sadat village)	Navabi <i>et al.</i> (2018a)
<i>I. (I.) imaginatus</i> Mahunka, 1981	ants ( <i>Tetramorium</i> sp.)	Ardabil province (Meshguin-shahr)	Sobhi <i>et al.</i> (2017a)
<i>I. (I.) lentus</i> Khaustov, 2008	ants ( <i>Tetramorium</i> sp.)	Ardabil Province (Meshguin-shahr)	Sobhi <i>et al.</i> (2017a)
<i>I. (I.) lituanicus</i> Lazauskene & Sevastianov, 1974	alates of <i>Lasius</i> sp. (Hym.: Formicidae)	Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2022a)
<i>I. (I.) longisetosus</i> Willmann, 1951	soil sample of alfalfa fields; soil sample of different crop fields	East Azarbaijan province (Western & southwest parts)	Lotfollahi <i>et al.</i> (2008b); Hashemi Khabir <i>et al.</i> (2013)
<i>I. (I.) malus</i> Khaustov, 2008	<i>Tetramorium</i> sp. & <i>Camponotus</i> sp. (Hym.: Formicidae)	Lorestan Province (Borujerd, Sheykh Miri-ye Sadat village)	Navabi <i>et al.</i> (2018a)
<i>I. (I.) moderatus</i> Khaustov, 2008	under the mesosternum of two beetles <i>Drasterius bimaculatus</i> (Rossi) (Col.: Elateridae)	Lorestan Province (Borujerd, Sheykh Miri-ye Sadat village)	Navabi <i>et al.</i> (2018a)
<i>I. (I.) morosus</i> Khaustov, 2008	removed from ventral body surfaces of <i>Camponotus oasium</i> Forel (Hym.: Formicidae)	Lorestan Province (Borujerd, Sheykh Miri-ye Sadat village)	Navabi <i>et al.</i> (2018a)
<i>I. (I.) obsoletus</i> Rack, 1966	alates of <i>Lasius</i> sp. (Hym.: Formicidae)	Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2022a)
<i>I. (I.) parapicosimilis</i> Metwali, 1981	fabaceous field soil samples	Hamedan province	Khanjani & Kamali (1993); Modarres-Awal (1997)
<i>I. (I.) placidus</i> Khaustov & Chydyrov, 2004	ants ( <i>Tetramorium</i> sp.)	Ardabil Province (Meshguin-shahr)	Sobhi <i>et al.</i> (2017a)
<i>I. (I.) rafalskii</i> Dastych, 1978	bees ( <i>Andrena</i> sp.)	Ardabil Province (Meshguin-shahr)	Sobhi <i>et al.</i> (2017a)
<i>I. (I.) sevastianovi</i> Khaustov, 2008	<i>Lasius flavoniger</i> Seifert (Hym.: Formicidae)	Mazandaran province (Behshahr, Abbas-Abad forest)	Hajiqaanbar & Arjomandi (2019a)
<i>I. (I.) tataricus</i> Sevastianov, 1964	soil sample of alfalfa fields; soil sample of different crop fields	East Azarbaijan province (Western & southwest parts)	Lotfollahi <i>et al.</i> (2008b); Hashemi Khabir <i>et al.</i> (2013)
<i>I. (I.) tenuis</i> Mahunka, 1981	unidentified ants; ants ( <i>Tetramorium</i> sp)	Kerman Province (Lalehzar city); Ardabil Province (Meshguin-shahr)	Mortazavi <i>et al.</i> (2016); Sobhi <i>et al.</i> (2017a)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>I. sp. nr. parapicola</i> Delfinado <i>et al.</i> , 1976	alhagi, alfalfa, cotton; parasitic on mining bees	Ardabil & Hamedan provinces	Haddad-Irani-Nejad (1998); Khanjani (1996)
<i>Imparipes sp.</i>	soil sample	East Azerbaijan province	Fathipour (1994)
<i>Imparipes sp.</i>	house	West Azerbaijan province	Mirfakhraii (1994)
<i>Imparipes sp.</i>	samples from strawberry fields	Kurdistan province	Mansour ghazi <i>et al.</i> (2006)
<i>Imparipes sp.</i>	soil sample	Khuzestan province (Ahvaz)	Baharloo <i>et al.</i> (2006)
<i>Imparipes sp.</i>	bees (Apoidea)	Chaharmahal and Bakhtiari province	Nazari <i>et al.</i> (2019)
<i>Imparipes sp.</i>	soil sample of alfalfa fields	East Azarbaijan province (Western parts)	Lotfollahi <i>et al.</i> (2008b)
<i>Imparipes sp.</i>	soil sample of alfalfa fields	East Azarbaijan province (Western parts)	Lotfollahi <i>et al.</i> (2008b)
<i>Imparipes sp.</i>	potato's fields	Some parts of Iran (Tehran, Kurdistan, Khorassan Razavi, Esfahan, Markazi, Hamedan & Kerman provinces)	Baradaran <i>et al.</i> (2010)
<i>Lophodispus</i> Kurosa, 1972			1 species (3)
<i>L. tapinoma</i> Sobhi & Hajiqanbar, 2017	<i>Tapinoma sp.</i> Förster, 1855 (Hym.: Formicidae)	Ardabil province (Ahmad-Abad village, vicinity of Meshguin-shahr)	Sobhi <i>et al.</i> (2017d)
<i>Pygmodispus</i> Paoli, 1911			2 species (33)
Subgenus <i>P. (Allodispus)</i> Paoli, 1911			1 species (8)
<i>P. (Allodispus) latisternus</i> Paoli, 1911	soil sample	West Azarbaijan province (Miandoab); Golestan province (Gorgan); Tehran province (Rey county)	Ebermann <i>et al.</i> (2003); Zafari <i>et al.</i> (2017); Rahiminejad <i>et al.</i> (2020b)
Subgenus <i>P. (Pygmodispus)</i> Paoli, 1911			1 species (25)
<i>P. (Pygmodispus) calcaratus</i> Paoli, 1911	soil sample; soil sample of alfalfa fields	West Azarbaijan province (Miandoab); East Azarbaijan province (Western parts)	Ebermann <i>et al.</i> (2003); Lotfollahi <i>et al.</i> (2008b)
<i>Scutacarus</i> Gros 1845			22 species + 3 (~800)
Subgenus <i>S. (Variatipes)</i> Paoli, 1911			3 species + 1 (31)
<i>S. (Variatipes) contigus</i> Delfinado <i>et al.</i> , 1976	pagoda tree ( <i>Sophora alopecuroides</i> )	Hamedan province	Khanjani (1996)
<i>S. (V.) eucomus</i> (Berlese, 1908)	samples from strawberry fields; soil sample of alfalfa fields; soil sample of different crop fields	Kurdistan province; East Azarbaijan province (Western & southwest parts)	Mansour ghazi <i>et al.</i> (2006); Lotfollahi <i>et al.</i> (2008b); Hashemi Khabir <i>et al.</i> (2013)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>S. (V.) quadangularis</i> (Paoli, 1911)	soil sample; samples from strawberry fields; soil sample of alfalfa fields	West Azarbaijan province (Miandoab; Kurdistan province; East Azarbaijan province (Western parts)	Ebermann <i>et al.</i> (2003); Mansour ghazi <i>et al.</i> (2006); Lotfollahi <i>et al.</i> (2008b)
<i>Scutacarus (Variatipes) sp.</i>	Potato's fields	some parts of Iran (Tehran, Kurdistan, Khorassan Razavi, Esfahan, Markazi, Hamedan & Kerman provinces)	Baradaran <i>et al.</i> (2010)
<b>Subgenus <i>S. (Scutacarus)</i> Gros, 1845</b>			19 species + 2 (~400)
<i>S. (Scutacarus) acarorum</i> (Goeze, 1780)	<i>Bombus argillaceus</i> (Scopoli) & <i>Bombus</i> sp. (Hym.: Apidae)	Ardabil province; Mazandaran province (Behshahr)	Kazemi & Kamali (2006); Hajiqanbar & Arjomandi (2019a)
<i>S. (S.) apodemi</i> Mahunka, 1963	soil sample of alfalfa fields	East Azarbaijan province (Western parts)	Lotfollahi <i>et al.</i> (2008b)
<i>S. (S.) avarus</i> Khaustov, 2008	<i>Formica</i> sp. (Hym.: Formicidae)	Lorestan province (Borujerd, Fial village)	Navabi <i>et al.</i> (2018a, c)
<i>S. (S.) claviger</i> (Paoli, 1911)	<i>Temnothorax</i> sp. (Hym.: Formicidae)	Razavi Khorasan province (Shandiz town)	Loghmani <i>et al.</i> (2014)
<i>S. (S.) communis</i> (Delfinado Baker & Abbatiello, 1976)	soil, herbal and litter samples of crops	East Azarbaijan province	Bagheri <i>et al.</i> (2006)
<i>S. (S.) ebermanni</i> Sobhi & Hajiqanbar, 2017	<i>Tetramorium</i> sp. (Hym.: Formicidae)	Ardabil Province (Koli Olia village, vicinity of Meshguin-shahr)	Sobhi <i>et al.</i> (2017c)
<i>S. (S.) echidna</i> (Berlese, 1905)	soil samples	Mazandaran province (Galugah)	Davari <i>et al.</i> (2022)
<i>S. (S.) fragariae</i> Rack, 1975	Pagoda tree ( <i>Sophora alopecuroides</i> L.); grape; Soil, herbal and litter samples of crops	Hamedan, Khuzestan & East Azarbaijan provinces	Darvishzadeh (1997); Khanjani (1996); Bagheri <i>et al.</i> (2006)
<i>S. (S.) hystrichocentrus</i> Sevastianov, 1983	<i>Parandra caspia</i> (Col.: Cerambycidae)	Mazandaran province (Behshahr, Abbas-Abad forest)	Hajiqanbar & Arjomandi (2019a)
<i>S. (S.) iranicus</i> Ebermann, Hajiqanbar & Haddad, 2003	<i>Pleurophorus anatolicus</i> Petrovitz & <i>P. pannonicus</i> Petrovitz (Col.: Scarabaeidae); soil sample of alfalfa fields; <i>Rhyssmodes orientalis</i> Mulsant & Godart (Col.: Scarabaeidae)	West Azarbaijan province (Miandoab); East Azarbaijan province (Western parts); Razavi Khorasan province (Gonabad & Bajestan towns)	Ebermann <i>et al.</i> (2003); Hajiqanbar (2008); Lotfollahi <i>et al.</i> (2008b); Loghmani <i>et al.</i> (2014)
<i>S. (S.) longitarsus</i> (Berlese, 1905)	soil sample; on button mushroom ( <i>Agaricus bisporus</i> (Lange)); <i>Oryctes nasicornis</i> L. (Col.: Scarabaeidae); <i>Lucanus ibericus</i> Motschulsky (Col.: Lucanidae); <i>Geotrupes spiniger</i> (Marsham) (Col.: Geotrupidae)	East Azarbaijan province; Alborz province (Karaj); Golestan province (Gorgan)	Fathipour (1994); Kheradmand <i>et al.</i> (2007); Rahiminejad <i>et al.</i> (2020b)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>S. (S.) plumosus</i> (Paoli, 1911)	samples from Strawberry fields	Kurdistan province	Mansour ghazi <i>et al.</i> (2006)
<i>S. (S.) pseudoapodemi</i> Navabi & Hajiqanbar, 2018	<i>Camponotus oasisium</i> Forel (Hym.: Formicidae)	Lorestan province (Borujerd, Goldasht village)	Navabi <i>et al.</i> (2018a)
<i>S. (S.) remissus</i> Khaustov, 2008	<i>Messor</i> sp. (Hym.: Formicidae) soil sample	Ardabil Province (Meshguin-shahr)	Sobhi <i>et al.</i> (2017a)
<i>S. (S.) serotinus</i> Sevastianov & Chydyrov, 1992		West Azarbaijan province (Miandoab)	Ebermann <i>et al.</i> 2003
<i>S. (S.) shajariani</i> Sobhi & Hajiqanbar, 2017	<i>Tetramorium</i> sp. (Hym.: Formicidae)	Ardabil province (summering of Sabalan Mountain)	Sobhi <i>et al.</i> (2017c)
<i>S. (S.) shvicki</i> Lazauskene & Sevastianov, 1974	soil sample of alfalfa fields; soil sample of different crop fields; <i>Messor</i> sp. (Hym.: Formicidae)	East Azarbaijan province (Western & southwest parts); Ardabil Province (Meshguin-shahr)	Lotfollahi <i>et al.</i> (2008b); Hashemi Khabir <i>et al.</i> (2013); Sobhi <i>et al.</i> (2017a)
<i>S. (S.) sphaeroideus</i> Karafiati, 1959	hydrophilid beetles (Col.: Hydrophilidae) and <i>Dryops</i> sp. (Col.: Dryopidae); soil sample	Razavi Khorasan & Isfahan provinces; Golestan province (Gorgan, Nodijeh, Sorkhan-Kalateh & Ali-Abad Kenar-Shahr); Guilan province (Rasht)	Hajiqanbar (2008); Tajodin (2013); Rahiminejad <i>et al.</i> (2020b); Rahiminejad <i>et al.</i> (2022b); Hajizadeh & Hosseini (2022)
<i>S. (S.) subquadratus</i> Khaustov & Chydyrov, 2004	soil sample of alfalfa fields; soil sample of alfalfa fields; <i>Cataglyphis</i> cf. <i>nodus</i> (Brulle) (Hym.: Formicidae); <i>Tricholabiodes</i> sp. (Hym.: Mutillidae); <i>Cataglyphis</i> sp. (Hym.: Formicidae)	East Azarbaijan province (Western parts); East Azarbaijan province; Razavi Khorasan province (Sabzevar, Bajestan, Shandiz & Khalilabad towns); Ardabil Province (Meshguin-shahr)	Lotfollahi <i>et al.</i> (2008b); Lotfollahy <i>et al.</i> (2009); Hajiqanbar (2010b); Loghmani <i>et al.</i> (2014); Sobhi <i>et al.</i> (2017a)
<i>Scutacarus</i> sp.	alfalfa	Isfahan province	Hatami (1991); Modarres-Awal (1997)
<i>Scutacarus</i> sp.	soil sample of alfalfa fields	East Azarbaijan province (Western parts)	Lotfollahi <i>et al.</i> (2008b)
<i>Thaumatopelvis</i> Mahunka, 1973			1 species (7)
<i>T. lorasiacus</i> Navabi & Hajiqanbar, 2018	<i>Formica</i> L. & <i>Pheidole</i> Westwood (Hym.: Formicidae)	Lorestan province (Bondizeh village, Borujerd)	Navabi <i>et al.</i> (2018e)
<i>Arachnopes</i> Ebermann, 1984	-	-	0 species (1)
<i>Bruneipes</i> Mahunka & Mahunka-Papp, 1992	-	-	0 species (1)
<i>Coronipes</i> Mahunka, 1972	-	-	0 species (4)
<i>Diversipes</i> Berlese, 1903	-	-	0 species (17)
<i>Geotrupophorus</i> Mahunka, 1970	-	-	0 species (1)
<i>Gerdalbertia</i> Khaustov Hugo-Coetzee & Ermilov, 2017	-	-	0 species (1)
<i>Hauseripes</i> Mahunka & Mahunka-Papp, 1988	-	-	0 species (1)
<i>Lamnacarus</i> Balogh & Mahunka, 1963	-	-	0 species (5)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>Nasutiscutacarus</i> Beer & Cross, 1960	-	-	0 species (4)
<i>Parascutacarus</i> Baker & Delfinado, 1975	-	-	0 species (1)
<i>Paulacarus</i> Indira, Rao & Thakur, 1980	-	-	0 species (1)
<i>Peridispus</i> Athias, 1972	-	-	0 species (1)
<i>Reductacarus</i> Mahunka, 1963	-	-	0 species (2)
<i>Rettenmeyerella</i> Mahunka, 1977	-	-	0 species (1)
<i>Rhynchodispus</i> Mahunka, 1969	-	-	0 species (2)
<i>Scrobacarus</i> Mahunka, 1975	-	-	0 species (4)
<i>Scutacaropsis</i> Mahunka, 1973	-	-	0 species (1)
<i>Scutobe</i> Mahunka & Mahunka-Papp, 1994	-	-	0 species (1)
<i>Symbolacrasis</i> Mahunka, 1973	-	-	0 species (3)
<b>Superfamily</b> Pyemotoidea			2 families (3); 4 genera (9 + 2†); 11 species + 1 (81 + 5†)
<b>Family</b> Acarophenacidae Cross, 1965			3 genera (7 + 1†); 7 species (45 + 3†)
<i>Adactylidium</i> Cross, 1965			1 species (17)
<i>A. morazae</i> Goldarazena & Ochoa, 2001	<i>Haplothrips</i> ( <i>Haplothrips</i> ) <i>reuteri</i> (Karny) (Thys.: Phlaeothripidae)	East Azerbaijan province (Hadishahr)	Lotfollahi <i>et al.</i> (2016)
<i>Acarophenax</i> Newstead & Duvall, 1918			4 species (10)
<i>A. mahunkai</i> Steinkraus & Cross, 1993	<i>Alphitobius diaperinus</i> Panzer 1797 (Col.: Tenebrionidae); tenebrionid beetle;	Northeastern Iran; Golestan province (Gorgan)	Hajiqaanbar (2010a); Rahiminejad <i>et al.</i> (2010a, 2012)
<i>A. rackae</i> Mahunka & Zaki, 1990	<i>Tribolium confusum</i> (Jacquelin du Val) (Col.: Tenebrionidae); associated with stored products	West Azerbaijan province (Urmia); Sistan & Baluchestan province (Sistan)	Hajiqaanbar <i>et al.</i> (2011b); Sayadi <i>et al.</i> (2012)
<i>A. sphindi</i> Rahiminejad & Hajiqaanbar, 2015	<i>Sphindus</i> sp. (Col.: Sphindidae)	Golestan province (Gorgan)	Rahiminejad & Hajiqaanbar (2015)
<i>A. tribolii</i> Newstead & Duwall, 1918	<i>Tribolium confusum</i> F. & <i>T. castaneum</i> (Herbst) (Col.: Tenebrionidae); stored wheat; Stored grain; stored wheat; Stored rice (rice dust and debris)	Kerman province; Tehran & Alborz provinces (Tehran, Varamin, Karaj); West Azarbaijan province; Isfahan province (Isfahan, Kashan & Golpaygan); Guilan province	Rahiminejad & Saboori (1999); Ardeshir <i>et al.</i> (2006); Ardeshir <i>et al.</i> (2008); Ardeshir & Nematollahi (2008); Noei <i>et al.</i> (2008)
<i>Aethiophenax</i> Mahunka, 1981			2 species (4)
<i>A. luteoli</i> Katlav & Hajiqaanbar, 2015	beneath elytra of <i>Epuraea</i> ( <i>Haptoncus</i> ) <i>luteola</i> Erichson (Col.: Nitidulidae)	Mazandaran province (Tonekabon (Palhamdash village))	Katlav <i>et al.</i> (2015b)
<i>A. mycetophagi</i> Arjomandi & Hajiqaanbar, 2017	egg parasitoid of <i>Mycetophagus quadripustulatus</i> (Col.: Mycetophagidae)	Mazandaran province (Kelardasht)	Arjomandi <i>et al.</i> (2017a)
<i>Aegyptophenax</i> Rady, 1992	-	-	0 species (1)
<i>Paracanophenax</i> Cross, 1965	-	-	0 species (8)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>Paradactylidium</i> Mahunka, 1975	-	-	0 species (3 + 1†)
<i>Proadactylidium</i> Khaustov, Vorontsov, Perkovsky & Lindquist, 2021	-	-	0 species (2 + 1†)
† <i>Protophenax</i> Magowski, 1994	-	-	0 species (1†)
<b>Family Pyemotidae Amerling, 1861</b>			1 genus (1); 4 species + 1 (27 + 1†)
<i>Pyemotes</i> Amerling, 1861			4 species + 1 (27 + 1†)
<i>P. herfsi</i> (Oudemans, 1936)	household dust; stored grains; stored wheat	West-Azerbaijan province; Golestan province (Gorgan)	Mirfakhraii (1994); Ardeshir <i>et al.</i> (2008); Ardeshir & Khormali (2008)
<i>P. scolyti</i> (Oudemans, 1936)	<i>Scolytus amygdali</i> Guerin-Meneville; elm (Parasitic on <i>Scolytus</i> spp.)	Alborz province (Karaj); Tehran province (Tehran)	Ahadiyat <i>et al.</i> (2004); Ostovan (1997); Ostovan & Kamali (1996); Ostovan & Kamali (1997)
<i>P. tritici</i> (LaGreze-Fossot & Montagne, 1851)	<i>Scolytus amygdali</i> Guerin-Meneville; Stored products; human; parasitic on <i>Sitotroga</i> spp. and <i>Ephestia</i> spp. (Lep.: Gelechiidae & Pyralidae))	Alborz province (Karaj); generally distributed	Ahadiyat <i>et al.</i> (2004); Ostovan (1997)
<i>P. ventricosus</i> (Newport, 1850)	<i>Sphenoptera davatchii</i> & <i>Ruguloscolytus mediterraneus</i> (Col.: Buprestidae & Curculionidae)	West-Azerbaijan, Kermanshah, Kurdistan, Markazi, Semann, Tehran & Zanjan provinces	Behdad (1984); Baradaran-Anaraki & Daneshvar (1989); Kamali 1980; Modarres-Aval (1994, 1997); Ostovan & Mosaddegh (1999); Radjabi (1969, 1976, 1991); Kamali <i>et al.</i> (2001)
<i>Pyemotes</i> sp.	dry fruits and nuts	West Azerbaijan province (Khoy and Salmas, Boukan, Mahabad, Urmia, Gharehziaadin)	Ardeshir <i>et al.</i> (2012)
<b>Family Resinacaridae Mahunka, 1976</b>			0 genus (1 + 1†); 0 species (1 + 1†)
<i>Resinacarus</i> Vitzthum, 1927	-	-	0 species (1)
† <i>Protoresinacarus</i> Khaustov & Poinar, 2011	-	-	0 species (1†)
<b>Superfamily Tarsonemoidea</b>			2 families (2); 19 genera (84); 94 species (~840)
<b>Family Tarsonemidae Canestrini &amp; Fanzago, 1877</b>			10 genera (49); 67 species + 6 (~570)
<i>Acarapis</i> Hirst, 1921			3 species (4)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>A. dorsalis</i> Morgenthaler, 1934	honey bee	Chahar Mahal & Bakhtiari, Khuzestan, Khorasan, Mazandaran & East Azerbaijan provinces	Bahreini (1993); Mosaddegh & Bahreini (1994a)
<i>A. externus</i> Morgenthaler, 1931	honey bee	Chahar Mahal & Bakhtiari, Tehran, Lorestan, Mazandaran & Hamedan provinces	Bahreini (1993); Mosaddegh & Bahreini (1994a)
<i>A. woodi</i> (Rennie, 1921)	tracheal parasite of honey bee	Generally distributed	Bahreini (1993); Bahreini & Mosaddegh (1993); Ghasemi & Tirgari (1991); Modarres-Awal (1997); Mosaddegh & Bahreini (1994a); Sepasgozarian (1976)
<i>Dendroptus</i> Kramer, 1876			1 species (23)
<i>Dendroptus</i> sp.	Apple, plum	Tehran province	Nozari (1992)
<i>Heterotarsonemus</i> Smiley, 1969			2 species (8)
<i>H. magowskii</i> Khaustov, 2001	<i>Orthotomicus erosus</i> (Wollaston) (Col.: Curculionidae: Scolytinae)	Markazi province (west regions: Saveh, Mahallat, Khomeyn, Delijan & Khorheh); Tehran province	Farmahiny-Farahani et al. (2017); Magowski et al. (2017)
<i>H. hajekae</i> Smiley & Moser, 1985	<i>Scolytus multistriatus</i> (Marsham) (Col.: Scolytidae)	Tehran province	Magowski et al. (2017)
<i>Neotarsonemoides</i> Kaliszewski, 1984			7 species (10)
Subgenus <i>Neotarsonemoides</i> s. str.			
<i>N. (N.) evae</i> Magowski, 2002	soil	East Azarbaijan province (Marand)	Gheblealivand et al. (2016c)
<i>N. (N.) lucifer</i> (Schaarschmidt, 1959)	soil	Northwest of East Azarbaijan province (Soofian, Payam, Zenooz, Marand, Shabestar, Zenooz & Jolfa)	Lotfollahi et al. (2010b); Gheblealivand et al. (2016c)
<i>N. (N.) marandicus</i> Gheblealivand, Haddad & Magowski, 2016	litter and soil	East Azarbaijan province (Marand)	Gheblealivand et al. (2016c)
<i>N. (N.) multiplex</i> (Kaliszewski, 1983)	soil	East Azarbaijan province (Jolfa)	Gheblealivand et al. (2016c)
<i>N. (N.) occultus</i> (Kaliszewski, 1983)	litter and soil	East Azarbaijan province (Marand & Jolfa)	Gheblealivand et al. (2016c)
<i>N. (N.) polonicus</i> (Willmann, 1949)	litter and soil	East Azarbaijan province (Marand & Zenooz)	Gheblealivand et al. (2016c)
Subgenus <i>N. (Ototarsonemus)</i> Sharonov & Mitrofanov, 1986			

