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Monograph

A catalogue of the Iranian Mesostigmata (Acari) excluding Phytoseiidae

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ABSTRACT

Here, we present a catalogue of all mesostigmatid mites (except Phytoseiidae) reported from Iran. The catalogue lists 616 species belonging to 183 genera and 51 families. Considering the number of genera and species of phytoseiid mites, which is stated to be 15 and 105, respectively, the number of mesostigmatid mite genera and species in Iran reaches 198 and 721, respectively. The suborder Monogynaspida Camin & Gorirossi is more specious than Trignyaspida Camin & Gorirossi, and the latter is more specious than the Sejida Kramer. *Oplitis inopina* (Hull, 1923) is recognized as the earliest recorded description of mesostigmatid mites from Iran in over a century. The family Laelapidae, described and recorded from Iran, has the highest number of genera (26) and species (162), followed by Phytoseiidae (15 genera and 105 species) and Ascidae (10 genera and 49 species). The most specious genera are *Gaeolaelaps* Evans & Till (30 species), *Laelaspis* Berlese (21 species), and *Macrocheles* Latreille (19 species). The highest number of described species from Iran belongs to *Gaeolaelaps* (Laelapidae) with 15 species. No description has been done for the following reported families of monogynaspid mites from Iran: Ameroseiidae, Haemogamasidae, Macronyssidae, Dermanyssidae, Spinturnysidae, Rhinonyssidae, Varroidae, Parholaspididae, Otopheidomenidae, Podocinidae, Halolaelapidae, Veigaiidae, Epicriidae, Microgyniidae, Dithinozerconidae, Polyaspididae, Trachytidae, Metagynuridae, Trachyuropodidae, Cillibidae, Dinychidae, Urodinychidae, and Urodiaspididae. For Trignyaspida (except Diplogyniidae) and Sejida (except Sejidae), no species have been described from Iran. It is worth mentioning that the superfamily Anictequoidea, family Messoracaridae, and genus *Messoracarus* Silvestri are reported for the first time in Iran. Based on the published information for each species, information about geographical distribution, taxonomic literature, and host or habitat is included. Defects in the previous checklists have been corrected, and the classification of the known species has been updated. Relevant explanations for each taxon concerning different issues are cited as note(s) under the related taxon.

KEYWORDS: Checklist, distribution, Gamasida, habitat, Iran.

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INTRODUCTION

The Mesostigmata can be found in a large number of habitats, such as soil (Ryke 1963; Lapinya 1976; Karg 1993; Lindquist *et al.* 2009; Joharchi *et al.* 2011, 2018; Kavianpour *et al.* 2013a, b; Kazemi and Rajaei 2013; Nemati and Kavianpour 2013; Nemati *et al.* 2018b), leaf litter (Wiśniewski and Hirschmann 1993; Castilho *et al.* 2012b, 2016; Kontschán *et al.* 2015), on birds, rodents and mammals (Grinbergs 1961; Hyland *et al.* 1978; Gettinger *et al.* 2005; Gwiazdowicz *et al.* 2018), and in association with arthropods or their nests (Ishikawa 1968; Hunter and Rosario 1988; Halliday 1997; Faraji and Halliday 2009; Walter and Proctor 1999; Moraes *et al.* 2022). The taxonomic history of Mesostigmata has been intense and complicated, with many species being described during the 18th and 19th centuries. Taxonomic studies on mesostigmatid mites, which document new taxa description in Iran, have been conducted for over a century. Based on the existing literature, *Oplitis inopina* (Hull, 1923) is recognized as the earliest recorded description of these mites from Iran. Some comprehensive studies have been done on some mesostigmatid mites as revisions and catalogs.

Various studies have been conducted in Iran to investigate the mesostigmatic mite fauna, particularly in the last three decades. In addition, different Ph.D. and M.Sc. theses have focused on the Iranian mite fauna over the last few decades. Furthermore, an extensive and ongoing biodiversity project is being carried out to explore and categorize this fauna by reporting new species or records from different provinces (e.g., Valizadeh *et al.* 2019; Mousavi *et al.* 2021; Hajizadeh *et al.* 2022; Mohammadi and Hajizadeh 2022a, b).

Farahbakhsh in 1961 was the first to compile a list of insects and other enemies of plants and agricultural products of economical importance in Iran. Afterwards, Sepasgosarian (1977), Modarres Awal (1997), Kamali *et al.* (2001), and Khanjani and Haddad Irani-Nejad (2006) released other lists. Kazemi and Rajaei (2013) provided a catalog for Iranian Mesostigmata, listing 348 species from 128 genera and 39 families. Later, Nemati *et al.* (2018a) published an updated catalogue reporting 371 species out of 127 genera belonging to 39 families for Mesostigmata.

Accessing and using information has been difficult due to the large number of reported species, despite the different taxonomic levels that they have been reported, and the dispersion in different sources of species, genera, and families. In addition, some studies on comprehensive systematics and taxonomic changes have been made to certain families and genera, particularly in the Ameroseiidae, Parasitidae and Laelapidae families, and they need to be taken into account in the previous catalogue. Furthermore, due to many published papers (e.g. Nemati *et al.* 2018b; Valizadeh *et al.* 2019; Mousavi *et al.* 2021; Hajizadeh *et al.* 2022; Mohammadi and Hajizadeh 2022a, b) elaborated after Nemati *et al.* (2018a), the need to update the previous catalogue is evident. Therefore, the present catalogue includes all mesostigmatid species known in Iran. By presenting all the information about these mesostigmatid mites in a systematic modern science and in a single source, becomes easier to update it in the future.

MATERIALS AND METHODS

All mesostigmatid species reported from Iran are arranged according to their taxonomic groups, superfamilies, families, and different genera in alphabetical order, based on relevant information and reported sources up to January 2024.

The classification system at the family level and related genera and species within each genus mainly follows the proposal by Lindquist *et al.* (2009), with updates from sources such as Mařán and Halliday (2009, 2013), Halliday (2010–2016), Castilho *et al.* (2012a, b; 2016), Moraes *et al.* (2016), Mařán (2017), Vinarski and Korallo-Vinarskaya (2017), Hruřová and Fend'a (2018), and Moraes *et al.* (2022).

Collection data for each species, including the province name, specified location within the province (cited in parentheses), and the subsequent different habitats or hosts, are provided. Reports for the respective provinces are given in alphabetical order. However, it should be noted that the validity of the identification of previously recorded species cannot be confirmed, except for taxa reported or described by the authors of this paper. Additionally, the geographical coordinates (longitude and latitude) were not available for the majority of the reported species from Iran and therefore not included.

A map of Iran showing the names of the provinces is presented in Figure 1. Due to the publication of Kazemi *et al.* (2022), Phytoseiidae species are not mentioned. We have made an effort to consider all sources that have investigated mesostigmatid mites in Iran; however, it is possible that some reports may have inadvertently not been cited in this research. It is worth noting that supplementary or review articles, such as Gwiazdowicz *et al.* (2018), Joharchi and Halliday (2020), Malek-Hosseini and Zamani (2017), Sadat-Shojaei and Kazemi (2021), which provide lists of reported species from specific provinces or hosts, were ignored unless they reported a new record.

To facilitate access to the reported genera of each family, a list with the number of related species (in parentheses) is provided at the beginning of the results section. The names of related families are cited in alphabetical order, regardless of their position in higher taxonomic groups, due to different taxonomical ideas concerning uropodine mites.

Where an associated author or authors have multiple publications in the same year, the corresponding publication is shown in certain scientific names of family, genus, or species.



Figure 1. A simple map of Iran provinces.

RESULTS

According to published literature on Iranian mesostigmatid mites, 616 species have been recorded from various habitats or hosts. Considering the number of phytoseiid mite species, which is reported to be 105 species (Kazemi *et al.* 2022; Farazmand *et al.* 2023), the total number of mesostigmatid mite species in Iran reaches 721. The reported mesostigmatid families, related genera, and the number of species (in parentheses) are as follows. The number of species has not been specified for the genera that are reported based on unknown species.

Suborder Monogynaspida Camin & Gorirossi, 1955 Superfamily Ascoidea Voigts & Oudemans, 1905

Family Ameroseiidae Evans, 1961: Genus *Ameroseius* Berlese, 1903 (8), *Epicriopsis* Berlese, 1916 (2), *Kleemannia* Oudemans, 1930 (9), *Sertitympanum* Elsen & Whitaker, 1985 (3) and *Sinoseius* Bai & Gu, 1995.

Family Ascidae Oudemans, 1905: Genus *Antennoseius* Berlese, 1916: *Antennoseius* (*Antennoseius*) (14), *Antennoseius* (*Vitzthumia*) (2), *Anystipalpus* Berlese, 1911 (5), *Arctoseius* Thor, 1930 (7), *Asca* von Heyden, 1826 (3), *Gamasellodes* Athias-Henriot, 1961 (4), *Iphidozercon* Berlese, 1903 (4), *Leioseius* Berlese, 1916 (1), *Neojordensia* Evans, 1957 (1), *Protogamasellus* Karg, 1962 (6), and *Zerconopsis* Hull, 1918 (2).

Family Melicharidae Hirschmann, 1962: Genus *Melichares* Hering, 1838 (1), *Orthadenella* Athias-Henriot, 1973 (2), and *Proctolaelaps* Berlese, 1923 (13).

Superfamily Dermanyssoidea Kolenati, 1859

Family Dermanyssidae Kolenati, 1859: Genus *Dermanyssus* Dugès, 1834 (4) and *Liponyssoides* Hirst, 1913 (2).

Family Haemogamasidae Oudemans, 1926: Genus *Eulaelaps* Berlese, 1903 (2) and *Haemogamasus* Berlese, 1889 (2).

Family Iphiopsididae Kramer, 1886: Genus *Julolaelaps* Berlese, 1916 (2).

Family Laelapidae Berlese, 1892: Genus *Alloparasitus* Berlese, 1920 (2), *Androlaelaps* Berlese, 1903 (11), *Coleolaelaps* Berlese, 1914 (4), *Cosmolaelaps* Berlese, 1903 (15), *Dinogamasus* Kramer, 1898 (1), *Echinolaelaps* Ewing, 1929 (1), *Echinonyssus* Hirst, 1925 (2), *Euandrolaelaps* Bregetova, 1977 (2), *Gaeolaelaps* Evans & Till, 1966 (30), *Gymnolaelaps* Berlese, 1916 (8), *Holostaspis* Kolenati, 1858 (2), *Hypoaspis* G. Canestrini, 1884 (15) *Hypoaspisella* Bernhard, 1971 (12), *Laelaps* C.L. Koch, 1836 (5), *Laelaspis* Berlese, 1903 (21), *Myonyssus* Tiraboschi, 1904 (1), *Myrmozercon* Berlese, 1902 (7), *Ololaelaps* Berlese, 1904 (6), *Persicolaelaps* Kazemi & Beaulieu, 2016 (1), *Pogonolaelaps* Nemati & Gwiazdowicz, 2016 (3), *Pneumolaelaps* Berlese, 1920 (2), *Promacrolaelaps* Costa, 1971 (1), *Pseudoparasitus* Berlese, 1916 (3), *Reticulolaelaps* Costa, 1968 (4), *Stratiolaelaps* Berlese, 1916 (2) and *Tropilaelaps* Delfinado & Baker, 1961 (1).

Family Macronyssidae Oudemans, 1936: Genus *Macronyssus* Kolenati, 1958 (1), *Ophionyssus* Megnin, 1884 (1), *Ornionyssus* Sambon, 1928 (3) and *Steatonyssus* Koletani, 1858 (1).

Family Pseudolaelapidae Evans & Till, 1966: Genus *Pseudolaelaps* Berlese, 1916 (4).

Family Rhinonyssidae Trouessart, 1895: Genus *Ptilonyssus* Berlese & Trouessart, 1889 (3).

Family Spinturnicidae Oudemans, 1902: Genus *Spinturnix* von Heyden, 1826 (3) and *Meristaspis* Kolenati, 1857 (1).

Family Varroidae Delfinado & Baker, 1974: Genus *Euvarroa* Delfinado & Baker, 1974 (1) and *Varroa* Oudemans, 1904 (1).

Superfamily Eviphidoidea Berlese, 1913

Family Eviphididae Berlese, 1913: Genus *Alliphis* Halbert, 1923 (4), *Copriphs* Berlese, 1910 (3), *Cryptoseius* Makarova, 1998 (1), *Eviphis* Berlese, 1903 (1), *Evimirus* Karg, 1963 (1), *Metacryptoseius* Kazemi & Moraza, 2008 (2), *Pedoniphis* Joharchi, Maśán & Babaeian, 2014 (1), *Pelethiphis* Berlese, 1911 (1), *Pseudoalliphis* Maśán & Halliday, 2009 (1), *Scamaphis* Karg, 1976 (1), *Scarabaspis* Womersley, 1956 (1) and *Uroiphis* Berlese, 1903 (1).

Family Macrochelidae Vitzthum, 1930: Genus *Geholaspis* Berlese, 1918 (1), *Glyptholaspis* Filipponi & Pegazzano, 1960 (2), *Holocelaeno* Berlese, 1910 (1), *Holostaspella* Berlese, 1903 (3), *Longicheles* Valle, 1953 (3), *Macrholaspis* Oudemans, 1931 (2), *Macrocheles* Latreille, 1829 (18), *Neopodocinum* Oudemans, 1902 (2), *Nothrholaspis* Berlese, 1918 (3) and *Reductholaspis* Emberson, 2010 (1).

Family Pachylaelapidae Berlese, 1913: Genus *Olopachys* Berlese, 1910 (6), *Onchodellus* Berlese, 1904 (8), *Pachylaelaps* Berlese, 1888 (7) and *Pachyseius* Berlese, 1910 (5).

Family Parholaspididae Evans, 1956: Genus *Gamasholaspis* Berlese, 1903 (4), *Holaspina* Berlese, 1916 (1), *Holaspulus* Berlese, 1904 (1), *Krantzolaspina* Datta & Bhattacharjee, 1989 (1), *Lattinella* Krantz, 1960, *Neparholaspis* Evans, 1956 (1) and *Parholaspulus* Evans, 1956 (1).

Superfamily Phytoseoidea Berlese, 1916

Family Blattisociidae Garman, 1948: Genus *Blattisocius* Keegan, 1944 (5), *Cheiroseius* Berlese, 1916 (13), *Hoploseius* Berlese, 1914 (1), *Lasioseius* Berlese, 1916 (19) and *Platyseius* Berlese, 1916 (3).

Family Otopheidomenidae Treat, 1955: Genus *Hemipteroseius* Evans, 1963 (1).

Family Podocinidae Berlese, 1913: Genus *Podocinum* Berlese, 1882 (2).

Superfamily Rhodacaroidea Oudemans, 1902

Family Digamasellidae Evans, 1957: Genus *Bulbolaelaps* Faraji, Zare & Rahmani, 2021 (1), *Dendrolaelaps* Halbert, 1915 (17), *Dendrolaelaspis* Lindquist, 1975 (3), *Dendroseius* Karg, 1965 (2), *Digamasellus* Berlese, 1905 (1), *Iphidodendrolaelaps* Hirschmann & Wisniewski, 1982 (1), *Multidendrolaelaps* Hirschmann, 1974 (3) and *Oligodentatus* Shcherbak, 1980.

Family Halolaelapidae Karg, 1965: Genus *Halolaelaps* Berlese & Trouessart, 1889 (3), *Leitneria* Karg, 1961 (1), *Saprolaelaps* Leitner, 1946 and *Saprosecans* Karg 1964 (1).

Family Ologamasidae Ryke, 1962: Genus *Allogamasellus* Athias-Henriot, 1961 (1), *Gamasiphis* Berlese, 1904 (3), *Gamasiphoides* Womersley, 1956, *Ologamasus* Berlese, 1888, *Periseius* Womersley, 1961, *Sessiluncus* G. Canestrini, 1898 (3) and *Stylochirus* G. & R. Canestrini, 1882 (1).

Family Rhodacaridae Oudemans, 1902: Genus *Multidentorhodacarus* Shcherbak, 1980 (3), *Paragamasellevans* Loots & Ryke, 1962, *Protogamasellopsis* Evans & Purvis, 1987 (3), *Rhodacarellus* Willmann, 1935 (3) and *Rhodacarus* Oudemans 1902 (3).

Superfamily Veigaioidea Oudemans, 1939

Family Veigaiidae Oudemans, 1939: Genus *Gamasolaelaps* Berlese, 1904 (2) and *Veigaia* Oudemans, 1905 (5).

Superfamily Epicrioidea Berlese, 1885

Family Epicriidae Berlese, 1885: Genus *Epicrius* G. Canestrini & Fanzago, 1877 (3).

Superfamily Zerconoidea Canestrini, 1891

Family Zerconidae Canestrini, 1891: Genus *Aspar* Halašková, 1977, *Prozercon* Sellnick, 1943 (5) and *Zercon* C.L. Koch, 1836 (15).

Superfamily Parasitoidea Oudemans, 1901

Family Parasitidae Oudemans, 1901: Subfamily Parasitinae Oudemans, 1901: Genus *Coprocarpais* Hružová and Fend'a, 2018 (2), *Cornigamasus* Evans & Till, 1979 (2), *Eugamasus*

Berlese, 1892 (2), *Gamasodes* Oudemans, 1939 (2), *Neogamasus* Tikhomirov, 1969 (3), *Parasitellus* Willmann, 1939 (1), *Parasitus* Latreille, 1795 (12), *Phorytocarpais* Athias-Henriot, 1979 (5), *Rhabdocarpais* Athias-Henriot, 1981 (3), *Trachygamasus* Berlese, 1906 (3) and *Vulgarogamasus* Tikhomirov, 1969 (3).

Subfamily Pergamasinae Juvara-Balş 1972: Genus *Ernogamasus* Athias-Henriot, 1971 (1), *Holoparasitus* Oudemans, 1936 (1), *Leptogamasus* Trägårdh, 1936 (1), *Paragamasus* Hull, 1918, *Pergamasus* Berlese, 1904 (3) and *Tomeogamasus* Athias-Henriot, 1971 (1).

Superfamily Microgynioidea Trägårdh, 1942

Family Microgyniidae Trägårdh, 1942: Genus *Microsejus* Trägårdh, 1942 (1).

Cohort Uropodina

Family Cillibidae Trägårdh, 1944: Genus *Cilliba* von Heyden, 1826 (2).

Family Dinychidae Berlese, 1916: Genus *Dinychus* Kramer, 1882 (2).

Family Dithinozerconidae Krantz, 1978: Genus *Dithinozercon* Berlese, 1916 (1).

Family Macrodinychidae Hirschmann, 1975: Genus *Macrodneychus* Berlese, 1917 (2).

Family Metagynuridae Balogh, 1943: Genus *Metagynella* Berlese, 1919 (1).

Family Oplitidae Hirschmann & Zirngiebl-Nicol, 1964: Genus *Oplitis* Berlese, 1884 (6).

Family Polyaspididae Berlese, 1913: Genus *Polyaspis* Berlese, 1881 (3).

Family Protodinychidae Berlese, 1917: Genus *Protodinychus* Evans, 1957 (1).

Family Trachytidae Trägårdh, 1938: Genus *Trachytes* Michael, 1894 (6) and *Uroseius* Berlese, 1888 (2).

Family Trachyuropodidae Berlese, 1917: Genus *Excavatatrachys* Hirschmann, 1979 (1), *Leonardiella* Berlese, 1904 (1), *Trachyuropoda* Berlese, 1888 and *Trogulotrachys* Hirschmann, 1979 (1).

Family Trematuridae Berlese, 1917: Genus *Nenteria* Oudemans, 1915 (4), *Trematurella* Trägårdh, 1942 (1) and *Trichouropoda* Berlese, 1916 (6).

Family Urodiaspididae Trägårdh, 1944: Genus *Urodiaspis* Berlese, 1916 (2).

Family Urodinychidae Berlese, 1917: Genus *Microuroobovella* Błoszyk *et al.*, 2020 (1) and *Uroobovella* Berlese, 1903 (10).

Family Uropodidae Kramer, 1881: Genus *Centrouropoda* Berlese, 1916 (1), *Discourella* Berlese, 1910 (1), *Trachycilliba* Berlese, 1903 (3) and *Uropoda* Latreille, 1806 (3).

Suborder Trigynaspida Camin & Gorirossi, 1955

Superfamily Cercomegistoidea Trägårdh, 1937

Family Asternoseiidae Valle, 1954: Genus *Asternoseius* Berlese, 1910 (one unidentified species).

Family Cercomegistidae Trägårdh, 1937: Genus *Cercoleipus* Kinn, 1970 (1).

Superfamily Aenictequoidea Kethley, 1977

Family Messoracaridae Kethley, 1977: Genus *Messoracarus* Silvestri, 1912 (one unidentified species).

Superfamily Antennophoroidea Berlese, 1892

Family Antennophoridae Berlese, 1892: Genus *Antennophorus* Haller, 1877 (1).

Superfamily Celaenopsoidea Berlese, 1892

Family Celaenopsidae Berlese, 1892: Genus *Celaenopsis* Berlese, 1886 (1) and *Pleuronectocelaeno* Vitzthum, 1926 (2).

Family Diplogyniidae Trägårdh, 1941: Genus *Cingulacarus* Elsen, 1975 (1), *Lobogynium* Trägårdh, 1950 (1) and *Weiseronyssus* Samšínák, 1962 (1).

Family Schizogyniidae Trägårdh, 1950: Genus *Euroschizogynium* Trach & Seeman, 2014 (1).

Suborder Sejida Kramer, 1885

Superfamily Sejoidea Berlese, 1885

Family Ichthyostomatogasteridae Sellnick, 1953: Genus *Asternolaelaps* Berlese, 1923 (1).

Family Sejidae Berlese, 1885: Genus *Sejus* C.L. Koch, 1836 (3).

The distribution data of different species based on their higher groups have been presented according to the alphabetically name of related provinces as follow.

Suborder Monogynaspida Camin & Gorirossi, 1955

Cohort Gamasina Kramer, 1881

Subcohort Dermanyssiae Evans & Till, 1979

(Dermanyssina)

Superfamily Ascoidea Voigts & Oudemans, 1905

Family Ameroseiidae Evans, 1961

Genus *Ameroseius* Berlese, 1904a

***Ameroseius corbiculus* (Sowerby, 1806)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (region not mentioned), associated with *Agricales* sp. (Khalili-Moghadam and Nemati 2014a); (Shahrekord, Boldaji, Choghakhor), soil and decaying wood (Khalili-Moghadam and Saboori 2014). **Chaharmahal va Bakhtiyari, Isfahan, Khuzestan and Golestan Provinces** (region not mentioned), soil, debris, soil of ants' nest and fungi (Khalili-Moghadam and Saboori 2016a). **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001); (region not mentioned), soil (Hashemi Khabir *et al.* 2013). **Golestan Province** (Gorgan), leaf litter (Khalili-Moghadam and Saboori 2014). **Guilan Province** (Rostam Abad, Ganjeh, Roodbar and Manjil), soil in olive orchards (Mahjoori and Hajizadeh 2014). **North Khorasan Province** (region not mentioned), associated with the nests of *Tapinoma* sp. (Formicidae) (Rezaei *et al.* 2016). **Tehran Province** (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azerbaijan Province** (Urmia, Rashakan), soil of apple orchard; (Shohada valley), soil and litter;

(Nazlu), soil of apple orchard; (Band), soil of apple orchard; (Marmisho), soil; (Emamzade), soil of mulberry orchard; (Sir village), soil of apple orchard; (Silvana), soil of apple orchard; (Sulik village), soil and litter (Kavianpour *et al.* 2018b). **Zanjan Province** (region not mentioned), soil, rotten wood, fungi, litter and dung (Zare *et al.* 2012a); (region not mentioned), soil (Bigdeli *et al.* 2014).

***Ameroseius corniculus* Karg, 1971**

Distribution and habitats. **Fars Province** (Shiraz), soil of orchards (Khezri *et al.* 2006).

***Ameroseius fungicola* Mašán, 1998**

Distribution and habitats. **Alborz Province** (Eshtehard), compost and mushroom (Kheradmand *et al.* 2007).

***Ameroseius furcatus* Karg, 1971a**

Distribution and habitats. **Chaharmahal va Bakhtiyari, Isfahan, Khuzestan, and Golestan Provinces** (region not mentioned), soil, debris, soil of ants' nest and fungi (Khalili-Moghadam and Saboori 2016a). **East Azarbaijan Province** (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Vaygan and Kalaleh), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a). **Guilan Province** (Damash and Rudbar), soil (Hajizadeh *et al.* 2013a).

***Ameroseius lidiae* Bregetova, 1977g**

Distribution and habitats. **Chaharmahal va Bakhtiyari, Isfahan, Khuzestan and Golestan Provinces** (region not mentioned), associated with *Agricales* sp. (Khalili-Moghadam and Nemati 2014a); (Ben, Hafshejan, Farokhsahr, Dezak, Shahrekord and Saman), soil and rotting wood (Khalili-Moghadam and Saboori 2014); (region not mentioned), soil, debris, soil of ants' nest and fungi (Khalili-Moghadam and Saboori 2016a). **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006); (Northwestern of Province, region not mentioned), soil, debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Guilan Province** (Somesara), on raspberry shrubs (*Rubus* spp.) (Tajmiri and Hajizadeh 2013); (Ganjeh), soil in Olive orchards (Mahjouri and Hajizadeh 2014); (Rasht, Isfahani Educational Institute, Pir Bazar village); wood sorrel, *Oxalis acetosella* L. leaves, infested with spider mites; (Rasht, Dalechah village), soil; (Rasht, Lakan village), orange, *Citrus sinensis* leaves; (Rasht, Bijar Bonch village), rose, *Rosa damascene* leaves (Ghasemi and Hajizadeh 2021); (Rasht), associated with Carabidae (Hajizadeh and Hosseini 2022). **Isfahan Province** (Isfahan), soil of urban green spaces (Karbasi *et al.* 2022). **Kerman Province** (Baft), soil (Rajaei *et al.* 2011a); (Sirjan County), soil and manure (Masnavipour *et al.* 2014); (Kerman City, parks and landscapes), soil (Arjomandi and Kazemi 2014b); (Kerman County), poultry manure (Arjomandi *et al.* 2013a). **West Azarbaijan Province** (Miandoab County), soil of apple orchards (Zarei and Kazemi 2014); (Urmia, Shohada valley), soil and litter; (Nazlu dam), soil; (Kaboodan island), soil; (Shohada valley), soil and litter; (Nazlu dam), soil; (Sulik village), soil and litter (Kavianpour *et al.* 2018b). **Zanjan Province** (region not mentioned), soil, rotten wood, fungi, litter and dung (Zare *et al.* 2012a); (region not mentioned), soil (Bigdeli *et al.* 2014).

***Ameroseius sculptilis* Berlese, 1916a**

Distribution and habitats. **Guilan Province** (Somesara), on raspberry shrubs (*Rubus* spp.) (Tajmiri

and Hajizadeh 2013).

***Ameroseius ulmi* Hirschmann, 1963**

Cited in Westerboer and Bernhard (1963).

Distribution and habitats. **Chaharmahal va Bakhtiyari, Isfahan, Khuzestan, and Golestan Provinces** (region not mentioned), soil, debris, soil of ants' nest and fungi (Khalili-Moghadam and Saboori 2016a).

***Ameroseius womersleyi* Mašán, 2017**

Distribution and habitats. **Fars Province** (Estahban), soil, leaves, litter, bark and saffron bulb (Naghbinejad *et al.* 2012). **Kerman Province** (Rafsanjan), soil of fruit orchards (Mohammadi *et al.* 2012).

Note – Mašán (2017) considered *A. womersleyi* as a junior secondary homonym for *A. ornatus* Womersley, 1956 due to the type species of *Cornubia ornata* Turk, 1943. *Cornubia* is a junior synonym of *Ameroseius*. So, the above arrangement follows here.

Genus *Epicriopsis* Berlese, 1916a

***Epicriopsis horridus* (Kramer, 1876)**

Distribution and habitats. **Chaharmahal va Bakhtiyari, Isfahan, Khuzestan, and Golestan Provinces** (region not mentioned), soil, debris, soil of ant's nests and fungi (Khalili-Moghadam and Saboori 2016a). **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001). **Golestan Province** (Gorgan), leaf litter (Khalili-Moghadam and Saboori 2014); soil and litter (Kazemi *et al.* 2011a, 2012). **Lorestan Province** (Bishe District), soil under willow trees (Hasanvand *et al.* 2014b); (Khorramabad County), oak forest (Hasanvand *et al.* 2015).

***Epicriopsis palustris* Karg, 1971b**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Saman City), litter (Khalili-Moghadam and Saboori 2016b). **Chaharmahal va Bakhtiyari, Isfahan, Khuzestan, and Golestan Provinces** (region not mentioned), debris (Khalili-Moghadam and Saboori 2016a). **East Azarbaijan Province** (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a). **Guilan Province** (Talesh, Shaft, Siahkal, Fuman and Rostamabad), soil (Hajizadeh *et al.* 2013a). **Kerman Province** (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Mazandaran Province** (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Sabeti *et al.* 2016). **West Azarbaijan Province** (Urmia, Shohada valley), soil and litter; (Urmia University), soil and litter; (Silvana), soil of apple orchard; (Nari), soil and litter (Kavianpour *et al.* 2018b). **Zanjan Province** (region not mentioned), soil, rotten wood, fungi, litter and dung (Zare *et al.* 2012a).

Genus *Kleemannia* Oudemans, 1930

***Kleemannia delicata* (Berlese, 1918)**

Distribution and habitats. **Northeast of Iran** (region not mentioned), associated with stored food products (Khaleghabadian *et al.* 2013). **Razavi Khorasan Province** (Mashhad), stored food products (Khaleghabadian *et al.* 2015).

Kleemannia insignis (Bernhard, 1963)

Distribution and habitats. **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001). **Fars Province** (Marvdasht, Islamic Azad University, Fars Science and Research Branch), ex. apple bark beetles (Arabzadeh *et al.* 2012). **Guilan Province** (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood, and manure (Karami *et al.* 2017b).

Note – This species was reported by some authors from Iran as *Ameroseius insignis* Bernhard, 1963.

Kleemannia nova Nasr & Abu-Awad, 1986

Distribution and habitats. **Chaharmahal va Bakhtiari, Isfahan, Khuzestan and Golestan Provinces** (region not mentioned), soil, debris, soil of ants' nest and fungi (Khalili-Moghadam and Saboori 2016a). **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006). **Kerman Province** (Jiroft), soil sample, leg. J. Hajizadeh (Maśán 2017).

Note – This species was reported as *Ameroseius nova* by the most mentioned authors.

Kleemannia parplumosa Nasr & Abu-Awad, 1986

Distribution and habitats. **Chaharmahal va Bakhtiari, Isfahan, Khuzestan and Golestan Provinces** (region not mentioned), soil, debris, soil of ants' nest and fungi (Khalili-Moghadam and Saboori 2016a). **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006). **Guilan Province** (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood, and manure (Karami *et al.* 2017b); (Rasht), rice storage (Maśán 2017). **Hormozgan Province** (Minab), associated with soil under mango trees (Dolati and Ostovan 2017b). **Kerman Province** (Jiroft), soil (Maśán 2017). **Khuzestan Province** (Ahvaz and its suburbs), Cattle, buffalo, sheep and horse manure (Farahi *et al.* 2022). **Razavi Khorasan Province** (Mashhad County), soil (Abbaspour *et al.* 2017). **Zanjan Province** (region not mentioned), soil, rotten wood, fungi, litter and dung (Zare *et al.* 2012a).

Kleemannia pavidia (C. L. Koch, 1839b)

Distribution and habitats. **Chaharmahal va Bakhtiari, Isfahan, Khuzestan and Golestan Provinces** (region not mentioned), soil, debris, soil of ants' nest and fungi (Khalili-Moghadam and Saboori 2016a). **Guilan Province** (Somesara), on raspberry shrubs (*Rubus* spp.) (Tajmiri and Hajizadeh 2013); (Sangar City, Eslamabad Village; Shaft City, Jirdeh Village), rice hulls (Hajizadeh and Karami 2017); (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood, and manure (Karami *et al.* 2017b); (Rasht), rice storage (Maśán 2017); (Rasht, Omesheh Village), soil (Ghasemi and Hajizadeh 2021). **Kerman Province** (Sekonj), poultry manure (Arjomandi *et al.* 2013a). **Northeast of Iran** (region not mentioned), associated with stored food products (Khaleghabadian *et al.* 2013).

Note – Some mentioned authors have reported this species as *Ameroseius lanceosetis* Livshitz and Mitrofanov, 1975, but it was considered as a junior synonym of *Kleemannia pavidia* (C. L. Koch, 1839) by Maśán (2017).

Kleemannia plumea Oudemans, 1930

Distribution and habitats. **Chaharmahal va Bakhtiari, Isfahan, Khuzestan and Golestan Provinces** (region not mentioned), soil, debris, soil of ants' nest and fungi (Khalili-Moghadam and Saboori 2016a). **Kerman Province** (Jiroft), soil (Balooch Shahryari *et al.* 2012).

***Kleemannia plumigera* Oudemans, 1930**

Distribution and habitats. **Region not mentioned**, stored products (Sepasgozarian 1978; Modarres Awal 1994, 1997; Kamali *et al.* 2001; Hajizadeh *et al.* 2013b). **Alborz Province** (Mallard, Shahryar, Mohammad Shahr), compost and mushroom (Kheradmand *et al.* 2007). **Fars Province** (Koohmare-Sorkhi region), soil (Mašán 2017).

***Kleemannia plumosa* (Oudemans, 1902)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), soil (Khalili-Moghadam and Saboori 2014). **Chaharmahal va Bakhtiyari, Isfahan, Khuzestan, and Golestan Provinces** (region not mentioned), soil, debris, soil of ants' nest and fungi (Khalili-Moghadam and Saboori 2016a). **Isfahan Province** (Khomeini Shahr, Najaf Abad), soil of fruit orchards (Jalaeian *et al.* 2006); (Isfahan), soil of urban green spaces (Karbasián *et al.* 2022). **Kerman Province** (Bam County, Deh Bakri Region), under elytrae of *Oryctes nasicornis* (Coleoptera, Scarabaeidae) (Mašán 2017). **Khuzestan Province** (Ahvaz), soil (Baharloo *et al.* 2006). **Razavi Khorasan Province** (Mashhad County), soil (Abbaspour *et al.* 2017). **Sistan va Baluchestan Province** (Sistan Region), stored product (Sayadi *et al.* 2011). **West Azarbaijan Province** (Urmia), house dust (Kamali *et al.* 2001); (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003); (Urmia), soil (Rezaie *et al.* 2011); (Khoy), soil of sunflower fields (Taher *et al.* 2012); (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012); (Khoy, Salmas, Boukan, Mahabad, Urmia, Gharehziaadin), dried fruits and nuts (Ardeshir *et al.* 2012). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014).

***Kleemannia pseudoplumosa* (Rack, 1972)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord City, Lordegan City), soil, litter. **Chaharmahal va Bakhtiyari, Isfahan, Khuzestan, and Golestan Provinces** (region not mentioned), soil, debris, soil of ants' nest and fungi (Khalili-Moghadam and Saboori 2016b). **Fars Province** (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Guilan Province** (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood, and manure (Karami *et al.* 2017b); (Rasht, Omesheh village), litter (Ghasemi and Hajizadeh 2021). **Kerman Province** (Kerman), sheep and poultry manure (Arjomandi *et al.* 2011); (Kerman County), cow manure, poultry manure and sheep manure (Arjomandi *et al.* 2013a). **Khuzestan Province** (Ahvaz City), soil of ant nest (Khalili-Moghadam and Saboori 2016b). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012). **Tehran Province** (Tehran Capital, Lale Park), soil (Mašán 2017). **Zanjan Province** (region not mentioned), soil, rotten wood, fungi, litter and dung (Zare *et al.* 2012a).

Note – This species was cited as *Ameroseius eumorphus* Bregetova, 1977 in some of the above-mentioned references, but it is a junior synonym of *K. pseudoplumosa* (Mašán 2017).

Genus *Sertitympanum* Elsen & Whitaker, 1985

***Sertitympanum aegyptiacum* Nasr & Abou-Awad, 1986**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord, Saman, Farokhshahr, Boldaji and Choghakhor), soil and decaying wood (Khalili-Moghadam and Saboori 2014). **Chaharmahal va Bakhtiyari, Isfahan, Khuzestan, and Golestan Provinces** (region not mentioned), soil, debris, soil of ants' nests and fungi (Khalili-Moghadam and Saboori 2016a). **Guilan**

Province (region not mentioned), stored rice, rice dust and debris (Noei *et al.* 2008); (Roodbar), soil in olive orchards (Mahjouri and Hajizadeh 2014); (Sangar City), rice hulls; (Sangar City, Eslamabad (Shaqaji) Village), woodchips (Hajizadeh and Karami 2017); (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood, and manure (Karami *et al.* 2017b); (Rasht, Guilan University), bell pepper, *Capsicum annuum* L. leaves; (Rasht, Pasikhan Village), wood sorrel, *Oxalis acetosella* L. leaves, infested with spider mites (Ghasemi and Hajizadeh 2021). **Isfahan Province** (Isfahan), soil (Khalili-Moghadam and Saboori 2014). **Kerman Province** (Kerman County), cow manure and sheep manure (Arjomandi *et al.* 2013a). **Khuzestan Province** (Izeh), soil (Khalili-Moghadam and Saboori 2014). **Mazandaran Province** (region not mentioned), honeybee hives (Mosaddegh 1997; Kamali *et al.* 2001). **Razavi Khorasan Province** (Kashmar), soil of vineyards (Salarzahi *et al.* 2011).

Sertitympanum nodosum (Sheals, 1962)

Distribution and habitats. **Fars Province** (Marvdasht), soil (Soleimani *et al.* 2011). **Markazi Province** (Arak Region), soil (Jadidi and Joharchi 2014).

Notes – 1. Maśán (2017) stated, "I have examined a large number of *Sertitympanum* specimens from Iran (received from A. Ahadiyat, J. Hajizadeh, and Sh. Kazemi). Despite certain variability in the lamellar pattern of the sculptural sclerotization (due to different pressure of the cover glass on mounted specimens) and variable shape of some sternal and ventrianal shields, I considered the specimens from Iran (excluding two mites with longer dorsal setae and identified as *Sertitympanum aegyptiacum*) as conspecific with the holotype of *Sertitympanum nodosum*". He considered *Sertitympanum nodosum* and *Sertitympanum bassolsae* as synonyms with *S. nodosum* being the senior name. Despite *S. bassolsae* being reported by different researchers from Iran, the correct name for Iranian specimens is *Sertitympanum nodosum*. **2.** This species has been reported by Kazemi and Rajaei (2013) and Khalili-Moghadam and Saboori (2014) as *Ameroseius bassolase* (sic); Hajizadeh *et al.* (2013a) as *Ameroseius* (*Kleemannia*) *bassolsae*; Jadidi and Joharchi (2014), and Nemati *et al.* (2018c) as *Kleemannia bassolase* Vargas & Polaco, 2001.

Sertitympanum rotundus (Womersley, 1956)

Distribution and habitats. **Tehran Province** (Varamin, Mohammad Abad, Asgar Abad, Moein Abad, Pouinak, Jalil Abad, Ghalesin, Pishva Roadway), soil of crop fields including pomegranate, grape vine, eggplant, cucumber, wheat, tomato, lettuce and alfalfa (Kheradpir and Pakyari 2011).

Genus *Sinoseius* Bai & Gu, 1995

Sinoseius sp.

Maśán (2017) refers to the presence of this genus in Iran based on personal communication from Shahrooz Kazemi.

Family Ascidae Oudemans, 1905a

Genus *Antennoseius* Berlese, 1916c

Antennoseius (*Antennoseius*) Berlese, 1916

Antennoseius (*Antennoseius*) *avius* Karg, 1977

Distribution and habitats. **Ghazvin Province** (region not mentioned), soil (Kazemi 2018). **North Khorasan Province** (region not mentioned), soil (Kazemi 2018).

***Antennoseius (Antennoseius) bacatus* Athias-Henriot, 1961**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), soil (Nemati *et al.* 2012b); soil (Mohseni and Nemati 2014); (Saman City, Shahrekord Region), soil of ants' nest, *Monomorium* sp. (Hym.: Formicidae) (Khalili-Moghadam and Saboori 2015); (Lordegan County, Khanmirza Region, Salehat Village; Chahgah Village; Felard Region, Pol-e- Gharah; Poshtkouh; Dalvara; Monj Region, Goud Sardeh, Ghaleh Madreseh; Central Region, Tang Keloureh), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2018a, 2022b). **East Azarbaijan Province** (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Vaygan, Aynalu; Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a). **Fars Province** (Marvdasht), soil (Soleimani *et al.* 2011); (Darab Region), sugar beet soil (Kazemi *et al.* 2011b); (Marvdasht, Kamfiruz), soil and decayed plants under the oak trees (Beyzavi and Ostovan 2012); (Koohmare-Sorkhi Region), in oak forests (Kazemi and Yazdanpanah 2013a); (Koohmare-Sorkhi Region), oak forests (Kazemi and Yazdanpanah 2013b); (Koohmare-Sorkhi Region, oak forest), soil and leaf litter (Yazdanpanah and Kazemi 2014a); (region not mentioned), soil, debris (Abolghasemi and Kazemi 2016). **Guilan Province** (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood, and manure (Karami *et al.* 2017b); (Rasht, Saravan Forest), soil of forest trees (Karami *et al.* 2017a). **Isfahan Province** (Isfahan), soil of urban green spaces (Karbasian *et al.* 2022). **Kerman Province** (Kerman), soil of alfalfa fields (Kazemi *et al.* 2011b); (Kerman), sheep manure (Arjomandi *et al.* 2011); (Sirjan County), soil, leaf litter and manure (Masnavipour *et al.* 2014); (Kerman County), cow manure and sheep manure (Arjomandi *et al.* 2013a). **Khuzestan Province** (Baghmalek), soil and nest of unidentified ant (Nemati *et al.* 2012b); (Izeh), soil (Mohseni and Nemati 2014). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a, b). **Lorestan Province** (Ghalesangi and Zarinchogha Districts), soil of apple orchard and under oak trees (Hasanvand *et al.* 2014b); (Khorramabad County), orchard, oak forest and feild (Hasanvand *et al.* 2015). **Markazi Province** (Arak Region), soil (Jadidi and Joharchi 2014). **Tehran Province** (Tehran), soil (Kazemi *et al.* 2011b). **West Azarbaijan Province** (Urmia, Govarchin ghale, Kazem dashi), soil (Kavianpour *et al.* 2018b). **Yazd Province** (region not mentioned), soil (Kafi *et al.* 2014). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014).

***Antennoseius (Antennoseius) bacatosimilis* Karg, 1965**

Distribution and habitats. **Fars Province** (Estahban), soil, leaves, litter, bark and saffron balb (Naghbinejad *et al.* 2012). **Kerman Province** (Rafsanjan), pistachio (*P. vera*) stem bark and collar soil (Mehrnejad and Ueckermann 2001).

Note – Kazemi and Rajaei (2013) classified this taxon as a doubtful species and a potential junior synonym of *Antennoseius (Antennoseius) bacatus*. They based their conclusion on the ideas of Costa (1969) and Bregetova (1977a), as well as examinations of several specimens collected from similar localities by Sh. Kazemi. In his study, Costa (1969) mentioned that he had borrowed and studied the type specimens of *A. bacatus* and *A. bacatosimilis*. He noted that the only difference between them was their size, with *A. bacatosimilis* being slightly larger (about 20%), but he did not definitively declare these species as synonyms. Costa (1969) ultimately considered *A. granulatus*, *A. bacatus*, and *A. bacatosimilis* to be a closely related species group, based on small morphological differences. Lindquist and Moraza (2009) examined the type material of *Antennoseius (Antennoseius) epicrioides* Schweizer, 1961 and confirmed its strong similarity to *A. bacatus*. They suspected that it could possibly be the senior synonym of *A. bacatus*. Based on the above information, until the status of the mentioned species is definitively clarified, we will temporarily include *A. bacatosimilis* in the list of Iranian mesostigmatid mites.

***Antennoseius (Antennoseius) borrusicus* Sellnick, 1945**

Distribution and habitats– **Golestan Province** (Gorgan), soil (Malek-Shahkouyi *et al.* 2011b).

***Antennoseius (Antennoseius) bytinskii* Costa, 1969b**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Shahrekord) and **Khuzestan Province** (Izeh), soil (Mohseni and Nemati 2014).

***Antennoseius (Antennoseius) gwiazdowiczi* Kavianpour & Nemati, 2018**

Distribution and habitats. **Fars Province** (Koohmare-Sorkhi Region), oak forest, soil and leaf litter (Yazdanpanah and Kazemi 2014a); (Koohmare Sorkhi Region), soil of oak forests (Kazemi 2018). **Isfahan Province** (Shahreza), soil of a pomegranate orchard (Kavianpour *et al.* 2013b, Kavianpour *et al.* 2018d). **Kerman Province** (Sirch Region) under elytrae of an *Acinopus* sp. (Kazemi 2018); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020).

Note – *Antennoseius (A.) gwiazdowiczi* was described by Kavianpour *et al.* (2013) and published online in the Iranian Journal of Entomology (Vol. 3, pp. 36–44). However, there are certain conditions that need to be met for the registration of new animal species published online. In order to be considered published, a work issued and distributed electronically: (1) must have been issued after 2011; (2) must state its date of publication within the work itself; (3) must be registered in ZooBank; (4) must contain evidence, within the work itself, of its registration in ZooBank; (5) the entry in ZooBank must include the name and internet address of a site where the work is archived (not the publisher); (6) the entry in ZooBank must include the ISSN of the electronic journal (Halliday 2013). The Iranian Journal of Entomology, however, was published solely in electronic form without permanent archiving and is currently unavailable. Additionally, it was not registered in ZooBank. Therefore, *A. (A.) gwiazdowiczi* Kavianpour & Nemati, 2013 cannot be considered available and is considered a nomen nudum. Due to this reason, the authors mentioned have provided the description in the Persian Journal of Acarology in 2018.

***Antennoseius (Antennoseius) hispaniensis* Bernhard, 1963**

Distribution and habitats. **Kerman Province** (Kerman City, parks and landscapes), soil (Arjomandi and Kazemi 2014b); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Lorestan Province** (Khorramabad County), oak forest (Hasanvand *et al.* 2015). **Tehran Province** (agricultural fields of Faculty of Agriculture, Tarbiat Modares University), soil and litter (Kazemi and Yazdanpanah 2013a; Kazemi 2018).

***Antennoseius (Antennoseius) longisetus* Eidelberg, 2000**

Distribution and habitats. **Mazandaran Province** (Tirtash Region), ex *Idiomelas* (s. str.) *morio* (Ménétriés). **Razavi Khorasan Province** (Mashad County), under elytra of an unknown species of Carabidae (Kazemi and Moraza 2013).

***Antennoseius (Antennoseius) maltzevi* Eidelberg, 1994**

Distribution and habitats. **Fars Province** (Koohmare-Sorkhi Region), in oak forests (Kazemi and Yazdanpanah 2013a); (Koohmare-Sorkhi Region), oak forest, soil and leaf litter (Yazdanpanah and Kazemi 2014a). **Lorestan Province** (Khorramabad County), oak forest (Hasanvand *et al.* 2015).

***Antennoseius (Antennoseius) masoviae* Sellnick, 1943**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), soil (Nemati *et al.* 2012b); (Shahrekord), soil (Mohseni and Nemati 2014); (Saman City, Shahrekord Region), soil of ants' nest, *Monomorium* sp. (Hym.: Formicidae) (Khalili-Moghadam and Saboori 2015); (Lordegan County, Monj Region, Barz; Showarz), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2018a); (Saman, Gharaghoosh), in rooting wood in association with *Lasius neglectus* (Khalili-Moghadam 2022). **Fars Province** (Estahban), soil, leaves, litter, bark and saffron bulb (Naghbinejad *et al.* 2012). **Kerman Province** (Bam). ex. unidentified scarab and carabid beetles (Mehrzaad *et al.* 2011). **Khuzestan Province** (Ghaletol), soil (Nemati *et al.* 2012b); (Izeh), soil (Mohseni and Nemati 2014). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a, b). **North Khorasan Province** (Mane and Samalghan), ex *Harpalus (Pseudoophonus) rufipes* (Degeer) (Kazemi and Moraza 2013). **Razavi Khorasan Province** (Sarakhs Region), ex *Calathus (Neocalathus) ambiguous* (Paykull). **Tehran Province** (Tehran City, Police Park), soil (Maleki *et al.* 2016).

***Antennoseius (Antennoseius) matalini* Eidelberg, 2001**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord) and **Khuzestan Province** (Izeh), soil (Mohseni and Nemati 2014).

***Antennoseius (Antennoseius) pannonicus* Willmann, 1951b**

Distribution and habitats. **Golestan Province** (Naharkhoran Forest) under elytra of an unknown species of *Harpalus* Latreille (Carabidae) (Bahrami and Kazemi 2019).

***Antennoseius (Antennoseius) sabulicola* Bregetova, 1977a**

Distribution and habitats. **Fars Province** (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Kerman Province** (Kerman City, parks, and landscapes), soil (Arjomandi and Kazemi 2014b). **Lorestan Province** (Khorramabad County), oak forest (Hasanvand *et al.* 2015). **Razavi Khorasan Province** (Sarakhs Region), ex *Cymindis (Eremocymindis) pallidula* Chaudoir (Kazemi and Moraza 2013). **West Azarbaijan Province** (Urmia, Govarchin ghale, Kazem dashi), soil (Kavianpour *et al.* 2018b).

***Antennoseius (Antennoseius) sharonovi* Eidelberg, 1989**

Distribution and habitats. **North Khorasan Province** (Mane and Samalghan), ex *Harpalus (Pseudoophonus) rufipes* (Degeer) (Kazemi and Moraza 2013).

***Antennoseius* sp.**

Distribution and habitats. **Alborz Province** (Taleqan, Chenask), associated with a carabid beetle, *Pterostichus* sp. (Farmahiny-Farahani *et al.* 2022b).

Antennoseius (Vitzthumia) Thor, 1930

***Antennoseius (Vitzthumia) kamalii* Moraza & Kazemi, 2009**

Distribution and habitats. **North Khorasan Province** (Esfarayen), ex. *Bembidion* cf. *turkestanicum*

Fassati and *Harpalus* (s. str.) *distinguendus* (Duftschmid) (Moraza and Kazemi 2009). **Zanjan Province** (region not mentioned), soil, rotten wood, fungi, litter and dung (Zare *et al.* 2012a).

***Antennoseius (Vitzthumia) oudemansi* (Thor, 1930)**

Distribution and habitats. **Isfahan Province** (Falavarjan), foliage of trees, weeds and soil of orchards (Jalaeian *et al.* 2004a).

Genus *Anystipalpus* Berlese, 1911a

***Anystipalpus kazemii* Lindquist & Moraza, 2009**

Distribution and habitats. **Razavi Khorasan Province** (Gonabad, Rahan Village), ex. unidentified carabid beetle (Lindquist and Moraza 2009).

***Anystipalpus labiduricola* Lindquist & Moraza, 2009**

Distribution and habitats. **Kerman Province** (Bam), ex. unidentified scarab and carabid beetles (Mehrzaad *et al.* 2011). **Khuzestan Province** (Ahvaz), soil (Nemati *et al.* 2012b). **North Khorasan Province** (Esfarayen), ex. earwig (*Labidura* sp.) (Lindquist and Moraza 2009).

***Anystipalpus livshitsi* (Eidelberg, 1989)**

Distribution and habitats. **Golestan Province** (Daland Forest), ex. *Herpalus* sp. (Bahrami *et al.* 2011). **North Khorasan Province** (Esfarayen), ex. *Ophonus* (*Metophonus*) *rufibarbis* (Fabricius) (Lindquist and Moraza 2009).

***Anystipalpus longipalpus* (Barilo, 1987)**

Distribution and habitats. **Isfahan Province** (Shahreza), soil (Kavianpour *et al.* 2011). **Khuzestan Province** (Baghmalek, Ghaletol), soil (Nemati *et al.* 2012b).

***Anystipalpus percicola* Berlese, 1911a**

Distribution and habitats. **North Khorasan Province** (Mane and Samalghan), ex. *Ophonus* (*Hesperophonus*) *rebellus* (Schauberger) (Lindquist and Moraza 2009).

Genus *Arctoseius* Thor, 1930

***Arctoseius cetratus* (Sellnick, 1940a)**

Distribution and habitats. **Alborz Province** (Karaj, Eshtehard), compost and mushroom (Kheradmand *et al.* 2007). **Bushehr Province** (Asaluyeh Port), soil (Kazemi and Alikhani 2013). **Chaharmahal va Bakhtiari Province** (Shahrekord), soil (Nemati *et al.* 2012b); (Saman City, Shahrekord Region), soil of ants' nest, *Monomorium* sp. (Hym.: Formicidae) (Khalili-Moghadam and Saboori 2015); (Lordegan County, Khanmirza Region, Salehat Village; Monj Region, Ghale Madresh Village; Pal-Borideh Village), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2018a); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b). **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006); (Estahban), soil, leaves, litter, bark and saffron bulb (Naghbinejad *et al.* 2012); (Shiraz), soil (Montazeri *et al.* 2011); (Marvdasht), soil

(Soleimani *et al.* 2011); (Larestan), soil of cotton and wheat fields (Khadempour *et al.* 2012); (Darab), soil and foliage of cotton fields (Khorsand *et al.* 2012); (Sepidan, Homayjan), foliage, soil, leaf-litter, weeds and soil of apple trees (Maneshi *et al.* 2012); (Kooohmare-Sorkhi Region), oak forests (Kazemi and Yazdanpanah 2013b); (Kooohmare-Sorkhi Region, oak forest), soil and leaf litter (Yazdanpanah and Kazemi 2014a); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Golestan Province** (Gorgan), soil (Malek-Shahkouyi *et al.* 2011b). **Guilan Province** (Rasht Agricultural College), soil of corn field, (Agha-Seyed Sharif Village), soil under Ulm tree, (region not mentioned), plants, warehouses, manure and decaying plants (Hajizadeh *et al.* 2009b, 2010a); (region not mentioned), associated with eriophyid mite [*Aceria geranii* (Canestrini)] (Adeli *et al.* 2013); **Hamedan Province** (region not mentioned), Darnel (Kamali *et al.* 2001). **Isfahan Province** (Shahreza), soil (Kavianpour *et al.* 2011); (region not mentioned), soil (Nemati *et al.* 2012b); (Isfahan), soil (Kadkhodaei *et al.* 2013); (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022). **Kerman Province** (Rafsanjan), pistachio (*P. vera*) stem bark and collar soil (Mehrnejad and Ueckermann 2001); (Sirjan, Pariz, Gostueyeh, Shahrehabak, Marj), soil (Masnavipour *et al.* 2011); (Bam), soil (Mehrjad *et al.* 2012); (Jiroft), soil (Balooch Shahryari *et al.* 2012); (Sirjan County, Shahr-e-Babak County), soil and manure (Masnavipour *et al.* 2014); (Kerman City, parks and landscapes), soil (Arjomandi and Kazemi 2014b); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Khuzestan Province** (Baghmalek, Ghaletol, Izeh), soil (Nemati *et al.* 2012b). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a, b). **Lorestan Province** (Bishe and Badrabad Districts), soil of walnut trees and peach orchard (Hasanvand *et al.* 2014b); (Khorramabad County), orchard, oak forest, ant nest and field (Hasanvand *et al.* 2015). **Markazi Province** (Saveh Region), associated with the Mediterranean pine beetle, *Orthotomicus erosus* (Wollaston) (Farmahiny Farahani *et al.* 2013); (Arak Region), soil (Jadidi and Joharchi 2014). **North East of Iran** (region not mentioned), associated with stored food products (Khaleghabadian *et al.* 2013). **Razavi Khorasan Province** (Mashhad), stored food products (Khaleghabadian *et al.* 2015); (Mashhad County), soil (Abbaspour *et al.* 2017). **Semnan Province** (Damghan), soil of alfalfa farm, (Kalatehroudabar Village), soil of barley farm, (Cheshmeh-Ali), on *Cardaria draba* (L.) and in soil mixed with weeds near the pool of a spring, (Dibaj), soil near bay willow trunk, decaying matter of a poplar trunk and soil at the margin of a sike, (Astaneh Village), soil near a pear trunk at the margin of a sike, (Tooyehdarvar Village), soil of an alfalfa farm, wheat farm and decaying leaves of walnut tree and chicken manure, (Haji Abad Village), litter in pistachio orchard, (Amiriyyeh), soil of corn farm, (Naim Abad Village), soil mixed with manure in pistachio orchard, (Dashtebou Village), soil mixed with weeds in an apple orchard and soil mixed with decaying leaves, (Fouladmahalleh triway), sawdust mixed manure, (Shams Abad Village), soil near a grapevine trunk, twigs with long horn beetle galleries of fruit tree in apple and pear orchards, decaying crown of apricot with woodborer galleries and sawdust near a decaying trunk of black mulberry, (Abbas Abad Village), soil of alfalfa farm, (Bakhsh Abad Village), decaying trunk of a willow tree, (Hadadeh Village), soil mixed with weeds near a grapevine and pistachio trees, (Kalatehmolla), soil of grapevine orchard, (Tooyehdarvar Village), litter at the margin of a sike (Shamsi *et al.* 2008). **Tehran Province** (Tehran), associated with cucumber greenhouses (Ostovan 2006a); (Tehran, Sorkhe Hesar Forest Park), soil (Pakyari *et al.* 2006b, 2008); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003); (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012); (Urmia, Urmia University), soil; (Shohada valley), soil and litter; (Band), soil of apple orchard; (Sir Village, soil of apple orchard (Kavianpour *et al.* 2018b). **Yazd Province** (region not mentioned), soil (Kafi *et al.* 2014). **Zanjan Province** (region not mentioned), soil, rotten wood, fungi, litter and dung (Zare *et al.* 2012a); (region not mentioned), soil (Bigdeli *et al.* 2014).

***Arctoseius idiodactylus* Lindquist, 1961**

Distribution and habitats. **Fars Province** (Shiraz), soil (Montazeri *et al.* 2011). **West Azarbaijan Province** (Urmia), apple orchards (Kamali *et al.* 2001; Atamehr *et al.* 2008).

***Arctoseius minutus* (Halbert, 1915)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2018a); (Saman, Gharaghoosh), in rooting wood in association with *Lasius neglectus* (Khalili-Moghadam 2022).

***Arctoseius pristinus* Karg, 1962**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2018a). **Fars Province** (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Guilan Province** (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood, and manure (Karami *et al.* 2017b); (Sangar City, Sarvandan Village), manure (Karami *et al.* 2017a); (Isfahan), soil of urban green spaces (Karbasian *et al.* 2022). **Isfahan Province** (Isfahan), soil (Kadkhodaei *et al.* 2013). **Qom Province** (region not mentioned), soil, dung, compost and plant-litters of crops, lawns, shrubs and trees in farms, forests, orchards and parks (Agha Alikhani *et al.* 2017).

***Arctoseius pulvisculus* (Berlese, 1920)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2018a); (Saman, Gharaghoosh), in rooting wood in association with *Lasius neglectus* (Khalili-Moghadam 2022). **Golestan Province** (Gorgan), soil (Malek-Shahkouyi *et al.* 2011b). **Mazandaran Province** (Amol), soil (Sakenin Chelav *et al.* 2006a, b). **West Azarbaijan Province** (Urmia, Shohada valley), soil and litter (Kavianpour *et al.* 2018b).

Note – Gwiazdowicz (2008) considered *Iphidozercon minutus* sensu Bregetova (1977) as a junior synonym of *Arctoseius pulvisculus*. Sakenin Chelav *et al.* (2006a, b) reported this species as *Iphidozercon minutus* and those specimens may belong to *A. pulvisculus* and we cited this report under the distribution of above--mentioned species.

***Arctoseius semiscissus* (Berlese, 1892c)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2018a). **East Azarbaijan Province** (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Kalaleh; Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a). **Fars Province** (Shiraz), soil (Montazeri *et al.* 2011). **Golestan Province** (Gorgan), soil (Malek-Shahkouyi *et al.* 2011b). **Isfahan Province** (Mobarake), foliage of trees, weeds and soil of orchards (Jalaeian *et al.* 2004a). **Kerman Province** (Shahrehabak, Marj), soil (Masnavipour *et al.* 2011); (Sirjan County), leaf litter (Masnavipour *et al.* 2014). **Semnan Province** (Tooyehdarvar Village), decaying matter of oleaster trunk and decaying leaves of walnut tree, (Dibaj), soil mixed with weeds near an almond tree, (Berom Village), soil of pistachio orchard, (Cheshmeh-Ali), on twigs of apricot (Shamsi *et al.* 2008). **West Azarbaijan Province** (Urmia, Sulik village), soil and litter (Kavianpour *et al.* 2018b). **Zanjan Province** (region not mentioned), soil, rotten wood, fungi, litter and dung (Zare *et al.* 2012a).

***Arctoseius venustulus* (Berlese, 1916a)**

Distribution and habitats. **Golestan Province** (Gorgan), soil (Malek Shahkouyi *et al.* 2011b).

Isfahan Province (Isfahan City), soil (Kadkhodaei *et al.* 2013). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a, b). **Semnan Province** (Tooyehdarvar Village), soil with ant nest at a wheat farm, (Dibaj), soil mixed with weeds near a pear tree, (Tooyeh Village), soil mixed with litter near a cherry tree (Shamsi *et al.* 2008).

Genus *Asca* von Heyden, 1826

***Asca aphidioides* (Linnaeus, 1758)**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Kalaleh), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a). **Golestan Province** (Gorgan), soil (Malek-Shahkouyi *et al.* 2011b). **Guilan Province** (Ganjeh, Roodbar and Manjil), soil in olive orchards (Mahjoori and Hajizadeh 2014); (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood, and manure (Karami *et al.* 2017b); (Sangar City), soil (Karami *et al.* 2017a); (forests of Arasbaran Region), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017). **Isfahan Province** (Isfahan), soil of urban green spaces (Karbasian *et al.* 2022). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a, b). **Mazandaran Province** (Amol), soil (Sakenin Chelav *et al.* 2006a, b).

***Asca bicornis* (Canestrini & Fanzago, 1877b)**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Kalaleh), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a). **Guilan Province** (Rostam Abad and Roodbar), soil in olive orchard (Mahjoori and Hajizadeh 2014); (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood, and manure (Karami *et al.* 2017b); (Rostamabad City, Kaluraz Village), from olive soil (Karami *et al.* 2017a).

***Asca nesoica* Athias-Henriot, 1961**

Distribution and habitats. **Zanjan Province** (region not mentioned), soil, rotten wood, fungi, litter and dung (Zare *et al.* 2012a).

Genus *Gamasellodes* Athias-Henriot, 1961

***Gamasellodes bicolor* (Berlese, 1918)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Lordegan County, Khanmirza Region, Salehat Village; Monj Region, Cheshmeh khani Village; Joub nesa Village), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2018a); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b). **East Azarbaijan Province** (forests of Arasbaran Region), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017); (Southwest of the province, region not mentioned), soil (Hashemi Khabir *et al.* 2013). **Fars Province** (Kazeron), different materials of stored products (Ostovan and Kamali 1994); (Kazeron), stored onion (Kamali *et al.* 2001); (Marvdasht), soil (Soleimani *et al.* 2011); (Shiraz), soil (Montazeri *et al.* 2011); (Estahban), soil, leaves, litter, bark and saffron bulb (Naghbinejad *et al.* 2012); (Doroodzan), soil of fields (Asadpoor *et al.* 2012); (Larestan), soil of cotton and wheat fields (Khadempour *et al.* 2012); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Guilan Province** (region not mentioned), soil, plants, warehouses, manure and decaying plants (Hajizadeh *et al.* 2009b, 2010a);

(Rostam Abad, Roodbar), leaf litter in olive orchards (Mahjoori and Hajizadeh 2014); (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood, and manure (Karami *et al.* 2017b); (Roodbar, Nesfi Village), from weed floor of olive Garden (Karami *et al.* 2017a). **Hamedan Province** (region not mentioned), bean (*Phaseolus vulgaris* L.) and clover (*Trifolium* sp.) farms (Khanjani and Kamali 2000a; Kamali *et al.* 2001). **Isfahan Province** (Shahreza), soil (Kavianpour *et al.* 2010); (Isfahan City), soil (Kadkhodaei *et al.* 2013). **Golestan Province** (Gorgan), soil (Malek-Shahkouyi *et al.* 2011b). **Khuzestan Province** (Safiabad), grapevine yards (Kamali *et al.* 2001; Darvishzadeh and Kamali 2009); (Izeh, Baghmalek), soil (Nemati *et al.* 2012b). **Markazi Province** (Arak Region), soil (Jadidi and Joharchi 2014). **Mazandaran and Kordestan Provinces** (region not mentioned), shallot, potato and honeybee hives (Modarres Awal 1994; Mosaddegh 1997; Ostovan and Mosaddegh 1999; Kamali *et al.* 2001). **Razavi Khorasan Province** (Kashmar), soil of vineyards (Salarzahi *et al.* 2011). **Semnan Province** (Tooyehdarvar Village), soil of alfalfa farm, (Tazareh Village), decaying underbark matter of an alive poplar, (Haji Abad Village), litter in a pistachio orchard, (Naim Abad Village), soil of a pistachio orchard, (Forat Village), soil at the margin of a sike, (Astaneh), soil at the margin of a sike near a pear tree, (Damghan), soil near an olive tree, (Shams Abad Village), decaying crown of an apricot tree along the margin of a sike, (Kalatemolla), soil of a pistachio orchard, (Damghan), soil on an apricot orchard (Shamsi *et al.* 2008). **Tehran Province** (Tehran, Shahid Beheshti University Campus), soil (Kamali *et al.* 2004); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani Nejad *et al.* 2003); (Urmia, Band), soil of apple orchard (Kavianpour *et al.* 2018b). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014).

***Gamasellodes insignis* (Hirschmann, 1962)**

Distribution and habitats. **Isfahan Province** (Zarrin Shahr, Khomeini Shahr), foliage of trees, weeds and soil of orchards (Jalaeian *et al.* 2004a); (Shahreza), soil (Kavianpour *et al.* 2011). **West Azarbaijan Province** (Urmia, Balanoj), soil of apple orchard (Kavianpour *et al.* 2018b).

***Gamasellodes minor* Athias-Henriot, 1961**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b).

***Gamasellodes vulgator* Athias-Henriot, 1961**

Distribution and habitats. **Qom Province** (region not mentioned), soil, dung, compost and plantlitters of crops, lawns, shrubs and trees in farms, forests, orchards and parks (Agha Alikhani *et al.* 2017).

Genus *Iphidozercon* Berlese, 1903a

***Iphidozercon australis* Gwiazdowicz & Halliday, 2008**

Distribution and habitats. **Fars Province** (Shiraz), soil (Montazeri *et al.* 2011).

***Iphidozercon caspius* Hajizadeh, Mortazavi & Nazari, 2014**

Distribution and habitats. **Guilan Province** (Langarud City), soil under citrus trees (Hajizadeh *et al.* 2014).

***Iphidozercon corticalis* Evans, 1958**

Distribution and habitats. **Fars Province** (Marvdasht, Kamfiruz), soil and decayed plants under the oak trees (Beyzavi and Ostovan 2012). **Tehran Province** (Tehran, Sorkhe Hesar Forest Park), soil (Pakyari *et al.* 2006b, 2008).

***Iphidozercon gibbus* (Berlese, 1903a)**

Distribution and habitats. Region not mentioned, starchy materials, animal manure and humus (Modarres Awal 1997; Kamali *et al.* 2001). **Fars Province** (Kazerun), stored decaying onion (Ostovan and Kamali 1994; Kamali *et al.* 2001); (Jahrom), soil of citrus orchards (Khademi *et al.* 2006); (Estahban), soil, leaves, litter, bark and saffron bulb (Naghbinejad *et al.* 2012). **Isfahan Province** (Najaf Abad), soil of fruit orchards (Jalaeian *et al.* 2006). **Kerman Province** (Shahrehabak, Marj). Soil (Masnavipour *et al.* 2011); (Shahr-e-Babak County), soil and manure (Masnavipour *et al.* 2014). **Lorestan Province** (Veisian District), soil under walnut trees (Hasanvand *et al.* 2014b); (Khorramabad County), oak forest (Hasanvand *et al.* 2015). **Tehran Province** (Tehran City, Police Park), soil (Maleki *et al.* 2016). **Zanjan Province** (region not mentioned), soil, rotten wood, fungi, litter and dung (Zare *et al.* 2012a).

Genus *Leioseius* Berlese, 1916a

***Leioseius sepidehae* Kazemi, 2019**

Distribution and habitats. **Hormozgan Province** (Qeshm Island), in mangrove forests, from broken cockleshells and sand in littoral zone (Kazemi 2019).

Note – A species has been previously reported from Iran as *Leioseius bicolor* (Berlese, 1918) from Fars Province (Larestan), soil of cotton and wheat fields by Khadempour *et al.* (2012), which is in fact, a species of *Gamasellodes* genus (see its data under this genus).

Genus *Neojordensia* Evans, 1957a

***Neojordensia sinuate* Athias-Henriot, 1973**

Distribution and habitats. **Golestan Province** (Gorgan), soil and litter (Kazemi *et al.* 2012). **Mazandaran Province** (Nowshahr), soil and litter (Kazemi *et al.* 2012). **West Azarbaijan Province** (Urmia, Band), soil of apple orchard (Kavianpour *et al.* 2018b).

Genus *Protogamasellus* Karg, 1962

***Protogamasellus bifurcalis* Genis, Loots & Ryke, 1967**

Distribution and habitats. **Fars Province** (Jahrom Region), soil of citrus orchards (Khademi and Saboori 2013).

***Protogamasellus hibernicus* Evans, 1982**

Distribution and habitats. **Fars Province** (Kazerun), stored rice and barley (Kamali *et al.* 2001). **West Azarbaijan Province** (Urmia), aerial plant parts and soil of potato fields (Mosavi *et al.* 2004; Mousavi *et al.* 2005); (Khoy), soil of sunflower fields (Taher *et al.* 2012).

***Protogamasellus massula* (Athias-Henriot, 1961)**

Distribution and habitats. **Fars Province** (Larestan), soil of cotton and wheat fields (Khadempour *et al.* 2012); (Darab), the soil under the trees in the northern and southern orchards of Darab city

(Memarzadeh *et al.* 2022). **Guilan Province** (region not mentioned), associated with eriophyid mites [*Aceria oleae* (Nalepa); *Tegonotus hassani* (Keifer)] (Adeli *et al.* 2013); (Rostam Abad, Roodbar and Manjil), soil and leaf litter in olive orchards (Mahjoori and Hajizadeh 2014); (Sangar City, Eslamabad (Shaqaji) Village), from Chicken manure (Karami *et al.* 2017a); (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood, and manure (Karami *et al.* 2017b); (Rasht, Sima Manzar Organization), rose, *Rosa damascene* leaves; (Rasht, Isfahani Educational Institute), wood sorrel, *Oxalis acetosella* L. leaves, infested with spider mites (Ghasemi and Hajizadeh 2021). **Hormozgan Province** (Minab), associated with soil under mango trees (Dolati and Ostovan 2017b). **Isfahan Province** (Shahreza), soil (Kavianpour *et al.* 2011). **Kerman Province** (Jiroft), soil (Balooch Shahryari *et al.* 2012); (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022). **Semnan Province** (Tooyehdavar Village), soil near an oleaster trunk, decaying poplar trunk with woodborer galleries, decaying leaves of walnut, litter near a sumac tree, decaying matter of an oleaster tree and soil, (Cheshmeh-gholghol spring), soil near a berberry, (Agareh Village, Sattarie's orchard), decaying wood trunk of an alive willow, (Dibaj), soil near an almond tree, (Damghan), soil near a walnut tree, (Rashm Village), moss at the margin of a sike (Shamsi *et al.* 2008). **Tehran Province** (Tehran, Sorkhe Hesar Forest Park), soil (Pakyari *et al.* 2006b, 2008). **West Azarbaijan Province** (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003); (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012); (Urmia, Nazlu dam), soil; (Kaboodan island), soil (Kavianpour *et al.* 2018b). **Yazd Province** (region not mentioned), soil (Kafi *et al.* 2014).

Protogamasellus mica (Athias-Henriot, 1961)

Distribution and habitats. **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Guilan Province** (region not mentioned), soil, plants, warehouses, manure and decaying plants (Hajizadeh *et al.* 2009b, 2010a); (region not mentioned), associated with eriophyid mites [*Acaphylla distata* (Keifer); *Aculops rhodensis* (Keifer)] (Adeli *et al.* 2013); (Rostam Abad, Roodbar and Manjil), soil in olive orchards (Mahjoori and Hajizadeh 2014); (Sangar City, Eslamabad (Shaqaji) Village), from Chicken manure (Karami *et al.* 2017a); (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood and manure (Karami *et al.* 2017b). **Hormozgan Province** (Qeshm Island, in mangrove forests), from broken cockles and sand in littoral zone (Kazemi 2019); (Minab), associated with soil under mango trees (Dolati and Ostovan, 2017b). **Isfahan Province** (Shahreza), soil (Kavianpour *et al.* 2011). **Kerman Province** (Jiroft), soil (Balooch Shahriyari *et al.* 2011); (Kerman City, Qaem pine forest), from soil and litter (Kazemi 2019). **Razavi Khorasan Province** (Kashmar), soil of vineyards (Salarzahi *et al.* 2011). **Semnan Province** (Tooyehdarvar Village), litter near a sumac tree, (Mohammad Abad Village), soil mixed with weeds on a pistachio orchard, (Cheshmeh-Ali roadside), soil mixed with weeds near a cherry tree, (Damghan), soil in a park, (Dibaj), soil in barley farm, (Zarrin Abad Village), soil near a willow tree at the margin of sike, (Rashm Village), moss at the margin of sike (Shamsi *et al.* 2008). **West Azarbaijan Province** (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003).

Note – *Protogamasellus primitivus* Karg, 1962 was reported by Shamsi *et al.* (2008) from Semnan Province, but this species was considered as junior synonym of *P. mica* by Evans, 1982.

Protogamasellus scuticalis Genis, Loots & Ryke, 1967

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2018a); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b). **Fars Province** (Estahban), soil, leaves, litter, bark and saffron bulb (Naghbinejad *et al.* 2012).

***Protogamasellus singularis* (Karg, 1962)**

Distribution and habitats. **Semnan Province** (Agareh Village, Sattari's Orchard), decaying matter of a willow tree (Shamsi *et al.* 2008).

Note – This species was previously reported from Iran as *Protogamasellus minor* (Karg, 1962) by Shamsi *et al.* (2008) with the above-mentioned data. Kazemi (2019) considered this species as *Protogamasellus singularis*.

Genus *Zerconopsis* Hull, 1918

***Zerconopsis michaeli* Evans & Hyatt, 1960**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Vaygan and Kalaleh), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a). **Fars Province** (Kharameh Region), sandy clay soil under fruit trees (Alinezhad *et al.* 2023). **Golestan Province** (Gorgan), soil (Malek-Shahkouyi *et al.* 2011b; Kazemi *et al.* 2012). **Guilan Province** (Rasht, Saravan Forest), from forest soil (Karami *et al.* 2017a); (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood, and manure (Karami *et al.* 2017b). **Mazandaran Province** (Amol), soil (Sakenin Chelav *et al.* 2006a, b); (Nowshahr), soil and litter (Kazemi and Ahangaran 2011; Kazemi *et al.* 2012).

***Zerconopsis remiger* (Kramer, 1876)**

Distribution and habitats. **East Azarbaijan Province** (forests of the Arasbaran region), soil, leaf litter and plant debris (Ordoukhanian *et al.* 2017). **Guilan Province** (Langarud and Chaboksar), soil samples of citrus garden (Karami *et al.* 2017a).

Family Melicharidae Hirschmann, 1962

Genus *Melichares* Hering, 1838

***Melichares agilis* Hering, 1838**

Distribution and habitats. **Guilan Province** (region not mentioned), livestock (Modarres Awal 1994, 1997; Kamali *et al.* 2001).

Genus *Orthadenella* Athias-Henriot, 1973

***Orthadenella lawrencei* (Evans, 1957a)**

Distribution and habitats. **East Azarbaijan Province** (forests of Arasbaran Region), soil leaf-litter and plant debris (Ordoukhanian *et al.* 2017). **Guilan Province** (Rudsar), soil; (Rasht) soil (Javadpour *et al.* 2018). **Mazandaran Province** (Amol), soil (Sakenin Chelav *et al.* 2006a, b).

Notes – 1. This species has previously been reported from Iran as *Lasioseius lawrencei*. 2. According to Nemati *et al.* (2018), the senior author (A. Nemati) observed that some specimens of *Orthadenella lawrencei*, collected from East Azarbaijan Province and some parts of northern Iran, are likely the species previously reported from Iran as *L. lawrencei* (or *Orthadenella lawrencei*). The specimens reported by Malekshahkoochi *et al.* (2011) as *L. lawrencei* actually belong to *O. multipilisaccula* Ostovan and Faraji, 2014. Therefore, the collection data cited in the publication of Ostovan and Faraji (2014), including the data of Moradian *et al.* (2011a, b), has been transferred to *Orthadenella multipilisaccula* Ostovan and Faraji, 2014 as follows.

***Orthadenella multipilisaccula* Ostovan & Faraji, 2014**

Distribution and habitats. **Golestan Province** (Gorgan), soil (Malek-Shahkouyi *et al.* 2011b). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), corn and rape seed farms (Moradian *et al.* 2011a, b). **Mazandaran Province** (Babolsar), forests soil (Ostovan and Faraji 2014).

Genus *Proctolaelaps* Berlese, 1923

***Proctolaelaps aurora* (Vitzthum, 1925)**

Distribution and habitats. **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001). **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006). **Markazi Province** (Saveh), pomegranate (Kamali *et al.* 2001).

Note – This species has been reported from Iran as *Proctolaelaps longipilis* (Chant, 1958), but it was considered a junior synonym of *P. aurora* by Halliday *et al.* (1997).

***Proctolaelaps bickleyi* (Bram, 1956)**

Distribution and habitats. **Seventeen different Provinces in Iran**, beehives debris (Ostovan and Mossadegh 1999). **Fars Province** (Kazerun), stored onion and potato contaminated to *Schwiebia* spp. and *Rhizoglyphus* spp. (Ostovan and Kamali 1994; Kamali *et al.* 2001); (region not mentioned), honeybee hives (Modarres Awal 1997; Ostovan and Mosaddegh 1999); (Marvdasht), soil (Soleimani *et al.* 2011); (Shiraz), potato, zucchini, flour and the floor of insectariums (Granpayeh *et al.* 2012); (Shiraz), associated with insectary cultures including potato (*Solanum tuberosum* L.), zucchini (*Cucurbita pepo* L.) and wheat flour (Granpayeh and Ostovan 2014); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Markazi Province** (Arak Region), soil (Jadidi and Joharchi 2014). **Tehran Province** (Tehran), associated with elm bark beetle *Scolytus multistriatus* (Marsh) (Kamali *et al.* 2001; Ostovan and Kamali 1997).

***Proctolaelaps brevipilis* (Westerboer, 1963)**

Distribution and habitats. **Qom Province** (region not mentioned), soil, dung, compost and plantlitters of crops, lawns, shrubs and trees in farms, forests, orchards and parks (Agha Alikhani *et al.* 2017).

***Proctolaelaps cossoides* Faraji, Sakenin-Chelav & Karg, 2007**

Distribution and habitats. **Mazandaran Province** (Amol), soil and debris (Faraji *et al.* 2007).

***Proctolaelaps fiseri* Samšínák, 1960**

Distribution and habitats. **Fars Province** (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Guilan Province** (Rasht, University of Guilan), on body of rove beetle (Staphylinidae) (Karami *et al.* 2017a); (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood, and manure (Karami *et al.* 2017b).

***Proctolaelaps holovertris* Moraes, Britto, Mineiro & Halliday, 2016**

Distribution and habitats. **Guilan Province** (Rasht, Isfahani Educational Institute), wood sorrel, *Oxalis acetosella* leaves (Ghasemi and Hajizadeh 2021); (Rasht), associated with beetles from Chrysomelidae, Carabidae, and Staphylinidae (Hajizadeh and Hosseini 2022).

Note – The above-mentioned name was considered for *Proctolaelaps orientalis* Nasr, (in Zaher, 1986) because of junior primary homonymy with *Proctolaelaps orientalis* Bhattacharyya, 1968 by Moraes *et al.* (2016).

***Proctolaelaps hystricoides* Lindquist & Hunter, 1965**

Distribution and habitats. **Ardabil Province** (Moghan Plain), cotton fields (Kamali *et al.* 2001). **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006).

***Proctolaelaps intermedius* Athias-Henriot, 1959b**

Distribution and habitats. **Lorestan Province** (Khorramabad), orchard and oak forest (Hasanvand *et al.* 2015). **Tehran Province** (Tehran, various Parks), associated with elm bark beetle, *S. multistriatus* (Ostovan and Kamali 1997; Kamali *et al.* 2001).

Note – Ostovan and Kamali (1997) reported *Neojordensia orientalis* Chant, 1963 from Tehran. This species was considered as a junior synonym of *Proctolaelaps intermedius* by Mineiro *et al.* (2009).

***Proctolaelaps longisetosus* (Postner, 1963)**

Distribution and habitats. **Ardabil Province** (Meshkinshahr, Shahbil Region), associate with nest of *Bombus armeniacus* (Hymenoptera, Apidae) colony (Azhari *et al.* 2011).

Note – *Lasioseius longisetosus* Postner, 1951 is unavailable name in an unpublished thesis (Moraes *et al.* 2016).

***Proctolaelaps pygmaeus* (Müller, 1859)**

Distribution and habitats. **Bushehr Province** (region not mentioned), nests or body of fresh and pinned museum specimens of order Orthoptera (Gryllidae) (Nemati and Babaeian 2010). **Chaharmahal va Bakhtiari Province** (region not mentioned), nests or body of fresh and pinned museum specimens of Orthoptera (Gryllidae) (Nemati and Babaeian 2010); (region not mentioned), *Fomes* sp. (Khalili-Moghadam and Nemati 2014a); (Ben, Karsenak, Bardeh; Lordegan, Ooreh), in rooting wood in association with *L. neglectus*; *P. koshewnikovi*; *T. karavaievi* (Khalili-Moghadam 2022); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b). **East Azarbaijan Province** (Arasbaran Forests, Garmanab), soil and plant debris (Mohammad-Doustasharaf *et al.* 2016a). **Fars Province** (Kazerun), stored onion and potato contaminated to *Schwiebia* spp. and *Rhizoglyphus* spp. (Ostovan and Kamali 1994; Kamali *et al.* 2001); (Marvdasht). Soil (Soleimani *et al.* 2011); (Shiraz). Soil (Montazeri *et al.* 2011); (Larestan). Soil of cotton and wheat fields (Khadempour *et al.* 2012); (Shiraz). Potato, zucchini, flour and the floor of insectariums (Granpayeh *et al.* 2012); (Marvdasht, Islamic Azad University, Fars Science and Research Branch). Soil and decayed plants associated with conifers (Amirazodi and Ostovan 2012); (Darab). Soil and foliage of cotton fields (Khorsand *et al.* 2012); (Doroodzan), soil of fields (Asadpoor *et al.* 2012); (Shiraz), associated with insectary cultures including potato (*Solanum tuberosum* L.), zucchini (*Cucurbita pepo* L.) and wheat flour (Granpayeh and Ostovan 2014); (Northwestern), soil and debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Guilan Province** (region not mentioned). Soil, plants, warehouses, manure and decaying plants (Hajizadeh *et al.* 2009b, 2010a); (Somesara), on raspberry shrubs (*Rubus* spp.) (Tajmiri and Hajizadeh 2013); (Rasht, Pir Kola Chah Village and Somesara), rice hulls; (Sangar, Sarvandan Village, Eslamabad (Shaqaji) Village), soil of spruce tree and manure (Karami *et al.* 2017a); (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood, and manure

(Karami *et al.* 2017b); (Rasht, Omesheh village, Pir Bazar village), soil; (Rasht, Isfahani Educational Institute), wood sorrel, *Oxalis acetosella* leaves; Granioms, *Pelargonum zonale* leaves; (Bijar Bonch village), cucumber, *Cucumis sativus* L. leaves; (Keshel Varzal village), tomato, *S. lycopersicum* L. leaves (Ghasemi and Hajizadeh 2021). **Hamedan Province** (region not mentioned). Associated with Fabaceae plants (Kamali *et al.* 2001). **Isfahan Province** (Najaf Abad), soil of fruit orchards (Jalaeian *et al.* 2006); (Shahreza), soil (Kavianpour *et al.* 2011); (Isfahan), soil (Kadkhodaei *et al.* 2013); (Rezvanshahr), soil (Moradi Faradonbeh *et al.* 2018); (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022). **Kerman Province** (Sirjan, Zeidabad, Gostueyeh, Mani, Sarcheshmeh, Shahrehabak). Soil (Masnavipour *et al.* 2011); (Bam). ex. unidentified scarab and carabid beetles (Mehrzhad *et al.* 2011); (Bam). Soil (Mehrzhad *et al.* 2012); (Rafsanjan). Soil of fruit orchards (Mohammadi *et al.* 2012); (Kerman), cow manure (Arjomandi *et al.* 2013a); (Sirjan, Rafsanjan, Shahr-e-Babak), soil, manure and leaf litter (Masnavipour *et al.* 2014); (Kerman City, parks and landscapes), soil (Arjomandi and Kazemi 2014b); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Khuzestan Province** (Dezful), citrus orchards (Malekzadeh *et al.* 2000); (region not mentioned), associated with barley and lentils (Habibpour *et al.* 2002); (region not mentioned), associated with date palm trees (Mohajeri *et al.* 2009); (region not mentioned), nests or body of fresh and pinned museum specimens of Orthoptera (Gryllidae) (Nemati and Babaeian 2010). **Lorestan Province** (region not mentioned), no more data (Kamali *et al.* 2001); (Babazeid and Mehdiabad Districts), soil of lemon orchard and vine orchard, (Hasanvand *et al.* 2014b); (Khorramabad), orchard, oak forest and manure (Hasanvand *et al.* 2015). **Mazandaran Province** (Tirtash), ex. *Gryllus* sp., under elytra (Kazemi and Rajaei 2013). **North Khorasan Province** (region not mentioned), in the nests of *Tapinoma* sp. (Formicidae) (Rezaei *et al.* 2016). **Qom Province** (region not mentioned), soil, dung, compost and plant-litters of crops, lawns, shrubs and trees in farms, forests, orchards and parks (Agha Alikhani *et al.* 2017). **Razavi Khorasan Province** (Mashhad), stored food products (Khaleghabadian *et al.* 2015); (Mashhad), soil and manure (Abbaspour *et al.* 2017). **Semnan Province** (Tooyehdarvar Village), decaying lives of walnut tree, (Dibaj), soil mixed with weeds near an almond tree and decaying plant fruit fallen on the ground in an apple orchard, (Dibaj, near Imamzadeh), decaying trunk of a willow tree, (Forat Village), soil mixed with weeds at the margin of a sike, (Damghan), soil mixed with weeds near a walnut tree (Shamsi *et al.* 2008). **Tehran Province** (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Urmia), house dust (Kamali *et al.* 2001); (Urmia), aerial plants part and soil of potato fields (Mosavi *et al.* 2004; Mousavi *et al.* 2005); (Urmia), soil (Rezaie *et al.* 2011); (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003). **Yazd Province** (region not mentioned), soil (Kafi *et al.* 2014). **Zanjan Province** (region not mentioned), soil, rotten wood, fungi, litter and dung (Zare *et al.* 2012a); (region not mentioned), soil (Bigdeli *et al.* 2014).