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>N. (O.) alatus</i> (Livshits, Mitrofanov and Sharonov, 1979)	litter and soil	East Azarbaijan province (Marand & Jolfa)	Gheblealivand <i>et al.</i> (2016c)
<i>Phytonemus</i> Lindquist, 1986			1 species (1)
<i>P. pallidus fragaria</i> (Banks, 1901)	from strawberry farms; soil	Kurdistan province; Tehran province (Malard)	Mirjamali <i>et al.</i> (2008b); Mansour ghazi <i>et al.</i> (2016)
<i>Polyphagotarsonemus</i> Beer & Nucifora, 1965			1 species (2)
<i>P. latus</i> (Banks, 1904)	potato's fields	Kerman province (Jiroft); some parts of Iran (Tehran, Kurdistan, Khorassan Razavi, Esfahan, Markazi, Hamedan & Jiroft)	Namvar & Arbabi (2002); Baradaran <i>et al.</i> (2010)
<i>Pseudotarsonemoides</i> Vitzthum, 1921			2 species (9)
<i>Pseudotarsonemoides scolyti</i> Smiley & Moste, 1974	soil samples	Tehran province (Varamin)	Kheradpir & Pakyari (2011)
<i>P. innumerabilis</i> Vitzthum, 1923	Elm (in galleries and phoretic on <i>Sc. scolytus</i> and <i>Sc. multistriatus</i> (Col.: Scolytidae)	Alborz, Tehran, Guilan & Mazandaran provinces	Ostovan & Kamali (1997)
<i>Stenotarsonemus</i> Beer, 1954			9 species + 2 (74)
<i>S. (Stenotarsonemoides) porrectus</i> Livshitz-Mitrofanov & Sharonov, 1981	soil under cereal grasses	East Azarbaijan province	Gheblealivand <i>et al.</i> (2017)
<i>S. (Stenotarsonemus) acuticlavus</i> Wainstein, 1979	soil; soil under cereal grasses	Northwest of East Azarbaijan province (Soofian, Payam, Zenooz, Marand, Shabestar & Jolfa); East Azarbaijan province	Lotfollahi <i>et al.</i> (2010b); Gheblealivand <i>et al.</i> (2017)
<i>S. (S.) arcuatus</i> Livshitz, Mitrofanov & Sharonov, 1979	soil; soil and litter samples extracted from wild barley ( <i>Hordeum</i> sp.) and esfand plant ( <i>Peganum harmala</i> L.)	Northwest of East Azarbaijan province (Soofian, Payam, Zenooz, Marand, Shabestar & Jolfa); East Azarbaijan province	Lotfollahi <i>et al.</i> (2010b); Gheblealivand <i>et al.</i> (2017)
<i>S. bancrofti</i> (Michael, 1890)	sugar cane	Khuzestan province	Kamali (1986); Kamali (1990); Kamali (1995); Khalilmanesh (1973); Modarres-Awal, (1994); Modarres-Awal (1997); Sadeghi-Namaghi (1990); Sadeghi-Namaghi & Kamali (1991); Sadeghi-Namaghi & Kamali (1993); Sepasgozarian (1977)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>S. (S.) phragmitidis</i> Schlectendal, 1898	collected from reed, <i>Phragmitidis</i> sp. and Bermuda grass, <i>Cynodon</i> <i>ductylon</i> (L.)	Khorassan Razavi province (Ferdowsi University campus in Mashhad)	Sadeghi Namaghi (2013)
<i>S. (S.) rectus</i> Livshitz, Mitrofanov & Sharonov, 1979	soil under cereal grasses	East Azarbaijan province	Gheblealivand <i>et al.</i> (2017)
<i>S. (S.) spinosus</i> Schaarschmidt, 1959	extracted from horsetail plant ( <i>Equisetum</i> sp.)	East Azarbaijan province	Gheblealivand <i>et al.</i> (2017)
<i>S. (S.) spirifex</i> (Marchal, 1902)	extracted from bermuda- grass ( <i>Cynodon</i> sp.), wild barley ( <i>Hordeum</i> sp.) and soil under cereal grasses	East Azarbaijan province	Gheblealivand <i>et al.</i> (2017)
<i>S. (S.) varicosus</i> Livshitz, Mitrofanov & Sharonov, 1981	extracted from wild barley ( <i>Hordeum</i> sp.) and soil under cereal grasses	East Azarbaijan province	Gheblealivand <i>et al.</i> (2017)
<i>Stenotarsonemus</i> sp.	soil sample	Khuzestan province (Ahvaz)	Baharloo <i>et al.</i> (2006)
<i>Stenotarsonemus</i> sp.	arboreal & soil sample of wheat & barley crops	Fars province (Jahrom)	Ebrahimi <i>et al.</i> (2010)
<i>Tarsonemus</i> Canestrini & Fanzago, 1877			40 species + 4 (~250)
<i>T. (Schaarschmidtia) amygdali</i> Magowski, Diduszko & Ahdiyat, 2007	in galleries of <i>Scolytus</i> <i>amygdali</i> (Col.: Scolytidae)	Tehran province	Magowski <i>et al.</i> (2007); Magowski (2010); Magowski <i>et al.</i> (2017)
<i>T. (S.) ips</i> (Lindquist, 1969)	elm; associated with apple bark beetles and <i>Sc.</i> <i>multistriatus</i> (Col.: Scolytidae)	Tehran province; Fars province (Fars Science and Research Center)	Ostovan & Kamali (1997); Arabzadeh <i>et al.</i> (2012)
<i>T. (Tarsonemus) annotatus</i> Livshitz, Mitrofanov & Sharonov, 1979	soil	Northwest of East Azarbaijan province (Sufiyan, Payam, Zenooz, Marand, Shabestar & Jolfa); Northwestern Iran	Lotfollahi <i>et al.</i> (2010a); Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) bifurcatus</i> Schaarschmidt, 1959	soil and litter	East Azerbaijan province	Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) bilobatus</i> Suski, 1965	Scotch pine ( <i>Pinus silvestris</i> L.); soil	Mazandaran province; Tehran province (Malard); Northwest of East Azarbaijan province (Soofian, Payam, Zenooz, Marand, Shabestar & Jolfa)	Barimani-Varandi (1996); Barimani- Varandi & Kamali (1998); Mirjamali <i>et al.</i> (2008b); Lotfollahi <i>et al.</i> (2010a)
<i>T. (T.) bognari</i> Nemestothy & Mahunka, 1981	soil and litter	East Azerbaijan province	Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) confusus</i> Ewing, 1939	soil	Tehran province (Malard); East Azerbaijan province	Mirjamali <i>et al.</i> (2008b); Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) crassus</i> (Schaarschmidt, 1959)	in galleries, phoretic on beetles	Tehran & Guilan provinces	Magowski <i>et al.</i> (2017)
<i>T. (T.) destructor</i> Smiley & Landwer, 1976	bean	Hamedan province	Khanjani (1996)
<i>T. (T.) ellipticus</i> Schaarschmidt, 1959	soil	Tehran province (Malard)	Mirjamali <i>et al.</i> (2008b)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>T. (T.) floricolus</i> Canestrini & Fanzago, 1876	soil and litter	East Azerbaijan province	Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) fusarii</i> Cooreman, 1941	citrus, apple, clover; soil; in galleries, phoretic on beetles	Hamedan & Mazandaran provinces; Northwest of East Azarbaijan province (Soofian, Payam, Zenooz, Marand, Shabestar & Jolfa); Tehran province	Faraji & Kamali (1993); Khanjani (1996); Modarres-Awal (1997); Lotfollahi <i>et al.</i> (2010a); Magowski <i>et al.</i> (2017); Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) granarius</i> Lindquist, 1982	rice	Mazandaran province	Faraji (1993); Modarres-Awal (1997)
<i>T. (T.) hermes</i> Suski, 1966	European Silver Fir trees ( <i>Abies alba</i> )	Mazandaran province	Barimani-Varandi (1996); Barimani-Varandi & Kamali (1998); Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) intextus</i> Kaliszewski, 1993	soil	Northwest of East Azarbaijan province (Sufiyan, Payam, Zenooz, Marand, Shabestar & Jolfa)	Lotfollahi <i>et al.</i> (2010a)
<i>T. (T.) lacustris</i> Schaarschmidt, 1959	soil and litter	East Azarbaijan province	Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) lenticulatus</i> Gheblealivand, Haddad & Magowski, 2018	litter, soil, apple leave and Russian olive leaves	Northwest of East Azarbaijan province (Sufiyan & Jolfa)	Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) limitatus</i> Kaliszewski, 1993	soil	Northwest of East Azarbaijan province (Soofian, Payam, Zenooz, Marand, Shabestar & Jolfa)	Lotfollahi <i>et al.</i> (2010a); Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) lobosus</i> Suski, 1965	pomegranate orchards; samples from strawberry fields; soil	Markazi province (Saveh); Kurdistan province; Tehran province (Malard)	Sorush & Kamali (2002); Mansourghazi <i>et al.</i> (2006); Mirjamali <i>et al.</i> (2008b); Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) mazandarani</i> Abbasipour, Taghavi, Kamali & Sahragard, 2006	tea garden	Mazandaran province	Abbasipour <i>et al.</i> (2006)
<i>T. (T.) mixtus</i> Kaliszewski, 1993	soil	Northwest of East Azarbaijan province (Soofian, Payam, Zenooz, Marand, Shabestar & Jolfa)	Lotfollahi <i>et al.</i> (2010a)
<i>T. (T.) monoporus</i> Weis-Fogh, 1947	soil, litter & humus samples	Fars province (southern Kamfiruz region); East Azarbaijan province	Beyzavi <i>et al.</i> (2011); Gheblealivand <i>et al.</i> (2018)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>T. (T.) myceliophagus</i> Hussey, 1963	beehive; soil and litter	Kurdestan province (Sanandaj); East Azarbaijan province	Bahreini <i>et al.</i> (1997); Arbabi & Baradaran (2011); Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) oncodes</i> Kaliszewski, 1993	Soil and litter	East Azarbaijan province	Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) pseudolacustris</i> Kaliszewski, 1978	<i>Scolytus amygdali</i> Guerin-Meneville	Alborz province (Karaj)	Ahadiyat <i>et al.</i> (2004); Magowski <i>et al.</i> (2017)
<i>T. (T.) ravus</i> Kaliszewski, 1993	soil and litter	East Azarbaijan province	Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) saccatus</i> Livshitz, Mitrofanov & Sharonov, 1979	soil and litter	East Azarbaijan province	Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) schaarschmidti</i> Mahunka, 1970	soil and litter	East Azarbaijan province	Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) stammeri</i> Schaarschmidt, 1959	soil and litter	East Azarbaijan province	Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) subcorticalis</i> Lindquist, 1969	Elm (in galleries of <i>Sc. scolytus</i> and <i>Sc. multistriatus</i> (Col.: Scolytidae))	Guilan, Mazandaran & Tehran provinces	Ostovan & Kamali (1997)
<i>T. (T.) triarcus</i> Lindquist 1969	elm (in galleries of <i>Sc. scolytus</i> and <i>Sc. multistriatus</i> (Col.: Scolytidae))	Guilan, Mazandaran & Tehran provinces	Ostovan & Kamali (1997)
<i>T. (T.) varsoviensis</i> Kaliszewski, 1993	soil and litter	East Azarbaijan province	Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) violae</i> (Schaarschmidt 1960)	soil and litter	East Azarbaijan province	Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) virgineus</i> Suski, 1969	soil and litter	East Azarbaijan province	Gheblealivand <i>et al.</i> (2018)
<i>T. (T.) waitei</i> Banks, 1912	pomegranate orchards; beehive; samples from strawberry fields; soil	Markazi province (Saveh); Tehran province (Tehran), Yazd province (Ardakan) & Kermanshah province (Kermanshah); Kurdistan province; Tehran province (Malard); Northwest of East Azarbaijan province (Soofian, Payam, Zenooz, Marand, Shabestar & Jolfa)	Sorush (1994); Sorush & Kamali (2002); Mansourghazi <i>et al.</i> (2006); Mirjamali <i>et al.</i> (2008b); Lotfollahi <i>et al.</i> (2010a); Gheblealivand <i>et al.</i> (2018)
<i>T. sp. nr. aequalis</i> Livshits <i>et al.</i> , 1976	honey bee hive	Kurdistan province	Mosaddegh (1997)
<i>T. sp. nr. bachmaieri</i> Cooreman, 1958	<i>Scolytus amygdali</i> Guerin-Meneville	Alborz province (Karaj)	Ahadiyat <i>et al.</i> (2004); Mirjamali <i>et al.</i> (2008); Magowski <i>et al.</i> 2017
<i>T. sp. nr. fusarii</i> Cooreman, 1941	Tea	Mazandaran province	Taghavi (1996); Taghavi <i>et al.</i> (1998)
<i>T. sp. nr. kennedyi</i> Smiley & Moser, 1974	<i>Scolytus amygdali</i> Guerin-Meneville	Alborz province (Karaj)	Ahadiyat <i>et al.</i> (2004)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>T. sp. nr. nodosus</i> Schaarschmidt, 1959	citrus	Mazandaran province	Faraji & Kamali (1993); Modarres-Awal (1997)
<i>Tarsonemus sp.</i>	<i>Lucanus ibericus</i> Motschulsky (Col.: Lucanidae)	Golestan province (Gorgan)	Rahiminejad <i>et al.</i> (2020a)
<i>Tarsonemus sp.</i>	stored rice (rice dust and debris)	Guilan province	Noei <i>et al.</i> (2008)
<i>Tarsonemus sp.</i>	fig, grape, sugar cane, sudan grass, alfalfa; honey bee hive	Guilan & Mazandaran provinces, South- Western Iran	Darvishzadeh (1997); Kamali (1986); Kamali & Shishehbor (1989); Modarres-Awal (1997); Mosaddegh (1997); Sadeghi-Namaghi & Kamali (1991); Sadeghi-Namaghi & Kamali (1993)
<i>Tarsonemus n. sp.</i>	tea	Mazandaran province	Taghavi (1996); Taghavi <i>et al.</i> (1998)
<i>Xenotarsonemus</i> Beer, 1954			1 species (25)
<i>X. belemnitoides</i> (Weis-Fogh, 1947)	soil and litter	Tehran province (Malard); East Azerbaijan	Mirjamali <i>et al.</i> (2008b); Gheblealivand <i>et al.</i> (2016b)
<i>Acaronemus</i> Lindquist & Smiley, 1978	-	-	0 species (5)
<i>Alkithoenemus</i> Ochoa & Oconnor, 1996	-	-	0 species (1)
<i>Amcortarsonemus</i> Fain, 1971	-	-	0 species (1)
<i>Arizona</i> Koçak & Kemal, 2008	-	-	0 species (1)
<i>Asiocortarsonemus</i> Fain, 1971	-	-	0 species (1)
<i>Biscutulumnemus</i> Lofego & Feres, 2006	-	-	0 species (1)
<i>Bongotarsonemus</i> Mondal & Karmakar, 2021	-	-	0 species (2)
<i>Ceratotarsonemus</i> DeLeon, 1956	-	-	0 species (6)
<i>Cheylotarsonemus</i> Tseng & Lo, 1980	-	-	0 species (1)
<i>Coreitarsonemus</i> Fain, 1970	-	-	0 species (21)
<i>Crossacarapis</i> Ochoa & Oconnor, 1996	-	-	0 species (1)
<i>Daidalotarsonemus</i> De Leon, 1956	-	-	0 species (37)
<i>Deleonia</i> Lindquist, 1986	-	-	0 species (6)
<i>Eotarsonemus</i> De Leon, 1966	-	-	0 species (1)
<i>Excelsotarsonemus</i> Ochoa & Naskrecki, 1995	-	-	0 species (6)
<i>Ficotarsonemus</i> Ho, 1994	-	-	0 species (2)
<i>Flechtmannus</i> de Moraes, Lindquist & Lofego, 2002	-	-	0 species (1)
<i>Floridotarsonemus</i> Attiah, 1970	-	-	0 species (4)
<i>Fungitarsonemus</i> Cromroy, 1958	-	-	0 species (14)
<i>Giselia</i> Magowski, Lindquist & Moser, 2005	-	-	0 species (1)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>Hemitarsonemus</i> Ewing, 1939	-	-	0 species (4)
<i>Iponemus</i> (Beer & Nucifora, 1965)	-	-	0 species (15)
<i>Kaliszewskia</i> Lofego, Demite & de Moraes, 2015	-	-	0 species (1)
<i>Lobotarsonemus</i> Khaustov & Abramov, 2017	-	-	0 species (1)
<i>Nasutitarsonemus</i> Beer & Nucifora, 1965	-	-	0 species (3)
<i>Neodendroptus</i> Ochoa, 1991	-	-	0 species (1)
<i>Ogmotarsonemus</i> Lindquist, 1986	-	-	0 species (3)
<i>Paratarsonemella</i> Ochoa, 1991	-	-	0 species (1)
<i>Podotarsonemus</i> Seeman, Lindquist & Husband, 2018	-	-	0 species (7)
<i>Pseudacarapis</i> Lindquist, 1986	-	-	0 species (1)
<i>Pseudotarsonemus</i> Lindquist, 1986	-	-	0 species (1)
<i>Rhynchotarsonemus</i> Beer, 1954	-	-	0 species (4)
<i>Scutarsonemus</i> Mahunka, 1974	-	-	0 species (3)
<i>Suskia</i> Lindquist, 1986	-	-	0 species (1)
<i>Tarsanonychus</i> Lindquist, 1986	-	-	0 species (1)
<i>Tarsobisulcus</i> Khaustov, Fjellberg & Lindquist, 2022	-	-	0 species (1)
<i>Tarsonemella</i> Hirst, 1923	-	-	0 species (2)
<i>Unguitarsonemus</i> Khaustov, Petrov & Kolesnkiy, 2021	-	-	0 species (1)
<i>Unungujtarsonemus</i> Beer & Nucifora, 1965	-	-	0 species (3)
<b>Family Podapolipidae Ewing, 1922</b>			9 genera (35); 27 species + 7 (~270)
<i>Coccipolipus</i> Husband, 1972			2 species (13)
<i>C. macfarlanei</i> Husband, 1972	<i>Coccinella septempunctata</i> L., <i>Oenopia conglubata</i> L. & <i>Coccinella undecimpunctata</i> L. (Col.: Coccinellidae)	North Khorasan province (Maneh and Samalghan); Northeastern Iran; Kerman province (Rafsanjan); Razavi Khorasan province (Kashmar) & Isfahan province (Semirom); Mazandaran province (Marzanabad); Tehran province (Rey county); Ardabile province (Meshguin-shar)	Hajiqaanbar <i>et al.</i> (2007); Hajiqaanbar <i>et al.</i> (2008b); Mortazavi <i>et al.</i> (2010b); Hajiqaanbar <i>et al.</i> (2011c); Ceryngier <i>et al.</i> (2012); Mortazavi & Hajiqaanbar (2012b); Tajodin (2013); Bahramian <i>et al.</i> (2013); Katlav <i>et al.</i> (2015d); Zafari <i>et al.</i> (2017); Sobhi <i>et al.</i> (2017e)
<i>C. hyppodamiae</i> Mcdaniel & Merrill, 1969	coccinellid beetle	Northeastern Iran	Hajiqaanbar <i>et al.</i> (2008b)
<i>Dorsipes</i> Regenfuss, 1968			3 species (22)
<i>dorsipes</i> species group			
<i>D. saxicolae</i> Hajiqaanbar & Husband, 2008	<i>Amara (Paracelia) saxicola</i> Zimmermann (Col.: Carabidae)	Razavi Khorasan province (Dargaz); Northeastern Iran	Hajiqaanbar <i>et al.</i> (2008a, b)
<i>inflatus</i> species group			