Proctolaelaps regalis De Leon, 1963

Distribution and habitats. **Alborz Province** (Karaj), associated with stored products (Sayedi *et al.* 2006). **Fars Province** (Kazerun), different materials of stored products (Ostovan and Kamali 1994; Modarres Awal 1997; Kamali *et al.* 2001). **Kuzestan Province** (region not mentioned), associated with date palm trees (Mohajeri *et al.* 2009).

Proctolaelaps scolyti Evans, 1958

Distribution and habitats. **Kordestan Province** (region not mentioned), honeybee hives (Mosaddegh 1997; Kamali *et al.* 2001). **Semnan Province** (Forat Village), soil mixed with weeds at the margin of a sike, (Tazareh Village), decaying matter of an alive poplar with woodborer galleries (Shamsi *et al.* 2008).

***Proctolaelaps ventrianalis* Karg, 1971a**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b). **Fars Province** (Shahreza), soil (Kavianpour *et al.* 2011); (Shiraz), soil (Montazeri *et al.* 2011). **Guilan Province** (region not mentioned), stored rice, rice dust and debris (Noei *et al.* 2008); (Langarud), soil of citrus garden (Karami *et al.* 2017a); (region not mentioned), soil, stored products, debris, plant foliage, leaves, wood, and manure (Karami *et al.* 2017b). **Khorasan Razavi Province** (Mashhad), stored food products (Khaleghabadian *et al.* 2015). **Khuzestan Province** (Ahvaz and its suburbs), cattle and horse manure (Farahi *et al.* 2022). **West Azarbaijan Province** (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003). North East of Iran (region not mentioned), stored food products (Khaleghabadian *et al.* 2013).

Superfamily Dermanyssoidea Kolenati, 1859

Family Dermanyssidae Kolenati, 1859

Genus *Dermanyssus* Dugès, 1834

***Dermanyssus americanus* Ewing, 1923**

Distribution and habitats. **Fars Province** (Shiraz), collected from the houses of patients referred to the asthma and allergy by vacuum cleaner (Shafei *et al.* 2020). **Hormozgan Province** (Bandar-Abas), on the body of *Rattus norvegicus*, *Tatera indica* (Hanafi-Bojd *et al.* 2007).

***Dermanyssus brevis* Ewing, 1936**

Distribution and habitats. **Khorasan Province** (Ghaen), Crested Lark *Galerida cristata* (Alaudidae) (Moodi *et al.* 2014).

***Dermanyssus chelidonis* Oudemans, 1939a**

Distribution and habitats. **Chaharmahal va Bakhtiyari and Isfahan Provinces** (region not mentioned), body of birds or their nests (Keivani *et al.* 2012).

***Dermanyssus gallinae* (De Geer, 1778)**

Distribution and habitats. Generally distributed (region not mentioned), chicken and pigeon (Kamali *et al.* 2001). **Alborz Province** (Karaj), manure (Kazemi and Rajaei 2013). **Chaharmahal va Bakhtiyari and Isfahan Provinces** (region not mentioned), body of birds or their nests (Keivani *et al.* 2012). **Fars Province** (Shiraz), collected from the houses of patients referred to the asthma and allergy by vacuum cleaner (Shafei *et al.* 2020). **Kerman Province** (Kerman), chicken manure (Kazemi and Rajaei, 2013); cow manure and poultry manure (Arjomandi *et al.* 2013a). **Khuzestan Province** (Ahvaz and its suburbs), poultry manure (Farahi *et al.* 2022). **Northwest Iran** (region not mentioned), on *Mus musculus* (Allymehr *et al.* 2012). **West Azarbaijan Province** (Urmia), different bird nests, especially in the barn swallow (*Hirundo rustica*) nests (Mohamadi Ghalehjoughi *et al.* 2017).

Note – As an old report, *Dermanyssus gallinae* was recorded from Iran as a parasite of poultry by Maghami (1968).

***Dermanyssus* sp.**

Distribution and habitats. **Hamedan Province** (region not mentioned), ectoparasites of urban bird (Nikbin *et al.* 2022).

Genus *Liponyssoides* Hirst, 1913

***Liponyssoides muris* (Hirst, 1913)**

Distribution and habitats. **Hormozgan Province** (Mangrove forests and villages of Qeshm Island), ectoparasite on *Rattus rattus* (Eslami *et al.* 2018).

***Liponyssoides sanguineus* (Hirst, 1914)**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Sharekord). ex. mice (Nemati *et al.* 2008a). **Hormozgan Province** (Bandar-Abas), on the body of *Rattus norvegicus* (Hanafi-Bojd *et al.* 2007). **Isfahan Province** (Segzi, Koochpayeh), on the body of *R. opimus* (Azarmi *et al.* 2019). **Kermanshah Province** (Sarpole-Zahab District), on *Mus musculus*, *Meriones persicus* and *Tatera indica* (Telmadarraiy *et al.* 2007). **Khuzestan Province** (Ahvaz and Hovizeh), on *R. norvegicus* (Rahdar *et al.* 2015). **Kurdistan Province** (region not mentioned), associated with stored flour and wheat (Maroufpoor and Ostovan 2017; Maroufpoor *et al.* 2017).

Family Haemogamasidae Oudemans, 1926

Genus *Eulaelaps* Berlese, 1903b

***Eulaelaps oudemansi* Turk, 1945**

Distribution and habitats. **West Azarbaijan Province** (Urmia), house dust (Kamali *et al.* 2001).

***Eulaelaps stabularis* (C.L. Koch, 1840)**

Distribution and habitats. **Seventeen different Provinces in Iran**, beehives debris (Ostovan and Mossadegh 1999); region not mentioned, hoeny bee hives (Shahhosseini and Kamali 1989; Kamali *et al.* 2001). **Chaharmahal va Bakhtiari Province** (Lordegan, Ooreh; Kiar, Gahroo), in soil in association with *P. pallescens*; *T. karavaievi* (Khalili-Moghadam 2022). **Chaharmahal va Bakhtiari** and **Isfahan Provinces** (region not mentioned). Body of birds or their nests (Keivani *et al.* 2012). **Fars Province** (Koochmare-Sorkhi Region), oak forests (Kazemi and Yazdanpanah 2013b); (Koochmare-Sorkhi Region, oak forest), soil and leaf litter (Yazdanpanah and Kazemi 2014a). **Golestan Province** (Gorgan), soil (Kazemi *et al.* 2011a, 2012). **Guilan Province** (region not mentioned), stored rice, rice dust and debris (Noei *et al.* 2008), soil, decaying plants and stored products (Hajizadeh *et al.* 2010b). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b). **West Azarbaijan Province** (Salmas), soil and plant debris of apple orchards (Alizadeh *et al.* 2011). **Tehran Province** (Shemiranat, Rudbar-Ghasran), soil, litter and humus (Cheraghali *et al.* 2012).

Genus *Haemogamasus* Berlese, 1889

***Haemogamasus hirsutus* Berlese, 1889**

Distribution and habitats. **Northeast of Azarbaijan Province** (Arasbaran forests), soil, humus and litter (Mohammad-Doustasharaf *et al.* 2018b).

***Haemogamasus pontiger* (Berlese, 1904a)**

Distribution and habitats. **Alborz Province** (Karaj), associated with stored products (Sayedi *et al.* 2006). **Guilan Province** (region not mentioned), stored rice, rice dust and debris (Noei *et al.* 2008), soil, decaying plants and stored products (Hajizadeh *et al.* 2010b, c).

Family Iphiopsididae Kramer, 1886
Genus *Julolaelaps* Berlese, 1916d

***Julolaelaps hallidayi* Nemati, Riahi & Gwiazdowicz, 2015**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Brujen Region), from soil associated with mellipeds (Nemati *et al.* 2015). **Isfahan Province** (Shahreza), from soil associated with mellipeds (Nemati *et al.* 2015).

***Julolaelaps tritosternalis* Moraza & Kazemi, 2012**

Distribution and habitats. **Mazandaran Province** (Noor Forest Park), ex. *Ommatoiulus caspius* (Lohmander) (Moraza and Kazemi 2012).

Family Laelapidae Canestrini, 1891
Genus *Alloparasitus* Berlese, 1920

***Alloparasitus oblongus* (Halbert, 1915)**

Distribution and habitats. **Fars Province** (Marvdasht, Islamic Azad University, Fars Science and Research Branch), ex. apple bark beetles (Arabzadeh *et al.* 2012).

***Alloparasitus obscuroides* (Costa, 1968a)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Saman, Shahrekord), soil (Amani *et al.* 2015); (Lordegan, Khanmirza Region, Salehat Village, Central Region, Bougar Village), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015). **Fars Province** (Shiraz), soil (Montazeri *et al.* 2011); (Kooohmare-Sorkhi Region), oak forests (Kazemi and Yazdanpanah 2013b); (Shiraz), litter (Joharchi and Halliday 2013); (Kooohmare-Sorkhi Region, oak forest), soil and leaf litter (Yazdanpanah and Kazemi 2014a); (Shiraz County), soil (Keivani *et al.* 2018); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021). **Isfahan Province** (Isfahan), soil and litter (Ramezani and Nemati 2010); (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b). **Lorestan Province** (Khorramabad), soil (Hasanvand *et al.* 2014a).

Note – This species was considered as a member of *Gymnolaelaps* by Joharchi and Halliday (2013), Kazemi and Yazdanpanah (2013b), and Yazdanpanah and Kazemi (2014a). Hasanvand *et al.* (2014a) and Nemati *et al.* (2017a) reported this species in *Hypoaspis s. lat.* due to incompatibility of its morphological characters with *Gymnolaelaps* genus. This species was provisionally placed in the genus *Alloparasitus* (Moraes *et al.* 2022), and we follow it here.

Genus *Androlaelaps* Berlese, 1903b

***Androlaelaps aegypticus* Hafez, Elbadry & Naser, 1982**

Distribution and habitats. **Fars Province** (Marvdasht, Islamic Azad University, Fars Science and Research Branch), soil (Soleimani *et al.* 2010b, 2011). **Hormozgan Province** (Minab), associated with soil under mango trees (Dolati and Ostovan 2017b). **Razavi Khorasan Province** (Kashmar), soil of vineyards (Salarzahi *et al.* 2011). **Tehran Province** (Tehran City, Police Park), soil (Maleki *et al.* 2016).

***Androlaelaps androgynus* (Bregetova, 1952)**

Distribution and habitats. **Chaharmahal va Bakhtiyari and Isfahan Provinces** (region not

mentioned), body of birds or their nests (Keivani *et al.* 2012).

***Androlaelaps casalis* (Berlese, 1887a)**

Distribution and habitats. Region not mentioned, stored products (Sepasgozarian 1978). **Alborz Province** (Karaj), associated with stored products (Sayedi *et al.* 2006; Seiedy *et al.* 2009); (region not mentioned), soil (Keshavarz Jamshidian and Babaeian 2013). **Ardabil Province** (Moghan Plain), cotton farms (Kamali *et al.* 2001). **Bushehr Province** (region not mentioned), nests or body of fresh and pinned museum specimens of different insects of order Coleoptera (Family Scarabaeidae, Carabidae), Hymenoptera (Formicidae) and Orthoptera (Gryllidae, Acrididae) (Nemati and Babaeian 2010). **Chaharmahal va Bakhtiari Province** (Shahrekord), soil (Nemati *et al.* 2008b); (Shahrekord), nest of ants (Babaeian *et al.* 2010); (region not mentioned), nests or body of fresh and pinned museum specimens of different insects of order Coleoptera (Family Scarabaeidae, Carabidae), Hymenoptera (Formicidae) and Orthoptera (Gryllidae, Acrididae) (Nemati and Babaeian 2010); (Saman), soil (Shariati *et al.* 2017); (Shahrekord), different habitats (Nemati *et al.* 2017a). **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001); forests of Arasbaran Region), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017); (Maragheh), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Kazerun), stored onion (Kamali *et al.* 2001); (Shiraz), soil (Montazeri *et al.* 2011), potato, zucchini, flour and the floor of insectariums (Granpayeh *et al.* 2012); (Larestan), soil of cotton and wheat fields (Khadempour *et al.* 2012); (Marvdasht, Islamic Azad University, Fars Science and Research Branch), ex. apple bark beetles (Arabzadeh *et al.* 2012); (Sepidan, Homayjan), associated with apple trees (Maneshi *et al.* 2012); (Neyriz), soil (Bazrafshan *et al.* 2013); (Shiraz), associated with insectary cultures including potato (*Solanum tuberosum* L.), zucchini (*Cucurbita pepo* L.) and wheat flour (Granpayeh and Ostovan 2014); (Shiraz County), soil (Keivani *et al.* 2018); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Guilan Province** (region not mentioned), stored rice, rice dust and debris (Noei *et al.* 2008), soil, decaying plants and stored products (Hajizadeh *et al.* 2010b); (Somesara), on raspberry shrubs (*Rubus* spp.) (Tajmiri and Hajizadeh 2013); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Rasht, Pir Bazar village), soil (Ghasemi and Hajizadeh 2021). **Hamedan Province** (region not mentioned), associated with Fabaceae plants (Kamali *et al.* 2001); region not mentioned, rice, barley, wheat, apple, darnel, wild sainfoin and soil (Kamali *et al.* 2001). **Hormozgan Province** (Minab), associated with soil under mango trees (Dolati and Ostovan 2017b). **Isfahan Province** (Isfahan, Kashan, and Golpaygan), stored wheat, grain, chaff and dust material (Ardeshir and Nematollahi 2008); (Isfahan), soil and litter (Ramezani and Nemati 2010); (Isfahan), soil (Khalili-Moghadam *et al.* 2012). **Kerman Province** (Rafsanjan), pistachio (*P. vera*) stem bark and collar soil (Mehrnejad and Ueckermann 2001); (Kerman), cow, sheep and poultry manure (Arjomandi *et al.* 2011); (Baft), soil (Rajaei *et al.* 2011a); (Jiroft), soil (Balooch Shahryari *et al.* 2011, 2012); (Bam), soil (Mehrzaad *et al.* 2012); (Kerman), cow manure, poultry manure and sheep manure (Arjomandi *et al.* 2013a). **Khuzestan Province** (Safiabad), grapevine yards (Kamali *et al.* 2001; Darvishzadeh and Kamali 2009); (region not mentioned), nests or body of fresh and pinned museum specimens of different insects of order Coleoptera (Family Scarabaeidae, Carabidae), Hymenoptera (Formicidae) and Orthoptera (Gryllidae, Acrididae) (Nemati and Babaeian 2010); (Bavi, Mollasani), sheep manure; (Ahvaz, Gavmish Abad), buffalo manure; (Bavi, Naddafieh, sheep manure (Farahi *et al.* 2020); (Ahvaz and its suburbs), buffalo, and sheep manure (Farahi *et al.* 2022). **Lorestan Province** (region not mentioned), soil (Heydari *et al.* 2013); (Poledokhtar), soil (Heydari *et al.* 2014b); (Kuhdasht), soil (Heydari *et al.* 2014a). **Mazandaran Province** (Lavij Region of Nour County), soil, humus and litter (Ghasemi-Moghadam *et al.* 2014). **Qom Province** (region not mentioned), soil, dung, compost and plant-litters of crops, lawns, shrubs and trees in farms, forests, orchards and parks (Agha Alikhani *et al.* 2017). **Razavi Khorasan Province** (Mashhad), soil-litter

and associated with ants' nest (Ghafarian *et al.* 2013a); (Mashhad), stored food products (Khaleghabadian *et al.* 2015); North East of Iran (region not mentioned), associated with stored food products (Khaleghabadian *et al.* 2013); (Mashhad), soil and manure (Abbaspour *et al.* 2017). **Semnan Province** (Shahrood, Bastam, Meyami, Abarsij, Owlang Jungle, Deh Kheyr, Tuskestan), soil (Ghorani *et al.* 2016). **Tehran Province** (Tehran), associated with elm bark beetles *S. multistriatus* (Ostovan & Kamali 1997; Kamali *et al.* 2001); (Tehran, Sorkheh Hesar Forest Park), soil (Pakyari 2008); (Shemiranat, Rudbar-Ghasran), soil, litter and humus (Cheraghali *et al.* 2012); (Tehran, Varamin, Shahr-e Rey, Firouzkooh, Dmavand Region), soil, leaf litter and dung, green spaces and orchards (Baroozeh *et al.* 2013); (region not mentioned), associated with ornamental plants (Hamidi *et al.* 2013). **West Azarbaijan Province** (Urmia), house dust and predator of European red mite (Kamali *et al.* 2001); (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003); (Salmas), soil and plant debris of apple orchards (Alizadeh *et al.* 2011); (Khoy), soil of sunflower fields (Taher *et al.* 2012); (Khoy, Salmas, Boukan, Mahabad, Urmia, Gharehziaadin), dried fruits and nuts (Ardeshir *et al.* 2012); (Urmia, Qäsemlü valley), soil and litter (Kavianpour *et al.* 2017); (Urmia University), soil (Mirfakhraie *et al.* 2017). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014).

***Androlaelaps fahrenheitzi* (Berlese, 1911)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), *M. musculus* nest (Babaeian *et al.* 2010). **Fars Province** (Shiraz), collected from the houses of patients referred to the asthma and allergy by vacuum cleaner (Shafei *et al.* 2020). **Hormozgan Province** (Bandar-Abas), on the body of *Rattus norvegicus*, *Tatera indica* (Hanafi-Bojd *et al.* 2007). **Lorestan Province** (Khorram abad), on the body of *M. persicus*, *M. musculus*, *Mus socialis*, *Cricetulus migratorius*, *Ellobius fuscocapillus*, *Rattus rattus* (Shayan and Rafinejad 2006).

Note – This species was recorded as *Heamolaelaps glasgowi* (Ewing, 1925) by the mentioned researchers, but it was considered as a junior synonym of *Androlaelaps fahrenheitzi* (Berlese, 1911) by Furman (1972).

***Androlaelaps fenilis* (Méglin, 1876)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), soil of ants' nest, unknown ant (Hym.: Formicidae) (Khalili- Moghadam and Saboori 2015); (Lordegan County, Felard Region, Poshtkouh; Pole Gharah; Khanmirza Region, Salehat Village; Monj Region, Ghale Madreseh Village; Pal Borideh Village; Cheshmeh Khani Village; Joub Nesa Village), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015). **Fars Province** (Shiraz County), soil (Keivani *et al.* 2018). **Isfahan Province** (Isfahan), soil (Khalili-Moghadam *et al.* 2012). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b). **Razavi Khorasan Province** (Northeast of Iran; region not mentioned), associated with stored food products (Khaleghabadian *et al.* 2013); (Mashhad), stored food products (Khaleghabadian *et al.* 2015). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014).

***Androlaelaps hermaphrodita* (Berlese, 1887b)**

Distribution and habitats. **Sistan va Baluchestan Province** (Bampoor, Daman, Iranshahr District, Qasre Qand, Nikshahr), on the body of *Tetera indica*, *Meriones hurrianae*, *Meriones libycus* and *Gerbillus nanus* (Nateghpour *et al.* 2013).

***Androlaelaps kifli* Metwally & Ibrahim, 1985**

Distribution and habitats. **Fars Province** (Shiraz), soil (Montazeri *et al.* 2011). **Isfahan Province**

(Isfahan), soil and litter (Ramezani and Nemati 2010); (Shahreza), soil (Kavianpour *et al.* 2011). **Khuzestan Province** (Ahvaz), nest of *Pheidole pallidula* Nylander and *Monomorium destructor* (Jerdon) (Nemati *et al.* 2000b; Kamali *et al.* 2001).

Note – However, we concur with Joharchi and Negm (2020) in asserting that *Androlaelaps projecta* Furman, 1972 should be regarded as a senior synonym of *A. aegypticus* Hafez, Elbadry & Naser, 1982 and *A. kifli* Metwali & Ibrahim, 1985. Nonetheless, a thorough examination of the type materials is required to substantiate this claim, as there are variations in the original descriptions of *A. aegypticus* and *A. kifli*. Consequently, until further investigation is conducted, the names of aforementioned species will be included in the inventory of Iranian mesostigmatid mites.

Androlaelaps marshalli (Berlese, 1911)

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Sharekord), ex. mice (Nemati *et al.* 2008a).

Androlaelaps projecta Furman, 1972

Distribution and habitats– **Khuzestan Province** (Ahvaz, Gavmish Abad), buffalo manure (Farahi *et al.* 2020); (Ahvaz and its suburbs), buffalo manure (Farahi *et al.* 2022).

Androlaelaps shealsi Costa, 1968a

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Saman and Shahrekord), soil (Amani *et al.* 2015); (Lordegan County, Khanmirza Region, Salehat Village; Monj Region, Ghale Madreseh Village; Pal Borideh Village; Cheshmeh Khani Village and Joub Nesa Village), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015); (Saman), soil (Shariati *et al.* 2017); (Koohrang, Dashte laleh, Sodejan, Samsami (Cheri), Bazoft (Taraz); Saman, Gharaghoosh, Garmdareh and Shoorab; Ben, Karsenak; Kiar, Gahroo, Kharaji; Lordegan, Ooreh), in soil and rooting wood in association with *C. xerxes*; *C. fritillariae*; *C. kurdistanica*; *L. neglectus*; *M. caducus*; *M. platyceras*; *P. pallescens*; *Solenopsis* sp.; *T. karavaievi*; *Tetramorium* sp. (Khalili-Moghadam 2022). **East Azarbaijan Province** (Maragheh), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Sepidan, Homayjan), associated with apple trees (Maneshi *et al.* 2012); (Larestan), soil of cotton and wheat fields (Khadempour *et al.* 2012); (Koohmare-Sorkhi Region), oak forests (Kazemi and Yazdanpanah 2013b); (Koohmare-Sorkhi Region, oak forest), soil and leaf litter (Yazdanpanah and Kazemi 2014a); (region not mentioned), soil and debris (Abolghasemi and Kazemi 2016); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021). **Guilan Province** (region not mentioned), soil (Ramroodi *et al.* 2013); (Manjil, Roodbar and Nesfi), soil in olive orchard (Mahjoori *et al.* 2014); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b). **Isfahan Province** (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022). **Kerman Province** (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Khuzestan Province** (Ahvaz, Gavmish Abad), buffalo manure (Farahi *et al.* 2020); (Ahvaz and its suburbs), buffalo manure (Farahi *et al.* 2022). **Lorestan Province** (region not mentioned), soil (Heydari *et al.* 2013); (Poledokhtar District), soil (Heydari *et al.* 2014b); (Kuhdasht District), soil (Heydari *et al.* 2014a). **Razavi Khorasan Province** (Kashmar). Soil of vineyards (Salarzahi *et al.* 2011). **Semnan Province** (Shahrood, Bastam), soil (Ghorani *et al.* 2016). **Sistan and Baluchestan Province** (Sistan Region), stored product (Sayadi *et al.* 2012). **Tehran Province** (Shemiranat, Rudbar-Ghasran), soil, litter and humus (Cheraghali *et al.* 2012); (Tehran, Varamin, Shahr-e Rey, Damavand), soil and leaf litter of green spaces and orchards (Baroozeh *et al.* 2012); (Tehran, Varamin, Shahr-e Rey, Firouzkooch, Dmavand Region), soil, leaf litter and dung, green spaces and orchards (Baroozeh *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West**

Azarbaijan Province (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003); (Urmia. Rashkân), soil of apple orchard; (Kaboodan island), soil; (Näzlü road), soil of apple orchard (Kavianpour *et al.* 2017).

***Androlaelaps schusteri* Hirschmann, 1966**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Lordegan County, Khanmirza Region, Salehat Village), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015); (Koohrang, Bazoft (Shykhali) and (Taraz); Ben, Karsenak; Saman, Gharaghoosh; Kiar, Gahroo), in soil in association with *Cataglyphis bazoftensis*; *Cataglyphis kurdistanica*; *L. neglectus*; *M. platyceras*; *P. pallescens* (Khalili-Moghadam 2022).

***Androlaelaps* sp.**

Distribution and habitats. **Khuzestan Province** (Bavi, Talbume), cow manure (Farahi *et al.* 2020); (Ahvaz and its suburbs), cattle manure (Farahi *et al.* 2022).

Note – Previous catalogues of Iranian mesostigmatid mites (Kamali *et al.* 2001; Kazemi and Rajaei 2013) mentioned a species called *Androlaelaps hirsti* Keegan, 1956 that was reported from Khuzestan Province, ex. *M. musculus* (Kamali *et al.* 2001). Kazemi and Rajaei (2013) clarified that "Kamali *et al.* (2001) incorrectly referred to *A. hystrici* (Keegan), and there is another named species called *Haemolaelaps hystrici* Zumpt & Till, 1953, which, after communicating with the collector of the species, we discovered actually belongs to *H. hirsti*". This species was collected in 1998 and identified by A. Nemati. However, due to uncertainty in its identification and the unavailability of specimens for reidentification, we have chosen to exclude it from the list of Iranian mesostigmatid mites in this article.

Genus *Coleolaelaps* Berlese, 1914

***Coleolaelaps asiaticus* Karg, 1999**

Distribution and habitats. **Alborz Province** (Karaj), ex *Polyphylla olivieri* Castelnau (Joharchi and Halliday 2011). **Fars Province** (Shiraz), ex. *P. olivieri* (Joharchi and Halliday 2011). **North Khorasan Province** (region not mentioned), on the body of *Polyphylla adspersa* Motschulsky, 1853 (Rezaei *et al.* 2016). **Tehran Province** (Tehran), ex. *P. olivieri* (Joharchi *et al.* 2011b). **Yazd Province** (Yazd), ex. *P. olivieri* (Joharchi and Halliday 2011).

***Coleolaelaps costai* Joharchi & Halliday, 2011**

Distribution and habitats. **Alborz Province** (Karaj, Shahrestanak), ex. *P. olivieri* (Joharchi and Halliday 2011); (Karaj), associated with *Polyphylla olivieri* (Razavi Susan *et al.* 2013). **Golestan Province** (Gorgan, Kordkooy Forest), ex. *Melolontha melolontha* (L.) (Bahrami *et al.* 2011). **Tehran Province** (Tehran), ex. *P. olivieri* (Joharchi *et al.* 2011b).

***Coleolaelaps ferdowsi* Joharchi, 2012**

Distribution and habitats. **Razavi Khorasan Province** (Neishabour), associated with the larval stage of *Polyphylla* sp. (Joharchi *et al.* 2012c; Joharchi 2012).

***Coleolaelaps massoumii* Khanjani, Ghaedi & Ueckermann, 2013**

Distribution and habitats. **Hamedan Province** (region not mentioned), from adults of *P. olivieri* on cherry trees (Khanjani *et al.* 2013).

Genus *Cosmolaelaps* Berlese, 1903b

Cosmolaelaps aegyptiacus Nasr & Momen, 2016

Distribution and habitats. **East Azarbaijan Province** (Maragheh), soil in orchards (Valizadeh *et al.* 2017).

Cosmolaelaps angustiscutatus (Willmann, 1951b)

Distribution and habitats. **Fars Province** (Marvdasht), soil (Soleimani *et al.* 2011); (Shiraz), soil, litter and humus (Soleimani and Joharchi 2012); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Guilan Province** (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (region not mentioned), soil, decaying plants and stored products (Hajizadeh *et al.* 2010b, c). **Isfahan Province** (Shahreza), soil (Kavianpour *et al.* 2011). **Kerman Province** (Jiroft), soil (Balooch Shahryari *et al.* 2012). **West Azarbaijan Province** (Urmia, Band), soil of apple orchard (Kavianpour *et al.* 2017). **Yazd Province** (region not mentioned), soil, litter and humus (Soleimani and Joharchi 2012).

Note – Some authors [e.g., Hajizadeh *et al.* (2010b, c), Soleimani *et al.* (2011), Balooch Shahryari *et al.* (2012), and Ramroodi *et al.* (2014c)] reported this species as a member of *Gaeolaelaps* genus. This species was transferred to the *Cosmolaelaps* genus by Nemati and Gwiazdowicz (2016b). Kavianpour *et al.* (2011) reported this species as *C. acutiscutatus* Teng, 1982. Ramroodi *et al.* (2014c) and Soleimani and Joharchi (2012) cited it as *Cosmolaelaps subacutiscutatus* Bai & Wang, 2005; but these species were considered as junior synonyms of *C. angustiscutatus* by Nemati and Gwiazdowicz (2016b).

Cosmolaelaps brevipedestra (Karg, 1985)

Distribution and habitats. **Bushehr Province** (Bushehr), soil of unknown ant nest (Nemati and Gwiazdowicz 2016b). **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006); (Shiraz), soil of unknown ant nest (Nemati and Gwiazdowicz 2016b); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Khuzestan Province** (Ahvaz), nest of *P. pallidula* (Nemati *et al.* 2000b), nest of ant *Tapinoma simrothi* Krausse (Kamali *et al.* 2001); (Ahvaz), *Tapinoma simrothi* Krausse, in the nest of *Pheidole pallidula* Nylander and *Monomorium destructor* (Jerdon); (Izeh), soil of nest *Tapinoma* sp. (Nemati and Gwiazdowicz 2016b); (region not mentioned), soil (Nemati *et al.* 2017b); (Bavi, Mollasani), cow manure (Farahi *et al.* 2020); (Ahvaz and its suburbs), cattle manure (Farahi *et al.* 2022). **Yazd Province** (region not mentioned), soil (Dehghan *et al.* 2011).

Cosmolaelaps cassoidea (Karg, 1981)

Distribution and habitats. **Isfahan Province** (Isfahan city), separated from samples taken from canopy, trunk especially from Scolytids larval tunnels and the collar region of elm tree (Jalalizand *et al.* 2004); (Isfahan), soil and litter (Ramezani and Nemati 2010). **Khuzestan Province** (Ahvaz), soil (Nemati *et al.* 2000a; Kamali *et al.* 2001). **Sistan va Baluchestan Province** (Sistan Region), soil (Arjmandi Nejad *et al.* 2006, 2008). **West Azarbaijan Province** (Urmia), aerial plant's part and soil of potato fields (Mosavi *et al.* 2004; Mousavi *et al.* 2005).

Cosmolaelaps claviger (Berlese, 1882b)

Distribution and habitats. **Alborz Province** (region not mentioned), soil (Keshavarz Jamshidian and Babaeian 2013). **Fars Province** (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Guilan Province** (Roodbar and Majil), soil in olive orchard (Mahjoori *et al.* 2014); (region not

mentioned), soil and litter (Ramroodi *et al.* 2014b). **Isfahan Province** (Isfahan), soil of urban green spaces (Karbasian *et al.* 2022). **Tehran Province** (Tehran, Varamin, Shahr-e Rey, Firouzkooh, Dmavand Region), soil, leaf litter and dung, green spaces and orchards (Baroozeh *et al.* 2013).

***Cosmolaelaps dorfakiensis* Ramroodi, Hajizadeh & Joharchi, 2014**

Distribution and habitats. **Guilan Province** (Astara Town, Khotbesara Village, Rasht Town, Amlash Twon), soil and leaf litter (Ramroodi *et al.* 2014a); (Amlash), soil of tea (Hajizadeh *et al.* 2020).

***Cosmolaelaps leptochaetes* Ma & Ling, 2009**

Distribution and habitats. **Guilan Province** (region not mentioned), soil and litter (Ramroodi *et al.* 2014b).

***Cosmolaelaps longus* Hafez, Elbadry & Naser, 1982**

Distribution and habitats. **Fars Province** (Shiraz), soil, litter and humus (Soleimani and Joharchi 2012). **Yazd Province** (region not mentioned), soil, litter and humus (Soleimani and Joharchi 2012).

***Cosmolaelaps lutegiensis* (Shcherbak, 1971)**

Distribution and habitats. **Alborz Province** (region not mentioned), soil (Keshavarz Jamshidian and Babaeian 2013). **East Azarbaijan Province** (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Vaygan, Aynalu, Kalaleh, Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a); (forests of Arasbaran Region), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017); (Maragheh Region), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Neyriz), soil (Bazrafshan *et al.* 2013); (Shiraz County), soil (Keivani *et al.* 2018). **Guilan Province** (region not mentioned), soil, decaying plant debris and stored products (Hajizadeh *et al.* 2010b); (Roodbar, Majil, Rostamabad and Nesfi), soil in olive orchard (Mahjoori *et al.* 2014); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Saravan, Emamzadeh Hashem, Rostamabad, Rudbar), soil (Ramroodi *et al.* 2015a); (Tea InstituteLahijan), soil of tea (Hajizadeh *et al.* 2020); (Rasht, Imam Khomeini Institute and Pir Bazar village), soil; (Keshel Varzal village), litter (Ghasemi and Hajizadeh 2021). **Isfahan Province** (Shahreza), soil (Kavianpour *et al.* 2011); soil of urban green spaces (Karbasian *et al.* 2022). **Kerman Province** (Jiroft), soil (Balooch Shahryari *et al.* 2011, 2012); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b). **Golestan Province** (Gorgan), soil (Kazemi *et al.* 2011a). **Lorestan Province** (region not mentioned), soil (Heydari *et al.* 2013); (Poledokhtar District), soil (Heydari *et al.* 2014b). **Mazandaran Province** (Kelardasht, Tonekabon, Dimron, Nowshahr, Ramsar), soil and litter (Kazemi and Ahangaran 2011); (region not mentioned), soil (Kazemi *et al.* 2013e); (Lavij Region of Nour County), soil, humus and litter (Ghasemi-Moghadam *et al.* 2014); (Nowshahr, Ecological (Botanical) Garden), soil and litter (Saberi *et al.* 2016). **Razavi Khorasan Province** (Mashhad), soil-litter and associated with ants' nest (Ghafarian *et al.* 2013a). **Semnan Province** (Bastam, Meyghan, Meyami, Mojen, Abarsij, Owlang), soil (Ghorani *et al.* 2016). **Tehran Province** (Shemiranat, Rudbar-Ghasran), soil, litter and humus (Cheraghali *et al.* 2012); (Tehran, Varamin, Shahr-e Rey, Firouzkooh, Dmavand Region), soil, leaf litter and dung, green spaces and orchards (Baroozeh *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Salmas), soil and plant debris of apple orchards (Alizadeh *et al.* 2011); (Khoy), soil of sunflower fields (Taher *et al.* 2012); (Urmia. Rashkän), soil of apple orchard; (Band), soil of apple orchard; (Näzlü road), soil of apple orchard (Kavianpour *et al.*

2017); (Urmia University), soil (Mirfakhraie *et al.* 2017). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014).

***Cosmolaelaps malakutsilyus* Rosario, 1981**

Distribution and habitats. **West Azarbaijan Province** (Urmia, Rashkän), soil of apple orchard (Kavianpour *et al.* 2017).

***Cosmolaelaps malmiriensis* Nemati & Gwiazdowicz, 2016**

Distribution and habitats. **Khuzestan Province** (Izeh), soil of ant nest (*Tapinoma* sp.) and soil of unknown ant nest (Nemati and Gwiazdowicz 2016b).

***Cosmolaelaps ornatus* (Berlese, 1903b)**

Distribution and habitats. **Fars Province** (Neyriz), soil (Bazrafshan *et al.* 2013). **Guilan Province** (region not mentioned), soil and litter (Ramroodi *et al.* 2014b). **Mazandaran Province** (region not mentioned), soil (Kazemi *et al.* 2013e).

***Cosmolaelaps pinnatus* Ramroodi, Hajizadeh & Joharchi, 2014**

Distribution and habitats. **East Azarbaijan Province** (Maragheh), soil in orchards (Valizadeh *et al.* 2017). **Guilan Province** (Shaft Town, Chobar Village; Rostamabad Town), soil and leaf litter (Ramroodi *et al.* 2014a). **West Azarbaijan Province** (Urmia, Band), soil of apple orchard (Kavianpour *et al.* 2017).

***Cosmolaelaps rectangularis* Sheals, 1962**

Distribution and habitats. **Alborz Province** (Taleqan), on ant colonies (Farmahiny-Farahani *et al.* 2022a). **Chaharmahal va Bakhtiari Province** (Lordegan County, Khanmirza Region, Salehat Village. Central Region, Tang keloureh), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015). **East Azarbaijan Province** (Maragheh Region), soil in orchards (Valizadeh *et al.* 2017). **Guilan Province** (region not mentioned), soil and litter (Ramroodi *et al.* 2014b). **Isfahan Province** (Shahreza), soil (Kavianpour *et al.* 2011). **Khuzestan Province** (Ahvaz), soil (Nemati *et al.* 2000a). **Lorestan Province** (Kuhdasht District), soil (Heydari *et al.* 2014a); (Khorramabad), soil (Hasanvand *et al.* 2014a). **Semnan Province** (Meyami, Tuskestan, Abarsij, Owlang), soil (Ghorani *et al.* 2016). **West Azarbaijan Province** (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003).

***Cosmolaelaps vacua* (Michael, 1891)**

Distribution and habitats. **Alborz Province** (region not mentioned), soil (Keshavarz Jamshidian and Babaeian 2013). **Chaharmahal va Bakhtiari Province** (Shahrekd), nest of ants (Babaeian *et al.* 2010); (region not mentioned), associated with *Fomes* sp. (Khalili-Moghadam and Nemati 2014a); (region not mentioned), associated with ants' nest, (Khalili Moghadam and Nemati 2014b); (Shahrekd), different habitats (Nemati *et al.* 2017a). **East Azarbaijan Province** (region not mentioned), soil (Hashemi Khabir *et al.* 2013); (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Kalaleh, Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a); (forests of Arasbaran Region), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017); (Maragheh Region), soil in orchards (Valizadeh *et al.* 2017).

Fars Province (Shiraz), soil (Montazeri *et al.* 2011); (Neyriz), soil (Bazrafshan *et al.* 2013); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Shiraz County), soil (Keivani *et al.* 2018); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021). **Guilan Province** (region not mentioned), soil, decaying plants and stored products (Hajizadeh *et al.* 2010b); (Majil and Rostamabad), soil in olive orchard (Mahjoori *et al.* 2014); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Saravan, Emamzadeh Hashem, Rostamabad and Rudbar), soil (Ramroodi *et al.* 2015); (Astaneh-ye Ashrafiyeh, Parkaposht), soil of peanut plant (Askari *et al.* 2023). **Hormozgan Province** (Minab), associated with soil under mango trees (Dolati and Ostovan 2017b). **Isfahan Province** (Isfahan), soil (Khalili-Moghadam *et al.* 2012). **Kerman Province** (Jiroft), soil (Balooch Shahryari *et al.* 2011, 2012); (Bam), soil (Mehrzaad *et al.* 2012); (Rafsanjan), soil, manure and leaf litter (Masnavipour *et al.* 2014); (Kerman, parks and landscapes), soil (Arjomandi and Kazemi 2014b); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a, b). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b). **Lorestan Province** (region not mentioned), soil (Heydari *et al.* 2013); (Poledokhtar District), soil (Heydari *et al.* 2014b); (Kuhdasht District), soil (Heydari *et al.* 2014a); (Khorramabad), soil (Hasanvand *et al.* 2014a). **Mazandaran Province** (Lavij Region of Nour County), soil, humus and litter (Ghasemi-Moghadam *et al.* 2014). **North Khorasan Province** (region not mentioned), associated with the nests of ants of family Formicidae (Rezaei *et al.* 2016). **Razavi Khorasan Province** (Torbat-e Jam). Soil of orchards (Rahmdeli *et al.* 2011); (Kashmar). Soil of vineyards (Salarzahi *et al.* 2011); (Mashhad), soil-litter and associated with ants' nest (Ghafarian *et al.* 2013a). **Semnan Province** (Bastam, Kharqan, Deh Kheyr, Mojen, Abarsij, Owlang), soil (Ghorani *et al.* 2016). **Tehran Province** (Tehran, Shahid Beheshti University Campus), soil (Kamali *et al.* 2004); (Tehran, Sorkheh Hesar Forest Park), soil (Pakyari 2008); (Tehran, Varamin, Shahr-e Rey, Firouzkooh, Damavand Region), habitats such as soil, leaf litter and dung, green spaces and orchards (Baroozeh *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Urmia), soil (Rezaie *et al.* 2011). **Yazd Province** (region not mentioned), soil (Dehghan *et al.* 2011); (region not mentioned), soil (Kafi *et al.* 2014); (Urmia. Rashkän), soil of apple orchard; (Rashkän), soil of apple orchard; (Urmia University), soil; (Näzlü road), soil of apple orchard (Kavianpour *et al.* 2017). **Zanjan Province** (region not mentioned), soil (Rahmani and Zare 2011); (region not mentioned), soil (Bigdeli *et al.* 2014).

Notes – 1. *Cosmolaelaps michaeli* (Huhta & Karg, 2010) has been reported from Chaharmahal va Bakhtiyari Province (Saman and Shahrekord), in the soil of ants' nest, *Tapinoma* sp. (Formicidae) (Khalili-Moghadam and Saboori 2015). In our investigation of laelapid mites in the Berlese collection (Florence, Italy), we discovered that it is actually a junior synonym of *C. hastiger* Berlese, 1920. The details of this synonymy will be published soon. As a result, we have removed it from the list of Iranian mesostigmatid mites. **2.** *Cosmolaelaps mixta* (Shcherbak, 1971) was previously reported from Chaharmahal va Bakhtiyari Province (Shahrekord), in various habitats (Nemati *et al.* 2017a). Upon re-examination of the microslide, we determined that the specimen is more closely related to *C. vacua*. Therefore, we have removed this species from the list in our paper.

Genus *Dinogamasus* Kramer, 1898

***Dinogamasus kazerunensis* Joharchi, Khodaparast & Ghasemi-Moghadam, 2016**

Distribution and habitats. **Fars Province** (Kazerun, Bid Zard), associated with *Xylocopa* (*Koptortosoma*) *pubescens* Spinola (Hymenoptera: Apidae) (Joharchi *et al.* 2016b).

Genus *Echinolaelaps* Ewing, 1929

***Echinolaelaps echidninus* (Berlese, 1887e)**

Distribution and habitats. **Fars Province** (Shiraz), collected from the houses of patients referred to the asthma and allergy by vacuum cleaner (Shafei *et al.* 2020). **Hormozgan Province** (Bandar Abbas), on the body of *R. norvegicus* and *T. indica* (Hanafi-Bojd *et al.* 2007). **Mazandaran Province** (Sari), different species of rodents (Motevalli Hagghi *et al.* 2000); (Sari), on the body of *R. rattus*, *R. norvegicus*, *M. musculus*, *Glis glis*, *Apodemus sylvaticus*, *Nesokia indica* and *Arvicola terrestris* (Motevalli-Hagghi *et al.* 2002).

Genus *Echinonyssus* Hirst, 1925

Note – As mentioned in Nemati *et al.* (2018c), Domrow (1963) suggested that the genus *Hirstionyssus* be considered a junior synonym of *Echinonyssus* Hirst, 1925, a notion that was further supported by Tenorio and Radvosky in 1979. In this paper, we agree with the assertion made by Nemati *et al.* (2018c).

Echinonyssus butantanensis (Fonseca, 1932)

Distribution and habitats. Province and region not mentioned, may be on *Rattus* or *Mus* species (Herrin 1974). **Chaharmahal va Bakhtiyari Province** (Shahrekord), on the body of *Rattus* or *Mus* species and nest materials of unknown rodents (Nemati *et al.* 2012c). **Lorestan Province** (Khorramabad), soil (Hasanvand *et al.* 2014a).

Note – *Hirstionyssus latiscutatus* (de Meillon and Lavoipierre, 1944) was considered as a junior synonym of *H. butantanensis* (Fonseca, 1932) by Herrin (1974).

Echinonyssus meridianus (Zemskaya, 1955)

Distribution and habitats. **Razavi Khorasan Province** (Mashhad), associated with rodents (*Meriones libycus* Lichtenstein) (Kazemi *et al.* 2015). **Northeast of Iran**, (North, Razavi and Soth Khorasan Provinces; region not mentioned), on the body of rodent (Hamidi and Bueno-Mari 2021).

Note– Both of the above-mentioned species have been previously reported in the *Hirstionyssus* genus (see the comment under the *Echinonyssus* genus).

Genus *Euandrolaelaps* Bregetova, 1977h

Euandrolaelaps karawaiewi (Berlese, 1904c)

Distribution and habitats. **Alborz Province** (region not mentioned), soil (Keshavarz Jamshidian and Babaeian 2013). **Chaharmahal va Bakhtiyari Province** (Shahrekord), without more information (Nemati *et al.* 2008b); soil (Babaeian *et al.* 2010); (region not mentioned), associated with *Fomes* sp. (Khalili-Moghadam and Nemati 2014a); (region not mentioned), associated with ants' nest (Khalili-Moghadam and Nemati 2014b); (Saman and Shahrekord cities), soil of ants' nest, *Tapinoma* sp. (Hym.: Formicidae) and soil of ants' nest, unknown ant (Hym.: Formicidae) (Khalili-Moghadam and Saboori 2015); (Saman), soil (Amani *et al.* 2015); (Lordegan County, Felard Region, Pol-Gharah and Poshtkouh), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015); (Kohhrang, Bazoft (Taraz), Dimeh, Samsami (Dezhadaran), Sodejan; Ben, Karsenak, Bardeh, Larak; Saman, Gharaghoosh, Shoorab, Garmdareh; Shahrekord, Chaleshtor; Kiar, Gahroo), in soil and rooting wood in association with *C. Bakhtiyariensis*; *C. xerxes*; *C. kurdistanica*; *L. neglectus*; *M. caducus*; *M. platyceras*; *P. pallens*; *P. perperamus*; *Solenopsis* sp. *T. karawaiewi*; *Tetramorium* sp. (Khalili-Moghadam 2022). **East Azarbaijan Province** (forests of Arasbaran Region), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017); (Maragheh), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006); (Shiraz), soil (Montazeri *et al.* 2011), potato, zucchini, flour and the floor of insectariums (Granpayeh *et al.* 2012); (Marvdasht), soil

(Soleimani *et al.* 2011); (Larestan), soil of cotton and wheat fields (Khadempour *et al.* 2012); (Darab), soil and foliage of cotton fields (Khorsand *et al.* 2012); (Sepidan, Hodayan), associated with apple trees (Maneshi *et al.* 2012); (Neyriz), soil (Bazrafshan *et al.* 2013); (region not mentioned), soil and debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Shiraz County), soil (Keivani *et al.* 2018); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Guilan Province** (region not mentioned), soil, decaying plants and stored products (Hajizadeh *et al.* 2010b); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Roodbar, Majil and Nesfi), soil in olive orchard (Mahjoori *et al.* 2014); (Saravan, Emamzadeh Hashem and Rostamabad), soil (Ramroodi *et al.* 2015a); (Sarash-Lahijan), soil and leaf litter of tea; (Mahvizan-Someh Sara), soil of tea (Hajizadeh *et al.* 2020); (Rasht, Pir Bazar village), soil; (Rasht, Isfahani Educational Institute), wood sorrel, *Oxalis acetosella* L. leaves (Ghasemi and Hajizadeh 2021). **Hamedan Province** (region not mentioned), apple and *Astragalus* sp. (Kamali *et al.* 2001). **Isfahan Province** (Shahreza), soil (Kavianpour *et al.* 2011); (Isfahan), soil (Khalili-Moghadam *et al.* 2012); soil of urban green spaces (Karbasi *et al.* 2022). **Kerman Province** (Shahrehabak, Rafsanjan), soil (Masnavipour *et al.* 2011); (Jiroft), soil (Balooch Shahryari *et al.* 2011, 2012); (Kerman), cow manure (Arjomandi *et al.* 2013a); (Sirjan), leaf litter (Masnavipour *et al.* 2014); (Kerman City, parks and landscapes), soil (Arjomandi and Kazemi 2014b). **Khorasan Razavi Province** (Mashhad), soil-litter and associated with ants' nest (Ghafarian *et al.* 2013a). **Khuzestan Province** (Ahvaz), soil (Nemati *et al.* 2000a; Kamali *et al.* 2001); (region not mentioned), soil (Nemati *et al.* 2017b). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a, b). **Lorestan Province** (region not mentioned), soil (Heydari *et al.* 2013); (Sabzevar, Zivdar, Zorandol and Veisian), soil of pomegranate orchards, raspberry shrub and apple orchards (Hasanvand *et al.* 2014b); (Poledokhtar), soil (Heydari *et al.* 2014b); (Khorramabad), soil (Hasanvand *et al.* 2014a). **Markazi Province** (region not mentioned), corm of gladiolus and saffron (Baradaran Anaraki *et al.* 2012); (Arak region), soil (Jadidi and Joharchi 2014). **Mazandaran Province** (Lavij region of Nour County), soil, humus and litter (Ghasemi-Moghadam *et al.* 2014). **North Khorasan Province** (region not mentioned), associated with the nests of *Pheidole* sp. (Formicidae) (Rezaei *et al.* 2016). **Razavi Khorasan Province** (region not mentioned), soil of potato field crop (Baradaran *et al.* 2011); (Torbat-e Jam), soil of orchards (Rahmdeli *et al.* 2011); (Kashmar), soil of vineyards (Salarzahi *et al.* 2011); (region not mentioned), corm of gladiolus and saffron (Baradaran Anaraki *et al.* 2012). **Semnan Province** (Shahrood, Bastam, Meyghan, Meyami, Mojen, Abarsij, Owlang Jungle), soil (Ghorani *et al.* 2016). **Tehran Province** (region not mentioned), soil of potato field crop (Baradaran *et al.* 2011); (Tehran), soil, plant debris and leaf litters of green spaces (Ghasemimoghadam *et al.* 2012); (Shemiranat, Rudbar-Ghasran), soil, litter and humus (Cheraghali *et al.* 2012); (Tehran, Varamin, Shahr-e Rey, Damavand), soil and leaf litter of green spaces and orchards (Baroozeh *et al.* 2012); (Tehran, Varamin, Shahr-e Rey, Firouzkooch, Dmavand region), soil, leaf litter and dung, green spaces and orchards (Baroozeh *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003); (Urmia), foliage and soil of potato fields (Mosavi *et al.* 2004; Mousavi *et al.* 2005), soil (Rezaie *et al.* 2011); (Salmas), soil and plant debris of apple orchards (Alizadeh *et al.* 2011); (Urmia. Rashkân), soil of apple orchard; (Urmia University), soil and litter; (Urmia University), soil of grape orchard; (Urmia University), soil; (Band), soil of apple orchard; (Näzlü road), soil of apple orchard (Kavianpour *et al.* 2017); (Urmia University), soil (Mirfakhraie *et al.* 2017). **Yazd Province** (region not mentioned), soil (Dehghan *et al.* 2011). **Zanjan Province** (region not mentioned), soil (Rahmani and Zare 2011); (region not mentioned), soil (Bigdeli *et al.* 2014).

Euandrolaelaps sardous (Berlese, 1911)

Distribution and habitats. **East Azarbaijan Province** (Maragheh), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Neyriz), soil (Bazrafshan *et al.* 2013). **Guilan Province** (region not mentioned), soil (Ramroodi *et al.* 2013); (Roodbar, Majil and Ganjeh), soil in olive orchard (Mahjoori *et al.* 2014); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Rasht, Pasikhan village), wood sorrel, *Oxalis acetosella* L. leaves (Ghasemi and Hajizadeh 2021). **Razavi Khorasan Province** (Mashhad), soil-litter and associated with ants' nest (Ghafarian *et al.* 2013a). **Semnan Province** (Shahrood, Bastam), soil (Ghorani *et al.* 2016). **Tehran Province** (Tehran, Varamin, Shahr-e Rey, Firouzkooch, Dmavand region), soil, leaf litter and dung, green spaces and orchards (Baroozeh *et al.* 2013). **Yazd Province** (region not mentioned), soil (Dehghan *et al.* 2011).

Genus Gaeolaelaps Evans & Till, 1966

Gaeolaelaps aculeifer (G. Canestrini, 1884a)

Distribution and habitats. **Alborz Province** (Karaj), rapeseed fields (Ostovan 2006b); (region not mentioned), soil (Keshavarz Jamshidian and Babaeian 2013). **Chaharmahal va Bakhtiari Province** (Shahrekord), soil (Nemati *et al.* 2008b); (region not mentioned), soil (Babaeian *et al.* 2010); (region not mentioned), associated with ants' nest, (Khalili Moghadam and Nemati 2014b); (Saman, Boldaji, Lordegan and Shahrekord cities), soil of ants' nest, *Tapinoma* sp. and *Cataglyphis* sp. (Hym.: Formicidae) (Khalili-Moghadam and Nemati 2014b; Khalili-Moghadam and Saboori 2015); (Saman and Shahrekord), soil (Amani *et al.* 2015); (Lordegan County, Monj region, Pal Borideh Village; Cheshmeh Khani Village; Joub Nesa Village and Khanmirza region, Salehat Village), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015); (Saman), soil (Shariati *et al.* 2017); (Shahrekord), different habitats (Nemati *et al.* 2017a). **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001); (region not mentioned), soil (Hashemi Khabir *et al.* 2013); (Tabriz), soil and foliage of poplar and elm trees (Rahbar Shahlan *et al.* 2014); (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Vaygan, Aynalu, Kalaleh, Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a); (forests of Arasbaran region), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017); (Maragheh region), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Kazerun), stored products (Kamali *et al.* 2001); (Jahrom), arboreal and soil surface of wheat and barley crops under or a side of date palm and citrus orchards (Ebrahimi *et al.* 2010); (Marvdasht), soil (Soleimani *et al.* 2011); (Shiraz), soil (Montazeri *et al.* 2011); (Marvdasht, Islamic Azad University, Fars Science and Research Branch). ex. apple bark beetles (Arabzadeh *et al.* 2012); (Doroodzan), soil of fields (Asadpoor *et al.* 2012); (Larestan), soil of cotton and wheat fields (Khadempour *et al.* 2012); (Sepidan, Homayjan), associated with apple trees (Maneshi *et al.* 2012); (Larestan), associated with date palm (leaves, fruits, trunk fiber and soil) (Majidi and Akrami 2013); (Neyriz region), soil (Bazrafshan *et al.* 2013); (Estahban), associated with fig trees (Daveshvar and Akrami 2013); (Estahban), associated with fig trees, soil, leaves, fruits, and trunk samples (Daneshnia and Akrami 2013); (Koohmare-Sorkhi region), oak forests (Kazemi and Yazdanpanah 2013b); (Shiraz), associated with insectary cultures including potato (*Solanum tuberosum* L.), zucchini (*Cucurbita pepo* L.) and wheat flour (Granpayeh and Ostovan 2014); (Koohmare-Sorkhi region, oak forest), soil and leaf litter (Yazdanpanah and Kazemi 2014a); (region not mentioned), soil and debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Shiraz County), soil (Keivani *et al.* 2018); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Golestan Province** (Gorgan), soil (Kazemi *et al.* 2011a); (Golestan forest). ex. *Pentodon* sp. (Bahrami *et al.* 2011). **Guilan Province** (region not mentioned), stored rice, rice dust and debris (Noei *et al.* 2008); soil,

plants debris and stored products (Hajizadeh *et al.* 2010b); (Somesara), on raspberry shrubs (*Rubus* spp.) (Tajmiri and Hajizadeh 2013); (Rostamabad, Roodbar), soil in olive orchard (Mahjoori *et al.* 2014); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Saravan, Emamzadeh Hashem, Rostamabad, Rudbar), soil (Ramroodi *et al.* 2015a); (Sarash-Lahijan), soil and leaf litter of tea; (Mahvizan-Someh Sara, Divshal-Langrud, Amlash, Otaghvar-Langrud, Rahimabad-Rudsar, Langrud), soil of tea (Hajizadeh *et al.* 2020); (Rasht, Pasikhan village), wood sorrel, *Oxalis acetosella* L. leaves; (Rasht, Bijar Bonch village), soil (Rasht, Pir Bazar village), strawberry, litter (Ghasemi and Hajizadeh 2021). **Hamedan Province** (region not mentioned), bean (*P. vulgaris*), clover (*Trifolium* sp.), darnel and liquorice (Khanjani and Kamali 2000a; Kamali *et al.* 2001). **Isfahan Province** (Isfahan), canopy, trunk especially from scolytids larval tunnels and the collar region of elm trees (Jalalizand *et al.* 2004), soil and litter (Ramezani and Nemati 2010), soil (Khalili-Moghadam *et al.* 2012); (Goldasht), soil of fruit trees orchards (Jalaeian *et al.* 2006); (Shahreza), soil (Kavianpour *et al.* 2011); (Kashan), soil (Sekonji *et al.* 2011); (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022). **Kerman Province** (Sirjan, Mani, Shahrehabak, Maymand, Riseh, Raviz, Rafsanjan), soil (Masnavipour *et al.* 2011); (Baft), soil (Rajaei *et al.* 2011a); (Jiroft), soil (Balooch Shahryari *et al.* 2011, 2012); (Sirjan, Rafsanjan and Shahr-e-Babak), soil and manure (Masnavipour *et al.* 2014); (Kerman City, parks and landscapes), soil (Arjomandi and Kazemi 2014b); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Khuzestan Province** (Ahvaz), soil and nest of small mammals (Nemati *et al.* 2000a; Kamali *et al.* 2001); (region not mentioned), associated with barley and pea (Habibpour *et al.* 2002); (Safiabad), grapevine yards (Kamali *et al.* 2001; Darvishzadeh and Kamali 2009); (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a, b); (region not mentioned), soil (Nemati *et al.* 2017b). **Lorestan Province** (region not mentioned), soil (Heydari *et al.* 2013); (Greet District), soil of willow tree (Hasanvand *et al.* 2014b); (Poledokhtar District), soil (Heydari *et al.* 2014b); (Kuhdasht District), soil (Heydari *et al.* 2014a); (Khorramabad), soil (Hasanvand *et al.* 2014a). **Markazi Province** (region not mentioned), corm of gladiole and saffron (Baradaran Anaraki *et al.* 2012); (Arak region), soil (Jadidi and Joharchi 2014). **Mazandaran Province** (Nowshahr), soil (Kazemi and Ahangaran 2011); (region not mentioned), soil (Kazemi *et al.* 2013e); (Lavij region of Nour County), soil, humus and litter (Ghasemi-Moghadam *et al.* 2014); (Nowshahr, Ecological (Botanical) Garden), soil and litter (Sabeti *et al.* 2016). **North Khorasan Province** (region not mentioned), associated with the ants' nest of family Formicidae (Rezaei *et al.* 2016). **Qom Province** (region not mentioned), soil, dung, compost and plant-litters of crops, lawns, shrubs and trees in farms, forests, orchards and parks (Agha Alikhani *et al.* 2017). **Razavi Khorasan Province** (region not mentioned), soil of potato field crop (Baradaran *et al.* 2011); (Torbat-e Jam), soil of orchards (Rahmdeli *et al.* 2011); (Kashmar), soil of vineyards (Salarzahi *et al.* 2011); corm of gladiole and saffron (Baradaran Anaraki *et al.* 2012); (Mashhad), soil-litter and associated with ants' nest (Ghafarian *et al.* 2013a). **Semnan Province** (Moghan, Shahrood, Kharqan, Bastam, Meyghan, Meyami, Mojen, Abarsij, Owlang, Hezar Pich), soil (Ghorani *et al.* 2016). **Sistan va Baluchestan Province** (Sistan region), soil (Arjmandi Nejad *et al.* 2006, 2008). **Tehran Province** (Tehran, Shahid Beheshti University Campus), soil (Kamali *et al.* 2004); (Tehran), associated with cucumber greenhouses (Ostovan 2006a); (Tehran, Sorkheh Hesar Forest Park), soil (Pakyari 2008); (Varamin, Mohammad Abad, Asgar Abad, Moein Abad, Pouinak, Jalil Abad, Ghalesin, Pishva Roadway), soil of crop fields including pomegranate, grapevine, eggplant, cucumber, wheat, tomato, lettuce and alfalfa (Kheradpir and Pakyari 2011); (region not mentioned), soil of potato field crop (Baradaran *et al.* 2011); (Tehran, Varamin, Shahr-e Rey, Damavand), soil and leaf litter of green spaces and orchards (Baroozeh *et al.* 2012); (Tehran), soil, plant debris and leaf litters of green spaces (Ghasemimoghadam *et al.* 2012); (Shemiranat, Rudbar-Ghasran), soil, litter and humus (Cheraghali *et al.* 2012); (Tehran, Varamin, Shahr-e Rey, Firouzkooh, Dmavand region), habitats such as soil, leaf litter and dung, green spaces and orchards (Baroozeh *et al.* 2013); (region not mentioned), associated with ornamental plants (Hamidi *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Miandoab Plain), foliage and soil of

sugarbeet fields (Haddad Irani-Nejad *et al.* 2003); (Urmia), aerial plants part and soil of potato fields (Mosavi *et al.* 2004; Mousavi *et al.* 2005); soil (Rezaie *et al.* 2011); (Salmas), soil and plant debris of apple orchards (Alizadeh *et al.* 2011); (Khoy), soil of sunflower fields (Taher *et al.* 2012); (Urmia. Rashkân), soil of apple orchard; (Urmia University), soil of apple orchard; (Urmia University), soil; (Qäsemlü valley), soil and litter; (Näzlü road), soil of apple orchard (Kavianpour *et al.* 2017); (Urmia University), soil (Mirfakhraie *et al.* 2017). **Yazd Province** (region not mentioned), soil (Kafi *et al.* 2014); (region not mentioned), soil (Dehghan *et al.* 2011). **Zanjan Province** (region not mentioned), soil (Rahmani & Zare 2011); (region not mentioned), soil (Bigdeli *et al.* 2014).

***Gaeolaelaps ahangarani* Kazemi, Rajaei & Beaulieu, 2014**

Distribution and habitats. **Mazandaran Province** (Tonekabon, Tirom forest), decayed wood of beech trees (Kazemi *et al.* 2014b).

***Gaeolaelaps debilis* (Ma, 1996)**

Distribution and habitats. **Yazd Province** (Manshad village), under the elytra of *Cetonia* sp. (Scarabaeidae) (Kafi *et al.* 2020).

***Gaeolaelaps deinos* (Zeman, 1982)**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Monj Village), nest of *Lasius* sp. (Formicidae) (Khalili-Moghadam *et al.* 2018c). **Isfahan Province** (Isfahan), soil (Khalili-Moghadam *et al.* 2012). **Kermanshah Province** (region not mentioned), soil-litter (Kazemi *et al.* 2020). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b); (Ahvaz), soil and ants' nest; (Dezful), ants' nest in citrus orchard; (Ahvaz city), soil of ants' nest (Nemati *et al.* 2017b). **Mazandaran Province** (Lavij region of Nour County), soil, humus and litter (Ghasemi-Moghadam *et al.* 2014).

***Gaeolaelaps farajii* Nemati & Mohseni, 2013**

Distribution and habitats. **Khuzestan Province** (Izeh), soil (Nemati and Mohseni 2013); (region not mentioned), soil (Nemati *et al.* 2017b).

***Gaeolaelaps glabrosimilis* (Hirschmann, Bernhard, Greim & Götz, 1969)**

Distribution and habitats. **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001).

***Gaeolaelaps iranicus* Kavianpour & Nemati, 2013**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (region not mentioned), associated with *Fomes* sp., and with ants' nest (Khalili Moghadam and Nemati 2014a); (Saman), soil of ants' nest, *Tapinoma* sp. (Hym.: Formicidae) (Khalili-Moghadam and Saboori 2015). **East Azarbaijan Province** (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Vaygan, Aynalu, Kalaleh), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a). **Fars Province** (Shiraz County), soil (Keivani *et al.* 2018). **Guilan Province** (Rasht, Falkadeh), soil of elm tree; (Rezvanshahr, Ponel), litter; (Fuman, Ghale Rudkhan), soil (Hajizadeh and Joharchi 2018). **Isfahan Province** (Shahreza) and **Khuzestan Province** (Baghmalek, Ghaletol, Izeh), soil (Kavianpour *et al.* 2013a); (region not mentioned), soil (Nemati *et al.* 2017b).

***Gaeolaelaps izajiensis* Saeidi, Nemati & Khalili-Moghadam, 2016**

Distribution and habitats. **Khuzestan Province** (Izeh and Ghaletol), soil (Saeidi *et al.* 2016).

***Gaeolaelaps jondishapouri* Nemati & Kavianpour, 2013**

Distribution and habitats. **Khuzestan Province** (Ahvaz), soil and litters (Nemati and Kavianpour 2013); (region not mentioned), soil (Nemati *et al.* 2017b). **Isfahan Province** (Shahreza), soil (Nemati and Kavianpour 2014). **Kerman Province** (Jiroft), cow manure, soil and litter in a citrus orchard (Kazemi *et al.* 2014b).

***Gaeolaelaps kargi* (Costa, 1968a)**

Distribution and habitats. **Alborz Province** (region not mentioned), soil (Keshavarz Jamshidian and Babaeian 2013). **Chaharmahal va Bakhtiari Province** (Shahrekord), (Nemati *et al.* 2008b); (region not mentioned), soil (Babaeian *et al.* 2010); (region not mentioned), body of birds or their nests (Keivani *et al.* 2012); (Saman and Shahrekord), soil (Amani *et al.* 2015); (Saman), soil (Shariati *et al.* 2017); (Shahrekord), different habitats (Nemati *et al.* 2017a); [Koohrang, Bazoft (Sartang and Taraz)], in soil in association with *Lepisiota semenovi*; *M. platyceras* (Khalili-Moghadam 2022). **East Azarbaijan Province** (Maragheh), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Shiraz), soil (Montazeri *et al.* 2011); (Neyriz region), soil (Bazrafshan *et al.* 2013); (Shiraz County), soil (Keivani *et al.* 2018). **Guilan Province** (region not mentioned), soil, decaying plants and stored products (Hajizadeh *et al.* 2010b); (Somesara), on raspberry shrubs (*Rubus* spp.) (Tajmiri and Hajizadeh 2013); (Rostamabad, Roodbar), soil in olive orchard (Mahjoori *et al.* 2014); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Saravan, Emamzadeh Hashem, Rostamabad, Rudbar), soil (Ramroodi *et al.* 2015a). **Isfahan Province** (Shahreza), soil (Kavianpour *et al.* 2011); (Isfahan), soil (Khalili-Moghadam *et al.* 2012); (region not mentioned), body of birds or their nests (Keivani *et al.* 2012). **Kerman Province** (Baft), soil (Rajaei *et al.* 2011a); (Jiroft), soil (Balooch Shahryari *et al.* 2011, 2012); (Kerman County), sheep manure (Arjomandi *et al.* 2013a). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b). **Lorestan Province** (region not mentioned), soil (Heydari *et al.* 2013); (Poledokhtar District), soil (Heydari *et al.* 2014b); (Khorramabad), soil (Hasanvand *et al.* 2014a). **Razavi Khorasan Province** (region not mentioned), soil of potato field crop (Baradaran *et al.* 2011); (Mashhad), soil-litter and associated with ants' nest (Ghafarian *et al.* 2013a). **Semnan Province** (Meyami, Abr Jungle, Owlang), soil (Ghorani *et al.* 2016). **Tehran Province** (region not mentioned), soil of potato field crop (Baradaran *et al.* 2011); (Shemiranat, Rudbar-Ghasran), soil, litter and humus (Cheraghali *et al.* 2012). **West Azarbaijan Province** (Urmia, Qäsemlü valley), soil and litter (Kavianpour *et al.* 2017). **Yazd Province** (region not mentioned), soil (Dehghan *et al.* 2011).

***Gaeolaelaps khajooii* Kazemi, Rajaei & Beaulieu, 2014**

Distribution and habitats. **Kerman Province** (Baft), soil and litter at an alfalfa farm (Kazemi *et al.* 2014b). **Khuzestan Province** (Shush, Khavar-e Seyyed Khalaf), cow manure (Farahi *et al.* 2020); (Ahvaz and its suburbs), cattle manure (Farahi *et al.* 2022). **West Azarbaijan Province** (Näzlü), soil of apple orchard; (Näzlü dam), soil (Kavianpour *et al.* 2017).

***Gaeolaelaps lenis* Vatankhah & Nemati, 2016**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Shahrekord), nest of *Formica* sp. (Formicidae) (Vatankhah *et al.* 2016).

***Gaeolaelaps littoralis* Kazemi, 2020**

Distribution and habitats. **Hormozgan Province** (Qeshm Island) in mangrove forests from soil in littoral zone (Kazemi 2020).

***Gaeolaelaps minor* (Costa, 1968a)**

Distribution and habitats. **Bushehr and Hormozgan Provinces** (Lenge Port), soil (Kazemi and Alikhani 2013). **Chaharmahal va Bakhtiari Province** (Shahrekord), soil (Babaeian *et al.* 2010); (Lordegan, Khanmirza region, Salehat Village; Felard region, Poshtkouh and Pol e Gharah), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015); (Shahrekord), different habitats (Nemati *et al.* 2017a). **East Azarbaijan Province** (Maragheh region), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Larestan), associated with date palm (leaves, fruits, trunk fiber and soil) (Majidi and Akrami, 2013); (Neyriz), soil (Bazrafshan *et al.* 2013); (Shiraz County), soil (Keivani *et al.* 2018); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Guilan Province** (region not mentioned), soil, decaying plants and stored products (Hajizadeh *et al.* 2010b, c); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b). **Kerman Province** (Jiroft), soil (Balooch Shahryari *et al.* 2011, 2012). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b); (Bavi, Mollasani), cow manure (Farahi *et al.* 2020); (Ahvaz and its suburbs), cattle manure (Farahi *et al.* 2022). **Lorestan Province** (region not mentioned), soil (Heydari *et al.* 2013); (Poledokhtar District), soil (Heydari *et al.* 2014b). **Qom Province** (region not mentioned), soil, dung, compost and plant-litters of crops, lawns, shrubs and trees in farms, forests, orchards and parks (Agha Alikhani *et al.* 2017). **Razavi Khorasan Province** (Kashmar), soil of vineyards (Salarzahi *et al.* 2011); (Mashhad), soil-litter and associated with ants' nest (Ghafarian *et al.* 2013a). **Tehran Province** (Tehran, Sorkheh Hesar Forest Park), soil (Pakyari 2008); (Shemiranat, Rudbar-Ghasran), soil, litter and humus (Cheraghali *et al.* 2012); (Tehran, Varamin, Shahr-e Rey, Damavand), soil and leaf litter of green spaces and orchards (Baroozeh *et al.* 2012); (Tehran), soil, plant debris and leaf litters of green spaces (Ghasemi Moghadam *et al.* 2012); (Tehran, Shahed University), manure (Kazemi and Rajaei 2013); (Tehran, Varamin, Shahr-e Rey, Firouzkooh, Dmavand region), soil, leaf litter and dung, green spaces and orchards (Baroozeh *et al.* 2013). **West Azarbaijan Province** (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003).

***Gaeolaelaps mirzakhaniae* Kazemi & Khalesi, 2018**

Distribution and habitats. **Kerman Province** (Dosari region), soil and litter of a citrus orchard, (Jiroft region, Dolat-Abad), soil of a citrus orchard (Khalesi and Kazemi 2018).

***Gaeolaelaps mossadeghi* Kavianpour & Nemati, 2014**

Distribution and habitats. **Isfahan Province** (Shahreza), soil of a garden (Kavianpour and Nemati 2014). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b).

***Gaeolaelaps neoaculeifer* (Hirschmann, 1966)**

Distribution and habitats. **Isfahan Province** (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022).

Gaeolaelaps nolli (Karg, 1962)

Distribution and habitats. **Alborz Province** (region not mentioned), soil (Keshavarz Jamshidian and Babaeian 2013). **Chaharmahal va Bakhtiyari, Bushehr and Khuzestan Provinces** (region not mentioned), nests or body of fresh and pinned museum specimens of different insects of order Coleoptera (Family Scarabaeidae, Carabidae), Hymenoptera (Formicidae) and Orthoptera (Gryllidae, Acrididae) (Nemati and Babaeian 2010). **Chaharmahal va Bakhtiyari Province** (Koohrang, Samsami (Dezhadaran); Borujen, Boldagi (Cheghakhor)), in soil in association with *P. pallescens*; *T. karavaievi* (Khalili-Moghadam 2022); (region not mentioned), associated with *Fomes* sp. (Khalili-Moghadam and Nemati 2014a); (region not mentioned), associated with ants' nest (Khalili-Moghadam and Nemati 2014b); (Saman, Boldaji (Cheghakhor), Lordegan and Shahrekord Cities), soil of ants' nest, *Tapinoma* sp. and *Cataglyphis* sp. (Hym.: Formicidae) (Khalili-Moghadam and Saboori 2015); (Saman, Shahrekord), soil (Amani *et al.* 2015); (Shahrekord), different habitats (Nemati *et al.* 2017a). **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001); (forests of Arasbaran region), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017); (Maragheh), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Darab), soil and foliage of cotton fields (Khorsand *et al.* 2012); (Sepidan, Hodayan), foliage, soil, leaf-litter, weeds and soil of apple trees (Maneshi *et al.* 2012); (Neyriz), soil (Bazrafshan *et al.* 2013). **Golestan Province** (Naharkhoran forest), ex. *Pentodon* sp. (Bahrami *et al.* 2011). **Guilan Province** (region not mentioned), soil, decaying plants and stored products (Hajizadeh *et al.* 2010b, c); (Roodbar), soil in olive orchard (Mahjoori *et al.* 2014); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b). **Hamedan Province** (region not mentioned), clover (*Trifolium* sp.), wild sainfoin, daniel, alfalfa, vetch (Khanjani and Kamali 2000a; Kamali *et al.* 2001). **Kerman Province** (Baft), soil (Rajaei *et al.* 2011a); (Jiroft), soil (Balooch Shahryari *et al.* 2011, 2012); (Kerman), cow manure (Arjomandi *et al.* 2013a); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Khuzestan Province** (Ahvaz), soil (Nemati *et al.* 2000a; Kamali *et al.* 2001); (region not mentioned), soil (Nemati *et al.* 2017b). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rapeseed farms (Moradian *et al.* 2011a, b). **Lorestan Province** (region not mentioned), soil (Heydari *et al.* 2013); (Poledokhtar District), soil (Heydari *et al.* 2014b); (Kuhdasht District), soil (Heydari *et al.* 2014a); (Khorramabad), soil (Hasanvand *et al.* 2014a). **Razavi Khorasan Province** (Torbat-e Jam), soil of orchards (Rahmdeli *et al.* 2011). **Semnan Province** (Bastam, Meyghan, Meyami, Owlang, Tuskestan), soil (Ghorani *et al.* 2016). **West Azarbaijan Province** (Salmas), soil and plant debris (Alizadeh *et al.* 2011); (Urmia), soil (Rezaie *et al.* 2011); (Miandoab), soil of apple orchards (Zarei and Kazemi 2014); (Urmia, Urmia University), soil and litter; (Urmia University), soil and litter; (Qäsemlü valley), soil and litter; (Band), soil of apple orchard (Kavianpour *et al.* 2017). **Yazd Province** (region not mentioned), soil (Dehghan *et al.* 2011). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014).

Gaeolaelaps orbiculatus Nemati & Mohseni, 2013

Distribution and habitats. **Khuzestan Province** (Izeh), soil (Nemati and Mohseni 2013).

Gaeolaelaps oreithyiae (Walter & Oliver, 1989)

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), soil (Nemati *et al.* 2008b); (Lordegan, Khanmirza, Salehat Village), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015) (Shahrekord), different habitats (Nemati *et al.* 2017a); (Koohrag, Dashte laleh, Bazoft (Taraz), Samsami (Dezhadaran), Bazoft (Sartang), Sodejan; Saman, Shoorab, Gharaghoosh; Kiar, Gahroo; Borujen, Boldagi (Cheghakhor)), in soil and rooting wood in association with *C. xerxes*, *C. fritillariae*, *L. neglectus*, *L. semenovi*, *M. caducus*, *M. platyceras*, *Pl. pallescens*,

Solenopsis sp., and *T. karavaievi* (Khalili-Moghadam, 2022). **Fars Province** (Shiraz County), soil (Keivani *et al.* 2018). **Kerman Province** (Bam), soil (Mehrzhad *et al.* 2012); (Kerman, parks and landscapes), soil (Arjomandi and Kazemi 2014b); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **West Azarbaijan Province** (Miandoab), soil of apple orchards (Zarei and Kazemi 2014); (Urmia. Urmia University), soil; (Qäsemlü valley), soil and litter; (Näzlü dam), soil; (Kaboodan island), soil (Kavianpour *et al.* 2017). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014).

***Gaeolaelaps ovoideus* (Greim, 1969)**

Distribution and habitats. **Khuzestan Province** (Ahvaz), soil (Nemati *et al.* 2000a; Kamali *et al.* 2001). **Tehran Province** (Tehran, Shahid Beheshti University Campus), soil (Kamali *et al.* 2004). **West Azarbaijan Province** (Urmia), aerial plants part and soil of potato fields (Mosavi *et al.* 2004; Mousavi *et al.* 2005).

***Gaeolaelaps postreticulatus* (Xu & Liang, 1996)**

Distribution and habitats. **Fars Province** (Shiraz). Soil (Montazeri *et al.* 2011).

Note – Moraes *et al.* (2022), following Ma's (2006) idea, identified *Gaeolaelaps postreticulatus* as a junior synonym of *G. praesternalis*. According to personal communication from A. Nemati with W. Karg in 2013, the length of peritreme is short and extends to leg II in *G. postreticulatus*, while it is long and extends to leg I in *G. praesternalis*. Kavianpour *et al.* (2013) suspected that the specimens reported as *G. postreticulatus* (Xu & Liang) by Montazeri *et al.* (2011) could actually be *G. nolli* (Moraes *et al.* 2022).

***Gaeolaelaps praesternalis* (Willmann, 1949)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** [Koohrang, Bazoft (Taraz)], in soil in association with *M. platyceras* (Khalili-Moghadam, 2022). **Fars Province** (Shiraz), soil of orchards (Khezri *et al.* 2006); (Marvdasht), soil (Soleimani *et al.* 2011); (Larestan), soil of cotton and wheat fields (Khadempour *et al.* 2012); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Guilan Province** (region not mentioned), soil (Ramroodi *et al.* 2013); (Roodbar), soil in olive orchard (Mahjoori *et al.* 2014); (Saravan, Emamzadeh Hashem, Rostamabad and Rudbar), soil (Ramroodi *et al.* 2015a); (Rasht), associated with beetles from Chrysomelidae (Hajizadeh and Hosseini, 2022). **Isfahan Province** (Kashan), soil (Sekonji *et al.* 2011). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b). **Lorestan Province** (region not mentioned), soil (Heydari *et al.* 2013); (Poledokhtar District), soil (Heydari *et al.* 2014b); (Kuhdasht District), soil (Heydari *et al.* 2014a). **Markazi Province** (Arak region), soil (Jadidi and Joharchi 2014). **Razavi Khorasan Province** (region not mentioned), soil of potato field crop (Baradaran *et al.* 2011); (Torbat Heydariyeh, Feiz-Abad), ex. *Pentodon* sp. (Kazemi and Rajaei 2013); (Mashhad), soil-litter and associated with ants' nest (Ghafarian *et al.* 2013a). **Tehran Province** (region not mentioned), soil of potato field crop (Baradaran *et al.* 2011); (Shemiranat, Rudbar-Ghasran), soil, litter and humus (Cheraghali *et al.* 2012); (Tehran, Varamin, Shahr-e Rey, Damavand), soil and leaf litter of green spaces and orchards (Baroozeh *et al.* 2012); (Tehran, Varamin, Shahr-e Rey, Firouzkooh, Dmavand region), soil, leaf litter and dung, green spaces and orchards (Baroozeh *et al.* 2013). **West Azarbaijan Province** (Miandoab), soil of apple orchards (Zarei and Kazemi 2014). **Yazd Province** (region not mentioned), soil (Kafi *et al.* 2014).

***Gaeolaelaps quadridentatus* (Allred, 1970)**

Distribution and habitats. **Isfahan Province** (Isfahan), soil of urban green spaces (Karbasian *et al.*

2022).

***Gaeolaelaps queenslandicus* (Womersley, 1956)**

Distribution and habitats. **Alborz Province** (region not mentioned), soil (Keshavarz Jamshidian and Babaeian 2013). **Boushehr Province** Borazjan, soil (Nemati *et al.* 2018). **Chaharmahal va Bakhtiari Province** (Shahrekord), (Nemati *et al.* 2008b); (Shahrekord), soil (Babaeian *et al.* 2010); body of birds or their nests (Keivani *et al.* 2012); (Shahrekord), different habitats (Nemati *et al.* 2017a); (Shahrekord), soil (Amani *et al.* 2015); (Shahrekord), soil and unknown ants' nest; (Shahrak), soil; (Laleh and Tehlijan Parks), soil and ants' nest; (different places in Shahrekord), environs from ants' nest; (Nafch and Ben), soil; (Zayanderood verge) from ants' nest; (Saman), soil in almond garden; (Borujen and Naghan), soil; (Lordegan), from different habitats (Nemati *et al.* 2018). **East Azarbaijan Province** (forests of Arasbaran region), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017); (Maragheh), soil in orchards (Valizadeh *et al.* 2017). **Eilam Province** (Eilam), soil (Nemati *et al.* 2018). **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006); (Marvdasht), soil (Soleimani *et al.* 2011); (Shiraz), soil (Montazeri *et al.* 2011); (Larestan), soil of cotton and wheat fields (Khadempour *et al.* 2012); (region not mentioned), soil and debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Shiraz County), soil (Keivani *et al.* 2018); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Golestan Province** (Gorgan), soil (Nemati *et al.* 2018). **Guilan Province** (region not mentioned), soil, decaying plants and stored products (Hajizadeh *et al.* 2010b, c); (Somesara), on raspberry shrubs (*Rubus* spp.) (Tajmiri and Hajizadeh 2013); (Roodbar), soil in olive orchard (Mahjoori *et al.* 2014); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Saravan, Emamzadeh Hashem, Rostamabad and Rudbar), soil (Ramroodi *et al.* 2015a); (Talaf-Someh Sara, Vajargah-Lelachay, Amlash), soil of tea (Hajizadeh *et al.* 2020); (Moein Hotel-Fuman), soil of tea (Hajizadeh *et al.* 2020); (Rasht, Vatan Abadi greenhouse, Guilan University, Vishka Nanak Village, and Pir Bazar Village), soil; (Rasht, Bijar Bonch village), wood sorrel, *Oxalis acetosella* L. leaves; (Rasht, Isfahani Educational Institute), wood sorrel, *Oxalis acetosella* L. leaves infested with spider mites; (Rasht, Keshel Varzal village), soil, tomato, *Solanum lycopersicum* L. leaves; (Rasht, Imam Khomeini Institute), litter (Ghasemi and Hajizadeh 2021). **Isfahan Province** (Isfahan), soil and litter (Ramezani and Nemati 2010), soil (Khalili-Moghadam *et al.* 2012); (Shahreza), soil (Kavianpour *et al.* 2011); (Kashan), soil (Sekonji *et al.* 2011); (region not mentioned), body of birds or their nests (Keivani *et al.* 2012); (Shahreza), soil; (Isfahan city: Khomeinishahr, Bostan Kodak Park, Atash Street; Marnan Bridge, Bostan Moshtagh, Bishe-Habib Park, Bostan Melat, Bostan Mirzakochakkhan, Bagh-Daryache Street, Vahid Street, Khayyam Street), different habitats (Nemati *et al.* 2018); (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022). **Kerman Province** (Bam), associated with palm trees (Dehghan Dolati *et al.* 2011); (Shahrehabak, Dehaj, KhatunAbad, Sarecheshmeh, Lashkar), soil (Masnavipour *et al.* 2011); (Baft), soil (Rajaei *et al.* 2011a); (Jiroft), soil (Balooch Shahryari *et al.* 2011, 2012); (Bam), soil (Mehrzaad. *et al.* 2012); (Sirjan, Rafsanjan and Shahr-e-Babak), soil, manure and leaf litter (Masnavipour *et al.* 2014); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Khuzestan Province** (Ahvaz), soil (Nemati *et al.* 2000a; Kamali *et al.* 2001); (region not mentioned), soil (Nemati *et al.* 2017b); (Izeh, Ghaletol and Baghmalek), soil and ants' nest; (Ahvaz, Jondishahpour University), ants' nest; (Andimeshk), ants' nest; (Masjedsaleiman), ants' nest; (Dezfoul), soil, ants' nest in citrus garden; (Roodzard), soil; (Barangerd), ants' nest in pomegranate garden (Nemati *et al.* 2018). **Lorestan Province** (region not mentioned), soil (Heydari *et al.* 2013); (Poledokhtar District), soil (Heydari *et al.* 2014b); (Faculty of Agricultural (University of Lorestan), soil of cypress tree (Hasanvand *et al.* 2014b); (Poledokhtar District), soil (Heydari *et al.* 2014b); (Kuhdasht District), soil (Heydari *et al.* 2014a); (Khorramabad), soil (Hasanvand *et al.* 2014a).

Markazi Province (Arak region), soil (Jadidi and Joharchi 2014). **Mazandaran Province** (Nowshahr), soil (Kazemi & Ahangaran 2011); (region not mentioned), soil (Kazemi *et al.* 2013e); (Lavij region of Nour County), soil, humus and litter (Ghasemi-Moghadam *et al.* 2014); (Nowshahr, Ecological (Botanical) Garden), soil and litter (Sabeti *et al.* 2016). **North Khorasan Province** (region not mentioned), associated with beetles of family Scarabaeidae (Rezaei *et al.* 2016). **Qom Province** (region not mentioned), soil, dung, compost and plant-litters of crops, lawns, shrubs and trees in farms, forests, orchards and parks (Agha Alikhani *et al.* 2017). **Razavi Khorasan Province** (Torbat-e-Jam), soil of orchards (Rahmdeli *et al.* 2011); (region not mentioned), soil of potato field crop (Baradaran *et al.* 2011); (Kashmar), soil of vineyards (Salarzahi *et al.* 2011); (Mashhad), soil-litter and associated with ants' nest (Ghafarian *et al.* 2013a); (Mashhad County), soil and manure (Abbaspour *et al.* 2017). **Semnan Province** (Moghan, Shahrood, Bastam, Meyghan, Abarsij, Abr Jungle, Tuskestan Jungle), soil (Ghorani *et al.* 2016), soil (Ghorani *et al.* 2016). **Tehran Province** (region not mentioned), soil of potato field crop (Baradaran *et al.* 2011); (Shemiranat, RudbarGhasran), soil, litter and humus (Cheraghali *et al.* 2012); (Tehran, Varamin, Shahr-e Rey, Damavand), soil and leaf litter of green spaces and orchards (Baroozeh *et al.* 2012); (Tehran, Varamin, Shahr-e Rey, Firouzkooch, Dmavand region), soil, leaf litter and dung, green spaces and orchards (Baroozeh *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Salmas), soil and plant debris of apple orchards (Alizadeh *et al.* 2011); (Urmia), soil (Rezaie *et al.* 2011); (Khoy), soil of sunflower fields (Taher *et al.* 2012); (Urmia), soil and ants' nest (Nemati *et al.* 2018); (Urmia, Urmia University), soil of apple orchard; (Urmia University), soil; (Qäsemlü valley), soil and litter; (Näzlü), soil of apple orchard; (Näzlü road), soil of apple orchard (Kavianpoue *et al.* 2017). **Yazd Province** (region not mentioned), soil (Dehghan *et al.* 2011); (region not mentioned), soil (Kafi *et al.* 2014). **Zanjan Province** (different parts of Zanjan city), soil and ants' nest (Nemati *et al.* 2018).