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>Dorsipes</i> sp.	<i>Amara</i> ( <i>Paracelia</i> ) <i>saxicola</i> Zimmermann (Col.: Carabidae)	Razavi Khorasan (National Park of Tandureh, Dargaz)	Hajiqanbar <i>et al.</i> (2007)
<i>platysmae</i> species group			
<i>D. caspius</i> Katlav & Hajiqanbar, 2014	<i>Pterostichus</i> ( <i>Lyrothorax</i> ) <i>caspius</i> (Menetries) (Col.: Carabidae)	Mazandaran province (Tonekabon City, Dohezar Forest)	Katlav <i>et al.</i> (2014c)
<i>Eutarsopolipus</i> Berlese, 1913			12 species + 4 (70)
<i>acanthomus</i> species group			
<i>E. acinopi</i> Khaustov & Husband, 2004	<i>Acinopus</i> ( <i>Acinopus</i> ) <i>laevigatus</i> Ménétriés (Col.: Carabidae)	Northeastern Iran	Hajiqanbar <i>et al.</i> (2008b)
<i>E. amaraceus</i> Tajodin & Hajiqanbar, 2014	<i>Amara</i> ( <i>Amara</i> ) <i>aenea</i> (De Geer) (Col.: Carabidae)	Isfahan province (Freydon-shahr)	Tajodin <i>et al.</i> (2014)
<i>E. elongatus</i> Regenfuss, 1963	<i>Amara aenea</i> (Degeer) (Col.: Carabidae)	Ardabile province (Meshguin-shar, Sheikh Azimlo village)	Sobhi <i>et al.</i> (2016b); Sobhi <i>et al.</i> (2017g)
<i>E. harpali</i> Khaustov & Husband, 2004	<i>Harpalus</i> sp. (Col.: Carabidae)	Ardabile province (Meshguin-shar)	Sobhi <i>et al.</i> (2017e)
<i>Eutarsopolipus</i> near <i>crassisetus</i> Regenfuss, 1968	<i>Amara</i> ( <i>Paracelia</i> ) <i>saxicola</i> Zimmermann (Col.: Carabidae)	North Khorasan province (Maneh & Samalghan)	Hajiqanbar <i>et al.</i> (2007)
<i>Eutarsopolipus</i> sp.	<i>Scarites terricola</i> Bonelli (Col.: Carabidae)	Kerman province (Rafsanjan)	Mortazavi & Hajiqanbar (2012b)
<i>Eutarsopolipus</i> sp.	<i>Pterostichus</i> sp. (Col.: Carabidae)	Kerman province (Rafsanjan)	Mortazavi & Hajiqanbar (2012b)
<i>Eutarsopolipus</i> sp.	<i>Philorhizus</i> sp. (Col.: Carabidae)	Hormozgan province	Mortazavi <i>et al.</i> (2013)
<i>biunguis</i> species group			
Regenfuss (1968)			
<i>E. dryptus</i> Mortazavi & Hajiqanbar, 2014	subelytral ectoparasite of <i>Drypta lineola</i> MacLeay (Col.: Carabidae)	Hormozgan province (Tezerj, Hajiabad city)	Mortazavi <i>et al.</i> (2014b)
<i>Eutarsopolipus</i> sp.	<i>Drypta lineola</i> MacLeay (Col.: Carabidae)	Hormozgan province	Mortazavi <i>et al.</i> (2013)
<i>myzus</i> species group			
Regenfuss (1968)			
<i>E. abdominis</i> Regenfuss, 1968	<i>Agonum</i> sp. (Col.: Carabidae)	Mazandaran Province (Western parts & Palhamdasht Village of Tonekabon)	Katlav <i>et al.</i> (2015e); Katlav & Hajiqanbar (2018)
<i>E. anichtchenkoi</i> Hajiqanbar & Mortazavi, 2012	<i>Pterostichus</i> sp. (Col.: Carabidae)	Kerman province (Orzueeyeh)	Hajiqanbar & Mortazavi (2012)
<i>E. gombrooni</i> Hajiqanbar & Mortazavi, 2019	<i>Syntomus lateralis</i> (Motschulsky) (Coleoptera: Carabidae)	Hormozgan province (Siahoo village, vicinity of Bandar Abbas City)	Hajiqanbar <i>et al.</i> (2019b)
<i>E. oconnori</i> Hajiqanbar & Mortazavi, 2019	<i>S. lateralis</i> (Motschulsky) (Col.: Carabidae)	Hormozgan province (Chelogavmishi village, vicinity of Minab County)	Hajiqanbar <i>et al.</i> (2019b)
<i>E. steveni</i> Khaustov, 2010	<i>Chlaenius</i> ( <i>Stenochlaenius</i> ) <i>coeruleus</i> (Steven) (Col.: Carabidae)	Mazandaran province (Tonekabon)	Katlav <i>et al.</i> (2015d)
<i>E. terricolae</i> Hajiqanbar & Mortazavi, 2012	<i>Scarites terricola</i> Bonelli (Col.: Carabidae)	Kerman province (Anbarabad)	Hajiqanbar & Mortazavi (2012)
<i>Locustacarus</i> Ewing, 1924			1 species (4)

Table 2. Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>L. aiolopi</i> Rahmatzaei & Hajiqanbar, 2021	<i>Aiolopus thalassinus</i> (Fabricius) (Orth.: Acrididae)	Sistan and Baluchestan province (Pelgi-seyed village, vicinity of Zahak)	Rahmatzaei <i>et al.</i> (2021)
<i>Ovacarus</i> Stannard & Vaishampayan, 1971			1 species (3)
<i>O. longisetosus</i> Hajiqanbar & Husband, 2007	<i>Amara (Paracelia) saxicola</i> Zimmermann (Col.: Carabidae)	North Khorasan Province (Maneh and Samalghan); Northeastern Iran	Hajiqanbar <i>et al.</i> (2007, 2008b)
<i>Podapolipoides</i> Regenfuss, 1968			3 species (31)
<i>P. anacridii</i> Hajiqanbar & Joharchi, 2011	from basal hindwings of <i>Anacridium</i> sp. (Orth.: Acrididae)	Yazd province (Tabas)	Hajiqanbar & Joharchi (2011)
<i>P. chorthippus</i> Majidi & Hajiqanbar, 2022	recovered from pronotum and near hindwing bases of <i>Chorthippus</i> sp. (Orth.: Acrididae: Gomphocerinae)	Fars province	Majidi <i>et al.</i> (2022a)
<i>P. grassi</i> (Berlese, 1897)	<i>Locusta migratoria</i> L. (Orth.: Acrididae)	Fars and Khuzestan provinces	Ostovan & Saboori (1999)
<i>Podapolipus</i> Rovelli & Grassi, 1888			2 species + 3 (32)
<i>P. khorasanicus</i> Hajiqanbar, 2013	on abdominal tergites of <i>Opatroides punctulatus</i> Brulle (Col.: Tenebrionidae)	Razavi Khorasan province (Gonabad)	Hajiqanbar (2013)
<i>P. laricus</i> Majidi & Hajiqanbar, 2019	under elytra and at the end of the abdomen <i>Trachyderma hispida</i> Forskål (Col.: Tenebrionidae: Pimeliinae)	Fars province (Bogal & Qasem shahi region, vicinity of Lar)	Majidi <i>et al.</i> (2019)
<i>Podapolipus</i> sp.	Samples from Strawberry fields	Kurdistan province	Mansour ghazi <i>et al.</i> (2006)
<i>Podapolipus</i> sp.	<i>Trachyderma hispida</i> (Forskål) (Col.: Tenebrionidae: Pimeliinae)	Fars province	Majidi <i>et al.</i> (2017)
<i>Podapolipus</i> sp.	<i>Larinus (Larinus) pollinis</i> Laicharting (Col.: Curculionidae)	Fars province	Safdarkhani <i>et al.</i> (2022)
<i>Regenpolipus</i> Husband, 1986			1 species (5)
<i>R. madrasensis</i> Husband & Ramaraju, 2006	<i>Anthia sexguttata</i> (Fab.) (Col.: Carabidae)	Razavi Khorassan province (Vicinity of Taibad)	Hajiqanbar & Khoshnevis (2011)
<i>Tarsopolipus</i> (Husband, 1986)			2 species (9)
<i>T. massai</i> Husband, 1989	<i>Scarabaeus Semipunctatus</i> F., S. (S.) <i>pius</i> (Illiger) & <i>S. armeniacus</i> Ménériès (Col.: Scarabaeidae)	Mazandaran Province (Galugah); Kerman province; Isfahan province (Semirom); East Azerbaijan province	Hajiqanbar <i>et al.</i> (2007); Hajiqanbar <i>et al.</i> (2008b); Mortazavi & Hajiqanbar (2012); Bahramian <i>et al.</i> (2015); Gheblealivand <i>et al.</i> (2016b)
<i>T. husbandi</i> Mortazavi & Hajiqanbar, 2012	<i>Scarabaeus (Scarabaeus) acuticollis</i> Motschulsky (Col.: Scarabaeidae); <i>Scarabaeus pius</i> (Illiger) (Col.: Scarabaeidae)	Kerman province (Rafsanjan); East Azerbaijan province	Mortazavi & Hajiqanbar (2012a, b); Ghablilivand <i>et al.</i> (2016b)
<i>Archipolipus</i> Husband, 1971	-	-	0 species (2)

**Table 2.** Continued.

Superfamily/Family/Species	Host (Habitat)	Province (City)	References
<i>Bakerpolipus</i> Husband & Sinha, 1970	-	-	0 species (1)
<i>Blaberpolipus</i> Husband & OConnor, 2003	-	-	0 species (1)
<i>Bombacarus</i> Stammer, 1951	-	-	0 species (1)
<i>Buprestapolipus</i> Husband, Ochoa & Naskrecki, 1995	-	-	0 species (1)
<i>Cassidopolipus</i> Husband & Oconnor, 2014	-	-	0 species (1)
<i>Chrysmelobia</i> Regenfuss, 1968	-	-	0 species (25)
<i>Curculapolipus</i> Husband & Kurosa, 2000	-	-	0 species (1)
<i>Cydnipolipus</i> Kurosa & Husband, 1994	-	-	0 species (2)
<i>Dilopolipus</i> Husband, 1984	-	-	0 species (1)
<i>Kurosapolipus</i> Husband & Li, 1993†	-	-	0 species (3)
<i>Locustipolipus</i> Lo, 1990	-	-	0 species (1)
<i>Orthapolipus</i> Husband & Li, 1993	-	-	0 species (3)
<i>Panesthipolipus</i> Husband, 1984	-	-	0 species (1)
<i>Parobia</i> Seeman & Nahrung, 2003	-	-	0 species (5)
<i>Peripolipus</i> Husband, 1984	-	-	0 species (1)
<i>Rhinopolipus</i> Husband & Kurosa, 2000	-	-	0 species (1)
<i>Rhynchopolipus</i> Husband & Flechtmann, 1972	-	-	0 species (3)
<i>Scarabapolipus</i> Husband & Kurosa, 1993	-	-	0 species (5)
<i>Silphopolipus</i> Kurosa, Khaustov & Husband, 2004	-	-	0 species (3)
<i>Simalurapolipus</i> Kurosa & Husband, 2013	-	-	0 species (1)
<i>Stenopolipus</i> Husband, 1984	-	-	0 species (3)
<i>Stigmacarus</i> Feldman-Muhsam & Havivi, 1977	-	-	0 species (2)
<i>Tenebrapolipus</i> Kurosa & Husband, 2001	-	-	0 species (2)
<i>Tetrapolipus</i> Berlese, 1911	-	-	0 species (14)
<i>Wetapolipus</i> Husband & Zhang, 2002	-	-	0 species (1)
†Superfamily Nasutiacaroidae Sidorchuk & Lindquist, 2015	-	-	0 family (1); 0 genus (1); 0 species (1)
†Family Nasutiacaridae Sidorchuk & Lindquist, 2015	-	-	0 genus (1); 0 species (1)
† <i>Nasutiacarus</i> Sidorchuk & Lindquist, 2015	-	-	0 species (1)

### ACKNOWLEDGEMENTS

I (the first author) am forever indebted to my doctoral supervisor Hamidreza Hajiqanbar for inspiring and guiding me in study of the interesting mite cohort Heterostigmata, and acknowledge his great contribution to the taxonomy and systematics of these mites in Iran and world. This research was

financially supported by the Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, under project title “A survey on Heterostigmatic mites (Arthropoda: Acari) fauna of Golestan province”, and Grant no. 00-456-68 which is greatly appreciated.