Note – Some authors reported this species as *Gaeolaelaps angusta* (Karg, 1965) from Iran, while it was considered as a junior synonym of *G. queenslandicus* by Nemati *et al.* (2018a).

***Gaeolaelaps saboorii* Joharchi & Babaeian, 2014**

Distribution and habitats. **Mazandaran Province** (Polur), on *Acinopus* sp. (Joharchi and Babaeian 2014).

***Gaeolaelaps scarites* Joharchi and Saeidi, 2019**

Distribution and habitats. **Kurdistan Province** (Garmeh Khani, Dehgolan), on *Scarites* (*Parallelomorphus*) *terricola* Bonelli (Coleoptera: Carabidae) (Saeidi *et al.* 2019).

***Gaeolaelaps schusteri* (Hirschmann, 1966)**

Distribution and habitats. **Hormozgan Province** (Qeshm region), soil and crashed cockleshells (Khalesi and Kazemi 2018); (Qeshm region), soil and crashed cockleshells in littoral zone (Kazemi *et al.* 2020).

***Gaeolaelaps tuberculatus* Kazemi & Paktinat-Saeij, 2020**

Distribution and habitats. **Mazandaran Province** (Amol City, Osku Mahalleh village), from soil and rotten leaves under citrus trees, (Sari City, Amreh village), from soil and rotten leaves under citrus trees (Kazemi *et al.* 2020).

***Gaeolaelaps urumiensis* Kavianpour, Nemati & Krimpour 2018**

Distribution and habitats. **West Azarbaijan Province** (Urmia), soil, and litter (Kavianpour *et al.* 2018c).

Genus *Gymnolaelaps* Berlese, 1916b***Gymnolaelaps artavilensis* Joharchi & Halliday, 2013**

Distribution and habitats. **Ardabil Province** (region not mentioned), nest of *Pheidole pallidula* (Formicidae) (Joharchi and Halliday 2013). **West Azarbaijan Province** (Urmia, Band), soil of apple orchard (Kavianpour *et al.* 2017).

***Gymnolaelaps kabitae* Bhattacharyya, 1968**

Distribution and habitats. Region not mentioned. ex. *P. pallidula* (Joharchi 2012). **Alborz Province** (Karaj), nest of *Pheidole pallidula* (Joharchi and Halliday 2013); (Karaj), in nest of *Pheidole pallidula* (Joharchi *et al.* 2020). **Chaharmahal va Bakhtiari Province** (Shahrekord), nest materials of unknown ant (Nemati and Gwiazdowics 2016a). **Khuzestan province** (Ghaletol), nest materials of unknown ant, (Izeh), nest of *Pheidole pallidula* (Formicidae) (Nemati and Gwiazdowics 2016a).

Note. This species was considered in *Laelaspisella* and *Gymnolaelaps* genera by Joharchi *et al.* (2016a) and Nemati and Gwiazdowicz (2016a), respectively. We confirmed Nemati *et al.* (2019) and Joharchi *et al.* (2020) and believe that the generic placement of this species needs more detailed studies and, until doing such investigation, temporarily report it in this genus while lacking important morphological characters of *Gymnolaelaps*.

***Gymnolaelaps laevis* (Michael, 1891)**

Distribution and habitats. Region not mentioned, ex. *T. caespitum* (Joharchi 2012). **Alborz Province** (Karaj). **Yazd Province** (region not mentioned), nest of *Tetramorium caespitum* (Joharchi and Halliday 2013).

***Gymnolaelaps longiosetae* Ramroodi, Joharchi & Hajizadeh, 2015**

Distribution and habitats. **Guilan Province** (Shaft, Chobar Forest, Emamzadeh Ebrahim), in nest of *Myrmica* sp. (Formicidae) (Ramroodi *et al.* 2015b); (Emamzadeh Hashem, Rudbar), soil (Ramroodi *et al.* 2015a). **Mazandaran Province** [Nowshahr, Ecological (Botanical) Garden of Nowshahr], soil and litter (Saber *et al.* 2016).

***Gymnolaelaps messor* Joharchi *et al.*, 2011**

Distribution and habitats. **Alborz Province** (Karaj), in nest of *Messor* sp. (Joharchi *et al.* 2011a, b); (region not mentioned), soil (Keshavarz Jamshidian and Babaeian 2013). **Guilan Province** (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Rasht, Sima Manzar Organization), rose, *Rosa damascene* leaves (Ghasemi and Hajizadeh 2021). **Tehran Province** (Tehran). ex. *Messor* sp. (Joharchi *et al.* 2011a, b); (Shemiranat, Rudbar-Ghasran), soil, litter and humus (Cheraghali *et al.* 2012); (Shemiranat, Rodbar Ghasran region), soil and litter (Joharchi and Halliday 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016).

***Gymnolaelaps myrmophila* (Michael, 1891)**

Distribution and habitats. **Alborz Province** (Karaj), nest of *Tetramorium caespitum* (Joharchi and

Halliday 2013). **Chaharmahal va Bakhtiari Province** (region not mentioned), associated with *Fomes* sp. (Khalili-Moghadam and Nemati 2014a). **Fars Province** (Shiraz County), soil (Keivani *et al.* 2018). **Guilan Province** (region not mentioned), soil and litter (Ramroodi *et al.* 2013; Ramroodi *et al.* 2014b); (Saravan, Emamzadeh Hashem, Rostamabad, Rudbar), soil (Ramroodi *et al.* 2015a); (Tea Institute Lahijan), soil of tea (Hajizadeh *et al.* 2020); (Rasht), associated with beetles from Formicidae (Hajizadeh and Hosseini 2022). **Khuzestan Province** (Ahvaz), nest of *P. pallidula* (Nemati *et al.* 2000b). **Mazandaran Province** (region not mentioned), soil (Kazemi *et al.* 2013e). **Semnan Province** (Mojen, Owlang Jungle), soil (Ghorani *et al.* 2016). **Tehran Province** (Shemiranat, Rodbar Ghasran region), soil and litter (Joharchi and Halliday 2013). **Yazd Province**, soil (Dehghan *et al.* 2011); region not mentioned. ex. *Formica* sp. (Joharchi 2012).

***Gymnolaelaps myrmecophilus* (Berlese, 1892d)**

Distribution and habitats. **Alborz Province** (region not mentioned), soil (Keshavarz Jamshidian and Babaeian 2013); (Savojbolagh, Taleghan), nest of *Formica* sp. (Joharchi and Halliday 2013). **Chaharmahal va Bakhtiari Province** (Saman, Shahrekord), soil (Amani *et al.* 2015; Shariati *et al.* 2017); (Saman, Gharaghoosh), in rooting wood in association with *L. neglectus* (Khalili-Moghadam 2022). **East Azarbaijan Province** (Maragheh region), soil in orchards (Valizadeh *et al.* 2017). **Golestan Province** (Gorgan), soil (Kazemi *et al.* 2011a). **Guilan Province** (Ganjeh, Majil), soil in olive orchard (Mahjoori *et al.* 2014); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Saravan Emamzadeh Hashem, Rostamabad, Rudbar), soil (Ramroodi *et al.* 2015a); (Rasht, Sima Manzar Organization), rose, *Rosa damascene* leaves (Ghasemi and Hajizadeh 2021). **Isfahan Province** (Isfahan), canopy, trunk especially from scolytids larval tunnels and the collar region of elm trees (Jalalizand *et al.* 2004). **Kerman Province** (Kerman County), cow manure (Arjomandi *et al.* 2013a). **Mazandaran Province** (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Sabeti *et al.* 2016). **Razavi Khorasan Province** (Mashhad), soil, litter and associated with ants' nest (Ghafarian *et al.* 2013a). **Tehran Province** (Shemiranat, RudbarGhasran), soil, litter and humus (Cheraghali *et al.* 2012); region not mentioned. ex. *T. caespitum* (Joharchi 2012); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **Yazd Province** (region not mentioned), soil (Dehghan *et al.* 2011).

***Gymnolaelaps prestoni* Joharchi *et al.*, 2011**

Distribution and habitats. **Alborz Province** (Karaj), in nest of *Myrmica* sp. (Joharchi *et al.* 2011a, b). **Chaharmahal va Bakhtiari Province** (Saman, Gharaghoosh; Shahrekord, Chaleshtor), in soil and rooting wood in association with *L. neglectus*; *P. perperamus* (Khalili-Moghadam 2022). **Tehran Province** (Area around Tehran), ex. *Myrmica* sp. (Joharchi *et al.* 2011a, b).

Note – *Gymnolaelaps hospes* (Berlese, 1923a) was reported from Khuzestan Province (Ahvaz), nest of *P. pallidula* (Formicidae) by Nemati *et al.* (2000b). Due to uncertainty of identification and inaccessibility of specimens for reidentification, we remove this species from the list of Iranian mesostigmatid mites as referred by Joharchi and Halliday (2013) as misidentification.

Genus *Holostaspis* Kolenati, 1858a

***Holostaspis iranicus* (Babaeian & Nemati, 2014)**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Shahrekord), nest of *Messor* sp. (Babaeian *et al.* 2014b); (Taghanak), soil of ants' nest, *Formica* sp. (Khalili-Moghadam and Saboori 2015). **Yazd Province** (Taft), nest of *Messor* sp. (Babaeian *et al.* 2014b).

Note – This species was described as *Myrmozercon iranicus* Babaeian & Nemati, 2014, but it was transferred to the *Holostaspis* genus by Babaeian *et al.* (2019b).

***Holostaspis michaeli* (Joharchi, 2013)**

Distribution and habitats. **Alborz Province** (Damavand Mountain, Karaj), in the nest of *Messor* sp. (Joharchi and Moradi 2013).

Note – This species has been described as *Myrmozercon michaeli* Joharchi, 2013, but it was transferred to the *Holostaspis* genus by Babaeian *et al.* (2019b).

Genus *Hypoaspis* G. Canestrini, 1884a***Hypoaspis alborzensis* Razavi Susan & Joharchi, 2014**

Distribution and habitats. **Alborz Province** (Karaj), on adult female of *Oryctes* sp. (Coleoptera: Scarabaeidae) under plane trees (Platanaceae: *Platanus* sp.) (Razavi Susan *et al.* 2014).

***Hypoaspis campestris* (Berlese, 1887b)**

Distribution and habitats. Region not mentioned, ex. *Pentodon* sp. (Joharchi 2012).

***Hypoaspis integer* Berlese, 1911a**

Distribution and habitats. **Alborz Province** (Karaj, Nazarabad, Damavand, Shahrestanak), ex. *Polyphylla* sp. (Joharchi and Halliday 2011); (Karaj), associated with *Polyphylla* sp. (Razavi Susan *et al.* 2013). **Fars Province** (Shiraz), ex. *Polyphylla* sp. (Joharchi and Halliday 2011). **Guilan Province** (region not mentioned), ex. *Polyphylla* sp. (Joharchi and Halliday 2011). **Isfahan Province** (Isfahan), ex. *Polyphylla* sp. (Joharchi and Halliday 2011). **Razavi Khorasan Province** (Mashhad), soil, litter and associated with ants' nest (Ghafarian *et al.* 2013a). **Tehran Province** (area around Tehran), ex. *Polyphylla* sp. (Joharchi *et al.* 2011b). **West Azarbaijan Province** (Tabriz), ex. *Polyphylla* sp. (Joharchi and Halliday 2011). **Yazd Province** (Yazd), on *Polyphylla* sp. (Joharchi and Halliday 2011).

***Hypoaspis krameri* (G. & R. Canestrini, 1881)**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran forests), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017). **Khuzestan Province** (region not mentioned), date palm (Modarres Awal 1997; Kamali *et al.* 2001; Mohajeri *et al.* 2009). **West Azarbaijan Province** (Urmia), house dust (Kamali *et al.* 2001).

***Hypoaspis larvicolus* Joharchi & Halliday, 2011**

Distribution and habitats. **Alborz Province** (Karaj), ex. *Polyphylla* sp. (Joharchi and Halliday 2011). **Isfahan Province** (Kashan), soil (Sekonji *et al.* 2011). **Tehran Province** (Tehran), ex. *Polyphylla* sp., (Joharchi *et al.* 2011b). **West Azarbaijan Province** (Urmia, Nāzlū dam), soil (Kavianpour *et al.* 2017).

***Hypoaspis maryamae* Joharchi & Halliday, 2011**

Distribution and habitats. **Alborz Province** (Karaj), ex. *P. olivieri* (Joharchi and Halliday 2011); associated with *Polyphylla* sp. (Razavi Susan *et al.* 2013); (Taleqan), under the elytra of two species of scarabaeid beetles, including *Polyphylla olivieri* (Castelnau) and *Pentodon idiota* (Herbst) (Farmahiny-Farahani *et al.* 2022a); (Ghod Ghale), under the elytra of *Oryctes* sp.; (Taleqan); associated with *Pentodon idiota* (Herbst, 1789) and *Pentodon idiota* (Herbst, 1789) (Farmahiny-

Farahani *et al.* 2022b). **Guilan Province** (Rasht), associated with beetles from Carabidae and Staphylinidae (Hajizadeh and Hosseini 2022). **Hamedan Province** (region not mentioned), from adults of *Polyphylla olivieri* Castelnau (Coleoptera: Scarabaeidae) (Khanjani *et al.* 2013). **Mazandaran Province** (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Saber *et al.* 2016). **Tehran Province** (Tehran), ex. *P. olivieri* (Joharchi *et al.* 2011b). **Yazd Province** (Yazd), ex. *P. olivieri* (Joharchi and Halliday 2011).

Note – Khanjani *et al.* (2013) described a species of *Hypoaspis* genus as *H. surii* Khanjani, Ghaedi & Ueckermann, 2013, but was considered as a junior synonym of *Hypoaspis maryamae* by Joharchi *et al.* (2014).

***Hypoaspis melolonthae* Joharchi & Halliday, 2011**

Distribution and habitats. **Tehran Province** (Tehran, Savojbolagh, Taleghan), ex. *M. melolontha* (Joharchi and Halliday 2011); (Tehran), ex. *M. melolontha* (Joharchi *et al.* 2011b). **Yazd Province** (Yazd), ex. *M. melolontha* (Joharchi and Halliday 2011).

***Hypoaspis neokrameri* Costa, 1971**

Distribution and habitats. **Fars Province** (Shiraz), soil (Montazeri *et al.* 2011). **Golestan Province** (Shast Kola Forest), ex. *O. nasicornis*, (Kazemi and Rajaei 2013). **Mazandaran Province** (Galugah), ex. *Oryctes nasicornis* (L.) (Kazemi and Rajaei 2013).

***Hypoaspis oryctes* Joharchi, 2019**

Distribution and habitats. **Kerman Province** (Bam), on adult female *Oryctes elegans* Prell. (Coleoptera: Scarabaeidae) (Joharchi *et al.* 2014b).

Note – This species has been described and reported from Iran as *Hypoaspis elegans* Joharchi, Ostovan & Babaeian, 2014, but its name is a junior homonym of *Hypoaspis (Leptolaelaps) elegans* Berlese, 1918. So Joharchi (2019) proposed *Hypoaspis oryctes* nom. nov. as a replacement name for it (Joharchi 2019).

***Hypoaspis pentodoni* Costa, 1971**

Distribution and habitats. **Alborz Province** (Karaj, Nazarabad), ex. *P. olivieri* (Joharchi and Halliday 2011; Joharchi *et al.* 2011b); (Karaj), associated with *Polyphylla* sp. (Razavi Susan *et al.* 2013). **Khorasan Province** (region not mentioned), on the body of *Polyphylla* sp. Larvae (Scarabaeidae) (Rezaei *et al.* 2016).

***Hypoaspis phyllognathi* Costa, 1971**

Distribution and habitats. **Alborz Province** (Shekarnab), associated with *Dorcus parallelipipedus* (Linnaeus, 1758) (Farmahiny-Farahani *et al.* 2022b). **Fars Province** (Shiraz, Khaf), ex. *Phyllognathus* sp. (Joharchi and Halliday 2011). **Golestan Province** (Shast Kola Forest), ex. *O. nasicornis* and *P. olivieri* (Ghorogh Forest), ex. *Phyllognathus silenus* Fabricius (Bahrami *et al.* 2011); (Shast Kola Forest), ex. *P. olivieri* (Kazemi and Rajaei 2013). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012). **Tehran Province** (Area around Tehran), ex. *P. olivieri* (Joharchi *et al.* 2011b).

***Hypoaspis polyphyllae* Khanjani & Ueckermann, 2005**

Distribution and habitats. **Hamedan Province** (Hamedan, Ganjnameh), ex. *P. olivieri* (Khanjani and

Ueckermann 2005). **Kermanshah Province** (Rijab), Fruit orchards (Babakfard *et al.* 2008).

***Hypoaspis rhinocerotis* Oudemans, 1925**

Distribution and habitats. **Alborz Province** (Karaj), on adult female of *Oryctes* sp. (Coleoptera: Scarabaeidae) under plane trees (Platanaceae: *Platanus* sp.) (Razavi Susan *et al.* 2014).

***Hypoaspis surenai* Joharchi & Shahedi, 2016**

Distribution and habitats. **Yazd Province** (Taft, Kahduiyeh), on adult females of *Oryctes* sp. (Coleoptera: Scarabaeidae) (Joharchi and Shahedi 2016).

***Hypoaspis terrestris* (Leonardi, 1899a)**

Distribution and habitats. **Alborz Province** (Karaj, Nazarabad), ex. *Pentodon idiota* Herbst (Joharchi and Halliday 2011; Joharchi *et al.* 2011b); (Karaj), associated with *P. olivieri* (Razavi Susan *et al.* 2013).

***Hypoaspis* sp.**

Distribution and habitats. **Alborz Province** (Taleqan); associated with *Pentodon idiota* (Herbst, 1789) and *Pentodon idiota* (Herbst, 1789) (Farmahiny-Farahani *et al.* 2022b).

Genus *Hypoaspisella* Bernhard, 1962

Note – For more information concerning this genus, see Joharchi *et al.* (2018).

***Hypoaspisella asperatus* (Berlese, 1904b)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), (Nemati *et al.* 2008b); (region not mentioned), associated with ant nest (Khalili-Moghadam and Nemati 2014b); (Saman, Shahrekord), soil (Amani *et al.* 2015); (Saman, Shahrekord), soil of ants' nest, *Tapinoma* sp. (Khalili-Moghadam and Saboori 2015). **East Azarbaijan Province** (Arasbaran forests), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017); (Maragheh region), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Shiraz), soil (Montazeri *et al.* 2011); (Shiraz County), soil (Keivani *et al.* 2018); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021). **Isfahan Province** (Shahreza), soil (Kavianpour *et al.* 2011); (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022). **Kerman Province** (Baft), soil (Rajaei *et al.* 2011a); (Kerman County), cow manure (Arjomandi, *et al.* 2013a). **Lorestan Province** (region not mentioned), soil (Heydari *et al.* 2013); (Poledokhtar District), soil (Heydari *et al.* 2014b); (Khorramabad), soil (Hasanvand *et al.* 2014a). **Qom Province** (region not mentioned), soil, dung, compost and plant-litters of crops, lawns, shrubs and trees in farms, forests, orchards and parks (Agha-Alikhani *et al.* 2017). **Razavi Khorasan Province** (region not mentioned), soil of potato field crop (Baradaran *et al.* 2011); (Torbat-e Jam), soil of orchards (Rahmdeli *et al.* 2011); (Mashhad), soil, litter and associated with ants' nest (Ghafarian *et al.* 2013a); (Mashhad County), soil (Abbaspour *et al.* 2017). **Tehran Province** (region not mentioned), soil of potato field crop (Baradaran *et al.* 2011); (Shemiranat, RudbarGhasran), soil, litter and humus (Cheraghali *et al.* 2012); (Tehran, Varamin, Shahr-e Rey, Damavand), soil and leaf litter of green spaces and orchards (Baroozeh *et al.* 2012); (Tehran), soil, plant debris and leaf litters of green spaces (Ghasemimoghadam *et al.* 2012); (Tehran, Varamin, Shahr-e Rey, Firouzkooh, Dmavand region), soil, leaf litter and dung, green spaces and orchards (Baroozeh *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West**

Azərbaycan Province (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003); (Urmia), soil (Rezaie *et al.* 2011). **Yazd Province** (region not mentioned), soil (Dehghan *et al.* 2011). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014).

Note– This species was reported as *Pneumolaelaps asperatus* (Berlese, 1904) by some authors in above list. It was reported in *Hypoaspis s. lat.* by some authors, Valizadeh *et al.* (2017), Agha-Alikhani *et al.* (2017), Ordoukhanian *et al.* (2017), and Nemati *et al.* (2017b) due to incompatibility with morphological characters of *Pneumolaelaps* genus.

***Hypoaspisella azarbaijaniensis* (Faraji, Abedi & Ostovan, 2008)**

Distribution and habitats. **West Azarbaijan Province** (Salmas, Uleq Village), soil mixed with wheat straw in a barn (Faraji *et al.* 2008a).

***Hypoaspisella berlesei* (Bernhard, 1969)**

Cited in Hirschmann *et al.* (1969).

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Saman, Lordegan, Naghan, Borujen, Farrokhsahr regions), **Isfahan Province** (Isfahan and Zarrinshahr regions). **Khuzestan Province** (region not mentioned), soil, debris, ants' nest and fungi (Khalili-Moghadam *et al.* 2016a). **West Azarbaijan Province** (Urmia University), soil; (Qäsemlü valley), soil and litter (Kavianpour *et al.* 2017).

***Hypoaspisella curtispilis* (Hirschmann, 1969)**

Distribution and habitats. **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006). **Khuzestan Province** (Ahvaz), soil (Nemati *et al.* 2000a). **West Azarbaijan Province** (Urmia), aerial plant's part and soil of potato fields (Mosavi *et al.* 2004; Mousavi *et al.* 2005).

***Hypoaspisella golanii* (Costa, 1969a)**

Distribution and habitats. **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b).

***Hypoaspisella hirschmanni* (Karg, 1979)**

Distribution and habitats. **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006); (Larestan), soil of cotton and wheat fields (Khadempour *et al.* 2012). **Khuzestan Province** (Ahvaz), nest of *P. pallidula* and colonies and deserted galleries of *Microcerotermes diversus* Silvestri and *Amitermes vilis* (Hagen) (Nemati *et al.* 2000b). **West Azarbaijan Province** (Urmia), aerial plant's part and soil of potato fields (Mosavi *et al.* 2004, 2005).

***Hypoaspisella intermedius* (Bernhard, 1969)**

Cited in Hirschmann *et al.* (1969).

Distribution and habitats. **Tehran Province** (Shemiranat, Rudbar-Ghasran), soil, litter and humus (Cheraghali *et al.* 2012).

***Hypoaspisella linteyini* (Samšiňák, 1964)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Lordegan, Ooreh), in soil in association with *C. fritillariae* (Khalili-Moghadam 2022). **East Azarbaijan Province** (Maragheh

region), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Shiraz), soil (Montazeri *et al.* 2011). **Guilan Province** (Sangar), on leaves of citrus tress (Hajizadeh and Joharchi 2018); (Astaneh-ye Ashrafiyeh, Estakher Bijar, Abdullah Abad), soil of peanut plant (Askari *et al.* 2023). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b); (Ahvaz), horse manure, (Bavi, Mollasani), cow manure, buffalo manure, sheep manure; (Hamidieh), sheep manure; (Ahvaz, Alhaei), sheep manure; (Shush, Seyyed Abbas), buffalo manure; (Bavi, Talbume), cow manure; (Bavi, Naddafieh), sheep manure (Farahi *et al.* 2020); (Ahvaz and its suburbs), cattle, buffalo, sheep and horse manure (Farahi *et al.* 2022). **Sistan va Baluchestan Province** (Sistan region), stored product (Sayadi *et al.* 2012). **West Azarbaijan Province** (Urmia University), soil (Kavianpour *et al.* 2017). **Yazd Province** (region not mentioned), soil (Dehghan *et al.* 2011).

Hypoaspisella lubrica (Oudemans & Voigts, 1904)

Cited in Voigts & Oudemans (1904).

Distribution and habitats. **Fars Province** (Shiraz County), soil (Keivani *et al.* 2018). **Golestan Province** (Toshan Village), ex. *Geotrupes* sp. (Bahrami *et al.* 2011). **Guilan Province** (region not mentioned), stored rice, rice dust and debris (Noei *et al.* 2008), soil, decaying plants and stored products (Hajizadeh *et al.* 2010b, c); (Somesara), on raspberry shrubs (*Rubus* spp.) (Tajmiri and Hajizadeh 2013); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Rasht, Pir Bazar village), soil; (Rasht, Vishka Nanak village), litter (Ghasemi and Hajizadeh 2021). **Kerman Province** (Kerman), poultry manure (Arjomandi *et al.* 2011); (Kerman County), cow manure and poultry manure (Arjomandi *et al.* 2013a). **Kurdistan Province** (region not mentioned), associated with stored flour and wheat (Maroufpoor and Ostovan 2017; Maroufpoor *et al.* 2017). **Lorestan Province** (Kuhdasht District), soil (Heydari *et al.* 2014a); (Khorramabad), soil (Hasanvand *et al.* 2014a). **North Khorasan Province** (Bojnord, Esfydan), ex. *Oxythrea cinctella* (Schaum) (Kazemi and Rajaei 2013). **Note** – This species was reported from Iran as *Pneumolaelaps lubrica* (Voigts & Oudemans, 1904).

Hypoaspisella lubricoidea (Karg, 1971a)

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Saman, Lordegan, Naghan, Borujen, Farrokhsahr regions). **Isfahan Province** (Isfahan and Zarrinshahr regions). **Khuzestan Province** (region not mentioned), soil, debris, ants' nest and fungi (Khalili-Moghadam *et al.* 2016b).

Hypoaspisella patagoniensis (Sheals, 1962)

Distribution and habitats. **Isfahan Province** (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022).

Hypoaspisella sclerotarsus (Costa, 1968a)

Distribution and habitats. **Alborz Province** (region not mentioned), soil (Keshavarz Jamshidian and Babaeian 2013). **Chaharmahal va Bakhtiari Province** (Shahrekord), (Nemati *et al.* 2008b); (region not mentioned), soil (Babaeian *et al.* 2010); (Shahrekord), soil of unknown ants' nest (Khalili-Moghadam and Saboori 2015). **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001). **Fars Province** (Kazerun), stored rice, flour and barley (Kamali *et al.* 2001); (Shiraz), soil (Montazeri *et al.* 2011); (Marvdasht, Islamic Azad University, Fars Science and Research Branch), ex. apple bark beetles (Arabzadeh *et al.* 2012), soil and decayed plants associated with conifers (Amirazodi and Ostovan 2012); (Larestan), soil of cotton and wheat fields (Khadempour *et al.* 2012); (Sepidan, Homayjan), foliage, leaf-litter, weeds and soil of apple trees (Maneshi *et al.* 2012); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et*

al. 2021); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Guilan Province** (region not mentioned), stored rice, rice dust and debris (Noei *et al.* 2008), soil, decaying plants and stored products (Hajizadeh *et al.* 2010b, c). **Hamedan Province** (region not mentioned), bean (*P. vulgaris*), alfalfa and *Astragalus* sp. (Khanjani and Kamali 2000b; Kamali *et al.* 2001). **Isfahan Province** (Shahreza), soil (Kavianpour *et al.* 2011). **Kerman Province** (Kerman), sheep manure (Arjomandi *et al.* 2011); (Jiroft), soil (Balooch Shahryari *et al.* 2011, 2012); (Kerman County), cow manure and sheep manure (Arjomandi *et al.* 2013a); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020); (Isfahan), soil of urban green spaces (Karbasian *et al.* 2022). **Khuzestan Province** (Ahvaz), soil (Nemati *et al.* 2000a); (region not mentioned), associated with stored products (Habibpour *et al.* 2002). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a, b). **Razavi Khorasan Province** (Mashhad), soil, litter and associated with ants' nest (Ghafarian *et al.* 2013a); (Mashhad County), soil (Abbaspour *et al.* 2017). **Tehran Province** (Tehran, Varamin, Shahr-e Rey, Damavand), soil and leaf litter of green spaces and orchards (Baroozeh *et al.* 2012); (Tehran, Varamin, Shahr-e Rey, Firouzkooh, Dmavand region), soil, leaf litter and dung, green spaces and orchards (Baroozeh *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **Zanjan Province** (region not mentioned), soil (Rahmani and Zare 2011).

Note – *Hypoaspisella dentipilosa* (Karg, 1978) was reported by Babaeian *et al.* (2010) from Chaharmahal va Bakhtiyari Province (Shahrekord) in soil. This species had previously been reported by Khademi *et al.* (2006) from Fars Province (Jahrom) in the soil of citrus orchards. Due to the uncertainty of identification, we remove it from the list of Iranian mite fauna. *Hypoaspisella dentipilosa* (Karg) was originally collected from Chile, Valparaiso Province (Karg 1978).

Genus *Laelaps* C.L. Koch, 1836a

***Laelaps acuminata* Furman, 1972**

Distribution and habitats. **Sistan va Baluchestan Province** (Bampoor, Daman, Iranshahr, and Qasre Qand, Nikshahr), on the body of *Tetera indica*, *Meriones hurrianae*, *Meriones libycus* and *Gerbillus nanus* (Nateghpour *et al.* 2013).

***Laelaps algericus* Hirst, 1925**

Distribution and habitats. **Khuzestan Province** (Ahvaz), on the body of *Rattus rattus* (Nemati *et al.* 2012c). **Northeast of Iran**, (North, Razavi and Soth Khorasan Provinces) (region not mentioned), on the body of *Mus Musculus* (Hamidi and Bueno-Mari 2021). **Razavi Khorasan Province** associated with rodents (*Mus musculus*) (Kazemi *et al.* 2015); (Mashhad), on *M. musculus* (Moravvej *et al.* 2016).

***Laelaps ekstremi* Zachvatkin, 1948**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), body of some unknown mice (Nemati *et al.* 2012c).

***Laelaps kochi* Oudemans, 1936**

Distribution and habitats. **Tehran Province** (region not mentioned), on body of rodent (*Arvicola terrestris*) (Herrin and Tipton 1976).

***Laelaps nuttalli* Hirst, 1915**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Sharekord), ex. mice (Nemati *et*

al. 2008a). **Fars Province** (Shiraz), collected from the houses of patients referred to the asthma and allergy by vacuum cleaner (Shafei *et al.* 2020). **Golestan Province** (Gomishan and Bandar Turkmen), on *M. musculus* (Gholipoury *et al.* 2016). **Hormozgan Province** (Bandar-Abas), on the body of *Rattus norvegicus*, *Tatera indica* (Hanafi-Bojd *et al.* 2007); (Bandar Abbas), on *R. norvegicus*, *R. rattus* and *M. musculus* (Kia *et al.* 2009); (Mangrove forests and villages of Qeshm Island), ectoparasite on *Rattus rattus* (Eslami *et al.* 2018). **Kermanshah Province** (Sarpole-Zahab District), on *Mus musculus*, *Meriones persicus* and *Tatera indica* (Telmadarraiy *et al.* 2007). **Khuzestan Province** (Ahvaz), ex. *Ratus* spp. and *M. musculus* (Nemati *et al.* 2000c; Kamali *et al.* 2001).

Genus *Laelaspis* Berlese, 1903b

Laelaspis angustiseta Khalili-Moghadam, Saboori, Nemati & Zahedi Golpayegani, 2018

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Lordegan County), from nest of *Tapinoma erraticum*; (Kohrang County), from nest of *Tapinoma simrothi* (Khalili-Moghadam *et al.* 2018b); (Koohrang, Dashte laleh, Soodejan), in soil in association with *C. fritillariae* and *M. platyceras* (Khalili-Moghadam 2022).

Laelaspis astronomicus (C.L. Koch, 1840)

Distribution and habitats. **Alborz Province** (Karaj, Shahrestanak), nest of *Tapinoma* sp. (Joharchi *et al.* 2012c). **East Azarbaijan Province** (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Vaygan, Aynalu, Kalaleh and Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a); (forests of Arasbaran region), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017). **Fars Province** (Neyriz), soil (Bazrafshan *et al.* 2013). **Guilan Province** (region not mentioned), soil, decaying plants and stored products (Hajizadeh *et al.* 2010b, c). **Hamedan Province** (Hamedan), on *M. musculus*, *R. rattus* and *R. norvegicus* (Zendehfili *et al.* 2015). **Kerman Province** (Jiroft), soil (Balooch Shahryari *et al.* 2011, 2012); (region not mentioned), soil (Ramroodi *et al.* 2013); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Majil), soil in olive orchard (Mahjoori *et al.* 2014); (Saravan, Emamzadeh Hashem, Rostamabad and Rudbar), soil (Ramroodi *et al.* 2015a). **Khuzestan Province** (region not mentioned), soil and nest of ant *P. pallidula* (Kamali *et al.* 2001). **Mazandaran Province** (Nowshahr), soil (Kazemi and Ahangaran 2011); (Nowshahr, Ecological (Botanical) Garden), soil and litter (Sabeti *et al.* 2016). **Razavi Khorasan Province** (Mashhad), soil-litter and associated with ants' nest (Ghafarian *et al.* 2013a). **Tehran Province** (Shemiranat, Rudbar-Ghasran), soil, litter and humus (Cheraghali *et al.* 2012). **West Azarbaijan Province** (Urmia, Band), soil of apple orchard (Kavianpour *et al.* 2017). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014).

Laelaspis badrii Nasr and Nawar, 1989

Distribution and habitats. **Khuzestan Province** (Ahvaz), nest of *P. pallidula* (Nemati *et al.* 2000a). **Note** – This species was collected by A. Nemati in 1998 during his M. Sc. thesis sampling. Initially identified as *Gymnolaelaps australicus* (Womersley, 1956) by W. Karg, it was reported from Iran by Nemati *et al.* (2000a), with its distribution data mentioned in Kazemi and Rajaei (2013, p. 86). Upon re-examination of the microslides, we discovered that it actually belongs to the *Laelaspis* genus. Based on important morphological characters, we identified it as *L. badrii* Nasr and Nawar, 1989. Consequently, the misidentification of *Gymnolaelaps australicus* (Womersley, 1956) is removed from the list of Iranian mesostigmatid mites, and *L. badrii* reported as a new addition to the Iranian mite fauna. In his revision of the generic concept and significant morphological attributes of the *Laelaspis* genus, Kazemi (2015) transferred this species (*L. badrii*) to the *Cosmolaelaps* genus as *C. badrii*. However, our thorough examination of two females and one male of this species confirmed

that it undeniably belongs to the *Laelaspis* genus. It possesses distinct characteristics such as the smooth anterior margin of the epistome, absence of presternal plates, position of the anterior margin of the sternal shield, widened epigynal shield posterior to coxae IV, and a unique reticulation pattern on the epigynal surface. These morphological traits, along with the shape of the dorsal shield setae and leg chaetotaxy, are crucial for identifying it in the *Laelaspis* genus, as originally described by Nasr and Nawar (1989). A detailed redescription of the female and a description of the male will be published soon. This marks the first report of this species in the Iranian mite fauna.

***Laelaspis calidus* Berlese, 1923a**

Distribution and habitats. **Kerman Province** (Anar), nest of *P. pallidula* (Joharchi *et al.* 2012b; Joharchi 2012). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b).

***Laelaspis dariusi* Joharchi & Jalaeian, 2012**

Distribution and habitats. **East Azarbaijan Province** (Maragheh), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Neyriz), soil (Bazrafshan *et al.* 2013). **Guilan Province** (region not mentioned), soil (Ramroodi *et al.* 2013); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Roodbar, Majil), soil in olive orchard (Mahjoori *et al.* 2014); (Rudsar, Lahijan, Amlash, Fuman, Roudkhan Castle and Rostamabad), soil and leaf litter (Ramroodi *et al.* 2015b); (Saravan, Emamzadeh Hashem, Rostamabad and Rudbar), soil (Ramroodi *et al.* 2015a). **Mazandaran Province** (Lavij region of Nour County), soil, humus and litter (Ghasemi-Moghadam *et al.* 2014). **Razavi Khorasan Province** (Kalate Naderi, Laeen), soil of apple orchard (Joharchi *et al.* 2012b; Joharchi 2012). **Semnan Province** (Bastam, Owlang Jungle), soil (Ghorani *et al.* 2016).

***Laelaspis elongatus* Kazemi, Mehrzad & Latifi, 2016**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Farsan, Cholicheh), in soil in association with *T. karavaievi* (Khalili-Moghadam 2022). **Kerman Province** (Bam), under elytra of *Acinopus* (*Acinopus*) *picipes* (Olivier) (Col.: Carabidae). **Khuzestan Province** (Ahvaz), associated with *Pheidole pallidula* (Nylander) (Formicidae) (Kazemi *et al.* 2016a).

***Laelaspis equitans* (Michael, 1891)**

Distribution and habitats. **Alborz Province** (Karaj, Dizin), nest of *Messor* sp. (Karaj, Damavand), nest of *Camponotus* sp. (Joharchi *et al.* 2012a). **Guilan Province** (region not mentioned), soil and litter (Ramroodi *et al.* 2014b). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b). **Tehran Province** (Area around Tehran), ex. *Messor* sp. and *Camponotus* sp. (Joharchi *et al.* 2011b). **West Azarbaijan Province** (Urmia, Band), soil of apple orchard (Kavianpour *et al.* 2017).

***Laelaspis guilaniensis* Ramroodi, Joharchi & Hajizadeh, 2014**

Distribution and habitats. **Guilan Province** (Talesh, Gisoom forest), soil under alder trees in forest (Ramroodi *et al.* 2014c).

***Laelaspis humeratus* (Berlese, 1904c)**

Distribution and habitats. **Alborz Province** (Karaj), nest of *T. casepitem* (Joharchi *et al.* 2012b; Joharchi 2012). **Guilan Province** (region not mentioned), soil and litter (Ramroodi *et al.* 2014b).

Khuzestan Province (region not mentioned), soil (Nemati *et al.* 2017b). **Mazandaran Province** (Nowshahr, Ecological (Botanical) Garden), soil and litter (Sabeti *et al.* 2016).

***Laelaspis imitatus* Reitblat, 1963**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Lordegan, Ooreh; Koohrang, Dimeh), in soil in association with *C. Bakhtiariensis*; *T. karavaievi* (Khalili-Moghadam 2022); **Chaharmahal va Bakhtiari, Bushehr and Khuzestan Provinces** (region not mentioned), nests or body of fresh and pinned museum specimens of different insects of order Coleoptera (Family Scarabaeidae, Carabidae), Hymenoptera (Formicidae) and Orthoptera (Gryllidae, Acrididae) (Nemati and Babaeian 2010).

***Laelaspis kamalii* Joharchi & Halliday, 2012**

Distribution and habitats. **Alborz Province** (Karaj), nest of *P. pallidula*, (region not mentioned), nest of *Tapinoma* sp. (Joharchi *et al.* 2012a; Joharchi 2012). **Chaharmahal va Bakhtiari Province** (Saman and Shahrekord), soil of ants' nest, *Tapinoma* sp. (Hym.: Formicidae) and soil of ants' nest, unknown ant (Hym.: Formicidae) (Khalili-Moghadam and Saboori 2015); (Lordegan County, Khanmirza region, Salehat Village), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015); (Koohrang, Dashte laleh, Samsami (Cheri); Saman, Gharaghoosh; Kiar, Gahroo), in soil in association with *C. Bakhtiariensis*; *L. neglectus*; *Ph. koshevnikov* and *P. pallescens* (Khalili-Moghadam 2022). **East Azarbaijan Province** (forests of Arasbaran region), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017). **Fars Province** (Shiraz County), soil (Keivani *et al.* 2018). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b). **Lorestan Province** (Kuhdasht), soil (Heydari *et al.* 2014a).

***Laelaspis latisetus* Saravani Rad *et al.*, 2019**

Distribution and habitats. **Sistan va Baluchestan Province** (Zahak County), clinging to *Pheidole pallidula* (Saravani Rad *et al.* 2019).

***Laelaspis morazae* Kazemi, 2015**

Distribution and habitats. **Isfahan Province** (Shahreza, Chaqad region), nest of unknown ant (Kazemi 2015). **Razavi Khorasan Province** (Mashad), *Lepisiota semenovi* (Ruzsky) (Formicinae) (Kazemi 2015).

***Laelaspis mossadeghi* Babaeian & Joharchi, 2013**

Distribution and habitats. **East Azarbaijan Province** (Maragheh), soil in orchards (Valizadeh *et al.* 2017). **Guilan Province** (region not mentioned), soil and litter (Ramroodi *et al.* 2014b). **Lorestan Province** (Kuhdasht), soil (Heydari *et al.* 2014a).

***Laelaspis natanziensis* Masoomi, Joharchi & Jalalizand, 2016**

Distribution and habitats. **Isfahan Province** (Natanz), in nest of *Tetramorium* sp. (Formicidae) (Masoomi *et al.* 2016).

***Laelaspis nematii* Khalili-Moghadam, 2024**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Koohrang County, Dashte

Laleh), nest materials of *Cataglyphis fritillariae* (Khalili-Moghadam 2024). **Khuzestan Province** (Ahwaz city, Shahid Chamran University campus), soil (Khalili-Moghadam 2024).

***Laelaspis ovisugus* (Berlese, 1903b)**

Distribution and habitats. **Region not mentioned**, ex. *T. caespitum* (Joharchi 2012).

***Laelaspis pennatus* Joharchi & Halliday, 2012**

Distribution and habitats. **Fars Province** (Koohmare-Sorkhi, oak forest), soil and leaf litter (Yazdanpanah and Kazemi 2014a). **Guilan Province** (region not mentioned), soil (Ramroodi *et al.* 2013); (Rostamabad and Taklim), soil in olive orchard (Mahjoori *et al.* 2014); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Rasht, Vishka Nanak village), soil (Ghasemi and Hajizadeh 2021); (Rasht). **Isfahan Province** (Isfahan), nest of *T. casepitum* (Joharchi *et al.* 2012a; Joharchi 2012). **Lorestan Province** (Khorramabad), soil (Hasanvand *et al.* 2014a). **Semnan Province** (Bastam, Abarsij), soil (Ghorani *et al.* 2016).

***Laelaspis persicus* Joharchi & Halliday, 2012**

Distribution and habitats. **Alborz Province** (Taleghan), nest of *P. pallidula* (Joharchi *et al.* 2012a; Joharchi 2012). **Guilan Province** (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Rudbar), soil and leaf-litters (Ramroodi *et al.* 2015b). **Kerman Province** (Kerman City, parks and landscapes), soil (Arjomandi and Kazemi 2014b); (Kerman), nest of *Tetramorium* sp., in an alfalfa field (Kazemi 2015). **Khuzestan Province** (Dezful), soil and moss in lemon and orange orchard; (region not mentioned), soil (Nemati *et al.* 2017b). **Tehran Province** (Tehran), nest of an unknown ant (Kazemi 2015).

***Laelaspis secedens* (Berlese, 1920)**

Distribution and habitats. **Region not mentioned**, ex. *T. caespitum* (Joharchi 2012).

***Laelaspis vitzthumi* (Womersley, 1956)**

Distribution and habitats. **Fars Province** (Marvdasht, Islamic Azad University, Fars Science and Research Branch), ex. apple bark beetles (Arabzadeh *et al.* 2012). **Kerman Province** (Kerman), cow manure (Arjomandi *et al.* 2013a). **Khuzestan Province** (Ahvaz), nest of *T. simorthi* (Nemati *et al.* 2000b).

Note – The above-mentioned species was recorded from Iran by some authors as *Pseudoparasitus vitzthumi*.

Genus *Myonyssus* Tiraboschi, 1904

***Myonyssus gigas* (Oudemans, 1912)**

Distribution and habitats. **East Azarbaijan Province** (Aynalu region, Arasbaran Forests), soil and litter near an unknown small mammal nest (Kazemi and Mohammad-Doustaresharaf 2015); (Arasbaran Forests, Aynalu), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a).

Genus *Myrmozercon* Berlese, 1902

***Myrmozercon brachytrichos* Joharchi, Arjomandi & Trach, 2017**

Distribution and habitats. **Alborz Province** (Savojbolagh, Khoznan; Damavand Mountain), on the head of *Crematogaster inermis* Mayr (Formicidae) in the bark of grapevine (Joharchi *et al.* 2017).

Note – This species has previously been reported as *Myrmozercon tauricus* Trach & Khaustov, 2011 from Alborz Province (Damavand Mountain), clinging to the head of *Crematogaster schmidtii* (Mayr) (Formicidae) in the bark of grapevine (Joharchi and Moradi 2013). Joharchi *et al.* (2017) considered it a misidentification and described it as a new species as above.

***Myrmozercon brevipes* Berlese, 1902**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Saman), from the nest of *Tapinoma* sp. (Khalili-Moghadam and Nemati 2014b; Khalili-Moghadam and Saboori 2015); (Saman, Shoorab, Garmdareh; Ben, Larak; Shahrekord, Chaleshtor), in soil in association with *M. caducus*; *M. platyceras*; *T. karavaievi* (Khalili-Moghadam 2022).

***Myrmozercon crinitus* Joharchi, 2013**

Distribution and habitats. **Alborz Province** (Karaj), on the head of soldiers of *Pheidole pallidula* (Formicidae) (Joharchi and Moradi 2013).

***Myrmozercon cyrusi* Ghafarian & Joharchi, 2013**

Distribution and habitats. **Razavi Khorasan Province** (Mashhad County), nest of *Monomorium* sp. (Ghafarian *et al.* 2013b).

***Myrmozercon hunteri* Joharchi, Babaeian & Seeman, 2015**

Distribution and habitats. **Alborz Province** (Savojbolagh, Khoznan), on the abdomen of soldiers of *Myrmica* sp. (Formicidae) (Joharchi *et al.* 2015).

***Myrmozercon karajensis* Joharchi, Halliday, Saboori & Kamali, 2011**

Distribution and habitats. **Alborz Province** (Karaj), nest of *Camponotus* sp. (Joharchi *et al.* 2011a). **Tehran Province** (Tehran), ex. *Camponotus* sp. (Joharchi *et al.* 2011a); (area around Tehran), ex. *Camponotus* sp. (Joharchi *et al.* 2011b).

***Myrmozercon sternalis* Babaeian, Joharchi & Saboori, 2013**

Distribution and habitats. **Alborz Province** (Karaj, Najm Abad), in the nest of *Formica* sp. (Babaeian *et al.* 2013). **Chaharmahal va Bakhtiari Province** (Saman), associated with ant nest, (Khalili-Moghadam and Nemati 2014b; Khalili-Moghadam and Saboori 2015); [Koohrang, Dashte laleh, Sodajan, Samsami (Cheri)], in soil in association with *C. Bakhtiariensis*; *Cataglyphis fritillariae*; *M. platyceras*; *P. koshevníkovi* (Khalili-Moghadam 2022).

Genus *Ololaelaps* Berlese, 1904a

***Ololaelaps elongatus* Babaeian, 2019**

Distribution and habitats. **Kurdistan Province** (Marivan-Saghez), soil detritus (Babaeian *et al.* 2019a).

Ololaelaps mooiensis Ryke, 1962

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Shahrekord), soil of unknown ants' nest (Khalili-Moghadam and Saboori 2015). **East Azarbaijan Province** (Arasbaran forests), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017); (Maragheh region), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Shiraz County), soil (Keivani *et al.* 2018). **Golestan Province** (Gorgan region forests), soil and litter (Arjomandi and Kazemi 2014a). **Guilan Province** (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Saravan, Emamzadeh Hashem), soil (Ramroodi *et al.* 2015a). **Khuzestan Province** (Ahvaz), soil (Nemati *et al.* 2000a; Kamali *et al.* 2001); (Ahvaz), soil (Baharloo *et al.* 2006); (region not mentioned), soil (Nemati *et al.* 2017b). **Lorestan Province** (Khorramabad), soil (Hasanvand *et al.* 2014a). **Semnan Province** (Shahrood, Abarsij, Owlang Jogle, Hezar Pich), soil (Ghorani *et al.* 2016).

Note – *Ololaelaps gamagarensis* Jordan & Loots, 1987 was considered as a junior synonym of above-mentioned species by Nemati *et al.* (2018).

Ololaelaps placentula (Berlese, 1887d)

Distribution and habitats. **East Azarbaijan Province** (Maragheh region), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Northwestern), soil and debris (Abolghasemi and Kazemi 2016). **Golestan Province** (Gorgan), soil and litter (Kazemi *et al.* 2012); (Gorgan region forests), soil and litter (Arjomandi and Kazemi 2014a). **Kerman Province** (Bam), soil (Mehrzaad *et al.* 2012); (Jiroft), soil (Balooch Shahryari *et al.* 2012). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b). **Mazandaran Province** (Nowshahr), soil and litter (Kazemi *et al.* 2012). **Razavi Khorasan Province** (Mashhad), soil, litter and associated with ants' nest (Ghafarian *et al.* 2013a). **Tehran Province** (Tehran), soil (Joharchi *et al.* 2011b).

Ololaelaps placidus (Banks, 1895)

Distribution and habitats. **Ardabil Province** (Moghan Plain), cotton fields (Kamali *et al.* 2001). **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001). **Hamedan Province** (region not mentioned), alfalfa and wild sainfoin (Kamali *et al.* 2001).

Ololaelaps sellnicki Bregetova & Koroleva, 1964

Distribution and habitats. **West Azarbaijan Province** (Urmia. Nāzlū), soil of apple orchard; (Nāzlū dam), soil; (Band), soil of apple orchard (Kavianpour *et al.* 2017).

Ololaelaps sinensis Berlese, 1923

Distribution and habitats. **Golestan Province** (Gorgan region forests), soil and litter (Arjomandi and Kazemi 2014a). **Guilan Province** (region not mentioned), soil and litter (Ramroodi *et al.* 2013; Ramroodi *et al.* 2014b); (Roodbar, Majil), soil in olive orchard (Mahjoori *et al.* 2014).

Note– The above authors have reported this species from Iran as *Ololaelaps ussuriensis* Bregetova & Koroleva, 1964, but it was considered as a junior synonym of *O. sinensis* by Ma (2016).

Genus *Persicolaelaps* Kazemi & Beaulieu, 2016

***Persicolaelaps hallidayi* Kazemi & Beaulieu, 2016**

Distribution and habitats. **Golestan Province** (Qarn-Abad Forest) (Kazemi and Beaulieu 2016). **Mazandaran Province** (Noor), rotten wood, soil and litter (Kazemi and Beaulieu 2016).

Genus *Pogonolaelaps* Nemati & Gwiazdowicz, 2016

***Pogonolaelaps beaulieui* Nemati & Gwiazdowicz, 2016**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Shahrekord), soil; (Shahrekord University), nest materials of unknown ant; (Saamaan, Cham-Khalifeh), walnut rooting wood (Nemati and Gwiazdowicz 2016a); (Ben, Bardeh; Saman, Gharaghoosh), in rooting wood in association with *L. neglectus* (Khalili-Moghadam 2022). **Mazandaran Province** (Nowshahr, Ecological (Botanical) Garden), soil and litter (Sabeti *et al.* 2016).

***Pogonolaelaps canestrinii* (Berlese, 1892d)**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Lordegan, Khanmirza region, Salehat Village, Central region, Abchenar Armand Village, Pol-e-Armand Village), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015); [Boldaji (Cheghakhor)], soil of ants' nest, *Tapinoma* sp. (Hym.: Formicidae) (Khalili-Moghadam and Saboori 2015); (Shahrekord, Lordegan, Naghan and Ben), soil (Nemati and Gwiazdowicz 2016a). **East Azarbaijan Province** (Maragheh), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Neyriz), soil (Bazrafshan *et al.* 2013); (Shiraz County), soil (Keivani *et al.* 2018). **Guilan Province** (region not mentioned), soil (Ramroodi *et al.* 2013); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Rostamabad and Majil), soil in olive orchard (Mahjouri *et al.* 2014); (Saravan, Emamzadeh Hashem, Rostamabad and Rudbar), soil (Ramroodi *et al.* 2015a). **Isfahan Province** (Isfahan, Kashan and Shahreza), soil (Nemati and Gwiazdowicz 2016a); (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022). **Khuzestan Province** (Ahvaz), nest of unknown ant; (Baghmalek), soil; (Ghaletol), soil and nest materials of unknown ant; (Izeh and Masjed-Soleiman), soil (Nemati and Gwiazdowicz 2016a). **Lorestan Province** (Khorramabad), soil (Hasanvand *et al.* 2014a). **Mazandaran Province** (Lavij region of Nour County), soil, humus and litter (Ghasemi-Moghadam *et al.* 2014); (Nowshahr, Ecological (Botanical) Garden), soil and litter (Sabeti *et al.* 2016). **North Khorasan Province** (region not mentioned), associated with the nests of *Tapinoma* sp. (Formicidae) (Rezaei *et al.* 2016). **Razavi Khorasan Province** (Mashhad), soil-litter and associated with ants' nest (Ghafarian *et al.* 2013a); (Mashhad County), soil and manure (Abbaspour *et al.* 2017). **Semnan Province** (Moghan, Shahrood, Kharqan, Deh Kheyr, Bastam, Meyami, Mojen, Abarsij, Hezar Pich), soil (Ghorani *et al.* 2016). **Tehran Province** (Shemiranat, Rudbar-Ghasran), soil, litter and humus (Cheraghali *et al.* 2012); (region not mentioned), ex. *Tetramorium caespitum* L. (Joharchi 2012); [Rodbar ghasran region (Shemiranat)], soil and litter (Joharchi and Halliday 2013); (Tehran, Varamin, Shahr-e Rey, Firouzkooch, Dmavand region), soil, leaf litter and dung, green spaces and orchards (Baroozeh *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Urmia, Rashkân), soil of apple orchard; (Band), soil of apple orchard; (Näzlü road), soil of apple orchard (Kavianpour *et al.* 2017). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014). **Note** – Some authors reported this species as *Gymnolaelaps canestrinii* (Berlese, 1903), *Laelaspisella berlesei* Joharchi *et al.* (2016), and *Laelaspisella canestrinii* (Berlese, 1903) from Iran. For more information, see Joharchi *et al.* (2020).

***Pogonolaelaps termitophilus* Joharchi, Ramroodi & Halliday, 2020**

Distribution and habitats. **Sistan va Baluchestan Province** (Zabol, Sistan region), on *Microcerotermes* sp. (Blattodea: Termitidae); (Sistan region), in nest of *Microcerotermes* sp. (Blattodea: Termitidae) (Joharchi *et al.* 2020).

Genus *Pneumolaelaps* Berlese, 1920

Pneumolaelaps colomboi (Evans & Till, 1966)

Distribution and habitats. **Ardabil Province** (Meshkinshahr, Shahbil region), associate with nest of *Bombus armeniacus* (Hymenoptera, Apidae) colony (Azhari *et al.* 2011). **Tehran Province** (Area around Tehran), ex. *Bombus* sp. (Joharchi *et al.* 2011b).

Pneumolaelaps hyatti (Evans & Till, 1966)

Distribution and habitats. **Ardabil Province** (Meshkinshahr, Shahbil region), associate with nest of *B. armeniacus* (Hymenoptera, Apidae) colony (Azhari *et al.* 2011). **Region not mentioned**, ex. *Bombus* sp. (Joharchi 2012).

Genus *Promacrolaelaps* Costa, 1971

Promacrolaelaps propomacrus Joharchi, Halliday & Beyzavi, 2013

Distribution and habitats. **Fars Province** (Kamfiruz region), on adult of *Propomacrus bimucronatus* (Joharchi and Beyzavi (2012); Joharchi *et al.* 2013).

Genus *Pseudoparasitus* Oudemans, 1902d

Pseudoparasitus hajiqaanbari Kazemi, 2014

Distribution and habitats. **Golestan Province** (Gorgan, Ghorogh forest), litter (Malekshah-koochi *et al.* 2014); (Jafarabad, Forest Park), forest litter (Kazemi 2014). **Mazandaran Province** (Sisangan Forest Park), forest litter (Kazemi 2014); (Nour County, Lavij region), soil, humus and litter (Ghasemi-Moghadam *et al.* 2014). **Semnan Province** (Hezar Pich), soil (Ghorani *et al.* 2016).

Note – Malekshahkoochi *et al.* (2014) described a new species of the *Pseudoparasitus* genus, *P. talebii* Nemati, Malekshahkoochi & Afshari, 2014. The paper was initially released in electronic form on 12 January 2014 in the *Journal of Crop Protection*. Based on information from the *Journal of Crop Protection's* website, the printed edition of Malekshahkoochi *et al.*'s (2014) paper and the name *P. talebii* were published in June 2014 (volume 3, number 2). This is the publication date of *P. talebii* in its printed form. The same species was also described and published by Kazemi (2014) as *P. hajiqaanbari* Kazemi, 2014, a few days later in electronic form in the *Persian Journal of Acarology* on 15 January 2014. Despite *P. talebii* being published earlier, it has been deemed a junior synonym of *P. hajiqaanbari* by Nemati *et al.* (2018). Taking both electronic publications into account, the publication of Malekshahkoochi *et al.* (2014) was not registered in ZooBank. Consequently, the name *P. talebii* is not available from its electronic form and should be regarded as a nomen nudum until its printed edition is available. On the other hand, Kazemi's (2014) publication was properly registered in ZooBank on 15 January 2014, the date of publication of the name *P. hajiqaanbari*. As a result, *P. hajiqaanbari* is considered the senior and valid name for this species, while *P. talebii* becomes its junior synonym.

Pseudoparasitus missouriensis (Ewing, 1909)

Distribution and habitats. **Alborz Province** (Karaj, Shahrestanak), nest of *Camponotus* sp. (Joharchi *et al.* 2011a); (region not mentioned), soil (Keshavarz Jamshidian and Babaeian 2013). **Chaharmahal va Bakhtiari Province** (Shahrekord), ants' nest (Babaeian *et al.* 2010); (Boldaji City (Cheghakhor)), soil of ants' nest, *Tapinoma* sp. (Hym.: Formicidae) (Khalili-Moghadam and Saboori 2015); (Lordegan County, Monj region, Pal Borideh Village; Joub Nesa Village; Khanmirza region,

Salehat Village), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015). **East Azarbaijan Province** (Tabriz), soil and foliage of poplar and elm trees (Rahbar Shahlan *et al.* 2014); (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Kalaleh, Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a); (forests of Arasbaran Region), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017); (Maragheh), soil in orchards (Valizadeh *et al.* 2017). **Fars Province** (Neyriz), soil (Bazrafshan *et al.* 2013). **Golstan Province** (Gorgan), soil (Kazemi *et al.* 2011a). **Guilan Province** (region not mentioned), soil, decaying plants and stored products (Hajizadeh *et al.* 2010b, c); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Saravan, Emamzadeh Hashem and Rostamabad), soil (Ramroodi *et al.* 2015a); (Rasht), associated with an ant from Formicidae (Hajizadeh and Hosseini 2022). **Kerman Province** (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Lorestan Province** (Kuhdasht), soil (Heydari *et al.* 2014a); (Khorramabad), soil (Hasanvand *et al.* 2014a). **Mazandaran Province** (Nowshahr), soil (Kazemi and Ahangaran 2011). **North Khorasan Province** (region not mentioned), associated with the nests of *Messor* sp., *Tapinoma* sp. and *Pheidole* sp. (Formicidae) (Rezaei *et al.* 2016). **Qom Province** (region not mentioned), soil, dung, compost and plant-litters of crops, lawns, shrubs and trees in farms, forests, orchards and parks (Agha Alikhani *et al.* 2017). **Razavi Khorasan Province** (Mashhad), soil-litter and associated with ants' nest (Ghafarian *et al.* 2013a). **Tehran Province** (Shemiranat, Rudbar-Ghasran), soil, litter and humus (Cheraghali *et al.* 2012). **West Azarbaijan Province** (Salmas), soil and plant debris of apple orchards (Alizadeh *et al.* 2011). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014).

Notes – 1. The genus placement of *Pseudoparasitus missouriensis* (Ewing, 1909) is not stable in terms of choosing its appropriate genus. It is clear that most of its important morphological characteristics do not match with the characteristics of the *Pseudoparasitus*. Therefore, to determine its taxonomic position as well as some other similar and close species, it is necessary to carry out a detailed study. Until this study is done, and the new position is proposed, we temporarily report it in this genus, but we still believe that this genus is not suitable for expressing the morphological characteristics of this species. **2.** Hajizadeh *et al.* (2010b, c) and Alizadeh *et al.* (2011) reported *Laelaspis austriacus* Sellnick, 1935 from Guilan and West Azarbaijan Provinces, respectively which is considered as a junior synonym of *P. missouriensis* (Hennessey and Farrier 1988).

Pseudoparasitus ovatulus (Halbert, 1915)

Distribution and habitats. **Alborz Province** (region not mentioned), soil (Keshavarz Jamshidian and Babaeian 2013). **East Azarbaijan Province** (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Aynalu, Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a); (forests of Arasbaran region), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017); (Maragheh), soil in orchards (Valizadeh *et al.* 2017). **Guilan Province** (region not mentioned), soil (Ramroodi *et al.* 2013); (Majil and Rostamabad), soil in olive orchard (Mahjoori *et al.* 2014); (region not mentioned), soil and litter (Ramroodi *et al.* 2014b); (Saravan, Emamzadeh Hashem, Rostamabad, Rudbar), soil (Ramroodi *et al.* 2015a). **Mazandaran Province** (Ramsar, Tonekabon), soil and litter, manure (Kazemi and Ahangaran 2011). **Semnan Province** (Owlang Jungle), soil (Ghorani *et al.* 2016). **Tehran Province** (Area around Tehran), soil (Joharchi *et al.* 2011b). **West Azarbaijan Province** (Urmia, Rashkän), soil of apple orchard (Kavianpour *et al.* 2017).

Notes – 1. *Pseudoparasitus dentatus* (Halbert, 1920) was previously reported in Iran by the authors mentioned above. However, Luxton, 1998, as cited in Moraes *et al.* (2022), considered this species to be a junior synonym of *P. ovatulus*. **2.** Kazemi and Rajaei, based on Joharchi *et al.* (2011a), stated that *Pseudoparasitus prulatus* Karg, 1989, which was reported by Kamali *et al.* (2001) from the soil of orchards in Tabriz (East Azarbaijan Province), is a misidentified species. A. Nemati examined one slide of the aforementioned species some years ago, and we also examined other specimens collected

from the same area. This species is closely related to *P. prulatus* but exhibits some morphological differences that may warrant its consideration as a new species for science. Based on our observations, we support the findings of Joharchi *et al.* (2011a), as well as Kazemi and Rajaei (2013), and recommend the removal of this species' name from the list of Iranian mesostigmatid mites. **3.** We excluded *Pseudoparasitus holaspis* (Oudemans, 1902) from our research. This particular species has been documented by Darvishzadeh and Kamali (2009) and was introduced as a species with ambiguous identification by Kazemi and Rajaei (2013).

Genus *Reticulolaelaps* Costa, 1968a

***Reticulolaelaps costai* Joharchi & Babaeian, 2015**

Distribution and habitats. **Qazvin Province** (Savojbolagh, Khoznan), associated with *Tapinoma* sp. (Joharchi and Babaeian 2015).

***Reticulolaelaps elsae* (Joharchi, Babaeian & Jalalizand, 2016)**

Distribution and habitats. **Isfahan Province** (Isfahan), bark of elm trees (Joharchi *et al.* 2016a; Nemati *et al.* 2019).

Note – This species was described as *Laelaspisella elsae* Joharchi *et al.*, 2016, but transferred to the *Reticulolaelaps* genus by Nemati *et al.* (2019).

***Reticulolaelaps faini* Costa, 1968a**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Lordegan). **Fars Province** (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Khuzestan Province** (Izeh, Ghaletol), soil (Nemati *et al.* 2013c; Nemati *et al.* 2019); (region not mentioned), soil (Nemati *et al.* 2017b). **Lorestan Province** (Khorramabad), soil (Hasanvand *et al.* 2014a). **Razavi Khorasan Province** (Mashhad), soil, litter and associated with ants' nest (Ghafarian *et al.* 2013a).

***Reticulolaelaps hallidayi* Joharchi, Nemati & Babaeian, 2013**

Distribution and habitats. **Alborz Province** (Taleghan), in the nest of unknown species of *Tapinoma* (Nemati *et al.* 2013c). **Chaharmahal va Bakhtiyari Province** [Kohrang (Dasht Laleh)], nest of *Messor* sp. (Formicidae), Bazoft region (Shykh Ali Village), ant nest of *Cataglyphis* sp., (Mavarz Village), ant nest of *Camponotus* sp., (Sartang Village), ant nest of *Lepisiota* sp., Samsami region (Chery Mountain), ants' nest of *Pheidole* sp. and *Tetramorium* sp. (Nemati *et al.* 2019). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2013c); (Izeh), soil (Nemati *et al.* 2019). **Lorestan Province** (Kuhdasht District), soil (Heydari *et al.* 2014a).

***Reticulolaelaps* sp.**

Distribution and habitats. **Isfahan Province** (Isfahan), bark of elm trees (Ghafarian *et al.* 2011).

Genus *Stratiolaelaps* Berlese, 1916

***Stratiolaelaps miles* (Berlese, 1892b)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), soil (Babaeian *et al.* 2010). **Fars Province** (region not mentioned), stored wheat, barely and rice (Kamali *et al.* 2001); (Shiraz County), soil (Keivani *et al.* 2018). **Guilan Province** (region not mentioned), stored rice, rice

dust and debris (Noei *et al.* 2008); (region not mentioned), soil decaying plants and stored products (Hajizadeh *et al.* 2010b, c). **Hormozgan Province** (Minab), associated with soil under mango trees (Dolati and Ostovan 2017b). **Isfahan Province** (Isfahan), soil (Khalili-Moghadam *et al.* 2012). **Kerman Province** (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Khuzestan Province** (Ahvaz), soil (Nemati *et al.* 2000a); nest of birds and stored wheat (Kamali *et al.* 2001). **West Azarbaijan Province** (Urmia), stored wheat (Kamali *et al.* 2001). **Tehran Province** (Tehran, Shahid Beheshti University Campus), soil (Kamali *et al.* 2004).

Note – *Stratiolaelaps gurabensis* (Fox, 1946) was reported by Kamali *et al.* (2001) from Fars Province (with the above-mentioned data), but was considered as a junior synonym of *S. miles* by Evans and Till (1966).

***Stratiolaelaps scimitus* (Womersley, 1956)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), different habitats (Nemati *et al.* 2017a). **Khuzestan Province** (region not mentioned), soil (Nemati *et al.* 2017b).

Genus *Tropilaelaps* Delfinado & Baker, 1961

***Tropilaelaps clareae* Delfinado & Baker, 1961**

Distribution and habitats. Province and region not mentioned, beehives (Sammataro *et al.* 2000; Baker *et al.* 2005).

Family Macronyssidae Oudemans, 1936

Genus *Macronyssus* Kolenati, 1958b

***Macronyssus granulosus* (Kolenati, 1856)**

Distribution and habitats. **Kohgiluyeh va Boyer-Ahmad Province** (Kiler Cave, in the northwest of Yasuj), ectoparasite on bat *Miniopterus schreibersii* (Malek Hosseini *et al.* 2016).

Genus *Ophionyssus* Megnin, 1884

***Ophionyssus natricis* (Gervais, 1844)**

Distribution and habitats. **Mazandaran Province** (Sari), on the body of Python snake (Amanatfard *et al.* 2014).

Genus *Ornithonyssus* Sambon, 1928

***Ornithonyssus bacoti* (Hirst, 1913)**

Distribution and habitats. Generally distributed (region not mentioned), various species of rats, house mouse and man (Kamali *et al.* 2001). **Ardabil Province** (Meshkinshahr), *M. musculus* (Mohebbali *et al.* 1997). **Chaharmahal va Bakhtiyari Province** (Sharekord), ex. mice (Nemati *et al.* 2008a). **Hormozgan Province** (Bandar Abbas), *T. indica* (Hanafi-Bojd *et al.* 2007). **Kermanshah Province** (Sarpole-Zahab District), on *M. musculus*, *M. persicus* and *T. indica* (Telmadarraiy *et al.* 2007). **Khuzestan Province** (Ahvaz), ex. *Rattus rattus* L., *Rattus norvegicus* Berkenhout and *Mus musculus* L. (Nemati *et al.* 2000c); (Ahvaz), on the body of human (Rahdar and Vazirianzadeh 2009). **Lorestan Province** (region not mentioned), *T. indica* (Rafinejad *et al.* 2005). **North Khorasan Province** (Esfarayen and Shirvan County). **Northwest of Iran** (region not mentioned), on *M. musculus* (Allymehr *et al.* 2012). **Semnan Province** (Damghan and Shahrood), on *Rhombomys opimus*

(Tajedin *et al.* 2009). **Tehran Province** (Evin, Darake, Velenjak, Darband and Dar-Abad), on *R. norvegicus* (Pakdad *et al.* 2012).

***Ornithonyssus bursa* (Berlese, 1888b)**

Distribution and habitats. **Fars Province** (Shiraz), collected from the houses of patients referred to the asthma and allergy by vacuum cleaner (Shafei *et al.* 2020). **Mazandaran Province** (region not mentioned), breeder flock (Rahbari *et al.* 2009).

***Ornithonyssus sylviarum* (G. Canestrini & Fanzago, 1877a)**

Distribution and habitats. **Fars Province** (Shiraz), collected from the houses of patients referred to the asthma and allergy by vacuum cleaner (Shafei *et al.* 2020). **Lorestan Province** (Zagheh, Pol-e-Horou, Shurab, Chamsangar, Keshvar and Weisian), *Meriones persicus*, (Chaghalvandi and South Beiranvand), *Calomyscus bailwardi*, (Razan), *Cricetulus migratorius* and (Taf), *Rattus rattus* (Rafinejad *et al.* 2005); (Khoram-Abad District), on rodents (Shayan and Rafinejad 2006). **North Khorasan Province** (Tandoureh National Park), on Mourning Wheatear *Oenanthe lugens* (Turdidae) (Moodi *et al.* 2014).

***Ornithonyssus* sp.**

Distribution and habitats. **Ardabil Province** (Meshkin-Shahr County), ectoparasite on *Meriones persicus*, *Mus musculus*, and *Cricetulus migratorius* (Zarei *et al.* 2017). **Khuzestan Province** (region not mentioned), associated with honeybee hives (Mossadegh 1997).

Genus *Steatonyssus* Koletani, 1858b

***Steatonyssus periblepharus* Kolenati, 1858b**

Distribution and habitats. **Khuzestan Province** (Ahvaz, Shahid Chamran University campus), on the body of bat (Kavianpour *et al.* 2012). **Fars Province** (Hesar), collected from body of bat *Pipistrellus kuhlii* (Benda *et al.* 2012).

***Steatonyssus* sp.**

Distribution and habitats. **Fars Province** (Hesar), collected from the body of bat *P. pipistrellus* (Benda *et al.* 2012).

Family *Pseudolaelapidae* Evans & Till, 1966

Genus *Pseudolaelaps* Berlese, 1916

***Pseudolaelaps doderoi* (Berlese, 1910a)**

Distribution and habitats. **Golestan Province** (region not mentioned). Soil, decayed wood, moss and litter (Malek-Shahkouyi *et al.* 2011a). **Lorestan Province** (Khorramabad), orchard (Hasanvand *et al.* 2015). **Mazandaran Province** (Nowshahr, Narenjbon), litter, (Chalus, Roshandarreh), litter and humus, (Ramsar), litter and humus (Kazemi and Ahangaran 2011); (Nowshahr, Ecological (Botanical), garden of Nowshahr), soil and litter (Saber *et al.* 2016).

***Pseudolaelaps laevidorsatus* Mařán, Hajizadeh & Ramroodi, 2015**

Distribution and habitats. **Guilan Province** (Talesh, Asalem, Fuman, Rasht), soil detritus of alder

trees (*Alnus glutinosa*); (Sangar, Shahrestan Village), soil detritus of elm forest (*Ulmus carpinifolia*); (Saravan), soil detritus of deciduous forest, oak forest (*Ulmus* sp., *Quercus castaneifolia*, *Alnus glutinosa* and *Parrotia persica*); (Rezvanshahr Punel Village), decomposing plant remnants of deciduous forest; (Rudsar, Kelachai, Javaher Dasht Village), soil detritus of deciduous forest (*Ulmus* sp., *Quercus* sp. and *Alnus glutinosa*); (Shaft, Chubar Village), decomposing plant remnants of deciduous forest; (Siahkal, Daylaman), soil detritus of unknown bush plant (Maśán *et al.* 2015).

***Pseudolaelaps semiduplicans* Maśán, Hajizadeh & Ramroodi, 2015**

Distribution and habitats. **Guilan Province** (Rasht, Saravan Forest), soil detritus of deciduous forest (*Ulmus* sp., *Quercus* sp., *Alnus glutinosa* and *Parrotia persica*); (Fuman), soil detritus of alder forest (*Alnus glutinosa*); (Shaft, Chubar Village), decomposing plant remnants of deciduous forest (Maśán *et al.* 2015).

***Pseudolaelaps venustulus* Maśán, Hajizadeh & Ramroodi, 2015**

Distribution and habitats. **Guilan Province** (Masal, Shanderman Village), decomposing plant remnants, soil detritus of orchard and maple forest (with *Acer platanoides*); (Rudbar, Rostamabad), soil detritus of vegetation with walnut trees (*Juglans regia*); (Rudsar), soil detritus of vegetation with hazelnut trees (*Corylus avellana*); (Talesh, Gisum Forest), moss (Maśán *et al.* 2015).

Family Rhinonyssidae Trouessart, 1895

Genus *Ptilonyssus* Berlese & Trouessart, 1889

***Ptilonyssus hirsti* (Castro & Periera, 1947)**

Distribution and habitats. **North Khorasan Province** (Kalat Nader and Bojnord), on *Passer montanus* and *Passer domesticus* (Passeridae) (Moodi *et al.* 2014).

***Ptilonyssus icteridius* Strandtmann & Furman, 1956**

Distribution and habitats. **North Khorasan Province** (Tandoureh National Park), on red-headed bunting *Emberiza bruniceps* (Emberizidae) (Moodi *et al.* 2014).

***Ptilonyssus pirangae* (Cerny, 1969)**

Distribution and habitats. **North Khorasan Province** (Shirvan), on common greenfinch *Carduelis chloris* (Fringillidae) (Moodi *et al.* 2014).

***Ptilonyssus* sp.**

Distribution and habitats. **North Khorasan Province** (Kashmar and Ghaen), on *Carduelis cannabina* *C. chloris* and *C. obsoleta* (Moodi *et al.* 2014).

Family Spinturnicidae Oudemans, 1902

Genus *Meristaspis* Kolenati, 1857

***Meristaspis lateralis* (Kolenati, 1856)**

Distribution and habitats. **Fars Province** (Bishapur cave), ectoparasite of bat (Benda *et al.* 2012); (Shafagh Cave, about 75 km north-west of Jahrom city), ectoparasite on *Miniopterus schreibersii*,

Rousettus aegyptiacus and *Myotis blythii* (Malek Hosseini *et al.* 2016). **Hormozgan Province** (Bongaru, Hazarmani Mts. Podonu, Chahar Dahaneh, Zangard), ectoparasite of bat (Benda *et al.* 2012).

Note – An undetermined species of this family was also reported from Kermanshah Province (Mahi-Dasht Limy Cave) as a parasite on *Myotis blythii* by Vatandoost *et al.* (2010).

Genus *Spinturnix* von Heyden, 1826

***Spinturnix andegavinus* Deunff, 1977**

Distribution and habitats. **Zanjan Province**, ectoparasite on lesser mouse-eared bats, *Myotis blythii* (Tomes, 1857) (Hemati *et al.* 2013).

***Spinturnix myoti* (Kolenati, 1856)**

Distribution and habitats. **Fars Province** (Tadovan, Tadovan Cave), ectoparasite on bats *Myotis blythii* and *Myotis capaccinii* (Benda *et al.* 2012). **Golestan Province** (Ali Abad), ectoparasite on bat *Myotis blythii* (Benda *et al.* 2012). **Kohgiluyeh va Boyer-Ahmad Province** (Gakal Cave, East of Gachsaran), ectoparasite on *Myotis blythii* (Malek Hosseini *et al.* 2016).

***Spinturnix psi* (Kolenati, 1856)**

Distribution and habitats. **Ardabil Province** (Dashkasan, Dashkahul cave), ectoparasite of bat *Miniopterus pallidus* Thomas (Benda *et al.* 2012). **Fars Province** (Tadovan cave, Bishapur: cave at the Sasan spring, Hesar), ectoparasite on *Myotis capaccinii* and *Miniopterus pallidus* (Benda *et al.* 2012); (Shafagh Cave, about 75 km north-west of Jahrom city), ectoparasite on bat *Miniopterus schreibersii* (Malek Hosseini *et al.* 2016). **Ilam Province** (Mormori), ectoparasite of bat *Miniopterus pallidus* (Benda *et al.* 2012). **Kohgiluyeh va Boyer-Ahmad Province** (Meymand), ectoparasite of bat *Miniopterus pallidus* (Benda *et al.* 2012); (Kiler Cave, in the northwest of Yasuj), ectoparasite on bat *Miniopterus schreibersii*, *Myotis blythii*, (Gakal Cave, East of Gachsaran), ectoparasite on bat *Rhinopoma microphyllum* (Malek Hosseini *et al.* 2016). **Razavi Khorasan Province** (Mina), ectoparasite of bat *Miniopterus pallidus* (Benda *et al.* 2012).

***Spinturnix* sp.**

Distribution and habitats. This undetermined species from *acuminata* group was collected from the body of bat *Pipistrellus kuhlii* by Benda *et al.* (2012).

Note – An undetermined species of this genus (*Spinturnix* sp.) was reported from Kermanshah Province (Mahidasht Cave), Kordestan Province (Karafto Cave), and Hamadan Province (Ghaladidar Cave) (Sharifi *et al.* 2008).

Family Varroidae Delfinado & Baker, 1974

Genus *Euvarroa* Delfinado & Baker, 1974

***Euvarroa sinhai* Delfinado & Baker, 1974**

Distribution and habitats. **Different parts of Iranian Provinces**, Beehives and colonies, (Mossadegh and Komeili 1986, Mossadegh 1991). **Khuzestan** and other **Southern Provinces** (region not mentioned). Parasitises *Apis florea* Fabricius (Kamali *et al.* 2001).

Genus *Varroa* Oudemans, 1904

Varroa destructor Anderson & Trueman, 2000

Distribution and habitats. Generally distributed (region not mentioned), honeybee hives (Mosaddegh 1998; Kamali *et al.* 2001). **Alborz, Ardabil, Isfahan Guilan, Khorasan (Suoth, North and Razavi), Kurdistan, Mazandaran, Sistan va Balouchistan and Tehran Provinces** (region not mentioned), *Apis mellifera* (Farjamfar *et al.* 2017). **Ardabil, Alborz, Markazi, North Khorasan, Qazvin, Qom, and Semnan Provinces** (region not mentioned), from stayed apiaries without migration (Dadgostar and Nozari 2018). **Isfahan Province** (Isfahan), soil of urban green spaces (Karbasian *et al.* 2022). **Tehran Province** (region not mentioned), honeybee hives (Rahmani *et al.* 2006).

Note [quoted from Kazemi and Rajaei (2013) and follow here] – “Anderson & Trueman (2000) demonstrated that most of the previously named *V. jacobsoni* Oudemans, 1904 are a different species, *V. destructor*, that are significantly larger and their females less spherical in body shape than females of *V. jacobsoni*, and they are also reproductively isolated from females of the latter species. Likewise, they identified *V. destructor* infested Western honeybee (*Apis mellifera* L.) in Europe, the Middle East, Africa, Asia, and the Americas. Also, Rahmani *et al.* (2006) showed *A. mellifera* in Tehran Province is only infested by *V. destructor*. So, the authors following their findings removed *V. jacobsoni* from the current work”.

Superfamily Eviphidoidea Berlese, 1913

Family Eviphididae Berlese, 1913a

Genus *Alliphis* Halbert, 1923

Alliphis carinatus Mašán & Babaeian, 2016

Distribution and habitats. **Khuzestan Province** (Ahvaz City, Shahid Chamran University), on *Copris* sp. (Mašán *et al.* 2016).

Alliphis halleri (G. & R. Canestrini, 1881)

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord region, Saman City), soil of ants' nest, *Tapinoma* sp. (Hym.: Formicidae) (Khalili-Moghadam and Nemati 2014b; Khalili-Moghadam and Saboori 2015); (Koohrang, Dimeh, Samsami (Dezhadaran), Sodejan; Saman, Hoseinabad, Gharaghoosh; Shahrekord, Nafch; Ben, Bardeh, Karsenak; Kiar, Gahroo, Kharaji), in soil and rooting wood in association with *Camponotus bakhtiyariensis*; *Camponotus xerxes*; *L. neglectus*; *M. platyceras*; *P. koshewnikovi*; *Plagiolepis pallescens*; *Solenopsis* sp. (Khalili-Moghadam 2022); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b). **East Azarbaijan Province** (forests of Arasbaran region), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017). **Fars Province** (Estahban), associated with fig trees, soil, leaves, fruits, and trunk samples (Daneshnia and Akrami 2013); (Koohmare-Sorkhi region), oak forests (Kazemi and Yazdanpanah 2013b); (Koohmare-Sorkhi region, oak forest), soil and leaf litter (Yazdanpanah and Kazemi 2014a); (region not mentioned), soil and debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Golestan Province** (Gorgan), soil (Kazemi *et al.* 2011a); (region not mentioned), associated with ornamental plants (Hamidi *et al.* 2013). **Hamedan Province** (Sarab Gamasiab of Nahavand vicinity), from soil and litter of Chicory, *Cichorium intybus* L. (Masoudian and Khanjani 2013). **Isfahan Province** (Kashan region, Hanjan; Jowshaqan; Niyasar and Qamsar), rose and almond plantations, turnip and tomato patches (Abutaleb Kermani *et al.* 2017); (Isfahan), soil of urban green spaces (Karbasian *et al.* 2022). **Kerman Province** (Baft), soil (Rajaei *et al.* 2011b); (Jiroft), soil and litter (Kazemi and Rajaei 2013); (Kerman), cow

manure (Arjomandi *et al.* 2013a); (Rafsanjan), soil, manure and litter (Masnavipour *et al.* 2014); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Lorestan Province** (Khorramabad), orchard, oak forest, ant nest and field (Hasanvand *et al.* 2015). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012). **Tehran Province** (Tehran, Shahid Beheshti University Campus), soil (Kamali *et al.* 2004); (Tehran City, Police Park), soil (Maleki *et al.* 2016); (Damavand County, Jilard), humus, soil, leaf litter (Damavand County, Guilavand), humus, soil, leaf litter and manure; (Damavand County, Jaban), garden soil; (Damavand County, Sorkheh Deh), farm soil, ant nest (Mousavi *et al.* 2021).

Note – Kazemi and Rajaei (2013) showed that *Alliphis transversus* Halliday, 2010 and *A. siculus* (Oudemans, 1905) do not occur in Iran, so these species have been removed from our list in this paper.

Records of *Alliphis halleri* which previously reported as *Alliphis siculus*.

Distribution and habitats. **Seventeen different Provinces in Iran**, beehives debris (Ostovan and Mossadegh 1999). Region not mentioned, honeybee hives (Kamali *et al.* 2001); (Rafsanjan), soil of fruit orchards (Mohammadi *et al.* 2012). **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001). **Fars Province** (Marvdasht, Islamic Azad University, Fars Science and Research Branch), soil and decayed plants associated with conifers (Amirazodi and Ostovan 2012); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Hamedan Province** (region not mentioned), soil of wild *Trifolium* sp. and alfalfa (Kamali *et al.* 2001). **Isfahan Province** (Najaf Abad, Goldasht, Qale'e Sefid, Zarrinshahr, Mobarake), soil of fruit orchards (Jalaeian *et al.* 2006). **Markazi Province** (Arak), soil (Seifori *et al.* 2006). **West Azarbaijan Province** (Urmia), house dust (Kamali *et al.* 2001).

Records of *Alliphis halleri* which previously reported as *Alliphis transversus* Halliday, 2010.

Distribution and habitats. **Kerman Province** (Jiroft), soil (Balooch Shahryari *et al.* 2012).

Alliphis kargi Arutunian, 1991

Distribution and habitats. **Alborz Province** (Taleqan region), associated with *Scarabaeus pius* (Illiger, 1803) (Farmahiny-Farahani *et al.* 2022b).

Alliphis scarabaeorum Ogandzhanyan, 1969

Distribution and habitats. **Kerman, Golestan, Khuzestan, North and Razavi Khorasan Provinces** (regions not mentioned), associated with scarab beetles of the genus *Scarabaeus* L. (Kazemi and Payandeh 2014).

Alliphis sp.

Distribution and habitats. **Alborz Province** (Taleqan region), associated with *Scarabaeus pius* (Illiger, 1803) and *Scarabaeus typhon* (Fischer, 1823) (Farmahiny-Farahani *et al.* 2022b).

Genus *Copriphs* Berlese, 1910a

***Copriphs falcinellus* (R. Canestrini & G. Canestrini, 1882b)**

Distribution and habitats. **Lorestan Province** (Selseleh County, Aleshtar City, Garrin Mountain, Soltan Taher region), phoretic on an unidentified dung beetle (Scarabaeidae) (Ghasemi Moghadam *et al.* 2016).

***Copriphs hastatellus* Berlese, 1910a**

Distribution and habitats. **Kerman Province** (Jiroft), associated with beetles of *Heliocopris gigas* (L.) (Kazemi 2017).

***Copriphs cultratellus* Berlese, 1910a**

Distribution and habitats. **Razavi Khorasan Province** (Sarakhs, Torbat Heydariyeh), ex. *Scarabaeus transcaspicus* Stolfi (Kazemi *et al.* 2008e).

Note – This species was previously recorded by Kazemi *et al.* (2008f) under the genus *Eviphis* Berlese, 1903.