## REFERENCES

- Abbasi-Moqadam, F., Hajiqanbar, H. & Katlav, A. (2014) First record of *Unguidispus okumura* (Acari: Microdispidae), as a new genus and species to mite fauna of Iran. *Proceedings of the 21<sup>st</sup> Iranian Plant Protection Congress. University of Urmia, 23–26 August, Urmia, Iran*, p. 959.
- Abbasi-Moqadam, F., Hajiqanbar, H. & Mehrabadi, M. (2016) First record of the ant-associate genus *Acinogaster* (Acari: Neopygmephoridae) from Asia with redescription of *A. microchaetosus* (Sevastianov, 1967). *Persian Journal of Acarology*, 5(2): 99–107.
- Abbasi-Moqadam, F., Hajiqanbar, H. & Mehrabadi, M. (2018) Contribution to the knowledge of the genus *Petalomium* (Acari: Neopygmephoridae) associated with ants from Iran. *Systematic & Applied Acarology*, 23(6): 1180–1189. DOI: [10.11158/saa.23.6.13](https://doi.org/10.11158/saa.23.6.13)
- Abbasi-Moqadam, F., Hajiqanbar, H., Mehrabadi, M. & Katlav, A. (2015) First record of *Petalomium fimbrisetum* (Acari: Neopygmephoridae) associated with ants *Lasius* sp. (Hym.: Formicidae) from Iran. *Proceeding of the 1<sup>st</sup> Iranian International Congress of Entomology. Iranian Research Institute of Plant Protection, 29–31 August, Tehran, Iran*, p. 29.
- Abbasipour, H., Taghavi, A., Kamali, K. & Sahragard, A. (2006) A new species of the genus *Tarsonemus* Canestrini et Fanzago (Acari: Tarsonemidae) from tea gardens of Iran. *Journal of Entomology*, 3(1): 23–25. DOI: [10.3923/je.2006.23.25](https://doi.org/10.3923/je.2006.23.25)
- Ahadiyat, A., Ostovan, H. & Saboori, A. (2004) Mites associated with *Scolytus amygdali* Guerin-Meneville, 1847 in Karaj region. *Proceedings of the 16<sup>th</sup> Iranian Plant Protection Congress, 28 August–1 September, University of Tebriz, Tabriz, Iran*, p. 251.
- Amin, M.R., Khanjani, M., Fooladi, M. & Hoseininia, A. (2014a) First record of the family Tarsocheylidae (Acari: Trombidiformes: Heterostigmata) from Iran. *Proceedings of the 21<sup>st</sup> Iranian Plant Protection Congress, 23–26 August 2014, University of Urmia, Urmia, Iran*, pp. 953.
- Amin, M.R., Khanjani, M. & Ueckermann, E.A. (2014b) First record of the family Tarsocheylidae from Iran with the description of a new species (Acari: Trombidiformes). *Acarina*, 22: 40–45.
- Arab Yabarati, Z., Ramezani, L. & Zandi Sohan, N. (2014) Faunistic study of prostigmatic mites at the beach of Karun River. *Proceedings of the 21<sup>st</sup> Iranian Plant Protection Congress, 23–26 August 2014, University of Urmia, Urmia, Iran*, p. 963.
- Arabzadeh, Z., Gheibi, M., Ostovan, H. & Shabani, S. (2012) Investigation of fauna of mites associated with apple bark beetles in Fars Science and Research Center. In: Sarafrazi, A., Asef, M.R., Mozhdehi, M., Mozhdehi, M., Solhjoui Fard, S. & Abdollahi, T. (Eds.), *Proceeding of the 20<sup>th</sup> Iranian Plant Protection Congress. 25–28 August 2012, Shiraz University, Shiraz, Iran*, p. 426.
- Arbabi, M. & Baradaran, P. (2011) Evaluation of the consequences of entry and spread of plant and animal injurious mites in Iran. *Journal of Plant Protection and Food*, 6: 8–18.
- Ardeshir, F., Kamali, H. & Ranji, H. (2008) Comparison of stored mite fauna in Khorasan and West Azarbaijan province. *Proceedings of the 18<sup>th</sup> Iranian Plant Protection Congress, 24–27 August 2008, Bu-Ali Sina University, Hamedan, Iran*, p. 273.

- Ardeshir, F. & Khormali, S. (2008) Comparison of mite fauna associated with stored wheat in Golestan province between 1990s and 2000s. *Proceedings of the 18<sup>th</sup> Iranian Plant Protection Congress, 24–27 August 2008, Bu-Ali Sina University, Hamedan, Iran*, p. 275.
- Ardeshir, F. & Nematollahi, M.R. (2008) Mite fauna on wheat stored and new record of *Culifella variegata* (Barilo, 1985) in Esfahan province. *Proceedings of the 18<sup>th</sup> Iranian Plant Protection Congress, 24–27 August 2008, Bu-Ali Sina University, Hamedan, Iran*, p. 274.
- Ardeshir, F., Ranji, H., Obaidy, O. & Khany, M. (2012) Mites fauna in dry fruits and nuts in West Azerbaijan province. In: Sarafrazi, A., Asef, M.R., Mozhdehi, M., Mozhdehi, M., Solhjoui Fard, S. & Abdollahi, T. (Eds.), *Proceeding of the 20<sup>th</sup> Iranian Plant Protection Congress. 25–28 August 2012, Shiraz University, Shiraz, Iran*, p. 512.
- Ardeshir, F., Yousefi Porshekeh, A. & Saboori, A. (2006) A survey on mite fauna of stored wheat in Tehran province. *Proceedings of the 17<sup>th</sup> Iranian Plant Protection Congress, 2–5 September, Tehran, Iran*, p. 188.
- Arjomandi, E., Hajiqaanbar, H. & Joharchi, O. (2017a) *Aethiophenax mycetophagid* sp. nov. (Acari: Trombidiformes: Acarophenacidae), an egg parasitoid of *Mycetophagus quadripustulatus* (Coleoptera: Mycetophagidae) from Iran. *Systematic and Applied Acarology*, 22: 541–549. DOI: [10.11158/saa.22.4.9](https://doi.org/10.11158/saa.22.4.9)
- Arjomandi, E., Hajiqaanbar, H. & Joharchi, O. (2017b) A new species of *Hoplocheylus* (Prostigmata: Tarsocheylidae) from nest of *Messor denticulatus* (Hymenoptera: Formicidae) in Iran. *International Journal of Acarology*, 23(8): 1–7. DOI: [10.1080/01647954.2017.1395476](https://doi.org/10.1080/01647954.2017.1395476)
- Arjomandi, E., Hajiqaanbar, H., Joharchi, O. & Ahangaran, Y. (2017c) *Dorcus parallelipedus* (Coleoptera: Lucanidae), a new host record for *Propygmephorus crossi* (Acari: Heterostigmata: Pygmephoridae). In: Hajiqaanbar, H. & Saboori, A. (Eds.), *Abstract book of the 3<sup>rd</sup> International Persian Congress of Acarology. 23–25 August 2017, Faculty of Science, University of Tehran, Tehran, Iran*, p. 7.
- Arjmandinejad, A.R., Ostovan, H., Ramroodi, S., Narouirad, M.R. & Modarres Najaf Abadi, S.S. (2008) Biodiversity of edaphic mites (Acari) in Sistan region. *Proceedings of the 18<sup>th</sup> Iranian Plant Protection Congress, 24–27 August 2008, Bu-Ali Sina University, Hamedan, Iran*, p. 282.
- Azhari, S., Hajiqaanbar, H. & Talebi, A.A. (2018a) First record of the genus *Punicodoxa* (Acari: Microdispidae) from Asia, with description of a new species phoretic on termites (Insecta: Isoptera). *Systematic and Applied Acarology*, 23(3): 468–476. DOI: [10.11158/saa.23.3.6](https://doi.org/10.11158/saa.23.3.6)
- Azhari, S., Hajiqaanbar, H. & Talebi, A.A. (2018b) *Parapygmephorus crossi* (Acari, Heterostigmata, Neopygmephoridae), a mite species new to fauna of Iran. *Persian Journal of Acarology*, 7(3): 293–295. DOI: [10.22073/pja.v7i3.37532](https://doi.org/10.22073/pja.v7i3.37532)
- Badoodam, S. (2014) *Heterostigmatic mite (Acari: Heterostigmata) associated with insect in East of Golestan Province*. M.Sc. Thesis, Faculty of Agriculture, Tarbiat Modares University, Tehran, Iran, 87 pp.
- Badoodam, S., Hajiqaanbar, H. & Talebi, A.A. (2014) *Caesarodispus modestus* (Berlese, 1903) (Acari: Microdispidae, a new record for Iran. *Proceedings of the 21<sup>th</sup> Iranian Plant Protection Congress, 23–26 August 2014, University of Urmia, Urmia, Iran*, p. 950.
- Badoodam, S., Hajiqaanbar, H. & Talebi, A.A. (2015) New species and records of the family Microdispidae (Acari: Prostigmata) from Golestan province, Iran. *International Journal of Acarology*, 41(7): 600–605. DOI: [10.1080/01647954.2015.1084047](https://doi.org/10.1080/01647954.2015.1084047)
- Bagheri, M., Haddad Irani-Nejad, K., Kamali, K., Saboori, A. & Khanjani, M. (2006) Fauna of family Scutacaridae (Acari: Prostigmata) in east Azarbaijan province (Iran). *Proceedings of the 17<sup>th</sup>*

- Iranian Plant Protection Congress, 2–5 September, Faculty of Agriculture, University of Tehran, Karaj, Iran*, p. 180.
- Baharloo, M., Shishehbor, P., Mossadegh, M. S., Khanjani, M. & Smith Meyer, M. (2006) Faunistic study on prostigmatic soil mites in Ahvaz region. *Proceedings of the 17<sup>th</sup> Iranian Plant Protection Congress, 2–5 September 2006, Faculty of Agriculture, University of Tehran, Karaj, Iran*, p. 189.
- Bahramian, M., Hajiqaanbar, H. & Talebi, A.A. (2013) First record of the male of ectoparasitic mite *Coccipolipus macfarlanei* (Acari: Podapolipidae) on *Coccinella septempunctata* (Col.: Coccinellidae) from Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the 2<sup>nd</sup> International Persian Congress of Acarology*. 29–31 August 2013, Faculty of Agriculture, University of Tehran, Karaj, Iran, p. 7.
- Bahramian, M., Hajiqaanbar, H. & Talebi, A.A. (2015) Two heterostigmatic mite species (Acari: Dolichocybidae, Podapolipidae) associated with *Scarabaeus pius* (Coleoptera: Scarabaeidae) from Iran. *Acta Zoologica Academiae Scientiarum Hungaricae*, 61(1): 25–32. DOI: [10.17109/AZH.61.1.25.2015](https://doi.org/10.17109/AZH.61.1.25.2015)
- Bahreini, R. (1993) *Mites of the genus Acarapis spp. parasite of honey bee (Apis mellifera L.) in Iran*. M. Sc. thesis, Shahid Chamran University, Ahwaz, Iran, 110 pp.
- Bahreini, R. & Mosaddegh, M.S. (1993) A survey on the tracheal mite, *Acarapis woodi* (R.) of honey bee, *Apis mellifera* in Iran. *Proceedings of the 11<sup>th</sup> Plant Protection Congress of Iran, 21–24 September 1993, Guilan University, Rasht, Iran*, p. 252.
- Bahreini, R., Mosaddegh, M.S. & Neiri, F. (1997) Faunistic study of mites in beehives. *Pajouhesh-va-Sazandegi*, 34: 128–131.
- Baradaran, P., Arbabi, M., Mansour ghazi, M., Rhamimi, H., Bagheri, M.R., Yousefi, M., Malmir, A., Namvar, P. & Hajiqaanbar, H. (2010) Determination the most important phytophagous and predacious mites from suborder Prostigmata in spring and autumn potato cultivations in different provinces of Iran. In: Manzari, S. (Ed.), *Proceedings of 19<sup>th</sup> Iranian Plant Protection Congress*. 31 July–3 August 2010, Iranian Research Institute of Plant Protection, Tehran, Iran, p. 339.
- Baradaran-Anaraki, P. & Daneshvar, H. (1989) Studies on bionomics of tomato russet mite (*Aculops lycopersici*) in Varamin. *Proceedings of 9<sup>th</sup> Plant Protection Congress of Iran, 9–14 September 1989, Ferdowsi University, Mashhad, Iran*, p. 68.
- Barimani-Varandi, H. (1996) *Mites (Acari) associated with conifers in Mazandaran and biology of spruce spider mite Oligonychus ununguis (Jacobi) in Kelardasht*. M.Sc. thesis, Shahid Chamran University, Ahwaz, Iran, 158 pp.
- Barimani-Varandi, H. & Kamali, K. (1998) Mites (Acari) associated with conifers in Mazandaran, northern province of Iran. *Proceedings of 13<sup>th</sup> Plant Protection Congress of Iran, August 1998, Junior College of Agriculture, Karaj, Iran*, p. 174.
- Barbosa, M.F.C., Fletchmann, C.H.W. & de Moraes, G.J. (2021) Family Pyemotidae Amerling, 1861. In: Barros-Battesti, D.M., Machado, R.Z. & André, M.R. (Eds.), *Brazilian ectoparasite fauna of veterinary importance, volume 1. mite fauna of veterinary importance: Acariformes*. International Cataloguing-in-Publication (CIP) Data, Brazilian Book Chamber, São Paulo, Brazil, pp. 1–294.
- Baumann, J. (2018) Tiny mites on a great journey—a review on scutacarid mites as phoronts and inquilines (Heterostigmata, Pygmephoroida, Scutacaridae). *Acarologia*, 58: 192–251. DOI: [10.24349/acarologia/20184238](https://doi.org/10.24349/acarologia/20184238)
- Behdad, E. (1984) *Pests of fruit trees*. Neshat publication, Esfahan, Iran, 822 pp.

- Beyzavi, G., Ostovan, H. & Magowski, W.L. (2011) Two new reports of Iranian prostigmatic mites (Acari: Prostigmata). *In: Kazemi, S. & Saboori, A. (Eds.), Abstract and proceeding book of the First Persian Congress of Acarology. 22–23 December 2011, Institute of Science and High Technology and Environmental Sciences, Kerman, Iran, p. 70.*
- Camerik, A.M. (2010) Phoresy revisited. *In: Sabelis, M.W. & Bruin, J. (Eds.), Trends in Acarology. Springer, Berlin pp. 333–336.*
- Cross, E.A. (1965) The generic relationships of the family Pyemotidae (Acarina, Trombidiformes). *The University of Kansas Science Bulletin, 45: 29–215.*
- Darvishzadeh, I. (1997) *Biodiversity of grape mites and their predators in Safiabad, Khuzestan*. M. Sc. Thesis. Islamic Azad University, Science and Research Branch, Tehran, Iran, 102 pp.
- Davari, M., Rahiminejad, V. & Hakimitabar, M. (2022) Two new records of scutacarid mites (Acari: Heterostigmata: Scutacaroida) from Iran. *In: Hakimitabar, M. & Sazmand, A. (Eds.), Abstract book of the 4<sup>th</sup> International Persian Congress of Acarology. 28–30 July 2022, Khorasan Razavi Agricultural and Natural Resources Research and Education Center, Mashhad, Iran, p. 11.*
- Ebermann E., Hajiqanbar, H. & Haddad Irani-Nejad, K. (2003) New records of phoretic and soil living mites from Iran (Acari; Heterostigmata; Scutacaridae). *Revue Suisse de Zoologie, 110: 247–253.*
- Ebrahimi, H.R., Arbabi, M. & Rastegari, N. (2010) Study and comparison mite fauna in wheat and barley corps with determination most abundance species in Jahrom region. *In: Manzari, S. (Ed.), Proceedings of 19<sup>th</sup> Iranian Plant Protection Congress. 31 July–3 August 2010, Iranian Research Institute of Plant Protection, Tehran, Iran, p. 412.*
- Faraji, F. (1993) Spider mites *Tetranychus* spp. in eastern Mazandaran and first record of *T. kanzawai* Kishida from Iran. *Proceedings of the 11<sup>th</sup> Iranian Plant Protection Congress, 21–24 September 1993, University of Guilan, Rasht, Iran, p. 266.*
- Faraji, F. & Kamali, K. (1993) Mites associated with *Citrus* spp. in eastern Mazandaran. *Proceedings of the 11<sup>th</sup> Plant Protection Congress of Iran, 21–24 September 1993, Guilan University, Rasht, Iran, p. 186.*
- Farmahiny-Farahani, V.R., Ahadiyat, A. & Darbemamieh, M. (2017) Mite associates of the Mediterranean pine engraver beetle, *Orthotomicus erosus* (Wollaston) (Coleoptera: Curculionidae: Scolytinae), attacking pines in parks and forests of Markazi Province, Iran. *Proceedings of 2<sup>nd</sup> Iranian International Congress of Entomology, 2–4 September 2017, College of Agriculture & Natural Resources, University of Tehran, Karaj, Iran, p. 200.*
- Fatehinia, M., Rahiminejad, V. & Nadimi, A. (2022) Two new records of pygmephoroid mites (Acari: Heterostigmata: Pygmephoroida) for Iran. *In: Hakimitabar, M. & Sazmand, A. (Eds.), Abstract book of 4<sup>th</sup> International Persian Congress of Acarology. 28–30 July 2022, Khorasan Razavi Agricultural and Natural Resources Research and Education Center, Mashhad, Iran, pp. 23.*
- Fathipour, Y. (1994) *Soil mites fauna in orchards of Tabriz and population fluctuation and abundance of important species*. M. Sc. thesis, Faculty of Agriculture, Tarbiat Modarres University, Tehran, 172 pp.
- Filekesh, M., Hajiqanbar, H. & Jabaleh, I. (2014) New records of three species of the superfamily Pygmephoroida (Acari: Heterostigmata) from Asia. *Persian Journal of Acarology, 3: 277–283.*  
[DOI: 10.22073/pja.v3i4.10170](https://doi.org/10.22073/pja.v3i4.10170)
- Ghasemi, M.J. & Tirkari, S. (1991) Study of the probable occurrence of *Acarapis woodi* (R.) in Iranian honey bees. *Proceedings of the 10<sup>th</sup> Iranian Plant Protection Congress, 1–5 September 1991, Shahid Bahonar University, Kerman, Iran, p. 61.*

- Gheblealivand, S., Haddad Irani-Nejad, K., Magowski, W., Przewoźny, M., Manzari, S. & Moghadam vahed, M. (2016a) Two new *Scarabaeus* (Coleoptera: Scarabaeidae) hosts for the parasitic mite genus *Tarsopolipus* (Acari: Podapolipidae). In: Talaei-Hassanloui, R. (Ed.), *Proceedings of 22<sup>nd</sup> Iranian Plant Protection Congress*. University of Tehran, 27–30 August, Karaj, Iran, pp. 489.
- Gheblealivand, S., Haddad Irani-Nejad, K., Manzari, S., Moghadam vahed, M. & Magowski, W. (2016b) New record of a genus and species of the family Tarsonemidae (Acari: Heterostigmata) for the mite fauna of Western Asia. In: Talaei-Hassanloui, R. (Ed.), *Proceedings of 22<sup>nd</sup> Iranian Plant Protection Congress*. University of Tehran, 27–30 August 2016, Karaj, Iran, p. 488.
- Gheblealivand, S. S., Haddad Irani-Nejad, K., Manzari, S., Moghadam-Vahed, M. & Magowski, W. Ł. (2016c) A new species and new records of the genus *Neotarsonemoides* Kaliszewski, 1984 (Acari: Tarsonemidae) from East Azerbaijan province, Northwestern Iran. *Zootaxa*, 4184(1): 63–78. DOI: [10.11646/zootaxa.4184.1.4](https://doi.org/10.11646/zootaxa.4184.1.4)
- Gheblealivand, S., Haddad Irani-Nejad, K., Magowski, W. & Manzari, S. (2017) New records and data on species of the genus *Steneotarsonemus* (Acari: Tarsonemidae) in East Azerbaijan Province (Northwestern Iran). In: Hajiqanbar, H. & Saboori, A. (Eds.), *Abstract book of the 3<sup>rd</sup> International Persian Congress of Acarology*. 23–25 August 2017, Faculty of Science, University of Tehran, Tehran, Iran, p. 17.
- Gheblealivand, S., Haddad Irani-Nejad, K., Magowski, W.Ł. & Manzari, S. (2018) The genus *Tarsonemus* Canestrini and Fanzago, 1876 (Acari: Heterostigmata: Tarsonemidae) in East Azerbaijan, Iran, with a description of *T. lenticulatus* sp. nov. and re-description of *T. annotatus* Livshits, Mitrofanov and Sharonov, 1979. *Zootaxa*, 4446(1): 13–38. DOI: [10.11646/zootaxa.4446.1.2](https://doi.org/10.11646/zootaxa.4446.1.2).
- Haddad Irani-Nejad, K. (1998) *Cotton mite fauna in Moghan plain and evaluating the effects of morphological characteristics of some cotton varieties on biological reactions of the two-spotted spider mite Tetranychus urticae* (Acari: Tetranychidae). Ph. D. dissertation, Faculty of Agriculture, Tarbiat Modares University, Tehran, Iran, 290 pp.
- Haddad Irani-Nejad, K., Hajiqanbar, H. & Talebi Chaichi, P. (2005) An introduction of the prostigmatic mites in sugarbeet fields in Miandoab plain. *Iranian Journal of Agricultural Science*, 36(1): 247–262.
- Hajiqanbar, H. (2002) *Mite fauna of the sugarbeet fields of Miandoab plain*. M. Sc. thesis. Faculty of Agriculture, Tabriz University, Tabriz, Iran, 280 pp.
- Hajiqanbar, H. (2008) *Heterostigmatic mites (Acari: Heterostigmata) associated with Coleoptera and Hymenoptera in some regions of Razavi and North Khorasan provinces*. Ph. D. dissertation. Faculty of Agriculture, Tarbiat Modares University, Tehran, Iran, 220 pp.
- Hajiqanbar, H. (2010a) New record of the *Acarophenax mahunkai* (Acari; Heterostigmata; Acarophenacidae) an egg parasitoid of *Alphitobius diaperinus* (Col.: Tenebrionidae) for mite fauna of Iran. *International Symposium-cum-Workshop in Acarology, Kalyani (Nadia), West Bengal, India*, p. 138.
- Hajiqanbar, H. (2010b) Some scutacarid mites (Acari: Scutacaridae) associated with ants (Hym.: Formicoidea) and their nests from Iran. *European Congress of Entomology, Budapest, Hungary*, p. 238.
- Hajiqanbar, H. (2013) *Podapolipus khorasanicus* n. sp. (Acari: Podapolipidae), an ectoparasite of *Opatroides punctulatus* (Coleoptera: Tenebrionidae), with notes on world distribution and host range of the beetle-associates of *Podapolipus* spp. *Annales of the Entomological Society of America*, 106(2): 181–188. DOI: [10.1603/AN12101](https://doi.org/10.1603/AN12101)

- Hajiqanbar, H., Ahmadi, S. & Saboori, A. (2011a) Extending host range of the genus *Parapygmephorus* Cross, 1965 (Acari: Heterostigmata: Neopygmephoridae) beyond bees of the family Halictidae (Hymenoptera: Apoidea). In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and proceeding book of the First Persian Congress of Acarology*, 22–23 December 2011, Institute of Science and High Technology and Environmental Sciences, Kerman, Iran, p. 70.
- Hajiqanbar, H. & Arjomandi, E. (2019a) Heterostigmatic mites (Acari: Trombidiformes: Prostigmata) associated with Coleoptera and Hymenoptera in Mazandaran province, northern Iran. *Persian Journal of Acarology*, 8(4): 343–352.
- Hajiqanbar, H. & Arjomandi, E. (2019b) *Parandra caspia* (Coleoptera: Cerambycidae), a new host record for mites of the family Microdispidae (Acari: Prostigmata) from Behshahr, Northern Iran. *Proceeding of the 3<sup>rd</sup> Iranian International Congress of Entomology, 17–19 August 2019, University of Tabriz, Tabriz, Iran*, p. 149.
- Hajiqanbar, H., Baradaran, P. & Taheri, M.S. (2011b) First record of *Acarophenax rackae* (Acari: Heterostigmata: Acarophenacidae), an egg parasitoid of *Tribolium confusum* (Col.: Tenebrionidae) from Iran. *Journal of Entomological Society of Iran*, 31(1): 87–88.
- Hajiqanbar, H. & Hosseinaveh, F. (2014) A new genus and species of the family Microdispidae (Acari: Prostigmata) associated with *Oryctes nasicornis* (Coleoptera: Scarabaeidae) and redescription of the monotypic genus *Vietodispus* Mahunka, 1975. *Zoological Studies*, 53: 58. DOI: [10.1186/s40555-014-0058-7](https://doi.org/10.1186/s40555-014-0058-7).
- Hajiqanbar, H., Husband, R.W., Kamali, K., Saboori, A. & Kamali, H. (2007) *Ovacarus longisetosus* n. sp. (Acari: Podapolipidae) from *Amara (Paracelia) saxicola* Zimm. (Coleoptera: Carabidae) and new records of *Coccipolipus*, *Dorsipes*, *Eutarsopolipus* and *Tarsopolipus* from Iran. *International Journal of Acarology*, 33(3): 241–244. DOI: [10.1080/01647950708684528](https://doi.org/10.1080/01647950708684528)
- Hajiqanbar, H., Husband, R.W., Kamali, K., Saboori, A. & Kamali, H. (2008a) *Dorsipes saxicolae*, a new species of mite (Acari: Podapolipidae), an ectoparasite of *Amara (Paracelia) saxicola* Zimm. (Coleoptera: Carabidae) from Iran. *International Journal of Acarology*, 34: 85–90.
- Hajiqanbar, H. & Joharchi, O. (2011) World distribution and host range of *Podapolipoides* spp. (Acari: Heterostigmata: Podapolipidae), with the description of a new species. *Systematic Parasitology*, 78(2): 151–162. DOI: [10.1007/s11230-010-9284-5](https://doi.org/10.1007/s11230-010-9284-5)
- Hajiqanbar, H., Kamali, K. & Husband, R.W. (2008b) Review of parasitic mites of the family Podapolipidae (Acari: Prostigmata) in Iran. *Proceeding of the 18<sup>th</sup> Iranian Plant Protection Congress, 24–27 August, Bu-Ali Sina University, Hamedan, Iran*, p. 251.
- Hajiqanbar, H. & Khaustov, A.A. (2010) A new species group and five new species of the genus *Pavania* (Acari: Dolichocybidae) associated with insects, with notes on leg chaetotaxy and the distribution of genera. *European Journal of Entomology*, 107(3): 441–453. DOI: [10.14411/eje.2010.051](https://doi.org/10.14411/eje.2010.051)
- Hajiqanbar, H. & Khaustov, A.A. (2013) New species and record of the genus *Petalomium* (Acari: Heterostigmata: Neopygmephoridae) associated with ants (Hymenoptera: Formicoidea) from Iran. *Biologia*, 68(4): 712–719.
- Hajiqanbar, H. & Khaustov, A.A. (2014) First record of the genus *Archidispus* (Acari: Scutacaridae) from Iran with description of a new species. *Persian Journal of Acarology*, 3(1): 1–8.
- Hajiqanbar, H., Khaustov, A.A. & Kamali, K. (2011c) A new species of *Parapygmephorus* Cross, 1965 (Acari; Heterostigmata; Neopygmephoridae) phoretic on *Halictus quadricinctus* (Fabricius, 1776) (Hym.; Halictidae) from Iran. *Zoological Science*, 28: 56–60. DOI: [10.2108/zsj.28.56](https://doi.org/10.2108/zsj.28.56)

- Hajiqanbar, H., Khaustov, A. & Kamali, K. (2011d) A new species of *Parapygmephorus* (Acari; Heterostigmata; Neopygmephoridae) phoretic on *Halictus quadricinctus* (Fabricius, 1776) (Hym.; Halictidae) from Iran. *Zoological Science*, 28(1): 56–60. DOI: [10.2108/zsj.28.56](https://doi.org/10.2108/zsj.28.56)
- Hajiqanbar, H., Khaustov, A.A., Kamali, K. & Saboori, A. (2008c) A new genus and species of mites of the family Carabacaridae (Acari: Heterostigmata) associated with carabid beetles (Coleoptera: Carabidae) from Iran. *Zootaxa*, 1788: 57–65. DOI: [10.11646/zootaxa.1788.1.5](https://doi.org/10.11646/zootaxa.1788.1.5)
- Hajiqanbar, H., Khaustov, A.A., Kamali, K., Saboori, A. & Kamali, H. (2009) New taxa of the family Trochometriviidae (Acari: Heterostigmata) associated with insects from Iran. *Journal of Natural History*, 43(43–44): 2701–2722.
- Hajiqanbar, H., Khaustov, A.A. & Mortazavi, A. (2019a) New species of the genera *Dolichocybe* and *Pavania* (Acari: Dolichocybidae), phoretic on scarab beetles (Coleoptera: Scarabaeidae) from Iran. *Systematic & Applied Acarology*, 24(8): 1363–1382. DOI: [10.11158/saa.24.8.3](https://doi.org/10.11158/saa.24.8.3)
- Hajiqanbar, H. & Khoshnevis, M. (2011) New records of the genus and species *Regenpolipus madrasensis* (Acari: Heterostigmata: Podapolipidae), the ectoparasite of carabid beetles from Iran. *Journal of Entomological Society of Iran*, 31(1): 91–93.
- Hajiqanbar, H. & Mahunka, S. (2004) A new record of a subfamily belonging to Pygmephoroidae (Acari: Heterostigmata) from Iran. *Proceedings of the 16<sup>th</sup> Iranian Plant Protection Congress, 28 August–1 September, University of Tebriz, Tabriz, Iran*, p. 251.
- Hajiqanbar, H. & Mortazavi, A. (2012) First record of the *myzus* species group (Acari: Podapolipidae: *Eutarsopolipus* Berlese, 1911) from Asia, with the description of two new species parasitising carabid beetles. *Systematic Parasitology*, 83: 189–202. DOI: [10.1007/s11230-012-9384-5](https://doi.org/10.1007/s11230-012-9384-5)
- Hajiqanbar, H., Mortazavi, A., Khaustov, A.A. (2019b) Two new species of *Eutarsopolipus* (Acari: Prostigmata: Podapolipidae) parasitizing *Syntomus lateralis* (Coleoptera: Carabidae) from Iran. *Zootaxa*, 4647: 154–167. DOI: [10.11646/zootaxa.4647.1.13](https://doi.org/10.11646/zootaxa.4647.1.13)
- Hajiqanbar, H., Rahiminejad, V. & Fathipour, Y. (2012a) New insect host records for mites of the family Microdispidae (Acari: Heterostigmata), with description of a new species of the genus *Paramicrodispus*. *Entomological Science*, 15(3): 309–313. DOI: [10.1111/j.1479-8298.2012.00515.x](https://doi.org/10.1111/j.1479-8298.2012.00515.x)
- Hajiqanbar, H. & Rakhshani, E. (2011) *Parapygmephorus delyorum* (Acari: Heterostigmata: Neopygmephoridae), a species new to mite fauna of Iran. *Journal of Entomological Society of Iran*, 31(1): 89–90.
- Hajiqanbar, H., Salarzahi, S., Olyaie Torshiz, A. & Noei, J. (2012b) First record of the *Premicrodispus lineatus* (Mahunka, 1986) (Acari: Heterostigmata, Microdispidae) from Iran. *Persian Journal of Acarology*, 1(2): 157–158. DOI: [10.1111/j.1479-8298.2012.00515.x](https://doi.org/10.1111/j.1479-8298.2012.00515.x)
- Hajiqanbar, H. & Sobhi, M. (2018) New records of the microdispid mites (Acari: Heterostigmata: Microdispidae) associated with ants with a review of the family in Iran. *Persian Journal of Acarology*, 7(2): 105–113. DOI: [10.22073/pja.v7i2.35131](https://doi.org/10.22073/pja.v7i2.35131)
- Hajiqanbar, H. & Tajodin, M. (2020) Description of *Petalomium olszanowskii* sp. nov. (Acari: Neopygmephoridae), redescription of *P. aleinikovae*, and some new records of the *Myrmecophilous petalomium* from Iran. *Annales Zoologici*, 70(3): 333–343. DOI: [10.3161/00034541ANZ2020.70.3.006](https://doi.org/10.3161/00034541ANZ2020.70.3.006)
- Hajizadeh, J. & Hosseini, R. (2022) Introduction of mites collected from light traps in Rasht city. *Plant Pest Research*, 12(1): 1–13.
- Hamidi, P., Ostovan, H., Kamali, K. & Ahadiyat, A. (2013) Fauna of mites associated with ornamental plants in Tehran, Iran. In: Joharchi, S. & Saboori, A. (Eds.), *Abstract book of the 2<sup>nd</sup>*

- International Persian Congress of Acarology*, 29–31 August 2013, Faculty of Agriculture, University of Tehran, Karaj, Iran, p. 14.
- Hashemi Khabir, Z., Haddad Irani-Nejad, K. & Akbari, A. (2013) Some of edaphic mesostigmatic and prostigmatic mites in Southwest of East Azerbaijan Province, Iran. *In: Joharchi, S. & Saboori, A. (Eds.), Abstract book of the 2<sup>nd</sup> International Persian Congress of Acarology*. 29–31 August 2013, Faculty of Agriculture, University of Tehran, Karaj, Iran, p. 13.
- Hatami, B. (1991) A report of two species and four genera of mites (Acari) from alfalfa fields in Esfahan province. *Proceedings of the 10th Iranian Plant Protection Congress, 1–5 September 1991, Shahid Bahonar University, Kerman, Iran*, p. 86.
- Hofstetter, R.W. & Moser, J. C. (2014) The role of mites in insect-fungus associations. *Annual Review of Entomology*, 59: 537–557. DOI: [10.1146/annurev-ento-011613-162039](https://doi.org/10.1146/annurev-ento-011613-162039)
- Hosseininaveh, F., Hajiqanbar, H. & Talebi, A.A. (2013) First record of the *Premicrodispus akermanae* (Sevastianov and Al Douri, 1988) (Acari: Microdispidae) from Iran. *In: Joharchi, O. & Saboori, A. (Eds.), Abstract book of the 2<sup>nd</sup> International Persian Congress of Acarology*. 29–31 August 2013, Faculty of Agriculture, University of Tehran, Karaj, Iran, p. 15.
- Hosseininaveh, F., Hajiqanbar, H. & Talebi, A.A. (2014) Two new species of the genus *Premicrodispus* (Acari: Microdispidae) associated with beetles (Coleoptera: Lucanidae: Tenebrionidae), with a key to Palaearctic species of the genus. *Journal of Natural History*, 49: 915–931. DOI: [10.1080/00222933.2014.953225](https://doi.org/10.1080/00222933.2014.953225)
- Janghorbani, A., Rahiminejad, V. & Sarailoo, M. (2022) *Premicrodispus stenops* (Mahunka, 1969) (Acari: Heterostigmata: Microdispidae) associated with the nest of *Tetramorium* sp. (Hymenoptera: Formicidae). *In: Hakimitabar, M. & Sazmand, A. (Eds.), Abstract book of the 4<sup>th</sup> International Persian Congress of Acarology*. 28–30 July 2022, Khorasan Razavi Agricultural and Natural Resources Research and Education Center, Mashhad, Iran, p. 27.
- Kaliszewski, M., Athias-Binche, F. & Lindquist, E.E. (1995) Parasitism and parasitoidism in Tarsonemina (Acari: Heterostigmata) and evolutionary considerations. *Advances in Parasitology*, 35: 335–67. DOI: [10.1016/S0065-308X\(08\)60074-3](https://doi.org/10.1016/S0065-308X(08)60074-3)
- Kamali, K. & Shishehbor, P. (1989) Fauna of mites (Acari) associated with fig in south-western provinces of Iran. *Proceedings of the 9<sup>th</sup> Iranian Plant Protection Congress, 9–14 September 1989, Ferdowsi University, Mashhad, Iran*, p. 72.
- Kamali, K. (1986) *Acarology*. Classroom fascicle (unpublished), Ahwaz, 241 pp.
- Kamali, K. (1990) A checklist of plant mites (Acari) of Khuzestan, south-western Iran. *Scientific Journal of Agriculture*, 13: 73–83.
- Kamali, K. (1995) *Insect and arachnid biodiversity in Iran* (Unpublished personal notes), 63 pp.
- Kamali, K., Ostovan, H. & Atamehr, A. (2001) *A catalog of mites and ticks (Acari) of Iran*. Islamic Azad University Scientific Publication Center, Tehran, 192 pp.
- Katlav, A. & Hajiqanbar, H. (2018) First description of male and larval female of parasitic mite *eutarsopolipus abdominis* (Acari: Podapolipidae) with redescription of the adult female. *Journal of Parasitology*, 104(1): 1–9. DOI: [10.1645/17-152](https://doi.org/10.1645/17-152)
- Katlav, A., Hajiqanbar, H. & Talebi, A.A. (2014a) First record of the genus *Acanthomastix* Mahunka, 1972 (Acari: Dolichocybidae) from Asia, with the description of a new species. *International Journal of Acarology*, 40(1): 7–14. DOI: [10.1080/01647954.2014.883429](https://doi.org/10.1080/01647954.2014.883429)
- Katlav, A., Hajiqanbar, H. & Talebi, A.A. (2014b) First record of *Archidispus bembidii* (Heterostigmata: Scutacaridae) from Iran. *Proceedings of the 21<sup>st</sup> Iranian Plant Protection Congress, 23–26 August 2014, University of Urmia, Urmia, Iran*, p. 949.