***Copriphs* sp.**

Distribution and habitats. **Alborz Province** (Taleqan region), associated with *Scarabaeus pius* (Illiger, 1803) (Farmahiny-Farahani *et al.* 2022b).

Genus *Cryptoseius* Makarova, 1998***Cryptoseius khayyami* Kazemi & Moraza, 2008**

Distribution and habitats. **Razavi Khorasan Province** (Torbat Heydariyeh, Feiz Abad), ex. *S. transcaspicus* (Kazemi *et al.* 2008g).

Genus *Eviphis* Berlese, 1903a***Eviphis ostrinus* (Koch, 1835)**

Distribution and habitats. **Mazandaran Province** (Dimron region), soil (Kazemi and Ahangaran 2013).

Genus *Evimirus* Karg, 1963***Evimirus uropodinus* (Berlese, 1903a)**

Distribution and habitats. **Fars Province** (Northwestern of Province), soil and debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Golestan Province** (Gorgan), soil (Kazemi *et al.* 2011a). **Golestan and Mazandaran Provinces** (region not mentioned), soil and litter (Kazemi *et al.* 2012); (Nowshahr, Ecological (Botanical) Garden), soil and litter (Sabeti *et al.* 2016). **Guilan Province** (Moein Hotel-Fuman, Otaghvar-Langrud), soil of tea (Hajizadeh *et al.* 2020); (Rasht, Lakan village), soil; (Jirdeh village, Pir Bazar village), litter; (Isfahani Educational Institute), wood sorrel, *O. acetosella* leaves; (Rasht, Bijar Bonch village), soil, cucumber, *C. sativus* leaves (Ghasemi and Hajizadeh 2021). **Tehran Province** (Tehran, Sorkhe Hesar Forest Park), soil (Pakyari *et al.* 2006a, b); (Tehran, Deh Vanak), soil and litter (Kazemi and Rajaei 2013); (region not mentioned), associated with ornamental plants (Hamidi *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016); (Damavand County, Jilard), humus, soil, leaf litter; (Damavand County, Damavand), humus soil, manure (Mousavi *et al.* 2021).

Genus *Metacryptoseius* Kazemi & Moraza, 2008***Metacryptoseius khorasanicus* Kazemi & Moraza, 2008**

Distribution and habitats. **Mazandaran Province** (Galugah), ex. *S. transcaspicus* (Kazemi *et al.*

2008g). **Razavi Khorasan Province** (Torbat Heydariyeh, Feiz Abad, Sarakhs, Bazangan Lake coast), ex. *S. transcaspicus* (Kazemi *et al.* 2008g).

***Metacryptoseius persicus* Kazemi & Moraza, 2008**

Distribution and habitats. **Golestan Province** (Golestan forest), ex. *S. transcaspicus*, (Naharkhoran Forest), ex. *Herpalus* sp., (Daland forest), ex. *Osphranteria coerulescens* Redtenbacker (Bahrami *et al.* 2011). **North Khorasan Province** (Esfarayen), ex. *S. transcaspicus* (Kazemi *et al.* 2008g). **Razavi Khorasan Province** (Sarakhs, Bazangan Lake Coast), ex. *Copris hispanus* L. (Kazemi *et al.* 2008g).

Genus *Pedoniphis* Joharchi, Mařán & Babaeian, 2014

***Pedoniphis persicus* Joharchi, Mařán & Babaeian, 2014**

Distribution and habitats. **West Azarbaijan Province** (Ardabil, Sabalan Mountains), in sandy soil (Joharchi *et al.* 2014a).

Genus *Pelethiphis* Berlese, 1911a

***Pelethiphis opucus* Koyumdjieva, 1981**

Distribution and habitats. **Khuzestan Province** (Ahvaz), from *Copris* sp. (Kazemi *et al.* 2013b).

Genus *Pseudoalliphis* Mařán & Halliday, 2009

***Pseudoalliphis sculpturatus* (Karg, 1963)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (region not mentioned), soil and litter (Nemati *et al.* 2014); (Ben, Larak; Koohrang, Dashte laleh, Baghchendar; Lordegan, Ooreh), in soil and rooting wood in association with ants *Cataglyphis fritillariae*; *M. platyceras*; *P. koshewnikovi*; *T. karavaievi* (Khalili-Moghadam 2022); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b).

Genus *Scamaphis* Karg, 1976

***Scamaphis equestris* (Berlese, 1911a)**

Distribution and habitats. **Golestan Province** (Gorgan, Naharkhoran forest), ex. *Geotrupes spiniger* (Marsham) (Kazemi *et al.* 2013c).

Genus *Scarabaspis* Womersley, 1956

***Scarabaspis inexpectatus* (Oudemans, 1903c)**

Distribution and habitats. **Golestan Province** (Gorgan, Ziyarat Village), ex. *E. gibbosus* and *Caccobius schreiberi* (L.), (Gorgan, Dangelan Village), ex. *Geotrupes* sp. (Bahrami *et al.* 2011). **Kerman Province** (Kerman), cow manure (Arjomandi *et al.* 2013a). **North Khorasan Province** (Esfarayen), ex. *Euonthophagus gibbosus* (Scriba) (Kazemi *et al.* 2008d); (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012). **Tehran Province** (Damavand County, Sorkheh Deh), farm soil, ant nest (Mousavi *et al.* 2021).

***Scarabasapis* sp.**

Distribution and habitats. **Alborz Province** (Taleqan region), associated with *Scarabaeus pius* (Illiger, 1803) and *Scarabaeus typhon* (Fischer, 1823) (Farmahiny-Farahani *et al.* 2022b).

Genus *Uroiphis* Berlese, 1903a***Uroiphis scabratus* Berlese, 1903a**

Distribution and habitats. **Fars Province** (Koohmare-Sorkhi region), soil and litter of oak forests (Yazdanpanah and Kazemi 2014b).

Family Macrochelidae Vitzthum, 1930**Genus *Geholaspis* Berlese, 1918*****Geholaspis pennulatus* Babaeian, Halliday & Saboori, 2015**

Distribution and habitats. **Mazandaran Province** (Nowshahr Kheyroodkenar forest), leaf-litter (Babaeian *et al.* 2015).

Genus *Glypholaspis* Filipponi & Pegazzano, 1960***Glypholaspis americana* (Berlese, 1888b)**

Distribution and habitats. **Fars Province** (Darab), soil, (Kazemi and Rajaei 2013). **Golestan Province** (Gorgan), soil (Kazemi *et al.* 2011a); (Ziyarat Village), ex. *E. gibbosus* (Bahrami *et al.* 2011); (Kalale), cow and sheep manure (Zakeri *et al.* 2011). **Mazandaran Province** (Nowshahr), soil (Ahangaran *et al.* 2010a); rotten cow dung and tea (Ahangaran *et al.* 2012); (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Saber *et al.* 2016). **Tehran Province** (Tehran), soil, leaf-litter, decomposing organic matter, manure and ex. unknown scarab beetles (Ostovan and Farzane 2004); (Tehran, Sorkhe Hesar Forest Park), soil (Pakyari *et al.* 2008); (region not mentioned), associated with ornamental plants (Hamidi *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016).

***Glypholaspis confusa* (Foá, 1900)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), dung (Babaeian *et al.* 2011). **Fars Province** (Kazerun), putrid onion (Kamali *et al.* 2001); (Ramjerd), manure, soil and leaf-litter (Sobhani *et al.* 2011, 2017); (Kharameh region), sandy clay soil under pistachio trees (Alinezhad *et al.* 2023). **Golestan Province** (Ziyarat Village), ex. *E. gibbosus* (Bahrami *et al.* 2011); (Minudasht), soil; (Kalale), cow and sheep manure; (Gonbad Kavus), cow manure; (Galikesh), manure (Zakeri *et al.* 2011); (Gorgan, Shast Kola forest), ex. *P. olivieri* Castelnau (Kazemi and Rajaei 2013). **Guilan Province** (Rasht, Pir Bazar village, Bijar Bonch village, and Keshel Varzal village), soil (Ghasemi and Hajizadeh 2021); (Astaneh-ye Ashrafiyeh, Kashel, Azadmahalleh), soil of peanut plant (Askari *et al.* 2023). **Khuzestan Province** (Bavi, Mollasani), cow manure, buffalo manure and sheep manure; (Ahvaz, dairy farm at Shahid Chamran University campus), cow manure; (Bavi, Shajaraat), buffalo manure; (Hamidieh), poultry manure; (Hamidieh, Gambue), cow manure and sheep manure; (Hamidieh, Pich-e Seyyed Jaber), cow manure; (Ahvaz, Alhaei), cow manure; (Shush, Seyyed Abbas), buffalo manure; (Bavi, Naddafieh), cow manure and sheep manure; (Ahvaz, Nabi-ye Akram village), cow manure; (Bavi, Veys), cow manure; (Ahvaz, Haatam village), sheep manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle, buffalo, sheep and poultry manure (Farahi *et al.* 2022). **Mazandaran Province** (Nowshahr), soil (Ahangaran *et al.* 2010a); horse manure, alder (*Alnus*

sp.) and *Parrotia persica* leaf litter (Ahangaran *et al.* 2012). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012). **Qom Province** (region not mentioned), soil, dung, compost and plantlitters of crops, lawns, shrubs and trees in farms, forests, orchards and parks (Agha Alikhani *et al.* 2017). **Tehran Province** (Tehran), soil, leaf-litter, decomposing organic matter, manure and ex. unknown scarab beetles (Ostovan and Farzane 2004); (Damavand County, Absard), soil, leaf litter (Mousavi *et al.* 2021).

Genus *Holocelaeno* Berlese, 1910a

***Holocelaeno melisi* Berlese, 1910a**

Distribution and habitats. **West Azarbaijan Province** (Urmia University), soil (Mirfakhraie 2017).

Genus *Holostaspella* Berlese, 1903a

***Holostaspella bifoliata* (Trägårdh, 1952)**

Distribution and habitats. **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006). **Guilan Province** (Manjil, Fouman, Lishavandan), soil (Hajizadeh *et al.* 2009a). **Isfahan Province** (Goldasht), foliage of trees, weeds and soil of orchards (Jalaeian *et al.* 2004a). **Kerman Province** (Jiroft), soil (Balooch Shahryari *et al.* 2012); (region not mentioned), soil and manure (Hosseinpour and Latifi 2014); (Shahr-e-Babak), soil and manure (Masnavipour *et al.* 2014). **Mazandaran Province** (Nowshahr), soil (Ahangaran *et al.* 2010a); alder (*Alnus* sp.) and Mediterranean cypress (*Cupressus sempervirens*) leaf litter (Ahangaran *et al.* 2012). **Tehran Province** (Tehran), soil, leaf-litter, decomposing organic matter, manure and ex. unidentified scarab beetles (Ostovan and Farzane 2004).

***Holostaspella exornata* Filipponi & Pegazzano, 1967**

Distribution and habitats. **Lorestan Province** (Selseleh, Aleshtar, Gereyrān Village), phoretic on an unidentified dung beetle (Scarabaeidae) (Ghasemi Moghadam *et al.* 2016).

***Holostaspella ornata* (Berlese, 1904a)**

Distribution and habitats. **Fars Province** (Marvdasht, Islamic Azad University, Fars Science and Research Branch), soil (Soleimani *et al.* 2010a); (Marvdasht), soil (Soleimani *et al.* 2011). **Guilan Province** (Eshkavarat, Astara), soil of hazelnut orchard (Arjimandi-Nezhad and Babaeian 2014). **Tehran Province** (region not mentioned), associated with ornamental plants (Hamidi *et al.* 2013).

Genus *Longicheles* Valle, 1953

***Longicheles hortorum* (Berlese, 1904a)**

Distribution and habitats. **Tehran Province** (Tehran, Jamshidiyeh Park), soil and litter (Kazemi 2011); (Damavand County, Guilavand), humus, soil, leaf litter and manure; (Damavand County, Damavand), soil; (Damavand County, Cheshmeh Ala), Garden soil; (Damavand County, Damavand), humus soil, manure; (Damavand County, Atabak), leaf litter; (Damavand County, Garmabsard), soil and leaf litter (Mousavi *et al.* 2021).

***Longicheles* cf. *longulus* (Berlese, 1887a)**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran forests region), soil, leaf-litter and

plant debris (Ordoukhanian *et al.* 2017).

***Longicheles mandibularis* (Berlese, 1904a)**

Distribution and habitats. **Isfahan Province** (Kashan), soil (Sekonji *et al.* 2011).

Genus *Macrholaspis* Oudemans, 1931

***Macrholaspis reckei* (Bregetova & Koroleva, 1960)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), leaf-litter (Babaeian *et al.* 2011). **East Azarbaijan Province** (Tabriz), soil and foliage of poplar and elm trees (Rahbar Shahlan *et al.* 2014); (Arasbaran Forests, Kalaleh), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a). **Fars Province** (Northwestern), soil and debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Guilan Province** (Astara), soil from pine forest; (Ponel) soil; (Masule, Komadur) soil from a walnut orchard; (Hashtpar), soil from a cherry orchard (Faraji *et al.* 2008c); (Talish, Narges Abad), soil (Hajizadeh *et al.* 2009a); (Eshkavarat, Astara), soil of hazelnut orchard (Arjimandi-Nezhad and Babaeian 2014). **Isfahan Province** (Kashan, Qamsar), apricot plantation (Abutaleb Kermani *et al.* 2017). **Kerman Province** (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Tehran Province** (Damavand County, Jilard), humus, soil, leaf litter; (Damavand County, Guilavand), humus, soil, leaf litter and manure; (Damavand County, Damavand), humus soil, manure; (Damavand County, Sorkheh Deh), farm soil, ant nest; (Damavand County, Garmabsard), soil and leaf litter (Mousavi *et al.* 2021).

Note – This species has been reported by some authors under the genus *Macrocheles* Latreille, 1829.

***Macrholaspis terreus* (Canestrini & Fanzago, 1877a)**

Distribution and habitats. **Kerman Province** (region not mentioned), soil (Hosseinpour and Latifi 2014).

Genus *Macrocheles* Latreille, 1829

***Macrocheles baliensis* Takaku & Hartini, 2001**

Distribution and habitats. **Khuzestan Province** (Ahvaz), ex. *Copris* sp. (Babaeian *et al.* 2011).

***Macrocheles caelatus* Berlese, 1918**

Distribution and habitats. **Kerman Province** (Kerman City, Shahid Park) in soil and litter (Saeed and Kazemi 2019).

***Macrocheles cristati* Costa, 1967**

Distribution and habitats. **Razavi Khorasan Province** (Feiz Abad), ex. *S. transcaspicus* (Kazemi 2011).

***Macrocheles glaber* (Müller, 1860)**

Distribution and habitats. Region not mentioned, Honeybee hives (Mosaddegh 1997; Kamali *et al.* 2001). **Alborz Province** (Mohammad Shahr, Mallard), compost (Kheradmand *et al.* 2007).

Chaharmahal va Bakhtiyari Province (Shahrekord), dung (Babaeian *et al.* 2011); (Saman), soil (Shariati *et al.* 2017). **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001); (Arasbaran Forests, Kalaleh, Garmanab), soil and plant debris (Mohammad-Doustasharaf *et al.* 2016a). **Fars Province** (Marvdasht), soil (Soleimani *et al.* 2011); (Ramjerd), manure, soil and leaf-litter (Sobhani *et al.* 2011, 2017); (Doroodzan), soil of fields (Asadpoor *et al.* 2012); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Golestan Province** (Gorgan), soil (Kazemi *et al.* 2011a); (Ziyarat, Bandar Torkaman, Galand), ex. *E. gibbosus*; (Roshan Abad), ex. *O. cinctella*; (Ghrogh forest), ex. unidentified cerambycid beetle (Bahrami *et al.* 2011); (Kalale), cow manure; (Gonabad), camel and cow manure; (Galikesh), manure (Zakeri *et al.* 2011); (Gorgan, Shast Kola Forest), ex. *Geotrupes punctcollis* Malinowski (Kazemi and Rajaei 2013). **Guilan Province** (Asalem), soil (Hajizadeh *et al.* 2009a); (Eshkavarat and Astara), soil of hazelnut orchard (Arjimandi-Nezhad and Babaeian 2014); (Astaneh-ye Ashrafiyeh, Lafut-e Bala), soil of peanut plant (Askari *et al.* 2023). **Hamedan Province** (region not mentioned), clover (*Trifolium* sp.) farms (Khanjani and Kamali 2000a; Kamali *et al.* 2001). **Isfahan Province** (Dorcheh), soil of fruit orchards (Jalaeian *et al.* 2006); (Isfahan), soil (Khalili- Moghadam *et al.* 2012). **Kerman Province** (Kerman), cow and poultry manure (Arjomandi *et al.* 2011); (Baft), soil (Rajaei *et al.* 2011b); (Bam), soil (Mehrzhad *et al.* 2012); (Kerman), cow manure and poultry manure (Arjomandi *et al.* 2013a). **Khuzestan Province** (Ahvaz), soil (Baharloo *et al.* 2006); (Ahvaz, Gavmish Abad), buffalo manure; (Ahvaz, dairy farm at Shahid Chamran University campus), cow manure; (Bavi, Mollasani), buffalo manure and sheep manure, poultry manure; (Ahvaz, Nabi-ye Akram Village), cow manure; (Susangerd, Abu Hamizeh), buffalo manure; (Shush, Khoyes), cow manure; (Bavi, Talbume), cow manure; (Ahvaz, Alhaei), cow manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle, buffalo, sheep, horse and poultry manure (Farahi *et al.* 2022). **Markazi Province** (Arak), soil (Seifori *et al.* 2006); (Arak region), soil (Jadidi and Joharchi 2014). **Mazandaran Province** (Nowshahr), soil (Ahangaran *et al.* 2010a); cow manure, maple (*Acer*), alder (*Alnus*) and beech (*Fagus* sp.) leaf litter (Ahangaran *et al.* 2012); (Noor Forest Park), ex. *P. olivieri* and *Onthophagus* sp. (Kazemi and Rajaei 2013). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012); (Bojnurd, Esfidan), ex. *Onthophagus* sp. (Kazemi and Rajaei 2013). **Razavi Khorasan Province** (Mashhad), soil (Abbaspour *et al.* 2017). **Tehran Province** (Tehran), soil, leaf-litter, decomposing organic matter, manure and ex. unidentified scarab beetles (Kamali *et al.* 2001; Ostovan and Farzane 2004); (Tehran), associated with cucumber greenhouses (Ostovan 2006a); (Tehran, Sorkhe Hesar Forest Park), soil (Pakyari *et al.* 2008); (Tehran, Tarbiat Modares University, Faculty of Agriculture), cow manure (Kazemi and Rajaei 2013); (Damavand County, Jilard), humus, soil, leaf litter; (Damavand County, Veliran), soil and humus; (Damavand County, Damavand), soil; (Damavand County, Ureh and Garmabsard), soil and leaf litter; (Damavand County, Damavand), humus soil, manure; (Damavand County, Absard), soil, leaf litter; (Damavand County, Jaban), garden soil (Mousavi *et al.* 2021). **West Azarbaijan Province** (Urmia), house dust (Kamali *et al.* 2001).

Macrocheles insignitus Berlese, 1918

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), dung (Babaeian *et al.* 2011); (Saman), soil (Shariati *et al.* 2017). **East Azarbaijan Province** (Southwest), soil (Hashemi Khabir *et al.* 2013). **Fars Province** (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Golestan Province** (Shast-Kola), ex. *E. gibbosus*; (Ziyarat Village), ex. *Onthophagus* sp. (Bahrami *et al.* 2011). **Guilan Province** (Eshkavarat, Astara), soil of hazelnut orchard (Arjimandi-Nezhad and Babaeian 2014); (Rasht; Omesheh village), soil (Ghasemi and Hajizadeh 2021); (Rasht), associated with beetles from Chrysomelidae, Carabidae, Staphylinidae and Formicidae (Hajizadeh and Hosseini 2022); (Astaneh-ye Ashrafiyeh, Kiashahr), soil of peanut plant (Askari *et al.* 2023). **Isfahan Province** (Kashan, Qamsar), apricot plantation (Abutaleb Kermani *et al.* 2017); (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022). **Kerman Province** (Shahrehabak, Sirjan,

Rafsanjan), soil (Masnavipour *et al.* 2011); (Rafsanjan), soil of fruit orchards (Mohammadi *et al.* 2012); (region not mentioned), soil and manure (Hosseinpour and Latifi 2014); (Sirjan, Rafsanjan, Shahr-e-Babak), soil and manure (Masnavipour *et al.* 2014). **Lorestan Province** (Khorramabad), manure (Hasanvand *et al.* 2015). **Mazandaran Province** (Nowshahr), soil (Ahangaran *et al.* 2010a); horse manure (Ahangaran *et al.* 2012). **North Khorasan Province** (Mane and Samalghan, Havar Village), ex. *O. cinctella* (Kazemi and Rajaei 2013). **Tehran Province** (Tehran City, Police Park), soil (Maleki *et al.* 2016). **Zanjan Province** (region not mentioned), soil (Rahmani and Zare 2011).

***Macrocheles mammifer* Berlese, 1918**

Distribution and habitats. **Guilan Province** (Eshkavarat, Astara), soil of hazelnut orchard (Arjimandi-Nezhad and Babaeian 2014). **Markazi Province** (Sāveh County, Āveh region), vermicompost (Ahadiyat *et al.* 2014a). **Tehran Province** (Tehran City, District 18 and 19 of Tehran Municipality, Moallem Boulevard, Ghāem Park and Khordād Street), vermicompost (Ahadiyat *et al.* 2014a).

***Macrocheles matrius* Hull, 1925**

Distribution and habitats. **Razavi Khorasan Province** (Mashhad), ex. *Pentodon* sp. (Kazemi 2011).

***Macrocheles merdarius* (Berlese, 1889)**

Distribution and habitats. **Northeast of Iran** (region not mentioned), stored food products (Khaleghabadian *et al.* 2013). **Alborz Province** (Shahryar), compost (Kheradmand *et al.* 2007). **Chaharmahal va Bakhtiyari Province** (Shahrekord), dung (Babaeian *et al.* 2011); (Saman), soil (Shariati *et al.* 2017). **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001). **Fars Province** (Kazerun), stored onion (Kamali *et al.* 2001); (Jahrom), soil of citrus orchards (Khademi *et al.* 2006); (Marvdasht), soil (Soleimani *et al.* 2011); (Ramjerd), manure, soil and leaf-litter (Sobhani *et al.* 2011, 2017); (Marvdasht, Islamic Azad University, Fars Science and Research Branch), soil and decayed plants associated with conifers (Amirazodi and Ostovan 2012); (Doroodzan), soil of fields (Asadpoor *et al.* 2012); (Sepidan, Homayjan), foliage, soil, leaf-litter, weeds and soil of apple trees (Maneshi *et al.* 2012); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Golestan Province** (Gorgan), soil (Kazemi *et al.* 2011a); (Dangelan Village), ex. *E. gibbosus*; (Alang Darreh Forest), ex. *P. olivieri*; (Roshan Abad), ex. *O. cinctella* (Bahrami *et al.* 2011); (Galikesh), cow manure; (Kalale), cow and sheep manure; (Gonbad), manure (Zakeri *et al.* 2011); (Gorgan, Shast Kola Forest), ex. *P. olivieri* (Kazemi and Rajaei 2103). **Guilan Province** (Talish, Jokandan, Fouman, Lishavandan), stored rice, rice dust and debris (Noei *et al.* 2008); soil (Hajizadeh *et al.* 2009a); (Eshkavarat, Astara), soil of hazelnut orchard (Arjimandi-Nezhad and Babaeian 2014); (Rasht, Pasikhan village), soil; (Rasht, Imam Khomeini Institute and Pir Bazar village), litter (Ghasemi and Hajizadeh 2021); (Astaneh-ye Ashrafiyeh, Kashel, Azadmahalleh, Nabi Dehga, Salestan), soil of peanut plant (Askari *et al.* 2023). **Hormozgan Province** (Minab), associated with soil under mango trees (Dolati and Ostovan 2017b). **Isfahan Province** (Dorcheh, Zarrinshahr), soil of fruit orchards (Jalaeian *et al.* 2006); (Isfahan), soil (Khalili-Moghadam *et al.* 2012); (Jowshaqan, Kashan), empty pastures and vineyards (Abutaleb Kermani *et al.* 2017). **Kerman Province** (Sirjan, Pariz, Shahrehabak, Rafsanjan), soil (Masnavipour *et al.* 2011); (Kerman), cow, sheep and poultry manure (Arjomandi *et al.* 2011); (Baft), soil (Rajaei *et al.* 2011b); (Bam), soil (Mehrzaad *et al.* 2012); (Jiroft), soil (Balooch Shahryari *et al.* 2012); (Kerman County), cow manure and poultry manure (Arjomandi *et al.* 2013a); (Kerman City, parks and landscapes), soil (Arjomandi and Kazemi 2014b); (region not mentioned), soil and manure (Hosseinpour and Latifi 2014); (Sirjan, Rafsanjan, Shahre-Babak), soil, manure and decaying wood (Masnavipour *et al.* 2014); (Mahan City), soil of gardens, field and green

space (Mojaz and Kazemi 2020). **Khuzestan Province** (Bavi, Mollasani), sheep manure, cow manure, and buffalo manure; (Ahvaz, dairy farm at Shahid Chamran University campus), buffalo manure and cow manure; (Ahvaz, Gavmish Abad), cow manure; (Ahvaz, Daghighaleh), cow manure; (Ahvaz, Jassaniyeh-ye Bozorg), cow manure; (Hamidieh, Gambue), cow manure; (Hamidieh), sheep manure and buffalo manure; (Shushtar, Arab Hassan), cow manure; (Ahvaz, Alhaei), cow manure; (Shush, Seyyed Abbas), cow manure, (Shush, Abdolkhan), cow manure; (Shushtar, Band-e Qir), cow manure; (Ahvaz, Ebadeh), sheep manure; (Hamidieh, Pich-e Seyyed Jaber), buffalo manure; (Hamidieh, Tarrahiyeh), buffalo manure; (Bavi, Veys), cow manure; (Ahvaz, Gavmish Abad), buffalo manure; (Bavi, Gabir), cow manure; (Ahvaz, Nabi-ye Akram village), poultry manure; (Bavi, Shajaraat), cow manure; (Bavi, Naddafieh), sheep manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle, buffalo, sheep, horse and poultry manure (Farahi *et al.* 2022). **Lorestan Province** (Khorramabad), orchard, oak forest, ant nest and manure (Hasanvand *et al.* 2015). **Markazi Province** (Arak), soil (Seifori *et al.* 2006); (Arak region), soil (Jadidi and Joharchi 2014). **Mazandaran Province** (Nowshahr), soil (Ahangaran *et al.* 2010a); horse and cow manure (Ahangaran *et al.* 2012). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012); (region not mentioned), associated with *Onthophagus* sp. (Scarabaeidae) and *Xylocopa* sp. (Apidae) (Rezaei *et al.* 2016). **Qom Province** (region not mentioned), soil, dung, compost and plant-litters of crops, lawns, shrubs and trees in farms, forests, orchards and parks (Agha Alikhani *et al.* 2017). **Razavi Khorasan Province** (Gonabad, Rahn Village), ex. *O. cinctealla* (Kazemi and Rajaei 2103); (Mashhad), stored food products (Khaleghabadian *et al.* 2015). **Sistan and Baluchestan Province** (Sistan region), soil (Arjmandi Nejad *et al.* 2006, 2008); (Sistan region), stored products (Sayadi *et al.* 2012). **Tehran Province** (Tehran), soil, leaf-litter, decomposing organic matter, manure and ex. unidentified scarab beetles (Ostovan and Farzane 2004). **West Azarbaijan Province** (Khoy), soil of sunflower fields (Taher *et al.* 2012); (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012). **Zanjan Province** (region not mentioned), soil (Rahmani and Zare 2011).

Macrocheles muscaedomesticae (Scopoli, 1772)

Distribution and habitats. **Northeast of Iran** (region not mentioned), associated with stored food products (Khaleghabadian *et al.* 2013). **Bushehr Province** (region not mentioned), nests or body of fresh and pinned museum specimens of different Coleoptera (Scarabaeidae and Carabidae), Hymenoptera (Formicidae) and Orthoptera (Gryllidae and Acrididae) (Nemati and Babaeian 2010). **Chaharmahal va Bakhtiari Province** (region not mentioned), nests or body of fresh and pinned museum specimens of different Coleoptera (Scarabaeidae and Carabidae), Hymenoptera (Formicidae) and Orthoptera (Gryllidae and Acrididae) (Nemati and Babaeian 2010); (Shahrekord), dung (Babaeian *et al.* 2011); (Saman), soil (Shariati *et al.* 2017). **East Azarbaijan Province** (region not mentioned), soil (Kamali *et al.* 2001). **Fars Province** (Ramjerd), manure, soil and leaf-litter (Sobhani *et al.* 2011, 2017); (Shiraz), potato, zucchini, flour and the floor of insectariums (Granpayeh *et al.* 2012); (Doroodzan), soil of fields (Asadpoor *et al.* 2012); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Golestan Province** (Roshan Abad), ex. *Pentodon* sp. (Ali Abad Katoul, Kaboud Val); ex. *M. melolontha*; (Nasr Abad) *Geotrupes* sp. (Bahrami *et al.* 2011); (Gonbad Kavus, Galikesh), manure (Zakeri *et al.* 2011). **Guilan Province** (Sangar, Gil Pardehsar), soil (Hajizadeh *et al.* 2009a); (Eshkavarat, Astara), soil of hazelnut orchard (Arjimandi-Nezhad and Babaeian 2014); (Rasht, Omesheh village), soil; (Rasht, Imam Khomeini Institute and Bijar Bonch village), litter (Ghasemi and Hajizadeh 2021); (Astaneh-ye Ashrafiyeh, Kashel, Azadmahalleh, Lafut-e Bala), soil of peanut plant (Askari *et al.* 2023). **Isfahan Province** (Kashan region (Jowshaqan and Qamsar)), empty pastures and tomato patches (Abutaleb Kermani *et al.* 2017). **Kerman Province** (Kerman), cow manure (Arjomandi *et al.* 2011); (Baft), soil (Rajaei *et al.* 2011b);

(Kerman County), cow manure and poultry manure (Arjomandi *et al.* 2013a); (region not mentioned), soil and manure (Hosseinpour and Latifi 2014). **Khuzestan Province** (Ahvaz), soil (Baharloo *et al.* 2006); (region not mentioned), nests or body of fresh and pinned museum specimens of different Coleoptera (Scarabaeidae and Carabidae), Hymenoptera (Formicidae) and Orthoptera (Gryllidae and Acrididae) (Nemati and Babaeian 2010); (Ahvaz, dairy farm at Shahid Chamran University campus), cow manure; (Bavi, Mollasani), poultry manure, cow manure, buffalo manure, and sheep manure; (Ahvaz), horse manure; (Ahvaz, Gavmish Abad), buffalo manure; (Shush, Khavar-e Seyyed Khalaf), cow manure, cow manure; (Bavi, Shajaraat), buffalo manure; (Ahvaz, Ebadeh), cow manure; (Bavi, Gabir), sheep manure and cow manure; (Shush, Beyt-e Juhi), cow manure; (Ahvaz; Jassaniyeh-ye Kuchak), cow manure; (Hamidieh), cow manure and buffalo manure; (Ahvaz, Jassaniyehye Bozorg), cow manure; (Ahvaz, Daghighheleh), cow manure; (Hamidieh, Gambue, cow manure; (Dasht-e Azadegan, Susangerd), sheep manure and cow manure; (Shushtar, Arab Hassan), sheep manure; (Hamidieh, Tarrahiyeh), cow manure; (Hamidieh, Pich-e Seyyed Jaber), cow manure; (Shush, Khoyes), buffalo manure and cow manure; (Ahvaz, Alhaei), cow manure; (Shush, Seyyed Abbas), buffalo manure and cow manure; (Shushtar, Band-e Qir), cow manure and sheep manure; (Bavi, Talbume), cow manure; (Susangerd, Abu Hamizheh), cow manure; (Bavi, Veys), cow manure; (Bavi, Naddafieh), sheep manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle, buffalo, sheep, horse and poultry manure (Farahi *et al.* 2022). **Mazandaran Province** (Nowshahr), soil (Ahangaran *et al.* 2010a); cow manure, rotten tea and beech (*Fagus* sp.) leaf litter (Ahangaran *et al.* 2012). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012). **Razavi Khorasan Province** (Mashhad), stored food products (Khaleghabadian *et al.* 2015). **Tehran Province** (Tehran), honeybee hives (Mosaddegh 1997); associated with cucumber greenhouses (Ostovan 2006a); soil, leaf-litter, decomposing organic matter, manure and ex. unidentified scarab beetles (Kamali *et al.* 2001; Ostovan and Farzane 2004); (Tehran City, Police Park), soil (Maleki *et al.* 2016); (Damavand County, Jilard), humus, soil, leaf litter; (Damavand County, Damavand), humus soil, manure, leaf litter (Mousavi *et al.* 2021).

***Macrocheles nataliae* Bergetova & Koroleva, 1960**

Distribution and habitats. **Hormozgan Province** (Minab), associated with soil under mango trees (Dolati and Ostovan 2017b). **Isfahan Province** (Kashan region (Abyaneh and Aran and Bidgol)), enriched soil and pomegranate plantation (Abutaleb Kermani *et al.* 2017). **Markazi Province** (Arak); soil (Seifori *et al.* 2006).

Note – Abutaleb Kermani *et al.* (2017) reported this species as *Macrocheles* cf. *nataliae* (Koroleva, 1960).

***Macrocheles penicilliger* (Berlese, 1904a)**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Shahrekord), leaf litter (Babaeian *et al.* 2011). **East Azarbaijan Province** (region not mentioned), soil (Kamali *et al.* 2001). **Fars Province** (Doroodzan), soil of fields (Asadpoor *et al.* 2012). **Golestan Province** (Gorgan), soil (Kazemi *et al.* 2011a). **Guilan Province** (Fouman, Lishavandan, Masule, Kelorm), soil (Hajizadeh *et al.* 2009a); (Rasht, Dalechah village and Imam Khomeini Institute), litter (Ghasemi and Hajizadeh 2021); (Astaneh-ye Ashrafiyeh), soil of peanut plant (Askari *et al.* 2023). **Hamedan Province** (region not mentioned), Vetch (Kamali *et al.* 2001). **Isfahan Province** (Khomeini Shahr), soil of fruit orchards (Jalaeian *et al.* 2006). **Tehran Province** (Tehran, Jamshidiyeh Park, Ghalamestan Park), soil and litter (Kazemi and Rajaei 2013); (Damavand County, Jilard), humus, soil, leaf litter; (Guilavand), humus and soil; (Damavand County, Guilavand and Damavand), humus, soil, leaf litter and manure; (Damavand County, Damavand), humus soil, manure, leaf litter; (Damavand County, Jaban), apple garden soil; (Damavand County, Garmabsard), soil and leaf litter (Mousavi *et al.* 2021).

***Macrocheles peniculatus* Berlese, 1918**

Distribution and habitats. **Fars Province** (Marvdasht), soil (Soleimani *et al.* 2011); (Ramjerd), manure, soil and leaf-litter (Sobhani *et al.* 2011, 2017); (Marvdasht, Islamic Azad University, Fars Science and Research Branch), soil and decayed plants associated with conifers (Amirazodi and Ostovan 2012); (Doroodzan), soil of fields (Asadpoor *et al.* 2012); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Guilan Province** (Lahijan), soil, tea garden; (Shaft), soil under a pine tree; (Maklovan), soil of mulberry orchard (Faraji *et al.* 2008c); (Rasht, Andishe Park, Anzali, Hasan Rud, Sangar, Gil Pardesar), soil (Hajizadeh *et al.* 2009a); (Moein Hotel-Fuman), soil of tea (Hajizadeh *et al.* 2020); (Astaneh-ye Ashrafiyeh, Salestan), soil of peanut plant (Askari *et al.* 2023). **Markazi Province** (Arak region), soil (Jadidi and Joharchi 2014). **Tehran Province** (Tehran City, Police Park), soil (Maleki *et al.* 2016).

***Macrocheles perglaber* Filipponi & Pegazzano, 1962b**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), dung (Babaeian *et al.* 2011). **Fars Province** (Ramjerd), manure, soil and leaf-litter (Sobhani *et al.* 2011, 2017). **Isfahan Province** (Goldasht), soil of fruit orchards (Jalaeian *et al.* 2006). **Markazi Province** (Arak), soil (Seifori *et al.* 2006). **Mazandaran Province** (Nowshahr), soil (Ahangaran *et al.* 2010a); cow manure, maple (*Acer*) and alder (*Alnus*) leaf litter (Ahangaran *et al.* 2012). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012). **Tehran Province** (Tehran), soil, leaf-litter, decomposing organic matter, manure and ex. unidentified scarab beetles (Ostovan and Farzane 2004).

***Macrocheles robustulus* (Berlese, 1904a)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), dung (Babaeian *et al.* 2011). **Fars Province** (region not mentioned), stored potato (Kamali *et al.* 2001); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Golestan Province** (Roshan Abad), ex. *E. gibbosus* and *Geotrupes* sp.; (Naharkhoran forest), ex. *Herpalus* sp. (Bahrami *et al.* 2011); (Minudasht), soil; (Kalale), cow and sheep manure; (Gonbad Kavus), camel manure; (Galikesh), manure (Zakeri *et al.* 2011). **Guilan Province** (Masule, Maklovan, Fouman, Lishavandan, Rasht, Agriculture faculty of Guilen University field, Emamzade Hashem, Shaft, Rudbar, Ganje), soil (Hajizadeh *et al.* 2009a); (Eshkavarat, Astara), soil of hazelnut orchard (Arjimandi-Nezhad and Babaeian 2014); (Omesheh village), soil; (Pir Bazar village), cotton *S. codiaeum variegatum* leaves (Ghasemi and Hajizadeh 2021). **Kerman Province** (Baft), soil (Rajaei *et al.* 2011b); (region not mentioned), soil and manure (Hosseinpour and Latifi 2014). **Khuzestan Province** (Ahvaz), soil (Baharloo *et al.* 2006). **Lorestan Province** (Badrabad District), soil under cedar trees (Hasanvand *et al.* 2014b); (Khorramabad), orchard and oak forest (Hasanvand *et al.* 2015). **Markazi Province** (Arak), soil (Seifori *et al.* 2006). **Mazandaran Province** (Nowshahr), soil (Ahangaran *et al.* 2010a); chicken manure (Ahangaran *et al.* 2012). **Qom Province** (region not mentioned), soil, dung, compost and plant-litters of crops, lawns, shrubs and trees in farms, forests, orchards and parks (Agha Alikhani *et al.* 2017). **Tehran Province** (Tehran), soil, leaf-litter, decomposing organic matter, manure and ex. unidentified scarab beetles (Ostovan and Farzane 2004); (region not mentioned), associated with ornamental plants (Hamidi *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016).

***Macrocheles scutatus* (Berlese, 1904a)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), dung (Babaeian *et al.* 2011). **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006). **Golestan Province**

(Gorgan), ex. *Geotrupes* sp. (Bahrami *et al.* 2011). **Guilan Province** (Rasht), associated with beetles from Chrysomelidae, and Staphylinidae (Hajizadeh and Hosseini 2022). **Hormozgan Province** (Minab), associated with soil under mango trees (Dolati and Ostovan 2017b). **Isfahan Province** (Najaf Abad), soil of fruit orchards (Jalaeian *et al.* 2006); (Isfahan), soil (Khalili-Moghadam *et al.* 2012). **Khuzestan Province** (Ahvaz, Gavmish Abad), buffalo manure; (Bavi, Shajaraat), cow manure; (Bavi, Mollasani), buffalo manure and cow manure; (Hamidieh), cow manure and buffalo manure; (Ahvaz, Alhaei), cow manure; (Shush, Seyyed Abbas), buffalo manure; (Shush, Khoyes), sheep manure; (Bavi, Talbume), cow manure; (Hamidieh, Pich-e Seyyed Jaber), cow manure; (Hamidieh, Tarrahiyeh), buffalo manure; (Bavi, Veys), cow manure; (Bavi, Naddafieh), sheep manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle, buffalo, and sheep manure (Farahi *et al.* 2022). **Lorestan Province** (Khorramabad), oak forest, field and manure (Hasanvand *et al.* 2015). **Markazi Province** (Arak), soil (Seifori *et al.* 2006). **Mazandaran Province** (Nowshahr), soil (Ahangaran *et al.* 2010a); maple (*Acer*), alder (*Alnus*) and *Parrotia persica* leaf litter (Ahangaran *et al.* 2012). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012). **Tehran Province** (Tehran), soil, leaf-litter, decomposing organic matter, manure and ex. unidentified scarab beetles (Ostovan and Farzane 2004).

***Macrocheles subbadius* (Berlese, 1904a)**

Distribution and habitats. **Alborz Province** (Mohammad Shahr), compost (Kheradmand *et al.* 2007). **Chaharmahal va Bakhtiari Province** (Shahrekord), dung (Babaeian *et al.* 2011); (Saman), soil (Shariati *et al.* 2017). **Fars Province** (region not mentioned), putrid onion (Kamali *et al.* 2001); (Marvdasht), soil (Soleimani *et al.* 2011); (Marvdasht, Islamic Azad University, Fars Science and Research Branch), soil and decayed plants associated with conifers (Amirazodi and Ostovan 2012); (Ramjerd), manure, soil and leaf-litter (Sobhani *et al.* 2011, 2017); (Doroodzan), soil of fields (Asadpoor *et al.* 2012). **Golestan Province** (Roshan Abad), ex. *Geotrupes* sp. (Bahrami *et al.* 2011); (Kalale), cow and sheep manure; (Galikesh), cow manure; (Gonbad Kavus), cow manure (Zakeri *et al.* 2011). **Guilan Province** (Eshkavarat, Astara), soil of hazelnut orchard (Arjimandi-Nezhad and Babaeian 2014); (Rasht, Deh Baneh-ye, Eslamabad village and Pasikhan village, Bijar Bonch village), soil; (Keshel Varzal village); tomato *S. lycopersicum* leaves; (Bijar Bonch village, Jirdeh village, and Pir Bazar village), litter (Ghasemi and Hajizadeh 2021); (Astaneh-ye Ashrafiyeh, Lafut-e Bala, Nabi Dehga, Abdullah Abad, Estakher Bijar, Kashel, Azadmahalleh, Salestan, Saфра Basteh), soil of peanut plant (Askari *et al.* 2023). **Kerman Province** (Jiroft), soil (Balooch Shahryari *et al.* 2012). **Khuzestan Province** (Bavi, Mollasani), sheep manure and cow manure; (Ahvaz, dairy farm at Shahid Chamran University campus), cow manure; (Seyyed Abbas), buffalo manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle, buffalo, and sheep manure (Farahi *et al.* 2022). **Markazi Province** (Arak region), soil (Jadidi and Joharchi 2014).

***Macrocheles sumbaensis* Hartini & Takaku, 2005**

Cited in Hartini *et al.* (2005).

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Shahrekord), dung (Babaeian *et al.* 2011). **Khuzestan Province** (Ahvaz), horse manure; (Bavi, Mollasani), poultry manure and cow manure; (Ahvaz, dairy farm at Shahid Chamran University campus), cow manure; (Ahvaz, Jassaniyeh-ye Bozorg), cow manure; (Hamidieh), buffalo manure; (Ahvaz, Alhaei), sheep manure; (Shushtar, Band-e Qir), cow manure; (Shushtar, Arab Hassan), cow manure; (Bavi, Talbume), cow manure; (Bavi, Naddafieh), sheep manure; (Shush, Khoyes), sheep manure (Farahi *et al.* 2018).

***Macrocheles vernalis* (Berlese, 1887c)**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Shahrekord), ex. *Scarabaeus* sp.

and *Copris* sp. (Babaeian *et al.* 2011). **Isfahan Province** (Goldasht), foliage of trees, weeds and soil of orchards (Jalaeian *et al.* 2004a). **Mazandaran Province** (Galugah), ex. *C. hispanus* (Kazemi and Rajaei 2013). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012); (Esfarayen), ex. *S. transcaspicus* (Kazemi and Rajaei 2013). **Razavi Khorasan Province** (Taybad, Bakharz), ex. *S. transcaspicus*; ex. *S. transcaspicus*; ex. *Pleurophorus caesus* (Panzer) (Kazemi and Rajaei 2013).

Genus *Neopodocinum* Oudemans, 1902

Neopodocinum caputmedusae (Berlese, 1908)

Distribution and habitats. **Bushehr Province** (region not mentioned), nests or body of fresh and pinned museum specimens of different insects of order Coleoptera (Scarabaeidae, Carabidae), Hymenoptera (Formicidae) and Orthoptera (Gryllidae, Acrididae) (Nemati and Babaeian 2010). **Chaharmahal va Bakhtiyari Province** (region not mentioned), nests or body of fresh and pinned museum specimens of different insects of order Coleoptera (Scarabaeidae, Carabidae), Hymenoptera (Formicidae) and Orthoptera (Gryllidae, Acrididae) (Nemati and Babaeian 2010). **Golestan Province** (Shast Kola Forest), ex. *C. hispanus* (Bahrami *et al.* 2011). **Khuzestan Province** (region not mentioned), nests or body of fresh and pinned museum specimens of different insects of order Coleoptera (Scarabaeidae, Carabidae), Hymenoptera (Formicidae) and Orthoptera (Gryllidae, Acrididae) (Nemati and Babaeian 2010); (Ahvaz), ex. *Copris* sp. (Babaeian *et al.* 2011). **Razavi Khorasan Province** (region not mentioned), ex. *C. hispanus* (Kazemi *et al.* 2008c). **Tehran Province** (Taleghan), ex. *Copris* sp. (Faraji *et al.* 2008c).

Neopodocinum turcomonarum Petrova, 1970

Cited in Bregetova (1977e).

Distribution and habitats. **Mazandaran Province** (region not mentioned), ex. *S. transcaspicus* (Kazemi *et al.* 2008c).

Genus *Nothrholaspis* Berlese, 1918

Nothrholaspis carinatus (C.L. Koch, 1839b)

Distribution and habitats. **Guilan Province** (Eshkavarat, Astara), soil of hazelnut orchard (Arjimandi-Nezhad and Babaeian 2014). **Mazandaran Province** (Nowshahr), soil (Ahangaran *et al.* 2010a); beech leaf litter (Ahangaran *et al.* 2012). **Tehran Province** (Tehran), soil, leaf-litter, decomposing organic matter, manure and ex. unidentified scarab beetles (Ostovan and Farzane 2004).

Nothrholaspis montanus Willmann, 1951a

Distribution and habitats. **Guilan Province** (Eshkavarat, Astara), soil of hazelnut orchard (Arjimandi-Nezhad and Babaeian 2014). **Mazandaran Province** (Nowshahr), soil (Ahangaran *et al.* 2010a); beech leaf litter (Ahangaran *et al.* 2012); (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Saberi *et al.* 2016).

Note– Above mentioned species was reported under the genus *Macrocheles* by Ostovan and Farzane (2004) and Ahangaran *et al.* (2010a, 2012). The reported data for each author can be seen in the above information.

Nothrholaspis saboorii Babaeian & Joharchi, 2014

Distribution and habitats. **Alborz Province** (Karaj), soil (Babaeian *et al.* 2014a). **Tehran Province**

(Damavand County, Guilavand), humus, soil, leaf litter and manure (Mousavi *et al.* 2021).

Genus *Reductholaspis* Emberson, 2010

***Reductholaspis analis* (Hyatt & Emberson, 1988)**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Shahrekord), leaf-litter (Babaeian *et al.* 2011). **Guilan Province** (Bijar Bonch village), soil; (Pir Bazar village), litter (Ghasemi and Hajizadeh 2021). **Isfahan Province** (Goldasht, Najaf Abad), foliage of trees, weeds and soil of orchards (Jalaeian *et al.* 2004a); (Kashan), soil (Abutaleb Kermani *et al.* 2017). **Mazandaran Province** (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Sabeti *et al.* 2016). **Tehran Province** (Damavand County, Damavand), soil; (Damavand County, Garmabsard), soil and leaf litter (Mousavi *et al.* 2021).

Notes – 1. *Macrocheles analis* Hyatt & Emberson was transferred to the genus *Reductholaspis* by Emberson (2010). **2.** Some species of Iranian macrochelid mites as follows that have been described as new for science, due to undetermined type materials deposition in the original description were considered as unavailable name here and removed by Faraji *et al.* (2008) and Kazemi and Rajaei (2013) from the Iranian macrochelid mites. This issue also has been referred in Ahadiyat *et al.* (2014) – *Macrocheles elongatum* Glida, Latifi, Bertrand & Saboori, 2003 (Sahradabad); *Macrocheles kamalli* Glida, Latifi, Bertrand & Saboori, 2003 (Karaj, Niavaran, Charan); *Macrocheles kermani* Glida, Latifi, Bertrand & Saboori, 2003 (Karaj) (Glida *et al.* 2003); *Macrocheles minutum* Seifori, Glida, Saboori & Bertrand, 2008 (Nuestan) in soil and dung; *Macrocheles paucipunctatum* Seifori, Glida, Saboori & Bertrand, 2008 (Malekabad), in soil; *Macrocheles similiscutatus* Seifori, Glida, Saboori & Bertrand, 2008 (Hossein Abaj), in soil and dung; *Macrocheles simplex* Seifori, Glida, Saboori & Bertrand, 2008 (Baghdady), in soil and dung (Seifoori *et al.* 2008).

Family Pachylaelapidae Berlese, 1913a

Genus *Olopachys* Berlese, 1910a

***Olopachys caucasicus* Koroleva, 1976**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran forests, Vaygan, Aynalu Kalaleh, Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a, b). **Guilan Province** (Saravan Forest), soil under pine trees; (Rezvanashahr-Talesh Gisoum forest), moss of oak tree; (Guilan University pine forest), soil under pine tree (Mojahed *et al.* 2017); (Saravan Forest and Emamzadeh Hashem), soil (Mojahed *et al.* 2018); (Langarud), soil under citrus tree (Hajizadeh and Hosseini 2020); (Moein Hotel-Fuman, Otaghvar-Langrud, Rahimabad-Rudsar), soil of tea (Hajizadeh *et al.* 2020). **Mazandaran Province** (Nowshahr), soil (Ahangaran *et al.* 2010b); leaf litter of different forest trees, horse manure and humus (Ahangaran *et al.* 2012); (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Sabeti *et al.* 2016).

***Olopachys compositus* Koroleva, 1976**

Distribution and habitats. **Golestan Province** (region not mentioned), soil and litter (Kazemi *et al.* 2012); (Minudasht), soil (Zakeri *et al.* 2011). **Guilan Province** (region not mentioned), Citrus leaves, soil of gardens and floor weeds (Nazari-Tajani *et al.* 2012); (Saravan Forest), soil under pine and oak trees; (Emamzadeh Hashem (forest area)), soil under poplar trees (Mojahed *et al.* 2017); (Saravan Forest and Emamzadeh Hashem), soil (Mojahed *et al.* 2018); (Langarud, Otaqvar; Chaboksar, Siahkalroud), soil under citrus tree (Hajizadeh and Hosseini 2020); (Bijar Bonch village), soil; (Vishka Nanak village), litter (Ghasemi and Hajizadeh 2021). **Mazandaran Province** (Tonekabon, Konse Forest), soil; (Nowshahr, Ecology Garden), soil and litter; (Ramsar, Namakdarreh), soil and

sheep manure (Kazemi and Ahangaran 2011); (Nowshahr), leaf litter of hornbeam (*Carpinus betulus*), box-tree (*Buxus* sp.), *Parrotia persica*, pomegranate and *Zelkova* (Ahangaran *et al.* 2012). **North Khorasan Province** (region not mentioned), in the nests of *Tapinoma* sp. (Formicidae) (Rezaei *et al.* 2016). **Tehran Province** (Shemiranat, Rudbar-Ghasran), soil, leaf-litter, debris of trees, ground covering plants and ants' nest (Ahadiyat and Cheraghali 2012); (Damavand County, Jilard), humus, soil, leaf litter; (Damavand County, Guilavand), humus, soil, leaf litter and manure; (Damavand County, Damavand), humus soil, manure, leaf litter; (Damavand County, Jaban), apple garden soil and garden soil (Mousavi *et al.* 2021).

***Olopachys hallidayi* (Özbek, 2014)**

Distribution and habitats. **East Azarbaijan Province** (Maragheh region, Chekan village), soil of walnut tree and plum tree; (Chay Baghi village), soil of walnut tree; (Maragheh region, Agh Kand village), leaf-litter; (Maragheh region, Nova village), soil of plum tree; (Maragheh region, Alavian village), soil of plum tree; (Maragheh region, Tazeh Kand village), soil of walnut tree; (Maragheh region, Tazeh Kand village), manure of almond tree; (Maragheh region, Ozbak village), soil of walnut tree; (Maragheh region, Ashan village), soil of sour cherry tree; (Maragheh region, Kahaq village, soil of walnut tree near river; (Maragheh region, Kahaq village), soil of apple tree; (Maragheh region, Senowkesh village), soil of quince tree; (Maragheh region, Esfestanaj village), soil of walnut tree (Valizadeh *et al.* 2019). **Tehran Province** (Damavand County, Damavand), leaf litter and manure (Mousavi *et al.* 2021).

***Olopachys iraniensis* Mojahed *et al.* 2019**

Distribution and habitats. **Guilan Province** (Rasht County, Emamzadeh Hashem), soil under poplar and pine trees; (Langrud County), soil under citrus trees (Mojahed *et al.* 2019); (Langarud, Otaqvar), soil under orange trees [*Citrus sinensis* (L.)] (Hajizadeh and Hosseini 2020).

***Olopachys magnoexudatus* Moghimi *et al.*, 2019**

Distribution and habitats. **Mazandaran Province** (natural forests of Behshahr), soil and litter (Moghimi *et al.* 2019).

***Olopachys masani* Hajizadeh & Hosseini, 2020**

Distribution and habitats. **Guilan Province** (region not mentioned), soil under citrus trees (Hajizadeh and Hosseini 2020).

***Olopachys* sp.**

Distribution and habitats. **Guilan Province** (Otaghvar-Langrud), soil of tea (Hajizadeh *et al.* 2020).

Genus *Onchodellus* Berlese, 1904c

***Onchodellus alpinus* (Willmann, 1953a)**

Distribution and habitats. **Guilan Province** (Saravan Forest), soil under pine tree (Mojahed *et al.* 2017); (Moein Hotel-Fuman, Vajargah-Kelachay), soil of tea (Hajizadeh *et al.* 2020); (Pasikhan Village), litter (Ghasemi and Hajizadeh 2021). **Tehran Province** (region not mentioned), honeybee hives (Rahmani *et al.* 2006).

Note – Ahangaran *et al.* (2012) reported a species as *O. cf. alpinus* from Mazandaran Province (Nowshahr), beech leaf litter.

***Onchodellus anovillosus* (Berlese, 1920)**

Distribution and habitats. **Isfahan Province** (Mobarake, Zarrinshahr), soil of fruit orchards (Jalaeian *et al.* 2004b).

Note – Jalaeian *et al.* (2004b) reported the above species as *Pachylaelaps costai* Hirschmann & Krauss, 1965, but Ahadiyat *et al.* (2021) considered this species as *O. anovillosus*.

***Onchodellus hispani* (Berlese, 1908)**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran Protected Area, Khoda Afarin County, Khomarlu City), phoretic on the body of an adult unidentified scarabaeid beetle (probably of the genus *Copris* Müller, 1764) (Ahadiyat *et al.* 2020). **Guilan Province** (Saravan Forest), soil under pine tree (Mojahed *et al.* 2017). **Kerman Province** (region not mentioned), soil (Ahmadi 2002).

Note – This species was reported by Ahmadi (2002) as *Pachylaelaps hispani* Berlese, 1903 from Kerman Province.

***Onchodellus karawaiewi* (Berlese, 1920)**

Distribution and habitats. **Alborz Province** (Karaj County, Karaj City, Sichall Mountainous Area, Dizin), ant's nest; (Karaj County, Chalus Road, Asara District, Adaran Rural District, Kushk-e Bala Village), ants' nest (Ahadiyat *et al.* 2020). **Chaharmahal va Bakhtiari Province** (Shahrekord), soil and litter (Babaeian and Kazemi 2011). **East Azarbaijan Province** (region not mentioned), soil (Kamali *et al.* 2001); (Southwest), soil (Hashemi Khabir *et al.* 2013); (Arasbaran Forests, Vaygan, Kalaleh), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a). **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006); (Marvdasht), soil (Soleimani *et al.* 2011); (Marvdasht, Islamic Azad University, Fars Science and Research Branch), ex. apple bark beetles (Arabzadeh *et al.* 2012); (Darab), soil and foliage of cotton fields (Khorsand *et al.* 2012); (Doroodzan), soil of fields (Asadpoor *et al.* 2012); (Shiraz), associated with insectary cultures including potato (*Solanum tuberosum* L.), zucchini (*Cucurbita pepo* L.) and wheat flour (Granpayeh and Ostovan 2014); (Northwestern), soil and debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Golestan Province** (Kalale), soil (Zakeri *et al.* 2011). **Hamedan Province** (region not mentioned), bean (*P. vulgaris*), clover (*Trifolium* sp.), alfalfa, and sainfoin (Khanjani and Kamali 2000a, b; Kamali *et al.* 2001); soil of fruit trees and weeds (Rostami *et al.* 2010). **Isfahan Province** (Kashan, Hanjan), persimons plantation and fava beans fields (Abutaleb Kermani *et al.* 2017); (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022). **Kerman Province** (region not mentioned), soil (Ahmadi 2002); (Baft), soil (Rajaei *et al.* 2011b); (Rafsanjan), soil of fruit orchards (Mohammadi *et al.* 2012); (Kerman, Bahonar Park), soil and litter (Kazemi and Rajaei 2013); (Shahr-e-Babak), soil and manure (Masnavipour *et al.* 2014); (Kerman City, parks and landscapes), soil (Arjomandi and Kazemi 2014b); (Baft City), soil and manure in croft; (Rafsanjan City), soil of orchard; (Zarand City), soil (Ahadiyat *et al.* 2020); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Kermanshah Province** (Rijab), soil (Babakfard *et al.* 2007); fruit orchards (Babakfard *et al.* 2008). **Khuzestan Province** (Safiabad), Grapevine yards (Kamali *et al.* 2001; Darvishzadeh and Kamali 2009); (Ahvaz and its suburbs), sheep manure (Farahi *et al.* 2022). **Lorestan Province** (Bishe and Sabzevar Districts), soil of walnut trees and soil of peach orchard (Hasanvand *et al.* 2014b); (Badrabad District), soil under

cedar trees (Hasanvand *et al.* 2014b); (Khorramabad), orchard, oak forest, ant nest and field (Hasanvand *et al.* 2015). **Markazi Province** (Arak), soil (Seifori *et al.* 2006). **Mazandaran Province** (Nowshahr), soil (Ahangaran *et al.* 2010b); leaf litter of Mediterranean cypress (*Cupressus sempervirens*), cow and sheep manure (Ahangaran *et al.* 2012). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012). **Razavi Khorasan Province** (Kashmar), soil of vineyards (Salarzahi *et al.* 2011); (Mashhad), soil (Abbaspour *et al.* 2017). **South Khorasan Province** (Tabas County, Deyhuk District, Deyhuk City), soil (Ahadiyat *et al.* 2020). **Tehran Province** (Shemiranat, Rudbaar-Ghasran), soil, leaf-litter, debris of trees, ground covering plants and ants' nest (Ahadiyat and Cheraghali 2012); (region not mentioned), associated with ornamental plants (Hamidi *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016); (Tehran City, Qeytariyeh Park), soil; (Shemiranat County, Rudbar-e Qasran District, Rudbar-e Qasran Rural District, Zaygan Village), leaf-litter of common ivy; (Shemiranat County, Rudbar-e Qasran District, Rudbar-e Qasran Rural District, Garmabdar Village), soil of walnut trees (Ahadiyat *et al.* 2020); (Damavand County, Jilard), humus, soil, leaf litter; (Damavand County, Guilavand), humus and soil; (Damavand County, Guilavand), humus, soil, leaf litter and manure; (Damavand County, Absard), soil, leaf litter; (Damavand County, Seyyedabad), soil (Mousavi *et al.* 2021). **West Azarbaijan Province** (Urmia), soil (Rezaie *et al.* 2011); (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012). **Yazd Province** (Taft County, Taft City), soil of pomegranate trees; (Taft County, Shirkuh Rural District, Tezerjan Village), soil of walnut and almond trees; (Taft County, Shirkuh Rural District, Deh-e Bala Village), soil of walnut trees; (Mehriz County, Miankuh Rural District, Fakhr-abad Village), soil of walnut tree; (Mehriz County, Miankuh Rural District, Ebrahim-abad Village), soil of pomegranate tree; (Mehriz County, Miankuh Rural District, Banadak Sadat Village), soil of orchard; (Mehriz County, Miankuh Rural District, Manshad Village), soil; (Mehriz County, Khormiz Rural District, Khormizat Village), soil; (Ardakan County, Kharanaq District, Sarv Park), soil (Ahadiyat *et al.* 2020).

***Onchodellus masani* Ahadiyat, Ghasemi Moghadam & Abutaleb Kermani, 2020**

Distribution and habitats. **Yazd Province** (Taft County, Shirkuh Rural district, Deh-e Bala village), soil of walnut tree; (Meybod, Baharan Park), soil (Ahadiyat *et al.* 2020).

***Onchodellus procerus* Mašán, 2007**

Distribution and habitats. **Guilan Province** (region not mentioned), citrus leaves, soil of gardens and floor weeds (Nazari-Tajani *et al.* 2012).

Note – Ahadiyat *et al.* (2020) removed this species from the list of the Iranian *Onchodellus* species due to no success in communication with authores of the paper (Nazari-Tajani *et al.* 2012) to check the specimen(s), and because this species was a rare endemic mite found in Slovakia that described by only three female specimens by Mašán (2007). Because the above-mentioned reasons are not completely convincing for removing this species from Iranian mite fauna, we temporarily put it in the list until a more detailed investigation has been done.

***Onchodellus siculus* (Berlese, 1892a)**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Shahrekord), ex. *Pentodon* sp. (Babaeian and Kazemi 2011). **Guilan Province** (Emamzadeh Hashem (forest area)), soil under poplar tree; (Astaneh-Ashrafieh Safrabasteh forest), soil under oak tree (Mojahed *et al.* 2017). **Hamedan Province** (region not mentioned), soil of fruit trees and weeds (Rostami *et al.* 2010). **Kerman Province** (region not mentioned), soil (Ahmadi 2002). **West Azarbaijan Province** (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003).

Onchodellus strigifer (Berlese, 1892a)

Distribution and habitats. **Alborz Province** (Sharestanak), ants' nest; (Taleqan, Mehran Village), ant's nest (Ahadiyat *et al.* 2020). **Guilan Province** (Saravan Forest), soil under oak tree (Mojahed *et al.* 2017). **Tehran Province** (Shemiranat, Rudbar-Ghasran), soil, leaf litter, debris of trees, ground covering plants and ants' nest (Ahadiyat and Cheraghali 2012); (Damavand County, Guilavand), humus, soil, leaf litter and manure; (Damavand County, Atabak), soil (Mousavi *et al.* 2021). **Qazvin Province** (Abyek County, Ziaran Rural District, Khoznan Village), humus (Ahadiyat *et al.* 2020). **Yazd Province** (Taft City, Deh-e Bala Village), soil of walnut tree (Ahadiyat *et al.* 2020).

Notes – 1. *Onchodellus glandularis* (Moraza & Peña, 2005) has been reported from Tehran Province (Shemiranat, Rudbar-Ghasran), soil and leaf-litter, debris of trees, ground covering plants and ants' nest by Ahadiyat and Cheraghali (2012). In the recent work, Ahadiyat *et al.* (2020) reported that this species seems to belong to a closely related species, *O. strigifer*. So, the previous species name (*O. glandularis*) removed from the Iranian mite species. **2.** *Onchodellus squamosus* (Koroleva, 1977) was reported from Guilan Province [Emamzadeh Hashem (forest area)] from soil under poplar tree (Mojahed *et al.* 2017), but has been removed from the list of the species of this genus by Ahadiyat *et al.* (2020), and we follow it here. **3.** *Pachylaelaps brachiosus* Hirschmann & Krauss, 1965 which is a species of the genus *Onchodellus* reported from Isfahan Province (Goldasht, Qale'e Sefid), soil of fruit orchards by Jalaeian *et al.* (2004b), here we follow Ahadiyat *et al.* (2020), and removed it from the list of the Iranian species.

Genus *Pachylaelaps* Berlese, 1888b

Pachylaelaps grandis Koroleva, 1977

Distribution and habitats. **Golestan Province** (Kalale, Minudasht), soil (Zakeri *et al.* 2011). **Guilan Province** (Shaft Chubar forest), soil under pine, oak and poplar trees; (Astaneh-Ashrafieh Safrabasteh forest), soil under oak trees; (Saravan Forest), soil under ironwood (*Parrotia persica*, Hamamelidaceae), oak, hawthorn trees and pine trees; (Rezvanashahr-Talesh Gisoum forest), soil and moss under pine trees; (Guilan University pine forest), soil under pine trees (Mojahed *et al.* 2017); (Rasht County. Astaneh-e Ashrafiyyeh Town, Safrabasteh Forest), soil under oak tree (*Quercus castaneifolia*); (Emamzadeh Hashem Forest), soil under poplar tree (*Populus caspica*); (Rasht City, Guilan University), soil under pine (*Pinus halepensis*); (Saravan Forest), soil under Persian ironwood tree (*Parrotia persica*), hawthorn tree (*Crataegus pentagyna*), and oak tree (*Q. castaneifolia*); (Shaft County, Chubar Forest), soil under pine tree (*P. halepensis*), oak tree (*Q. castaneifolia*), and poplar tree (*P. caspica*) (Mašán *et al.* 2018); (Lahijan, Kumeleh-Langrud, Mahvizan-Someh SaraMoein Hotel-Fuman, Otaghvar-Langrud, Rahimabad-Rudsar, Amlash), soil of tea (Hajizadeh *et al.* 2020); (Bijar Bonch village), litter (Ghasemi and Hajizadeh 2021). **Mazandaran Province** (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Saber *et al.* 2016). **Tehran Province** (Shemiranat, Rudbar-Ghasran), soil, leaf litter, debris of trees, ground covering plants and ants' nest (Ahadiyat and Cheraghali 2012); (Damavand County, Ureh), soil and leaf litter (Mousavi *et al.* 2021).

Pachylaelaps imitans Berlese, 1920

Distribution and habitats. **Kerman Province** (region not mentioned), soil (Ahmadi 2002). **Guilan Province** (Saravan Forest), soil under ironwood (Mojahed *et al.* 2017).

Pachylaelaps insularis (Berlese, 1883)

Distribution and habitats. **Lorestan Province** (Khorramabad), orchard (Hasanvand *et al.* 2015). **Mazandaran Province** (Nowshahr), leaf litter of box-tree (*Buxus*), hornbeam (*Carpinus betulus*)

and beech (*Fagus*) trees and animal manure (Ahangaran *et al.* 2012).

***Pachylaelaps pectinifer* (G. & R. Canestrini, 1881)**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Shahrekord), soil and litter (Babaeian and Kazemi 2011); (Saman), soil (Shariati *et al.* 2017). **East Azarbaijan Province** (Southwest), soil (Hashemi Khabir *et al.* 2013). **Fars Province** (Northwestern), soil and debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021). **Golestan Province** (Marzankalateh), ex. *C. hispanus* (Bahrami *et al.* 2011). **Guilan Province** (region not mentioned), Citrus leaves, soil of gardens and floor weeds (Nazari-Tajani *et al.* 2012); (Astaneh-Ashrafieh Safrabasteh forest), soil under oak trees; (Shaft Chubar forest), soil under pine and oak trees (Mojahed *et al.* 2017); (Chaboksar, Siahkalroud, Chaykhansar), soil under citrus trees (Hajizadeh and Hosseini 2020). **Isfahan Province** (Najaf Abad, Mobarake), soil of fruit orchards (Jalaeian *et al.* 2004b); (Kashan), soil (Sekonji *et al.* 2011); (Kashan, Niyasar), roadside soil (Abutaleb Kermani *et al.* 2017). **Kerman Province** (Baft), soil (Rajaei *et al.* 2011b); (Jiroft), soil (Balooch Shahryari *et al.* 2012); (Shahr-e-Babak), soil and manure (Masnavipour *et al.* 2014); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Lorestan Province** (Shirkhani District), soil of apricot orchard (Hasanvand *et al.* 2014b); (Khorramabad), orchard, oak forest, ant nest and field (Hasanvand *et al.* 2015). **Mazandaran Province** (Nowshahr), soil (Ahangaran *et al.* 2010b); chicken and animal manure (Ahangaran *et al.* 2012). **Tehran Province** (Shemiranat, Rudbaar-Ghasran), soil, leaf-litter, debris of trees, ground covering plants and ants' nest (Ahadiyat and Cheraghali 2012); (Damavand County, Guilavand), humus, soil, leaf litter and manure; (Damavand County, Damavand), soil; (Damavand County, Ureh), soil and leaf litter; (Damavand County, Damavand), soil, leaf litter, manure and humus; (Damavand County, Damavand), humus soil, manure; (Damavand County, Jaban), garden soil (Mousavi *et al.* 2021). **West Azarbaijan Province** (Urmia), soil (Rezaie *et al.* 2011).

***Pachylaelaps prodigiosus* Mařán *et al.*, 2018**

Distribution and habitats. **Guilan Province** (Rasht County, Saravan Forest), soil under Persian ironwood tree (*Parrotia persica*), soil under hawthorn tree (*Crataegus pentagyna*), soil under oak tree (*Quercus castaneifolia*), and pine tree (*Pinus halepensis*) (Mařán *et al.* 2018).

***Pachylaelaps resinae* Karg, 1971a**

Distribution and habitats. **Ardabil Province** (Moghan Plain), cotton fields (Kamali *et al.* 2001). **Guilan Province** (region not mentioned), Citrus leaves, soil of gardens and floor weeds (Nazari-Tajani *et al.* 2012); (Chaboksar, Qasemabad), soil under citrus trees (Hajizadeh and Hosseini 2020). **Hamedan Province** (region not mentioned), wild sainfoin (Kamali *et al.* 2001). **Kerman Province** (region not mentioned), soil (Ahmadi 2002). **Kermanshah Province** (Rijab), soil (Babakfard *et al.* 2007); fruit orchards (Babakfard *et al.* 2008). **Mazandaran Province** (Nowshahr), leaf litter of box-tree (*Buaxux*), hornbeam (*Carpinus betulus*), Mediterranean cypress (*Cupressus sempervirens*) and *Zelkova* (Ahangaran *et al.* 2012). **West Azarbaijan Province** (Khoy), soil of sunflower fields (Taher *et al.* 2012); (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012).

***Pachylaelaps vicarius* Mařán, 2007**

Distribution and habitats. **Alborz Province** (Karaj), in nest of *Tapinoma* sp. (Shahrestānak), in nest of unknown *Camponotus* species (Ahadiyat *et al.* 2014b). **Tehran Province** (Shemirānāt County,

Roodbār Ghasrān region, Fasham, Shāhed Boulevard, Ahār Village, Igel Village), soil under cherry tree, willow tree debris and humus, soil near root collar of willow tree (Ahadiyat *et al.* 2014b); (Damavand County, Jilard), humus, soil, leaf litter; (Damavand County, Guilavand), humus, soil, leaf litter and manure; (Damavand County, Cheshmeh Ala), garden soil; (Damavand County, Ureh), soil and leaf litter; (Damavand County, Damavand), leaf litter and manure (Mousavi *et al.* 2021).

Notes – 1. *Pachylaelaps longisetis* Halbert, 1915 reported from Chaharmahal va Bakhtiyari Province (Saman) from soil by Shariati *et al.* (2017), but not confirmed by Ahadiyat *et al.* (2020) and not listed here. **2.** *Pachylaelaps magnus* Halbert, 1915 reported by Ahmadi (2002) from Kerman Province (region not mentioned), soil and have removed from the Iranian mite list by Ahadiyat *et al.* (2020), which follow here. **3.** *Pachylaelaps denticulatus* (Hirschmann & Krauss, 1965) reported by Rajaei *et al.* (2011b), but after re-examination of the specimens by Sh. Kazemi it was removed from the list of this family by Kazemi and Rakaei (2013), and we follow it.

Genus *Pachyseius* Berlese, 1910a

***Pachyseius angustoides* Babaeian & Mašán, 2016**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord, Saman, Dashti Village), soil and leaf litter (Babaeian *et al.* 2016).

***Pachyseius angustus* Hyatt, 1956**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), Sandy riverbank (Babaeian and Kazemi 2011).

Note – However, the above-mentioned species has been removed from the Iranian mite fauna by Babaeian *et al.* (2016a) and it was followed by Ahadiyat *et al.* (2020), but until doing a precise study on type materials of close related species, including *P. angustoides*, *P. masani* Ozbek & Halliday, 2014 and *P. mašánisimilis* Ahadiyat & Ghasemi Moghadam, 2016 we include it in the list of this genus in Iran.

***Pachyseius humeralis* Berlese, 1910a**

Distribution and habitats. **Fars Province** (Eghlid region), soil of apple trees (Gholami and Ostovan, 2013).

***Pachyseius mašánisimilis* Ahadiyat & Ghasemi Moghadam, 2016**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran forests), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017). **Tehran Province** (Shemirānāt, Rudbāre Qasrān District, Fasham City, Shemshak City, and Garmābdar Village), soil, humus and leaf litter (Ahadiyat *et al.* 2016).

Note – Specimens of *Pachyseius mašánisimilis* Ahadiyat & Ghasemi Moghadam, 2016 from some parts of Iran, including the places where the type specimen was collected, have been examined with type material of *P. masani* Ozbek & Halliday, 2014 by A. Nemat and no authentic morphological differences was observed. We believe those are very close species and may be possible to consider as synonym. A more detailed study is necessary for checking the type materials of *P. masanisimilis*, so until doing such investigation, we include it in the list of Iranian mite fauna.

***Pachyseius persicus* Babaeian & Mašán, 2016**

Distribution and habitats. **Mazandaran Province** (Nowshahr City, Koliak Village), in leaf litter and soil detritus (Babaeian *et al.* 2016a).

Family Parholaspididae Evans, 1956

Genus *Gamasholaspis* Berlese, 1904a

***Gamasholaspis akimotoi* (Ishikawa, 1966)**

Distribution and habitats. **Guilan Province** (Tea Research Institute-Lahijan, Rasht, Bazar Jomeh), soil; (Rasht, Keshel Varzal Village), bell pepper, *Capsicum annuum* L. (Solanaceae) leaves; (Rasht, Pasikhan Village), litter (Hajizadeh 2022b).

***Gamasholaspis browningi* (Bregetova & Koroleva, 1960)**

Distribution and habitats. **Guilan Province** (Rudbar, Rostamabad, Naqlabar village), soil (Hajizadeh 2022b).

***Gamasholaspis gamasoides* Berlese, 1904a**

Distribution and habitats. **Guilan Province** (Rasht, Pasikhan village), litter; (Rasht, Pir Bazar village), soil (Ghasemi and Hajizadeh 2021); (Rasht, Pasikhan Village), litter; (Rasht, Pir Bazar Village), soil (Hajizadeh 2022b). **Tehran Province** (region not mentioned), ornamental plants (Hamidi *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016).

***Gamasholaspis incisus* Petrova, 1968**

Distribution and habitats. **Guilan Province** (Tea Research Institute-Lahijan), soil of tea (Hajizadeh *et al.* 2020); (Rasht, Bijar Bonch village), soil; (Rasht, Pasikhan village), litter; (Rasht, Keshel Varzal village), bell pepper, *C. annuum* leaves (Ghasemi and Hajizadeh 2021). **Mazandaran Province** (Nowshahr), leaf litter and soil under ginkgo or maidenhair tree (*Ginkgo biloba*) (Ahangaran *et al.* 2012); (region not mentioned), soil and litter (Kazemi *et al.* 2014a); (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Sabeti *et al.* 2016). **Tehran Province** (Damavand County, Damavand), leaf litter and manure (Mousavi *et al.* 2021).

Genus *Holaspina* Berlese, 1916

***Holaspina muscorum* (Ewing, 1909)**

Distribution and habitats. **Isfahan Province** (Najaf Abad, Falavarjan, Goldasht), soil of fruit orchards (Jalaeian *et al.* 2004b).

Notes – 1. This species was reported by Jalaeian *et al.* (2004b) as *Holaspina pulchella* Berlese, 1916, while it was considered as a junior synonym of *Holaspina muscorum* by Hennessey and Farrier (1988). **2.** Latifi *et al.* (2006) described *Holaspina persicus* from Tehran Province (Jamshidieh), from soil samples. Kazemi and Rajaei (2013) excluded it from Iranian checklist of Mesostigmata due to indistinct location of type materials. Quintero-Gutiérrez and Halliday (2021) considered this name as a *nomen nudum* (ICZN Article 16.4.2.) for the same reason. Hajizadeh (2023) confirmed this idea as we also follow it here.

Genus *Holaspulus* Berlese, 1904

***Holaspulus tenuipes* (Berlese, 1904a)**

Distribution and habitats. **Guilan Province** (Rasht, Jirdeh village), litter; (Rasht, Bijar Bonch village), soil; (Rasht, Isfahani Educational Institute), wood sorrel, *O. acetosella* leaves (Ghasemi and Hajizadeh 2021); (Rasht, Jirdeh Village), litter; (Rasht, wood sorrel, *Oxalis acetosella* L.

(Oxalidaceae) leaves; (Bijar Boneh Village), soil (Hajizadeh 2022b). **Isfahan Province** (Isfahan), soil and litter (Ramezani and Nemati 2010). **Mazandaran Province** (Nowshahr, Ecology Garden, Narenjbon), litter and humus; (Tonekabon), soil and litter (Kazemi *et al.* 2012); (region not mentioned), soil and litter (Kazemi *et al.* 2014a); (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Saber *et al.* 2016).

Genus *Krantzolaspina* Datta & Bhattacharjee, 1989

***Krantzolaspina angustatus* (Ishikawa, 1987)**

Distribution and habitats. **Isfahan Province** (Isfahan), soil (Kadkhodaei *et al.* 2013). **Kerman Province** (Jiroft), soil and litter at the base of *Phoenix dactylifera* (Arecaceae), of *Medicago sativa* (Fabaceae), and of *Citrus sinensis* Osbeck (Rutaceae) (Hajizadeh *et al.* 2017).

Note – Kadkhodaei *et al.* (2013) reported the species mentioned above as *Proparholaspulus angustatus* Ishikawa, 1987. This species was later described as a new species by Hajizadeh *et al.* (2017) and named *Indutolaelaps jiroftensis* (Leptolaelapidae) from Kerman Province (Jiroft). Quintero-Gutiérrez *et al.* (2020) transferred *P. angustatus* to the genus *Krantzolaspina* and also synonymized *Indutolaelaps jiroftensis* with *Krantzolaspina angustatus* (Ishikawa, 1987). While we agree with Quintero-Gutiérrez *et al.*'s (2020) idea about the synonymy, we do not agree with the transfer of *Proparholaspulus angustatus* to *Krantzolaspina* Datta & Bhattacharjee, 1989. We will be publishing our opposing viewpoint on this issue soon.

Genus *Lattinella* Krantz, 1960

***Lattinella* sp.**

Distribution and habitats. **Ardabil Province** (Moghan Plain), cotton fields (Kamali *et al.* 2001).

Genus *Neparholaspis* Evans, 1956

***Neparholaspis arcuatus* Petrova, 1977**

Distribution and habitats. **Guilan Province** (Otaghvar-Langrud, Moein Hotel-Fuman, Amlash, Vajargah-Kelachay, Rahimabad-Rudsar), soil of tea (Hajizadeh *et al.* 2020); (Rasht, Bijar Boneh village, Keshel Varzal village), litter; (Rasht, Jirdeh village), soil (Ghasemi and Hajizadeh 2021); (Fuman, Otaghvar, Langarud, Vajargah, Kelachay, Rahimabad, Rudsar, Amlash), soil; (Rasht, Keshel Varzal Village, Rasht, Bijar Boneh Village), litter (Hajizadeh 2022b); (Astaneh-ye Ashrafiyeh, Keshel, Azadmahalleh), soil of peanut plant (Askari *et al.* 2023). **Mazandaran Province** (region not mentioned), soil and litter (Kazemi *et al.* 2014a); (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Saber *et al.* 2016).

***Neparholaspis* sp.**

Distribution and habitats. **Ardabil Province** (Moghan Plain), cotton fields (Kamali *et al.* 2001). **Mazandaran Province** (Nowshahr, Ecology Garden), soil and litter (Kazemi and Ahangaran 2011).

Genus *Parholaspulus* Evans, 1956

***Parholaspulus alstoni* Evans, 1956**

Distribution and habitats. **Alborz Province** (Karaj), stored products (Sayed *et al.* 2006). **Fars Province** (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Guilan Province** (Tea

Research Institute-Lahijan, Vajargah-Kelachay) soil of tea; (Rahimabad-Rudsar), soil and leaf litter of tea (Hajizadeh *et al.* 2020); (Tea Research Institute-Lahijan, Vajargah-Kelachay), soil; (Rahimabad-Rudsar), soil and leaf litter (Hajizadeh 2022b). **Isfahan Province** (Khomeini Shahr), soil of fruit trees orchards (Jalaeian *et al.* 2006); (Isfahan), soil and litter (Ramezani and Nemati 2010; Khalili-Moghadam *et al.* 2012). **Kerman Province** (Rafsanjan, Sirjan, Dochahi, Mani), soil (Masnavipour *et al.* 2011); (Rafsanjan), soil, manure and litter (Masnavipour *et al.* 2014). **Markazi Province** (Arak), soil (Seifori *et al.* 2006). **Mazandaran Province** (Nowshahr), leaf litter and soil under ginkgo or maidenhair tree (*Ginkgo biloba*) (Ahangaran *et al.* 2012); (region not mentioned), soil and litter (Kazemi *et al.* 2014a); (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Sabeti *et al.* 2016). **Tehran Province** (Tehran, Shahid Beheshti University Campus), soil (Kamali *et al.* 2004); (Tehran, Lale Park); (Tehran, Sorkhe Hesar Forest Park), soil (Pakyari *et al.* 2006b, 2008); soil and litter (Kazemi and Rajaei 2013); (region not mentioned), ornamental plants (Hamidi *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016); (Damavand County, Damavand), soil, leaf litter, manure, humus (Mousavi *et al.* 2021). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014).

Superfamily Phytoseoidea Berlese, 1916

Family Blattisociidae Garman, 1948

Genus *Blattisocius* Keegan, 1944

Blattisocius damghaniae Shams, Kazemi & Saboori, 2016

Distribution and habitats. **Semnan Province** (Damghan City, Agareh Village), rotting sawdust (Shams *et al.* 2016).

Blattisocius dentriticus (Berlese, 1918)

Distribution and habitats. **Seventeen different Provinces in Iran**, beehives debris (Ostovan and Mossadegh 1999). (Province and region not mentioned), stored products (Sepasgozarian 1978; Modarres Awal 1994, 1997; Kamali *et al.* 2001). **Fars Province** (Shiraz), Potato, zucchini, flour and the floor of insectariums (Granpayeh *et al.* 2012); (Shiraz), associated with insectary cultures including potato (*Solanum tuberosum* L.), zucchini (*Cucurbita pepo* L.) and wheat flour (Granpayeh and Ostovan 2014). **Guilan Province** (Sangar), from rice bran; (Rasht), from colony of *Ephestia* sp. (Javadpour *et al.* 2018). **Khuzestan Province** (region not mentioned), honeybee hives (Kamali *et al.* 2001).

Blattisocius keegani Fox, 1947

Distribution and habitats. **Guilan Province** (region not mentioned), soil, plants, warehouses, manure and decaying plants (Hajizadeh *et al.* 2009b, 2010a); (Rasht, Jafarabad village), collected from rice warehouse; (Sangar), from rice bran; (Shaft, Aqa Sayyed Sharif village), from rice bran; (Rasht, University of Guilan), from warehouse rice and colony of *Ephestia* sp.; (Rasht), from horse manure and rice plant remnants, rice bran; (KuchIsfahan), from apple leaves; (Khomam), from rice bran; (Ziabar), from Sawdust (Javadpour *et al.* 2018); (Rasht), on, white petunia [*Petunia axillaris* (Lam.)] flower (Hajizadeh and Salarzahi 2018). **Kurdistan Province** (region not mentioned), associated with stored flour and wheat (Maroufpoor and Ostovan 2017; Maroufpoor *et al.* 2017). **Semnan Province** (Mehmandust Village), from decaying hay (Shamsi *et al.* 2008). **West Azarbaijan Province** (region not mentioned), rats (Modarres Awal 1994, 1997; Sepasgozarian 1978; Kamali *et al.* 2001); (Urmia), house dust (Kamali *et al.* 2001).

***Blattisocius mali* (Oudemans, 1929)**

Distribution and habitats. (Province and region not mentioned), stored products (Sepasgozarian 1978; Modarres Awal 1994, 1997; Kamali *et al.* 2001). **Zanjan Province** (Zanjan County), soil, rotten wood, fungi, litter, and dung (Zare *et al.* 2012b).

***Blattisocius tarsalis* (Berlese, 1918)**

Distribution and habitats. (Province and region not mentioned), barley, flour, predacious on eggs and larvae of *Sitotroga* spp. and *Ephestia* spp. (Sepasgozarian 1978; Modarres Awal 1994, 1997; Ostovan and Kamali 1994; Kamali *et al.* 2001). **Fars Province** (Kazeron), different materials of stored products (Ostovan and Kamali 1994); (Shiraz), potato, zucchini, flour and the floor of insectariums (Granpayeh *et al.* 2012); (Shiraz), associated with insectary cultures including potato (*Solanum tuberosum* L.), zucchini (*Cucurbita pepo* L.) and wheat flour (Granpayeh and Ostovan 2014); (Shiraz), collected from the houses of patients referred to the asthma and allergy by vacuum cleaner (Shafei *et al.* 2020). **Guilan Province** (region not mentioned), soil, plants, warehouses, manure and decaying plants (Hajizadeh *et al.* 2009b, 2010a); (Rasht, University of Guilan), from colony of *Plodia* sp.; (Saravan), soil; (Rasht), from stored rice; (Sowme'eh-Sara), from rice bran; (Emamzadeh Hashem), from straw (Javadpour *et al.* 2018); (Kelachay), on cleavers (*Galium aparine* L.) flower (Hajizadeh and Salarzahi 2018). **Golestan Province** (Gorgan), soil (Malek-Shahkouyi *et al.* 2011b). **Isfahan Province** (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022).