- Katlav, A., Hajiqanbar, H. & Talebi, A.A. (2014c) *Dorsipes caspius* n. sp. (Acari: Podapolipidae), a subelytral parasite of *Pterostichus caspius* (Menetries) (Coleoptera: Carabidae) with notes on host range of the genus and the distribution of the platysmae group. *Systematic Parasitology*, 89: 117–132. DOI: [10.1007/s11230-014-9512-5](https://doi.org/10.1007/s11230-014-9512-5)
- Katlav, A., Hajiqanbar, H. & Talebi, A.A. (2015a) *Pseudopygmephorellus mazandaranicus* sp. nov. (Acari: Heterostigmata: Pygmephoridae), phoretic on scarabaeid dung beetles (Coleoptera: Scarabaeidae) from Iran. *Zootaxa*, 3919(1): 100–110. DOI: [10.11646/zootaxa.3919.1.5](https://doi.org/10.11646/zootaxa.3919.1.5)
- Katlav, A., Hajiqanbar, H. & Talebi, A.A. (2015b) First record of the genus *Aethiophenax* (Acari: Acarophenacidae) from Asia, redefinition of the genus and description of a new species. *Journal of Asia-Pacific Entomology*, 18: 389–395. DOI: [10.1016/j.aspen.2015.03.011](https://doi.org/10.1016/j.aspen.2015.03.011)
- Katlav, A., Hajiqanbar, H. & Talebi, A.A. (2015c) A new genus and species of mites of the family Caraboacaridae (Acari: Heterostigmata) associated with *Clivina ypsilon* (Coleoptera: Carabidae) with notes on distribution and host range of the family. *Canadian Entomologist*, 147(4): 1–11. DOI: [10.4039/tce.2014.61](https://doi.org/10.4039/tce.2014.61)
- Katlav, A., Hajiqanbar, H. & Talebi, A.A. (2015d) A contribution to the knowledge of heterostigmatic mites (Acari: Prostigmata) in western Mazandaran Province, Northern Iran. *Acarologia*, 55(3): 311–320. DOI: [10.1051/acarologia/20152175](https://doi.org/10.1051/acarologia/20152175)
- Katlav, A., Hajiqanbar, H. & Talebi, A.A. (2015e) First record of the mite *Eutarsopolipus abdominis* (Acari: Podapolipidae) from Asia. *Proceedings of the 1<sup>st</sup> Iranian International Congress of Entomology, Iranian Research Institute of Plant Protection, 29–31 August 2015, Tehran, Iran*, p. 51.
- Katlav, A., Hajiqanbar, H. & Talebi, A.A. (2016) Two remarkable new species of the superfamily Pygmephoroidae (Acari: Heterostigmata) associated with beetles (Coleoptera: Carabidae, Staphylinidae). *Annales of the Entomological Society of America*, 109: 136–144. DOI: [10.1093/aesa/sav099](https://doi.org/10.1093/aesa/sav099)
- Katlav, A., Hajiqanbar, H., Riegler, M. & Seeman, O.D. (2021) Sheltered life beneath elytra: three new species of *Eutarsopolipus* (Acari, Heterostigmata, Podapolipidae) parasitizing Australian ground beetles. *Parasite*, 28(75): 1–21. DOI: [10.1051/parasite/2021069](https://doi.org/10.1051/parasite/2021069)
- Katlav, A., Riegler, M. & Seeman, O.D. (2020) Tiny hitchhikers and parasites: a review of Australian heterostigmatic mites (Acari: Prostigmata) associated with insects, with description of three new species. *Austral Entomology*, 59: 401–421. DOI: [10.1111/aen.12484](https://doi.org/10.1111/aen.12484)
- Kazemi, S. & Kamali, K. (2006) New records of mites (Astigmata, Mesostigmata, Prostigmata) associated with *Bombus argillaceus* (Hymenoptera, Apoidea) from Iran. *Abstract Book of the 12<sup>th</sup> International Congress of Acarology, 21–26 August 2006, Amsterdam, The Netherlands*, p. 90.
- Kazemi, S. & Khaustov, A.A. (2008) The first report of *Bakerdania graciloides* (Acari: Prostigmata: Pygmephoroidae) from Iran. *Journal of Entomological Society of Iran*, 27(2): 27–28.
- Khalilmanesh, B. (1973) Phytophagous mite fauna of Iran (I). *Applied Entomology and Phytopathology*, 35: 30–38.
- Khadem-Safdarkhani, H., Hajiqanbar, H. & Mehrabadi, M. (2022) A new host record for mites of the parasitic genus *Podapolipus* (Acari: Podapolipidae). In: Hakimitabar, M. & Sazmand, A. (Eds.), *Abstract book of the 4<sup>th</sup> International Persian Congress of Acarology*. 28–30 July 2022, Khorasan Razavi Agricultural and natural Resources Research and Education Center, Mashhad, Iran, pp. 21.
- Khanjani, M. (1996) *Mites (Acari) associated with Fabaceae plants in Hamedan province and functional responses of Anystis baccarum (L.) and Erythraeus sp. to developmental stages of*

- Tetranychus turkestani (U. & N.). Ph. D. dissertation, Tarbiat Modares University, Tehran, Iran, 437 pp.
- Khanjani, M. & Kamali, K. (1993) Mites (Acari: Actinedida) associated with Fabaceae plants in Hamedan. *Proceedings of the 11<sup>th</sup> Iranian Plant Protection Congress, 21–24 September 1993, Guilan University, Rasht, Iran*, p. 265.
- Khaustov, A.A. (2004) Mites of the family Neopygmephoridae Cross, 1965 stat. n. and their position in Heterostigmata. In: Balashov, Y.S. (Ed.), *Abstract book of the VIII Russian Acarological Conference, St. Petersburg. Zoological Institute of RAS, St. Petersburg, Russia*, p. 137.
- Khaustov, A.A. (2008) *Mites of the family Scutacaridae of Eastern Palaearctic*. Akademperiodyka, Kiev, 291 pp.
- Khaustov, A.A. (2015) A new genus and species of the family Pygmephoridae (Acari: Pygmephoroidae) from southern Chile. *International Journal of Acarology*, 41(3): 202–209. DOI: [10.1080/01647954.2015.1022217](https://doi.org/10.1080/01647954.2015.1022217)
- Khaustov, A.A. & Hajiqanbar, H. (2004) *Bakerdania uniseta* sp. n. a new species of mites (Acari: Pygmephoridae) associated with the scarab beetle *Pleurophorus anatolicus* (Col.; Scarabaeidae) from Iran. *Acarina*, 12(2): 109–112.
- Khaustov, A.A. & Hajiqanbar, H. (2006) Redefinition of the genus *Allopygmephorus* (Acari: Heterostigmata: Neopygmephoridae), with description of a new species from Iran. *Acarina*, 14: 191–194.
- Khaustov A.A. & Minor, M.A. (2018) New taxa of the mite family Neopygmephoridae (Acari: Heterostigmata) from alpine New Zealand. *Zootaxa*, 4415(2): 276–296. DOI: [10.11646/zootaxa.4415.2.3](https://doi.org/10.11646/zootaxa.4415.2.3)
- Khaustov, A.A. & Frolov, A.V. (2020) First record of Athyreacaridae (Acari: Heterostigmata) from Asia with description of two new species of *Athyreacarus* from India and Sri Lanka. *Zootaxa*, 4779(2): 260–272. DOI: [10.11646/zootaxa.4779.2.7](https://doi.org/10.11646/zootaxa.4779.2.7)
- Khaustov, A.A. & Abramov, V.V. (2021) A new species of *Adactylidium* (Acari: Heterostigmata: Acarophenacidae) associated with *Phlaeothrips* sp. (Thysanoptera: Phlaeothripidae) from European Russia. *Acarologia*, 61(2): 356–364. DOI: [10.24349/acarologia/20214435](https://doi.org/10.24349/acarologia/20214435)
- Khaustov, A.A., Vorontsov, D.D., Perkovsky, E.E. & Lindquist, E.E. (2021a) Review of fossil heterostigmatic mites (Acari: Heterostigmata) from late Eocene Rovno Amber. I. Families Tarsocheylidae, Dolichocybidae and Acarophenacidae. *Systematic and Applied Acarology*, 26(1): 33–61. DOI: [10.11158/saa.26.1.3](https://doi.org/10.11158/saa.26.1.3)
- Khaustov, A.A., Petrov, A.V. & Kolesnikov, V.B. (2021b) A new genus and two new species of Tarsonemidae (Acari: Heterostigmata) associated with bark beetles (Coleoptera: Curculionidae: Scolytinae) from Peru. *Zootaxa*, 4966(1): 041–053. DOI: [10.11646/zootaxa.4966.1.4](https://doi.org/10.11646/zootaxa.4966.1.4)
- Khaustov, A.A. & Frolov, A.V. (2022) Two new species of *Pavania* (Acari: Heterostigmata: Dolichocybidae) associated with scarab beetles (Coleoptera: Scarabaeidae) from Tanzania and Madagascar. *Persian Journal of Acarology*, 11(4): 545–558. DOI: [10.22073/pja.v11i4.76531](https://doi.org/10.22073/pja.v11i4.76531)
- Kheradmand, K., Kamali, K., Fathipour, Y., Ueckermann, E. & Mohammadi Goltapeh, E. (2007) Mite fauna associated with button mushroom (*Agaricus bisporus*) in Karaj Region, Iran. *Acta Entomologica Sinica*, 50(4): 416–422.
- Kheradpir, N. & Pakyari, H. (2011) Fauna of some inhabiting mites (Acari) of Varamin region, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and proceeding book of the First Persian Congress of Acarology*. 22–23 December 2011, Institute of Science and High Technology and Environmental Sciences, Kerman, Iran, p. 70.

- Kiani Bakiani, S., Monfared, A., Hajiqanbar, H. & Azhari, S. (2016) A survey on Apoidea (Insecta: Hymenoptera) bees and their associated mites in Fars Province, Iran. *Journal of Insect Biodiversity and Systematics*, 2(2): 285–299.
- Klimov, P.B., OConnor, B.M., Chetverikov, P.E., Bolton, S.J., Pepato, A.R., Mortazavi, A.L., Tolstikov, A.V., Bauchan, G.R. & Ochoa, R. (2017) Comprehensive phylogeny of acariform mites (Acariformes) provides insights on the origin of the four-legged mites (Eriophyoidea), a long branch. *Molecular Phylogenetics and Evolution*, 1(19): 105–117. DOI: [10.1016/j.ympev.2017.10.017](https://doi.org/10.1016/j.ympev.2017.10.017)
- Krantz, G.W & Walter, D.E. (Eds.) (2009) *A manual of acarology*. 3<sup>rd</sup> Edition. Texas Tech University Press; Lubbock, Texas, USA, 807 pp.
- Lin, J. & Zhang, Z.-Q. (2002) *Tarsonemidae of the world (Acari: Prostigmata): key to genera, geographical distribution, systematic catalogue and annotated bibliography*. Systematic and Applied Acarology Society, London, UK, 440 pp.
- Lindquist, E.E. (1976) Transfer of the Tarsocheyleidae to the Heterostigmata, and reassignment of the Tarsonemina and Heterostigmata to lower hierarchic status in the Prostigmata (Acari). *The Canadian Entomologist*, 108: 23–48.
- Lindquist, E.E. (1986) The world genera of Tarsonemidae (Acari: Heterostigmata): a morphological, phylogenetic and systematic revision with a reclassification of family-group taxa in the Heterostigmata. *Memoirs of the Entomological Society of Canada*, 136: 1–517.
- Loghmani, A., Hajiqanbar, H. & Talebi, A.A. (2013) A new species group and species of the genus *Pavania* (Acari: Dolichocybidae), phoretic on *Onthophagus vitulus* (Coleoptera: Scarabaeidae) from Iran. *Zootaxa*, 3693(3): 320–328. DOI: [10.11646/zootaxa.3693.3.2](https://doi.org/10.11646/zootaxa.3693.3.2)
- Loghmani, A., Hajiqanbar, H. & Talebi, A.A. (2014a) New records of mites of the superfamily Pygmephoroidae (Acari: Heterostigmatina) associated with insects from northeastern Iran and new host records. *Systematic and Applied Acarology*, 19(2): 154–159. DOI: [10.11158/saa.19.2.5](https://doi.org/10.11158/saa.19.2.5)
- Loghmani, A., Hajiqanbar, H. & Talebi, A.A. (2014b) An illustrated key to world species of the mite family Trochometridiidae (Acari: Prostigmata), with description of a new species and new insect host records. *Canadian Entomologist*, 146(5): 471–480. DOI: [10.4039/tce.2014.3](https://doi.org/10.4039/tce.2014.3)
- Loghmani, A., Hajiqanbar, H., Talebi, A. (2014c) New species and new record of the genus *Caesarodispus* (Acari: Heterostigmatina: Microdispidae) phoretic on *Temnothorax* sp. (Hymenoptera: Formicidae) with a key to world species of the genus. *Annales Zoologici*, 64: 273–278.
- Lotfollahi, P., Haddad Irani-Nejad, K., Valizadeh, M., Bagheri, M. & Camerik, A.M. (2008a) Siteroptid soil mite fauna of alfalfa field in northwest of East Azarbaijan province, Iran. *Proceedings of the 18<sup>th</sup> Iranian Plant Protection Congress, 24–27 August 2008, Bu-Ali Sina University, Hamedan, Iran*, p. 262.
- Lotfollahi, P., Haddad Irani-Nejad, K., Bagheri, M., Valizadeh, M., Khaustov, A.A. & Camerik, A. M. (2009) Pygmephoroid soil mite fauna of alfalfa fields and their distribution in Northwest of East Azarbaijan province, Iran. *Agricultural Science*, 19: 298–317.
- Lotfollahi, P., Haddad Irani-Nejad, K. & Magowski, W. (2010a) Four new records of *Tarsonemus* Canestrini & Fanzago, 1876 (Trombidiformes: Tarsonemidae) mites for Iran. In: Manzari, S. (Ed.), *Proceedings of 19<sup>th</sup> Iranian Plant Protection Congress*. 31 July–3 August 2010, Iranian Research Institute of Plant Protection, Tehran, Iran, p. 380.
- Lotfollahi, P., Haddad Irani-Nejad, K. & Magowski, W. (2010b) A new genus and two new species records of the family Tarsonemidae (Acari: Trombidiformes) from Northwest of Iran. In: Manzari, S. (Ed.), *Proceedings of 19<sup>th</sup> Iranian Plant Protection Congress*. 31 July–3 August 2010, Iranian Research Institute of Plant Protection, Tehran, Iran, p. 381.

- Lotfollahi, P., Haddad Irani-Nejad, K., Valizadeh, M., Bagheri, M. & Khaustov, A.A. (2008b) Scutacarid soil mite fauna of alfalfa fields in northwest of East Azarbaijan province, Iran. *Proceedings of the 18<sup>th</sup> Iranian Plant Protection Congress, Bu-Ali Sina University, 24–27 August, Hamedan, Iran*, p. 263.
- Lotfollahi, P., Tajaddod, S. & Houshyari, F. (2016) First record of the genus *Adactylidium* Cross, 1965 (Acari: Trombidiformes: Acarophenacidae) from Asia. In: Talaei-Hassanloui, R. (Ed.), *Proceedings of 22<sup>nd</sup> Iranian Plant Protection Congress*. University of Tehran, 27–30 August 2016, Karaj, Iran, p. 495.
- Magowski, W.L. (2010) *Schaarschmidtia*, a new subgenus of the genus *Tarsonemus* Canestrini and Fanzago, 1876 (Acari: Heterostigmata: Tarsonemidae) - a systematic review of the mite taxon associated with subcortical coleopteran insects, with notes on its host affiliation, ecology and biogeography. *Polish Journal of Entomology*, 79 (Supplement): 1–176.
- Magowski, W.L., Diduszko, D. & Ahadiyat, A. (2007) A new species of the genus *Tarsonemus* Canestrini et Fanzago, 1876 (Acari: Tarsonemidae) associated with *Scolytus amygdali* (Coleoptera: Scolytidae) a pest of fruit trees in Iran. *Polish Journal of Entomology*, 76: 225–237.
- Magowski, W.L., Ahadiyat, A. & Ostovan, H. (2017) Tarsonemid mites (Acari, Heterostigmata) found in association with bark beetles (Insecta, Curculionidae, Scolytinae) in Iran. *Turkish Journal of Zoology*, 41: 323–328. DOI: [10.3906/zoo-1601-46](https://doi.org/10.3906/zoo-1601-46)
- Mahunka, S. & Rohde, C.J. (1970) A new scutacarid and some pyemotid mites from Iran. *Acarologia*, 12(1): 103–105.
- Majidi, M., Hajiqanbar, H. & Saboori, A. (2017) An undescribed species of *Podapolipus* (Acari: Podapolipidae) from Iran: the first host record of a podapolipid mite from the widespread beetle *Trachyderma hispida* (Col.: Tenebrionidae). In: Hajiqanbar, H. & Saboori, A. (Eds.), *Abstract book of the 3<sup>rd</sup> International Persian Congress of Acarology*. 23–25 August 2017, Faculty of Science, University of Tehran, Tehran, Iran, p. 26.
- Majidi, M., Hajiqanbar, H. & Saboori, A. (2018a) The first report of *Pediculaster rysanovy* Samsinak, 1989 (Acari: Pygmephoridae) from Iran. In: Pourrahim, R. & Farzadfar, S. (Eds.), *Proceedings of the 23<sup>rd</sup> Iranian Plant Protection Congress*. Gorgan University of Agricultural Sciences and Natural Resources, 27–30 August 2018, Gorgan, Iran, p. 1602.
- Majidi, M., Hajiqanbar, H. & Saboori, A. (2019) A new species of *Podapolipus* (Acari: Podapolipidae) from Iran: the first host record of a podapolipid mite parasitizing the widespread beetle *Trachyderma hispida* (Coleoptera: Tenebrionidae). *Biologia*, 74: 675–682. DOI: [10.2478/s11756-019-00206-1](https://doi.org/10.2478/s11756-019-00206-1)
- Majidi, M., Hajiqanbar, H. & Saboori, A. (2022a) *Podapolipoides chorthippus* n. sp. (Acari: Prostigmata: Podapolipidae), an ectoparasite of *Chorthippus* sp. (Orthoptera: Acrididae) from southern Iran. *Acarologia*, 62(1): 120–129. DOI: [10.24349/38vh-n9rc](https://doi.org/10.24349/38vh-n9rc)
- Majidi, S., Rahiminejad, V. & Nadimi, A. (2022b) *Krczaldania primitiva* (Krczal, 1959) (Acari: Pygmephoridae) associated with mushroom-forming fungi *Psathyrella* sp. (Fungi: Psathyrellaceae). In: Hakimitabar, M. & Sazmand, A. (Eds.), *Abstract book of the 4<sup>th</sup> International Persian Congress of Acarology*. 28–30 July 2022, Khorasan Razavi Agricultural and natural Resources Research and Education Center, Mashhad, Iran, p. 49.
- Mansour ghazi, M., Kamali, K., Arbabi, M. & Khanizad, A. (2006) Faunistic study of strawberry mites of Kurdistan province. *Proceedings of the 17<sup>th</sup> Iranian Plant Protection Congress, 2–5 September 2006, University of Tehran, Karaj*, p. 181.
- Mansour ghazi, M., Bahrami Kamangar, S. & Magowski, W. (2016) Strawberry mite (*Phytonemus pallidus fragariae*) a new destructive species for fauna of Iran. In: Talaei-Hassanloui, R. (Ed.),

- Proceedings of 22<sup>nd</sup> Iranian Plant Protection Congress*. University of Tehran, 27–30 August 2016, Karaj, Iran, pp. 490.
- Mirfakhraii, S. (1994) *Faunistic study on house mites and biology of important species in Urmieh*. M. Sc. thesis, Tarbiat Modares University, Tehran, 173 pp.
- Mirjamali, R., Ostovan, H., Kamali, K. & Hajiqanbar, H. (2008a) First record of the family Caraboacaridae (Acari: Prostigmata) from Iran. *Proceedings of the 18<sup>th</sup> Iranian Plant Protection Congress, 24–27 August 2008, Bu-Ali Sina University, Hamedan, Iran*, p. 229.
- Mirjamali, R., Ostovan, H., Kamali, K. & Mahunka, S. (2008b) Mites of the families Pygmephoridae and Tarsonemidae in Malard research station (Tehran). *Proceedings of the 18<sup>th</sup> Iranian Plant Protection Congress, 24–27 August 2008, Bu-Ali Sina University, Hamedan, Iran*, p. 229.
- Modarres Awal, M. (1994) *List of agricultural pests and their natural enemies in Iran*. Ferdowsi University Press, Mashhad, Iran, 364 pp.
- Modarres Awal, M. (1997) *List of agricultural pests and their natural enemies in Iran (revised edition)*. Ferdowsi University Press, Mashhad, 429 pp.
- Mortazavi, A., Hajiqanbar, H. & Saboori, A. (2010a) First record of *Caraboacarus krczali* Eidelberg, 1994 (Acari: Caraboacaridae) associated with *Calosoma* sp. (Col.: Carabidae) from Iran. *Abstract book of the 9<sup>th</sup> European Congress of Entomology, 22–27 August 2010, Budapest, Hungary*, p. 237.
- Mortazavi, A., Hajiqanbar, H. & Saboori, A. (2010b) Mites of the family Podapolipidae (Acari: Heterostigmata) associated with Coleoptera in some regions of Kerman province, Iran. In: Manzari, S. (Ed.), *Proceedings of 19<sup>th</sup> Iranian Plant Protection Congress*. 31 July–3 August 2010, Iranian Research Institute of Plant Protection, Tehran, Iran, p. 311.
- Mortazavi, A., Hajiqanbar, H., Khaustov, A. & Saboori, A. (2011) Redescription of *Caraboacarus krczali* Eidelberg, 1994 (Acari: Prostigmata: Caraboacaridae) with its host specificity and distribution notes. *International Journal of Acarology*, 37(6): 525–534. DOI: [10.1080/01647954.2010.525530](https://doi.org/10.1080/01647954.2010.525530)
- Mortazavi, A. & Hajiqanbar, H. (2012a) A new podapolipid species (Acari) on *Scarabaeus (Scarabaeus) acuticollis* (Insecta: Coleoptera: Scarabaeidae) from Iran. *Journal of Parasitology* 98: 746–753. DOI: [10.1645/GE-3034.1](https://doi.org/10.1645/GE-3034.1)
- Mortazavi, A. & Hajiqanbar, H. (2012b) Introduction of some heterostigmatic mites (Acari: Prostigmata) associated with Coleoptera in some regions of Kerman province, Iran. In: Sarafrazi, A., Asef, M.R., Mozhdehi, M., Mozhdehi, M., Solhjoui Fard, S. & Abdollahi, T. (Eds.), *Proceeding of the 20<sup>th</sup> Iranian Plant Protection Congress*. 25–28 August 2012, Shiraz University, Shiraz, Iran, p. 494
- Mortazavi, A., Hajiqanbar, H. & Kamali, K. (2013) First record of the *biunguis* species group (Acari: Podapolipidae: *Eutarsopolipus*) parasitising carabid beetles from Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the 2<sup>nd</sup> International Persian Congress of Acarology, 29–31 August 2013, University of Tehran, Karaj, Iran*, p. 25.
- Mortazavi, A., Hajiqanbar, H., Kamali, K. & Kazempour osaloo, S. (2014a) First record of *Archidispus insolitus* (Kurosa, 1974) (Heterostigmata: Scutacaridae) from Middle East. *Proceedings of 21<sup>st</sup> Iranian Plant Protection Congress, 23–26 August 2014, University of Urmia, Urmia, Iran*, p. 956.
- Mortazavi, A., Hajiqanbar, H. & Kamali, K. (2014b) First record of the *biunguis* species group (Acari: Podapolipidae: *Eutarsopolipus*) from Asia, with the description of a new species parasitizing *Drypta lineola* (Coleoptera: Carabidae). *Annals of the Entomological Society of America*, 107(3): 549–556. DOI: [10.1603/AN13196](https://doi.org/10.1603/AN13196)

- Mortazavi, A., Hajiqanbar, H. & Kamali, K. (2015) A new species of the family Dolichocybidae Mahunka, 1970 (Acari: Heterostigmata) associated with *Sinoxylon pugnax* Lesne (Insecta: Coleoptera: Bostrichidae) from Iran. *Systematic & Applied Acarology*, 20(4): 441–448. DOI: [10.11158/saa.20.4.9](https://doi.org/10.11158/saa.20.4.9)
- Mortazavi, A., Hajiqanbar, H. & Kamali, K. (2016) First record of *Imparipes (Imparipes) tenuis* Mahunka, 1981 (Acari: Scutacaridae) from Iran. In: Talaei-Hassanloui, R. (Ed.), *Proceedings of 22<sup>nd</sup> Iranian Plant Protection Congress*. 27–30 August 2016, University of Tehran, Karaj, Iran, p. 496.
- Mossadegh, M.S. & Bahreini, R. (1994) *Acarapis* mites of honey bee, *Apis mellifera* in Iran. *Experimental & Applied Acarology*, 18: 503–506.
- Mossadegh, M.S. (1997) Some mites of the honey bee *Apis mellifera* L. hives in Iran. *Scientific Journal of Agriculture*, 19(1–2): 7–16.
- Namvar, P. & Arbabi, M. (2002) First record of potato broad mite, *Polyphagotarsonemus latus* (Banks) from Iran. *Proceedings of 15<sup>th</sup> Iranian Plant Protection Congress*, 7–11 September 2002, Razi University of Kermanshah, Kermanshah, Iran, p. 236.
- Navabi, A., Hajiqanbar, H. & Mortazavi, A. (2017) *Adoretus persicus* Reitter, 1889 (Col.: Scarabaeidae), a new host record for mite *Heterodispus turkmenistaniensis* (Acari: Scutacaridae). In: Hajiqanbar, H. & Saboori, A. (Eds.), *Abstract book of the 3<sup>rd</sup> International Persian Congress of Acarology*. 23–25 August 2017, College of Science, University of Tehran, Tehran, Iran, p. 30.
- Navabi, A., Hajiqanbar, H. & Mortazavi, A. (2018a) New species and records of the genera *Scutacarus* and *Imparipes* (Acari: Heterostigmata: Scutacaridae) associated with Coleoptera and Hymenoptera (Arthropoda: Insecta) from Iran. *Zootaxa*, 4531(4): 532–540. DOI: [10.11646/zootaxa.4531.4.4](https://doi.org/10.11646/zootaxa.4531.4.4)
- Navabi, A., Hajiqanbar, H. & Mortazavi, A. (2018b) New records of the genus *Allopygmephorus* (Acari: Neopygmephoridae) with a list of the species of the family Neopygmephoridae in Iran. *Persian Journal of Acarology*, 7(4): 315–322. DOI: [10.22073/pja.v7i4.40314](https://doi.org/10.22073/pja.v7i4.40314)
- Navabi, A., Hajiqanbar, H. & Mortazavi, A. (2018c) First record of the mite *Scutacarus avarus* Khaustov, 2008 (Acari: Heterostigmata: Scutacaridae) from Asia. In: Pourrahim, R. & Farzadfar, S. (Eds.), *Proceedings of the 23<sup>rd</sup> Iranian Plant Protection Congress*. Gorgan University of Agricultural Sciences and Natural Resources, 27–30 August 2018, Gorgan, Iran, p. 1598.
- Navabi, A., Hajiqanbar, H. & Mortazavi, A. (2018d) New species and records of the genus *Caesarodispus* (Acari: Prostigmata: Microdispidae) associated with ants (Hymenoptera: Formicidae) from Iran. *International Journal of Acarology*, 44(6): 213–217. DOI: [10.1080/01647954.2018.1513954](https://doi.org/10.1080/01647954.2018.1513954)
- Navabi, A., Hajiqanbar, H. & Mortazavi, A. (2018e) First record of the genus *Thaumtopelvis* Mahunka, 1973 (Acari: Prostigmata: Scutacaridae) from Asia with description of a new species associated with ants (Hymenoptera: Formicidae). *Systematic & Applied Acarology*, 23(2): 360–366. DOI: [10.11158/saa.23.2.11](https://doi.org/10.11158/saa.23.2.11)
- Nazari, S., Monfared, A., Nemati, A. & Azhari, S. (2018) Identification of pollen bees (Hymenoptera: Apoidea) and mites associated with this superfamily in Chaharmahal va Bakhtiari province. In: Pourrahim, R. & Farzadfar, S. (Eds.), *Proceedings of the 23<sup>rd</sup> Iranian Plant Protection Congress*. Gorgan University of Agricultural Sciences and Natural Resources, 27–30 August 2018, Gorgan, Iran, p. 1626.
- Nazari, S., Monfared, A., Nemati, A. & Azhari, S. (2019) A survey on bees (Insecta, Hymenoptera, Apoidea) and their associated mites in Chaharmahal and Bakhtiari province of Iran. *Journal of Insect Biodiversity and Systematics*, 5(2): 107–120.

- Noei, J., Hajizadeh, J., Salehi, L. & Ostovan, H. (2008) Prostigmatic stored mites of rice in Guilan province. *Proceeding of the 18<sup>th</sup> Iranian Plant Protection Congress, 24–27 August 2008, Bu-Ali Sina University, Hamedan, Iran*, p. 278.
- Nozari, J. (1992) *Mites associated with pomaceous trees in Shahriar and biology of the injurious species*. M. Sc. thesis, Shahid Chamran University, Ahwaz, Iran, 238 pp.
- Ostovan, H. (1997) *Mites associated with elm bark beetle (Col.: Scolytidae) and biocenotic aspects of Pyemotes scolyti (Oud.) (Acari: Pyemotidae) as biocontrol agent for Scolytus multistriatus (Marsham)*. Ph.D. dissertation, Science & Research Branch, Islamic Azad University, Tehran, Iran, 130 pp.
- Ostovan, H. & Kamali, K. (1996) First record and biology of *Pyemotes scolyti* (Oud.) (Acari: Pyemotidae) an important parasite of elm bark beetle *Scolytus multistriatus* in parks of Tehran. *Journal of Agricultural Sciences*, 2(7–8): 5–14.
- Ostovan, H. & Kamali, K. (1997) Biodiversity of mites (Acari) associated with elm bark beetle *Scolytus multistriatus* (Marsh) (Col.: Scolytidae) in parks of Tehran. *Journal of Agricultural Sciences*, 3(11–12): 23–67.
- Ostovan, H. & Mossadegh, M.S. (1999) Mites associated with honey bee (*Apis mellifera* L.) hives in Iran. *Abstract book of the 35<sup>th</sup> International Congress of Apiculture (Apimondia), 12–17 September 1999, Vancouver, Canada*, p. 254.
- Ostovan, H. & Saboori, A. (1999) Some mites of families: Podapolipidae, Acarophenacidae and Podocinidae in Iran. *Journal of Agricultural Sciences*, 5(17–18): 81–90.
- Pepato, A.R., Costa, S.G.D.S., Harvey, M.S. & Klimov, P.B. (2022) One-way ticket to the blue: A large-scale, dated phylogeny revealed asymmetric land-to-water transitions in acariform mites (Acari: Acariformes). *Molecular Phylogenetics and Evolution*, 177(107626): 1–15. DOI: [10.1016/j.ympev.2022.107626](https://doi.org/10.1016/j.ympev.2022.107626)
- Radjabi, G. (1969) Some bioecological studies on a newly known mite, parasitic on xylophagous insects in Iran. *Proceedings of the 2<sup>nd</sup> Plant Protection Congress of Iran, September 1969, University of Tehran, Karaj, Iran*, pp. 216–220.
- Radjabi, G. (1976) *Xylophagous insects of rosaceous fruit trees in Iran*. Plant Pests and Diseases Research Institute, Tehran, Iran, 214pp.
- Radjabi, G. (1991) *Insects attacking rosaceous fruit trees in Iran. Vol. I, Coleoptera*. Plant Pests and Diseases Research Institute, 221 pp.
- Rahiminejad, V. & Hajiqanbar, H. (2015) A new species of the genus *Acarophenax* (Acari: Heterostigmata: Acarophenacidae) associated with *Sphindus* sp. (Coleoptera: Sphindidae) from Iran. *Persian Journal of Acarology*, 4(3): 277–286.
- Rahiminejad, V. & Hajiqanbar, H. (2020) New records of mites of the Heterostigmata (Acari: Prostigmata) associated with insects from Golestan province, northern Iran. *Persian Journal of Acarology*, 9(3): 233–242.
- Rahiminejad, V., Hajiqanbar, H. & Fathipour, Y. (2010a) Two heterostigmatic mites (Acari: Heterostigmata) associated with beetles (Insecta: Coleoptera) from Iran. *Abstract book of the 9<sup>th</sup> European Congress of Entomology, 22–27 August 2010, Budapest, Hungary*, p. 237.
- Rahiminejad, V., Hajiqanbar, H. & Fathipour, Y. (2010b) First record of phoresy of Microdispidae (Acari: Prostigmata) on Scarabaeidae (Insecta: Coleoptera). In: Manzari, S. (Ed.), *Proceedings of 19<sup>th</sup> Iranian Plant Protection Congress*. 31 July–3 August 2010, Iranian Research Institute of Plant Protection, Tehran, Iran, p. 352.