Genus *Cheiroseius* Berlese, 1916a***Cheiroseius borealis* (Berlese, 1904a)**

Distribution and habitats. **West Azarbaijan Province** (Urmia, Band), soil of apple orchard; (Urmia University), soil of cypress yard (Kavianpour *et al.* 2018b). **Zanjan Province** (Zanjan County), soil, rotten wood, fungi, litter, and dung (Zare *et al.* 2012b); (Zanjan, region not mentioned), soil (Bigdeli *et al.* 2014).

***Cheiroseius bryophilus* (Karg, 1969)**

Distribution and habitats. **Guilan Province** (region not mentioned), soil, plants, warehouses, manure and decaying plants (Hajizadeh *et al.* 2009b, 2010a); (Rasht, Saravan Forest), from soil of oak forest; (Ziabar, Bahambar village), from soil of rice farm; (Rudsar), from soil of hazelnut garden; (Hashtpar), soil; (Rezvanshahr), soil; (Rostamabad), soil; (Lasht-e-nesha), soil; (Astaneh ye Ashrafiyeh), forest soil; (Daylaman), forest soil; (Chubar), forest soil; (Rezvanshahr) soil (Javadpour *et al.* 2018). **West Azarbaijan Province** (Urmia, Band), soil of apple orchard (Kavianpour *et al.* 2018b).

***Cheiroseius cascadiensis* (De Leon, 1964)**

Distribution and habitats. **Guilan Province** (region not mentioned), soil, plants, warehouses, manure and decaying plants (Hajizadeh *et al.* 2009b, 2010a); (Langarud), soil of alder and elm forests (Javadpour *et al.* 2018). **Semnan Province** (Tooyehdarvar Village), moss at the floor of a dry sike, decaying matter of a poplar trunk and soil mixed with decaying matter of a fallen tree trunk; (Dibaj), soil mixed with weeds at the margin of a sike (Shamsi *et al.* 2008).

***Cheiroseius curtipes* (Halbert, 1923)**

Distribution and habitats. **Guilan Province** (region not mentioned), soil, plants, warehouses, manure

and decaying plants (Hajizadeh *et al.* 2009b, 2010a); (Taklim), collected from soil and soil under olive trees (Mahjoori *et al.* 2015); (Rasht, Saravan Forest), soil (Javadpour *et al.* 2018); (Rasht County), wood sorrel, *Oxalis acetosella* L. (Oxalidaceae) leaves infested with spider mites (Ghasemi and Hajizadeh 2020). **Semnan Province** (Tooyehdarvar Village), moss at the floor of a dry sike; (Cheshmeh-Ali way), soil at the margin of Cheshmeh-Ali River near straw; (Cheshmeh-gholghol spring), soil mixed with weeds at the margin of a spring; (Dibaj), soil close to Imamzadeh and soil mixed with weeds near a pear tree (Shamsi *et al.* 2008). **West Azarbaijan Province** (Urmia, Band), soil of apple orchard; (Sulik village), soil and litter (Kavianpour *et al.* 2018b).

***Cheiroseius longipes* (Willmann, 1949)**

Distribution and habitats. **Guilan Province** (region not mentioned), soil, plants, warehouses, manure and decaying plants (Hajizadeh *et al.* 2009b, 2010a); (region not mentioned), associated with eriophyid mite [*Aceria granati* (Canestrini and Massalongo)] (Adeli *et al.* 2013); (Manjil), collected from foliage, soil under olive trees (Mahjoori *et al.* 2015); (Langarud), soil of alder and elm forests, (Rasht, Saravan Forest), soil (Javadpour *et al.* 2018); (Rasht County, Jirdeh Village), soil (Ghasemi and Hajizadeh 2020). **West Azarbaijan Province** (Urmia, Shohada valley), soil and litter; (Band), soil of apple orchard (Kavianpour *et al.* 2018b).

***Cheiroseius manouchehrii* Shamsi & Saboori, 2013**

Distribution and habitats. **Semnan Province** (Damghan, Agareh Village), soil mixed with the hairy roots of a willow tree near the pool of a stream (Shamsi and Saboori 2013).

***Cheiroseius necorniger* (Oudemans, 1903a)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), soil (Nemati *et al.* 2012d). **Guilan Province** (region not mentioned), soil, plants, warehouses, manure and decaying plants (Hajizadeh *et al.* 2009b, 2010a); (Fuman city, Komadul village), soil of rice farm (Javadpour *et al.* 2018). **Kerman Province** (Kerman City, parks, and landscapes), soil (Arjomandi and Kazemi 2014b). **Khuzestan Province** (Ahvaz), soil and ex. *Musca domestica* L. (Nemati *et al.* 2012d). **Lorestan Province** (Shirkhani District), soil under walnut trees (Hasanvand *et al.* 2014b). **Semnan Province** (Tooyehdarvar Village), moss at the floor of a dry sike and soil mixed with weeds (Shamsi *et al.* 2008). **Zanjan Province** (Zanjan County), soil, rotten wood, fungi, litter, and dung (Zare *et al.* 2012b).

***Cheiroseius nepalensis* (Evans & Hyatt, 1960)**

Distribution and habitats. **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006). **Isfahan Province** (Zarrin Shahr), foliage of trees, weeds and soil of orchards (Jalaeian *et al.* 2004a). **Khuzestan Province** (Ahvaz), soil (Baharloo *et al.* 2006). **West Azarbaijan Province** (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012).

***Cheiroseius samani* Mehranian, 2014**

Distribution and habitats. **Razavi Khorasan Province** (Neyshabur), moist soil and litter in an apple orchard (Mehranian 2014).

***Cheiroseius serratus* (Halbert, 1915)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), soil (Nemati *et al.*

2012d). **Golestan Province** (Gorgan), soil (Malek-Shahkouyi *et al.* 2011b). **Kerman Province** (Bam), soil (Mehrzhad *et al.* 2012). **Khuzestan Province** (Ahvaz), soil (Nemati *et al.* 2012d). **Semnan Province** (Cheshmeh Gholghol Spring), soil mixed with weeds at the margin of spring; (Dibaj), soil at the margin of a sike (Shamsi *et al.* 2008). **West Azarbaijan Province** (Urmia, Band), soil of apple orchard; (Nari), soil and litter (Kavianpour *et al.* 2018b).

***Cheiroseius sistaniensis* Faraji, Arjmandi-Nezhad & Karg, 2008**

Distribution and habitats. **Fars Province** (Marvdasht, Kamfiruz), soil and decayed plants under the oak trees (Beyzavi and Ostovan 2012). **Kerman Province** (Bam), soil (Mehrzhad *et al.* 2012). **Khuzestan Province** (Baghmalek), soil (Nemati *et al.* 2012d). **Semnan Province** (Damghan), soil and debris (Faraji *et al.* 2008b). **Sistan and Baluchestan Province** (Zabol), damp soil (Faraji *et al.* 2008b).

***Cheiroseius viduus* (C.L. Koch, 1839a)**

Distribution and habitats. **Golestan Province** (Gorgan), soil and litter (Kazemi *et al.* 2012). **Mazandaran Province** (Nowshar), soil and litter (Kazemi *et al.* 2012).

***Cheiroseius unguiculatus* (Berlese, 1887f)**

Distribution and habitats. **Golestan Province** (Ziarat Village), leaf litter (Arjomandi *et al.* 2013b).

Genus *Hoploseius* Berlese, 1914

***Hoploseius bispinosetus* Faraji, Sakenin-Chelav & Karg, 2006**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (region not mentioned), associated with *Fomes* sp. (Khalili-Moghadam and Nemati 2014a); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b). **Mazandaran Province** (Amol), wood fungi and decomposing wood (Faraji *et al.* 2006a). **Zanjan Province** (Zanjan County), soil, rotten wood, fungi, litter, and dung (Zare *et al.* 2012b).

Genus *Lasioseius* Berlese, 1916

***Lasioseius berlesei* (Oudemans, 1938)**

Distribution and habitats. **Zanjan Province** (Zanjan County), soil, rotten wood, fungi, litter, and dung (Zare *et al.* 2012b).

***Lasioseius confusus* Evans, 1958**

Distribution and habitats. **East Azarbaijan Province** (forests of Arasbaran region), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017).

***Lasioseius dentatus* (Fox, 1946)**

Distribution and habitats. **Fars Province** (Shiraz), soil (Montazeri *et al.* 2011); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Guilan Province** (Lowshan), soil of olive garden (Javadpour *et al.* 2018); (Rasht County, Bijar Boneh Village), wood sorrel, *Oxalis acetosella* L. (Oxalidaceae) leaves infested with spider mites; (Pir Bazar Village), litter (Ghasemi and Hajizadeh

2020). **Kerman Province** (Kerman City, parks, and landscapes), soil (Arjomandi and Kazemi 2014). **Khuzestan Province** (Ahvaz), soil (Nemati *et al.* 2012d).

Note – This species was reported by all mentioned authors as *Lasioseius scapulatus* Kennett, 1958, but Lindquist (1964) considered it as junior synonym of *L. dentatus* (cited in Moraes *et al.* 2016).

***Lasioseius floridensis* Berlese, 1916a**

Distribution and habitats. **Guilan Province** (Rasht, University of Guilan), rotten wood; (Rasht), soil of loquats fruit tree; (Ziabar), from Sawdust; (Lahijan), soil of geranium herb (*Pelargonium* sp.) (Javadpour *et al.* 2018).

***Lasioseius formosus* Westerboer, 1963**

Distribution and habitats. **Guilan Province** (Rasht, Saravan Forest), soil (Mohammadi and Hajizadeh 2022a).

***Lasioseius frankbakkeri* Faraji & Karg, 2005**

Distribution and habitats. **Guilan Province** (region not mentioned), soil, plants, warehouses, manure and decaying plants (Hajizadeh *et al.* 2009b, 2010a); (region not mentioned), associated with eriophyid mites [*Aceria ficus* (Cotte); *Aculus epiphyllus* (Nalepa); *Calepitrimerus baileyi* Keifer; *Colomerus vitis* (Pagenstecher); *Diptacus giganorhynchus* (Nalepa)] (Adeli *et al.* 2013); (Somesara), on raspberry shrubs (*Rubus* spp.) (Tajmiri and Hajizadeh 2013); (Roodbar), soil; (Rostamabad), on the olive leaves (Mahjoori *et al.* 2015); (Ziabar, Bahambar village), apple leaves; (KuchIsfahan), from mint leaves and from apple leaves; (Khomam), from mint leaves; (Rasht), mushroom soil and rotten fruits (Javadpour *et al.* 2018).

***Lasioseius inconspicuus* Westerboer, 1963**

Distribution and habitats. **Golestan Province** (Gorgan), soil (Malek-Shahkouyi *et al.* 2011b).

***Lasioseius krantzi* Chant, 1963**

Distribution and habitats. **Seventeen different Provinces in Iran**, beehives debris (Ostovan and Mossadegh 1999). **Khuzestan Province** (region not mentioned), honeybee hives (Kamali *et al.* 2001). **Kordestan Province** (region not mentioned), strawberry (Mansour Ghazi *et al.* 2006).

***Lasioseius lacunosus* Westerboer, 1963**

Distribution and habitats. **Mazandaran Province** (Amol), soil (Sakenin Chelav *et al.* 2006a, b).

***Lasioseius muricatus* (C.L. Koch, 1839a)**

Distribution and habitats. **Golestan Province** (Gorgan), soil (Malek-Shahkouyi *et al.* 2011b).

***Lasioseius ometes* (Oudemans, 1903b)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b). **Mazandaran Province** (Amol), soil (Sakenin Chelav *et al.* 2006a, b). **West Azarbaijan Province** (Urmia, Shohada valley), soil and litter

(Kavianpour et al. 2018b). **Zanjan Province** (Zanjan County), soil, rotten wood, fungi, litter, and dung (Zare et al. 2012b).

***Lasioseius ometisimilis* Hirschmann, 1962**

Distribution and habitats. **Fars Province** (Marvdasht, Kamfiruz), soil and decayed plants under the oak trees (Beyzavi and Ostovan 2012); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh et al. 2021).

Note – *Zercoseius ometisimilis* Hirschmann, 1951 is an unavailable name in an unpublished thesis (Moraes et al. 2016).

***Lasioseius parberlesei* Bhattacharyya, 1968**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (region not mentioned), ants and soil of their nest (Khalili-Moghadam et al. 2022b). **Guilan Province** (region not mentioned), sugarcane, barley, mulberry, tea, rice, fig, raspberry, sorghum, sudan grass, cereals soil, plants, warehouses, manure and decaying plants (Daneshvar 1987; Shishehbor 1991; Modarres Awal 1994, 1997; Kamali et al. 2001; Hajizadeh et al. 2009b, 2010a); (region not mentioned), associated with eriophyid mite [*Calepitrimerus baileyi* Keifer] (Adeli et al. 2013); (Masuleh), rice farm; (Daylaman), soil (Javadpour et al. 2018); (Rasht County, Keshel Varzal Village, wood sorrel, *Oxalis acetosella* L. (Oxalidaceae) leaves infested with spider mites; (Ashrafi Isfahani Educational Institute), rose, *Rosa damascena* (Rosaceae) leaves infested with spider mites (Ghasemi and Hajizadeh 2020); (Vajargah-Kelachay), from soil of tea orchards (Hajizadeh et al. 2020); (Bandar Anzali), on *Citrus* sp., infested with *Chrysomphalus dictyospermi* (Morgan) (Navaran and Hajizadeh 2021); (Rasht), associated with beetles from Staphylinidae, Chrysomelidae and an ant from Formicidae (Hajizadeh and Hosseini 2022). **Isfahan Province** (Najaf Abad, Zarrin Shahr, Falavarjan, Dorcheh), soil of fruit trees orchards (Jalaeian et al. 2006).

Note – *Indiraseius* Daneshvar, 1987 was considered a junior synonym of *Lasioseius* Berlese, 1916 (Walter and Lindquist 1997). The above-mentioned species was reported as *L. extremus* (Daneshvar, 1987). Nemati et al. (2012) proposed the correct name as *L. parberlesei*, and Moraes et al. (2015) considered *L. extremus* as a junior synonym of *L. parberlesei*.

***Lasioseius penicilliger* Berlese, 1916a**

Distribution and habitats. **Golestan Province** (Gorgan), soil (Malek-Shahkouyi et al. 2011b). **Mazandaran Province** (region not mentioned), honeybee hives (Mosaddegh 1997; Kamali et al. 2001). **Tehran, Golestan, Sistan and Baluchestan Provinces** (region not mentioned), bird nests (Ardehsir et al. 2010).

***Lasioseius phytoseioides* Chant, 1963**

Distribution and habitats. **Khuzestan Province** (Safiabad), grapevine yards (Kamali et al. 2001; Darvishzadeh and Kamali 2009).

***Lasioseius qianensis* Gu & Wang, 1990**

Distribution and habitats. **Fars Province** (Estahban), soil, leaves, litter, bark and saffron bulb (Naghbinejad et al. 2012).

Lasioseius sugawarai Ehara, 1964

Distribution and habitats. **Alborz Province** (Eshtehard), compost (Kheradmand *et al.* 2007). **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006). **Guilan Province** (region not mentioned), soil, plants, warehouses, manure and decaying plants (Hajizadeh *et al.* 2009b, 2010a); (Manjil), soil and on the olive leaves (Mahjoori *et al.* 2015); (Lahijan), from tea and mulberry leaves; (Emamzadeh Hashem), from Alder soil; (Langarud), soil, soil of loquats fruit garden; (Astanehye Ashrafiyeh), from citrus leaves; (Rezvanshahr), soil; (Rasht), from rotten fruits; (Chaboksar), from soil of citrus garden (Javadpour *et al.* 2018); (Rahimabad-Rudsar), soil and leaf litter of tea; (Parashkuh-Langarud), soil (Hajizadeh *et al.* 2020); (Rasht County, Pir Bazar Village), litter and soil; (Ashrafi Isfahani Educational Institute), litter; (Omeseh Village), soil; (Dalecheh Village), dwarf umbrella tree, *Schefflera arboricola* (Araliaceae) leaves infested with mealybugs; (Pasikhan Village), wood sorrel, *Oxalis acetosella* L. (Oxalidaceae) leaves infested with spider mites; (Jirdeh Village), soil; (Bijar Boneh Village), *Rosa damascena* (Rosaceae) leaves infested with spider mites (Ghasemi and Hajizadeh 2020). **Isfahan Province** (Shahreza), soil (Kavianpour *et al.* 2011); (Isfahan City), soil (Kadkhodaei *et al.* 2013). **Mazandaran Province** (Amol), soil (Sakenin Chelav *et al.* 2006a, b).

Lasioseius thermophilus Willmann, 1942

Distribution and habitats. **Golestan Province** (Gorgan), soil (Malek-Shahkouyi *et al.* 2011b).

Lasioseius youcefi Athias-Henriot, 1959b

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), soil (Nemati *et al.* 2012d); (region not mentioned), associated with *Fomes* sp. (Khalili-Moghadam and Nemati 2014a); (Boldaji City (Cheghakhor) and Shahrekord), soil of ants' nest, *Tapinoma* sp. (Formicidae) (Khalili-Moghadam and Saboori 2015); (Lordegan County, Khanmirza region, Salehat Village), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015). **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001); (region not mentioned), soil (Hashemi Khabir *et al.* 2013). **Fars Province** (Marvdasht, Kamfiruz), soil and decayed plants under the oak trees (Beyzavi and Ostovan 2012); (Doroodzan), soil of fields (Asadpoor *et al.* 2012); (Northwestern of Fars) (region not mentioned), soil, debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Golestan Province** (Gorgan), soil (Malek-Shahkouyi *et al.* 2011b). **Guilan Province** (region not mentioned), soil, plants, warehouses, manure and decaying plants (Hajizadeh *et al.* 2009b, 2010a); (region not mentioned), associated with eriophyid mite [*Eriophyes pyri* (Pagenstecher)] (Adeli *et al.* 2013); (Chaboksar), soil; (Rudsar), soil; (Chaboksar), soil of citrus and pomegranate garden (Javadpour *et al.* 2018); (Rasht County, Bijar Boneh Village), litter; (Pir Bazar Village), wood sorrel, *Oxalis acetosella* L. (Oxalidaceae) leaves infested with spider mites (Ghasemi and Hajizadeh 2020). **Hamedan Province** (region not mentioned), bean (*P. vulgaris*), clover (*Trifolium* sp.), apple, alfalfa, darnel, liquorice and chickpea (Khanjani and Kamali 2000a, b; Kamali *et al.* 2001); (Sarab Gamasiab of Nahavand vicinity), from soil and litter of Russian knapweed, *Acroptilon repens* (L.) (Masoudian and Khanjani 2013). **Isfahan Province** (Khomeini Shahr), soil of fruit trees orchards (Jalaeian *et al.* 2006); (Shahreza), soil (Kavianpour *et al.* 2011); (Isfahan City), soil (Kadkhodaei *et al.* 2013). **Kerman Province** (Rafsanjan), soil of fruit orchards (Mohammadi *et al.* 2012); (Jiroft), soil (Balooch Shahryari *et al.* 2012); (Sirjan County), soil, leaf litter and manure (Masnavipour *et al.* 2014); (Kerman City, parks and landscapes), soil (Arjomandi and Kazemi 2014b). **Kermanshah Province** (Rijab), soil of plum trees (Babakfard *et al.* 2007); fruit orchards (Babakfard *et al.* 2008). **Khuzestan Province** (Ahvaz), soil (Nemati *et al.* 2012d). **Lorestan Province** (Kakareza District), soil of apple orchard (Hasanvand *et al.* 2014b). **Qom Province** (region

not mentioned), soil, dung, compost and plant-litters of crops, lawns, shrubs and trees in farms, forests, orchards and parks (Agha Alikhani *et al.* 2017). **Semnan Province** (Dibaj), moss at the margin of a spring; (Cheshmeh-Ali Spring), ex. *Lepidium darba*; (Tooyehdarvar Village), soil near a pear tree, decaying trunk contents of poplar tree, soil of alfalfa farm, soil mixed with weeds at the margin of a sike, soil mixed with decaying trunk of oleaster and chicken manure; (Dibaj), soil near a willow tree, soil near a pear tree, soil mixed with weeds at the margin of a sike and soil in alfalfa farm; (Agareh Village, Chambari's orchards), soil of alfalfa farm and soil mixed hairy roots of a willow near a pool of spring; (Tazareh), decaying wood of oleaster trunk with woodborer galleries; (Astaneh Village), soil near a pear tree at the margin of a sike; (Damghan), soil near an olive tree; (Jafar Abad Village), soil; (Mehmandust Village), soil mixed with weeds at the margin of a sike; (Astaneh), soil near a willow tree at the margin of a sike; (Cheshmeh gholghol spring), soil near a medlar tree with chicory weed, soil mixed with the roots of a willow tree, soil in an apricot orchard; (Damghan), soil mixed with weeds near a walnut tree; (Cheshmeh-Ali spring), soil mixed with weeds; (Darvar Village), soil at the margin of a sike (Shamsi *et al.* 2008). **Sistan va Baluchestan Province** (Sistan region), soil (Arjmandi Nejad *et al.* 2006, 2008). **Tehran Province** (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Urmia), predator of European red mite (Kamali *et al.* 2001); (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003); (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012); (Urmia, Rashakan), soil of apple orchard; (Urmia University, soil; (Nazlu dam), soil; (Band), soil of apple orchard; (Marmisho), soil; (Emamzade), soil of mulberry orchard; (Shohada valley), soil and litter; (Silvana), soil of apple orchard; (Nari, soil and litter; (Sulik village), soil and litter (Kavianpour *et al.* 2018b). **Zanjan Province** (Zanjan County), soil, rotten wood, fungi, litter, and dung (Zare *et al.* 2012b); (Region not mentioned), soil (Bigdeli *et al.* 2014).

Notes – 1. *Lasioseius mcgregori* Chant, 1963 was reported by Arjmandi Nejad *et al.* (2006, 2008) from Sistan va Baluchestan Province (see the above data), but this species has been considered as a junior synonym of *L. youcefi* by Walter & Lindquist (1989). **2.** *Lasioseius paucisetosus* Westerboer, 1963 was reported by Jalaeian *et al.* (2006) from Isfahan Province (see the above data), but this species has been considered as a junior synonym of *L. youcefi* by Bregetova (1977c). **3.** We have excluded *Lasioseius matthysei* Chant from our study. This species was documented by Darvishzadeh and Kamali (2009) and initially mentioned with an uncertain identification by Kazemi and Rajaei (2013).

Genus *Platyseius* Berlese, 1916

***Platyseius italicus* (Berlese, 1905)**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Shahrekord), soil (Nemati *et al.* 2012d).

***Platyseius persicus* Kazemi, Payandeh & Saberi, 2016**

Distribution and habitats. **Mazandaran Province** (Nowshahr County), soil and litter (Kazemi *et al.* 2016c). **Razavi Khorasan Province** (Kashmar County), soil and litter (Kazemi *et al.* 2016c).

***Platyseius tendens* (Schränk, 1803)**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Shahrekord), soil nest of an unidentified ant (Nemati *et al.* 2012d). **Guilan Province** (region not mentioned), soil, plants, warehouses, manure and decaying plants (Hajizadeh *et al.* 2009b, 2010a); (Rasht, Saravan Forest), soil (Javadpour *et al.* 2018).

Note – The above species was reported as *Platyseius subglaber* (Oudemans, 1903) from Iran, but it has been considered as a junior synonym of *P. tendens* by Oudemans (1936) (cited in Moraes *et al.* 2016).

Family Otopheidomenidae Treat, 1955

Genus *Hemipteroseius* Evans, 1963

***Hemipteroseius adleri* Costa, 1968b**

Distribution and habitats. **Yazd Province** (region not mentioned), parasite of bugs of family Pyrrhocoridae (Joharchi and Saboori 2010).

Family Podocinidae Berlese, 1913a

Genus *Podocinum* Berlese, 1882a

***Podocinum pacificum* (Berlese, 1895)**

Distribution and habitats. **Golestan Province** (Gorgan), soil (Kazemi *et al.* 2011a); (Gorgan), soil (Malek-Shahkouyi *et al.* 2011b). **Guilan Province** (Rasht County, Ashrafi Isfahani Educational Institute), litter (Ghasemi and Hajizadeh 2020). **Lorestan Province** (Veisian District), soil under sycamore (Hasanvand *et al.* 2014b). **Mazandaran Province** (region not mentioned), soil of forests (Ostovan and Saboori 1999; Kamali *et al.* 2001); (Nowshahr), soil, (Kazemi and Rajaei 2013); (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Sabeti *et al.* 2016). **Tehran Province** (Tehran, Seyed Khandan Park), soil and litter (Kazemi and Rajaei 2013).

***Podocinum sagax* (Berlese, 1882c)**

Distribution and habitats. **Guilan Province** (Rasht County, Ashrafi Isfahani Educational Institute), litter; (Dalechah Village), litter; (Lakan Village), soil; (Bijar Boneh Village), Wood sorrel, *Oxalis acetosella* L. (Oxalidaceae) leaves infested with spider mites (Ghasemi and Hajizadeh 2020).

Superfamily Rhodacaroidea Oudemans, 1902

Family Digamasellidae Evans, 1957a

Genus *Bulbolaelps* Faraji, Zare & Rahmani, 2021

***Bulbolaelps bossei* Faraji, Zare and Rahmani, 2021**

Distribution and habitats. **Zanjan Province** (Chiyar), fruiting bodies of gilled fungi on a tree trunk (Faraji *et al.* 2021).

Genus *Dendrolaelaps* Halbert, 1915

***Dendrolaelaps arenarius* Karg, 1971a**

Distribution and habitats. **Isfahan Province** (Rezvanshahr), soil (Moradi Faradonbeh *et al.* 2018).

***Dendrolaelaps brevipilis* (Leitner, 1949)**

Distribution and habitats. **East Azarbaijan Province** (Southwest part, region not mentioned), soil (Hashemi Khabir *et al.* 2013). **Guilan Province** (Rudbar County, Pa Rudbar Village), manure (Mohammadi and Hajizadeh, 2023). **West Azarbaijan Province** (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003).

***Dendrolaelaps brevipiloides* Hirschmann & Wiśniewski, 1982**

Distribution and habitats. **Guilan Province** (Rudbar County, Pa Rudbar Village), manure (Mohammadi and Hajizadeh 2023).

***Dendrolaelaps foveolatus* (Leitner, 1949)**

Distribution and habitats. **Fars Province** (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Isfahan Province** (Rezvanshahr), soil (Moradi Faradonbeh *et al.* 2018). **Kerman Province** (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020).

***Dendrolaelaps isochetus* Shcherback & Bregetova, 1980**

Distribution and habitats. **Fars Province** (Larestan), soil of cotton and wheat fields (Khadempour *et al.* 2012); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021). **Guilan Province** (Rudbar County, Sangrud village), manure (Mohammadi and Hajizadeh 2023).

***Dendrolaelaps latior* (Leitner, 1949)**

Distribution and habitats. **Guilan Province** (Rudbar County, Damash village), manure; (Rudbar County, Rostamabad District), manure (Mohammadi and Hajizadeh 2023).

***Dendrolaelaps lignicolus* Mohammadi & Hajizadeh, 2023**

Distribution and habitats. **Guilan Province** (Rasht County, Saravan Forest Park), from rotten stump of Persian ironwood (*Parrotia persica*) (Mohammadi and Hajizadeh 2023).

***Dendrolaelaps longiusculus* (Leitner, 1949)**

Distribution and habitats. **Fars Province** (Northwestern part, gardens of Komher region), soil and debris (Abolghasemi and Kazemi 2016). **Guilan Province** (Astaneh-ye Ashrafiyeh, Safra Basteh), soil of peanut plant (Askari *et al.* 2023); (Rasht County, Sangar District, Baz Qaleh village), cow manure and on Scarabaeid beetle (Mohammadi and Hajizadeh 2023).

***Dendrolaelaps markewitschi* Shcherbak, 1980**

Distribution and habitats. **Mazandaran Province** (Ramsar County), chicken manure (Mohammadi and Hajizadeh 2023).

***Dendrolaelaps paradoxa* Shcherbak, 1982**

Distribution and habitats. **Guilan Province** (Rasht County, University of Guilan), manure; (Rasht County, Talem Seh Shanbeh village), cow manure; (Rasht County, Sangar District, Baz Qaleh village), cow manure; (Rasht County, Bijar Pes village) manure; (Rasht County, Sangar District, Sa Kacha village), manure; (Rasht County, Saravan Forest Park), soil under coniferous trees; (Rasht County, Pir Kola Chah village), cow manure; (Rasht County, Lasht-e Nesha District), rice husks;

(Rasht County, Saravan Forest), rotten stump; (Rasht County, Keshavarz Park), manure; (Siahkal County, Deylaman District, Asiabar village), manure (Mohammadi and Hajizadeh 2023).

***Dendrolaelaps populi* Hirschmann, 1960**

Distribution and habitats. **Ardabil Province** (Moghan Plain), cotton fields (Kamali *et al.* 2001). **Fars Province** (Shiraz), soil of orchards (Khezri *et al.* 2006). **Hamedan Province** (region not mentioned), wild sainfoin, alfalfa and darnel (Kamali *et al.* 2001). **Tehran Province** (Tehran, Sorkhe Hesar Forest Park), soil (Pakyari *et al.* 2006b, 2008).

***Dendrolaelaps presepum* (Berlese, 1918)**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Shahrekord), soil (Nemati *et al.* 2012c); (Ben, Bardeh; Kiar, Kharaji; Farsan, Cholicheh), in soil and rooting wood in association with ants *L. neglectus*; *Messor platyceras*; *Tapinomakaravaievi* (Khalili-Moghadam 2022); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b). **Fars Province** (Doroodzan), soil of fields (Asadpoor *et al.* 2012). **Guilan Province** (Rasht County, Saravan Forest Park), soil under coniferous trees; (Rasht County, University of Guilan), manure; (Rudbar County, Damash village), manure; (Rudbar County, Tutkabon village) manure; (Astaneh-ye Ashrafiyeh County, Abdol-abad village), manure (Mohammadi and Hajizadeh 2023). **Kerman Province** (Kerman), cow manure, poultry manure and sheep manure (Arjomandi *et al.* 2013a). **Khuzestan Province** (Izeh and Baghmalek), soil (Nemati *et al.* 2012c); (Dasht-e Azadegan, Susangerd), buffalo manure; (Hamidieh), buffalo manure; (Bavi, Mollasani), sheep manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), buffalo and sheep manure (Farahi *et al.* 2022).

***Dendrolaelaps punctatulus* Hirschmann, 1960**

Distribution and habitats. **Guilan Province** (Rudbar County, Shir Kuh village), rotten stump (Mohammadi and Hajizadeh 2023).

***Dendrolaelaps saprophilus* (Huhta, 1982)**

Distribution and habitats. **Guilan Province** (Kiashahr), soil of peanut plant (Askari *et al.* 2023); (Rasht County, University of Guilan), manure; (Department of Parks and green spaces of Rasht), wood chips (Mohammadi and Hajizadeh 2023).

***Dendrolaelaps stammeriformis* Hirschmann & Wiśniewski, 1982**

Distribution and habitats. **Guilan Province** (Rudbar County, Sangrud village), manure; (Rudbar County, Shir Kuh village), manure (Mohammadi and Hajizadeh 2023).

***Dendrolaelaps cf. willmanni* Hirschmann, 1960**

Distribution and habitats. **Bushehr Province** (Asaluyeh Port), soil (Kazemi and Alikhani 2013).

***Dendrolaelaps zwoelferi* Hirschmann, 1960**

Distribution and habitats. **Ardabil Province** (Moghan Plain), cotton fields (Kamali *et al.* 2001). **Guilan Province** (Sarash-Lahijan), soil of tea (Hajizadeh *et al.* 2020); (Rasht, Imam Khomeini Institute), plant debris; (Guilan University), soil (Ghasemi and Hajizadeh 2021). **Hamedan Province**

(region not mentioned), wild sainfoin, alfalfa, darnel (Kamali *et al.* 2001). **Kerman Province** (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **West Azarbaijan Province** (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003); (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012); (Miandoab), soil of apple orchards (Zarei and Kazemi 2014).

Genus *Dendrolaelaspis* Lindquist, 1975

***Dendrolaelaspis angulosus* (Willmann, 1936)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), soil (Nemati *et al.* 2012c); (Ben, Bardeh; Kiar, Kharaji; Farsan, Cholicheh), in soil and rooting wood in association with ants *L. neglectus*; *Messor platyceras*; *Tapinomakaravaievi* (Khalili-Moghadam 2022); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b).

***Dendrolaelaspis lindquisti* (Shcherbak, 1978)**

Distribution and habitats. **Fars Province** (Koohmare-Sorkhi, oak forest), soil and leaf litter (Yazdanpanah and Kazemi 2014a). **West Azarbaijan Province** (Miandoab), soil of apple orchards (Zarei and Kazemi 2014).

***Dendrolaelaspis lobatus* Shcherbak & Cheleviev, 1977**

Distribution and habitats. **East Azarbaijan Province** (Southwest of part, region not mentioned), soil (Hashemi Khabir *et al.* 2013). **Fars Province** (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **West Azarbaijan Province** (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003).

Genus *Dendroseius* Karg, 1965

***Dendroseius amoliensis* Faraji, Sakenin-Chelav & Karg, 2006**

Distribution and habitats. **Guilan Province** (Rasht County, Saravan Forest), rotten wood (Mohammadi and Hajizadeh 2022b). **Mazandaran Province** (Amol), soil and debris (Faraji *et al.* 2006b).

***Dendroseius vulgaris* Ma, Ho & Wang, 2014**

Distribution and habitats. **Guilan Province** (Rasht County), livestock manure and decayed rice bran; (KuchIsfahan district), decayed rice bran; (Lashtnesha district), livestock manure and decayed rice bran; (Khomam district), decayed rice bran; (Sangar district), livestock manure and decayed rice bran (Mohammadi and Hajizadeh 2022b); (Astaneh-ye Ashrafiyeh, Tamchal), soil of peanut plant (Askari *et al.* 2023).

Genus *Digamasellus* Berlese, 1905

***Digamasellus punctum* (Berlese, 1904a)**

Distribution and habitats. **Kermanshah Province** (Javanrood region), cow manure (Hosseini *et al.* 2019).

Genus *Iphidodendrolaelaps* Hirschmann & Wisniewski, 1982***Iphidodendrolaelaps quadrisetus* (Berlese, 1921)**

Distribution and habitats. **Markazi and Tehran Province** (Saveh and Mahallat region), associated with the mediterranean pine beetle, *Orthotomicus erosus* (Wollaston) (Farmahiny Farahani *et al.* 2013).

Genus *Multidendrolaelaps* Hirschmann, 1974***Multidendrolaelaps acriluteus* (Athias-Henriot, 1961)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord), soil (Nemati *et al.* 2012c). **Khuzestan Province** (Bavi, Mollasani), sheep manure and cow manure; (Ahvaz, Gavmish Abad), buffalo manure; (Ahvaz, dairy farm at the Shahid Chamran University campus), cow manure; (Hamidieh), buffalo manure; (Shushtar, Arab Hassan), cow manure; (Shush, Khavar-e Seyyed Khalaf), cow manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle, buffalo, sheep and horse manure (Farahi *et al.* 2022).

***Multidendrolaelaps euepistomus* Hirschmann, 1960**

Distribution and habitats. **Isfahan Province** (Najaf Abad), foliage of trees, weeds and soil of orchards (Jalaeian *et al.* 2004a).

***Multidendrolaelaps multidentatus* (Leitner, 1949)**

Distribution and habitats. **Alborz Province** (Mallard and Sharyar), compost and mushroom (Kheradmand *et al.* 2007). **Khuzestan Province** (Bavi, Mollasani), buffalo manure; (Ahvaz, dairy farm at the Shahid Chamran University campus), cow manure; (Hamidieh), buffalo manure; (Shush, Abdolkhan), cow manure; (Shushtar, Arab Hassan), cow manure; (Shushtar, Band-e Qir), cow manure; (Shush, Khoyes), cow manure; (Hamidieh, Tarrahiyeh), cow manure; (Hamidieh, Pich-e Seyyed Jaber), buffalo manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle, buffalo, sheep and horse manure (Farahi *et al.* 2022).

Genus *Oligodentatus* Shcherbak, 1980***Oligodentatus* sp.**

Distribution and habitats. **Razavi Khorasan Province** (region not mentioned), collected from orchards (Jalaeian *et al.* 2013).

Family *Halolaelapidae* Karg, 1965**Genus *Halolaelaps* Berlese & Trouessart, 1889*****Halolaelaps curvisetosus* (Leitner, 1946)**

Distribution and habitats. **Kerman Province** (Anbar-Abad region, Jiroft County), soil and litter samples collected in a citrus orchard (Kazemi *et al.* 2018a).

***Halolaelaps saproincisus* Hirschmann & Götz, 1968**

Distribution and habitats. **Azarbaijan Province** (region not mentioned), bee hive debris (Mossadegh

1997). **Razavi Khorasan Province** (Saraks region), under elytra of an unidentified species of *Aphodius* Illiger; (Mashhad region), under elytra of an unidentified species of scarab and Geotrupidae beetles; (Torbat Heydarieh region), removed from an unidentified species of Staphylinidae beetle (Kazemi *et al.* 2018a).

Note – Mosaddegh (1997) reported *Halolaelaps* cf. *saproincisus* (Hirschmann & Gotz, 1968) in the debris of beehives from Azarbaijan Province. We checked some of those specimens and found this species, so we are keeping it on our list. Kamali *et al.* (2001) and Modarres Awal (2012) mistakenly wrote the species name and reported it incorrectly. This was due to a combination of the species name and the abbreviation "ca" (circa = about) when writing the name, resulting in the name appearing as "*casaproincisus*" instead of "*ca casaproincisus*". Therefore, considering that the species introduced by Mossadegh (1997) was correct, in this work, we have corrected the name mentioned in Kamali *et al.* (2001) and Modarres Awal (2012) as mentioned above.

Halolaelaps sexclavatus (Berlese, 1921)

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Lordegan, Ooreh; Ben, Hoseinabad, Larak; Saman, Gharaghoosh; Koohrang, Dashte laleh, Bazoft (Taraz)), in soil and rooting wood in association with *C. xerxes*; *C. fritillariae*; *L. neglectus*; *M. platyceras*; *T. karavaievi* (Khalili-Moghadam 2022). **Fars Province** (Shiraz), soil of orchards (Khezri *et al.* 2006); (Sepidan, Hodayan), foliage, soil, leaf-litter, weeds and soil of apple trees (Maneshi *et al.* 2012). **Golestan Province** (Kordkooy forest), ex. *Herpalus* sp. (Bahrami *et al.* 2011). **Isfahan Province** (Isfahan), soil (Khalili-Moghadam *et al.* 2012). **Kerman Province** (Kerman), cow manure and sheep manure (Arjomandi *et al.* 2013a); (Sirjan), soil and leaf litter (Masnavipour *et al.* 2014); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Khuzestan Province** (Ahvaz), horse manure; (Ahvaz, dairy farm at Shahid Chamran University campus), cow manure; (Bavi, Mollasani, buffalo manure; (Ahvaz, Alhaei), cow manure; (Shush, Abdolkhan), cow manure; (Shush, Seyyed Abbas), buffalo manure; (Shushtar, Band-e Qir), cow manure; (Shushtar, Arab Hassan), cow manure; (Bavi, Naddafieh), cow manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle, buffalo and horse manure (Farahi *et al.* 2022). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014).

Genus *Leitneria* Karg, 1961

Leitneria pugio (Karg, 1961)

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Ben, Bardeh; Lordegan, Ooreh), in rooting wood in association with *L. neglectus*; *T. karavaievi* (Khalili-Moghadam 2022). **Kerman Province** (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Khuzestan Province** (Ahvaz), horse manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), horse manure (Farahi *et al.* 2022).

Genus *Saprolaelaps* Leitner, 1946

Saprolaelaps sp.

Distribution and habitats. **Tehran Province** (Tehran, Shahid Beheshti University Campus), soil (Kamali *et al.* 2004).

Note – Another unknown species of this genus has been reported from Tehran Province (Tehran City, Police Park) in soil by Maleki *et al.* (2016).

Genus *Saprosecans* Karg, 1964

***Saprosecans baloghi* Karg, 1964**

Distribution and habitats. **Fars Province** (Marvdasht, Kamfiruz), soil and decayed plants under the oak trees (Beyzavi and Ostovan 2012).

Family Ologamasidae Ryke, 1962

Genus *Allogamasellus* Athias-Henriot, 1961

***Allogamasellus castilhoi* Nemati & Vatankhah, 2016**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Lordegan, Felard region, Poshtkouh; Khanmirza region, Salehat Village), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015); (Shahrekord environs), nest of *Formica* sp. (Formicidae) (Nemati and Vatankhah 2016); (Ben, Larak), in soil in association with *M. platyceras* (Khalili-Moghadam 2022); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b).

Note – Bagheri Kordeshami *et al.* (2015) reported *Allogamasellus* sp., and our observation showed that those belong to the mentioned species.

Genus *Gamasiphis* Berlese, 1904a

***Gamasiphis furcatus* Karg, 1990**

Distribution and habitats. **Hormozgan Province** (Minab), associated with soil under mango trees (Dolati and Ostovan 2017b). **Kerman Province** (Dosari region), soil and litter (Khalesi and Kazemi 2017).

***Gamasiphis lanceolatus* Karg, 1987**

Distribution and habitats. **Fars Province** (Northwestern), soil and debris (Abolghasemi and Kazemi 2016). **Golestan Province** (Gorgan), soil (Kazemi *et al.* 2011a). **Guilan Province** (region not mentioned), stored rice, rice dust and debris (Noei *et al.* 2008); (Sarash-Lahijan, Siahkal, Lahijan, Tea Research Institute-Lahijan, Parashkuh-Langrud, Otaghvar-Langrud, Amlash, Vajargah-Kelachay, Kulmeleh-Langrud, Mahvizan and Talaf-SomehSara), soil of tea; (Moein Hotel-Fuman), soil and leaf of tea (Hajizadeh *et al.* 2020); (Rasht, Isfahani Educational Institute, Sima Manzar Organization, Pir Bazar village), wood sorrel, *O. acetosella* leaves; (Rasht, Rice research Institute, Imam Khomeini Institute, Deh Baneh-ye, Eslamabad village; Omesheh village), soil; (Rasht, Pir Bazar village), soil and litter; (Rasht, Bijar Bonch village), soil, litter, cucumber, *C. sativus* leaves; (Rasht, Vishka Nanak village, Dalechah village), litter; (Rasht, Pasikhan village), wood sorrel, *O. acetosella* leaves infested with spider mites; (Rasht, Keshel Varzal village), tomato, *S. lycopersicum* leaves (Ghasemi and Hajizadeh 2021); (Astaneh-ye Ashrafiyeh, Keshel, Azadmahalleh), soil of peanut plant (Askari *et al.* 2023). **Kerman Province** (Kerman County), cow manure (Arjomandi *et al.* 2013a); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Mazandaran Province** (region not mentioned), soil (Kazemi and Ahangaran 2011); (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Saber *et al.* 2016). **North Khorasan Province** (region not mentioned), in the nests of *Tapinoma* sp. (Formicidae) (Rezaei *et al.* 2016).

***Gamasiphis pulchellus* (Berlese, 1887e)**

Distribution and habitats. **Fars Province** (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil

surface (Farzaneh *et al.* 2021); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Isfahan Province** (Khomeini Shahr, Najaf Abad), soil of fruit orchards (Jalaeian *et al.* 2004b); (Rezvanshahr), soil (Moradi Faradonbeh *et al.* 2018). **Tehran Province** (Tehran City, Police Park), soil (Maleki *et al.* 2016).

Note – We have excluded *Gamasiphis hemicapillus* Karg, 1990 from our study. This species was documented by Darvishzadeh and Kamali (2009) and initially mentioned with an uncertain identification by Kazemi and Rajaei (2013).

Genus *Gamasiphoides* Womersley, 1956

***Gamasiphoides* sp.**

Distribution and habitats. **Khuzestan Province** (Ahvaz), chicken (no more data) (Kamali *et al.* 2001).

Note – *Gamasiphoides* sp. has been reported as a member of the family Leptolaelapidae by Kamali *et al.* (2001).

Genus *Ologamasus* Berlese, 1888b

***Ologamasus* sp.**

Distribution and habitats. **Guilan Province** (Somesara), on raspberry shrubs (*Rubus* spp.) (Tajmiri and Hajizadeh 2013).

Genus *Sessiluncus* G. Canestrini, 1898

***Sessiluncus aegypticus* Nasr & Afifi, 1986**

Distribution and habitats. **Kerman Province** (Jiroft), stem and palm fiber (Rajaei *et al.* 2012); (Anbar-Abad County), soil litter and date palm fibers (Kazemi *et al.* 2021).

***Sessiluncus colchicus* Bregetova, 1977d**

Distribution and habitats. **Hormozgan Province** (Minab), associated with soil under mango trees (Dolati and Ostovan 2017a).

***Sessiluncus hungaricus* Karg, 1964**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Lordegan, Khanmirza region, Salehat Village; Monj region, Pal Borideh Village, Cheshmeh khani Village), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015); (Ben, Larak; Koohrang, Dashte laleh, Baghchendar), in soil in association with *C. fritillariae*; *M. platyceras*; *P. koshewnikovi* (Khalili-Moghadam 2022); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b). **Fars Province** (Koohmare-Sorkhi region), oak forests (Kazemi and Yazdanpanah 2013b). **Gorgan Province** (Baran Kouh), soil-litter (Kazemi *et al.* 2021). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a, b). **Mazandaran Province** (Gaem Shahr, Chalous County), soil-litter (Kazemi *et al.* 2021).

Genus *Stylochirus* G. & R. Canestrini, 1882a

***Stylochirus multiclavatum* (Willmann, 1953)**

Distribution and habitats. **Golestan Province** (Gorgan), soil and litter (Kazemi *et al.* 2011a, 2012).

Kohgiluyeh va Boyer-Ahmad Province (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a).

Genus *Periseius* Womersley, 1961

***Periseius* sp.**

Distribution and habitats. **Hormozgan Province** (mangrove forests of Qeshm Island), soil (Kazemi *et al.* 2018b).

Family Rhodacaridae Oudemans, 1902

Genus *Multidentorhodacarus* Shcherbak, 1980

***Multidentorhodacarus denticulatus* (Berlese, 1921)**

Distribution and habitats. **Fars Province** (Shiraz), soil of orchards (Khezri *et al.* 2006); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Guilan Province** (Tea Research institute-Lahijan, Siahsak), soil of tea (Hajizadeh *et al.* 2020). **Mazandaran Province** (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Sabeti *et al.* 2016). **Razavi Khorasan Province** (Mashhad), soil (Abbaspour *et al.* 2017).

Note – Some authors reported this species as *Rhodacarus denticulatus* from Iran.

***Multidentorhodacarus saboorii* Castilho, Jalaeian & Moraes, 2012**

Distribution and habitats. **Fars Province** (Larestan), leaves, fruits, trunk fiber and soil of date palm (Majidi and Akrami 2013). **Isfahan Province** (Khomeini Shahr, Najaf Abad, Dorcheh), soil of an orchard (Castilho *et al.* 2012a). **Kerman Province** (Jiroft), soil of an orchard (Castilho *et al.* 2012a). **Razavi Khorasan Province** (region not mentioned), orchards (Jalaeian *et al.* 2013). **Yazd Province** (region not mentioned), soil (Kafi *et al.* 2014).

***Multidentorhodacarus sogdianus* (Shcherbak, 1980)**

Distribution and habitats. **Guilan Province** (Otaghvar-Langrud, Amlash), soil of tea (Hajizadeh *et al.* 2020); (Rasht, Keshel Varzal village), soil (Ghasemi and Hajizadeh 2021). **Tehran Province** (region not mentioned), ornamental plants (Hamidi *et al.* 2013).

Genus *Paragamasellevans* Loots & Ryke, 1962

***Paragamasellevans* sp.**

Distribution and habitats. **Isfahan Province** (Qale'e Sefid, Khomeini Shahr, Falavarjan, Dorcheh, Goldasht), foliage of trees, weeds and soil of orchards (Jalaeian *et al.* 2004a).

Genus *Protogamasellopsis* Evans & Purvis, 1987

***Protogamasellopsis cavernicola* (Moraza, 2004)**

Distribution and habitats. **Kerman Province** (Jiroft), soil (Balooch Shahryari *et al.* 2012).

***Protogamasellopsis corticalis* Evans & Purvis, 1987**

Distribution and habitats. **Isfahan Province** (Rezvanshahr), soil (Moradi Faradonbeh *et al.* 2018). **Zanjan Province** (region not mentioned), soil (Rahmani and Zare 2011).

***Protogamasellopsis posnaniensis* Wiśniewski & Hirschmann, 1991**

Distribution and habitats. **Guilan Province** (region not mentioned), stored rice, rice dust and debris (Noei *et al.* 2008).

Genus *Rhodacarellus* Willmann, 1935b

***Rhodacarellus epigynialis* Sheals, 1956**

Distribution and habitats. **Ardabil Province** (Moghan Plain), cotton fields (Kamali *et al.* 2001). **East Azarbaijan Province** (region not mentioned), soil (Kamali *et al.* 2001); (Southwest), soil (Hashemi Khabir *et al.* 2013). **Guilan Province** (Rasht, Bijar Bonch village), soil (Ghasemi and Hajizadeh 2021). **Hamedan Province** (region not mentioned), bean (*P. vulgaris*), alfalfa and wild sainfoin (Khanjani and Kamali 2000b; Kamali *et al.* 2001). **Kerman Province** (Rafsanjan), soil of fruit orchards (Mohammadi *et al.* 2012). **Khuzestan Province** (Ahvaz), soil (Baharloo *et al.* 2006). **West Azarbaijan Province** (Urmia), soil (Rezaie *et al.* 2011); (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012); (Urmia University), soil (Mirfakhraie *et al.* 2017).

***Rhodacarellus iraniensis* Castilho, Jalaeian & Moraes, 2012**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b). **Fars Province** (Larestan), leaves, fruits, trunk fiber and soil of date palm (Majidi and Akrami 2013); (Koochmare-Sorkhi region, oak forest), soil and leaf litter (Yazdanpanah and Kazemi 2014a). **Guilan Province** (Astaneh-ye Ashrafiyeh, Kiashahr), soil of peanut plant (Askari *et al.* 2023). **Isfahan Province** (Najaf Abad, Borkhar, Falavarjan, Khomeini Shahr), soil of an orchard (Castilho *et al.* 2012a). **Razavi Khorasan Province** (region not mentioned), orchards (Jalaeian *et al.* 2013).

Note – A species was reported as *Rhodacarellus* cf. *iraniensis* by Kazemi and Yazdanpanah (2013b) from Fars Province (Koochmare-Sorkhi region), oak forests.

***Rhodacarellus silesiacus* Willmann, 1936**

Distribution and habitats. **Fars Province** (Doroodzan), soil of fields (Asadpoor *et al.* 2012); (Northwestern), soil and debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Kerman Province** (Kerman City, parks and landscapes), soil (Arjomandi and Kazemi 2014b); (Sirjan), soil and leaf litter (Masnavipour *et al.* 2014). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a, b). **Mazandaran Province** (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Saber *et al.* 2016). **Razavi Khorasan Province** (Kashmar), soil of vineyards (Salarzahi *et al.* 2011). **Tehran Province** (Tehran, Shahid Beheshti University Campus), soil (Kamali *et al.* 2004); (Tehran, Sorkhe Hesar Forest Park), soil (Pakyari *et al.* 2006b, 2008); (region not mentioned), ornamental plants (Hamidi *et al.* 2013). **West Azarbaijan Province** (Miandoab Plain), foliage and soil of sugarbeet fields (Haddad Irani-Nejad *et al.* 2003); (Miandoab), soil of apple orchards (Zarei and Kazemi 2014). **Yazd Province** (region not mentioned), soil (Kafi *et al.* 2014).

Genus *Rhodacarus* Oudemans, 1902

***Rhodacarus coronatus* (Berlese, 1921)**

Distribution and habitats. **Kerman Province** (Sirjan), soil and leaf litter (Masnavipour *et al.* 2014).

***Rhodacarus longisetosus* Shcherbak, 1980**

Distribution and habitats. **Razavi Khorasan Province** (Kashmar), soil of vineyards (Salarzahi *et al.* 2011).

***Rhodacarus olgae* Shcherbak, 1975**

Distribution and habitats. **Isfahan Province** (Rezvanshahr), soil (Moradi Faradonbeh *et al.* 2018).

Superfamily Veigaiioidea Oudemans, 1939

Family Veigaiidae Oudemans, 1939a

Genus *Gamasolaelaps* Berlese, 1904e

***Gamasolaelaps excisus* (Koch, 1879)**

Distribution and habitats. **Guilan Province** (Rasht, Bijar Bonch village), soil (Ghasemi and Hajizadeh 2021); (Rasht, Bijar Boneh village), soil (Hajizadeh 2022a).

***Gamasolaelaps whartoni* (Farrier, 1957)**

Distribution and habitats. **Guilan Province** (Lahijan), soil of tea (*Camellia sinensis* (L.)) garden (Hajizadeh 2022a). **Mazandaran Province** (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Saber *et al.* 2016).

***Gamasolaelaps* sp.**

Note – Kamali *et al.* (2001) reported an unknown species of the genus *Gorirossia* Farrier, 1957 from Ardabil Province (Moghan Plain), cotton fields, and this species was documented in Kazemi and Rajaei (2013). The mentioned genus was considered a junior synonym of the genus *Gamasolaelaps* Berlese, 1904 by Evans (1959).

Genus *Veigaia* Oudemans, 1905b

***Veigaia decurtata* Athias-Henriot, 1961**

Distribution and habitats. **Fars Province** (Koohmare Sorkhi), soil and litter of oak forest (Kazemi and Rajaei 2013); (Koohmare-Sorkhi region), oak forests (Kazemi and Yazdanpanah 2013b); (Koohmare-Sorkhi region, oak forest), soil and leaf litter (Yazdanpanah and Kazemi 2014a). **Isfahan Province** (Goldasht), foliage of trees, weeds and soil of orchards (Jalaeian *et al.* 2004a). **Yazd Province** (region not mentioned), soil (Kafi *et al.* 2014).

***Veigaia exigua* (Berlese, 1917)**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran forests), soil, leaf-litter and plant debris (Ordoukhanian *et al.* 2017). **Fars Province** (Sepidan, Homayjan), foliage, soil, leaf-litter, weeds and soil of apple trees (Maneshi *et al.* 2012). **Guilan Province** (Mahvizan-Someh Sara,

Divshal-Langrud), soil of tea (Hajizadeh *et al.* 2020); (Mahvizan-Someh Sara), soil of tea (*Camellia sinensis* (L.)) garden; (Divshal-Langrud), soil of tea garden (Hajizadeh 2022a). **Kerman Province** (Sirjan, Pariz), soil (Masnavipour *et al.* 2011); (Sirjan), soil and leaf litter (Masnavipour *et al.* 2014); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020).

***Veigaia nemorensis* (C.L. Koch, 1892)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (region not mentioned), ants nest and *Fomes* sp. (Khalili-Moghadam and Nemati 2014a); (Saman), soil of ants' nest, *Tapinoma* sp. (Hym. Formicidae) (Khalili- Moghadam and Saboori 2015); (Saman, Gharaghoosh; Ben, Bardeh, Karsenak), in soil and rooting wood in association with *L. neglectus*; *P. koshewnikovi* (Khalili-Moghadam 2022); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b). **East Azarbaijan Province** (Arasbaran forests, Vaygan, Aynalu, Kalaleh, Garmanab), soil and plant debris, leaf-litter (Mohammad-Doustaresharaf *et al.* 2016a, b; Ordoukhanian *et al.* 2017). **Fars Province** (Koohmare-Sorkhi region), oak forests (Kazemi and Yazdanpanah 2013b); (KoohmareSorkhi region, oak forest), soil and leaf litter (Yazdanpanah and Kazemi 2014a); (Northwestern), soil and debris (Abolghasemi and Kazemi 2016). **Hamedan Province** (region not mentioned), soil of fruit trees and weeds (Rostami *et al.* 2010); (Sarab Gamasiab of Nahavand vicinity; Ganjnameh region), from soil and litter of Chicory, *Cichorium intybus* L. (Masoudian and Khanjani 2013). **Kermanshah Province** (Rijab), soil of plum trees (Babakfard *et al.* 2007); fruit orchards (Babakfard *et al.* 2008). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a, b). **Lorestan Province** (Makhmalkooh District), soil under willow tree (Hasanvand *et al.* 2014b). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014).

***Veigaia planicola* Berlese, 1892b**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Lordegan, Khanmirza region, Salehat Village; Monj region, Ghale Madreseh, Pal Borideh, Cheshmeh Khani Villages), soil from different parts of oak forests (Bagheri Kordeshami *et al.* 2015); (Saman), soil (Shariati *et al.* 2017); (Saman, Gharaghoosh; Ben, Bardeh, Karsenak; Koohrang, Dimeh, Bazoft (Sartang), Dashte laleh; Ben, Hoseinabad; Lordegan, Ooreh; Kiar, Kharaji), in soil and rooting wood in association with *C. Bakhtiyariensis*; *L. neglectus*; *P. koshewnikovi*; *L. semenovi*; *M. platyceras*; *T. karavaievi* (Khalili-Moghadam 2022). **East Azarbaijan Province** (Tabriz), soil and foliage of poplar and elm trees (Rahbar Shahlan *et al.* 2014); (Arasbaran Forests, Vaygan, Aynalu, Kalaleh, Garmanab), soil, leaf-litter and plant debris (Mohammad-Doustaresharaf *et al.* 2016 a, b; Ordoukhanian *et al.* 2017). **Fars Province** (Northwestern), soil and debris (Abolghasemi and Kazemi 2016). **Guilan Province** (Siahkal, Amlash, Otaghvar-Langrud, Rahimabad-Rudsar), soil of tea (Hajizadeh *et al.* 2020); (Siahkal, Amlash, Rahimabad-Rudsar, Lahijan, Rasht- Lakan village), soil of tea garden; (Otaghvar-Langrud, Rasht- Savaran forest park, Soumeh-e Sara- Baham bar village), soil; (Fuman-Masouleh village, soil of malnut tree; (Talesh, Chubar village), soil of pine tree; (Khomam), soil of elm garden; (Langrud- Parashkuh village), soil of citrus and tea garden; (Rudsar-Qasemabad village), soil of citrus garden; (Rasht, Fuman-Masouleh), soil of mulberry garden (Hajizadeh 2022a). **Isfahan Province** (Najaf Abad), foliage of trees, weeds and soil of orchard (Jalaeian, *et al.* 2004a); (Kashan), soil (Sekonji *et al.* 2011); (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022). **Kerman Province** (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Kermanshah Province** (Rijab), fruit orchards (Babakfard *et al.* 2008). **Lorestan Province** (Bishe District), soil under cedar tree (Hasanvand *et al.* 2014b). **Mazandaran Province** (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Saber *et al.* 2016). **North Khorasan Province** (region not mentioned), in the nests of *Tapinoma* sp. (Formicidae) (Rezaei *et al.* 2016). **Tehran**

Province (Tehran, Shahid Beheshti University Campus), soil (Kamali *et al.* 2004). **West Azarbaijan Province** (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012).

Notes – 1. We examined specimens of *Veigaia* sp. nr. *indica* [Fars Province (Estahban), soil, leaves, fruits, and trunk of fig trees], which was recorded by Daneshnia and Akrami (2013) and determined it as *V. planicola*. **2.** Kamali *et al.* (2001) reported *Veigaia serrata* Willmann, 1935 from soil of orchards in East Azarbaijan Province (Tabriz), but it is a junior synonym of *Veigaia planicola* (Bregetova, 1977b).

***Veigaia uncata* Farrier, 1957**

Distribution and habitats. **Mazandaran Province** (Nowshar and Ecological (Botanical) Garden of Nowshahr), soil and litter (Sabeti *et al.* 2014; Sabeti *et al.* 2016).

Subcohort Epicriidae Kramer, 1885

Superfamily Epicrioidea Berlese, 1885

Family Epicriidae Berlese, 1885

Genus *Epicrius* G. Canestrini & Fanzago, 1877a

***Epicrius* cf. *bulgaricus* Balogh, 1958**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Aynalu, Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a).

***Epicrius canestrinii* (Haller, 1881)**

Distribution and habitats. **Guilan Province** (Rasht, Pir Bazar village), weed leaves (Ghasemi and Hajizadeh 2021).

***Epicirus tauricus* Bregetova, 1977f**

Distribution and habitats. **Mazandaran Province** (Amol), soil and forest litter (Kazemi and Pakinat Saei 2013b).

***Epicrius* sp.**

Distribution and habitats. **Kerman Province** (Kerman, Sirch), soil (Jalaeian and Ahmadi 2002). **Mazandaran Province** (Amol), soil and litter (Kazemi and Rajaei 2013).

Superfamily Zerconoidea Canestrini, 1891

Family Zerconidae Canestrini, 1891

Genus *Aspar* Halašková, 1977

***Aspar* sp.**

Distribution and habitats. **Mazandaran Province** (Behshahr County), soil (Kazemi and Samanipour 2018).

Genus *Prozercon* Sellnick, 1943

***Prozercon bircanae* Urhan, 1998**

Distribution and habitats. **East Azarbaijan Province** (Kaleybar), moss from soil layer (Karaca *et al.*

2017).

***Prozercon caspiansis* Moghimi *et al.*, 2021**

Distribution and habitats. **Mazandaran Province** (from different forestland areas), soil (Moghimi *et al.* 2021).

***Prozercon dominiaki* Błazsak, 1979**

Distribution and habitats. **East Azarbaijan Province** (Kaleybar), leaf-litter from mixed forest, moss from soil layer (Karaca *et al.* 2017); (Arasbaran Forest), leaf-litter under oak (*Quercus* sp.), humus and moss, soil under raspberry (*Rubus* sp.), grassland and soil (Mohammad-Doustaresharaf *et al.* 2023). **Guilan Province** (Langrud, Divshal-Langrud), soil of tea (Hajizadeh *et al.* 2020). **Mazandaran Province** (Rudbarak), litter from beech forest with hornbeam trees (Błazsak 1979); (Shahsavari), litter from sheer limestone rock with mosses and herbaceous vegetation, litter from beech forest with sycamore and lime trees, litter from limestone rocks (Błazsak 1979); (from different forestland areas), soil (Moghimi *et al.* 2021).

***Prozercon iranensis* Ujvári, 2013**

Distribution and habitats. **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn field (Ujvári *et al.* 2013).

***Prozercon norae* Ujvári, 2011**

Distribution and habitats. **East Azarbaijan Province** (Tabriz), soil and foliage of poplar and elm trees (Rahbar Shahlan *et al.* 2014); (Arasbaran Forests, Vaygan, Aynalu, Kalaleh, Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a, b).

Note – Unknown species of *Prozercon* was reported from Hamedan Province in soil under *Astragalus* sp. by Kamali *et al.* (2001) and Isfahan Province (Rezvanshahr) in soil by Moradi Faradonbeh *et al.* (2018).

Genus *Zercon* C.L. Koch, 1836b

***Zercon adoxyphes* Błazsak, 1979**

Distribution and habitats. **Mazandaran Province** (Shahsavari), litter from beech forest with sycamore and lime trees (Błazsak 1979).

***Zercon agnostus* Błazsak, 1979**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran Forest), soil under raspberry (*Rubus* sp.), grassland and soil (Mohammad-Doustaresharaf *et al.* 2023).

***Zercon ahadiyati* Mohammad-Doustaresharaf, Karaca, Bagheri & Urhan, 2023**

Distribution and habitats. **West Azarbaijan Province** (Mirabad, Piranshahr County, Alvatan Forest), leaf litter under azerole (*Crataegus azarolus*) (Mohammad-Doustaresharaf *et al.* 2023).

***Zercon andrei* Sellnick, 1958**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran Forest), humus and moss

(Mohammad-Doustaresharaf *et al.* 2023).

***Zercon apladellus* Blaszk, 1979**

Distribution and habitats. **West Azarbaijan Province** (Kavelan, Mahabad), soil under oak (*Quercus* sp.) (Mohammad-Doustaresharaf *et al.* 2023).

***Zercon azerbaijanensis* Mohammad-Doustaresharaf, Karaca, Bagheri & Urhan, 2023**

Distribution and habitats. **West Azarbaijan province** (Urmia, Dalamper, Sheykh Zard Village, Margavar rural district, Silvaneh district), soil and leaf-litter under milk vetch (*Astragalus* sp.), grassland (Mohammad-Doustaresharaf *et al.* 2023).

***Zercon berlesei* Sellnick, 1958**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Shahrekord, Lordegan), soil (Nemati *et al.* 2012c). **Khuzestan Province** (Baghmalek), soil (Nemati *et al.* 2013b).

***Zercon colligans* Berlese, 1920**

Distribution and habitats. **East Azarbaijan Province** (Hamneshin, Khoda Afarin), leaf-litter from mixed forest, moss from soil layer (Karaca *et al.* 2017); (Arasbaran Forest), soil under raspberry (*Rubus* sp.), grassland (Mohammad-Doustaresharaf *et al.* 2023). **West Azarbaijan Province** (Urmia city), soil (Kavianpour *et al.* 2018a); (Dalamper, Urmia), soil and leaf-litter under milk vetch (*Astragalus* sp.); (Urmia, Khan Darace), soil under oleaster (*Pyrus* sp.); (Mir Abad Forest), soil under hawthorn (*Crataegus* sp.) (Mohammad-Doustaresharaf *et al.* 2023).

***Zercon michejdai* Blaszk, 1979**

Distribution and habitats. **East Azarbaijan Province** (Kaleybar), moss from soil layer (Karaca *et al.* 2017); (Arasbaran Forest), leaf-litter under oak (*Quercus* sp.) (Mohammad-Doustaresharaf *et al.* 2023). **Mazandaran Province** (Rudbarak), litter from beech forest with hornbeam trees; (Shahsavari), litter from beech forest with sycamore and lime trees, litter from sheer limestone rock with mosses and herbaceous vegetation (Blaszk 1979).

***Zercon notabilis* Blaszk, 1979**

Distribution and habitats. **East Azarbaijan Province** (Kaleybar), moss from soil layer (Karaca *et al.* 2017); (Arasbaran Forest), soil (Mohammad-Doustaresharaf *et al.* 2023). **Lorestan Province** (Amir), leaf-litter from mixed forest, moss from soil layer (Karaca *et al.* 2017). **West Azarbaijan Province** (Urmia city), soil (Kavianpour *et al.* 2018a); (Kavelan, Mahabad), soil under oak (*Quercus* sp.) (Mohammad-Doustaresharaf *et al.* 2023).

***Zercon ostovani* Javan, Karaca & Urhan, 2018**

Distribution and habitats. **Fras Province** (Shiraz city, Eram botanical garden), from litter and soil under red horse chestnut (Javan *et al.* 2018).

***Zercon ozkani* Urhan & Ayyıldız, 1994**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran Forest), leaf-litter under oak

(*Quercus* sp.) (Mohammad-Doustaresharaf *et al.* 2018a, 2023).

***Zercon persicus* Kavianpour, Karaca, Karimpour & Urhan, 2018**

Distribution and habitats. **West Azarbaijan Province** (Urmia city), soil (Kavianpour *et al.* 2018a); (Dahamper, Urmia), soil and leaf-litter under milk vetch (*Astragalus* sp.); (Marmisho, Urmia), soil under oak (*Quercus* sp.) (Mohammad-Doustaresharaf *et al.* 2023).

***Zercon tabrizensis* Mohammad-Doustaresharaf, Karaca, Bagheri & Urhan, 2023**

Distribution and habitats. **East Azarbaijan province** (Arasbaran Forest, Abbasabad Village, Minjavan Gharbi rural district, Minjavan district, Khoda Afarin County), humus and moss, (Arasbaran Forest, Kalale Olya Village, Minjavan Gharbi rural district, Minjavan district, Khoda Afarin County), soil (Mohammad-Doustaresharaf *et al.* 2023).

***Zercon turcicus* Urhan & Ayyıldız, 1994**

Distribution and habitats. **East Azarbaijan Province** (Khoda Afarin, Kaleybar), leaf-litter from mixed forest, moss from soil layer (Karaca *et al.* 2017). **West Azarbaijan Province** (Urmia city), soil (Kavianpour *et al.* 2018a).

***Zercon* sp.**

Distribution and habitats. **Fars Province** (Marvdasht, Kamfiruz), soil and decayed plants under the oak trees (Beyzavi and Ostovan 2012).

Subcohort Parasitiae (Parasitina) Evans & Till, 1979

Superfamily Parasitoidea Oudemans, 1901

Family Parasitidae Oudemans, 1901

Subfamily Parasitinae Oudemans, 1901

Genus *Coprocarpais* Hrúzová and Fend'a, 2018

***Coprocarpais copridis* (Costa, 1963)**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran forests, Aynalu, Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a, b).

Note – Mohammad-Doustaresharaf *et al.* (2016a, b) reported this species as *Parasitus copridis* Costa, 1963, but this species was considered as the type species for describing a new genus as above.

***Coprocarpais lunariphilus* (Makarova, 1996)**

Distribution and habitats. **Mazandaran Province** (Noor Forest Park), ex. *Margarinotus bipustulatus* Schrank; (Abbas Abad, Kuti Bazar), litter; (Nowshahr, Narenjbon), litter (Kazemi *et al.* 2013a).

Note – Kazemi *et al.* (2013a) reported this species as *Parasitus lunariphilus* Makarova, 1996, but it was considered as a species of *Coprocarpais* Hrúzová and Fend'a.

Genus *Cornigamasus* Evans & Till, 1979

***Cornigamasus oculiferius* Skorupski & Witaliński, 1997**

Distribution and habitats. **Khuzestan Province** (Ahvaz, Gavmish Abad), buffalo manure; (Bavi,

Mollasani), cow manure, buffalo manure, and sheep manure; (Shush, Khavar-e Seyyed Khalaf), buffalo manure, cow manure; (Ahvaz, dairy farm at Shahid Chamran University campus), cow manure; (Shush, Beyt-e Juhi), cow manure; (Ahvaz, Jassaniyeh-ye Kuchak), cow manure; (Ahvaz), horse manure; (Hamidieh), buffalo manure; (Ahvaz, Nabi-ye Akram village), cow manure; (Ahvaz, Alhaei), cow manure; (Shush, Abdolkhan), cow manure; (Shushtar, Band-e Qir), cow manure; (Hamidieh, Pich-e Seyyed Jaber), buffalo manure; (Hamidieh, Tarrahiyeh), buffalo manure; (Ahvaz, Daghaheleh), cow manure (Farahi *et al.* 2020); (Ahvaz and its suburbs), cattle, buffalo, and sheep manure (Farahi *et al.* 2022).

***Cornigamasus lunaris* (Berlese, 1882c)**

Distribution and habitats. **Guilan Province** (Roudsar, Kelachay), soil, debris, litters and plant foliage (Nazari and Hajizadeh 2013); (Rasht, Pasikhan village), soil (Ghasemi and Hajizadeh 2021). **Kerman Province** (Kerman, Joupur), cow manure (Kazemi *et al.* 2013a); (Kerman), cow manure (Arjomandi *et al.* 2013a). **Khorasan Province** (Taybad, Jiz Abad), associated with an unidentified Diptera (Kazemi *et al.* 2013a). **Mazandaran Province** (Kelardasht, Roudbarak), soil (Kazemi *et al.* 2013a).

Genus *Eugamasus* Berlese, 1892b

***Eugamasus berlesei* (Willmann, 193a5(**

Distribution and habitats. **Guilan Province** (Lahijan; Fouman, Makluwan; Rasht, Khomam, Sangar, Talem Seshanbeh, Rasht, University), soil, debris, litters and plant foliage (Nazari and Hajizadeh 2013); (Rasht, Vishka Nanak village, Keshel Varzal village, Pasikhan village, Pir Bazar village and Lakan village), litter; (Deh Baneh-ye, Eslamabad village, Bijar Bonch village), soil; (Isfahani Educational Institute), wood sorrel, *O. acetosella* leaves (Ghasemi and Hajizadeh 2021).

***Eugamasus covernicolus* (Trägårdh, 1912)**

Distribution and habitats. **Guilan Province** (University of Guilan; Rasht, Saravan, Khomam, Lahijan, Roudsar, Roudbar, Rostamabad, Noghebar, Fuman, Masouleh, Rasht, Emamzadeh Hashem), soil, debris, litters and plant foliage (Nazari and Hajizadeh 2013); (Divhal-Langrud), soil of tea (Hajizadeh *et al.* 2020); (Rasht, Pasikhan village), litter; (Rasht, Guilan University, Deh Baneh-ye, Eslamabad village), soil; (Rasht, Isfahani Educational Institute), wood sorrel, *O. acetosella* leaves; (Pir Bazar village), strawberry, *Fragaria ananassa* leaves and soil; (Bijar Bonch village), soil, litter, cucumber, *C. sativus* leaves (Ghasemi and Hajizadeh 2021). **Semnan and Tehran Provinces** (region not mentioned), nest of birds (Kamali *et al.* 2001).

Genus *Gamasodes* Oudemans, 1939b

***Gamasodes fimbriatus* Karg, 1971a**

Distribution and habitats. **Guilan Province** (Somesara, Kelidbar, Roudbar, Rostamabad), soil, debris, litters and plant foliage (Nazari and Hajizadeh 2013); (Rasht, Bijar Bonch village), soil (Ghasemi and Hajizadeh 2021); (Astaneh-ye Ashrafiyeh, Abdol Abad), not mentioned (Askari *et al.* 2023).

***Gamasodes spiniger* (Oudemans, 1936)**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran Forests, Vaygan, Kalaleh), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a, b). **Fars Province** (Shiraz, Eram Garden), soil

under different trees (Javan *et al.* 2017). **Guilan Province** (Chaboksar), soil, debris, litters and plant foliage (Nazari and Hajizadeh 2013); (Rasht, Keshel Varzal village and Pasikhan village), litter; (Rasht, Isfahani Educational Institute), wood sorrel, *O. acetosella* leaves (Ghasemi and Hajizadeh 2021). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a, b). **Mazandaran Province** (Tonekabon, Konseh forest), soil and litter (Kazemi *et al.* 2013a).

Genus *Neogamasus* Tikhomirov, 1969

***Neogamasus cervicornis* (Van Daele, 1975)**

Distribution and habitats. **Fars Province** (Shiraz), soil of orchards (Khezri *et al.* 2006); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Tehran Province** (Tehran City, Police Park), soil (Maleki *et al.* 2016). **Yazd Province** (region not mentioned), soil (Kafi *et al.* 2014).

***Neogamasus insignis* (Holzmann, 1969)**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Saman), soil (Shariati *et al.* 2017). **Golestan Province** (Gorgan, Alangdarreh Forest), forest litter (Kazemi *et al.* 2013a). **Guilan Province** (Masuleh), soil (Kazemi *et al.* 2013a). **Mazandaran Province** (Nowshahr, Ecology Garden), forest litter; (Tonekabon, KolLat, Tyrom, Dimron, Konseh Forests), soil and litter; (Ramsar, Namakdarreh), soil and litter; (Abbas Abad, Kelar Abad), sawdust and rotten wood (Kazemi *et al.* 2013a); (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Saber *et al.* 2016); (Moaein Hotel-Fuman, Someh Sara, Vajargah-Kelachay), soil of tea (Hajizadeh *et al.* 2020); (Rasht, Pir Bazar village, Lakan village, Imam Khomeini Institute), soil; (Rasht, Bijar Bonch village), soil, litter, wood sorrel, *O. acetosella* leaves; (Rasht, Isfahani Educational Institute), wood sorrel, *O. acetosella* leaves; (Rasht, Pasikhan village, Keshel Varzal village), litter, soil; (Rasht, Dalechah village, Omesheh village, Vishka Nanak village), litter (Ghasemi and Hajizadeh 2021). **Semnan Province** (region not mentioned), livestock manure (Kamali *et al.* 2001). **Tehran Province** (Region not mentioned), livestock manure (Kamali *et al.* 2001); (Tehran, Sorkheh Hesar Forest Park), soil (Pakyari *et al.* 2006b, c); (Tehran, Laleh Park), soil and litter (Kazemi *et al.* 2013a).

***Neogamasus islandicus* (Sellnick, 1940b)**

Distribution and habitats. **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rapeseed farms (Moradian *et al.* 2011b). **Tehran Province** (Tehran, Sorkheh Hesar Forest Park), soil (Pakyari *et al.* 2006b, c).

Genus *Parasitellus* Willmann, 1939

***Parasitellus fucorum* (De Geer, 1778)**

Distribution and habitats. **Ardabil Province** (Meshkinshahr, Shahbil region), associated with nest of *B. armeniacus* (Hymenoptera, Apidae) colony; (Moeil), associated with *Bombus argillaceus* (Scopoli) (Azhari *et al.* 2011). **Mazandaran Province** (Tirtash), associated with *Bombus* sp. (Kazemi *et al.* 2013a). **Tehran Province** (region not mentioned), associated with *Bumbus* spp. (Yahyavinezhad *et al.* 2010).

Genus *Parasitus* Latreille, 1795

***Parasitus coleopratorum* (Linnaeus, 1758)**

Distribution and habitats. **Alborz Province** (Eshtehard, Mehrshahr), compost and mushroom

(Kheradmand *et al.* 2007). **Chaharmahal va Bakhtiyari Province** (Saman), soil (Shariati *et al.* 2017). **Golestan Province** (Zyiarat Village), ex. *E. gibbosus* and *C. schreiberi*; (Roshan Abad), ex. *Geotrupes* sp. and *E. gibbosus* (Bahrami *et al.* 2011); (Gorgan, Shast Kola forest), ex. *P. olivieri*, ex. *G. puncticollis*, *O. cinctella* and *Euoniticellus pallens* (Olivier) collected in cow manure (Kazemi *et al.* 2013a). **Guilan Province** (Rasht, Sangar, Shahrestan, Amlash), soil, debris, litters and plant foliage (Nazari and Hajizadeh 2013). **Mazandaran Province** (Galougah), ex. *Onthophagus* sp. collected in cow manure; (Rouyan, Dinkooh), soil and litter; (Kelardasht, Derazmari), cow manure; (Tonekabon, Dimron), soil and litter; (Kajur, Eslam-Abad), soil; (Nowshahr, Khirudkenar), forest litter; (Abbas Abad, Kelar Abad), rotten wood (Kazemi *et al.* 2013a). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012).

***Parasitus concors* Oudemans & Voigts, 1904**

Distribution and habitats. **Semnan and Tehran Provinces** (region not mentioned), livestock manure (Kamali *et al.* 2001).

***Parasitus congener* Oudemans & Voigts, 1904**

Distribution and habitats. **Semnan and Tehran Provinces** (region not mentioned), livestock manure and carcass of cow (Kamali *et al.* 2001).

***Parasitus evertsi* Oudemans, 1902**

Distribution and habitats. **Guilan Province** (Rasht, Keshel Varzal village), litter (Ghasemi and Hajizadeh 2021).

***Parasitus furcatus* (G. & R. Canestrini, 1882a)**

Distribution and habitats. **Semnan and Tehran Provinces** (region not mentioned), soil (Kamali *et al.* 2001).

***Parasitus hyalinus* (Willmann, 1949)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b). **Isfahan Province** (region not mentioned), alfalfa (Hatami 1991; Kamali *et al.* 2001); (Goldasht, Dorcheh), soil of fruit orchards (Jalaeian *et al.* 2006). **Guilan Province** (Shaft, Choubar, Fuman, Masouleh, Makluwan), soil, debris, litters and plant foliage (Nazari and Hajizadeh 2013); (Rasht, Bazar Jomeh city), soil, wood sorrel, *O. acetosella* leaves (Ghasemi and Hajizadeh 2021). **Kerman Province** (region not mentioned), soil (Jalaeian and Ahmadi 2003); (Baft), soil and litter; (Sirjan), soil of wheat fields (Kazemi *et al.* 2013a); (region not mentioned), cow manure (Arjomandi *et al.* 2013a). **Semnan Province** (region not mentioned), carcass of rat; livestock manure; nest of birds and pomegranate (Modarres Awal 1997; Kamali *et al.* 2001). **Tehran Province** (region not mentioned), carcass of rat; livestock manure; nest of birds and pomegranate (Modarres Awal 1997; Kamali *et al.* 2001); (Tehran, Ghalamestan Park), soil and litter (Kazemi *et al.* 2013a); (region not mentioned), ornamental plants (Hamidi *et al.* 2013). **West Azarbaijan Province** (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012); (Urmia University), soil (Mirfakhraie *et al.* 2017).

***Parasitus insignis* (Holzmann, 1969)**

Distribution and habitats. **Guilan Province** (Rasht, Sangar, Shahrestan, Saravan, Hashtpar, Asalem,

Langarud, Fuman, Masouleh, Makluwan, Somesara, Gysum, University of Guilan, Aqa Seyyed Sharif, Falakdeh, KuchIsfahan, Jafarabad, Emamzadeh Ebrahim, Lahijan, Roudsar, Kelachay, Vajargah, Chaboksar, Siahkalroud, Ghasemabad), soil, debris, litters and plant foliage (Nazari and Hajizadeh 2013).

***Parasitus kempersi* Oudemans, 1902**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Saman), soil (Shariati *et al.* 2017). **Guilan Province** (Shaft, Rasht, KuchIsfahan, Aqa Seyyed Sharif, Lulaman, Lahijan, Roudsar, Rahimabad, Chaboksar, Kelachay, Vajargah, Langarud, Siahkalroud), soil, debris, litters and plant foliage (Nazari and Hajizadeh 2013); (Rasht, Pir Bazar village, Imam Khomeini Institute, Omeshah village), soil, litter; (Rasht, Deh Baneh-ye, Eslamabad village), paperflower, *Bougainvillea glabra* leaves; (Vishka Nanak village), soil; (Rasht, Keshel Varzal village), litter, tomato, *S. lycopersicum* leaves; (Pasikhan village), litter, wood sorrel, *O. acetosella* leaves; (Rasht, Jirdeh village), litter; (Rasht, Isfahani Educational Institute, Bijar Bonch village), litter, wood sorrel, *O. acetosella* leaves (Ghasemi and Hajizadeh 2021); (Rasht), associated with an ant from Formicidae (Hajizadeh and Hosseini 2022); (Astaneh-ye Ashrafiyeh, Salestan), soil of peanut plant (Askari *et al.* 2023).

***Parasitus loricatus* (Wankel, 1861)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Saman), soil (Shariati *et al.* 2017). **Guilan Province** (Rasht, Falakdeh, Saravan, Somesara, Behanbar, Khomam, Chapar Khaneh, Sangar, Chaboksar, Shanderman, Aqa Seyyed Sharif, Fuman, Lishavandan, Masouleh, Lavandevil), soil, debris, litters and plant foliage (Nazari and Hajizadeh 2013).

***Parasitus mustelarum* Oudemans, 1902**

Distribution and habitats. **Guilan Province** (Rasht, Bijar Bonch village), litter (Ghasemi and Hajizadeh 2021). **Mazandaran Province** (Galougah), ex. *E. pallens* collected in cow manure; (Kelardasht, Derazmari), cow manure (Kazemi *et al.* 2013a).

***Parasitus nolli* (Karg, 1965)**

Distribution and habitats. **Kerman Province** (region not mentioned), soil (Jalaeian and Ahmadi 2003). **Semnan Province** (region not mentioned), livestock and chicken manure, leaf compost, nest of birds and pine (Kamali *et al.* 2001). **Tehran Province** (region not mentioned), livestock and chicken manure, leaf compost, nest of birds and pine (Kamali *et al.* 2001).

***Prasitus numerus* (Karg, 1965)**

Distribution and habitats. **Isfahan Province** (Isfahan), soil (Khalili-Moghadam *et al.* 2012).

***Parasitus* sp.**

Distribution and habitats. **Khuzestan Province** (Ahvaz and its suburbs), cattle, buffalo, sheep and horse manure (Farahi *et al.* 2022).

Genus *Phorytocarpais* Athias-Henriot, 1979

***Phorytocarpais americanus* (Berlese, 1906)**

Distribution and habitats. **Isfahan Province** (region not mentioned), alfalfa (Hatami 1991; Modarres Awal 1997; Kamali *et al.* 2001).

Note – This species was previously reported from Iran as *Parasitus americanus* (Berlese, 1906).

***Phorytocarpais beta* (Oudemans and Voigts, 1904)**

Distribution and habitats. **Guilan Province** (Rasht, Bijar Bonch village), litter (Ghasemi and Hajizadeh 2021). **Khuzestan Province** (Ahvaz, Gavmish Abad), buffalo manure; (Bavi, Gabir), sheep manure; (Bavi, Shajaraat), buffalo manure; (Ahvaz, dairy farm at Shahid Chamran University campus), cow manure, buffalo manure; (Bavi, Mollasani), cow manure, buffalo manure, sheep manure, (Ahvaz, Jassaniyeh-ye Kuchak), cow manure; (Hamidieh), cow manure, buffalo manure; (Ahvaz), horse manure, (Ahvaz, Nabi-ye Akram village), cow manure; (Hamidieh, Tarrahiyeh), cow manure; (Shush, Abdolkhan), buffalo manure; (Shushtar, Arab Hassan), cow manure; (Shush, Beyt-e Juhi), cow manure; (Bavi, Talbume), cow manure; (Susangerd, Abu Hamizeh), buffalo manure; (Bavi, Veys), cow manure (Farahi *et al.* 2020); (Ahvaz and its suburbs), cattle, buffalo, and sheep manure (Farahi *et al.* 2022).

Note – This species was previously reported from Iran as *Parasitus beta*.

***Phorytocarpais eta* (Oudemans & Voigts, 1904)**

Distribution and habitats. **Alborz Province** (Karaj), rapeseed fields (Ostovan 2006b).

Note– This species was previously reported from Iran as *Parasitus eta*.

***Phorytocarpais fimetorum* (Berlese, 1904e)**

Distribution and habitats. **Alborz Province** (Mallard), compost (Kheradmand *et al.* 2007). **East Azarbaijan Province** (Tabriz), soil and litter (Kazemi *et al.* 2013a). **Fars Province** (Darab), soil (Kazemi *et al.* 2013a); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). (Kharameh region), sandy clay soil under pistachio trees (Alinezhad *et al.* 2023). **Golestan Province** (Nasr Abad and Ziyarat Villages), ex. *E. gibbosus* (Bahrami *et al.* 2011); (Gorgan, Shast Kola Forest), ex. *E. pallens*. **Guilan Province** (Manjil, Talesh, Hovigh, Sangar, Rudbar, Lowshan, Rostamabad, Langarud, Hashtpar, Asalem, Roudsar, Rahimabad), soil, debris, litters and plant foliage (Nazari and Hajizadeh 2013); (Rasht, Isfahani Educational Institute, Pasikhan village), wood sorrel, *O. acetosella* leaves; (Rasht, Sima Manzar Organization, Imam Khomeini Institute, Vishka Nanak village, Omesheh village), soil; (Jirdeh village), soil, hollyhocks, *Alcea biennis* leaves; (Pir Bazar village), cotton, *C. variegatum* leaves; (Ghasemi and Hajizadeh 2021). **Kerman Province** (region not mentioned), soil (Jalaeian and Ahmadi 2003); (Sirjan, Pariz, Balvard, Shahrehabak, Javazm), soil (Masnavipour *et al.* 2011); (Jiroft), soil (Balooch Shahryari *et al.* 2012); (Bam), soil (Mehrzaad *et al.* 2012); (Kerman), sheep manure, cow manure and poultry manure (Arjomandi *et al.* 2013a); (Kerman City, parks and landscapes), soil (Arjomandi and Kazemi 2014b); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Khuzestan Province** (Ahvaz), soil (Baharloo *et al.* 2006); (Bavi, Mollasani), sheep manure, cow manure, buffalo manure; (Ahvaz, Gavmish Abad), buffalo manure; (Bavi, Gabir), sheep manure, poultry manure; (Ahvaz, dairy farm at Shahid Chamran University campus), cow manure; (Bavi, Shajaraat), buffalo manure; (Shush, Beyt-e Juhi), poultry manure; cow manure; (Shushtar, Arab Hassan), sheep manure; (Hamidieh, Tarrahiyeh), buffalo manure; (Ahvaz, Nabi-ye Akram village), cow manure; (Ahvaz, Alhaei), cow manure; (Shush, Abdolkhan), buffalo manure; (Shushtar, Band-e Qir), cow manure; (Shush, Beyt-e Jazayer), cow manure; (Ahvaz, Ebadeh), cow manure; (Bavi, Talbume), cow manure; (Hamidieh, Pich-e Seyyed Jaber), cow manure; (Susangerd, Abu Hamizeh), buffalo manure; (Ahvaz, Gavmish Abad), buffalo manure; (Bavi, Naddafieh), sheep manure (Farahi *et al.* 2020); (Ahvaz and its suburbs), cattle,

buffalo, sheep, poultry and horse manure (Farahi *et al.* 2022). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a, b). **Lorestan Province** (Bishe, Chamseyedi Districts), soil and litter (Hasanvand *et al.* 2014b). **Markazi Province** (region not mentioned), corm of gladiole and saffron (Baradaran Anaraki *et al.* 2012). **Mazandaran Province** (region not mentioned), honeybee hives (Mosaddegh 1997; Kamali *et al.* 2001); (Marzan Abad), sawdust and rotten wood; (Tonekobon, Dimron), cow manure; (Nowshahr, Narenjbon), soil and rotten wood; (Nowshahr, Ecology Garden), forest litter; (Abbas Abad, Kelar-Abad), sawdust and rotten wood (Kazemi *et al.* 2013a). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012). **Razavi Khorasan Province** (region not mentioned), corm of gladiole and saffron (Baradaran Anaraki *et al.* 2012); (Mashhad), soil and manure (Abbaspour *et al.* 2017). **Semnan Province** (region not mentioned), livestock manure, ash, buttonwood, decaing leaf compost, nest of birds and chicken manure (Kamali *et al.* 2001). **Tehran Province** (region not mentioned), livestock manure, ash, buttonwood, decaing leaf compost, nest of birds and chicken manure (Kamali *et al.* 2001); (Tehran, Laleh Park), soil and litter; (Tehran, Jamshidiyeh Park), soil and litter; (Tehran, Peikanshahr), soil and litter (Kazemi *et al.* 2013a). **West Azarbaijan Province** (Urmia), soil (Rezaie *et al.* 2011); (Miandoab), soil of apple orchards (Zarei and Kazemi 2014).

Note – This species was previously reported from Iran as *Parasitus fimetorum*.

***Phorytocarpais mishdagensis* Farahi & Witaliński, 2023**

Distribution and habitats. **Khuzestan Province** (Hamidieh), buffalo manure (Farahi and Witaliński 2023).

Genus *Rhabdocarpais* Athias-Henriot, 1981

***Rhabdocarpais consanguineus* (Oudemans & Voigts, 1904)**

Distribution and habitats. **Chaharmahal va Bakhtiyari and Isfahan Provinces** (region not mentioned), body of birds or their nests (Keivani *et al.* 2012); (region not mentioned), associated with ants' nest (Khalili Moghadam and Nemati 2014b); (Saman), soil of ants' nest, *Tapinoma* sp. (Hym: Formicidae) (Khalili Moghadam and Saboori 2015); (Saman), soil (Shariati *et al.* 2017); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b). **East Azarbaijan Province** (region not mentioned), soil (Kamali *et al.* 2001). **Fars Province** (Koohmare-Sorkhi region), oak forests (Kazemi and Yazdanpanah 2013b); (Koohmare Sorkhi region, oak forest), soil and leaf litter (Yazdanpanah and Kazemi 2014a); (Northwestern), soil and debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Kharameh region), sandy loam soil under fruit trees (Alinezhad *et al.* 2023). **Golestan Province** (Gorgan), soil (Kazemi *et al.* 2011a); (Gorgan, Tuskestan forest), litter (Kazemi *et al.* 2013a). **Guilan Province** (Rasht, Aqa Seyyed Sharif, Fuman, Lishavandan, Masouleh, Makluwan, Rudbar, Lowshan, Langarud), soil, debris, litters and plant foliage (Nazari and Hajizadeh 2013); (Rasht, Bijar Bonch village), soil; (Pasikhan village, Pir Bazar village and Vishka Nanak village), litter (Ghasemi and Hajizadeh 2021). **Hamedan Province** (region not mentioned), clover (*Trifolium* sp.) and alfalfa farms (Khanjani and Kamali 2000a; Kamali *et al.* 2001). **Hormozgan Province** (Minab), associated with soil under mango trees (Dolati and Ostovan 2017b). **Isfahan Province** (Goldasht, Qale'e Sefid, Flavaran), soil of fruit orchards (Jalaeian *et al.* 2006); (Kashan), soil (Sekonji *et al.* 2011); (Isfahan), soil (Khalili-Moghadam *et al.* 2012). **Kerman Province** (region not mentioned), soil (Jalaeian and Ahmadi 2003); (Sirjan, Balvard, Pariz), soil (Masnavipour *et al.* 2011); (Bam), soil (Mehrzaad *et al.* 2012); (Kerman, Sirch, Sekonj, Bam), soil, cow and sheep manure (Kazemi *et al.* 2012); (Kerman), cow manure (Arjomandi *et al.* 2013a); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Kermanshah Province** (Rijab), fruit orchards (Babakfard *et al.* 2008). **Mazandaran Province** (Ramsar, Namakdarreh), soil and litter; (Tonekabon, Konseh forest), soil and litter; (Chalous, Roshandarreh),

soil and litter (Kazemi *et al.* 2013a); (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Sabeti *et al.* 2016). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012). **Razavi Khorasan Province** (Mashhad), ex. *Pentodon* sp. (Kazemi *et al.* 2012); (Mashhad), soil (Abbaspour *et al.* 2017). **Tehran Province** (Tehran, Sorkheh Hesar Forest Park), soil (Pakyari *et al.* 2006b, c); (Tehran, Ghalamestan Park), soil and litter; (Tehran Jamshidiyeh Park), soil and litter, (Tehran, Shahed University fields), soil and litter, (Tehran, Shahed University greenhouses), cow manure; (Roudehen), soil and litter (Kazemi *et al.* 2013a). **West Azarbaijan Province** (Urmia), aerial plants part and soil of potato fields (Mosavi *et al.* 2004; Mousavi *et al.* 2005); (Khoy), soil of sunflower fields (Taher *et al.* 2012); (Miandoab), soil of apple orchards (Zarei and Kazemi 2014); (Urmia University), soil (Mirfakhraie *et al.* 2017). **Zanjan Province** (region not mentioned), soil (Bigdeli *et al.* 2014).

Note – All the above-mentioned references cited this species under *Parasitus* genus.

***Rhabdocarpais mammillatus* (Berlese, 1904f)**

Distribution and habitats. **Alborz Province** (Mallard), compost (Kheradmand *et al.* 2007). **Fars Province** (region not mentioned), stored onion (Kamali *et al.* 2001); (Shiraz, Abegarm, Sepidan, Lapouee), associated with button mushroom *Agaricus bisporus* (Lange) (Keshtmand *et al.* 2011). **Guilan Province** (Astaneh-ye Ashrafiyeh, Lafut-e Bala), soil of peanut plant (Askari *et al.* 2023). **Hamedan Province** (region not mentioned), clover (*Trifolium* sp.) and alfalfa farms (Khanjani and Kamali 2000a; Kamali *et al.* 2001). **Kerman Province** (region not mentioned), soil (Jalaeian and Ahmadi 2003). **Kermanshah Province** (Rijab), soil at base of cherry, walnut, grape and apricot (Babakfard *et al.* 2007); (Rijab), fruit orchards (Babakfard *et al.* 2008). **Khuzestan Province** (Bavi, Mollasani), sheep manure, buffalo manure; (Ahvaz, Gavmish Abad), buffalo manure; (Ahvaz, dairy farm at Shahid Chamran University campus), cow manure; (Shush, Khavar-e Seyyed Khalaf), buffalo manure; (Shush, Khoyes), buffalo manure; (Shush, Abdolkhan), buffalo manure; (Shush, Beyt-e Juhi), cow manure; (Ahvaz, Hatam village), sheep manure (Farahi *et al.* 2020); (Ahvaz and its suburbs), cattle, buffalo, and sheep manure (Farahi *et al.* 2022).

Note – This species was reported as a member of *Parasitus* genus in most above references.

***Rhabdocarpais mycophilus* (Karg, 1971a)**

Distribution and habitats. **Fars Province** (Kazerun), stored onion (Kamali *et al.* 2001); (Marvdasht), soil (Soleimani *et al.* 2011); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Hamedan Province** (region not mentioned), bean (*P. vulgaris*) farms (Khanjani and Kamali 2000b; Kamali *et al.* 2001). **Isfahan Province** (Isfahan), soil of urban green spaces (Karbasiyan *et al.* 2022). **Kerman Province** (region not mentioned), soil (Jalaeian and Ahmadi 2003); (Kerman, Sekonj), cow and sheep manure (Kazemi *et al.* 2013a); (Kerman), sheep manure (Arjomandi *et al.* 2013a). **Razavi Khorasan Province** (Mashhad), ex. *Pentodon* sp., rodent hole (Kazemi *et al.* 2013a). **Tehran Province** (region not mentioned), livestock manure, rat carcass (Kamali *et al.* 2001); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012). **Yazd Province** (region not mentioned), soil (Kafi *et al.* 2014).

Note – This species was previously reported from Iran as *Parasitus mycophilus*.

Genus *Trachygamasus* Berlese, 1906

***Trachygamasus ambulacralis* (Willmann, 1949)**

Distribution and habitats. **Guilan Province** (Astaneh-ye Ashrafiyeh, Estakher Bijar), soil of peanut plant (Askari *et al.* 2023). **Kerman Province** (Northwestern, Bam, Mani region), soil, litter;

(Sekahour region), *Oryctes elegans* Prell (Mehrzhad *et al.* 2013).

***Trachygamasus gracilis* (Karg, 1965)**

Distribution and habitats. **Semnan and Tehran Provinces** (region not mentioned), carcass of rat (Kamali *et al.* 2001).

***Trachygamasus karuni* Farahi & Witaliński, 2019**

Distribution and habitats. **Khuzestan Province** (Ahvaz and its suburbs), cattle, buffalo, sheep and horse manure (Farahi *et al.* 2019).

Genus *Vulgarogamasus* Tikhomirov, 1969

***Vulgarogamasus kraepelini* (Berlese, 1905)**

Distribution and habitats. **Guilan Province** (Rasht, Somesara, Ziabar, Roudsar, Shanderman, Emamzadeh Hashem, Shaft, Choubar), soil, debris, litters and plant foliage (Nazari and Hajizadeh 2013); (Rasht, Bijar Bonch village, Deh Baneh-ye, Eslamabad village), soil (Ghasemi and Hajizadeh 2021). **Mazandaran Province** (Tonekabon, Kol lat Forest), soil and litter (Kazemi *et al.* 2013a).

***Vulgarogamasus oudemansi* (Berlese, 1904a)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Saman), soil (Shariati *et al.* 2017). **Guilan Province** (Rasht, Asalem, Lowshan, Emamzadeh Hashem, Anzali), soil, debris, litters and plant foliage (Nazari and Hajizadeh 2013); (Rasht, Bijar Bonch village), soil (Ghasemi and Hajizadeh 2021). **Kohgiluyeh va Boyer-Ahmad Province** (Gachsaran), soil of corn and rape seed farms (Moradian *et al.* 2011a, b).

***Vulgarogamasus trouessarti* (Berlese, 1892e)**

Distribution and habitats. **Guilan Province** (Rasht, Bijar Bonch village), soil; (Rasht, Isfahani Educational Institute), wood sorrel, *O. acetosella* leaves (Ghasemi and Hajizadeh 2021).

Subfamily Pergamasinae Juvara-Balş 1972

Genus *Ernogamasus* Athias-Henriot, 1971

***Ernogamasus leruthi* (Cooreman, 1951)**

Distribution and habitats. **Semnan and Tehran Provinces** (region not mentioned), leaf compost, buttonwood and livestock manure (Kamali *et al.* 2001).

Note – This species was previously reported from Iran as *Leptogamasus leruthi*.

Genus *Holoparasitus* Oudemans, 1936

***Holoparasitus minimus* (Holzmann, 1955)**

Distribution and habitats. **Golestan Province** (Gorgan, Gharn Abad Forest), rotten wood (Kazemi *et al.* 2013a); (region not mentioned), soil and litter (Kazemi *et al.* 2012). **Mazandaran Province** (region not mentioned), soil and litter (Kazemi *et al.* 2012). **Semnan Province**, leaf compost (Kamali *et al.* 2001). **Tehran Province**, leaf compost (Kamali *et al.* 2001).

Genus *Leptogamasus* Trägårdh, 1936***Leptogamasus bidens* (Sellnick, 1951)**

Distribution and habitats. **Tehran Province** (Tehran, Sorkheh Hesar Forest Park), soil (Pakyari *et al.* 2006b, c).

Genus *Paragamasus* Hull, 1918***Paragamasus* sp.**

Distribution and habitats. **Guilan Province** (Rasht, KuchIsfahan, Jafarabad, Rasht, Lahijan), soil, debris, litters and plant foliage (Nazari and Hajizadeh 2013).

Genus *Pergamasus* Berlese, 1904e***Pergamasus brevicornis* Berlese, 1904a**

Distribution and habitats. **Mazandaran Province** (Nowshahr, Ecological (Botanical) Garden of Nowshahr), soil and litter (Saber *et al.* 2016).

***Pergamasus crassipes* (Linnaeus, 1758)**

Distribution and habitats. **Tehran Province** (Tehran City, Police Park), soil (Maleki *et al.* 2016).

***Pergamasus quisquiliarum* (G. & R. Canestrini, 1882b)**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Saman, Gharaghoosh), in rooting wood in association with ant (*L. neglectus*) (Khalili-Moghadam 2022); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022b). **Kerman Province** (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020).

Genus *Tomeogamasus* Athias-Henriot, 1971***Tomeogamasus falculiger* Berlese, 1906**

Distribution and habitats. **Fars Province** (Shiraz), soil of orchards (Khezri *et al.* 2006); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Razavi Khorasan Province** (Mashhad), manure (Abbaspour *et al.* 2017). **Tehran Province** (Tehran City, Police Park), soil (Maleki *et al.* 2016).

Note – This species was previously reported from Iran as *Pergamasus falculiger*.

Cohort *Microgyniina* Trägårdh, 1942**Superfamily *Microgynioidea* Trägårdh, 1942****Family *Microgyniidae* Trägårdh, 1942b****Genus *Microsejus* Trägårdh, 1942b*****Microsejus truncicola* Trägårdh, 1942b**

Distribution and habitats. **Mazandaran Province** (Behshahr, Abas Abad), rotting wood (Kazemi *et al.* 2011c).

Cohort Uropodina Kramer, 1881

There are different taxonomical manners for the placement of genera and families and even for higher groups of Uropodina classification as the number of families varied in different taxonomical publication leading to place the same genus in different families by different authors (Halliday 2015, 2016). Some authors have avoided this problem by not placing genera into families and families into superfamilies. For this reason we do not specify the placement of different families of this group, so the names of families have been cited in alphabetically order as follows.

Family Cillibidae Trägårdh, 1944

Genus *Cilliba* von Heyden, 1826

***Cilliba erlangensis* (Hirschmann & Zirngiebl-Nicol, 1964b)**

Distribution and habitats. **Mazandaran Province** (Nowshahr City, Garazbon), leaf litter; (Namkhaneh), soil and dead wood; (Namkhaneh), in leaf litter; (Paatam), in dead wood; (Garazbon), soil and leaf litter (Babaeian *et al.* 2018).

***Cilliba sellnicki* (Hirshmann & Zirngiebl-Nicol, 1964b)**

Distribution and habitats. **Guilan Province** (Rasht, Bijar Bonch village), *Cucumis salivus* L. leaves; (Rasht, Vishka Nanak village), litter; (Rasht, Lakan village), soil, tomato, *Solanum lycopersicum* leaves; (Rasht, Dalechah village, Pir Bazar village), litter; (Rasht, Pasikhan village, Lakan village), soil (Ghasemi and Hajizadeh 2021).

Family Dinychidae Berlese, 1916b

Genus *Dinychus* Kramer, 1882

***Dinychus bincheaecarinatus* Hirschmann, Wagrowska-Adamczyk & Zirngiebl-Nicol, 1984**

Distribution and habitats. **Mazandaran Province** (Nowshahr, Kheyroud forest), leaf-litter, dead wood (Babaeian *et al.* 2017).

***Dinychus woelkei* Hirschmann & Zirngiebl-Nicol, 1969**

Distribution and habitats. **Golestan Province** (Gorgan, Qarn-Abad Forest), decaying trunk (Arjomandi and Kazemi 2015).

Family Dithinozerconidae Krantz, 1978

Genus *Dithinozercon* Berlese, 1916c

***Dithinozercon halberti* (Berlese, 1916c)**

Distribution and habitats. **Fars Province** (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021). **Tehran Province** (Tarasht, Shemiranat), soils of walnut and apple orchards (Kazemi *et al.* 2003b).

Family Macrodneychidae Kotschán, 2017

Genus *Macrodneychus* Berlese, 1917

***Macrodneychus bregetovae* (Hirschmann, 1975)**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran Forests, Vaygan, Kalaleh), soil and

plant debris (Mohammad-Doustaresharaf *et al.* 2016a). **Guilan Province** (Sangar), soil of rice field, (Sowme'e-Sara, Behambar village), soil of poplar (*Populus alba* L.) garden; (Asalem), soil of walnut (*Juglans regia* L.) garden; (Amlash), soil of elm (*Ulmus carpinifolia* Gleditsch) garden; (Roudsar), soil under Caspian honey locust tree (*Gleditschia caspica* Desf), soil of rice field and soil of walnut garden; (Shanderman), soil of poplar garden; (Shaft), soil of rice field, (Shahrestan), soil of walnut garden; (Kuchesfahān), soil of elm garden; (Rasht, Falak Deh village), soil of elm garden (Kontschan and Hajizadeh 2013); (Astaneh-ye Ashrafiyeh, Lafut-e Bala, Nabi Dehga, Tamchal), soil of peanut plant (Askari *et al.* 2023). **Mazandaran Province** (Nowshahr, Kheyroud forest), soil, dead wood, nest of *Crematogaster* sp. (Babaeian *et al.* 2017).

***Macrodimychus iranicus* Babaeian & Khalili-Moghadam, 2021**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Samsami region, Dejdaran Valley), in nest soil of *Tetramorium* sp. under rock (Khalili-Moghadam and Babaeian 2021).

Family Metagynuridae Balogh, 1943

Genus *Metagynella* Berlese, 1919

***Metagynella paradoxa* Berlese, 1919**

Distribution and habitats. **Mazandaran and Razavi Khorasan Provinces** (region not mentioned), ex. unidentified scarabaeid beetles (Kazemi *et al.* 2008b).

Family Oplitidae Hirschmann & Zirngiebl-Nicol, 1964a

Genus *Oplitis* Berlese, 1884

***Oplitis exopodi* Hunter & Farrier, 1975**

Distribution and habitats. **Mazandaran Province** (Nowshahr, Kheyroud- Kenar forest), leaf-litter (Babaeian *et al.* 2016b).

***Oplitis inopina* (Hull, 1923)**

Distribution and habitats. **Iran** (region not mentioned), on the hairs and spurs of *Messor meridionalis* (Formicidae) (Hull 1923).

***Oplitis iranicus* Kazemi & Kontschán, 2007**

Distribution and habitats. **Yazd Province** (Abarkooh), soil and litter, wheat fields (Kazemi and Kontschán 2007).

***Oplitis paradoxa* (G. Canestrini & Berlese, 1884)**

Distribution and habitats. **Fars Province** (Jahrom), soil from citrus orchards (Kazemi *et al.* 2008a). **Kerman Province** (Jiroft), soil (Balooch Shahryari *et al.* 2012). **Khuzestan Province** (Shush, Beyt-e Jazayer), cow manure; (Bavi, Mollasani), sheep manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle, and sheep manure (Farahi *et al.* 2022). **Yazd Province** (Abarkooh), soil from wheat fields (Kazemi *et al.* 2008a).

***Oplitis quadrigenitalis* Babaeian, 2018**

Distribution and habitats. **Alborz Province** (Taleghan region), in the nest of *Lasius neglectus*

(Hymenoptera: Formicidae) (Babaeian and Nozad 2018).

***Oplitis sarcinulus* Hunter & Farrier, 1976**

Distribution and habitats. **Mazandaran Province** (Nowshahr, Kheyrood- Kenar forest), leaf-litter (Babaeian *et al.* 2016b).

Note – We have excluded *Oplitis conspicua* (Berlese, 1903) from our study. This species was documented by Darvishzadeh and Kamali (2009) and initially mentioned with an uncertain identification by Kazemi and Rajaei (2013).

Family Polyaspididae Berlese, 1913a

Genus *Polyaspis* Berlese, 1881

***Polyaspis berlesei* (Camin, 1954)**

Distribution and habitats. **Hormozgan Province** (Minab), associated with soil under mango trees (Dolati and Ostovan 2017a).

***Polyaspis patavinus* Berlese, 1881**

Distribution and habitats. **Fars Province** (Northwestern), soil and debris (Abolghasemi and Kazemi 2016). **Golestan, Guilan and Mazandaran Provinces** (region not mentioned), forest litter (Babaeian *et al.* 2017). **Lorestan Province** (Khorramabad), soil and litter of oak forests (Kazemi *et al.* 2013c). **Mazandaran Province** (Nowshahr, Kheyroud forest), leaf-litter, dead wood, nest of *Lucanus* sp. (Babaeian *et al.* 2017).

***Polyaspis repandus* Berlese, 1904a**

Distribution and habitats. **Fars Province** (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Kerman Province** (Anbar Abad), soil and debris (Khalesi and Kazemi 2016).

Note – Unknown species of the *Polyaspis* genus were reported by Kamali *et al.* (2001) from East Azarbaijan Province (Tabriz), soil of orchards and by Kazemi and Rajaei (2013) from Mazandaran Province (Sari), soil and litter.

Family Protodinychidae Berlese, 1917

Genus *Protodinychus* Evans, 1957b

***Protodinychus ahangarani* Kazemi & Klompen, 2022**

Distribution and habitats. **Gilan Province** (Anzali City), soil under broad leaves trees (Hajizadeh *et al.* 2021). **Mazandaran Province** (Tonekabon County, Dimarun Village,), soil-litter mixed with cow manure under *Prunus cerasifera* (Rosaceae) (Kazemi and Klompen 2022); (Kheyroud-Kenar Forest), soil-litter (Babaeian 2016).

Note – The above species was previously reported from Iran as *Protodinychus punctatus* Evan, 1957, but described by Kazemi and Klompen (2022) as new for science.

Family Trachytidae Trägårdh, 1938

Genus *Trachytes* Michael, 1894

***Trachytes aegrota* (C.L. Koch, 1841)**

Distribution and habitats. **Kerman Province** (region not mentioned), soil (Jalaeian and Breitegger

2002).

Note – A species was reported as *Trachytes* cf. *aegrota* by Mohammad-Doustasharaf *et al.* (2016a, b) from East Azarbaijan Province (Arasbaran Forests, Vaygan, Aynalu, Kalaleh, Garmanab), soil and plant debris.

***Trachytes arcuatus* Hirschmann & Zirngiebl-Nicol, 1969**

Distribution and habitats. **Kerman Province** (region not mentioned), soil (Jalaeian and Breitegger 2002).

***Trachytes baloghi* Hirschmann & Zirngiebl-Nicol, 1969**

Distribution and habitats. **Kerman Province** (Jupar), cow manure (Arjomandi *et al.* 2013a). **Mazandaran Province** (Nowshahr, Kheyroud forest), leaf-litter (Babaeian *et al.* 2017).

***Trachytes irenae* Pečina, 1970**

Distribution and habitats. **Kerman Province** (region not mentioned), soil (Jalaeian and Breitegger 2002).

***Trachytes minima* Trägårdh, 1910**

Distribution and habitats. **Kerman Province** (region not mentioned), soil (Jalaeian and Breitegger 2002).

***Trachytes montana* Willmann, 1953**

Distribution and habitats. **Kerman Province** (region not mentioned), soil (Jalaeian and Breitegger 2002).

Genus *Uroseius* Berlese, 1888a

***Uroseius infirmus* Berlese, 1887a**

Distribution and habitats. **Fars Province** (Northwestern), soil and debris (Abolghasemi and Kazemi 2016).

***Uroseius traegardhi* Hirschmann & Zimgieble-Nicol, 1969**

Distribution and habitats. **Isfahan Province** (Isfahan), soil (Kadkhodaei *et al.* 2013).

Family Trachyuropodidae Berlese, 1917

Genus *Excavatatrachys* Hirschmann, 1979

***Excavatatrachys excavata* (Wasmann, 1899)**

Distribution and habitats. **Guilan Province** (Mahvizan-Someh Sara), soil of tea (Hajizadeh *et al.* 2020); (Rasht), associated with beetles from Carabidae, and Staphylinidae and an ant from Formicidae (Hajizadeh and Hosseini 2022). **Mazandaran Province** (Nowshahr, Botanical Garden), soil and litter (Kazemi *et al.* 2016b).

Note – This species was reported in *Urojanetia* Berlese, 1913 (Berlese, 1913b) as *U. excavata* (Wasmann, 1899) from Iran, but we followed Kontschan and Ermilov (2023) and considered it under the *Excavatastrachys* genus.

Genus *Leonardiella* Berlese, 1904c

***Leonardiella riccardiana* (Leonardi, 1895)**

Distribution and habitats. **Kerman Province** (Kerman, parks and landscapes), soil (Arjomandi and Kazemi 2014b).

Genus *Trachyuropoda* Berlese, 1888b

***Trachyuropoda* sp.**

Distribution and habitats. **Mazandaran Province** (Tonekabon, Shoroom forest), soil and manure; (Ramsar), soil and litter (Kazemi and Rajaei 2013).

Genus *Trogulotrachys* Hirschmann, 1979

***Trogulotrachys hirschmanni* (Pečina, 1980)**

Distribution and habitats. **Guilan Province** (Rasht), associated with an ant from Formicidae (Hajizadeh and Hosseini 2022). **Mazandaran Province** (Tonekabon, Shorum forest), soil, litter and cow manure (Kazemi *et al.* 2016b).

Note – This species was reported as *Trachyuropoda hirschmanni* Pečina, 1980 from Iran, but we followed Kontschan and Ermilov (2023) and considered it under the *Trogulotrachys* genus.

Family Trematuridae Berlese, 1917

Genus *Nenteria* Oudemans, 1915

***Nenteria bastanii* Kazemi & Abolghasemi, 2016**

Distribution and habitats. **Fars Province** (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Kharameh region), sandy loam soil under olive trees (Alinezhad *et al.* 2023). **Guilan Province** (Astaneh-ye Ashrafiyeh, Estakher Bijar), soil of peanut plant (Askari *et al.* 2023). **Kerman Province** (Kerman, Shora Park), soil (Kazemi and Abolghasemi 2016). **Tehran Province** (Tehran, Taleghani Park), soil and litter (Kazemi and Abolghasemi 2016).

***Nenteria breviunguiculata* (Willmann, 1949)**

Distribution and habitats. **Isfahan Province** (Dorcheh, Khomeini Shahr), soil of fruit trees orchards (Jalaeian *et al.* 2006). **Kerman Province** (region not mentioned), soil (Jalaeian 2003); (Baft), soil (Rajaei *et al.* 2011b). **Tehran Province** (Tehran), soil and litter (Kazemi *et al.* 2003a); Soil (Kazemi *et al.* 2005).

***Nenteria stammeri* Hirschmann & Z-Nicol, 1962**

Distribution and habitats. **Golestan Province** (Zyarrat Village), ex. *E. gibbosus* in horse dung (Bahrami *et al.* 2011).

Nenteria stylifera (Berlese, 1904)

Distribution and habitats. **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001); (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a, b). **Fars Province** (Northwestern), soil and debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021); (Kharameh region), sandy loam soil under pomegranate tree (Alinezhad *et al.* 2023). **Golestan Province** (Gorgan), soil (Kazemi *et al.* 2011a). **Guilan Province** (Bandar Anzali), on *Citrus* sp., infested with *Toxoptera citricida* (Kirkaldy) (Navaran and Hajizadeh 2021); (Rasht, Vishka Nanak village, Omesheh village), soil; (Rasht, Deh Baneh-ye, Eslamabad village, Pir Bazar village), litter (Ghasemi and Hajizadeh 2021); (Astaneh-ye Ashrafiyeh, Lafut-e Bala, Nabi Dehga, Abdullah Abad, Kinchah, Estakher Bijar, Tamchal, Salestan, Kashel, Azadmahalleh, Safra Basteh, Parkaposht, Bijar Mahalleh), soil of peanut plant (Askari *et al.* 2023). **Hamedan Province** (region not mentioned), wild sainfoin (Kamali *et al.* 2001). **Isfahan Province** (Goldasht, Khomeini Shahr), soil of fruit trees orchards (Jalaeian *et al.* 2006). **Kerman Province** (region not mentioned), soil (Jalaeian 2003); (Sirjan, Pariz), soil (Masnavipour *et al.* 2011); (Rafsanjan), soil of fruit orchards (Mohammadi *et al.* 2012); (Jiroft), soil (Balooch Shahryari *et al.* 2012); (Kerman), cow manure and sheep manure (Arjomandi *et al.* 2013a); (Kerman, parks and landscapes), soil (Arjomandi and Kazemi 2014b); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Khuzestan Province** (Ahvaz), soil (Baharloo *et al.* 2006). **Lorestan Province** (Faculty of Agricultural, University of Lorestan), soil of cypress trees (Hasanvand *et al.* 2014b). **Mazandaran Province** (Sisangan Forest Park), soil, litter, humus, cow and sheep dung (Kazemi 2012). **Razavi Khorasan Province** (region not mentioned), potato field crops (Baradaran *et al.* 2010). **Tehran Province** (Tehran), humus rich areas of orchards, Parks and lawns of the region (Kazemi *et al.* 2003a); soil (Kazemi *et al.* 2005); honeybee hives (Rahmani *et al.* 2006); (Tehran, Sorkhe Hesar Forest Park), soil (Pakyari *et al.* 2006b, 2008); (region not mentioned), potato field crops (Baradaran *et al.* 2010); (Varamin region, Mohammad Abad, Asgar Abad, Moein Abad, Pouinak, Jalil Abad, Ghalesin, Pishva roadway), soil of crop fields including pomegranate, grape vine, eggplant, cucumber, wheat, tomato, lettuce and alfalfa (Kheradpir and Pakyari 2011); (regions not mentioned), ornamental plants (Hamidi *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Urmia), house dust (Kamali *et al.* 2001); soil (Rezaie *et al.* 2011); (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012); (Miandoab), soil of apple orchards (Zarei and Kazemi 2014).

Genus Trematurella Trägårdh, 1942a

Trematurella elegans (Kramer, 1882)

Distribution and habitats. **East Azarbaijan Province** (Arasbaran forests, Aynalu, Kalaleh), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a). **Fars Province** (Kharameh region), sandy clay soil under fig trees (Alinezhad *et al.* 2023). **Golestan Province** (Naharkhoran Forest), ex. *Herpalus* sp. and *Pentodon* sp. (Bahrami *et al.* 2011); (Gorgan), soil, litter, humus, cow and sheep dung (Kazemi 2012). **Guilan Province** (region not mentioned), stored rice, rice dust and debris (Noei *et al.* 2008). **Mazandaran Province** (Sisangan Forest Park), soil, litter, humus, cow and sheep dung (Kazemi 2012). **Tehran Province** (Tehran), humus rich areas of orchards, Parks and lawns of the region (Kazemi *et al.* 2003a); soil (Kazemi *et al.* 2001, 2005); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Urmia), foliage and soil of potato fields (Mosavi *et al.* 2004; Mousavi *et al.* 2005); (Khoy), soil of sunflower fields (Taher *et al.* 2012); (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012).

Note – This species was reported as *Trichouropoda elegans* (Kramer, 1882) from Iran, but we followed Błoszyk *et al.* (2018) and transferred it to the *Trematurella* genus.

Genus *Trichouropoda* Berlese, 1916b

***Trichouropoda bipilis* (Vitzthum, 1921)**

Distribution and habitats. **Alborz Province** (Karaj and Shahriyar), ex. *Scolytus amygdali* Guerin-Meneville (Ahadiyat *et al.* 2004). **Tehran Province** (region not mentioned), associated with elm bark beetles *S. multistriatus* (Ostovan and Kamali 1997; Kamali *et al.* 2001).

***Trichouropoda hispanica* Hirschmann & Zirngiebl-Nicol, 1961**

Distribution and habitats. **Alborz Province** (Taleghan), in the nest of *Messor* sp. (Babaeian and Nozaad 2017).

***Trichouropoda orbicularis* (C.L. Koch, 1839c)**

Distribution and habitats. **Region not mentioned**, stored products (Sepasgozarian 1978; Modarres Awal 1994, 1997; Kamali *et al.* 2001). **Fars Province** (region not mentioned), flours (Shahhosseini and Kamali 1989; Modarres Awal 1994, 1997; Kamali *et al.* 2001). **Guilan Province** (region not mentioned), stored rice, rice dust and debris (Noei *et al.* 2008).

***Trichouropoda ovalis* (C.L. Koch, 1839)**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Koohrang, Dashte laleh; Lordegan, Ooreh), in soil and rooting wood in association with *C. fritillariae*; *T. karavaievi* (Khalili-Moghadam 2022). **East Azarbaijan Province** (Arasbaran forests, Vaygan, Aynalu, Kalaleh, Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a, b). **Mazandaran Province** (Nowshahr, Sisangan Forest Park, Tonekabon, and Chalus), soil, litter, humus, cow and sheep dung (Kazemi 2012); (Nowshahr, Kheyroud forest), soil, leaf-litter and dead wood (Babaeian *et al.* 2017).

***Trichouropoda patavina* (G. Canestrini, 1884b)**

Distribution and habitats. **Fars Province** (region not mentioned), flour, rice and barely (Kamali *et al.* 2001). **Guilan Province** (region not mentioned), stored rice, rice dust and debris (Noei *et al.* 2008). **Kerman Province** (Baft), soil (Rajaei *et al.* 2011b); (Kerman), poultry manure (Arjomandi *et al.* 2013a). **Razavi Khorasan Province** (Torbat Heydariyeh, Feiz Abad), ex. *Pentodon* sp. (Kazemi *et al.* 2008b). **West Azarbaijan Province** (Urmia), house dust (Kamali *et al.* 2001); (Miandoab), soil of apple orchards (Zarei and Kazemi 2014).

Note – Kamali *et al.* (2001) reported *Trematura jacksonia* Hughes, 1948 and *Leiodinycus krameri* Berlese, 1884 which are junior synonyms of *Trichouropoda patavina* (Mašán 2001).

***Trichouropoda spatulifera* (Moniez, 1892)**

Distribution and habitats. **Mazandaran Province** (Tonekabon, Jasid forest), soil and litter (Kazemi and Kontschán 2014).

Family Urodiaspididae Trägårdh, 1944**Genus *Urodiaspis* Berlese, 1916a*****Urodiaspis pannonica* Willmann, 1951b**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran Forests), soil and litter (Kazemi *et al.* 2016b).

***Urodiaspis tecta* (Kramer, 1876)**

Distribution and habitats. **East Azarbaijan Province** (Arasbaran Forests), soil and litter (Kazemi *et al.* 2016b).

Family Urodinychidae Berlese, 1917**Genus *Microuroobovella* Błoszyk, Adamski & Napierala, 2020*****Microuroobovella olszanowskii* Błoszyk, Adamski & Napierala, 2020**

Distribution and habitats. **Chaharmahal va Bakhtiari Province** (Lordegan County, Oureh), in nest of *Tapinoma karavaievi* Emery, 1925, in rooting wood (Khalili-Moghadam and Babaeian 2021).

Genus *Uroobovella* Berlese, 1903a***Uroobovella difoveolata* Hirschmann & Z-Nicole, 1962**

Distribution and habitats. **Fars Province** (Northwestern), soil and debris (Abolghasemi and Kazemi 2016). **Kerman Province** (Kerman), cow manure and sheep manure (Arjomandi *et al.* 2013a); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Khuzestan Province** (Ahvaz, dairy farm at the Shahid Chamran University campus), cow manure; (Bavi, Shajaraat), buffalo manure; (Shush, Beyt-e Juhi), cow manure; (Mollasani), sheep manure, cow manure, sheep manure; (Hamidieh), cow manure; (Ahvaz, Nabi-ye Akram village), cow manure; (Hamidieh, Tarrahiyeh), cow manure; (Hamidieh), sheep manure; (Ahvaz, Gavmish Abad), buffalo manure; (Ahvaz, Alhaei), sheep manure; (Shush, Abdolkhan), cow manure; (Shushtar, Arab Hassan), cow manure; (Shush, Khoyes), cow manure; (Bavi, Talbume), cow manure; (Ahvaz, Daghaheleh), cow manure; (Shushtar, Band-e Qir), cow manure; (Shush, Seyyed Abbas), cow manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle, buffalo, sheep and horse manure (Farahi *et al.* 2022). **Lorestan Province** (Veisian and Rashnoo Districts), soil of walnut trees and vine orchard (Hasanvand *et al.* 2014b). **Mazandaran Province** (Galugah), ex. *E. pallens* (Kazemi *et al.* 2008b). **Razavi Khorasan Province** (Sarakhs, Bazangan Lake coast), ex. *C. hispanus* (Kazemi *et al.* 2008b).

***Uroobovella fimicola* (Berlese, 1903a)**

Distribution and habitats. **Alborz Province** (Shahryar), compost and mushroom (Kheradmand *et al.* 2007). **Fars Province** (region not mentioned), birdseed and poultry bed (Kamali *et al.* 2001); (Doroodzan), soil of fields (Asadpoor *et al.* 2012); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Golestan Province** (Gorgan, Toshani Village), ex. *E. gibbosus* (Bahrami *et al.* 2011). **Guilan Province** (Rasht, Pir Bazar village), soil (Ghasemi and Hajizadeh 2021). **Khuzestan Province** (Ahvaz, Gavmish Abad), buffalo manure; (Shush, Seyyed Abbas), buffalo manure; (Bavi, Mollasani), sheep manure, buffalo manure, cow manure; (Ahvaz, dairy farm at the Shahid Chamran University campus), cow manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle, buffalo, sheep, poultry and horse manure (Farahi *et al.* 2022). **Mazandaran Province** (region not mentioned), ex. unidentified scarabaeid beetles (Kazemi *et al.* 2008b); (Sisangan and Noor Forest Parks), soil, litter,

humus, cow and sheep dung (Kazemi 2012). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012). **Razavi Khorasan Province** (region not mentioned), ex. unidentified scarabaeid beetles (Kazemi *et al.* 2008b). **Tehran Province** (Tehran), humus rich areas of orchards, Parks and lawns of the region (Kazemi *et al.* 2003a); soil (Kazemi *et al.* 2005). **West Azarbaijan Province** (Khoy), soil of sunflower fields (Taher *et al.* 2012); (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012).

***Uroobovella flagelliger* (Berlese, 1910b)**

Distribution and habitats. **Mazandaran Province** (Nowshahr, Kheyroud forest), leaf-litter, dead wood (Babaeian *et al.* 2017).

***Uroobovella fracta* (Berlese, 1916)**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Koohrang, Bazoft (Taraz), Dashte laleh; Lordegan, Ooreh), in soil and rooting wood in association with *C. fritillariae*, *T. karavaievi* (Khalili-Moghadam 2022). **Mazandaran Province** (Nowshahr, Kheyroud forest), leaf-litter, dead wood (Babaeian *et al.* 2017).

***Uroobovella marginata* (C.L. Koch, 1839c)**

Distribution and habitats. **Region not mentioned**, stored products (Sepasgozarian 1978; Modarres Awal 1994, 1997; Kamali *et al.* 2001). **Fars Province** (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Golestan Province** (Gorgan, Toshan Village), ex. *E. gibbosus* (Bahrami *et al.* 2011). **Guilan Province** (region not mentioned), stored rice, rice dust and debris (Noei *et al.* 2008). **Isfahan Province** (Najaf Abad, Dorcheh, Khomeini Shahr), soil of fruit trees orchards (Jalaeian *et al.* 2006). **Kerman Province** (region not mentioned), soil (Jalaeian 2003); (Kerman), cow manure (Arjomandi *et al.* 2011); (Baft), soil (Rajaei *et al.* 2011b); (Bam), soil (Mehrzhad *et al.* 2012); (Kerman), cow manure and poultry manure (Arjomandi *et al.* 2013a); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Khuzestan Province** (Ahvaz, Gavmish Abad), buffalo manure; (Ahvaz, Alhaei), sheep manure, cow manure; (Bavi, Mollasani), cow manure, sheep manure, poultry manure, buffalo manure; (Ahvaz, dairy farm at the Shahid Chamran University campus), cow manure; (Bavi, Shajaraat), cow manure; (Shush, Beyt-e Juhi), poultry manure; (Ahvaz, Jassaniyeh-ye Kuchak), cow manure; (Hamidieh), cow manure; (Ahvaz, Nabi-ye Akram Village), cow manure; (Hamidieh, Gambue), cow manure; (Shushtar, Arab Hassan), sheep manure; (Hamidieh, Tarrahiyeh), buffalo manure; (Shush, Abdolkhan), (buffalo manure); (Shushtar, Arab Hassan), cow manure; (Bavi, Talbume), cow manure; (Hamidieh, Pich-e Seyyed Jaber), cow manure; (Ahvaz, Ebadeh), cow manure; (Shushtar, Band-e Qir), sheep manure; (Ahvaz, Haatam village), sheep manure; (Bavi, Naddafieh), sheep manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle, buffalo, sheep, quail, poultry and horse manure (Farahi *et al.* 2022). **Mazandaran Province** (region not mentioned), ex. unidentified scarabaeid beetles (Kazemi *et al.* 2008b); (Sisangan and Noor Forest Parks), soil, litter, humus, cow and sheep dung (Kazemi 2012). **North Khorasan Province** (Bojnurd), soil of farms, gardens and manures (Mahpikaran *et al.* 2012). **Razavi Khorasan Province** (region not mentioned), ex. unidentified scarabaeid beetles (Kazemi *et al.* 2008b); (Mashhad City), soil and leaf litter (Abbaspour *et al.* 2017). **Sistan va Baluchestan Province** (Mehrestan), *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae) (Farmahiny Farahani *et al.* 2016). **Tehran Province** (Tehran), humus rich areas of orchards, Parks and lawns of the region (Kazemi *et al.* 2003a); Soil (Kazemi *et al.* 2005); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012).

***Uroobovella obovata* (G. Canestrini & Berlese, 1884)**

Cited in Berlese (1884).

Distribution and habitats. **Fars Province** (Jahrom), soil of citrus orchards (Khademi *et al.* 2006); (Marvdasht), soil (Soleimani *et al.* 2011); (Marvdasht, Islamic Azad University, Fars Science and Research Branch), soil and decayed plants associated with conifers (Amirazodi and Ostovan 2012); (Larestan), leaves, fruits, trunk fiber and soil of date palm (Majidi and Akrami 2013); (Northwestern), soil and debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Kharameh region), sandy clay soil under pistachio trees (Alinezhad *et al.* 2023). **Guilan Province** (Rasht, Pasikhan village, Lakan village), soil; (Keshel Varzal village), litter, soil, tomato, *S. lycopersicum* (Ghasemi and Hajizadeh 2021). **Hormozgan Province** (Minab), associated with soil under mango trees (Dolati and Ostovan 2017b). **Kerman Province** (Jiroft), soil (Balooch Shahryari *et al.* 2012). **Khuzestan Province** (Ahvaz), soil (Baharloo *et al.* 2006). **Mazandaran Province** (Sisangan and Noor Forest Parks), soil, litter, humus, cow and sheep dung (Kazemi 2012). **Tehran Province** (Tehran), humus rich areas of orchards, parks and lawns of the region (Kazemi *et al.* 2003a), soil (Kazemi *et al.* 2001, 2005); (Tehran, Sorkhe Hesar Forest Park), soil (Pakyari *et al.* 2006b, 2008); (regions not mentioned), ornamental plants (Hamidi *et al.* 2013); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Urmia), soil (Rezaie *et al.* 2011).

***Uroobovella pulchella* (Berlese, 1904d)**

Distribution and habitats. **Fars Province** (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017). **Tehran Province** (Tehran), humus rich areas of orchards, Parks and lawns of the region (Kazemi *et al.* 2003a); soil (Kazemi *et al.* 2001, 2005).

Note – Jalaieian *et al.* (2004a) reported *Urodynichus* sp. from the foliage of trees, weeds, and soil of orchards (Isfahan Province, Goldasht). Also, Balooch Shahryari *et al.* (2012) reported *Urosternella* sp. from soil (Kerman Province, Jiroft), which they are synonyms of the genus *Uroobovella* Berlese, 1905 (Mašán 2001).

***Uroobovella similiobovata* Hirschmann & Zirngiebl-Nicol, 1962**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (Saman County: Kahkesh village, Markadeh village, Gharagoosh village, Garmdareh village), in the nest of *Lasius neglectus* in rooting wood; (Koohrang County: Dashte Laleh), soil of *Cataglyphis fritillariae* (Formicidae) nest; (Shahrekord County: Daneshgah), in the nest of *Lasius neglectus* in rooting wood; (Nafch County), in nest of *Lasius neglectus* in rooting wood; (Ben County: Bradeh), in the nest of *Cataglyphis kurdistanica* Pisarski in rooting wood (Khalili-Moghadam and Babaeian 2021).

***Uroobovella varians* Hirschmann & Zirngiebl-Nicol, 1962**

Distribution and habitats. **Khuzestan Province** (Shushtar, Band-e Qir), cow manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle manure (Farahi *et al.* 2022).

***Uroobovella vinicolora* (Vitzthum, 1926)**

Distribution and habitats. **Mazandaran Province** (Nowshahr, Kheyroud forest), leaf-litter, dead wood (Babaeian *et al.* 2017).

Family Uropodidae Kramer, 1881
Genus *Centrouropoda* Berlese, 1916b

***Centrouropoda almerodai* Wisniewski, Hirschmann & Hiramatsu, 1992**

Distribution and habitats. **Sistan va Baluchestan Province** (Mehrestan), *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae) (Farmahiny Farahani *et al.* 2016).

Genus *Discourella* Berlese, 1910b

***Discourella modesta* (Leonardi, 1899b)**

Distribution and habitats. **East Azarbaijan Province** (Tabriz), soil and foliage of poplar and elm trees (Rahbar Shahlan *et al.* 2014); (Arasbaran Forests, Vaygan Aynalu Kalaleh Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a, b). **Fars Province** (Marvdasht, Kamfiruz), soil and decayed plants under the oak trees (Beyzavi and Ostovan 2012); (Koohmare-Sorkhi region), oak forests (Kazemi and Yazdanpanah 2013b); (Koohmare-Sorkhi region, oak forest), soil and leaf litter (Yazdanpanah and Kazemi 2014a); (Northwestern), soil and debris (Abolghasemi and Kazemi 2016). **Lorestan Province** (Badrabad District), soil under cedar trees (Hasanvand *et al.* 2014b).

Genus *Trachycilliba* Berlese, 1903a

***Trachycilliba abantica* (Bal & Özkan, 2007)**

Distribution and habitats. **Mazandaran Province** (Ecological Garden of Nowshahr), soil and litter (Kazemi and Abolghasemi 2016).

***Trachycilliba persica* (Kazemi & Kontschán, 2007)**

Distribution and habitats. **Yazd Province** (Abarkooh), soil and litter, wheat fields (Kazemi and Kontschán 2007).

***Trachycilliba splendida* (Kramer, 1882)**

Distribution and habitats. **Fars Province** (Kharameh region), sandy clay soil under olive trees (Alinezhad *et al.* 2023). **Guilan Province** (Sarash-Lahijan, Moein Hotel-Fuman, Mahvizan-Someh Sara, Divshal-langrud, Otaghvar- Langrud), soil of tea (Hajizadeh *et al.* 2020); (Rasht, Bijar Bonch village), soil; (Rasht, Vishka Nanak village), litter (Ghasemi and Hajizadeh 2021). **Mazandaran Province** (Chalous, Roshandarreh forest; Tonekabon, Jasid, Dimron forest; Nowshahr, Sisangan Forest Park), soil and litter (Kazemi and Kontschán 2014). **Mazandaran Province** (Nowshahr, Kheyroud forest), leaf-litter and dead wood (Babaeian *et al.* 2017).

Note – For most of the above authors except Babaeian *et al.* (2017), the report of species has been done in *Neodiscopoma* Vitzthum, 1943 genus [*Neodiscopoma splendida* (Kramer, 1882)].

***Trachycilliba* sp.**

Distribution and habitats. **Guilan Province** (Lahijan, Mahvizan-Someh Sara, Tataf-Someh Sara), soil of tea; (Moein Hotel-Fuman), leaf and soil of tea (Hajizadeh *et al.* 2020).

Note – This unknown species was previously reported from Iran as a species of *Neodiscopoma*.

Genus *Uropoda* Latreille, 1806

Uropoda copridis (Oudemans, 1916)

Distribution and habitats. **Golestan Province** (Shast Kola Forest), ex. *O. nasicornis*; (Shast Kola and Ghorogh Forests), ex. *C. hispanus* (Bahrami *et al.* 2011).

Note – Kazemi and Rajaei (2013) stated that “*Uropoda afghanica* Wiśniewski & Hirschmann, 1996 reported by Kazemi *et al.* (2008b) associated with scarab beetles which had been identified based on one low quality slide. The slide was re-examined besides of several new mounted specimens from same host and locality and identified as *U. copridis*, so the previous species removed from the checklist”. This idea was followed in this paper.

Uropoda fumicola (Schweizer, 1961)

Distribution and habitats. **East Azarbaijan Province** (Arasbaran Forests, Kalaleh Garmanab), soil and plant debris (Mohammad-Doustasharaf *et al.* 2016a). **Mazandaran Province** (Tonekabon, Dimron and Tonekabon, Jasid, forest), soil, litter (Kazemi and Kontschán 2014).

Uropoda orbicularis (Müller, 1776)

Distribution and habitats. **East Azarbaijan Province** (Tabriz), soil of orchards (Kamali *et al.* 2001); (Tabriz), soil and foliage of poplar and elm trees (Rahbar Shahlan *et al.* 2014). **Fars Province** (Kazerun), decaying onion (Kamali *et al.* 2001); (Jahrom), soil of citrus orchards (Khademi *et al.* 2006); (Marvdasht), soil (Soleimani *et al.* 2011); (Marvdasht, Islamic Azad University, Fars Science and Research Branch), soil and decayed plants associated with conifers (Amirazodi and Ostovan 2012); (Doroodzan), soil of fields (Asadpoor *et al.* 2012); (Sepidan, Homayjan), foliage, soil, leaf-litter, weeds and soil of apple trees (Maneshi *et al.* 2012); (Koohmare-Sorkhi region), oak forests (Kazemi and Yazdanpanah 2013b); (Koohmare-Sorkhi region, oak forest), soil and leaf litter (Yazdanpanah and Kazemi 2014a); (Northwestern), soil and debris (Abolghasemi and Kazemi 2016); (Shiraz, Eram Garden), soil under different trees (Javan *et al.* 2017); (Shiraz, green spaces and orchards of fruit trees), soil and decayed material on the soil surface (Farzaneh *et al.* 2021); (Darab), the soil under the trees in the northern and southern orchards of Darab city (Memarzadeh *et al.* 2022). **Golestan Province** (Gorgan), soil (Kazemi *et al.* 2011a). **Guilan Province** (Bandar Anzali), on *Phragmites australis* (Cav.), infested with aphids (Navaran and Hajizadeh 2021); (Rasht, Pasikhan village), wood sorrel, *Oxalis acetosella* L. leaves; (Vishka Nanak village), litter (Ghasemi and Hajizadeh 2021). **Hamedan Province** (region not mentioned), clover (*Trifolium* sp.) farms (Khanjani & Kamali 2000a; Kamali *et al.* 2001). **Kerman Province** (Baft), soil (Rajaei *et al.* 2011b); (Bam), soil (Mehrzaad *et al.* 2012); (Mahan City), soil of gardens, field and green space (Mojaz and Kazemi 2020). **Khuzestan Province** (Ahvaz), soil (Baharloo *et al.* 2006); (Shush, Abdolkhan), cow manure; (Bavi, Mollasani), cow manure; (Ahvaz, Haatam village), sheep manure; (Ahvaz, Alhaei), cow manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle and sheep manure (Farahi *et al.* 2022). **Lorestan Province** (Ghalesangi District), soil of apple orchard (Hasanvand *et al.* 2014b). **Mazandaran Province** (Sisangan and Noor Forest Parks), soil, litter, humus, cow and sheep dung (Kazemi 2012); (Nowshahr, Kheyrood- Kenar forest), dead wood, leaf-litter, *Lucanus* sp. (Babaeian *et al.* 2017). **North Khorasan Province** (Esfidan), ex. *C. scheriberi* and *Onthophagus* sp. (Kazemi *et al.* 2008b); (Bojnurd), soil of farm, gardens and manures (Mahpikaran *et al.* 2012). **Razavi Khorasan Province** (Mashhad), soil (Abbaspour *et al.* 2017). **Tehran Province** (Tehran), humus rich areas of orchards, Parks and lawns of the region (Kazemi *et al.* 2003a); (Tehran, Shahid Beheshti University Campus), soil (Kamali *et al.* 2004); (region not mentioned), soil (Kazemi *et al.* 2005), honeybee hives (Rahmani *et al.* 2006); (Tehran City, Police Park), soil (Maleki *et al.* 2016). **West Azarbaijan Province** (Urmia), aerial plants part and soil of potato fields (Mosavi *et al.* 2004;

Mousavi *et al.* 2005); (Khoy), soil of sunflower fields (Taher *et al.* 2012); (Salmas), soil and plant debris of apple orchards (Alizadeh and Shirdel 2012).

Suborder Trigynaspida Camin & Gorirossi, 1955
Cohort Antennophorina Camin & Gorirossi, 1955
Superfamily Aenictequoidea Kethley, 1977
Family Messoracaridae Kethley, 1977
Genus *Messoracarus* Silvestri, 1912

***Messoracarus* sp.**

Distribution and habitats. **Khuzestan Province** (Shoshtar County), nest of *Formica* sp., coll. Seihaei, 2016.

Note – This superfamily and related taxa (family and genus) are reported for the first time from Iran.

Superfamily Antennophoroidea Berlese, 1892
Family Antennophoridae Berlese, 1892e
Genus *Antennophorus* Haller, 1877

***Antennophorus foreli* Wasmann, 1902**

Distribution and habitats. **Chaharmahal va Bakhtiari and Isfahan Provinces** (region not mentioned), soil (Nemati *et al.* 2012a); (regions not mentioned), ant nest (Khalili-Moghadam and Nemati 2014b); (Saman, Shahrekord), *Plagiolepis* sp. (Hym. Formicidae) (Khalili-Moghadam and Saboori 2015); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022a).

Superfamily Celaenopsoidea Berlese, 1892
Family Celaenopsidae Berlese, 1892a
Genus *Celaenopsis* Berlese, 1886

***Celaenopsis badius* C.L. Koch, 1840**

Distribution and habitats. **Chaharmahal va Bakhtiari and Isfahan Provinces** (region not mentioned), soil (Nemati *et al.* 2012a); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022a). **East Azarbaijan Province** (Arasbaran Forests), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016b); (Arasbaran Forests, Aynalu, Kalaleh), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a).

Genus *Pleuronectocelaeno* Vitzthum, 1926

***Pleuronectocelaeno austriaca* Vitzthum, 1926**

Distribution and habitats. **Tehran, Fars and Guilan Provinces** (region not mentioned), galleries made by Mediterranean pine engraver beetles *Orthotomicus erosus* (Wollaston) (Ahadiyat *et al.* 2012).

***Pleuronectocelaeno barbara* Athias-Henriot, 1959a**

Distribution and habitats. **Fars Province** (region not mentioned), galleries made by Mediterranean pine engraver beetles *O. erosus* (Ahadiyat *et al.* 2012). **Guilan Province** (region not mentioned), galleries made by Mediterranean pine engraver beetles *O. erosus* (Ahadiyat *et al.* 2012). **Markazi Province** (Saveh and Mahallat region), associated with the mediterranean pine beetle, *Orthotomicus*

erosus (Wollaston) (Farmahiny Farahani *et al.* 2013). **Tehran Province** (Tehran), associated with elm bark beetles *S. multistriatus* (Ostovan & Kamali 1997; Kamali *et al.* 2001); (region not mentioned), galleries made by Mediterranean pine engraver beetles *O. erosus* (Ahadiyat *et al.* 2012). **Note**– *Pleuronectocelaeno drymoecetes* Kinn, 1968 was reported by Ostovan & Kamali (1997) and Kamali *et al.* (2001) before recording *P. barbara* by Ahadiyat *et al.* (2012) which Kinn (1991) considered it as a junior synonym of the latter as cited in Kazemi and Rajaei (2013).

Family Diplogyniidae Trägårdh, 1941

Genus *Cingulacarus* Elsen, 1975

Cingulacarus kermanensis Kazemi & Klompen, 2024

Distribution and habitats. **Kerman Province** (Jiroft and Bam County), under elytra of *Oryctes elegans* (Col., Scarabaeidae) (Kazemi and Klompen 2024).

Genus *Lobogynium* Trägårdh, 1950

Lobogynium sodhiri (Datta, 1985)

Distribution and habitats. **Fars Province** (Jari Abad Village), dry cow dung and decaying plant material (Plumari and Kazemi 2012). **Golestan Province** (Gorgan, Naharkhoran), ex. *G. spiniger* (Plumari and Kazemi 2012). **Khuzestan Province** (Bavi, Mollasani), cow manure, sheep manure and buffalo manure); (Ahvaz, Jassaniyeh-ye Kuchak), cow manure; (Ahvaz, dairy farm at the Shahid Chamran University campus), cow manure; (Ahvaz, Nabi-ye Akram village), cow manure; (Ahvaz, Alhaei), sheep manure; (Shush, Beyt-e Juhi), cow manure; (Bavi, Shajaraat), cow manure; (Bavi, Naddafieh), sheep manure; (Ahvaz, Haatam village), sheep manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle, buffalo, and sheep manure (Farahi *et al.* 2022). **North Khorasan Province** (Bojnord), sheep and cow dung (Plumari and Kazemi 2012). **Razavi Khorasan Province** (Mashhad, Shandiz), ex. *A. scutellaris* (Plumari and Kazemi 2012). **Tehran Province** (Rudehen), ex. *A. scutellaris* (Erichson) (Plumari and Kazemi 2012).

Genus *Weiseronyssus* Samšiňák, 1962

Weiseronyssus persicus Kazemi, Klompen & Moraza, 2008

Distribution and habitats. **Golestan Province** (Gorgan, Shast Kola Forest), ex. *O. nasicornis* (Kazemi *et al.* 2008f; Bahrami *et al.* 2011). **Mazandaran Province** (Galugah), ex. *O. nasicornis* (Kazemi *et al.* 2008f).

Family Schizogyniidae Trägårdh, 1950

Genus *Euroschizogynium* Trach & Seeman, 2014

Euroschizogynium calvum Trach & Seeman, 2014

Distribution and habitats. **Khuzestan Province** (Ahvaz), on the body of some members of Carabidae (Coleoptera) (Nemati *et al.* 2012a); (Ahvaz), separated from around mouth parts of carabid beetles *Scarites* sp. (Coleoptera: Carabidae) (Nemati and Khalili-Moghadam 2018).

Note – Nemati *et al.* (2012) reported this species as an unidentified taxa of the genus *Schizogynium* Trägårdh, 1950.

Cohort Cercomegistina Camin & Gorirossi, 1955
Superfamily Cercomegistoidea Trägårdh, 1938
Family Asternoseiidae Valle, 1954
Genus *Asternoseius* Berlese, 1910b

***Asternoseius* sp.**

Distribution and habitats. **Mazandaran Province** (Amol), soil and forest litter (Kazemi and Paktinat Saeedj 2013a).

Family Cercomegistidae Trägårdh, 193
Genus *Cercoleipus* Kinn, 1970

***Cercoleipus kuznetsovi* Khaustov, 1997**

Distribution and habitats. **Markazi Province** (Saveh region), associated with *Orthotomicus erosus* (Wollaston) (Farmahiny Farahani *et al.* 2013). **Tehran Province** (region not mentioned), ex. *O. erosus* (Ahadiyat *et al.* 2011).

Suborder Sejida Kramer, 1885
Superfamily Sejoidea Berlese, 1885
Family Ichthyostomatogasteridae Sellnick, 1953
Genus *Asternolaelaps* Berlese, 1923

***Asternolaelaps fecundus* Berlese, 1923**

Distribution and habitats. **Chaharmahal va Bakhtiyari Province** (region not mentioned), soil (Nemati and Gwiazdowicz 2011a); (region not mentioned), ants and soil of their nest (Khalili-Moghadam *et al.* 2022a). **Kohgiluyeh va Boyer-Ahmad Province** (region not mentioned), soil (Nemati and Gwiazdowicz 2011a).

***Asternolaelaps* sp.**

Distribution and habitats. **Fars Province** (Kamfiruz region), soil under oak trees (Ostovan and Beyzavi 2010).

Family Sejidae Berlese, 1913c
Genus *Sejus* C.L. Koch, 1836b

***Sejus australis* Hirschmann & Kaczmarek, 1991**

Cited in Hirschmann, Wisniewski and Kaczmarek (1991).

Distribution and habitats. **Isfahan and Chaharmahal va Bakhtiyari Provinces** (region not mentioned), soil (Nemati and Gwiazdowicz 2011b). **Khuzestan Province** (Ahvaz, dairy farm at the Shahid Chamran University campus), cow manure; (Ahvaz, Nabi-ye Akram village), cow manure (Farahi *et al.* 2018); (Ahvaz and its suburbs), cattle manure (Farahi *et al.* 2022).

***Sejus carolinensis* Lekveishvili & Klompen, 2004**

Distribution and habitats. **Kerman Province** (Jiroft), soil (Balooch Shahryari *et al.* 2012).

***Sejus persicus* Babaeian & Gwiazdowicz, 2021**

Distribution and habitats. **Mazandaran Province** (Kheyroud forest), leaf-litter (Babaeian and

Gwiazdowicz 2021).

Sejus sp.

Distribution and habitats. **East Azarbaijan Province** (Arasbaran Forests, Garmanab), soil and plant debris (Mohammad-Doustaresharaf *et al.* 2016a). **Fars Province** (Larestan), leaves, fruits, trunk fiber and soil of date palm (Majidi and Akrami 2013). **Guilan Province** (Sarash-Lahijan), soil of tea (Hajizadeh *et al.* 2020).

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REFERENCES

- Abbaspour, P., Sadeghi Nameghi, H. & Fekrat, L. (2017) Soil inhabiting mesostigmatic mites (Acari: Mesostigmata) in Mashhad Province. *Journal of Crop Protection*, 30(4): 744–753.
- Abolghasemi, S. & Kazemi, S. (2016) Report of a new species of *Dendrolaelaps* Halbert (Acari: Mesostigmata: Digamasellidae) for Iran. In: Talaei-Hassanlou, R., Rahimi, S. & Ebrahimi, V. (Eds.), *Proceedings of the 22th Iranian Plant Protection Congress, Karaj, Iran*, p. 510.
- Abutaleb Kermani, R., Ahadiyat, A. & Joharchi, O. (2017) A research on the distribution of soil inhabiting mites of the superfamily Eviphidoidea (Acari: Mesostigmata) in the Kashan region, Isfahan Province, Iran. In: Hajiqaanbar, H. & Saboori, A. (Eds.), *Abstract book of the Third International Persian Congress of Acarology, Teheran, Iran*, pp. 2–3.
- Adeli, S.M., Hajizadeh, J. & Hosseini, R. (2013) Introduction of seven mites species of the families Ascidae and Blattisociidae (Acari: Mesostigmata) collected on eriophyoid mites (Acari: Eriophyidae) infested plants in Guilan Province, Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 2.
- Agha Alikhani, H., Ahadiyat, A. & Joharchi, O. (2017) Gamaspine mites (Acari: Mesostigmata) in Qom Province, Iran. In: Hajiqaanbar, H. & Saboori, A. (Eds.), *Abstract book of the Third International Persian Congress of Acarology, Teheran, Iran*, pp. 3–4.

- Ahadiyat, A., Baroozeh, S., Farmahiny Farahani, V.R. & Seyed Masoud, A. (2014a) Further information on morphological characteristics of *Macrocheles mammifer* Berlese (Mesostigmata: Eviphidoidea: Macrochelidae). *Persian Journal of Acarology*, 3(3): 235–240.
- Ahadiyat, A. & Cheraghali, Z. (2012) Faunistic study of pachylaelapid mites (Mesostigmata: Eviphidoidea: Pachylaelapidae) in Roodbaar-Ghasraan region (Shemiraanaat County) of Tehran Province. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 428.
- Ahadiyat, A., Ghasemi-Moghadam, S., Abutaleb Kermani, R. & Joharchi, O. (2020) Review of the Iranian species of Pachylaelapidae, with description of a new species of Onchodellus (Acari: Mesostigmata). *Zootaxa*, 4778(1): 48–66. DOI: [10.11646/zootaxa.4778.1.2](https://doi.org/10.11646/zootaxa.4778.1.2)
- Ahadiyat, A., Ghasemi Moghadam, S. & Cheraghali, Z. (2016) *Pachyseius masanisimilis* (Mesostigmata: Eviphidoidea: Pachylaelapidae), a new species of edaphic mite from Iran. *Persian Journal of Acarology*, 5(2): 109–120.
- Ahadiyat, A., Khaustov, A.A., Seeman, O.D. & Valizadeh, A. (2011) First record of mites of the genus *Cercoleipus* Kinn, 1970 (Mesostigmata: Trigynaspida: Cercomegistidae) from Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 2.
- Ahadiyat, A., Maśán, P., Cheraghali, Z. & Joharchi, O. (2014b) First report of the subgenus *Pachylaelaps* (Longipachylaelaps) Maśán (Mesostigmata: Eviphidoidea: Pachylaelapidae) from Iran. *Persian Journal of Acarology*, 3(1): 99–102.
- Ahadiyat, A., Ostovan, H., Gwiazdowicz, D.G. & Valizadeh, A. (2012) Celaenopsid mites (Mesostigmata) associated with the Mediterranean pine engraver beetle, *Orthotomicus erosus* (Wollaston) (Coleoptera: Curculionidae: Scolytinae), in Iran. *Abstract Book of the 20 th Iranian Plant Protection Congress, Shiraz, Iran*, p. 475.
- Ahadiyat, A., Ostovan, H. & Saboori, A. (2004) Mites associated with *Scolytus amygdali* Guerin-Meneville, 1847 in Karaj region. *Abstract Book of the 16th Iranian Plant Protection Congress, Tabriz, Iran*, p. 251.
- Ahangaran, Y., Afshari, A., Saboori, A. & Kazemi, S. (2012) Edaphic and coprophil fauna of Eviphidoidea (Acari: Mesostigmata) in Nowshahr. *Taxonomy and Biosystematics*, 12: 1–16.
- Ahangaran, Y., Afshari, A., Saboori, A., Kazemi, S. & Asadeh, G. (2010a) Introduction of some macrochelid mites (Acari: Mesostigmata) in Nowshahr region. In: Manzari, S. (Ed.), *Abstract Book of 19th Iranian Plant Protection Congress, Tehran, Iran*, p. 369.
- Ahangaran, Y., Afshari, A., Saboori, A., Kazemi, S. & Asadeh, G. (2010b) Introduction of some pachylaelapid mites (Acari: Mesostigmata) in Nowshahr region. In: Manzari, S. (Ed.), *Abstract Book of 19 th Iranian Plant Protection Congress, Tehran, Iran*, p. 368.
- Ahmadi, K. (2002) New records of six mite species of the genus *Pachylaelaps* from (Acari: Pachylaelapidae) Kerman Province, Iran. *Abstract Book of the 15th Iranian Plant Protection Congress, Kermanshah, Iran*, p. 149.
- Alinezhad, Z., Ostovan, H., Hesami, S. & Gheibi, M. (2023) Identification of mites the suborder (Acari: Mesostigmata) in Kharameh region of Fars Province. *IAU Journal of Entomological Research*, 14(3): 179–196.
- Alizadeh, A. & Shirdel, D. (2012) Some mesostigmatic mites (Acari: Mesostigmata) in apple orchards of Salmas region, West Azerbaijan Province, Iran. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 497.
- Alizadeh, S., Shirdel, D., Adldoost, H. & Atamehr, A. (2011) Fauna of the family Laelapidae (Acari: Mesostigmata) in apple orchards of Salmas region, West Azerbaijan, Iran. In: Kazemi, S. &

- Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 49.
- Allred, D.M. (1970) Two new mites (Laelapidae) from West Pakistan. *Journal of Medical Entomology*, 7: 107–111. DOI: [10.1093/jmedent/7.1.107](https://doi.org/10.1093/jmedent/7.1.107)
- Allymehr, M., Tavassoli, M., Manoochehri, M.H. & Ardavan, D. (2012) Ectoparasites and gastrointestinal helminths of house mice (*Mus musculus*) from poultry houses in Northwest Iran. *Comparative Parasitology*, 79(2): 283–287.
- Amanatfard, E., Youssefi, M.R. & Barimani, A. (2014) Human dermatitis caused by *Ophionyssus natricis*, a snake mite. *Iranian Journal of Parasitology*, 9(4): 594–596.
- Amani, M., Khajehali, J., Noorbakhsh, F., Joharchi, O. & Sabzalain, M.R. (2015) Species diversity of laelapid soil mites (Acari: Laelapidae) under different land use types in Saman and Shahrekord. *Iranian Journal of Applied Ecology*, 4(13): 89–98.
- Amirazodi, R. & Ostovan, H. (2012) Reports of mites associated with conifers collected in Science and Research Branch, Fars, Iran. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 484.
- Anderson, D.L. & Trueman, J.W.H. (2000) *Varroa jacobsoni* (Acari: Varroidae) is more than one species. *Experimental and Applied Acarology*, 24: 165–189.
- 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. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 426.
- Ardeshtir, F., Khormali, S. & Khaleghizadeh, A. (2010) Mites of bird nests in Iran. In: Manzari, S. (Ed.), *Abstract Book of 19th Iranian Plant Protection Congress, Tehran, Iran*, p. 342.
- Ardeshtir, F. & Nematollahi, M.R. (2008) Mites fauna of wheat stored and new record of *Culifella variegata* (Barilo, 1985) in Isfahan Province. In: Manzari, S. (Ed.), *Abstract Book of 18th Iranian Plant Protection Congress, Hamedan, Iran*, p. 274.
- Ardeshtir, F., Ranji, H., Obaidy, O. & Khany, M. (2012) Mites fauna in dry fruits and nuts in West Azerbaijan Province. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 512.
- Arjmandi-Nezhad, A. & Babaeian, E. (2014) Mites of the family Macrochelidae (Mesostigmata: Eviphidoidea) in Gulian Province, Iran. *Abstract book of the XIV International Congress of Acarology, Kyoto, Japan*, p. 143.
- Arjmandi Nejad, A.R., Ostovan, H., Ramroodi, S. & Naroui, M.R. (2006) Biodiversity of edaphic mites in Sistan region, Iran. In: Bruin, J. (Ed.), *Abstract Book of 12th International Congress of Acarology, Amsterdam, the Netherlands*, p. 15.
- Arjmandi Nejad, A.R., Ostovan, H., Ramroodi, S., Naroui, M.R. & Modarres Najaf Abadi, S.S. (2008) Biodiversity of edaphic mites (Acari) in Sistan region. In: Manzari, S. (Ed.), *Abstract Book of 18th Iranian Plant Protection Congress, Hamedan, Iran*, p. 282.
- Arjomandi, E. & Kazemi, S. (2014a) Fauna of the genus *Ololaelaps* Berlese (Acari: Mesostigmata: Laelapidae) in Gorgan forests, Golestan Province, Iran. *Proceedings of the 21th Iranian Plant Protection Congress, Urmia, Iran*, p. 976.
- Arjomandi, E. & Kazemi, S. (2014b) Edaphic mesostigmatic mites (Acari: Mesostigmata) fauna in parks and landscapes of Kerman City. *The Third Insect Pest Management Conference, Kerman, Kerman, Iran*, pp. 243–251.
- Arjomandi, E. & Kazemi, S. (2015) First report of a genus and species of the family Dinychidae (Acari: Mesostigmata: Uropodoidea) from Iran. *Journal of Entomological Society of Iran*, 35(1): 71–72.

- Arjomandi, E., Kazemi, S. & Afshari, A. (2011) Coprophilous mesostigmatic mites (Acari) in Kerman region, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 5.
- Arjomandi, E., Kazemi, S. & Afshari, A. (2013a) Fauna and diversity of the manure inhabiting Mesostigmata (Acari) in Kerman County, South Eastern Iran. *Persian Journal of Acarology*, 2: 253–263.
- Arjomandi, E., Kazemi, S. & Rajaei, A. (2013b) First record of *Cheiroseius unguiculatus* (Berlese) (Mesostigmata: Blattisociidae) from Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 5.
- Arutunian, E.S. (1991) New species of the genus *Alliphis* Halbert, 1923 (Parasitiformes: Eviphididae). *Doklady Akademii Nauk Armenii*, 92: 177–181 (In Russian).
- Asadpoor, N., Ostovan, H. & Haghani, M. (2012) A faunistic study on edaphic mesostigmatic mites in Doroodzan's region fields. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 515.
- Askari, M., Hajizadeh, J., Hosseini, R. (2023) Mites (Acari) associated with peanut (*Arachis hypogaea*: Fabaceae) in Iran. *Journal of Biological Studies*, 5(6): 760– 773.
- Atamehr, A., Kamali, K. & Ostovan, H. (2008) Report of one genus and species of Ascidae (Acari) from Iran. *Journal of Entomological Society of Iran*, 27(2): 1–2.
- Athias-Henriot, C. (1959a) Contribution aux genres *Podocinum* Berlese et *Pleuronectocelaeno* Vitzthum en Algérie et remarques sur les genres *Aceosejus* Sellnick et *Seiodes* Berlese (Mesostigmata). *Acarologia*, 1 (I): 24–38.
- Athias-Henriot, C. (1959b) Phytoseiidae et Aceosejidae (Acarina, Gamasina) d'Algérie. III Contribution aux Aceosejinae. *Bulletin de la Société d'Histoire Naturelle de L'Afrique du Nord*, 50: 158–195.
- Athias-Henriot, C. (1961) Mesostigmates (Urop. Excl.) édaphiques méditerranéens (Acaromorpha, Anactinotrichida) (collect. Prof. H. Franz et C. Athias-Henriot). *Première Série. Acarologia*, 3: 381–509.
- Athias-Henriot, C. (1973) Observations sur les genres *Neojordensia* Evans et *Orthadenella* n.g. en Europe Occidentale (Gamasides, Dermanyssina, Ascidae). *Acarologia*, 15: 18–32.
- Athias-Henriot C. (1981) *Rhabdocarpais* n. g. (type *Gamasus mammilatus* Berlese, 1904). Définition. Composition systématique (Parasitiformes, Parasitidae). *Revue Suisse de Zoologie*, 88: 141–156. DOI: [10.5962/bhl.part.82361](https://doi.org/10.5962/bhl.part.82361)
- Azarmi, S., Zahraei-Ramazani, A. R., Mohebal, M., Akhavan, A. A., Rassi, Y., Parsaeian, M., Saboori, A. Zarei, Z., Azarm, A., Abdoli, R. & Abdoli, H. (2019) An environmental study on ectoparasites of *Rhombomys opimus* (Rodenta: Gerbillinae); the main reservoir host of zoonotic cutaneous leishmaniasis in a hyperendemic foci in Segzi, Esfahan Province. *Journal of Research in Environmental Health*, 4(4): 291–301.
- Azhari, S., Monfared, A. & Khodaparast, R. (2011) Identifying of mites associate with nest of *Bombus armeniacus* (Hymenoptera, Apidae) colony in Ardabil Province. *Abstract and Proceeding Book of the Second Iranian Pest Management Conference, Kerman, Iran*, p. 79.
- Babaeian E. (2016) Identification of Uropodina mites in Kheyroud-Kenar forest, Mazandaran province [Ph. D. dissertation]. University of Tehran, 221 pp.
- Babaeian, E., Ghobari, H. & Mohammadi Samani, K. (2019a) Redescription of *Ololaelaps tasmanicus* (Womersley, 1956) and description of a new species of *Ololaelaps* Berlese (Acari: Laelapidae) from Iran. *Zootaxa*, 4691(1): 88–88. DOI: [10.11646/zootaxa.4691.1.9](https://doi.org/10.11646/zootaxa.4691.1.9)

- Babaeian, E. & Gwiazdowicz, D.J. (2021) A new species of *Sejus* C.L. Koch (Acari: Mesostigmata: Sejidae) from Iran with the key of *Sejus* females from Palearctic region. *International Journal of Acarology*, 47(6): 463–474.
- Babaeian, B., Gwiazdowicz, D. J & Saboori, A. (2018) Description of the male of *Cilliba erlangensis* (Acari, Uropodina, Cillibidae) with a key to males of the genus *Cilliba*. *Vestnik Zoologii*, 52(4): 307–312. DOI: [10.2478/vzoo-2018-0032](https://doi.org/10.2478/vzoo-2018-0032)
- Babaeian, B., Halliday, B. & Saboori, A. (2015) A new species of *Geholaspis* Berlese (Acari: Mesostigmata: Macrochelidae) from Northern Iran. *Zootaxa*, 3925(3): 422–430. DOI: [10.11646/zootaxa.3925.3.6](https://doi.org/10.11646/zootaxa.3925.3.6)
- Babaeian, E., Joharchi, O. & Keshavarz Jamshidian, M. (2014a) A new species of the genus *Nothrolaspis* Berlese (Acari: Macrochelidae) from Iran. *Zootaxa*, 3784(5): 585–590.
- Babaeian, E., Joharchi, O. & Saboori, A. (2013) A new species of *Myrmozercon* Berlese (Acari: Laelapidae) associated with ant from Iran. *Acarologia*, 53(4): 453–460.
- Babaeian, E. & Kazemi, S. (2011) Mites of the family Pachylaelapidae (Mesostigmata: Eviphidoidea) in Shahrekord region, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 43.
- Babaeian, E., Kazemi, S., Seraj, A.A. & Nemati, A. (2011) Macrochelid mites (Acari: Mesostigmata) fauna in Shahrekord and Ahvaz, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 8.
- Babaeian, B., Mařán, P. & Halliday, B. (2019b) Review of the genus *Holostaspis* Kolenati, 1858 (Acari: Laelapidae). *Zootaxa*, 4590(3): 301–341.
- Babaeian, E., Mařán, P. & Saboori, A. (2016a) The genus *Pachyseius* Berlese, 1910 in Iran (Acari: Pachylaelapidae). *Zootaxa*, 4088(3): 420–428. DOI: [10.11646/zootaxa.4088.3.7](https://doi.org/10.11646/zootaxa.4088.3.7)
- Babaeian, E. & Nozaad, S. (2017) Report of one species of Trematuridae (Acari: Uropodina) from Iran. In: Hajiqanbar, H. & Saboori, A. (Eds.), *Abstract book of the Third International Persian Congress of Acarology, Teħan, Iran*, p. 8.
- Babaeian E. & Nozad, S. (2018) A new species of the myrmecophile *Oplitis* Berlese (Acari: Oplitidae) from Iran. *International Journal of Acarology*, 44(2–3): 105–110. DOI: [10.1080/01647954.2018.1429493](https://doi.org/10.1080/01647954.2018.1429493)
- Babaeian, E., Seraj, A. & Nemati, A. (2014b) Description of a new ant-associated species (Acari: Mesostigmata: Lelapidae) from Iran. *Acarologia*, 54(2): 221–228.
- Babaeian, E., Seraj, A.A., Nemati, A. & Kazemi, S. (2010) Mites of the family Laelapidae (Acari: Mesostigmata) in Shahrkord region. In: Manzari, S. (Ed.), *Abstract Book of 19th Iranian Plant Protection Congress, Tehran, Iran*, p. 328.
- Babaeian, E., Saboori, A. & Etemad, V. (2017) Some uropodine mites (Acari: Mesostigmata: Uropodina) from Noshahr, Iran. In: Hajiqanbar, H. & Saboori, A. (Eds.), *Abstract book of the Third International Persian Congress of Acarology, Teħan, Iran*, p. 8–9.
- Babaeian, E., Saboori, A., Gwiazdowicz, D. J. & Etemad, V. (2016b) Redescription of two species of *Oplitis* Berlese (Acari, Mesostigmata, Oplitidae) from Iran. *ZooKeys*, 610: 13–22.
- Babakfard, A., Khanjani, M., Pourmirza, A.A. & Zahedi-Keyvan, M. (2007) Study on Acari fauna (Acari: Mesostigmata) of fruit trees of Rijab area (Kermanshah Province). *Proceedings of the 18th Iranian Plant Protection Congress, Hamedan, Iran*, p. 270.
- Babakfard, A., Khanjani, M., Pourmirza, A.A., Zahedi-Keyvan, M. (2008) Study on Acari fauna (Acari: Mesostigmata) of fruit trees of Rijab area (Kermanshah Province). In: Manzari, S. (Ed.), *Abstract Book of 18th Iranian Plant Protection Congress, Hamedan, Iran*, p. 269.

- Bagheri Kordeshami, A., Khajehali, J. & Nemati, A. (2015) Some edaphic mesostigmatic mites from Lordegan, Chaharmahal va Bakhtiyari province with their world distribution. *Journal of Crop Protection*, 4: 589–604.
- Baharloo, M., Shishehbor, P., Mossadegh, M.S., Khanjani, M. & Ueckermann, E. (2006) Investigation on the fauna of mesostigmatic mites of Ahvaz region. In: Manzari, S. (Ed.), *Abstract Book of the 17th Iranian Plant Protection Congress, Karaj, Iran*, p. 191.
- Bahrami, F., Arbabi, M., Vafaei Shoushtari, R. & Kazemi, S. (2011) Mesostigmatic mites associated with Coleoptera and biodiversity calculation of these mites phoretic on dung beetles in Golestan Province (north of Iran). *Middle-East Journal of Scientific Research*, 9(3): 345–366.
- Bahrami, F. & Kazemi, S. (2019) First record of *Antennoseius pannonicus* Willmann (Mesostigmata: Ascidae) from Iran. *Persian Journal of Acarology*, 8(4): 357–359.
- Bai, X.-L., Gu, Y.-M. & Fang, L. (1995) A new genus and species of Ameroseiidae (Acari: Gamasina). *Acta Zootaxonomica Sinica*, 20: 435–438.
- Baker, R.A., Hick, A. & Chmielewski, W. (2005) Aspects of the history and biogeography of the bee mites *Tropilaelaps clarea* and *T. koenigerum*. *Journal of Apicultural Science*, 49(2): 13–19.
- Bal, D.A. & Özkan, M. (2007) *Uropoda abantica* n. sp., a new mesostigmatid mite (Acari: Uropodidae) from Turkey. *International Journal of Acarology*, 33(19): 41–47.
- Balogh, J. (1943) *Metagynura carpathica* gen. nov., spec. nov. (Acari, Uropodina) e Carpathiis Meridionalibus. *Fragmenta Faunistica Hungarica*, 6: 33–35.
- Balogh, J. (1958) Neue Epicriiden aus Bulgarien (Acari, Mesostigmata). *Acta Zoologica Academiae Scientiarum Hungaricae*, 4: 115–130.
- Balooch Shahryari, N., Hajizadeh, J. & Asadi, M. (2011) Laelapid mites (Acari: Laelapidae) fauna in Jiroft City, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 58.
- Balooch Shahryari, N., Hajizadeh, J. & Asadi, M. (2012) Fauna of edaphic mesostigmatic mites (Acari: Mesostigmata) in Jiroft city. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 518.
- Banks, N. (1895) Some acarions from a sphagnum swamp. *Journal of the New York Entomological Society*, 3: 128–130.
- Baradaran, P., Arbabi, M., Joharchi, O. & Rahimi, H. (2011) Mites of the family Laelapidae (Acari: Mesostigmata) from potato field crop in Tehran and Khorassan Razavi regions, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 10.
- Baradaran Anaraki, P., Arbabi, M., Joharchi, O., Rahimi, H. & Hoseini-Nia (2012) Identification of the mites associated with the corm of gladiolus and saffron in Khorasan Razavi and Markazi Provinces, Iran. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 516.
- Barilo, A.B. (1987) New species of gamasid mites of Veigaiaidae, Antennoseiidae and Ameroseiidae families in the fauna of Middle Asia. *Zoologicheskii Zhurnal*, 66: 1264–1269.
- Baroozeh, S., Ahadiyat, A., Joharchi, O. & Sarafrazi, A. (2012) Faunistic study of laelapid mites (Mesostigmata: Dermanyssoidea: Laelapidae) in Tehran Province. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 514.
- Baroozeh, S., Ahadiyat, A., Joharchi, O. & Sarafrazi, A. (2013) Species composition of mites of the family Laelapidae (Acari: Mesostigmata) in the main climate zones of Tehran Province, Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 7.