- Rahiminejad V., Hajiqanbar H. & Fathipour Y. (2011a) Redefinition of the genus *Dolichocybe* (Acari: Dolichocybidae), with description of two new species associated with insects. *Annals of the Entomological Society of America*, 104: 627–635. DOI: [10.1603/AN11006](https://doi.org/10.1603/AN11006)
- Rahiminejad, V., Hajiqanbar, H. & Fathipour, Y. (2011b) Two new species of the genus *Elattoma* (Acari: Heterostigmata: Pygmephoridae) phoretic on *Morimus verecundus* (Coleoptera: Cerambycidae) from Iran. *Zootaxa*, 2903: 48–56.
- Rahiminejad, V., Hajiqanbar, H. & Fathipour, Y. (2011c) A new species of the genus *Spatulaphorus* (Acari: Heterostigmata: Pygmephoridae) phoretic on *Geotrupes spiniger* (Coleoptera: Geotrupidae) from Iran. *Annales Zoologici*, 61: 547–551. DOI: [10.3161/000345411X603391](https://doi.org/10.3161/000345411X603391)
- Rahiminejad, V., Hajiqanbar, H. & Fathipour, Y. (2011d) Heterostigmatic mites (Acari: Heterostigmata) associated with scarabaeoid beetles (Insecta: Coleoptera: Scarabaeoidea) in Golestan Province, Northern Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and proceeding book of the First Persian Congress of Acarology*. 22–23 December 2011, Institute of Science and High Technology and Environmental Sciences, Kerman, Iran, 163 pp.
- Rahiminejad, V., Hajiqanbar, H. & Fathipour, Y. (2012) Heterostigmatic mites (Acari: Heterostigmata) associated with some beetles (Insecta: Coleoptera) in Golestan province, Northern Iran. In: Sarafrazi, A., Asef, M.R., Mozhdehi, M., Mozhdehi, M., Solhjuy Fard, S. & Abdollahi, T. (Eds.), *Proceeding of the 20<sup>th</sup> Iranian Plant Protection Congress*. 25–28 August 2012, Shiraz University, Shiraz, Iran, p. 369.
- Rahiminejad, V., Hajiqanbar, H. & Fathipour, Y. (2013) First record of the genus and species *Spatulaphorus copridis* (Acari: Pygmephoridae) associated with earth-boring dung beetles (Col.: Geotrupidae) from Iran. *Journal of Entomological Society of Iran*, 33: 81–82.
- Rahiminejad, V., Hajiqanbar, H. & Talebi, A. (2014a) First record of the phoretic relationship between the mite *Trochometridium kermanicum* (Acari: Heterostigmata) and the earwig *Labidura riparia* (Insecta: Dermaptera). *Proceedings of the 21<sup>th</sup> Iranian Plant Protection Congress, 23–26 August 2014, University of Urmia, Urmia, Iran*, p. 955.
- Rahiminejad, V., Hajiqanbar, H. & Talebi, A. (2014b) First report of the mite *Elattoma kornilovi* (Acari: Heterostigmata: Pygmephoridae) from Iran. *Proceedings of the 21<sup>th</sup> Iranian Plant Protection Congress, 23–26 August 2014, University of Urmia, Urmia, Iran*, p. 958.
- Rahiminejad, V., Hajiqanbar, H. & Talebi, A. (2015a) Three new species of the genus *Caesarodispus* (Acari: Microdispidae) associated with ants (Hymenoptera: Formicidae), with a key to species. *Entomological Science*, 18: 461–469.
- Rahiminejad, V., Hajiqanbar, H. & Talebi, A. (2015b) First report of *Imparipes (Sporichneuthes) intermedius* (Acari: Scutacaridae) from Iran. *Proceedings of the 1<sup>st</sup> Iranian International Congress of Entomology, Iranian Research Institute of Plant Protection, 29–31 August 2015, Tehran, Iran*, p. 958.
- Rahiminejad, V., Hajiqanbar, H., Khaustov, A. & Talebi, A. (2015c) A new genus and two new species of the family Pygmephoridae (Acari: Heterostigmata) associated with beetles (Insecta: Coleoptera). *Annals of the Entomological Society of America*, 108(5): 893–901.
- Rahiminejad, V., Hajiqanbar, H. & Talebi, A. (2016) A new genus and species of the family Pygmephoridae (Acari: Heterostigmata) associated with *Carpelimus rivularis* (Coleoptera: Staphylinidae). *Systematic and Applied Acarology*, 21(4): 461–470.
- Rahiminejad, V., Hajiqanbar, H. & Talebi, A. (2020a) An alpha diversity survey of heterostigmatic mites (Trombidiformes, Prostigmata) phoretic on scarabaeoid beetles in Hyrcani forest, northern Iran. *Systematic & Applied Acarology*, 25(11), 2033–2046. DOI: [10.11158/saa.25.11.9](https://doi.org/10.11158/saa.25.11.9)

- Rahiminejad, V., Nadimi, A. & Seyedein, S. (2022a) Contribution to the knowledge of the genus *Imparipes* Berlese (Acari: Heterostigmata: Scutacaridae) associated with ants in Iran. *Zootaxa*, 5133(4): 585–593. DOI: [10.11646/zootaxa.5133.4.9](https://doi.org/10.11646/zootaxa.5133.4.9)
- Rahiminejad, V., Seyedein, S. & Nadimi, A. (2020b) New records of soil dwelling mites of the superfamily Pygmephoroidae (Acari: Heterostigmata) from northern Iran. *Journal of Insect Biodiversity and Systematics*, 6(3): 307–315.
- Rahiminejad, V., Yazdani, M. & Zeitounli, S. (2022b) New records of heterostigmatic mites (Acari: Heterostigmata) from dry rice cultivation of Gorgan, northern Iran. *Journal of Insect Biodiversity and Systematics*, 8(1): 121–129. DOI: [10.21859/jibs.8.1.121](https://doi.org/10.21859/jibs.8.1.121)
- Rahmatzadeh, B., Hajiqaanbar, H., Mortazavi, A. & Husemann, M. (2021) Global distribution and host range of the endoparasitic mite genus *Locustacarus* (Acari: Podapolipidae) with description of a new species from Iran parasitizing grasshoppers (Orthoptera: Acrididae). *Systematic Parasitology*, 98(4): 487–501. DOI: [10.1007/s11230-021-09991-3](https://doi.org/10.1007/s11230-021-09991-3)
- Sayadi, Z., Saboori, A., Khani, A. & Ramrodi, S. (2012) Some stored product mites in Sistan region, Iran. In: Sarafrazi, A., Asef, M.R., Mozhdehi, M., Mozhdehi, M., Solhjoui Fard, S. & Abdollahi, T. (Eds.), *Proceeding of the 20<sup>th</sup> Iranian Plant Protection Congress*. 25–28 August 2012, Shiraz University, Shiraz, Iran, p. 426.
- Sadeghi Namaghi, H. (1990) *Mites (Acari) associated with sugar cane and cereals with emphasis on biology of injurious species in Khuzestan, Iran*. M. Sc. thesis, Shahid Chamran University, Ahwaz, Iran, 167 pp.
- Sadeghi Namaghi, H. (2013) A checklist of Iranian tarsonemid mites (Acari: Trombidiformes) with a new record for Iran. *KSU Journal of Natural Science*, 16(3): 8–11.
- Sadeghi Namaghi, H. & Kamali, K. (1991) Mites (Acari) associated with sugar cane and cereals in Khuzestan, Iran. *Proceedings of the 10<sup>th</sup> Iranian Plant Protection Congress, 1–5 September 1991, Shahid Bahonar University, Kerman, Iran*, p. 89.
- Sadeghi Namaghi, H. & Kamali, K. (1993) Mites (Acari) associated with sugar cane and cereals in Khuzestan, Iran. *Scientific Journal of Agriculture*, 16(1–2): 3–13.
- Sepasgozarian, H. (1976) *Injurious and beneficial mites of cultivated plants*. Guilan University Press, Rasht, Iran, 23 pp.
- Seeman, O.D. & Walter, D.E. (2023) Phoresy and mites: More than just a free ride. *Annual Review of Entomology*, 68: 69–88. DOI: [10.1146/annurev-ento-120220-013329](https://doi.org/10.1146/annurev-ento-120220-013329)
- Sepasgozarian, H. (1977) The Twenty years of research in acarology in Iran. *Journal of Iranian Society of Engineers*, 56: 40–50.
- Seyedein, S., Janghorbani, A. & Rahiminejad, V. (2019a) Winter fauna of soil dwelling microdispid mites (Acari: Pygmephoroidae: Microdispidae) with a new record for Iran. In: Shirazi, J. (Ed.), *Proceedings of the 3<sup>rd</sup> Iranian International Congress of Entomology*. 17–19 August 2019, University of Tabriz, Tabriz, 285 pp.
- Seyedein, S., Janghorbani, A., Nadimi, A. & Rahiminejad, V. (2022) *Acinogaster microchaetosus* (Acari: Neopygmephoridae) associated with the nest of *Pheidole* sp. (Hymenoptera: Formicidae). In: Saboori, A., Rezapannah, M., Shirazi, J., Rahnama, K., Bakhshi, M., Jahanshahi Afshar, F. & Najafi, H. (Eds.), *Proceedings of 24<sup>th</sup> Iranian Plant Protection Congress*. 3–6 September 2022, Iranian Research Institute of Plant Protection, Tehran, Iran, 402 pp.
- Seyedein, S., Rahiminejad, V. & Nadimi, V. (2019b) *Spatulaphorus geotruporum* (Acari: Pygmephoridae) a new record for mite fauna of Asia, with some notes on the genus. *Journal of Insect Biodiversity and Systematics*, 5(1): 79–85.

- Seyedein, S., Rahiminejad, V. & Nadimi, A. (2020) Two new species of microdispid mites (Acari: Heterostigmata: Pygmephoridae) associated with *Lucanus ibericus* (Coleoptera: Lucanidae). *Acarologia*, 60(3): 595–606. DOI: [10.24349/acarologia/20204388](https://doi.org/10.24349/acarologia/20204388)
- Seyedein, S., Rahiminejad, V. & Nadimi, A. (2021) New records of the genus *Pediculaster* Vitzthum, 1931 (Acari: Heterostigmata: Pygmephoridae) with description of a remarkable new species, associated with *Helina* sp. (Diptera: Muscidae) from Iran. *Biologia*, 76: 1509–1516. DOI: [10.2478/s11756-020-00657-x](https://doi.org/10.2478/s11756-020-00657-x)
- Sidorchuk, E.A., Perrichot, V. & Lindquist, E.E. (2016) A new fossil mite from French Cretaceous amber (Acari: Heterostigmata: Nasutiacaridae superfam. nov.), testing evolutionary concepts within the Eleutherengona (Acariformes). *Journal of Systematic Palaeontology*, 14: 297–317. DOI: [10.1080/14772019.2015.1046512](https://doi.org/10.1080/14772019.2015.1046512)
- Sobhi, M., Hajiqaanbar, H. & Mortazavi, A. (2016a) First record of the mite *Caesarodispus samsinaki* (Mahunka, 1967) (Acari: Prostigmata: Microdispidae) from Asia. In: Talaei-Hassanloui, R. (Ed.), *Proceedings of 22<sup>nd</sup> Iranian Plant Protection Congress*. University of Tehran, 27–30 August 2016, Karaj, Iran, p. 507.
- Sobhi, M., Hajiqaanbar, H. & Mortazavi, A. (2016b) New record of the species *Eutarsopolipus elongatus* (Acari: Heterostigmata: Podapolipidae), ectoparasite of the carabid beetles from Iran. In: Talaei-Hassanloui, R. (Ed.), *Proceedings of 22<sup>nd</sup> Iranian Plant Protection Congress*. 27–30 August 2016, University of Tehran, Karaj, Iran, pp. 508.
- Sobhi, M., Hajiqaanbar, H. & Mortazavi, A.A. (2017a) A contribution to the knowledge of scutacarid mites (Acari: Pygmephoridae: Scutacaridae) associated with Coleoptera and Hymenoptera (Arthropoda: Insecta) from northwestern Iran. *Acarologia*, 57(4): 1103–1111. DOI: [10.24349/acarologia/20174222](https://doi.org/10.24349/acarologia/20174222)
- Sobhi, M., Hajiqaanbar, H. & Mortazavi, A. (2017b) New species and records of heterostigmatic mites (Acari: Prostigmata: Heterostigmata) phoretic on scarabaeid dung beetles (Coleoptera: Scarabaeidae) from northwestern Iran. *Zootaxa*, 4276: 427–434. DOI: [10.11646/zootaxa.4276.3.7](https://doi.org/10.11646/zootaxa.4276.3.7)
- Sobhi, M., Hajiqaanbar, H. & Mortazavi, A. (2017c) Two new myrmecophilous species of the genus *Scutacarus* (Acari: Prostigmata: Scutacaridae) with world keys to related species groups. *Entomological Science*, 20: 292–301. DOI: [10.1111/ens.12255](https://doi.org/10.1111/ens.12255)
- Sobhi, M., Hajiqaanbar, H. & Mortazavi, A. (2017d) First record of the rare genus *Lophodispus* (Acari: Heterostigmata: Scutacaridae) from Iran with description of a new species associated with ants (Hymenoptera: Formicidae). *International Journal of Acarology*, 43(3): 239–244. DOI: [10.1080/01647954.2016.1256910](https://doi.org/10.1080/01647954.2016.1256910)
- Sobhi, M., Hajiqaanbar, H. & Mortazavi, A. (2017e) Heterostigmatic mites (Acari: Heterostigmatina) associated with insects in northwestern Iran. *Journal of Entomological Society of Iran*, 37(1): 67–79.
- Sobhi, M., Hajiqaanbar, H. & Mortazavi, A. (2017f) A new species of the genus *Spatulaphorus* (Acari: Heterostigmata: Pygmephoridae) associated with *Gymnopleurus flagellatus* (Coleoptera: Scarabaeidae) from Iran. *Systematic and Applied Acarology*, 22(2): 217–223. DOI: [10.11158/saa.22.2.6](https://doi.org/10.11158/saa.22.2.6)
- Sobhi, M., Hajiqaanbar, H. & Mortazavi, A. (2017g) Redescription of *Eutarsopolipus elongatus* Regenfuss, 1968 (Acari: Podapolipidae) parasitising carabid beetles, with first description of the male. *Acta Parasitologica*, 62(3): 597–605. DOI: [10.1515/ap-2017-0072](https://doi.org/10.1515/ap-2017-0072)
- Sorush, M.J. & Kamali, K. (2002) A survey on mite fauna of pomegranate orchards of Saveh (Markazi province). *Proceedings of 15<sup>th</sup> Iranian Plant Protection Congress, 7–11 September, Razi University, Kermanshah, Iran*, p. 244.

- Taghavi, A. (1996) *Faunistic study of mites and biology of Brevipalpus obovatus on tea Plant Camellia sinensis (L.) in west Mazandaran*. M.Sc. thesis, Shahid Chamran University, Ahwaz, 151 pp.
- Taghavi, A., Kamali, K. & Sahragard, A. (1998) Mites associated with tea plant in western regions of Mazandaran province. *Proceedings of the 13<sup>th</sup> Iranian Plant Protection Congress, Vol. 1, Junior College of Agriculture, Karaj, Iran*, p. 100.
- Tajodin, M. (2013) *Heterostigmatic mites (Acari: Heterostigmata) associated with insects in west of Isfahan Province, Iran*. M. Sc. thesis. Faculty of Agriculture, Tarbiat Modares University, Tehran, Iran, 96 pp.
- Tajodin, M., Hajiqaanbar, H. & Talebi, A. (2014) A new species description of the *acanthomus* species group (Acari: Podapolipidae: *Eutarsopolipus*), with keys to world species of the group. *Applied Entomology and Zoology*, 49: 109–117. DOI: [10.1007/s13355-013-0230-2](https://doi.org/10.1007/s13355-013-0230-2)
- Tashakor, S., Hajiqaanbar, H. & Saboori, A. (2013) First record of the *Pavania carabidophila* Khaustov (Acari: Dolichocybidae) from Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the 2<sup>nd</sup> International Persian Congress of Acarology*. 29–31 August 2013, University of Tehran, Karaj, Iran, p. 35.
- Walter, D.E., Lindquist, E.E., Smith, I.M., Cook, D.R. & Krantz, G.W. (2009) Order Trombidiformes. In: Krantz, G.W. & Walter, D.E. (Eds.), *A manual of Acarology*. 3<sup>rd</sup> edition. Texas Tech University Press, Lubbock, Texas, USA, pp. 223–420
- Zafari, M., Rahmani, H., Hajiqaanbar, H., Khanjani, M. & Darbemamieh, M. (2017) Prostigmatic mites (Acari: Trombidiformes) of Rey county, Tehran, Iran. In: Hajiqaanbar, H. & Saboori, A. (Eds.), *Abstract book of the 3<sup>rd</sup> International Persian Congress of Acarology*. 23–25 August 2017, Faculty of Science, University of Tehran, Tehran, Iran, p. 41.
- Zhang, Z.-Q., Fan, Q.-H., Pešić, V., Smit, H., Bochkov, A.V., Khaustov, A.A., Baker, A., Wohltmann, A., Wen, T.-H., Amrine, J.W., Beron, P., Lin, J.-Z., Gabryś, G. & Husband, R. (2011) Order Trombidiformes Reuter, 1909. In: Zhang, Z.-Q. (Ed.), *Animal biodiversity: an outline of higher-level classification and survey of taxonomic richness*. *Zootaxa*, 3148: 1–237.

**COPYRIGHT**

Rahiminejad *et al.* Persian Journal of Acarology is under a free license. This open-access article is distributed under the terms of the Creative Commons-BY-NC-ND which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original author and source are credited.

## فهرست کنه‌های هترواستیگما (Acari: Trombidiformes) ایران

وحید رحیمی نژاد\*، احمد ندیمی و علی افشاری

گروه گیاه پزشکی، دانشکده تولیدات گیاهی، دانشگاه علوم کشاورزی و منابع طبیعی گرگان، گلستان، ایران؛ رایانامه: [vahidrahiminejad@gau.ac.ir](mailto:vahidrahiminejad@gau.ac.ir)  
\* [afshari@gau.ac.ir](mailto:afshari@gau.ac.ir) [nadimi@gau.ac.ir](mailto:nadimi@gau.ac.ir) [ir](mailto:ir)

\* نویسنده مسئول

### چکیده

در این پژوهش، مروری جامع در رابطه با کنه‌های هترواستیگمای ایران انجام گرفته است. تاکنون ۳۱۹ گونه، ۷۰ جنس، ۱۲ خانواده و ۶ بالاخانواده از هترواستیگمایان (Acari: Prostigmata) (از حدود ۲۲۶۵ گونه، ۲۳۲ جنس، ۱۸ خانواده و ۸ بالاخانواده شناسایی شده در جهان) از مناطق مختلف ایران گزارش شده است. این مطالعه تنوع زیاد کنه‌ها هترواستیگمای ایران را آشکار کرده و نشان داد که بیش از ۱۵٪ از کنه‌های هترواستیگما از ایران گزارش شده و همچنین حدود ۴٪ از گونه‌های این کوهورت از ایران شناسایی و توصیف شده‌اند؛ که این دانش مرهون تلاش و پژوهش‌های بسیاری از دانشمندان ایرانی در طول بیش از ۵۰ سال است. در این مقاله، افزون بر آرایه‌های کنه‌های هترواستیگمای ایران، تمامی جنس‌ها، خانواده‌ها و بالاخانواده‌های هترواستیگمایان جهان ذکر شده‌اند.

**واژگان کلیدی:** تنوع زیستی، فون، پراکنش جغرافیایی، همسفری، بی‌مهرگان خاکزی.

**اطلاعات مقاله:** تاریخ دریافت: ۱۴۰۱/۹/۷، تاریخ پذیرش: ۱۴۰۱/۱۲/۱، تاریخ چاپ: ۱۴۰۲/۱/۲۶