- Bazrafshan, S., Dosry, A. & Joharchi, O. (2013) Mites of the family Laelapidae (Acari: Mesostigmata) in Neyriz region, Fars Province, Iran. *In*: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 8.
- Benda, P., Faizolâhi, K., Andreas, M., Obuch, J., Reiter, A., Ševčík, M., Uhrin, M., Vallo, P. & Ashrafi S. (2012) Bats (Mammalia: Chiroptera) of the Eastern Mediterranean and Middle East. Part 10. Bat fauna of Iran. *Acta Societatis Zoologicae Bohemicae*, 76: 163–582.
- Berlese, A. (1882a) Note Acarologiche. *Atti Istituto Veneto*, 5(8): 619–647.
- Berlese, A. (1882b) Specierum novarum repertorium. Acari, Myriapoda et Scorpiones Hucusque in Italia Reperta, 1, front wrapper. DOI: [10.5962/bhl.title.69269](https://doi.org/10.5962/bhl.title.69269)
- Berlese A. (1882c) Acari, Myriopoda et Scorpiones hucusque in Italia reperta. Ordo Mesostigmata (Gamasides). *Typis Seminarii (Padua)*, 63: 1–143.
- Berlese, A. (1884) Acari, Myriopoda et Scorpiones hucusque in Italia reperta, 11, 13 text pages + plates 1–10.
- Berlese, A. (1886) Acari, Myriopoda et Scorpiones hucusque in Italia Fascicolo. – Padova, Fasc. 31, N 9.
- Berlese, A. (1887a) Acari, Myriopoda et Scorpiones Hucusque in Italia Reperta, 38, 18 text pages + 10 plates.
- Berlese, A. (1887b) Acari, Myriopoda et Scorpiones Hucusque in Italia Reperta, 40, 13 text pages + 10 plates.
- Berlese, A. (1887c) Acari, Myriopoda et Scorpiones hucusque in Italia reperta, 45, 16 textpages + Plates 1–10.
- Berlese, A. (1887d) Acari, Myriopoda et Scorpiones Hucusque in Italia Reperta, 44, 17 text pages + 10 plates.
- Berlese, A. (1887e) Acari, Myriopoda et Scorpiones hucusque in Italia reperta, 39, 16 text pp., pls. 1–10.
- Berlese, A. (1887f) Acari, Myriopoda et Scorpiones hucusque in Italia reperta, 41, 1–14, 10 plates.
- Berlese, A. (1888a) Acari, Myriopoda et Scorpiones hucusque in Italia reperta, 49, 15 text pages + plates 1–10.
- Berlese, A. (1888b) Acari Austro-Americani quos collegit Aloysius Balzan. Manipulus primus. Species novas circiter quinquaginta complectens. *Bullettino della Società Entomologica Italiana*, 20: 171–222 + Plates V–XIII. 1979.
- Berlese, A. (1889) Acari, Myriopoda et Scorpiones hucusque in Italia reperta, 52, 17 textpages + Plates 1–10.
- Berlese, A. (1892a) Acari, Myriopoda et Scorpiones hucusque in Italia reperta, 64, 17 text pages + Plates 1–10.
- Berlese, A. (1892b) Acari, Myriopoda et Scorpiones Hucusque in Italia Reperta, 63, 17 text pages + 10 plates.
- Berlese, A. (1892c) Acari, Myriopoda et Scorpiones hucusque in Italia reperta, 67, 1–17, 10 plates.
- Berlese, A. (1892d) Acari, Myriopoda et Scorpiones Hucusque in Italia Reperta, 69, 22 text pages + 10 plates.
- Berlese, A. (1892e) Acari, Myriopoda et Scorpiones hucusque in Italia reperta. Fasc. 3. Ordo Mesostigmata (Gamasidae). – Patavii : Sumptibus Auctoris, 143 p.
- Berlese, A. (1895) Acari, Miriapoda, et Scorpiones hucusque in Italia reperta. *Padova*, 66: 1–10.
- Berlese, A. (1902) I. Wissenschaftliche Mitteilungen. 1. Specie di Acari nuovi. *Zoologischer Anzeiger*, 25: 697–700.
- Berlese, A. (1903a) Acari nuovi. Manipulus I.us. *Redia*, 1, 235–252.

- Berlese, A. (1903b) Diagnosi di alcune nuove specie di Acari italiani mirmecofili e liberi. *Zoologischer Anzeiger*, 27: 12–28.
- Berlese, A. (1904a) Acari nuovi. Manipulus II. *Redia*, 1: 258–280.
- Berlese, A. (1904b) Acari nuovi. Manipulus III. *Redia*, 2: 10–32 + 2 plates.
- Berlese, A. (1904c) Illustrazione iconografica degli acari mirmecofili. *Redia*, 1: 299–474.
- Berlese, A. (1904d) Acari Mirmecofili. *Redia*, 2: 289–474.
- Berlese, A. (1904e) Acarinuovi, Manipulus I. *Redia*, 1: 235–252.
- Berlese, A. (1904f) Acarinuovi, Manipulus I. *Redia*, 1: 154–176.
- Berlese, A. (1905) Acari nuovi. Materiali pel “Manipulus V.” *Redia*, 2: 231–238.
- Berlese, A. (1906) Monografia del genere *Gamasus* Latr. *Redia*, 3: 68–304.
- Berlese, A. (1908) Elenco di generi e specie nuove di Acari. *Redia*, 5, 1–15.
- Berlese, A. (1910a) Lista di nuove specie e nuovi generi di Acari. *Redia*, 6, 242–271.
- Berlese, A. (1910b) Brevi diagnosi di generi e specie nuovi di Acari. *Redia*, 6: 346–388.
- Berlese, A. (1911a) Alcuni Acari entomofili nuovi. *Redia*, 7: 183–186.
- Berlese, A. (1911b) *Acarorum species novae quindecim*. *Redia*, 7: 429–435.
- Berlese, A. (1913a) *Acarotheca Italica* (Ricci, Firenze). 221 pp.
- Berlese, A. (1913b) Acari nuovi. Manipoli VII–VIII. *Redia*, 9: 77–111 + plates I–VIII.
- Berlese, A. (1913c). Acari Nuovi, Manipulus V–VI. *Redia* 6, plates XVIII–XXI.
- Berlese, A. (1914) Acari nuovi. Manipulus IX. *Redia*, 10: 113–150.
- Berlese, A. (1916a) Centuria prima di Acari nuovi. *Redia*, 12: 19–67.
- Berlese, A. (1916b) Centuria seconda di Acari nuovi. *Redia*, 12: 125–177.
- Berlese, A. (1916c) Centuria terza di Acari nuovi. *Redia*, 12: 289–338.
- Berlese, A. (1916d) Centuria prima di Acari nuovi. *Redia (Firenze)*, 12: 31–32.
- Berlese, A. (1917) Intorno agli Uropodidae. *Redia*, 13: 7–16.
- Berlese, A. (1918) Centuria quarta di Acari Nuovi. *Redia*, 13: 115–192.
- Berlese, A. (1920) Centuria quinta di acari nuovi. *Redia*, 14: 143–195.
- Berlese, A. (1923) Centuria sesta di Acari nuovi. *Redia*, 15: 237–262.
- Berlese, A. & Leonardi, G. (1901) Acari sud americani. *Zoologischer Anzeiger*, 25(659): 12–18.
- Bernhard, F. (1963) Die Familie Ascaidae (Oudemans 1905) Bernhard nov. comb. Abschnitt III. In: Stammer, H.-J. (Ed.), *Beiträge zur Systematik und Ökologie mitteleuropäischer Acarina. Band II. Mesostigmata I*. Akademische Verlagsgesellschaft Geest & Portig K.-G., Leipzig, pp. 33–177.
- Bernhard, F. (1971) Gangsystematik der Parasitiformes. Teil 81. Die Gattung *Hypoaspis* G. Canestrini 1885. (Eine systematische Studie aus dem Jahre 1955). *Acarologie. Schriftenreihe für Vergleichende Milbenkunde*, 15: 2–10.
- Beyzavi, G.R. & Ostovan, H. (2012) A report of some parts of mesostigmatic mites in south of Kamfiruz region, Fars, Iran. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 481.
- Bhattacharyya, S.K. (1968) Studies on Indian mites (Acarina: Mesostigmata). 6. Six records and descriptions of nine new species. *Acarologia*, 10: 527–549.
- Bigdeli, A., Rahmani, H. & Nemati, A. (2014) Some species of ten edaphic families of Mesostigmata (Acari) from Zanjan, Iran. *Proceedings of the 21th Iranian Plant Protection Congress, Urmia, Iran*, p. 992.
- Błaszak, C. (1979) Systematic studies on the family Zerconidae. IV. Asian Zerconidae (Acari, Mesostigmata). *Acta Zoologica Cracoviensia*, Kraków, 24: 3–112.

- Błoszyk, J., Adamski, Z. & Napierała, A. (2018) Survey of European mites from the suborder Uropodina: II. Morphology, geographical distribution, biology, and ecology of *Trematurella elegans* (Kramer, 1882). *Acarologia*, 58(3): 683–709. DOI: [10.24349/acarologia/20184265](https://doi.org/10.24349/acarologia/20184265)
- Błoszyk J, Adamski Z, Napierała A. (2020) *Microuroobovella olszanowskii* gen. nov., sp. nov. (Acari: Uropodina) from Italy. *Annales Zoologici*, 70: 453–466.
- Bram, R.A. (1956) A new predatory mite from insect culture. *Proceedings of the Entomological Society of Washington*, 58: 292–294.
- Bregetova, N.G. (1952) New species of mites of the genus *Haemolaelaps* (Gamasoidea, Laelaptidae) parasitizing rodents. *Zoologicheskii Zhurnal*, 31: 866–874.
- Bregetova, N.G. (1977a) The family Antennoseiidae. In: Ghilyarov, M.S. & Bregetova, N.G. (Eds.), *Key to the soil inhabiting mites. Mesostigmata*. Nauka, Leningrad, pp. 244–254.
- Bregetova, N.G. (1977b) The family Veigaiidae. In: Ghilyarov, M.S. & Bregetova, N.G. (Eds.), *Key to the Soil Inhabiting Mites. Mesostigmata*, Nauka, Leningrad, pp. 108–145.
- Bregetova, N.G. (1977c) Family Aceosejidae Baker and Wharton, 1952 (sensu Evans, 1958). In: Ghilyarov, M.S. & Bregetova, N.G. (Eds.), *Key to the soil-inhabiting mites. Mesostigmata*. Nauka, Leningrad, pp. 169–226.
- Bregetova, N.G. (1977d) Family Ologamasidae Ryke, 1962. In: Ghilyarov, M.S. & Bregetova, N.G. (Eds.), *Key to the soil inhabiting mites. Mesostigmata*. Nauka, Leningrad, pp. 308–314.
- Bregetova, N.G. (1977e) The family Macrochelidae. In: Bregetova, N.G., Vainšteîn, B.A., Kadite, B.A., Koroleva, E.V., Petrova, A.D., Tikhomirov, S.I. & Shcherbak, G.I. (Eds.), *Opređitel' obitayushchikh v pochve kleshchei, Mesostigmata*. Izdatel'stvo Nauka, Leningrad, pp. 621–632.
- Bregetova, N.G. (1977f) Cohort Epicriina. Gilyarov: Opređitel' obitayushchikh v pochve kleshchei Mesostigmata. Гиляров: Определитель обитаю, 28–39.
- Bregetova, N.G. (1977g) Family Ameroseiidae (Berlese, 1919) Evans, 1961. In: Ghilyarov, M.S. & Bregetova, N.G. (Eds.), *Key to the soil inhabiting mites. Mesostigmata*. Nauka Press, Leningrad, 148–169.
- Bregetova, N.G. (1977h) Family Laelaptidae. In: Ghilyarov, M.S. & Bregetova, N.G. (Eds.), *Key to the soil inhabiting mites. Mesostigmata*. Nauka, Leningrad, pp. 483–554.
- Bregetova, N.G. & Koroleva, E.V. (1960) The macrochelid mites (Gamasoidea, Macrochelidae) in the fauna of USSR. *Akademiia Nauk SSSR Zoologicheskii institut Parazitologicheskii Sbornik*, 29: 32–154.
- Bregetova, N.G. & Koroleva, E.V. (1964) Mites of the genus *Ololaelaps* Berlese, 1904 (Acarina: Laelaptidae). *Parazitologicheskii Sbornik*, 22: 61–87.
- Camin, J.H. (1954) *Polyaspis berlesei*, a new species of trachytoid mite (Mesostigmata: Polyaspididae). *Bulletin of the Chicago Academy of Sciences*, 10(2): 25–33.
- Canestrini, G. (1884a) Acari nuovi o poco noti. I. Acari Italiani. II. Acari dell'Australia. *Atti del Reale Istituto Veneto di Scienze, Lettere ed Arti*, 2 (6): 693–724.
- Canestrini, G. (1884b) Prospetto dell'Acarofauna Italiana. *Atti del Reale Istituto Veneto di Scienze, Lettere ed Arti*, Series 6, 2(10): 1631–1662.
- Canestrini, G. (1890–1891) Abbozzo del Sistema acarologico. *Atti della Societa Veneto-Trentina di Scienza Naturali*, Padova, 7: 699–725.
- Canestrini, G. (1898) Nuovi Acaroidei della N. Guinea. *Természetrájsi Füzetek*, 21: 480–487.
- Canestrini, G. & Berlese, A. (1884) Sopra alcune nuove specie di Acari Italiani. *Atti della Societa Veneto-Trentina di Scienze Naturali*, 9: 175–182 + plates 3–5.
- Canestrini, G. & Canestrini, R. (1881) Nuove specie del genere *Gamasus*. *Atti del Reale Istituto Veneto di Scienze, Lettere ed Arti* (Series 5), 7: 1077–1086, + Plate VIII.

- Canestrini, G. & Canestrini, R. (1882a) I Gamasi Italiani. *Atti della Società Veneto-Trentina di Scienze Naturali, Padua*, 8: 1–82, pls. I–VII.
- Canestrini, G. & Canestrini, R. (1882b) Acari Italiani nuovi o poco noti. *Atti del Reale Istituto Veneto di Scienze, Lettere ed Arti* (Series 5), 8: 913–930 + Plates VIII–X.
- Canestrini, G. & Fanzago, F. (1877a) Intorno agli Acari italiani. *Atti del Reale Istituto Veneto di Scienze, Lettere ed Arti*, (series 5), 4: 69–206 + Plates II–VII.
- Canestrini, G. & Fanzago, F. (1877b) Nuovi Acari italiani. *Atti della Società Veneto-Trentina di Scienze Naturali, Padova*, 5: 99–111.
- Castilho, R.C., Jalaieian, M. & Moraes, G.D. (2012a) Two new species of Rhodacaridae (Mesostigmata: Rhodacaroidea) from Iran. *Zootaxa*, 3248: 35–42.
- Castilho, R.C., Moraes, G.J. & Halliday, B. (2012b) Catalogue of the mite family Rhodacaridae Oudemans, with notes on the classification of the Rhodacaroidea (Acari: Mesostigmata). *Zootaxa*, 3471: 1–69.
- Castilho, R.C., Silva, E.S., Moraes, G.J. & Halliday, B. (2016) Catalogue of the family Ologamasidae Ryke (Acari: Mesostigmata). *Zootaxa*, 4197: 1–147. DOI: [10.11646/zootaxa.4197.1.1](https://doi.org/10.11646/zootaxa.4197.1.1)
- Castro, M.P. de & Pereira, C. (1948) Ácaros nasícolas (Parasitiformes: Rhinonyssidae) do pardal - *Passer domesticus* L. *Arquivos do Instituto Biológico São Paulo*, 18(7): 125–133.
- Černý, V. (1969) Six new nasal mites (Mesostigmata, Ptilonyssidae) from Cuban birds. *Folia Parasitologica (Ceske Budejovice)*, 16: 227–235.
- Chant, D.A. (1958) Descriptions of six new species of Garmania Nesbitt and Lasioseius Berlese (Acarina: Aceosejidae). *Canadian Journal of Zoology*, 36: 383–390. DOI: [10.1139/z58-032](https://doi.org/10.1139/z58-032)
- Chant, D.A. (1963) The subfamily Blattisocinae Garman (Aceosejinae Evans) (Acarina: Blattisocidae Garman) (Aceosejidae Baker and Wharton) in North America, with descriptions of a new species. *Canadian Journal of Zoology*, 41: 243–305. DOI: [10.1139/z63-025](https://doi.org/10.1139/z63-025)
- Chelyabiyev, K.A. (1977) New species of gamasid mites from Kazakhstan (Gamasoidea, Rhodacaridae, Dendrolaelaps). *Dopovidi Akademiyi Nauk Ukrayinskoyi RSR* (Ser B), 5: 468–470.
- Cheraghali, Z., Joharchi, O., Rastegar, J. & Bozorgi, T. (2012) Mites of the family Laelapidae (Acari: Mesostigmata) in Rudbar-ghasran region (Shemiranat), Tehran Province, Iran. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 413.
- Cooreman, J. (1951) Études biospéologiques. XXXIV (1). Acariens de Transylvanie. *Institute royal des Sciences naturelles de Belgique Bulletin*, 27(42): 1–15.
- Costa, M. (1963) The mesostigmatic mites associated with *Copris hispanus* (L.) (Coleoptera, Scarabaeidae) in Israel. *Zoological Journal of the Linnean Society*, 45(303): 25–45.
- Costa, M. (1967) Notes on macrochelids associated with manure and coprid beetles in Israel. II. Three new species of the *Macrocheles pisentii* complex, with notes on their biology. *Acarologia*, 9: 304–329.
- Costa, M. (1968a) Little known and new litter-inhabiting Laelapine mites (Acari, Mesostigmata) from Israel. *Israel Journal of Zoology*, 17: 1–30.
- Costa, M. (1968b) Notes on the genus *Hemipteroseius* Evans (Acari: Mesostigmata) with the description of a new species from Israel. *Journal of Natural History*, 2: 1–15.
- Costa, M. (1969a) New dermanyssid mites (Acari: Mesostigmata) from nests of *Spalax ehrenbergi* Nehring. *Acarologia*, 11: 163–174.
- Costa, M. (1969b) *Antennoseius bytinskii* sp. nov., with notes on the genus *Antennoseius* Berlese (Acari: Mesostigmata) in Israel. *Israel Journal of Entomology*, 4: 217–226.

- Costa, M. (1971) Mites of the genus *Hypoaspis* Canestrini, 1884 s. str. and related forms (Acari: Mesostigmata) associated with beetles. *Bulletin of the British Museum (Natural History) Zoology*, 21(4): 69–98.
- Dadgostar, S. & Nozari, J. (2018) Classical and geometric morphometric methods reveal differences between specimens of *Varroa destructor* (Mesostigmata: Varroidae) from seven Provinces of Iran. *Persian Journal of Acarology*, 7(1): 51–60.
- Daneshnia, N. & Akrami, M. (2013) Mite fauna associated with fig trees (*Ficus carica* L.) in Estahban (Fars Province), Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology*, Karaj, Iran, p. 9.
- Daneshvar, H. (1987) Some predatory mites from Iran, with descriptions of one new genus and six new species (Acari: Phytoseiidae, Ascidae). *Entomologie et Phytopathologie Appliquées*, 54: 13–37.
- Darvishzadeh, I. & Kamali, K. (2009) Faunistic survey of mite (acari) associated with grapevine yards in Safiabad, Khuzestan, Iran. *Journal of Entomological Research*, 1(1): 79–93.
- Datta, A.K. (1985) Description of *Forkosclerite assamensis* gen. et sp. nov. and *Ophiocelaeno sudhiri* sp. nov. (Acari: Mesostigmata: Diplogyniidae) from Assam, India. *Indian Journal of Acarology*, 9: 42–47.
- Datta, A.K. & Bhattacharjee, P.C. (1988) *Krantzolaspina rebatii*, a new genus and a new species (Acari: Mesostigmata: Parholaspididae) from Dibrugarh, Assam, India. *Progress in Acarology*, 1: 411–414.
- De Geer, C. (1778) Second memoire. Des Mittes. *Memoires pour servir a l’histoire des insects*, 7: 83–163.
- Dehghan, Z., Joharchi, O. & Khani, A. (2011) Mites of the family Laelapidae (Acari: Mesostigmata) in Yazd Province. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology*, Kerman, Iran, p. 16.
- Dehghan Dolati, M., Asadi, M. & Ostovan, H. (2011) Fauna of predatory mites (Acari) associated with Palm trees in Bam County, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology*, Kerman, Iran, p. 15.
- De Leon, D. (1963) New genus and twelve new species of mites from Mexico and southeast United States (Acarina: Blattisociidae). *The Florida Entomologist*, 46: 197–207. DOI: [10.2307/3493632](https://doi.org/10.2307/3493632)
- De Leon, D. (1964) Four new *Sejus*, a new *Zerconopsis* and a new *Hyattella* from the United States (Acarina: Blattisociidae). *The Florida Entomologist*, 47: 103–108. DOI: [10.2307/3493284](https://doi.org/10.2307/3493284)
- Delfinado, M.D. & Baker, E.W. (1961) *Tropilaelaps*, a new genus of mite from the Philippines (Laelaptidae s. lat.: Acarina). *Fieldiana Zoology*, 44: 53–56. DOI: [10.5962/bhl.title.3028](https://doi.org/10.5962/bhl.title.3028)
- Delfinado, M.D. & Baker, E.W. (1974) Varroidae, a new family of mites on honeybees (Mesostigmata: Acarina). *Journal of the Washington Academy of Sciences*, 64(1): 4–10.
- Deunff, J. (1977) Observations sur les Spinturnicidae de la région paléarctique occidentale (Acarina, Mesostigmata). Spécificité, repartition et morphologie. *Acarologia*, 18(4): 602–617.
- Dolati, P. & Ostovan, H. (2017a) Report of two species, *Polyaspis berlesei* and *Sessiluncus colchicus* for the first time from Iran. *Second National Conference of Promoting Agriculture, Natural Resources and Environment of Iran*. 30 November 2017, Jiroft, Kerman Province, Iran.
- Dolati, P. & Ostovan, H. (2017b) Studies on the mesostigmatid mites associated with mango trees in Minab County. *Second National Conference of Promoting Agriculture, Natural Resources and Environment of Iran*. 30 November 2017, Jiroft, Kerman Province, Iran.
- Domrow, R. (1963) New records and species of Austromalayan laelapid mites. *Proceeding of the Linnean Society of New South Wales*, 88(2): 199–220.

- Dugès, A. L. (1834b) Recherches sur l'ordre des Acariens. Troisième Mémoire. *Annales des Sciences Naturelles*, 2: 18–61.
- Ebrahimi, H.R., Arbabi, M. & Rastegari, N. (2010) Study and comparison mite fauna in wheat and barely crops with determination most abundance species in Jahrom region. In: Manzari, S. (Ed.), *Abstract Book of 19th Iranian Plant Protection Congress, Tehran, Iran*, p. 412.
- Ehara, S. (1964) Some mites of the families Phytoseiidae and Blattisociidae from Japan (Acarina: Mesostigmata). *Journal of the Faculty of Sciences, Hokkaido University, Series VI, Zoology*, 15: 378–394.
- Eidelberg, M.M. (1989) Two new mite species of the family Antennoseiidae (Parasitiformes, Mesostigmata) from ground beetles (Coleoptera, Carabidae). *Byulleten Gosudarstvennogo Nikitskogo Botanicheskogo Sada*, 70: 74–79.
- Eidelberg, M.M. (1994) New species of the family Antennoseiidae (Acari, Parasitiformes, Gamasina) from Palearctic. *Zoologicheskii Zhurnal*, 73: 46–52.
- Eidelberg, M.M. (2000) Three new mite species of the family Antennoseiidae (Parasitiformes, Gamasina). *Zoologicheskii Zhurnal*, 79: 1396–1401.
- Eidelberg, M.M. (2001) New mite species of the family Antennoseiidae (Parasitiformes, Gamasina) from carabid beetles. *Zoologicheskii Zhurnal*, 80: 39–44.
- Elsen, P. & Whitaker, J.O. (1985) *Sertitympanum*, a new genus of Ameroseiidae (Acarina, Mesostigmata) taken from rodents in the United States: including descriptions of three new species in the genus. *Acarologia*, 26: 117–122.
- Emberson, R.M. (2010) A reappraisal of some basal lineages of the family Macrochelidae, with the description of a new genus (Acarina: Mesostigmata). *Zootaxa*, 2501: 37–53.
- Eslami, A., Yousefi, A. & Dowling, A. P. G. (2018) Prevalence of ectoparasites in black rat (*Rattus rattus*) from Mangrove forests of Qeshm Island, Iran. *Comparative Clinical Pathology*, 27: 1583–1586. DOI: [10.1007/s00580-018-2777-3](https://doi.org/10.1007/s00580-018-2777-3)
- Evans, G.O. (1956) On the classification of the family Macrochelidae with particular reference to the subfamily Parholaspinae (Acarina-Mesostigmata). *Proceedings of the Zoological Society London*, 127: 345–377.
- Evans, G.O. (1957a) A revision of the genus *Leptolaelaps* Berl., with a description of an allied genus. *Pseudopachylaelaps* n.gen. (Mesostigmata: Laelaptidae). *Annals of the Natal Museum*, 14(1): 45–57.
- Evans, G.O. (1957b) An introduction to the British Mesostigmata (Acarina) with keys to families and genera. *Journal of the Linnean Society, Zoology*, 43: 203–259. DOI: [10.1111/j.1096-3642.1957.tb01552.x](https://doi.org/10.1111/j.1096-3642.1957.tb01552.x)
- Evans, G.O. (1958) A revision of the British Aceosejinae (Acarina: Mesostigmata). *Proceedings of the Zoological Society of London*, 131: 177–229. DOI: [10.1111/j.1096-3642.1958.tb00685.x](https://doi.org/10.1111/j.1096-3642.1958.tb00685.x)
- Evans, G.O. (1959) The genera *Cyrtodrolaelaps* Berlese and *Gamasolaelaps* Berlese (Acarina – Mesostigmata). *Acarologia*, 1(2): 201–215.
- Evans, G.O. (1963) Observations on the classification of the family Otopheidomenidae (Acari: Mesostigmata) with descriptions of two new species. *Annals and Magazine of Natural History*, (13) 5 [58]: 609–620.
- Evans, G.O. (1982) Observations of the genus *Protopogamasellus* Karg (Acari: Mesostigmata) with a description of a new species. *Acarologia*, 23: 303–313.
- Evans, G.O. & Hyatt, K.H. (1960) A revision of the Platysejinae (Mesostigmata: Aceosejidae) based on material in the collections of the British Museum (Natural History). *Bulletin of the British Museum (Natural History), Zoology*, 6(2): 27– 101. DOI: [10.5962/bhl.part.26844](https://doi.org/10.5962/bhl.part.26844)

- Evans, G.O. & Purvis, G. (1987) A new ascid mite from St Helena with observations on the *Protogamasellus complex* (Acari: Mesostigmata). *Journal of Natural History*, 21: 855–861.
- Evans, G.O. & Till, W.M. (1966) Studies on the British Dermanyssidae (Acari: Mesostigmata). Part II. Classification. *Bulletin of the British Museum (Natural History)*, Zoology, 14(5): 109–370.
- Evans G.O. & Till W.M. (1979) Mesostigmatid mites of Britain and Ireland (Chelicerata: Acari - Parasitiformes). An introduction to their external morphology and classification. *Transactions of the Zoological Society of London*, 35: 145–270. DOI: [10.1111/j.1096-3642.1979.tb00059](https://doi.org/10.1111/j.1096-3642.1979.tb00059)
- Ewing, H.E. (1909) New North American Acarina. *Transactions of the Academy of Sciences of Saint Louis*, 18: 53–77 + 4 plates.
- Ewing, H.E. (1923) The dermanyssid mites of North America. *Proceedings of the United States National Museum*, 62(13): 1–26.
- Ewing, H.E. (1929) A manual of external parasites. Charles C. Thomas, Springfield, 225 pp. DOI: [10.2307/3271887](https://doi.org/10.2307/3271887)
- Ewing, H.E. (1936) A short synopsis of the North American species of the mite genus *Dermanyssus*. *Proceedings of the Entomological Society of Washington*, 38(3): 47–54.
- Farahbakhsh, G. (1961) A checklist of economically important insects and other enemies of plants and agricultural products in Iran. *Plant Protection Organization Press*, 1: 1–133.
- Farahi, S. & Witaliński, W. (2023) *Phorytocarpais mishdagheensis* – a new mite species (Parasitiformes: Parasitidae) from Iran. *Acarologia*, 63(4): 1072–1084. DOI: [10.24349/0oy4-tcwr](https://doi.org/10.24349/0oy4-tcwr)
- Farahi, S., Shishehbor, P. & Nemati, A. (2018) Some mesostigmatic mites (Acari: Parasitiformes) of Khuzestan province, southwestern Iran. *Persian Journal of Acarology*, 7(4): 323–344. DOI: [10.22073/pja.v7i4.38663](https://doi.org/10.22073/pja.v7i4.38663)
- Farahi, S., Shishehbor, P. & Nemati, A. (2020) Records of Parasitidae and Laelapidae (Acari: Mesostigmata) from domestic animal manure in Khuzestan province, southwestern Iran with a new record for the Asian fauna. DOI: [10.52547/jibs.6.3.247](https://doi.org/10.52547/jibs.6.3.247)
- Farahi, S., Shishehbor, P., Nemati, A. & Witaliński, W. (2019) *Trachygamasus karuni* sp. nov., a new mite species from Iran (Parasitiformes: Parasitidae). *Zootaxa*, 4706(3): 439–450. DOI: [10.11646/zootaxa.4706.3.4](https://doi.org/10.11646/zootaxa.4706.3.4)
- Farahi, S., Shishehbor, P., Nemati, A. & Perotti, M.A. (2022) Mesostigmata diversity by manure type: a reference study and new datasets from southwestern Iran. *Experimental and Applied Acarology*, 86(4). DOI: [10.1007/s10493-022-00710-1](https://doi.org/10.1007/s10493-022-00710-1)
- Faraji, F., Abedi, L. & Ostovan, H. (2008a) A new species of *Hypoaspis* Canestrini from Iran with a key to the Iranian species of *Hypoaspis* (Acari, Gamasina, Hypoaspididae). *Zoosystematics and Evolution*, 84(2): 205–209.
- Faraji, F., Arjmandi-Nejad, A.R. & Karg, W. (2008b) A new species of *Cheiroseius* Berlese (Acari, Gamasina, Ascidae) from Iran with a key to the species of *necorniger* species-complex. *Zoosystematics and Evolution*, 84(2): 211–214.
- Faraji, F., Hajizadeh, J., Saboori, A. & Rafatifard, M. (2008c) Three new records and a key to the Iranian species of Macrochelidae (Acari: Mesostigmata). *Systematic and Applied Acarology*, 13: 231–236.
- Faraji, F. & Halliday, B. (2009) Five new species of mites (Acari: Laelapidae) associated with large Australian cockroaches (Blattodea: Blaberidae). *International Journal of Acarology*, 35(3): 245–264. DOI: [10.1080/01647950903059445](https://doi.org/10.1080/01647950903059445)
- Faraji, F. & Karg, W. (2005) A new species of *Lasioseius* Berlese from France (Acari: Podocinidae). *International Journal of Acarology*, 31(2): 113–117.

- Faraji, F., Sakenin-Chelav, H. & Karg, W. (2006a) A new species of *Hoploseius* Berlese from Iran (Acari: Podocinidae). *International Journal of Acarology*, 32(1): 69–73.
- Faraji, F., Sakenin-Chelav, H. & Karg, W. (2006b) A new species of *Dendroseius* Karg from Iran (Acari: Rhodacaridae), with a key to the known species. *Zootaxa*, 1221: 63–68.
- Faraji, F., Sakenin-Chelav, H. & Karg, W. (2007) A new species of *Proctolaelaps* Berlese from Iran (Acari: Ameroseiidae). *Abhandlungen und Berichte des Naturkundemuseums Görlitz*, 78(2): 107–112.
- Faraji F., Zare, M. & Rahmani, H. (2021) A new genus and species of Digamasellidae (Acari: Mesostigmata) displaying some extraordinary gnathosomal structures. *Acarologia*, 61(4): 967–977. DOI: [10.24349/o0sa-j8xy](https://doi.org/10.24349/o0sa-j8xy)
- Farazmand, A., Jalaiean, M., Kamali, H., Saboori, A., Tixier, M.-S. & Kreiter, S. (2023) Phytoseiidae (Acari: Mesostigmata) in four provinces of Iran. *Persian Journal of Acarology*, 12(1): 21–58.
- Farjamfar, M., Saboori, A., Nozari, J., Binesh, E., Gonzalez-Cabrera, J. & Hernandez-Rodriguez, C.S. (2017) Genetic survey of honeybee ectoparasitic mite, *Varroa destructor* (Acari: Varroidae) populations in Iran based on mtDNA analysis. In: Hajiqanbar, H. & Saboori, A. (Eds.), *Abstract book of the Third International Persian Congress of Acarology, Teheran, Iran*, p. 16.
- Farmahiny Farahani, V.R., Ahadiyat, A., Joharchi, O., Saboori, A. & Seddigh, S. (2022a) Partial faunistic study of beetles (Arthropoda: Coleoptera) in Taleqan region and their mite associates. *Nova Biologica Reperta*, 9: 1–16.
- Farmahiny Farahani, V.R., Ahadiyat, A., Joharchi, O., Saboori, A. & Seddigh, S. (2022b) Descriptions of male *Hypoaspis maryamae* Joharchi & Halliday, heteromorphic male *Cosmolaelaps rectangularis* Sheals, and a morphometric investigation of *H. maryamae* (Mesostigmata: Laelapidae). *International Journal of Acarology*, 48(2): 151–158. DOI: [10.1080/01647954.2022.2042600](https://doi.org/10.1080/01647954.2022.2042600)
- Farmahiny Farahani, V.R., Ahadiyat, A. Mašán, P. & Dehvari, M.A. (2016) Phoretic uropodine mites (Acari: Mesostigmata) associated with the red palm weevil, *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae) in Iran. *Journal of Entomological and Acarological Research*, 48(5853): 317–322.
- Farmahini Farahani, V.R., Ahadiyat, A. & Shojaei, M. (2013) Fauna of mesostigmatic mites (Acari: Mesostigmata) associated with the Mediterranean pine engraver beetle, *Orthotomicus erosus* (Wollaston) (Coleoptera: Curculionidae: Scolytinae) in Markazi Province, Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 10.
- Farrier, M.H. (1957) A revision of the Veigaiidae (Acarina). *North Carolina Agricultural Experiment Station, Technical Bulletin*, 124: 1–103.
- Farzaneh, M., Ostovan, H. & Hesami, S. (2021) Species diversity of edaphic mesostigmatid mites (Acari: Mesostigmata) of Shiraz. *IAU Journal of Entomological Research*, 12(4): 253–270.
- Filipponi, A. & Pegazzano, F. (1960) Acari del genere *Glypholaspis* nom. nov. pro *Macrocheles* (*Macrocheles*) Berl., 1918 (Mesostigmata, Macrochelidae). *Redia*, 45: 133–171 + Plates III–XI.
- Filipponi, A. & Pegazzano, F. (1962) Specie Italiane del gruppo-*glaber* (Acarina, Mesostigmata, Macrochelidae, *Macrocheles*). *Redia*, 47: 211–238 + Plates XXI–XXIII.
- Filipponi, A. & Pegazzano, F. (1967) Contributo alla conoscenza del genere *Holostaspella* Berlese, 1903 (Acari: Mesostigmata: Macrochelidae). *Redia*, 50: 219–259 + Plates XIX–XXVI.
- Foà, A. (1900) Esistono il plimorfismo e la partenogenesi nei Gamasida? *Bolletino della Società Entomologica Italiana*, 32: 121–149.

- Fox, I. (1946) A new genus, *Borinquolaelaps*, and new species of mites from rats in Puerto Rico. *Journal of Parasitology*, 32: 445–452. DOI: [10.2307/3272915](https://doi.org/10.2307/3272915)
- Fox, I. (1947) Seven new mites from rats in Puerto Rico. *Annals of the Entomological Society of America*, 40: 598–603. DOI: [10.1093/aesa/40.4.598](https://doi.org/10.1093/aesa/40.4.598)
- Furman, D.P. (1972) Laelapid mites (Laelapidae: Laelapinae) of Venezuela. *Brigham Young University Science Bulletin*, 27: 1–58.
- Garman, P. (1948) Mite species from apple trees in Connecticut. *Connecticut Agricultural Experiment Station Bulletin*, 520: 5–27.
- Genis, N.L., Loots, G.C. & Ryke, P.A.J. (1967) The genus *Protogamasellus* Karg (Acari) with descriptions of new species and subspecies from the Ethiopian Region. *Journal of Natural History*, 1: 337–353. DOI: [10.1080/00222936700770311](https://doi.org/10.1080/00222936700770311)
- Gettinger, D., Hastano, F.M., Lareschi, M. & Malcom, J.R. (2005) Laelapine mites (Acari: Laelapidae) with small mammals from Amazons, Brazil, including a new species from Marsupials. *American Society of Parasitologists*, 91(1): 45–48.
- Ghafarian, A., JalaliZand, A.R., Joharchi, O. & Jalaieian, M. (2011) First record of the genus *Reticulolaelaps* (Mesostigmata: Laelapidae) from Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 65.
- Ghafarian, A., Joharchi, O., Jalaieian, M. & Jalalizand, A. (2013a) Identification of laelapid mites (Acari: Mesostigmata: Laelapidae) inhabiting in soil-litter and associated with ant's nests in some regions of Mashhad, Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 10.
- Ghafarian, A., Joharchi, O., Jalalizand, A. & Jalaieian, M. (2013b) A new species of *Myrmozercon* Berlese (Acari, Mesostigmata, Laelapidae) associated with ant from Iran. *ZooKeys*, 272: 21–28.
- Ghasemi, A. & Hajizadeh, J. (2020) Mites of superfamily Phytoseioidea (Acari: Mesostigmata) of greenhouses in Rasht County, northern Iran, with new record of a species and an identification key. *Journal of Entomological Society of Iran*, 39(4): 459–477. DOI: [10.22117/jesi.2019.127471.1334](https://doi.org/10.22117/jesi.2019.127471.1334)
- Ghasemi, A. & Hajizadeh, J. (2021) Some new records of mesostigmatid mites (Acari: Mesostigmata) associated with greenhouse plants from Iran. *Journal of Biological Studies*, 4(1): 24–40.
- Ghasemi-Moghadam, S., Ahadiyat, A., Hasami, S. & Joharchi, O. (2016) *Copriphiss falcinellus* and *Holostaspella exornata* two new records of eviphidoid mites (Mesostigmata: Eviphidoidea: Eviphididae and Macrochelidae) from Iran. *Persian Journal of Acarology*, 5(2): 147–152.
- Ghasemi-Moghadam, S., Joharchi, O. & Ahadiyat, A. (2014) Faunistic survey and abundance of mites of the family Laelapidae (Acari: Mesostigmata) in Lavij region (Nour County) Mazandaran Province, Iran. *Proceedings of the 21st Iranian Plant Protection Congress, Urmia, Iran*, p. 964.
- Ghasemi-Moghadam, S., Sarafrazi, A., Joharchi, O. & Ahadiyat, A. (2012) Fauna of edaphic laelapid mites (Acari: Mesostigmata) in Tehran green spaces. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 526.
- Gholami, H. & Ostovan, H. (2013) The first report of *Pachyseius humeralis* (Acari: Mesostigmata: Pachylaelapidae) from Iran. *Crop Protection Journal*, 5(14): 109–113.
- Gholipoury, M., Rezai, H.R., Namroodi, S. & Arab-Khazaeli, F. (2016) Zoonotic and non-zoonotic parasites of wild rodents in turk-man Sahra, Northeastern Iran. *Iranian Journal of Parasitology*, 11(3): 350–357.
- Ghorani, P., Hakimitabar, M., Joharchi, O. & Ghobari, H. (2016) Taxonomic study of the soil laelapid mites (Acari: Mesostigmata) in different habitats of Shahrood region-Iran. *Applied Plant Protection*, 5(3): 147–159.

- Glida, H., Latifi, M., Bertrand, M. & Saboori, A. (2003) On three new *Macrocheles* from Iran, and discussion on the infrageneric systematic units. *Acarologia*, 43: 345–351.
- Granpayeh, S. & Ostovan, H. (2014) Mites recorded from insectary cultures in the Shiraz region of Iran. *International Research Journal of Applied and Basic Sciences*, 8(5): 612–616.
- Granpayeh, S., Ostovan, H. & Haghani, M. (2012) Abundance of mites associated with insectariums in Shiraz (Fars Province). *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 457.
- Grinbergs, A (1961) Ectoparasites of small rodents in the Latvian SSR and seasonal dynamics of their species and numbers of specimens. *Latvijas Entomologs*, 3: 19–34.
- Gu, Y.-M., Wang, J. & Huang, C. (1990) Six new species of the genus *Lasioseius*. *Acta Zootaxonomica Sinica*, 15: 174–184.
- Gwiazdowicz, D. (2008) Redescriptions of *Arctoseius minutus* (Halbert, 1915) and *Arctoseius pulvisculus* (Berlese, 1920) (Acari: Ascidae). *Biologia*, 63(1): 100–103.
- Gwiazdowicz, D.J. & Halliday, R.B. (2008) The Australian species of *Iphidozercon* (Acari: Ascidae). *Zootaxa*, 1921: 47–68.
- Gwiazdowicz, D. J., Nemati, A., & Riahi, E. (2018) Mesostigmatic mites associated with birds and mammals in Iran. A review. *Biologia*, 73: 485–491. DOI: [10.2478/s11756-018-0055-0](https://doi.org/10.2478/s11756-018-0055-0)
- Habibpour, B., Kamali, K. & Meidani, J. (2002) Insects and mites associated with stored products and their arthropod parasites and predators in Khuzestan Province (Iran). *Integrated Protection of Stored Products IOBC Bulletin*, 25(3): 89–91.
- Haddad Irani-Nejad, K., Hajiganbar, H.R. & Talebi Chaichi, P. (2003) Introduction of some mesostigmatic mites of sugarbeet fields in Miandoab Plain. *Journal of Agriculture Sciences and Natural Resources*, 10(2): 147–157.
- Hafez, S.M., Elbadry, E.A. & Nasr, A.K. (1982) Soil mites of the family Laelapidae from Egypt (Acari: Mesostigmata). *Research Bulletin, Faculty of Agriculture, Ain Shams University*, 1759: 1–15.
- Hajizadeh, J. (2022a) Review of the family Veigaiidae (Acari: Mesostigmata) in Iran with a key to the species. *Journal of Biological Studies*, 5(5): 726–739.
- Hajizadeh, J. (2022b) Review of the Iranian parholaspidid mites (Acari: Mesostigmata) with a key to the species. *Zootaxa* 5178(3): 229–240. DOI: [10.11646/zootaxa.5178.3.2](https://doi.org/10.11646/zootaxa.5178.3.2)
- Hajizadeh, J. & Hosseini, R. (2020) A new species of *Olopachys* Berlese (Acari: Pachylaelapidae) from Iran with a key to the world species. *International Journal of Acarology*, 46(7): 530–537. DOI: [10.1080/01647954.2020.1819411](https://doi.org/10.1080/01647954.2020.1819411)
- Hajizadeh, J. & Hosseini, R. (2022) Introduction of mites collected from light traps in Rasht city. *Plant Pest Research*, 12(1): 1–13. DOI: [10.22124/iprj.2022.5602](https://doi.org/10.22124/iprj.2022.5602)
- Hajizadeh, J. & Joharchi, O. (2018) Review and identification key for mites of family Laelapidae (Acari: Mesostigmata) in Guilan province. *Plant Pest Reaserch*, 8(3): 15–29. DOI: [10.22124/iprj.2018.3109](https://doi.org/10.22124/iprj.2018.3109)
- Hajizadeh, J., & Karami, F. (2017) Additional descriptions of *Ameroseius aegyptiacus* (Nasr & Abou Awad) and *Ameroseius lanceosetis* Livshitz & Mitrofanov (Acari: Ameroseiidae), with a revised key to the ameroseiid mites of Iran. *Linzer Biologische Beiträge*, 49(2): 1323–1334.
- Hajizadeh, J. & Salarzehi, S. (2018) First investigation on mites (Acari) associated with flowers in Iran. *Entomofauna*, 6: 087–095.
- Hajizadeh, J., Faraji, F. & Rafati Fard, M. (2009a) Introduction and identification key for eight macrochelid species (Acari: Macrochelidae) in Guilan Province, northern Iran. *Journal of Agriculture Sciences and Natural Resources*, 16(3): 245–253.

- Hajizadeh, J., Faraji, F. & Rafati Fard, M. (2009b) Mites of the family Ascidae (Acari: Mesostigmata) in Guilan Province, report of genus and four species for Iran and a key to the Iran species. *Iranian Journal of Plant Protection Science*, 16(3): 245–253.
- Hajizadeh, J., Faraji, F. & Rafati Fard, M. (2010a) A new genus and four species records of the family Ascidae (Acari: Mesostigmata) for the Iran. In: Manzari, S. (Ed.), *Abstract Book of 19th Iranian Plant Protection Congress, Tehran, Iran*, p. 356.
- Hajizadeh, J., Faraji, F. & Rafati Fard, M. (2010b) Four species of family Laelapidae (Acari: Mesostigmata), new records for the Iran. In: Manzari, S. (Ed.), *Abstract Book of 19th Iranian Plant Protection Congress, Tehran, Iran*, p. 355.
- Hajizadeh, J., Faraji, F. & Rafati Fard, M. (2010c) Mites of the family Laelapidae (Acari: Mesostigmata) in Guilan, including four new records Iran and a key to Guilan species of the family. *Journal of Plant Protection*, 24(2): 196–209.
- Hajizadeh, J., Ramroodi, S. & Maśán, P. (2013a) First report of two ameroseiid (Mesostigmata: Ameroseiidae) mite species from Iran and Guilan Province. *Plant Pests Research*, 3(2): 67–71.
- Hajizadeh, J., Tajmiri, P. & Maśán P (2013b) Redescription of *Ameroseius lanceosetis* Livshitz & Mitrofanov, 1975 (Acari: Mesostigmata), with a checklist and a key to the ameroseiid mites of Iran. *International Journal of Acarology*, 39: 146–152. DOI: [10.1080/01647954.2012.747566](https://doi.org/10.1080/01647954.2012.747566)
- Hajizadeh, J., Mortazavi, S. & Nazari, M. (2014) One new species of the genus *Iphidozercon* (Acari: Ascidae) with a key to world species. *International Journal of Acarology*, 4(3): 263–267.
- Hajizadeh, J., Mortazavi, S., Balooch-Shahriari, N. & Castilho, R.C. (2017) A new species of the genus *Indutolaelaps* (Mesostigmata: Leptolaelapidae) from Iran. *Linzer Biologische Beiträge*, 49(1): 669–676.
- Hajizadeh, J., Ramzi, S. & Daghighi, E. (2020) Mesostigmatid mites (Acari: Mesostigmata) associated with tea orchards in Iran. *Journal of Biological Studies*, 3(1): 30–47.
- Hajizadeh J., Mohammadi, L. & Mirhaghparast, S.K. (2021) Introduction of two rare mites (Acari) species from northern Iran. *Journal of Biological Studies*, 4(2): 73–81.
- Halašková, V. (1977) A revision of the genera of the family Zerconidae (Acari: Gamasides) and descriptions of new taxa from several areas of Nearctic Region. *Studie CSAV*, 7: 1–74.
- Halbert, J.N. (1915) Clare Island Survey. 39. Acarinida. Section II. Terrestrial and marine Acarina. *Proceedings of The Royal Irish Academy*, 31: 45–136 + 7 plates.
- Halbert, J.N. (1920) The Acarina of the seashore. *Proceedings of The Royal Irish Academy*, 35: 106–152.
- Halbert, J.N. (1923) Notes on Acari, with descriptions of new species. *Journal of the Linnean Society (Zoology)*, 35: 363–392. DOI: [10.1111/j.1096-3642.1923.tb01732.x](https://doi.org/10.1111/j.1096-3642.1923.tb01732.x)
- Haller, G. (1877) *Antennophorus uhlmanni*. Ein neuer Gamaside. *Archiv für Naturgeschichte*, 43: 57–62.
- Haller, G. (1881) Acarinologisches II. *Archiv für Naturgeschichte*, 47: 182–193.
- Halliday, B. (1997) Revision of the Australian Ameroseiidae (Acarina: Mesostigmata). *Invertebrate Taxonomy*, 10: 179–201. DOI: [10.1071/IT96010](https://doi.org/10.1071/IT96010)
- Halliday, B. (2010) Revision of the Australian Eviphididae (Acari: Mesostigmata). *Zootaxa*, 2596: 1–60.
- Halliday, B. (2013) Electronic publishing has arrived. *Myrmecia*, 49(2): 8–11.
- Halliday, B. (2015) Catalogue of genera and their type species in the mite suborder Uropodina (Acari: Mesostigmata) *Zootaxa*, 3972 (2): 101–147. DOI: [10.11646/zootaxa.3972.2.1](https://doi.org/10.11646/zootaxa.3972.2.1)
- Halliday, B. (2016) Catalogue of families and their type genera in the mite suborder Uropodina (Acari: Mesostigmata). *Zootaxa*, 4061 (4): 347–366. DOI: [10.11646/zootaxa.4061.4.2](https://doi.org/10.11646/zootaxa.4061.4.2)

- Hamidi, K. & Bueno-Mari, R. (2021) Host-ectoparasite Associations: The role of host traits, season and habitat on parasitism interactions of the rodents of Northeastern Iran. *Journal of Asia-Pacific Entomology*, 24(1): 308–319.
- Hamidi, P., Ostovan, H., Kamali, K. & Ahadiyat, A. (2013) Fauna of mites associated with ornamental plants in Tehran, Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 14.
- Hanafi-Bojd, A.A., Shahi, M., Baghaei, M., Shayeghi, M., Razmand, N. & Pakari, A. (2007) A study on rodent ectoparasites in bandar abbas: the main economic southern seaport of Iran. *Iranian Journal of Environmental Health Science and Engineering*, 4(3): 173–176.
- Hartini, S., Takaku, G., Kojima, J-i. & Katakura, H. (2005) Macrochelid mite fauna in the eastern part of the Lesser Sunda Islands, with description of two new species. *Entomological Science*, 8: 201–209.
- Hasanvand, I., Kazemi, S., Jafari, S. & Shakarami, J. (2014a) Fauna of the superfamily Dermanssoidea (Acari: Mesostigmata) in Khorramabad with the first record of heteromorphic male of *Cosmolaelaps vacua* (Laelapidae) from Iran. *Journal of Entomological Society of Iran*, 34(4): 95–97.
- Hasanvand, I., Rahmati, M., Jafari, S., Pourhosseini, L., Chamaani, N. & Louni, M. (2014b) Fauna of some mesostigmatic mites (Acari: Mesostigmata) in Khorramabad region, Lorestan Province, Iran. *International Journal of Advanced Biological and Biomedical Research*, 2(12): 2867–2873.
- Hasanvand, I., Jafari, S., Kazemi, S. & Shakarami, J. (2015) Fauna and species diversity of edaphic mesostigmatic mites of superfamilies Eviphidoidea and Ascoidea (Acari: Mesostigmata) in Khorramabad County, Lorestan Province. *Plant Pests Research*, 4(4): 25–34.
- Hashemi Khabir, Z., Haddad Irani Nejad, K. & Akbari, A. (2013) Some of edaphic mesostigmatic mites in southwest of East Azarbaijan Province, Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 13.
- Hatami, B. (1991) A report of two species and four genera of mites (Acari) from alfalfa fields in Isfahan Province. *Abstract Book of 10th Iranian Plant Protection Congress, Kerman, Iran*, p. 86.
- Hemmati, F., Rezazadeh, E., Hassanzadeh Kiabi, B., Hemmati, L., Molavi, G., Kazemi Radd, E. & Bursey, C. R. (2013) Parasites of the Lesser Mouse-Eared Myotis, *Myotis blythii* (Chiroptera, Vespertilionidae), from Zanjan Province, Northwest Iran. *Comparative Parasitology*, 80(2): 312–313.
- Hennessey, M.K. & Farrier, M.H. (1988) Systematic revision of thirty species of freeliving, soil-inhabiting gamasine mites (Acari: Mesostigmata) of North America. *North Carolina Agricultural Research Service Technical Bulletin*, 285: 1–123.
- Herrin, C. S. (1974) The taxonomy status of *Hirstionyssus butantanensis* (Fonseca, 1932) (Acari, Mesostigmata). *Journal of Medical Entomology*, 11(3): 341–346.
- Herrin, C.S. & Tipton, V.J. (1976) A systematic revision of the genus *Laelaps* s. str. (Acari: Mesostigmata) of the Ethiopian region. *Great Basin Naturalist*, 36(2): 113–205.
- Hering, E. (1838) Die Krätzmilben der Thiere und einige verwandte Arten, nach eigenen Untersuchungen beschrieben. *Nova Acta Physico-Medica Academiae Caesareae Leopoldino-Carolinae Naturae Curiosorum*, 18: 573–624.
- Heydari, H., Jafari, S., Joharchi, O. & Shakarami, J. (2013) Faunistic study the family Laelapidae (Acari: Mesostigmata) in Lorestan Province, Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 15.

- Heydari, H., Jafari, S. & Joharchi, O. (2014a) Fauna of the family Laelapidae (Acari: Mesostigmata) in Kuhdasht District, Lorestan Province, Iran. *Proceedings of the 21th Iranian Plant Protection Congress, Urmia, Iran*, p. 997.
- Heydari, H., Jafari, S., Joharchi, O. & Shakarami, J. (2014b) Fauna of edaphic mites of the family Laelapidae (Acari: Mesostigmata) in Poledokhtar District, Lorestan Province. *Proceedings of the 21th Iranian Plant Protection Congress, Urmia, Iran*, p. 968.
- Hirschmann, W. (1951) *Subcorticale Parasitiformes und die Gattung Digamasellus Berlese 1905*. Doctorate Thesis, Naturwissenschaftliche Fakultät der Friedrich-Alexander-Universität Erlangen, Nürnberg, 264 pp.
- Hirschmann, W. (1960) Die Gattung *Dendrolaelaps* Halbert 1915. *Acarologie. Gangsystematik der Parasitiformes*, 3: 1–27.
- Hirschmann, W. (1962) Gangsystematik der Parasitiformes. Teil 5. Gamasiden Rückenhaarbestimmungstafeln von 260 *Typhlodromus*-Arten der Erde. Gänge, Chaetotaxie Porotaxie, Mundwerkzeuge von *Typhlodromus* und verwandten Gattungen von *Proctolaelaps*, *Melichares*, *Lasioseius*, *Iphidozercon*, *Sejus*, *Rhodacarellus*, *Rhodacarus*, *Gamasellus*, *Veigaia*, *Macrocheles* *ivanovi*. Erstversuch der Aufstellung eines Gangsystems der Gamasiden aufgrund der Gnathosomaunterseite. *Acarologie. Schriftenreihe für Vergleichende Milbenkunde*, 5: 1–56.
- Hirschmann, W. (1966) Gangsystematik der Parasitiformes. Teil 15. Gänge von Litoralmilben und neue Litoralmilbenarten. *Acarologie, Schriftenreihe für Vergleichende Milbenkunde*, 9: 25–44 + 14 plates.
- Hirschmann, W. (1975) Gangsystematik der Parasitiformes. Teil 206. Teilgänge und Stadien von 9 neuen *Macrodinychus*-Arten, Wiederbeschreibung von 2 bekannten *Macrodinychus*-Arten (Trichouropodini, Uropodinae). *Acarologie. Schriftenreihe für vergleichende Milbenkunde*, 21: 39–43.
- Hirschmann, W. (1979) Stadiensystematik der Parasitiformes. Teil 1. Stadienfamilien und Stadiengattungen der Atrichopygidiina, erstellt im Vergleich zum Gangsystem Hirschmann 1979. *Acarologie. Schriftenreihe für Vergleichende Milbenkunde*, 26: 57–70.
- Hirschmann, W. & Krauss, W. (1965) Gangsystematik der Parasitiformes. Teil 8. Gamasiden. Bestimmungstafeln von 55 *Pachylaelaps*-Arten. *Acarologie. Schriftenreihe für Vergleichende Milbenkunde*, 7: 1–5 + Plates 1–28.
- Hirschmann, W. & Wiśniewski, J. (1982) Weltweite Revision der Gattungen *Dendrolaelaps* Halbert 1915 und *Longoseius* Chant 1961 (Parasitiformes). Band 1. Beschreibung der Untergattungen und Arten, Bestimmungstabellen, Chätotaxie, Porotaxie. *Acarologie. Schriftenreihe für Vergleichende Milbenkunde*, 29: 1–190.
- Hirschmann, W. & Zirngiebl-Nicol, I. (1961) Gangsystem der Parasitiformes. Teil 4. Die Gattung *Trichouropoda* Berlese 1916 nov. comb. Die Cheliceren und das System der Uropodiden. *Acarologie. Schriftenreihe für Vergleichende Milbenkunde*, 4: 1–41 + plates 1–16.
- Hirschmann, W. & Zirngiebl-Nicol, I. (1962) Gangsystematik der Parasitiformes. Teil 6. Uropodiden. Die Gattung *Uroobovella* Berlese 1903 nov. comb. Teilgänge von *Nenteria* nov. comb. *Acarologie. Schriftenreihe für Vergleichende Milbenkunde*, 5: 57–80 + plates 22–32.
- Hirschmann, W. & Zirngiebl-Nicol, I. (1964a) Gangsystematik der Parasitiformes. Teil 7. Das Gangsystem der Familie Uropodidae (Berlese 1892) Hirschmann und Zirngiebl-Nicol nov. comb. Bestimmungstabellen, Kurzdiagnosen, Operculum-Bestimmungstabellen. *Acarologie. Schriftenreihe für Vergleichende Milbenkunde*, 6: 1–22 + pls. 1–5.
- Hirschmann, W. & Zirngiebl-Nicol, I. (1964b) Gangsystematik der Parasitiformes Teile 37–75. *Acarologie. Schriftenreihe für vergleichende Milbenkunde*, 12: 1–144.

- Hirschmann, W., Bernhard, F., Greim, E. & Götz, H. (1969) Gangsystematik der Parasitiformes. Teil 75. Zwanzig neue *Hypoaspis*-Arten. *Acarologie, Schriftenreihe für Vergleichende Milbenkunde*, 12: 133–141.
- Hirschmann, W., Wagrowska-Adamczyk, B. & Zirngiebl-Nicol, I. (1984) Gangsystematik der Parasitiformes. Teil 467. Adulten-Gruppen und Adultenbestimmungstabelle von 20 *Dinychus*-Arten. Neuzeichnung von *Dinychus tetraphyllus* Berlese 1903 (Dinychini, Uropodinae). *Acarologie. Schriftenreihe für Vergleichende Milbenkunde*, 31: 127–130.
- Hirschmann, W., Wisniewski, J. & Kaczmarek, S. (1991) Gangsystematik der Parasitiformes. Teil 530. Weltweite Revision der Ganggattung *Sejus* C.L. Koch 1836 (Trichopygidiina). Neubeschreibung von 26 *Sejus*-Arten. Wiederbeschreibung der Typenart. *Acarologie. Schriftenreihe für Vergleichende Milbenkunde*, 38: 136–214.
- Hirst, S. (1913) On three new species of gamasid mites found on Rats. *Bulletin of Entomological Research*, 4(2): 119–124.
- Hirst, S. (1914) On the parasitic Acari found on the speeis of rodents frequenting human habitations in Egypt. *Bulletin of Entomological Research*, 5(3): 215–229.
- Hirst, S. (1915) On some new acarine parasites of rats. *Bulletin of Entomological Research*, 6: 183–190. DOI: [10.1017/S0007485300044412](https://doi.org/10.1017/S0007485300044412)
- Hirst, S. (1925) Descriptions of new Acari, mainly parasitic on rodents. *Proceedings of the Zoological Society, London*, Part 1, 95: 49–69. DOI: [10.1111/j.1096-3642.1925.tb03342.x](https://doi.org/10.1111/j.1096-3642.1925.tb03342.x)
- Holzmann C. (1969) Die Familie Parasitidae Oudemans, 1901 (Eine systematische Studie aus dem Jahre 1955). *Acarologie. Schriftenreihe für Vergleichende Milbenkunde*, 13: 3–55.
- Hosseini, L., Maroufpoor, M. & Kazemi, S. (2019). Supplementary description of *Digamasellus punctum* (Berlese) (Mesostigmata, Digamasellidae), and a key to the world species of *Digamasellus* Berlese. *Acarologia*, 59(3): 395–405. DOI: [10.24349/acarologia/20194341](https://doi.org/10.24349/acarologia/20194341)
- Hosseinpour, Z. & Latifi, M. (2014) Faunistic survey on the family Macrochelidae (Acari: Mesostigmata) in th north of Kerman Province. *Abstract book of the Third Integrated Pest Management Confrence, Kerman, Iran*, p. 622.
- Hrúzová, K. & Fend'a, P. (2018) The family Parasitidae (Acari: Mesostigmata) – history, current problems and challenges. *Acarologia*, 58: 25–42. DOI: [10.24349/acarologia/20184280](https://doi.org/10.24349/acarologia/20184280)
- Hughes, A.M. (1961) *The mites of stored food*. Ministry of Agriculture, Fisheries and Food, Technical Bulletin No. 9. Her Majesty's Stationery Office, London, 287 pp.
- Huhta, V. (1982) *Dendrolaelaps saprophilus* n. sp. (Mesostigmata: Digamasellidae), found with other *Dendrolaelaps* species in Finland. *Acarologia*, 23: 225–231.
- Hull, J.E. (1918) Terrestrial Acari of the Tyne Province. *Transactions of the Natural History Society of Northumberland, Durham and Newcastle-upon-Tyne, New Series*, 5: 13–88.
- Hull, J. E. (1923) New myrmecophilous gamasids. *Annals and Magazine of Natural History*, 12: 610–616.
- Hull, J.E. (1925) Acari of the family Gamasidae: new and rare British species. *Annals and Magazine of Natural History*, 15: 201–219 + 2 plts.
- Hunter, J.E. & Farrier, M.H. (1975) Mites of the genus *Oplitis* Berlese (Acarina: Uropodidae) associated with ants (Hymenoptera: Formicidae) in the southeastern United States. Part 1. *Acarologia*, 17(4): 595–623.
- Hunter, J.E. & Farrier, M.H. (1976) Mites of the genus *Oplitis* Berlese (Acarina: Uropodidae) associated with ants (Hymenoptera: Formicidae). *Acarologia*, 18(1): 20–50.
- Hunter, P.E. & Rosario, M.T. (1988) Associations of Mesostigmata with other arthropods. *Annual Review of Entomology*, 33: 393–417.

- Hyatt, K.H. (1956) British mites of the genus *Pachyseius* Berlese, 1910 (Gamasina–Neoparasitidae). *Annals and Magazine of Natural History*, Series 12(9): 1–6.
- Hyatt, K.H. & Emberson, R.M. (1988) A review of the Macrochelidae (Acari: Mesostigmata) of the British Isles. *Bulletin of the British Museum (Natural History) (Zoology)*, 54(2): 63–125.
- Hyland, K.E., Fain, A. & Moorhouse, A.S. (1978) Ascidae associated with the nasal cavities of Mexican birds (Acarina: Mesostigmata). *New York Entomological Society*, 76(3): 260–267.
- Ishikawa, K. (1966) Studies on the mesostigmatid mites of Japan. I. Some new species of Parholaspididae. *Reports of Research Matsuyama Shinonome Jr. College*, 2: 99–110.
- Ishikawa, K. (1968) Studies on the mesostigmatid mites associated with the insects in Japan. *Matsuyama Shinonome Junior College*, 3(2): 27–48.
- Ishikawa, K. (1987) Occurrence of *Proparholaspulus* (Acarina, Parholaspididae) in the Philippines. *Bulletin of the National Science Museum, Series A, Zoology*, 13(2): 79–84.
- Jadidi, O. & Joharchi, O. (2014) Mesostigmatic mites (Acari: Mesostigmata) in Markazi Province, Iran. *Abstract book of the XIV International Congress of Acarology, Kyoto, Japan*, p. 4–18.
- Jalaeian, M. (2003) Report of *Nenteria breviunguiculata* (Acari: Mesostigmata) in Iran. *Journal of Entomological Society of Iran*, 23(1): 103–104.
- Jalaeian, M. & Ahmadi, K. (2002) A new record of the family Epicriidae (Acari: Mesostigmata) from Iran. *Abstract Book of the 15th Iranian Plant Protection Congress, Kermanshah, Iran*, p. 149.
- Jalaeian, M. & Ahmadi, K. (2003) Faunistic survey of family Parasitidae (Acari: Mesostigmata) in Kerman Province. *Abstract Book of the 11th Biology Conference of Iran, Urmia, Iran*, 119.
- Jalaeian, M. & Breitegger, E. (2002) Introducing of five new species of Trachytidae (Acari: Mesostigmata) for the fauna of Iran. *Abstract Book of the 15th Iranian Plant Protection Congress, Kermanshah, Iran*, p. 149.
- Jalaeian, M., Saboori, A. & Seyedoleslami, H. (2004a) Introduction of some genera and species of mesostigmatic mites to the fauna of Iran. *Abstract Book of the 16th Iranian Plant Protection Congress, Tabriz, Iran*, p. 254.
- Jalaeian, M., Saboori, A. & Seyedoleslami, H. (2004b) Report of mesostigmatic mites in Iran. *Journal of Entomological Society of Iran*, 23(2): 125–126.
- Jalaeian, M., Saboori, A. & Seyedoleslami, H. (2006) Introduction of some families, genera and species of mesostigmatic mites (Acari: Mesostigmata) from Isfahan Province. In: Manzari, S. (Ed.), *Abstract Book of the 17th Iranian Plant Protection Congress, Karaj, Iran*, p. 183.
- Jalaeian, M., Castilho, R.C. & de Moraes, J.G. (2013) New records of the superfamily Rhodacaroidea (Acari: Mesostigmata) from Khorasan Razavi Province with report of a new genus for Iranian mite fauna. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 16.
- Jalalizand, A.R., Ostovan, H., Kamali, K. & Hatami, B. (2004) Investigation on the fauna of mites (Acari) on elm trees in Isfahan. *Abstract Book of the 16th Iranian Plant Protection Congress, Tabriz, Iran*, p. 255.
- Javadpour, M., Hajizadeh, J. & Hosseini, R. (2018) Blattisociid mites of Guilan province of Iran with a checklist for Iranian blattisociid mites (Mesostigmata: Blattisociidae). *Entomofauna*, 13: 697–710.
- Javan, S., Karaca, M. & Urhan, R. (2018) *Zercon ostovani* sp. nov. (Acari: Mesostigmata: Zerconidae) from Iran, *Turkish Journal of Zoology*, 42(5): 596–600. DOI: [10.3906/zoo-1708-14](https://doi.org/10.3906/zoo-1708-14)
- Javan, S., Ostovan, H. & Hesami, S. (2017) Effects of plant species on diversity of soil Gamasina mites (Acari: Mesostigmata) in Eram botanical garden. *Journal of Entomological Research*, 9(2): 155–172.

- Joharchi, O. (2012) Laelapidae (Acari: Mesostigmata) mites associated with insects in Iran. In: Murariu, D., Adam, C., Chişamera, G., Iorgu, E., Ovidiu Popa, L. & Paula Popa, O. (Eds.) *Abstract Book of Annual Zoological Congress of "Grigore Antipa" Museum, Bucharest, Romania*, p. 59.
- Joharchi, O. (2019) Replacement name for a homonym in *Hypoaspis* Canestrini (Acari: Laelapidae). *Persian Journal of Acarology*, 9(2): 207–208. DOI: [10.22073/pja.v9i2.60758](https://doi.org/10.22073/pja.v9i2.60758)
- Joharchi, O., Arjomandi, E. & Trach, V.A. (2017) A new species of *Myrmozercon* Berlese (Acari: Mesostigmata: Laelapidae) associated with arboreal ant (Formicidae: Crematogaster) from Iran. *Acarologia*, 57(4): 725–730.
- Joharchi, O. & Babaeian, E. (2014a) A new genus and species of edaphic mite (Acari: Mesostigmata: Eviphididae) from Iran. *Zootaxa*, 3774(3): 275–281.
- Joharchi, O. & Babaeian, E. (2014b) A new species of *Gaeolaelaps* Evans and Till (Acari: Laelapidae) on *Acinopus* sp. (Coleoptera: Carabidae) from Iran. *Acarologia*, 54(1): 89–95.
- Joharchi, O. & Babaeian, E. (2015) A new species of *Reticulolaelaps* Costa (Acari: Laelapidae) associated with *Tapinoma* sp. (Hymenoptera: Formicidae) from Iran, with a review of the world species. *Acarologia*, 55(1): 33–40.
- Joharchi, O., Babaeian, E. & Jalalizand, A. (2016a) Review of the genus *Laelaspisella* Marais & Loots, with the description of a new species from Iran (Acari, Laelapidae). *ZooKeys*, 549: 13–22.
- Joharchi, O. & Halliday, B. (2011) New species and new records of mites of the family Laelapidae (Acari: Mesostigmata) associated with Coleoptera in Iran. *Zootaxa*, 2883: 23–38.
- Joharchi, O. & Halliday, B. (2013) A new species and new records of *Gymnolaelaps* Berlese from Iran (Acari: Laelapidae), with a review of the species occurring in the Western Palaearctic region. *Zootaxa*, 3646(1): 039–050.
- Joharchi, O., Halliday, B. & Beyzavi, G. (2013) New species of the genus *Promacrolaelaps* (Acari: Laelapidae) associated with *Propomacrus bimucronatus* (Pallas) (Coleoptera: Scarabaeidae) in Iran. *Zootaxa*, 3641(4): 379–383.
- Joharchi, O., Halliday, B., Saboori, A. & Kamali, K. (2011a) New species and new records of mites of the family Laelapidae (Acari: Mesostigmata) associated with ants in Iran. *Zootaxa*, 2972: 22–36.
- Joharchi, O., Halliday, B. & Saboori, A. (2012a) Three new species of *Laelaspis* Berlese from Iran (Acari: Laelapidae), with a review of the species occurring in the Western Palaearctic region. *Journal of Natural History*, 46(31–32): 2000–2018.
- Joharchi, O., Halliday, B., Saboori, A. & Ostovan, H. (2011b) Identification of Laelapidae (Acari: Mesostigmata) associated with insects and soil in Iran. *Abstract Book of Annual Zoological Congress of "Grigore Antipa" Museum, Bucharest, Romania*, 131–132.
- Joharchi, O., Jalaieian, M., Paktinat-Saeed, S. & Ghafarian, A. (2012b) A new species and new records of *Laelaspis* Berlese (Acari: Laelapidae) from Iran. *Zookeys*, 208: 17–25.
- Joharchi, O., Khodaparast, R. & Ghasemi Moghadam, S. (2016b) First report of the genus *Dinogamasus* Kramer (Acari: Mesostigmata: Laelapidae) from the Middle East region, with the description of a new species. *Systematic and Applied Acarology*, 21(6): 791–799.
- Joharchi, O., Mašán, P. & Babaeian, E. (2014a) A new genus and species of edaphic mite (Acari: Mesostigmata: Eviphididae) from Iran. *Zootaxa*, 3774(3): 275–281.
- Joharchi, O. & Moradi, M. (2013) Review of the genus *Myrmozercon* Berlese (Acari: Laelapidae), with description of two new species from Iran. *Zootaxa*, 3686(2): 244–254.

- Joharchi, O. & Negm, M.W. (2020) Soil-inhabiting mites of the family Laelapidae (Acari: Mesostigmata) from Assiut Governorate, Egypt. *Zootaxa*, 4759(4): 488–510.
- Joharchi, O., Ostovan, H. & Babaeian, E. (2014b) A new species of *Hypoaspis* Canestrini from Iran (Acari: Laelapidae), with a key to the species occurring in the Western Palaearctic region. *Zootaxa*, 3846(4): 569–576.
- Joharchi, O., Ostovan, H. & Saboori, A. (2012c) A new species of the genus *Coleolaelaps* (Acari: Laelapidae) associated with larvae of *Polyphylla* sp. (Coleoptera: Scarabaeidae) in Iran. *Entomologica Fennica*, 22: 279–283.
- Joharchi, O., Ramroodi, S. & Halliday, B. (2020) Review of the genus *Pogonolaelaps* Nemati & Gwiazdowicz (Acari: Laelapidae), with description of a new species from Iran. *Zootaxa*, 4820(3): 465–484. DOI: [10.11646/zootaxa.4820.3.3](https://doi.org/10.11646/zootaxa.4820.3.3)
- Joharchi, O. & Saboori, A. (2010) The first record of the family Otopheidomenidae (Acarina: Mesostigmata) from Iran. In: Manzari, S. (Ed.), *Abstract Book of 19th Iranian Plant Protection Congress, Iranian Research Institute of Plant Protection, Tehran, Iran*, p. 382.
- Joharchi, O. & Shahedi, A. (2016) A new species of *Hypoaspis* Canestrini (Acari, Mesostigmata, Laelapidae) associated with *Oryctes* sp. (Coleoptera, Scarabaeidae) in Iran. *ZooKeys*, 574: 105–112.
- Jordan, L.C. & Loots, G.C. (1987) A new species of the genus *Ololaelaps* Berlese, 1904 (Acari: Laelapidae) from the Afrotropical region. *Phytophylactica*, 19: 49–51.
- Juvara-Balș, I. (1972) Mixogamasus, un nouveau genre de Parasitidae (Acarien: Anactinotriches) de Roumanie. *Acarologia*, 14: 3–14.
- Kadkhodaei, F., Nemati, A. & Kocheili, F. (2013) Some mesostigmatid mites from Iran with their world distribution. *Journal of Crop Protection*, 2(2): 127–138.
- Kafi, P., Ostovan, H. & Joharchi, O. (2014) Study on fauna of edaphic monogynaspid mites (Acari: Mesostigmata) in some regions of Yazd Province. *Abstract book of the XIV International Congress of Acarology, Kyoto, Japan*, pp. 4–19.
- Kafi, P., Joharchi, O., Ostovan, H. & Gheibi, M. (2020) Redescription of *Gaeolaelaps debilis* (Ma) (Acari: Mesostigmata: Laelapidae), with a key to world species of *Gaeolaelaps* with setae *st1* off sternal shield. *Acarina*, 28(1): 65–74. DOI: [10.21684/0132-8077-2020-28-1-65-74](https://doi.org/10.21684/0132-8077-2020-28-1-65-74)
- Kamali, K., Ostovan, H. & Atamehr, A. (2001) *A catalog of mites & ticks (Acari) of Iran*. Islamic Azad University Scientific Publication Center, 192 pp.
- Kamali, M., Kamali, K., Jafari, K. & Ueckermann, E. (2004) Edaphic mites of order Mesostigmata collected from Shahid Beheshti University Campus. *Abstract Book of the 16th Iranian Plant Protection Congress, Tabriz, Iran*, p. 262.
- Karaca, M., Ordoukhanian, C., Ahadiyat, A. & Urhan, R. (2017) New occurrences of zerconid mites (Acari: Zerconidae) from Iran, with checklist and a key to the Iranian species. *International Journal of Acarology*, 43(8): 603–611.
- Karami, F., Hajizadeh, J. & Ostovan, H. (2017a) Fauna of Ascoidea (except Ameroseiidae) in Guilan Province, Iran with two new species record for Iran mites fauna. *Linzer Biologische Beiträge*, 42(9): 1309–1321.
- Karami, F., Hajizadeh, J. & Ostovan, H. (2017b) Fauna of the superfamily Ascoidea (Acari: Mesostigmata) in Guilan Province, Iran. In: Hajiqaanbar, H. & Saboori, A. (Eds.), *Abstract book of the Third International Persian Congress of Acarology, Tehran, Iran*, p. 20.
- Karbasian, M., Jalali Zand, A., Ostovan, H. & Soleiman Nejadian, E. (2022) Edaphic Mesostigmata mites in central Iran: Twelve new country and local records. *Iranian Journal of Animal Biosystematics (IJAB)*, 18(2): 109–120. DOI: [10.22067/ijab.2022.76689.1031](https://doi.org/10.22067/ijab.2022.76689.1031)

- Karg, W. (1961) Zur Systematik der Rhodacaridae Oudemans 1902 (Acarina, Parasitiformes). *Zoologischer Anzeiger*, 166: 127–135.
- Karg, W. (1962) Zur Systematik und Postembryonalen Entwicklung der Gamasiden (Acarina, Parasitiformes) Landwirtschaftlich genutzter Böden. *Mitteilungen aus dem Zoologischen Museum in Berlin*, 38: 23–119. DOI: [10.1002/mmzn.4830380103](https://doi.org/10.1002/mmzn.4830380103)
- Karg, W. (1963) Systematische Untersuchung der Eviphididae Berlese, 1913 (Acarina, Parasitiformes) mit einer neuen Art aus Ackerböden. *Zoologischer Anzeiger*, 170: 269–281.
- Karg, W. (1964) Systematische Untersuchungen zwei eigenartiger neuer Gamasiden-Arten (Acarina, Parasitiformes) aus der Bodenkrume. *Opuscula Zoologica*, 5: 69–75.
- Karg, W. (1965) Larvalsystematische und phylogenetische Untersuchung sowie Revision des Systems der Gamasina Leach, 1915 (Acarina, Parasitiformes). *Mitteilungen aus dem Zoologischen Museum in Berlin*, 41: 193–340. DOI: [10.1002/mmzn.19650410207](https://doi.org/10.1002/mmzn.19650410207)
- Karg, W. (1971a) Acari (Acarina), Milben. Unterordnung Anactinochaeta (Parasitiformes). Die freilebenden Gamasina (Gamasides), Raubmilben. *Die Tierwelt Deutschlands*, 59: 1–475.
- Karg, W. (1971b) Zur Kenntnis der Gattungen Cheiroseius Berlese und Epicriopsis Berlese (Acarina, Parasitiformes). *Abhandlungen und Berichte des Naturkundemuseums Görlitz*, 46(6): 1–8.
- Karg, W. (1976) Eine neue Milbengattung der Eviphididae Berlese, 1913 (Acarina, Parasitiformes). *Abhandlungen und Berichte des Naturkundemuseums Görlitz*, 50: 1–6.
- Karg, W. (1977) Die Milbengattung *Antennoseius* Berlese, 1916 (Acarina, Parasitiformes) mit einer neuen Art aus dem Leutratal bei Jena (DDR). *Abhandlungen und Berichte des Naturkundemuseums Görlitz*, 50(4): 1–7.
- Karg, W. (1978) Zur Kenntnis der Milbengattungen *Hypoaspis*, *Androlaelaps* und *Reticulolaelaps* (Acarina, Parasitiformes, Dermanyssidae). *Zoologische Jahrbücher. Abteilung für Systematik, Geographie und Biologie der Tiere*, 105: 1–32.
- Karg, W. (1979) Die Gattung *Hypoaspis* Canestrini, 1884 (Acarina, Parasitiformes). *Zoologische Jahrbücher. Abteilung für Systematik, Geographie und Biologie der Tiere*, 106: 65–104.
- Karg, W. (1981) Die Untergattung *Cosmolaelaps* Berlese, 1903, der Raubmilbengattung *Hypoaspis* Canestrini, 1884 (Acarina, Parasitiformes). *Mitteilungen aus dem Zoologischen Museum in Berlin*, 57: 213–232.
- Karg, W. (1985) Zwei neue Raubmilbenarten der Untergattung *Cosmolaelaps* Berlese, 1903 (Gattung *Hypoaspis* Can, 1884) aus Termitennestern (Acarina, Parasitiformes). *Deutsche Entomologische Zeitschrift*, 32: 233–237. DOI: [10.1002/mmnd.19850320402](https://doi.org/10.1002/mmnd.19850320402)
- Karg, W. (1987) Zur Kenntnis der Raubmilbenarten der Gattung *Gamasiphis* Berlese, 1904 (Acarina, Parasitiformes). *Mitteilungen aus dem Zoologischen Museum in Berlin*, 63: 301–308. DOI: [10.1002/mmzn.19870630205](https://doi.org/10.1002/mmzn.19870630205)
- Karg, W. (1990) Neue Raubmilbenarten der Gattung *Gamasiphis* Berlese, 1904 (Acarina, Parasitiformes). *Acarologia*, 31: 321–335.
- Karg, W. (1993) Acari (Acarina), Milben. Parasitiformes (Anactinochaeta). Cohors Gamasina Leach. Raubmilben. 2. Überarbeitete Auflage. *Tierw Dtsch*, 59: 1–523.
- Karg, W. (1999) Zwei neue Raubmilbenarten der Gattung *Coleolaelaps* Berlese mit speziellen phoretischem Appetenzverhalten zu Coleopteren (Phyllophaga). *Abhandlungen und Berichte des Naturkunde Museums zu Görlitz*, 71(2): 429–434.
- Kavianpour, M. & Nemati, A. (2014) *Gaeolaelaps* (Acari: Laelapidae) mites of Iran with description of a new species. *Journal of Crop Protection*, 3(3): 315–325.
- Kavianpour, M., Nemati, A., Kocheili, F. & Gwiazdowicz, D. (2011) Some edaphic mites of Mesostigmata (Acari) from Shahreza region. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and*

- Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 26.
- Kavianpour, M., Nemati, A. & Hasanzade, H. (2012) Introducing a new genus and a new species of Macronyssidae (Acari: Mesostigmata) for Iran's mite fauna. *Abstract book of the 1st International and 8th National Congress of Parasitology and Parasitic Diseases, Kerman, Iran*, p. 41.
- Kavianpour, M., Nemati, A., Gwiazdowicz, D. & Kocheili, F. (2013a) A new species of the genus *Gaeolaelaps* (Acari, Mesostigmata, Laelapidae) from Iran. *ZooKeys*, 277: 1–11.
- Kavianpour, M., Nemati, A. & Mohseni, M. (2013b) A new species of the genus *Antennoseius* from Iran. *Iranian Journal of Entomology*, 3: 36–44.
- Kavianpour, M., Karimpour, Y., Nemati, A. & Mirfakhraei, S. (2017) A faunistic study on laelapid mites in Urmia, Iran. *Iranian Journal of Animal Biosystematics*, 13(2): 159–170. DOI: [10.22067/ijab.v13i2.58396](https://doi.org/10.22067/ijab.v13i2.58396)
- Kavianpour, M., Karaca, M., Karimpour, Y. & Urhan, R. (2018a) A new species and new distribution records of *Zercon* C.L. Koch from Iran (Acari: Zerconidae). *Zoology in the Middle East*, 64(4): 363–370. DOI: [10.1080/09397140.2018.1484040](https://doi.org/10.1080/09397140.2018.1484040)
- Kavianpour, M., Karimpour, Y. & Nemati, A. (2018b) Ascoidea and Blattisociidae (Mesostigmata) mites of Urmia (West Azerbaijan, Iran), with identification keys to genera and species. *Biharean Biologist* 12(2): 73–78.
- Kavianpour, M., Nemati, A. & Karimpour, Y. (2018c) A new species of *Gaeolaelaps* Evans and Till (Mesostigmata: Laelapidae) from northwestern Iran with a key to the species with three-tined apotele. *International Journal of Acarology*, 44(4–5). DOI: [10.1080/01647954.2018.1473490](https://doi.org/10.1080/01647954.2018.1473490)
- Kavianpour, M., Nemati, A., Mohseni, M. & Khalili-Moghadam, A. (2018d) New ascid mite of the genus *Antennoseius* Berlese (Acari: Mesostigmata) from Iran, 7(3): 245–254. DOI: [10.22073/pja.v7i3.38509](https://doi.org/10.22073/pja.v7i3.38509)
- Kazemi, S. (2011) First record of one genus and three species of the family Macrochelidae (Mesostigmata) from Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 29.
- Kazemi, S. (2012) Mites of the superfamily Uropodoidea (Acari: Mesostigmata) from North Iran. *Abstract Book of 7th Symposium of the European Association of Acarologists, Vienna, Austria*, p. 88.
- Kazemi, S. (2014) A new mite species of *Pseudoparasitus* Oudemans (Acari: Mesostigmata: Laelapidae), and a key to known Iranian species of the genus. *Persian Journal of Acarology*, 3(1): 41–50.
- Kazemi, S. (2015) A new species of *Laelaspis* Berlese (Acari: Mesostigmata: Laelapidae) from Iran, with a revised generic concept and notes on significant morphological attributes in the genus. *Zootaxa*, 4044 (3): 411–428.
- Kazemi, S. (2017) First record of *Copriphs hastatellus* Berlese (Acari: Mesostigmata: Eviphididae) from Iran. In: Hajiqaanbar, H. & Saboori, A. (Eds.), *Abstract book of the Third International Persian Congress of Acarology, Tehran, Iran*, p. 21–22.
- Kazemi, S. (2018) Redescription of *Antennoseius* (*Antennoseius*) *avius* Karg (Acari: Mesostigmata: Ascidae), a senior synonym of *A. (A.) alexandrovi* Bregetova and *A. (A.) arvensis* Kalúz, with additional information for *Antennoseius* Berlese, and a key to the Iranian species of the genus. *International Journal of Acarology*, 44 (4–5): 171–179. DOI: [10.1080/01647954.2018.1471101](https://doi.org/10.1080/01647954.2018.1471101)
- Kazemi, S. (2020) A new species of *Gaeolaelaps* Evans and Till (Mesostigmata: Laelapidae) from mangrove forests in the Persian Gulf, and notes on gnathosomal structures of the genus and other laelapid genera. *International Journal of Acarology*, 46(3): 130–139. DOI: [10.1080/01647954.2020.1737223](https://doi.org/10.1080/01647954.2020.1737223)

- Kazemi, S. & Abolghasemi, S. (2016) New species and records of Uropodina mites from Iran (Acari, Mesostigmata). *ZooKeys*, 600: 25–34.
- Kazemi, S. & Ahangaran, Y. (2011) Soil-inhabiting Mesostigmata (Acari) of west Mazandaran Province, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 62.
- Kazemi, S. & Ahangaran, Y. (2013) First report of *Eviphis ostrinus* (Koch) (Acari: Mesostigmata: Eviphididae) from Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 36.
- Kazemi, S., Ahangaran, Y., Arjomandi, E. & Rajaei, A. (2012) Some rare Gamasina (Acari: Mesostigmata) from Iran. *Abstract Book of 7th Symposium of the European Association of Acarologists, Vienna, Austria*, p. 88.
- Kazemi, S., Ahangaran, Y. & Saberi, S. (2014a) First report of *Neparholaspis arcuatus* (Acari: Mesostigmata: Parholaspididae) from Iran. *Abstract book of the 21th Iranian Plant Protection Congress, Urmia, Iran*, p. 1001.
- Kazemi, S., Akrami, M. A., Khademi, N. & Saboori, A. (2008a) Report of *Oplitis paradoxa* (Acari: Mesostigmata: Oplitidae) from Iran. *Journal of Entomological Society of Iran*, 27(2): 31–32.
- Kazemi, S. & Alikhani, M. (2013) Some mesostigmatic mites (Acari: Mesostigmata) from Asaluyeh and Lenge Ports, South Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 18.
- Kazemi, S., Arjomandi, E. & Ahangaran, Y. (2013a) A review of Iranian Parasitidae (Acari: Mesostigmata). *Persian Journal of Acarology*, 1(2): 159–180.
- Kazemi, S., Arjomandi, E. & Katooli, A. (2011a) Mesostigmatic mites (Acari: Mesostigmata) of Gorgan region, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 30.
- Kazemi, Sh., Babaeian, E. & Yazdanpanah, Sh. (2013b) First report of the genus *Pelethiphis* Berlese (Acari: Mesostigmata: Eviphididae) from Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 18.
- Kazemi, S. & Beaulieu, F. (2016) A new genus and species of Laelapidae (Acari: Mesostigmata) from Iran. *Zootaxa*, 4200(4): 487–500.
- Kazemi, S., Hasanvand, I., Arjomandinejad, A. & Jafari, S. (2013c) First report of *Polyaspis patavinus* Berlese (Acari: Mesostigmata: Polyaspididae) from Iran. *Journal of Entomology and Pathology*, 81(2): 197–198.
- Kazemi, S., Kamali, K., Bajerlein, D. & Saboori, A. (2008b) Mites of the superfamily Uropodoidea Evans, 1957 (Acari: Mesostigmata) associated with the family Scarabaeidae (Coleoptera) from north and northeast Iran. In: Manzari, S. (Ed.), *Abstract Book of 18 th Iranian Plant Protection Congress, Hamedan, Iran*, p. 234.
- Kazemi, S., Kamali, K. & Fathipour, Y. (2001) New report of three species of Uropodoidae (Acari: Mesostigmata) from Iran. *Journal of Entomological Society of Iran*, 21(2): 111–112.
- Kazemi, S., Kamali, K., & Fathipour, Y. (2003a) Species abundance of edaphic mites of superfamily Uropodoidea (Acari: Mesostigmata) with notes on spatial distribution of *Nenteria stylifera* in Tehran area. *Journal of Entomological Society of Iran*, 23(1): 91–102.
- Kazemi, S., Kamali, K. & Fathipour, Y. (2003b) A new record of *Dithinozercon halberti* (Berlese) (Uropodina: Dithinozerconidae) from Iran. *Journal of Applied Entomology and Phytopathology*, 72(2): 35.

- Kazemi, S., Kamali, K. & Fathipour, Y. (2005) Studies on species of edaphic mites of superfamily Uropodoidea (Acari: Mesostigmata) in Tehran region. *Iranian Journal of Agricultural Sciences*, 36(4): 885–894.
- Kazemi, S., Kamali, K., Moraza, M.L. & Saboori, A. (2008c) Two species of *Neopodocinum* Oudemans, 1902 (Mesostigmata: Macrochelidae) associated with scarabaeid beetles from northeast Iran. In: Manzari, S. (Ed.), *Abstract Book of 18th Iranian Plant Protection Congress, Hamedan, Iran*, p. 232.
- Kazemi, S., Kamali, K., Moraza, M.L. & Saboori, A. (2008d) Two new genera records of the family Eviphididae (Acari: Mesostigmata) associated with *Scarabaeus transcaspicus* Stofa (Scarabaeidae) from Iran. In: Manzari, S. (Ed.), *Abstract Book of 18th Iranian Plant Protection Congress, Hamedan, Iran*, p. 233.
- Kazemi, S., Kamali, K., Moraza, M.L. & Saboori, A. (2008e) New record of *Eviphis cultratellus* (Acari: Eviphididae) associated with *Scarabaeus sacer* L. (Col.: Scarabaeidae) from Iran. *Applied Entomology and Phytopathology*, 76(85): 157.
- Kazemi, S. & Klompen, H. (2022) Description of a new species of *Protodinychus* (Mesostigmata: Protodinychidae), and a key to deutonymphs of the genus. *Acarologia* 62(3): 585–596. DOI: [10.24349/6gmw-wgod](https://doi.org/10.24349/6gmw-wgod)
- Kazemi, S. & Klompen, H. (2024) Description of the second species of *Cingulacarus* Elsen (Acari, Mesostigmata, Diplogyniidae), and notes on the genus. *Zootaxa*, 5397(2): 225–238. DOI: [10.11646/zootaxa.5397.2.4](https://doi.org/10.11646/zootaxa.5397.2.4)
- Kazemi, S., Klompen, H., Moraza, M.L., Kamali, K. & Saboori, A. (2008f) A new species of *Weiseronyssus* Samšiňák 1962 (Acari: Mesostigmata: Diplogyniidae) from Iran, with a key for genera. *Zootaxa*, 1824: 17–27.
- Kazemi, S. & Kotschán, J. (2007) A review of the Uropodina mite fauna (Acari: Mesostigmata) of Iran and description of two new species. *Zoology in the Middle East*, 42: 79–82.
- Kazemi, S. & Kotschán, J. (2014) Three new records of the superfamily Uropodoidea (Acari: Mesostigmata: Uropodina) from Iran, and a key to the known Iranian species of Uropodoidea. *Persian Journal of Acarology*, 3(1): 19–16.
- Kazemi, S., Mehrzad, N. & Latifi, M. (2016a) Description of a new species of the genus *Laelaspis* Berlese (Acari, Mesostigmata, Laelapidae) from Iran. *ZooKeys*, 549: 145–155.
- Kazemi, S. & Mohammad-Doustaresharaf, M. (2015) First report of the subfamily Myonyssinae (Acari: Mesostigmata: Laelapidae) from Iran. *Persian Journal of Acarology*, 4(4): 437–439.
- Kazemi, S., Mohammad-Doustaresharaf, M. & Döker, I. (2022) An annotated checklist of the Iranian Phytoseiidae (Acari: Mesostigmata), with an updated key to the species. *Systematic & Applied Acarology*, 27(4): 697–748.
- Kazemi, S., Mohammad-Doustaresharaf, M. & Saberi, S. (2016b) Mites of the families Trachyuro-podidae Berlese and Urodiaspididae Trägårdh (Acari: Mesostigmata: Uropodina) from Iran. *Persian Journal of Acarology*, 5(3): 207–218.
- Kazemi, S., Moravvej, G., Hamidi, K. & Nourani, L. (2015) Mesostigmatic mites (Acari: Mesostigmata) associated with rodents in Khorasan Razavi Province, Iran. *Journal of Entomological Society of Iran*, 35(3): 95–97.
- Kazemi, S. & Moraza, M.L. (2013) Mites of the genus *Antennoseius* Berlese (Acari: Mesostigmata: Ascidae) from Iran. *Persian Journal of Acarology*, 2: 217–234.
- Kazemi, S., Moraza, M.L., Kamali, K. & Saboori, A. (2008g) A new genus and three new species of Eviphididae (Acari: Mesostigmata) associated with scarab beetles in Iran. *Zootaxa*, 1852: 1–20.

- Kazemi, S., Nasr, A. K., Ramadan, M.M. & Klompen, H. (2021) Review of the genus *Sessiluncus* (Acari: Mesostigmata: Ologamasidae), description of male and redescription of female of *Sessiluncus aegypticus*, and notes on some morphological characters of the genus. *Zootaxa*, 5061(2): 271–299. DOI: [10.11646/zootaxa.5061.2.3](https://doi.org/10.11646/zootaxa.5061.2.3)
- Kazemi, S., Nosratpanah, S. & Mohammadi Khoramabadi, A. (2011b) A new record of the subgenus *Antennoseius* (*Antennoseius*) (Mesostigmata: Ascidae) from Iran. *Applied Entomology and Phytopathology*, 76(1): 161–163.
- Kazemi, S. & Paktinat Saeij, S. (2013a) First report of the family Asternoseiidae (Acari: Mesostigmata: Trigynaspida) from Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 17.
- Kazemi, S. & Paktinat Saeij, S. (2013b) *Epicrius tauricus* Bregetova, first species report of the family Epicriidae (Acari: Mesostigmata) from Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 32.
- Kazemi, S., Paktinat-Saeij, S. & Saberi, S. (2020) Description of a new species of *Gaeolaelaps* Evans & Till (Mesostigmata: Laelapidae) from northern Iran, supplementary information on *G. deinos* (Zeman) and redescription of *G. schusteri* (Hirschmann). *Systematic & Applied Acarology*, 25(11): 1969–1987. DOI: [10.11158/saa.25.11.4](https://doi.org/10.11158/saa.25.11.4)
- Kazemi, S. & Payandeh, M. (2014) First report of *Alliphis scarabaeorum* (Acari: Mesostigmata: Eviphididae) from Iran. *Proceedings of the 21st Iranian Plant Protection Congress, Urmia, Iran*, p. 999.
- Kazemi, S., Payandeh, M. & Saberi, S. (2016c) A new species of *Platyseius* Berlese (Acari: Mesostigmata: Blattisociidae) from Iran, and a key to the world species of the genus. *Zootaxa*, 4139(4): 566–574.
- Kazemi, S., Rahiminejad, V. & Hajiqanbar, H. (2013d) New report of a genus and species of the family Eviphididae (Acari: Mesostigmata) from Iran. *Journal of Entomological Society of Iran*. 32(2): 133–136.
- Kazemi, S. & Rajaei, A. (2013) An annotated checklist of Iranian Mesostigmata (Acari), excluding the family Phytoseiidae. *Persian Journal of Acarology*, 2(1): 63–158.
- Kazemi, S., Rajaei, A. & Beaulieu, F. (2014b) Two new species of *Gaeolaelaps* (Acari: Mesostigmata: Laelapidae) from Iran, with a revised generic concept and notes on significant morphological characters in the genus. *Zootaxa*, 3861(6): 501–530.
- Kazemi, S., Rajaei, A. & Paktinat Saeij, S. (2013e) The Laelapidae mites (Acari: Mesostigmata) from Mazandaran Province, North Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 32.
- Kazemi, S., Rajaei, A. & Yazdani, M. (2018a) Two new records of the genus *Halolaelaps* (Mesostigmata, Halolaelapidae) from Iran. *Persian Journal of Acarology*, 7(2): 217–220. DOI: [10.22073/pja.v7i2.37376](https://doi.org/10.22073/pja.v7i2.37376)
- Kazemi, S., Saberi, S. & Taghinejad, N. (2018b) First record of the genus *Periseius* Womersley (Mesostigmata, Ologamasidae) from Iran. In: Pourrahim, R. & Farzadfar, S. (Eds.), *Proceedings of the 23rd Iranian Plant Protection Congress, 27–30 August, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran*, p. 1636.
- Kazemi, S. & Samanipour, M. (2018) First record of mites of the genus *Aspar* Halašková (Mesostigmata, Zerconidae) from Palearctic. In: Pourrahim, R. & Farzadfar, S. (Eds.), *Proceedings of the 23rd Iranian Plant Protection Congress, 27–30 August, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran*, p. 1610.

- Kazemi, S., Samanipour, M. & Hashemi Nasab Pabandi, S.H. (2011c) First record of mites of the family Microgyniidae (Acari: Mesostigmata) from Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 28.
- Kazemi, S. & Yazdanpanah, S. (2013a) Two new records of the genus *Antennoseius* Berlese (Mesostigmata: Ascidae) from Iran. *Applied Entomology and Phytopathology*, 80: 193–195.
- Kazemi, S. & Yazdanpanah, S. (2013b) Edaphic mesostigmatic mites (Acari) fauna of oak forests in Koochmare-Sorkhi region, Fars Province, Iran. *Abstract book of the The Second International Confrence on Agriculture and Natural Resources, Kermanshah, Iran*, p. 269–271.
- Keegan, H.L. (1944) On a new genus and species of parasitid mite. *The Journal of Parasitology*, 30(3): 181–183. DOI: [10.2307/3272795](https://doi.org/10.2307/3272795)
- Keivani, F., Nemati, A., Nematollahi, M. & Riahi, E. (2012) Some mites of Mesostigmata in birds' nests in Chaharmahal va Bakhtiyari and Isfahan. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 420.
- Keivani Hafshejani, F., Akrami, M.A. & Nemati, A. (2018) Identification of Laelapidae (Acari: Mesostigmata) and determination of dominant species in Shiraz County. *Proceedings of the 23rd Iranian Plant Protection Congress, 27–30 August, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran*, p. 1538.
- Kennett, C.E. (1958) Some predacious mites of the subfamilies Phytoseiidae and Aceosejidae (Acarina: Phytoseiidae: Aceosejidae) from central California with descriptions of new species. *Annals of the Entomological Society of America*, 51: 471–479. DOI: [10.1093/aesa/51.5.471](https://doi.org/10.1093/aesa/51.5.471)
- Keshavarz Jamshidian, M. & Babaeian, E. (2013) Mites of the family Laelapidae (Acari: Mesostigmata) in Alborz Province, Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 19.
- Keshtmand, K., Ostovan, H. & Asadi, R. (2011) Mites associated with button mushrooms, *Agaricus bisporus* (Lange), in Shiraz region, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 31.
- Kethley, J.B. (1977) A review of the higher categories of Trigynaspida (Acari: Parasitiformes). *International Journal of Acarology*, 3: 129–149. DOI: [10.1080/01647957708683090](https://doi.org/10.1080/01647957708683090)
- Khademi, N. & Saboori, A. (2013) First record of *Protogamasellus bifurcalis* (Acari: Ascidae) from Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 19.
- Khademi, N., Saboori, A. & Ueckermann, E. (2006) Fauna of mesostigmata in citrus orchards in Jahrom region, Iran. In: Bruin, J. (Ed.), *Abstract Book of 12th International Congress of Acarology, Amsterdam, The Netherlands*, p. 91.
- Khadempour, F., Ostovan, H., Haghani, M. & Farzaneh, M. (2012) The faunistic survey of Mesostigmatic mites (Acari: Mesostigmata) in cotton and wheat field in Larestan region. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 427.
- Khajehali, J. & Nemati, A. (2015) Some edaphic mesostigmatic mites from Lordegan, Chaharmahal va Bakhtiyari Province with their world distribution. *Journal of Crop Protection*, 4(4): 589–604.
- Khaleghabadian, Z., Sadeghi Namaghi, H., Ardeshir, F., Nemati, A. & Hatefi, S. (2013) Fauna of predatory mites associated with stored food mites in the North East of Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 20.
- Khaleghabadian, Z., Sadeghi Namaghi, H., Ardeshir, F., Nemati, A. & Hatefi, S. (2015) Fauna of predatory mosasticgmatic and prostigmatid mites associated with stored food mites in the Mashhad. *Journal of Plant Protection*, 28(4): 555–564.

- Khalesi, T. & Kazemi, S. (2016) Report of a new species of genus *Polyaspsi* Berlese (Acari: Polyaspididae) for Iran. In: Talaei-Hassanloui, R., Rahimi, S. & Ebrahimi, V. (Eds.), *Proceedings of the 22nd Iranian Plant Protection Congress, Karaj, Iran*, p. 518.
- Khalesi, T. & Kazemi, S. (2017) A new record of the genus *Gamasiphis* Berlese (Acari: Mesostigmata: Ologamasidae) from Iran. In: Hajiqaanbar, H. & Saboori, A. (Eds.), *Abstract book of the Third International Persian Congress of Acarology, Tehran, Iran*, pp. 21–22.
- Khalesi, T. & Kazemi, S. (2018) A new species and new record of *Gaeolaelaps* Evans & Till (Acari: Mesostigmata: Laelapidae) from Iran. *Acarologia*, 58(3): 628–639. DOI: [10.24349/acarologia/20184259](https://doi.org/10.24349/acarologia/20184259)
- Khalili-Moghadam, A. (2022) Partial faunistic study of mesostigmatid mites (Acari: Mesostigmata) associated with ants (Hymenoptera: Formicidae) in Chaharmahal va Bakhtiyari Province. *Plant Pest Research*, 12(2): 51–60.
- Khalili-Moghadam, A. (2024) *Laelaspis nematii* sp. nov. (Mesostigmata: Laelapidae), a new species of laelapid mites from southwest Iran. *Persian Journal of Acarology*, 13 (3): 349–359.
- Khalili-Moghadam, A. & Babaeian, E. (2021) New species and records of myrmecophile uropodine mites (Acari: Mesostigmata) from Iran. *International Journal of Acarology*, 47(8): 1–6. DOI: [10.1080/01647954.2021.1980612](https://doi.org/10.1080/01647954.2021.1980612)
- Khalili-Moghadam, A. & Nemati, A. (2014a) Some mesostigmatids mites (Acari) associated with *Fomes* sp. and *Agricales* sp. fungi in Chaharmahal va Bakhtiyari Province. *Proceedings of the 21th Iranian Plant Protection Congress, Urmia, Iran*, p. 962.
- Khalili-Moghadam, A. & Nemati, A. (2014b) Fauna of the mesostigmatid mites (Acari) associated with ants nest in Chaharmahal va Bakhtiyari Province. *Proceedings of the 21th Iranian Plant Protection Congress, Urmia, Iran*, p. 981.
- Khalili-Moghadam, A., Nemati, A., Saeidi, Z. & Kabiri, H. (2016) Mites fauna of *Pneumolaelaps* Berlese (Mesostigmata: Laelapidae) in some regions of Iran. In: Talaei-Hassanloui, R., Rahimi, S. & Ebrahimi, V. (Eds.), *Proceedings of the 22th Iranian Plant Protection Congress, Karaj, Iran*, p. 515.
- Khalili-Moghadam, A., Nemati, A., Saeidi, Z. (2018a) Fauna of Ascidae Voigts & Oudemans (Acari: Mesostigmata) associated with ants in Chaharmahal va Bakhtiyari Province. In: Pourrahim, R. & Farzadfar, S. (Eds.) *Proceedings of the 23rd Iranian Plant Protection Congress, 27–30 August, Gorgan University of Agricultural Sciences and Natural Resources, Iran*, p. 1624.
- Khalili-Moghadam, A., Nemati, A., Saeidi, Z. (2022a) Fauna of trigynaspid and sejid mites (Acari: Mesostigmata) associated with ants in Chaharmahal Va Bakhtiyari Province (Iran). *Abstract book of the 4th International Persian Congress of Acarology, Mashahd, Iran*, p. 1003.
- Khalili-Moghadam, A., Riahi, E., Nemati, A., Abotalebian, M. & Mardani, A. (2012) The fauna of some edaphic Mesostigmata (Acari) in Isfahan. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 460.
- Khalili-Moghadam, A. & Saboori, A. (2014) Ameroseiid mites (Acari: Ameroseiidae) in some parts of Iran with redescription of *Ameroseius lidiae* Bregetova. *Journal Crop protection*, 3 (Supplementary): 673–682
- Khalili-Moghadam, A. & Saboori, A. (2015) Some mesostigmatic mites (Acari: Mesostigmata) associated with ants in Shahrekord region, Iran. *Ecologia Montenegrina*, 2(4): 315–326.
- Khalili-Moghadam, A. & Saboori, A. (2016a) Study of mite fauna of Ameroseiidae (Acari: Mesostigmata) in some parts of Iran and the report of a new species of *Epicriopsis* Berlese. In: Talaei-Hassanloui, R., Rahimi, S. & Ebrahimi, V. (Eds.), *Abstract book of the 22th Iranian Plant Protection Congress, Karaj, Iran*, p. 511.

- Khalili-Moghadam, A. & Saboori, A. (2016b) Redescription of *Ameroseius eumorphus* Bregetova (Acari: Mesostigmata: Ameroseiidae), a new record of *Epicriopsis* Berlese from Iran and a new homonym in Ameroseiidae. *Acarologia*, 56(4): 537–551.
- Khalili-Moghadam, A., Saboori, A., Nemati, A. & Zahedi Golpayegani, A. (2018b) A new ant-associated species of *Laelaspis* (Acari: Mesostigmata: Laelapidae) from Iran. DOI: [10.22073/pja.v7i3.38727](https://doi.org/10.22073/pja.v7i3.38727)
- Khalili-Moghadam, A., Saboori, A., Nemati, A. & Zahedi Golpayegani, A. (2018c) Redescription of *Gaeolaelaps deinos* (Acari: Mesostigmata): an ant-associated laelapid mite. *Biologia*, 73(5): 977–986. DOI: [10.2478/s11756-018-0105-7](https://doi.org/10.2478/s11756-018-0105-7)
- Khalili-Moghadam, A., Saboori, A., Nemati, A. & Zahedi Golpayegani, A. (2022b) New record of some mesostigmatic mites (Acari: Mesostigmata) associated with ants in Charmahal va Bakhtiyari Province, Iran. In: Saboori, A., Rezapanah, M., Shirazi, J., Rahnema, K., Bakhshi, M., Jahanshahi Afshar, F. & Najafi, H. (Eds.), *Proceedings of the 24th Iranian Plant Protection Congress, 3–6 September 2022, IRIPP, Tehran*, p. 419.
- Khanjani, M., Ghaedi, B. & Ueckermann, E.A. (2013) New species of *Hypoaspis* Canestrini and *Coleolaelaps* Berlese (Mesostigmata: Laelapidae) associated with *Polyphylla olivieri* Castelnau (Coleoptera: Scarabaeidae) in Iran. *Zootaxa*, 3745(4): 469–478.
- Khanjani, M. & Haddad Irani-Nejad, K. (2006) *Injurious mites of agricultural crops in Iran*. First Edition. Bu-Ali Sina University Press, p. 526.
- Khanjani, M. & Kamali, K. (2000a) A study of Acari fauna of clover (*Trifolium* sp.) in Hamedan. *Abstract Book of 14th Iranian Plant Protection Congress, Isfahan, Iran*, p. 234.
- Khanjani, M. & Kamali, K. (2000b) Mites (Acari) associated with beans (*Phaseolus vulgaris* L.) in Hamedan Province. *Abstract Book of 14th Iranian Plant Protection Congress, Isfahan, Iran*, p. 246.
- Khanjani, M. & Ueckermann, E.A. (2005) *Hypoaspis* (*Hypoaspis*) *polyphyllae* n. sp. (Mesostigmata: Laelapidae) parasitic on larvae of *Polyphylla olivieri* Castelnau (Coleoptera: Scarabaeidae) in Iran. *International Journal of Acarology*, 31: 119–122.
- Khaustov, A.A. (1997) Mites of supercohort Trigynaspida (Parasitiformes. Celenopsidae, Cercomegistidae) associated with bark beetles (Coleoptera, Scolytidae) of Crimea. *Bulletin of the State Nikitsky Botanical Gardens*, 78: 63–66.
- Kheradmand, K., Kamali, K., Fathipour, Y., Ueckermann, E. & Mohammadi Goltapeh, E. (2007) Mites fauna associated with button mushroom (*Agaricus bisporus*) in Karaj region, Iran. *Acta Entomologica Sinica*, 50 (40): 416–422.
- Kheradpir, N. & Pakyari, H. (2011) Fauna of some soil-inhabiting mites (Acari) of Varamin region, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 35.
- Khezri, A., Ostovan, H., Kamali, K. & Al Mansur, H. (2006) Some edaphic mites from Iran. In: Manzari, S. (Ed.), *Abstract Book of the 17th Iranian Plant Protection Congress, Karaj, Iran*, p. 192.
- Khorsand, A., Ostovan, H., Amin, A.G. & Khorsand, Z. (2012) Study on fauna of mesostigmata mites (Acari: Mesostigmata) associated with cotton fields in Darab region. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 513.
- Kia, E.B., Moghddas-Sani, H., Hassanpoor, H., Vatandoost, H., Zahabiun, F., Akhavan, A.A., Hanafi-Bojd, A.A. & Telmadarraiy, Z. (2009) Ectoparasites of rodents captured in Bandar Abbas, Southern Iran. *Iranian Journal of Arthropod-Borne Disease*, 3(2): 44–49.

- Kinn, D.N. (1970) A new genus and species of Cercomegistidae (Acarina: Mesostigmata) from North America. *Acarologia*, 12: 244–252.
- Kinn, D.N. (1991) A new *Pleuronectocelaeno* (Acari: Celaenopsidae) from Japan, with remarks on North American and European species. *International Journal of Acarology*, 17(2): 103–105.
- Koch, C.L. (1835–1844) *Deutschlands Crustaceen, Myriapoden und Arachniden. Ein Beitrag zur Deutschen Fauna*. (Herrich-Schäffer, Regensburg).
- Koch, C.L. (1836a) Deutschlands Crustaceen, Myriapoden und Arachniden. Ein Beitrag zur Deutschen Fauna. G.A.W. HerrichSchäffer (Ed.) Manz, Regensburg, Heft, 4: 13– 20.
- Koch, C.L. (1836b) DCMA 4. Deutschlands Crustaceen, Myriapoden und Arachniden, 4: 1–24.
- Koch, C.L. (1839a) Deutschlands Crustaceen, Myriapoden und Arachniden. *F. Pustet, Regensburg*, 24: 10–11.
- Koch, C.L. (1839b) Deutschlands Crustaceen, Myriapoden und Arachniden. Ein Beitrag zur Deutschen Fauna. G.A.W. Herrich Schäffer (Ed.) Manz, Regensburg, Heft 23 and 24. 36 unnumbered text pages + 24 plates.
- Koch, C.L. (1839c) Deutschlands Crustaceen, Myriapoden und Arachniden. Ein Beitrag zur Deutschen Fauna. Vol. 27. *HerrichSchäffer, Regensburg*, 25 un-numbered text pages + 24 plates.
- Koch, C.L. (1840) Deutschlands Crustaceen, Myriapoden und Arachniden. Ein Beitrag zur Deutschen Fauna. G.A.W. HerrichSchäffer (Ed.) Montag & Weiss, Regensburg, Heft, 27. 36 unnumbered text pages + 24 plates.
- Koch, L. C.C. (1879) Arachniden aus Sibirien und Novaja Zemlja. *Kongliga Svenska Vetenskaps-Akademiens Handlingar* (ny följd). 16(5): 1–136.
- Kolenati, F.A.R. (1856) Die Parasiten der Chiroptern. Brünn, Re-Issued 1857 in Dresden 1–51.
- Kolenati, F. (1858a) Epizoon der Waldameise. *Wiener Entomologische Monatschrift*, 2: 86–87 + 1 plate.
- Kolenati, F.A.R. (1858b) Synopsis prodroma der auf Chiropteren als Epizoen vorkommenden Lausmilben, Caridea Kolenati. *Wiener Entomologische Monatschrift*, 2: 4–7.
- Kontschan, J. & Ermilov, S.G. (2023) Remarks on the genus *Phymatodiscus* Berlese, 1917, with the description of Phymatodiscidae fam. nov. and *Bardizon eotvosi* gen. nov., sp. nov. from Indonesia (Acari, Mesostigmata). *Zookeys*, 1182: 223–35. DOI: [10.3897/zookeys.1182.109744](https://doi.org/10.3897/zookeys.1182.109744)
- Kontschan, J. & Hajizadeh, J. (2013) First record of the family Macrodinychidae Hirschmann, 1975 (Acari: Uropodina) from Iran. *Persian Journal of Acarology*, 2(1): 189–193.
- Kontschán, J., Wang, G-Q. & Neményi, A. (2015) *Nenteria lii* sp. n. (Acari: Mesostigmata: Nenteriidae) a new Bamboo leaf litter dwelling Uropodina species (Acari: Mesostigmata) from Xinxiang (Henan, China) with notes to the bamboo associated mites in Henan (China). *Acta Phytopathologica et Entomologica Hungarica*, 50(2): 195–208.
- Koroleva, E.V. (1976) New species of mites of the genus *Olopachys* Berlese, 1910 (Parasitiformes, Pachylaelaptidae). *Entomologicheskoe Obozrenie*, 55: 480–496.
- Koroleva, E.V. (1977) Novye vidy kleshchei roda *Pachylaelaps* Berlese, 1888 (Parasitiformes, Pachylaelaptidae). *Parazitologicheskii Sbornik*, 27: 119–148.
- Koyumdjieva, M.I. (1981) Gamasid mites (Gamasoidea, Parasitiformes) associated with scarabaeid beetles (Coleoptera, Scarabaeidae) in Bulgaria. *Acta Zoologica Bulgarica*, 17: 17–26.
- Kramer, P. (1876) Zur Naturgeschichte einiger Gattungen aus der Familie der Gamasiden. *Archiv für Naturgeschichte*, 42: 46–105 + plates IV–V.
- Kramer, P. (1881) Ueber die Prinzipien der Classification bei den Gamasiden. *Zeitschrift für die Gesamte Naturwissenschaften Halle*, 54: 638–642.
- Kramer, P. (1882) Ueber Gamasiden. *Archiv für Naturgeschichte*, 48: 374–434 + plates XIX–XX.

- Krantz, G.W. (1960) A re-evaluation of the Parholaspinæ Evans 1956 (Acarina: Mesostigmata: Macrochelidae). *Acarologia*, 2(4): 393–433.
- Krantz, G.W. (1978) *A manual of acarology*. 2nd Edition. O.S.U. Book Stores, Corvallis, Oregon, 509 pp.
- Lapinya, I.M. (1976) Free-living gamasoid mites of the family Laelaptidae Berlese, 1892 in the fauna of Latvian SSR. *Latvijas Entomologs*, 19: 20–64.
- Latifi, M., Glida, H., Torabi, A. & Bertrand, M. (2006) *Holaspina* (syn. *Parholaspulus*) *persicum*, a new species of Parholaspididae from Iran (Acari: Mesostigmata). *Acarologia*, 46 (3–4): 189–194.
- Latreille, P.A. (1795) Observations sur la variété des organes de la bouche des tiques, et distribution méthodique des insectes de cette famille d'après les caracteres établis sur la conformation de ces organes. *Magasin Encyclopedia*, 4: 15–20.
- Latreille, P.A. (1806) Genera Crustaceorum et Insectorum secundum ordinem naturalem in familias disposita, iconibus exemplisque plurimus explicata. Vol. 1. König, Paris, xviii + 302 pp. + 16 plates. DOI: [10.5962/bhl.title.65741](https://doi.org/10.5962/bhl.title.65741)
- Latreille, P.A. (1829) Les Arachnides (Arachnides). In: Cuvier, G. (Ed.), Le Regne Animal, 2nd ed., vol. 4. Déterville, Paris, pp. 206–291.
- Leitner, E. (1946) Zur Kenntnis der Milbenfauna auf Düngerstätten. *Zentralblatt für das Gesamtgebiet der Entomologie Lienz*, 1(5–6): 1–48.
- Leitner, E. (1949) Zur Kenntnis der Gattung Digamasellus Berlese 1905. *Zentralblatt für das Gesamtgebiet der Entomologie, Lienz*, 3: 51–62.
- Lekveishvili, M. & Klompen, H. (2004) A new species of Sejidae (Acari: Mesostigmata) from the Southeastern U.S.A. *International Journal of Acarology*, 30(3): 229–238.
- Leonardi, G. (1899a) Prima lista di Acari raccolti a Portici. *Annali della Regia Scuola Superiore di Agricoltura di Portici*, 1: 493–525.
- Leonardi, G. (1899b) Nuove specie di Acari trovate a Portici. In: Canestrini, G. (Ed.), Prospetto dell'acarofauna Italiana. Parte VIII. *Stabilimento Prosperini, Padova*, pp. 922–928.
- Lindquist, E.E. (1961) Taxonomic and biological studies of mites of the genus Arctoseius Thor from Barrow, Alaska (Acarina: Aceosejidae). *Hilgardia*, 30(11): 301–350. DOI: [10.3733/hilg.v30n11p301](https://doi.org/10.3733/hilg.v30n11p301)
- Lindquist, E.E. (1964) *A revision of mites of subfamily Blattisociinae (Acarina: Blattisociidae) in America North of Mexico*. Ph. D. Dissertation, University of California, Berkeley, 413 pp.
- Lindquist, E.E. (1975) *Digamasellus* Berlese, 1905, and *Dendrolaelaps* Halbert, 1915, with descriptions of new taxa of Digamasellidae (Acarina: Mesostigmata). *The Canadian Entomologist*, 107: 1–43.
- Lindquist, E.E. & Evans, G.O. (1965) Taxonomic concepts in the Ascidae, with a modified setal nomenclature for the idiosoma of the Gamasina (Acarina: Mesostigmata). *Memoirs of the Entomological Society of Canada*, 47: 1–65. DOI: [10.4039/entm9747fv](https://doi.org/10.4039/entm9747fv)
- Lindquist, E.E., Krantz, G.W. & Walter, D.E. (2009) Order Mesostigmata. In: Krantz, G.W. and Walter, D.E. (Eds.), *A manual of acarology*. Texas Tech University Press, USA, pp. 124–232.
- Lindquist, E.E. & Moraza, M.L. (2009) *Anystipalpus*, *Antennoseius* and *Vitzthumia*: a taxonomic and nomenclatural conundrum of genera (Acari: Mesostigmata: Dermanyssina), with description of four species of *Anystipalpus*. *Zootaxa*, 2243: 1–39.
- Linnaeus, C. (1758) *Systema Naturae*. Vol. 1. Regnum Animale. 10th Edition. Laurentii Salvii, Holmiae, 824 pp.

- Livshits, I.Z. & Mitrofanov, V.I. (1975) New species of Ameroseiidae (Parasitiformes) from Crimea. *Zoologicheskyy Zhurnal*, 54: 462–464.
- Luxton, M. (1998) The oribatid and parasitiform mites of Ireland, with particular reference to the work of J.N. Halbert (1872–1948). *Bulletin of the Irish Biogeographical Society*, 22: 2–72.
- Ma, L.-M. (1996) Three new species of the genus *Hypoaspis* from Jilin province, China (Acari: Laelapidae). *Acta Zootaxonomica Sinica*, 21: 48–54.
- Ma, L.-M. (2006) New synonyms of gamasid mites (Acari: Mesostigmata). *Acta Arachnologica Sinica*, 15: 23–26.
- Ma, L.-M. (2016) New synonyms of Mesostigmata mites (Acari). *Acta Arachnologica Sinica*, 25: 95–98.
- Ma, L.-M. & Lin, J.-Z. (2009) On five new species of the genera *Hypoaspis* and *Cosmolaelaps*, with supplementary descriptions of *Cosmolaelaps xiajiangensis* and *Haemolaelaps cordatus* (Acari: Mesostigmata: Laelapidae). *Acta Arachnologica Sinica*, 18: 28–39.
- Ma, L.M., Ho, C.C. & Wang, S.C. (2014) Two new species of Digamasellidae from Taiwan (Acari: Mesostigmata). *Zootaxa*, 3768: 43–58. DOI: [10.11646/zootaxa.3768.1](https://doi.org/10.11646/zootaxa.3768.1)
- Maghami, G. (1968) External parasites of live stocks in Iran. *Archives of Razi Institute*, 20: 81–83.
- Mahjoori, M. & Hajizadeh, J. (2014) Fauna and identification key for mites of superfamily Ascoidea (Acari: Mesostigmata) of olive orchards in Guilan Province, Iran with a new species record for Iran mites fauna. *Plant Pests Research*, 4(3): 61–72.
- Mahjoori, M., Hajizadeh, J. & Abbasii-Mozhdehi, M.R. (2014) Mites of the family Laelapidae (Acari: Mesostigmata) associated with olive orchards in Guilan Province Iran. *Linzer Biologische Beitrage*, 46(2): 1599–1606.
- Mahjoori, M., Hajizadeh, J. & Abbasii-Mozhdehi, M.R. (2015) A checklist and a key for the phytoseiid and blattisociid mites (Acari: Phytoseioidea) associated with olive orchards in Guilan Province Iran. *Entomofauna*, 36(8): 97–108.
- Mahpikaran, M., Kazemi, S. & Bahrami, F. (2012) Edaphic mesostigmatic mites (Acari: Mesostigmata) of Bojnurd region. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 473.
- Majidi, M. & Akrami, M.A. (2013) Introduction of some mesostigmatic and astigmatic mites associated with the date palms in Larestan, (Fars Province), Southern Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 3.
- Makarova, O.L. (1996) Reviziya gamazovykh kleshchey gruppy copridis roda *Parasitus* (Parasitiformes, Mesostigmata, Parasitidae). *Zoologicheskii Zhurnal*, 75: 1620–1630.
- Makarova, O.L. (1998) A new eviphidid mite genus (Parasitiformes; Mesostigmata; Eviphididae) associated with the dung beetle *Scarabaeus transcaspicus* Stofa (Coleoptera; Scarabaeidae) in Turkmenistan. *Acarologia*, 39: 115–122.
- Malek-Hosseini, M.J. & Zamani, A. (2017) A checklist of subterranean arthropods of Iran. *Subterranean Biology*, 21: 19–46. DOI: [10.3897/subtbiol.21.10573](https://doi.org/10.3897/subtbiol.21.10573)
- Malek-Hosseini, M.J., Sadeghi, S., Bakhshi, Y. & Dashan, M. (2016) Ectoparasites (Insecta and Acari) associated with bats in South and South-Western Caves of Iran. *Ambient Science*, 3(1): 22–28. DOI: [10.21276/ambi.2016.03.1.ra03](https://doi.org/10.21276/ambi.2016.03.1.ra03)
- Malek-Shahkouyi, M., Afshari, A. & Nemati, A. (2011a) Pseudolaelapinae: a new subfamily for Iranian mite fauna and its taxonomic position. *Abstract and Proceeding Book of the Second Iranian Pest Management Conference, Kerman, Iran*, p. 5.

- Malek-Shahkouyi, M., Afshari, A. & Nemati, A. (2011b) Report of some edaphic mesostigmatic mites (Acari: Mesostigmata) from Gorgan region, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 39.
- Maleki, S., Ostovan, H., Baniamერი, V. & Joharchi, O. (2016) Biodiversity of mesostigmatic soil mite fauna (Acari: Mesostigmata) of a City park located in Tehran, Iran. *Journal of Entomological Society of Iran*, 36(3): 181–194.
- Malekshah-koochi, S., Nemati, A. & Afshari, A. (2014) A new species of *Pseudoparasitus* Oudemans (Acari: Mesostigmata: Laelapidae) from Iran. *Journal Crop Protection*, 3(2): 255–263.
- Malekzadeh, M., Arbabi, M. & Shakerzadeh, A. (2000) Studies on fauna of citrus mites in Dezful area. *Abstract Book of the 14th Iranian Plant Protection Congress, Isfahan, Iran*, p. 265.
- Maneshi, S., Ostovan, H. & Soleimani, M. (2012) Mesostigmatic mites (Acari: Mesostigmata) associated with apple trees in Sepidan-Homayjan region. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 519.
- Mansour Ghazi, M., Kamali, K., Arbabi, M. & Khanizad, A. (2006) Faunistic study of strawberry mites of Kordestan Province. In: Manzari, S. (Ed.), *Abstract Book of the 17th Iranian Plant Protection Congress, Karaj, Iran*, p. 181.
- Manzari, S., Farrokhi, S., Shahbazvar, N. & Hesseini, R. (2018) Natural enemies of the whitefly *Aleuroclava jasmini* sensu lato (Hem.: Aleyrodidae) in Tehran green spaces. In: Pourrahim, R. & Farzadfar, S. (Eds.), *Proceedings of the 23rd Iranian Plant Protection Congress, 27–30 August, Gorgan University of Agricultural Sciences and Natural Resources, Iran*, p. 923.
- Marais, J.F. & Loots, G.C (1972) A new mite of the genus *Ololaelaps* Berlese from the Congo. *Revue de Zoologie et de Botanique Africaines*, 85(1–2): 30–36.
- Maroufpoor, M., Noei, J., Faizi, F. & Ostovan, H. (2017) Fauna of mites associated with stored wheat in Kurdistan Province, Iran. In: Hajiqanbar, H. & Saboori, A. (Eds.), *Abstract book of the Third International Persian Congress of Acarology, Tehran, Iran*, p. 28.
- Maroufpoor, M. & Ostovan, H. (2017) Fauna of mites associated with stored wheat in Kurdistan province and one new record for Iranian mite fauna. *Journal of Animal Environment*, 9(1): 149–158.
- Mašán, P. (1998) *Ameroseius fungicolis* sp. n. and *A. callosus* sp. n., two new ameroseiid species (Acarina, Mesostigmata) associated with wood-destroying fungi. *Biologia*, 53: 645–649.
- Mašán, P. (2001) Mites of the Cohort Uropodina (Acarina, Mesostigmata) in Slovakia. *Annotationes Zoologicae et Botanicae*, 223: 1–320.
- Mašán, P. (2017) A revision of the family Ameroseiidae (Acari, Mesostigmata), with some data on Slovak fauna. *ZooKeys*, 704: 1–228. DOI: [10.3897/zookeys.704.13304](https://doi.org/10.3897/zookeys.704.13304)
- Mašán, P., Babaeian, E. & Kafi, P. (2016) A new mite of the genus *Alliphis* Halbert, 1923 from Iran (Acari: Eviphididae), with a summary of the world fauna. *Zootaxa*, 4067(3): 373–382. DOI: [10.11646/zootaxa.4067.3.6](https://doi.org/10.11646/zootaxa.4067.3.6)
- Mašán, P., Hajizadeh, J. & Ramroodi, S. (2015) Three new mites of the genus *Pseudolaelaps* Berlese, 1916 (Acari: Mesostigmata, Pseudolaelapidae) from Iran, with an updated key to known species. *Zoology in the Middle East*, 61(1): 81–89.
- Mašán, P. & Halliday, R.B. (2009) Three new genera of the mite family Eviphididae (Acari: Mesostigmata). *Zootaxa*, 2013: 43–57.
- Mašán P., Halliday B. (2013) Review of the mite family Pachylaelapidae (Acari: Mesostigmata). *Zootaxa*, 3776(1): 1–66. DOI: [10.11646/zootaxa.3776.1.1](https://doi.org/10.11646/zootaxa.3776.1.1)

- Masán, P., Mojahed, S., Hajizadeh, J., Hosseini, R. & Ahadiyat, A. (2018) On remarkable *Pachylaelaps* species with unusual sperm induction system in females (Acari, Mesostigmata, Pachylaelapidae). *Systematic and Applied Acarology*, 23(9): 1726. DOI: [10.11158/saa.23.9.2](https://doi.org/10.11158/saa.23.9.2)
- Masnavipour, M., Kazemi, S., Latifi, M. & Ziaaddini, M. (2011) Edaphic mesostigmatic mites (Acari: Mesostigmata) fauna of north-western Kerman Province, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 41.
- Masnavipour, M., Kazemi, S., Latifi, M. & Ziaaddini, M. (2014) Fauna of edaphic mites of the subcohort Dermanyssiae (Mesostigmata: Gamasina) in northwestern area of Kerman Province. *Taxonomy and Biosystematics*, 20: 37–48.
- Masoomi, E., Joharchi, O. & Jalalizand, A. (2016) A new species of *Laelaspis* Berlese (Acari: Laelapidae) associated with *Tetramorium* sp. (Hymenoptera: Formicidae) from Iran. *Persian Journal of Acarology*, 5(1): 27–34.
- Masoudian, F. & Khanjani, M. (2013) Mites associated with some medicinal plants (Asteraceae) in Hamedan, Iran. *Journal of Crop Protection*, 2(2): 209–218.
- Mégnin, P. (1876) Mémoire sur l'organisation et la distribution zoologique des acariens de la famille des gamasidés. *Journal l'Anatomie de Physiologie Normales Pathologiques l'Hommes et des Animaux*, 12: 288–336 + 2 plates.
- Mehranian, M. (2014) A new species of the genus *Cheiroseius* Berlese (Acari: Mesostigmata: Ascidae) from Iran. *Biologia*, 69(3): 350–353.
- Mehrnejad, M.R. & Ueckermann, E.A. (2001) Mites associated with pistachio trees (Anacardiaceae) in Iran (I). *Systematic and Applied Acarology Special Publications*, 6: 1–12.
- Mehrzaad, N., Kazemi, S., Latifi, M. & Ziaaddini, M. (2011) Mesostigmatic mites (Acari) associated with Coleoptera in Bam region, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 60.
- Mehrzaad, N., Kazemi, S. & Masnavipour, M. (2012) Soil-inhabiting Mesostigmata (Acari) in Bam region, Kerman Province. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 471.
- Mehrzaad, N., Masnavipour, M., Kazemi, S., Latifi, M. & Ziaaddini, M. (2013) A new record of the family Parasitidae (Acari: Mesostigmata) from Iran. *Journal of Entomology and Pathology*, 80(2): 189–190.
- Memarzadeh, S., Ostovan, H., Hesami, S. & Gheibi, M. (2022) Species diversity of Mesostigmatic mites (Acari: Mesostigmata) in Darab region. *IAU Journal of Entomological Research*, 14(3): 214–235.
- Metwally, A.M. & Ibrahim, G.A. (1985) Description of different stages of *Androlaelaps* (*A.*) *kifli* n. sp. (Acarina: Laelapidae: Mesostigmata). *Proceedings 6th Arab Pesticide Conference, Tanta University, Tanta*, 11: 309–316.
- Michael, A.D. (1891) On the association of gamasids with ants. *Proceedings of the Zoological Society, London*, 4: 638–654.
- Michael, A.D. (1894) Notes on the Uropodidae. *Journal of the Royal Microscopical Society*, 1894: 289–319 + plates VI–VII. DOI: [10.1111/j.1365-2818.1894.tb00029.x](https://doi.org/10.1111/j.1365-2818.1894.tb00029.x)
- Mineiro, J.L.D.C., Lindquist, E.E. & De Moraes, G.J. (2009) Edaphic ascid mites (Acari: Mesostigmata: Ascidae) from the state of São Paulo, Brazil, with description of five new species. *Zootaxa*, 2024: 1–32.
- Mirfakhraie, S., Babri-Naghade, D. & Badiie, E. (2017) Diversity of Mesostigmatid edaphic mites in Pardis of Urmia University. *Journal of Animal Environment*, 9(2): 273–284.

- Modarres Awal, M. (1994) *List of agricultural pests and their natural enemies in Iran*. Ferdowsi University of Mashhad Press, p. 364.
- Modarres Awal, M. (1997) *List of agricultural pests and their natural enemies in Iran (revised edition)*. Ferdowsi University of Mashhad Press, p. 429.
- Modarres Awal, M. (2012) *List of agricultural pests and their natural enemies in Iran (revised edition)*. Ferdowsi University of Mashhad Press, p. 579.
- Moghimi, F., Ahadiyat, A., Karaca, M., Kiadaliri, H. & Urhan, R. (2021) Description of *Prozercon caspiensis* sp. nov. (Acari: Mesostigmata: Zerconidae) from Iran, with descriptions of male and larva of *P. dominiaki* Błazsak, 1979. *Systematic and Applied Acarology*, DOI: [10.11158/saa.26.9.6](https://doi.org/10.11158/saa.26.9.6)
- Moghimi, F., Ahadiyat, Kiadaliri, H. & Karaca, M. (2019) A new species of the genus *Olopachys* (Mesostigmata: Pachylaelapidae) from Mazandaran Province, Iran, with a review of the Iranian species. *International Journal of Acarology*, 45(8): 428–437.
- Mohajeri, A.R., Haghighat-Khan, M. & Ostovan, H. (2009) Mites (Acari) associated with date palms in Khuzestan province. *Abstract book of the 12th Iranian Plant Protection Congress, Karaj Junior College of Agriculture, Karaj, Iran*, p. 204.
- Mohamadi Ghalehjoughi, E., Tavassoli, M. & Naem, S. (2017) *Dermanyssus gallinae* (Acari, Mesostigmata) in the barn swallow (*Hirundo rustica*) nests in Urmia suburb, North West of Iran. *Persian Journal of Acarology*, 6(2): 95–102.
- Mohammad-Doustaresharaf, M., Mirfakhraie, S., Zargarani, M.R. & Azimi, N. (2016a) Species diversity of edaphic mesostigmatid mites (Acari: Mesostigmata) of Arasbaran forest. *Forest Research and Development*, 2(1): 85–96.
- Mohammad-Doustaresharaf, M., Shirdel, D. & Mirfakhraie, S. (2016b) Introduction to Some Edaphic Mesostigmatic mites (Acari: Mesostigmata) from Arasbaran Forests, North of East Azarbaijan Province. *Applied Researches in Plant Protection*, 2: 227–242.
- Mohammad-Doustaresharaf, M., Karaca, M., Bagheri, M. & Urhan, R. (2018a) A new record of mesostigmatid mites (Acari: Zerconidae) for the Iranian fauna: *Zercon ozkani* Urhan & Ayyıldız, 1994. In: Semiz, G. & Akyıldız G. K. (Eds.), *The 4rd International Symposium on EuroAsian Biodiversity, Kiev, Ukraine*, p. 240.
- Mohammad-Doustaresharaf, M., Karaca, M., Bagheri, M. & Urhan, R. (2023) A taxonomic study on the zerconid mites (Acari: Zerconidae) in northwestern Iran: descriptions of three new species with three new records. *Systematic and Applied Acarology*, 28(3): 429–460. DOI: [10.11158/saa.28.3.3](https://doi.org/10.11158/saa.28.3.3)
- Mohammad-Doustaresharaf, M., Kazemi, S. & Bagheri, M. (2018b) First record of *Haemogamasus hirsutus* (Acari: Mesostigmata: Laelapidae) from Iran. In: Pourrahim, R. & Farzadfar, S. (Eds.), *Proceedings of the 23rd Iranian Plant Protection Congress, 27–30 August, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran*, p. 1614.
- Mohammadi, L. & Hajizadeh, J. (2022a) Introduction of a species from the genus *Lasioseius* (Mesostigmata: Blattisociidae) for the mite fauna of Iran. In: Saboori, A., Rezapanah, M., Shirazi, J., Rahnema, K., Bakhshi, M., Jahanshahi Afshar, F. & Najafi, H. (Eds.), *24th Iranian Plant Protection Congress, 3-6 September 2022, IRIPP, Tehran*. p. 365.
- Mohammadi, L. & Hajizadeh, J. (2022b) The genus *Dendroseius* Karg (Acari: Digamasellidae) in Iran, with description of the male and deutonymph of *Dendroseius amoliensis*. *Acarologia*, 62(3): 637–652. DOI: [10.24349/aws7-hhka](https://doi.org/10.24349/aws7-hhka)

- Mohammadi, L. & Hajizadeh, J. (2023) Review of the genus *Dendrolaelaps* Halbert (Acari: Digamasellidae) in Iran, with description of a new species and seven new records. *International Journal of Acarology*, 49(1): 54–66. DOI: [10.1080/01647954.2023.2180084](https://doi.org/10.1080/01647954.2023.2180084)
- Mohammadi, E., Izadi, H., Khanjani, M. & Samia, M.A. (2012) Faunistic study of Mesostigmatic mites (Acari: Mesostigmata) on fruit trees in Rafsanjan region of Iran. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 508.
- Mohebbi, M., Rezai, H., Farahnak, A. & Kanani Nootash, A. (1997) A survey on parasitic fauna (Helminths and Ectoparasites) of the rodents in Meshkinshahr District North West Iran. *Journal of Faculty of Veterinary Medicine University of Tehran*, 25(3): 23–25.
- Mohseni, M. & Nemati, A. (2014) First record of two species of *Antennoseius* Berlese (Mesostigmata: Ascidae) from Iran. *Proceedings of the 21st Iranian Plant Protection Congress, Urmia, Iran*, p. 954.
- Mojahed, S., Hajizadeh, J., Hosseini, R. & Ahadiyat, A. (2017) Contribution to the Pachylaelapidae (Acari: Mesostigmata) fauna in some parts of Guilan Province of Iran. *Persian Journal of Acarology*, 6(4): 269–285.
- Mojahed, S., Hajizadeh, J., Hosseini, R. & Ahadiyat, A. (2019) A new species of *Olopachys* Berlese (Acari: Pachylaelapidae) from Iran with a key to the world species. *Acarologia*, 59(1): 46–56. DOI: [10.24349/acarologia/20194313](https://doi.org/10.24349/acarologia/20194313)
- Mojahed, S., Hosseini, R., Hajizadeh, J. & Ahadiyat, A. (2018) Molecular and morphological identification of two species of mites of the family Pachylaelapidae Berlese (Acari: Mesostigmata) in Guilan province. *Journal of Entomological Society of Iran*, 38(1): 117–127. DOI: [10.22117/jesi.2018.122186.1233](https://doi.org/10.22117/jesi.2018.122186.1233)
- Mojaz, M. & Kazemi, S. (2020) Fauna of soil-inhabiting Mesostigmata (Acari) in Mahan city and new report of a subgenus and a species of the subfamily Pergamasinae (Parasitidae) from Iran. *Journal of Entomological Society of Iran*, 40(3): 255–266.
- Moniez, E. (1892) Memoirs sur quelques acariens et Thysanoures parasites ou commensaux des fourmis. *Revue biologique du nord de la France*, 4: 1–12
- Montazeri, N., Nemati, A., Ostovan, H. & Gwiazdowicz, D. (2011) Fauna of some mesostigmatic mites (Acari: Mesostigmata) in Shiraz region, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 44.
- Moodi, B., Aliabadian, M., Moshaverinia, A., Mirshamsi Kakhki, O. & Faraji, F. (2014) Mites associated with passerine birds in eastern Iran. *International Journal of Acarology*, 40(2): 133–137.
- Moradi Faradonbeh, M., Khajehali, J., Amani, M. & Moraza, M.L. (2018) First report of two species of Digamasellidae (Acari: Mesostigmata) from Iran. In: Pourrahim, R. & Farzadfar, S. (Eds.), *Proceedings of the 23rd Iranian Plant Protection Congress, 27–30 August, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran*, p. 1632.
- Moradian, H., Ostovan, H. & Haghani, M. (2011a) Faunistic survey of edaphic mesostigmatic mites (Acari: Mesostigmata) associated with corn and rapeseed fields in Gachsaran, Iran. *Global Conference on Entomology, 5–9 March, Chiang Mai, Thailand*, p. 108.
- Moradian, H., Ostovan, H. & Haghani, M. (2011b) Faunistic survey of edaphic mesostigmatic mites (Acari: Mesostigmata) in rapeseed and corn farms in Gachsaran, Iran. *Journal of Entomological Research*, 3(1): 411–422.
- Moraes, G.J., Abo-Shnaf, R., Pérez-Madruga, Y., Sánchez, L., Karmakar, K. & Ho, C.C. (2015) The *Lasioseius* phytoseioides species group (Acari: Blattisociidae): new characterisation, description

- of a new species, complementary notes on seven described species and a taxonomic key for the group. *Zootaxa*, 3980(1): 1–41.
- Moraes, G.J. de, Britto, E.P.J., Mineiro, J.L. & Halliday, B. (2016) Catalogue of the mite families Ascidae Voigts & Oudemans, Blattisociidae Garman and Melicharidae Hirschmann (Acari: Mesostigmata). *Zootaxa*, 4112 (1): 1–299. DOI: [10.11646/zootaxa.4112.1.1](https://doi.org/10.11646/zootaxa.4112.1.1)
- Moraes, G.J. de, Moreira, G.F., Freire, R.A.P., Beaulieu, F., Klompen, H. & Halliday, B. (2022) Catalogue of the free-living and arthropod-associated Laelapidae Canestrini (Acari: Mesostigmata), with revised generic concepts and a key to genera. *Zootaxa*, 5184(1): 1–509.
- Moravvej, G., Hamidi, K. & Nourani, L. (2016) Relationship between the sex and age of *Mus musculus* (Rodentia: Muridae) with ectoparasites prevalence in northeast of Iran. *Persian Journal of Acarology*, 5(1): 51–62.
- Moraza, M.L. (2004) *Rhodacarella*, a new genus of Rhodacaridae mites from North America (Acari: Mesostigmata: Rhodacaridae). *Zootaxa*, 470: 1–10.
- Moraza, M.L. & Kazemi, S. (2009) A new species of *Antennoseius* (*Vitzthumia*) Thor (Acari: Mesostigmata: Ascidae), associated with carabid beetles in Iran and a key to species. *International Journal of Acarology*, 35(1): 50–65.
- Moraza, M.L. & Kazemi, S. (2012) Description of a new millipede-associated species (Acari: Mesostigmata: Laelapidae) from Iran and a key to species of *Julolaelaps* Berlese. *International Journal of Acarology*, 38(1): 6–17.
- Moraza, M.L. & Peña, M.A. (2005) Mesostigmata mites (Acari: Mesostigmata) in selected habitats of Tenerife island (Canary Islands). *Revista Ibérica de Aracnología*, 11: 61–68.
- Mossadegh, M.S. (1991) Geographical distribution, levels of infestation and population density of the mite *Euvarroa sinhai* Delfinado and Baker (Acarina: Mesostigmata) in *Apis florea* F. colonies in Iran. *Apidologie*, 22: 127–134.
- Mosaddegh, M.S. (1997) Some mites of the honeybee *Apis mellifera* L. hives in Iran. *The Scientific Journal of Agriculture*, 19(1, 2): 7–16.
- Mosaddegh, M.S. (1998) Mites (Acari) associated with *Apis florea* F. in Iran. *Abstract Book of the 13th Iranian Plant Protection Congress, Karaj, Iran*, p. 242.
- Mossadegh, M.S. & Komeili Birjandi, A. (1986) *Euvarroa sinhai* Delfinado and Baker (Acarina: Mesostigmata): a parasitic mite on *Apis florea* F. in Iran. *American bee Journal*, 126: 684–685.
- Mosavi, S.H., Ostovan, H. & Adldoost, H. (2004) Study on the mite fauna of potato fields in Orumieh. *Abstract Book of the 16th Iranian Plant Protection Congress, Tabriz, Iran*, p. 263.
- Motevalli-Haghi, F., Gholami, S.H., Sharif, M., Moabedi, I., Sobhani, Z., Sedaghat, M.M. & Najafpour, A.A. (2002) Study of rodents ectoparasites in urban areas of Mazandaran Province. *Iranian Journal of Mazandaran University Medical Science*, 36(12): 72–77.
- Motevalli-Haghi, F., Gholami, S.H., Sharif, M., Sedaghat, M.M. & Parsi, B. (2000) Study of rodents ectoparasites in Sari City and central regions of Mazandaran Province. *Iranian Journal of Mazandaran University Medical Science*, 27(10): 1–7.
- Mousavi, R., Babaeian, E. & Saboori, A. (2021) Mites of the superfamily Eviphidoidea (Acari: Mesostigmata) of Damavand County with six new records to the fauna of Tehran Province, Iran. *Acta Biologica*, 28: 5–15. DOI: [10.18276/ab.2021.28-01](https://doi.org/10.18276/ab.2021.28-01)
- Mousavi, S.H., Ostovan, H. & Kamali, K. (2005) Study on the mite fauna of potato fields in Iran, West Azarbayjan Prvince. *5th Asia-Pacific Congress of Entomology, 18-21 October, Jeju, Korea*, p. 212.

- Müller, O.F. (1776) *Zoologiae Danicae Prodromus, seu Animalium Daniae et Norvegicae Indigenarum. Characteres, Nomina, et Synonyma Imprimis Popularum*. Hafniae, Copenhagen, 282 pp. DOI: [10.5962/bhl.title.13268](https://doi.org/10.5962/bhl.title.13268)
- Müller, J. (1859) Beitrag zur Höhlenfauna Mährens. Lotos. *Zeitschrift für Naturwissenschaften*, 9: 26–33.
- Müller, J. (1860) Insekten Epizoen der mährischen Fauna. *Jahresbericht der KaiserlichKöniglich Mährisch-Schlesische Gesellschaft zur Beförderung des Ackerbaues, der Naturund Landwirtschaft, Brünn*, 1859: 157–184.
- Naghbinejad, M., Ostovan, H., Kamali, K. & Ahadiyat, A. (2012) Mites of the families Ascidae, Blattisociidae and Ameroseiidae in Estahban region. *Journal of Entomological Research*, 4(1): 63–78.
- Nasr, A.K. & Abou-Awad, B.A. (1986) Four new species of family Ameroseiidae from Egypt (Acari: Mesostigmata). *Bulletin de la Société Entomologique d'Égypte*, 66: 75–83.
- Nasr, A.K. & Afifi, A.M. (1986) A new species of genus *Sessluncus* Canestrini, 1898 from Egypt (Acari–Gamasida: Ologamasidae). *Bulletin of the Zoological Society of Egypt*, 34: 17–20.
- Nasr, A.K. & Momen, F.M. (2016) A new species of the genus *Cosmolaelaps* Berlese (Acari: Laelapidae) from Egypt. *Acarologia*, 56: 257–264.
- Nasr, A.K. & Nawar, M.S. (1989) Two new species of laelapid mites from Egypt (Acari: Mesostigmata). *Bulletin de la Société entomologique d'Égypte*, 68: 75 – 84.
- Nateghpour, M., Akhavan, A.A., Hanafi-Bojd, A.A., Telmadarraiy, Z., Ayazian Mavi, S., HosseiniVasoukolaei, N., Metvalli-Haghi, A. & Akbarzadeh, K. (2013) Wild rodents and their ectoparasites in Baluchistan area, southeast of Iran. *Tropical Biomedicine* 30(1): 72–77.
- Navaran, A.H. & Hajizadeh, J. (2021) Predator and parasite mites associated with aphids and scale insects in Guilan Province of Iran. *Journal of Biological Studies*, 4(3): 151–166.
- Nazari, M. & Hajizadeh, J. (2013) A checklist to the parasitid mites (Mesostigmata, Parasitidae) of Iran with nine new records and a key for Guilan Province Prasitidae species. *Entomofauna*, 34(30): 397–408.
- Nazari-Tajani, M., Hajizadeh, J. & Noei, J. (2012) First report of one pachylaelapid species (Mesostigmata: Pachylaelapidae) from Iran. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 510.
- Nemati, A. & Babaeian, E. (2010) Mites associated with insects in Chaharmahal va Bakhtiyari, Khuzestan and Bushehr Provinces. In: Manzari, S. (Ed.), *Abstract Book of 19th Iranian Plant Protection Congress, Tehran, Iran*, p. 364.
- Nemati, A., Babaeian, E. & Kamali, K. (2008a) Mites associated with some small mammals in Shahrekord. In: Manzari, S. (Ed.), *Abstract Book of 18th Iranian Plant Protection Congress, Hamedan, Iran*, p. 236.
- Nemati, A., Fahiminejad, M. & Kheradmand, K. (2008b) A survey of family Laelapidae (Acari: Mesostigmata) in Shahrekord area. In: Manzari, S. (Ed.), *Abstract Book of 18th Iranian Plant Protection Congress, Hamedan, Iran*, p. 276.
- Nemati, A. & Gwiazdowicz, D. (2011a) First report of mites of the family Ichthyostomogasteridae Sellnick (Acari: Mesostigmata) from Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 32.
- Nemati, A. & Gwiazdowicz, D. (2011b) First report of *Sejus australis* (Acari: Mesostigmata: Sejidae) from Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p.45.

- Nemati, A. & Gwiazdowicz, D.J. (2016a) A new genus and species of Laelapidae from Iran with notes on *Gymnolaelaps* Berlese and *Laelaspisella* Marais & Loots (Acari, Mesostigmata). *ZooKeys*, 549: 23–49.
- Nemati, A. & Gwiazdowicz, D.J. (2016b) Description of a new species of *Cosmolaelaps* Berlese and the male of *C. brevipedestra* (Karg) from Iran, with notes on some other species of *Cosmolaelaps* Berlese (Acari: Laelapidae). *Zootaxa*, 4066(5): 535–551.
- Nemati, A., Gwiazdowicz, D.J. & Khalili-Moghadam, A. (2018a) New data to the knowledge of *Gaeolaelaps* mites (Acari: Mesostigmata: Laelapidae). *Acarologia*, 53(3): 710–734. DOI: [10.24349/acarologia/20184266](https://doi.org/10.24349/acarologia/20184266)
- Nemati, A., Gwiazdowicz, D.J. & Khalili-Moghadam, A. (2018b) On *Androlaelaps elegantulus* (Berlese) and *Gaeolaelaps brevipilis* (Hirschmann, Bernhard, Greim & Götz) with a key to the *Gaeolaelaps* mites of Iran. *International Journal of Acarology*, 44(5): 1–9. DOI: [10.1080/01647954.2018.1487997](https://doi.org/10.1080/01647954.2018.1487997)
- Nemati, A., Gwiazdowicz, D., Khalili-Moghadam, A. & Riahi, E. (2012a) New species of Trigynaspida (Acari: Mesostigmata) from Iran. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 482.
- Nemati, A., Gwiazdowicz, D. J., Riahi, E. & Kheradmand, K. (2013a) A catalogue of mesostigmatid mites of Iran, part 3: family Ameroseiidae. *Iranian Journal of Entomology*, 3: 18–23.
- Nemati, A., Gwiazdowicz, D., Riahi, E. & Mohseni, M. (2012b) Catalogue of the Iranian mesostigmatid mites part1: family Ascidae. *International Journal of Agriculture and Crop Sciences*, 4(14): 1005–1011.
- Nemati, A., Gwiazdowicz, D.J., Riahi, E. & Mohseni, M. (2013b) Catalogue of mesostigmatid mites of Iran. Part 4: Parasitidae, Veigaiidae and Zerconidae. *Acarologia*, 53: 263–271.
- Nemati, A., Joharchi, O., Babaeian, E. & Gwiazdowicz, D.J. (2013c) A new species and new record of *Reticulolaelaps* Costa (Acari: Laelapidae) from Iran. *Zootaxa*, 3718(1): 73–80.
- Nemati, A.R., Kamali, K. & Mossadegh, M.S. (2000a) A faunistic survey of Laelapidae (Acari: Mesostigmata) mites in the soil of Ahvaz region, Khuzestan Province. *Abstract Book of 14th Iranian Plant Protection Congress, Isfahan University of Technology, Isfahan, Iran*, p. 333.
- Nemati, A.R. & Kavianpour, M. R. (2013) A new species of Laelapidae (Acari: Mesostigmata) from Iran. *Journal of Crop Protection*, 2(1): 63–73.
- Nemati, A. & Khalili-Moghadam, A. (2018) First species record of Schizogyniidae (Acari: Mesostigmata: Trigynaspida) from Asia. *Persian Journal of Acarology*, 7(1): 101–104.
- Nemati, A., Khalili-Moghadam, A. & Bahari-Babadi, A. (2017a) Study on the fauna of Laelapidae (Acari: Mesostigmata) in Shahrekord. *Proceedings of the 3rd National Conference on Animal Science, Skahrekord, Iran*, p. 264–265.
- Nemati, A., Khalili-Moghadam, A. & Gwiazdowicz, D.J. (2019) A review of the genus *Reticulolaelaps* Costa and redescription of *R. elsae* (Joharchi, Babaeian and Jalalizand). DOI: [10.22073/pja.v8i2.43017](https://doi.org/10.22073/pja.v8i2.43017)
- Nemati, A. & Mohseni, M. (2014) Two new species of *Gaeolaelaps* (Acari: Laelapidae) from Iran. *Zootaxa*, 3750(1): 71–82.
- Nemati, A., Khalili-Moghadam, A., Saeidi, Z. & Bahari-Babadi, A. (2017b) Fauna of Laelapidae (Acari: Mesostigmata) in Khuzestan Province. *Proceedings of the 3rd National Conference on Animal Science, Skahrekord, Iran*, p. 266–267.
- Nemati, A., Mohseni, M., Gwiazdowicz, D.J. & Kavianpour, M. (2012c) Fauna diversity of some mites of Mesostigmata (Acari) in Chaharmahal va Bakhtiyari and Khuzestan Province. *Abstract*

- book of the 1st International and 8th National Congress of Parasitology and Parasitic Diseases, Kerman, Iran*, p. 47.
- Nemati, A.R., Mossadegh, M.S. & Kamali, K. (2000b) Some mites the Laelapidae (Acari: Mesostigmata) collected from ant and termite nests in Ahvaz region, Khuzestan Province. *Abstract Book of 14th Iranian Plant Protection Congress, Isfahan University of Technology, Isfahan, Iran*, p. 381.
- Nemati, A.R., Mossadegh, M.S., Kamali, K. & Ostovan, H. (2000c) The external parasitic mites of *Rattus* spp. and *Mus musculus* mice in Ahvaz region. *Abstract Book of 14th Iranian Plant Protection Congress, Isfahan University of Technology, Isfahan, Iran*, p. 334.
- Nemati, A., Riahi, E. & Gwiazdowicz, D.J. (2015) Description of a new species of *Julolaelaps* (Acari, Mesostigmata, Laelapidae) from Iran. *ZooKeys*, 526: 105–116. DOI: [10.3897/zookeys.526.5946](https://doi.org/10.3897/zookeys.526.5946)
- Nemati, A., Riahi, E., Khalili-Moghadam, A. & Gwiazdowicz, D.J. (2018c) Catalogue of the Iranian Mesostigmata (Acari): the additions and updates of the previous catalogue. *Persian Journal of Acarology*, 7(2): 115–191. DOI: [10.22073/pja.v7i2.36985](https://doi.org/10.22073/pja.v7i2.36985)
- Nemati, A., Riahi, E., Mohseni, M. & Gwiazdowicz, D. (2012d) Catalogue of the Iranian mesostigmatid mites part 2: family Blattisociidae. *International Journal of Agriculture and Crop Sciences*, 4(19): 1415–1420.
- Nemati, A. & Vatankhah, F. (2016) A new species of *Allogamasellus* Athias-Henriot (Acari: Mesostigmata: Ologamasidae) from Iran. *International Journal of Acarology*, 42(3): 153–158. DOI: [10.1080/01647954.2016.1141984](https://doi.org/10.1080/01647954.2016.1141984)
- Nemati, A., Vatankhah, F. & Mossadegh, M.S. (2014) Report of a new genus and species of Eviphididae (Acari: Mesostigmata) from Iran. *Proceedings of the 21th Iranian Plant Protection Congress, Urmia, Iran*, p. 990.
- Nikbin, F., Rahimi-Far, Z., Nourian, A., Rezvan, H. & Sazmand, A. (2022) Mites of passerine birds of Hamedan, Iran. *Abstract book of the 4th International Persian Congress of Acarology, Mashahd, Iran*, p. 1162
- Noei, J., Hajizadeh, J., Salehi, L. & Ostovan, H. (2008) Mesostigmatic stored mites of rice in Guilan Province. In: Manzari, S. (Ed.), *Abstract Book of 18th Iranian Plant Protection Congress, Hamedan, Iran*, p. 277.
- Ogandzhanyan, A.M. (1969) New species of mite belonging to the genus *Alliphis* Halbert, 1923 (Parasitiformes, Gamasoidea) in Armenia. *Doklady Akademii Nauk Armenskoi SSR*, 49: 215–218.
- Ordoukhanian, C., Ahadiyat, A. & Joharchi, O. (2017) Edaphic gamasine mites (Mesostigmata: Gamasina) of the forests of the Arasbaran region, East Azarbaijan, Iran. In: Hajiqanbar, H. & Saboori, A. (Eds.), *Abstract book of the Third International Persian Congress of Acarology, Tehran, Iran*, p. 32.
- Ostovan, H. (2006a) Biodiversity of edaphic predatory mites associated with cucumber greenhouses in Tehran region. *International Symposium Advances in Soil and Soilless Cultivation under Protected Environment, 19–24 February Agadir, Morocco*, p. 117.
- Ostovan, H. (2006b) Biodiversity of edaphic predatory mites associated with rapeseed in the Karaj region. In: Shelton, A.M., Collin, H.L., Youjun, Z. & Qingjun, W. (Eds.), *The management of Diamondback moth and other crucifer pests*. *Proceedings of the Fifth International Workshop, China*, pp. 209–213.
- Ostovan, H. & Beyzavi, G. (2010) The first report of the genus *Asternolaelaps* and family Ichthyostomatogasteridae (Acari: Mesostigmata) from Iran. *Plant Protection Journal*, 2(3): 223–228.

- Ostovan, H. & Faraji, F. (2014) A new species of *Orthadenella* (Athias-Henriot) (Acari: Mesostigmata: Melicharidae) from Iran with comments on *O. lawrencei* (Evans). *International Journal of Acarology*, 40(8): 605–610.
- Ostovan, H. & Farzane, D. (2004) Biodiversity of macrochelid mites (Acari: Mesostigmata) in Tehran region. *Abstract Book of the 16th Iranian Plant Protection Congress, Tabriz, Iran*, p. 280.
- Ostovan, H. & Kamali, K. (1994) Mites of family Ascidae (Acari: Mesostigmata) associated with stored products in Kazerun, South of Iran. *Journal of Entomological Society of Iran*, 14: 9–18.
- 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. & Mosaddegh, M.S. (1999) Mites associated with honeybee (*Apis mellifera* L.) hives in Iran. *Abstract Book of the 35th International Congress of Apiculture (Apimondia), 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.
- Oudemans, A.C. (1901) Notes on Acari. Ser. 3. *Tijdschr. nederl. dierk. Vereen.*, Leyden, 7: 50–88.
- Oudemans, A.C. (1902) New list of Dutch Acari. Second Part. With remarks on known descriptions of a new subfamily, new genera and species. *Tijdschrift voor Entomologie*, 45: 1–52 + Plates 1–6.
- Oudemans, A.C. (1903a) Acarologische Aanteekeningen, VI. *Entomologische Berichten*, 1(12): 83–88.
- Oudemans, A.C. (1903b) Acarologische Aanteekeningen, VIII. *Entomologische Berichten*, 1(14): 100–103.
- Oudemans, A.C. (1903c) Acarologische Aanteekeningen. VII. *Entomologische Berichten*, 1(13), 91–92.
- Oudemans, A.C. (1905a) Acarologische Aanteekeningen XVII. *Entomologische Berichten*, 1(23): 222–226.
- Oudemans, A.C. (1905b) Acarologische Aanteekeningen. XIX. *Entomologische Berichten*, 2(25): 4–12.
- Oudemans, A.C. (1912) Acarologische Aanteekeningen, XL. *Entomologische Berichten*, 3(64): 231–236.
- Oudemans, A.C. (1915) Acarologische aanteekeningen. LVI. *Entomologische Berichten*, 4(83): 180–188.
- Oudemans, A.C. (1925) Acarologische Aanteekeningen LXXIX. *Entomologische Berichten*, 7(145): 26–34.
- Oudemans, A.C. (1929) Acarologische Aanteekeningen C. *Entomologische Berichten*, 8(170): 28–36.
- Oudemans, A.C. (1930) Acarologische Aanteekeningen CIV. *Entomologische Berichten*, 8(175): 135–140.
- Oudemans, A.C. (1931) Acarologische Aanteekeningen CIX. *Entomologische Berichten*, 8: 272–280.
- Oudemans, A.C. (1936) Kritisch Historisch Overzicht der Acarologie, Deerde Gedeelte, 1805–1850. Band A, Acari, Holothyroidea, Mesostigmata. E.J. Brill, Leiden, p. 430.
- Oudemans, A.C. (1938) Nieuwe vondsten op het gebied der Systematiek en der Nomenclatur der Acari. *Tijdschrift voor Entomologie*, 81: 2–10.
- Oudemans, A.C. (1939a) Neue Funde auf dem Gebiete der Systematik und der Nomenclatur der Acari. V. Zoologischer Anzeiger, 126 (11/12): 303–309.

- Oudemans, A.C. (1939b) Neue Funde auf dem Gebiete der Systematik und der Nomenclatur der Acari. IV. *Zoologischer Anzeiger*, 126(7–8): 195–201.
- Pakdad, K., Ahmadi, N.A., Aminalroaya, R., Piazak, N. & Shahmehri, M. (2012) A study on rodent ectoparasites in the North District of Tehran, Iran During 2007–2009. *Journal of Paramedical Sciences*, 3(1): 42–46.
- Pakyari, H. (2008) Mites of the family Laelapidae collected from Sorkheh Hesar Park of Tehran and new records of two species from Iran. In: Manzari, S. (Ed.), *Abstract Book of 18th Iranian Plant Protection Congress, Hamedan, Iran*, p. 280.
- Pakyari, H., Ostovan, H. & Kamali, K. (2006a) Report of *Evimirus uropodinus* (Acari: Eviphididae), as a new genus and species record from Iran. *Journal of Entomological Society of Iran*, 26(1): 99–100.
- Pakyari, H., Ostovan, H. & Kamali, K. (2006b) Edaphic mites (Mesostigmata) collected from Sorkheh Hesar Park of Tehran and new records of five species and one genus from Iran. In: Bruin, J. (Ed.), *Abstract Book of 12th International Congress of Acarology, Amsterdam, The Netherlands*, p. 153.
- Pakyari, H., Ostovan, H. & Kamali, K. (2006c) Specific diversity of (Family: Parasitidae) collected from Sorkheh Hesar Park of Tehran and new records of two species from Iran. In: Manzari, S. (Ed.), *Abstract Book of the 17th Iranian Plant Protection Congress, Karaj, Iran*, p. 193.
- Pakyari, H., Ostovan, H. & Kamali, K. (2008) The fauna of edaphic mites (Acari: Mesostigmata) in Sorche-Hesar forest Park, Tehran. Iran. *Journal of Entomological Society of Iran*, 27(2): 7–8.
- Pečina, P. (1970) Czechoslovak uropodid mites of the genus *Trachytes* Michael, 1894 (Acari, Mesostigmata). *Acta Universitatis Carolinae – Biologica*, 39–59.
- Pečina, P. (1980) Additional data on several Czechoslovak members of the subfamily Trachyuropodinae Berlese, 1918 (Uropodidae, Mesostigmata). *Acta Universitatis Carolinae – Biologica*, 1978(3–4): 357–388.
- Petrova, A.D. (1977) Family Parholaspididae. In: Ghilarov, M.S. & Bregetova, N.G. (Eds.), *Key to the Soil Inhabiting Mites. Mesostigmata*. Nauka Press. Leningrad, pp. 315–346 (In Russian).
- Petrova, A.D. & Taskaeva, E.Z. (1968) Gamasoid mites (Parasitiformes, Gamasoidea) from Southern China. Report II. [Гамазовые клещи (Parasitiformes, Gamasoidea) из южного Китая. Сообщение II]. *Zoologicheskij Zhurnal*, 47(8): 1179–1191.
- Plumari, M. & Kazemi, S. (2012) Redescription and neotype designation of *Lobogynium sudhiri* (Datta) (Acari: Diplogyniidae), a mite associated with beetles of the genus *Atholus* (Thomson) (Coleoptera: Histeridae) in the Palaearctic region. *Zootaxa*, 3352: 1–16.
- Postner, M. (1951) *Biologisch-Ökologische Untersuchungen an Hummeln und deren Nestern und biologische Beobachtungen an Hummelmilben*. Dissertation Universität Erlangen, Nürnberg, p. 106.
- Quintero-Gutiérrez, E.J. & Halliday, B. (2021) Review of the mite family Parholaspididae Evans, 1956 (Acari: Mesostigmata). *Zootaxa*, 5005(4): 401–459. DOI: [10.11646/zootaxa.5005.4.1](https://doi.org/10.11646/zootaxa.5005.4.1)
- Quintero-Gutiérrez, E.J., Sandmann, D., Cómbita-Heredia, O., Klarner, B., Widyastuti, R. & Scheu, S. (2020) Review of the mite genus *Krantzolaspina* Datta and Bhattacharjee (Mesostigmata: Parholaspididae) with redescription of *K. angustatus* nov. comb. (Ishikawa) from Indonesia. *ZooKeys*, 997: 47–68. DOI: [10.3897/zookeys.997.54262](https://doi.org/10.3897/zookeys.997.54262)
- Rack, G. (1972) Weitere Beobachtungen über Milben in Neubauten mit Beschreibung einer neuen Art, *Ameroseius pseudoplumosus* sp. n. (Acarina, Mesostigmata). *Entomologische Mitteilungen aus dem Zoologischen Museum Hamburg*, 4(77): 249–257.

- Rafinejad, J., Shayan, A., Tirgari, S., Basseri, H.R. & Nikpour, F. (2005) Parasitic arthropods of rodents in Khoram-Abad, Lorestan, Iran. *Proceedings of the Fifth International Conference on Urban Pests, Iran*, p. 363–369.
- Rahbari, S., Nabian, S. & Ronaghi, H. (2009) Haematophagus mites in poultry farms of Iran. *Iranian Journal of Arthropod-Borne Diseases*, 3(2): 18–21.
- Rahdar, M. & Vazirianzadeh, B. (2009) A case report of tropical rat mite infestation *Ornithonyssus bacoti* (Dermanyssidae: Acarina) in Ahvaz, SW Iran. *Jundishapur Journal of Microbiology*, 2: 78–80.
- Rahdar, M., Vazirianzadeh, B., Rointan, E.S. & Amraei, K. (2015) Identification of collected ectoparasites of rodents in the west of Khuzestan Province (Ahvaz and Hovizeh), southwest of Iran. *Asia Pacific Journal of Tropical Disease*, 5(8): 627–631.
- Rahbar Shahlan, F., Shirdel, D. & Bagheri, M. (2014) Mite fauna of poplar and elm trees in green landscape of Tabriz, East Azarbaijan Province. *Proceedings of the 21st Iranian Plant Protection Congress, Urmia, Iran*, p. 972.
- Rahmani, H. & Zare, M. (2011) Report of some edaphic mesostigmatic mites (Acari) from Iran and Zanjan Province. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 47.
- Rahmani, H., Kamali, K., Saboori, A. & Nowzari, J. (2006) Faunistic study of strawberry mites of Kordestan Province. In: Manzari, S. (Ed.), *Abstract Book of the 17th Iranian Plant Protection Congress, Karaj, Iran*, p. 181.
- Rahmdeli, A., Ravan, S., Jalaieian, M., Rakhshani, E. & Joharchi, O. (2011) Soilinhabiting Laelapidae (Acari: Mesostigmata) from Khorasan Razavi Province, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 55.
- Rajaei, A., Kazemi, S. & Arjomandi, E. (2012) First record of *Sessiluncus aegypticus* Nasr & Afifi, 1984 (Mesostigmata: Ologamasidae) from Iran. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 412.
- Rajaei, A., Kazemi, S. & Yazdanian, M. (2011a) Mites of superfamilies Ascoidea and Dermanyssoidea (Mesostigmata: Gamasina) in Baft region, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 48.
- Rajaei, A., Kazemi, S. & Yazdanian, M. (2011b) Soil-inhabiting Mesostigmatic of the superfamilies Uropodoidea and Eviphidoidea (Acari) in Baft region, Kerman Province, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 50.
- Ramezani, Z. & Nemati, A. (2010) Records of two new genera of Parholaspidae Krantz and Laelapidae Berlese (Acari: Mesostigmata) from Iran. In: Manzari, S. (Ed.) *Abstract Book of 19th Iranian Plant Protection Congress, Tehran, Iran*, p. 351.
- Ramroodi, S., Hajizadeh, J. & Joharchi, O. (2013) New record of the family Laelapidae (Acari: Mesostigmata) from Guilan Province, and a new record for Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Second International Persian Congress of Acarology, Karaj, Iran*, p. 33.
- Ramroodi, S., Hajizadeh, J. & Joharchi, O. (2014a) Two new species of *Cosmolaelaps* Berlese (Acari: Laelapidae) from Iran. *Zootaxa*, 3847(4): 533–544.
- Ramroodi, S., Hajizadeh, J. & Joharchi, O. (2014b) Faunistic survey on laelapid mites (Acari: Mesostigmata) of Guilan Province with new records for Iran. *Abstract book of the XIV International Congress of Acarology, Kyoto, Japan*, pp. 4–23.

- Ramroodi, S., Hajizadeh, J. & Karimi-Malati, A. (2015a) Fauna and biodiversity of edaphic laelapid mites (Acari: Mesostigmata: Laelapidae) in south of Guilan Province. *Plant Pests Research*, 5(2): 73–84.
- Ramroodi, S., Joharchi, O. & Hajizadeh, J. (2014c) A new species of *Laelaspis* Berlese (Acari: Laelapidae) from Iran and a key to Iranian species. *Acarologia*, 54(2): 177–182.
- Ramroodi, S., Joharchi, O. & Hajizadeh, J. (2015b) A new species of *Gymnolaelaps* Berlese and the first descriptions of two males of *Laelaspis* Berlese (Acari: Laelapidae) from Iran. *Systematic and Applied Acarology*, 20(1): 129–138.
- Sadat-Shojaei, M. & Kazemi, S. (2021) Mites of the order Mesostigmata (Acari) in Fars Province. *First Fars Biodiversity Conference, March 2021, Shiraz University, Shiraz, Iran*, pp. 110–123.
- Razavi Susan, N., Kheradmand, K., Joharchi, O. & Saboori, A. (2013) Laelapid mites (Acari: Mesostigmata) associated with scarab beetles (Coleoptera: Scarabaeidae) in Alborz Province, Iran. In: Joharchi, O. & Saboori, A. (Eds.), *Abstract book of the Second International Persian Congress of Acarology, Karaj, Iran*, p. 31.
- Razavi Susan, N., Kheradmand, K., Joharchi, O. & Saboori, A. (2014) A new species and new record of *Hypoaspis* Canestrini (Acari: Laelapidae) on *Oryctes* sp. (Coleoptera: Scarabaeidae) from Iran. *Systematic and Applied Acarology*, 19(1): 51–57.
- Reitblat, A.G. (1963) On the fauna of gamasid mites in Transcaucasus. *Parazitologicheskii Sbornik*, 21: 69–82.
- Rezaie, P., Safaralizadeh, M.M., Joharchi, O., Behboodzadeh, H. & Ehramiyan, N. (2011) Mesostigmatic mites (Acari: Mesostigmata) fauna in Urmia region, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 51.
- Rezaei, F., Ahadiyat, A., Joharchi, O. & Bahrami, F. (2016) Mesostigmatic mites associated with insect in Khorasan Shomlai Province. In: Talaei-Hassanloui, R., Rahimi, S. & Ebrahimi, V. (Eds.), *Proceedings of the 22nd Iranian Plant Protection Congress, Karaj, Iran*, p. 512.
- Rosario, R.M.T. (1981) Philippine Hypoaspidinae (Acarina: Mesostigmata: Laelapidae). *Philippine Entomologist*, 5: 23–82.
- Rostami, E., Abassipour, H., Khanjani, M. & Askarianzadeh, A. (2010) Faunistic study of fruit tree mites in Hamedan Province, west of Iran. *Abstract Book of XIII International Congress of Acarology, Recife-PE, Brazil*, p. 233.
- Ryke, P.A.J. (1962) The genus *Ololaelaps* Berlese (Acarina: Laelaptidae). *Revista de Biologia*, 3: 124–130.
- Ryke, P.A.J. (1963) Some free-living Hypoaspidinae (Acari: Mesostigmata) from South Africa. *Revista de Biologia*, 5: 1–15.
- Saberi, S., Kazemi S. & Ahadiyat, A. (2014) First report of *Veigaia uncata* (Acari: Mesostigmata: Veigaiidae) from Iran. *Proceedings of the 21st Iranian Plant Protection Congress, Urmia, Iran*, p. 1000.
- Saberi, S., Kazemi S. & Ahadiyat, A. (2016) Edaphic mites of the cohort Gamasina (Acari: Mesostigmata) in the Ecological Garden of Nowshahr, Iran. *Persian Journal of Acarology*, 5(2): 121–130.
- Saeed, F. & Kazemi, S. (2019) First record of *Macrocheles caelatus* Berlese (Mesostigmata, Macrochelidae) from Iran. *Persian Journal of Acarology*, 8(1): 73–76. DOI: [10.22073/pja.v8i1.43387](https://doi.org/10.22073/pja.v8i1.43387)
- Saeidi, S., Maroufpoor, M., Hajiqanbar, H. & Joharchi, O. (2019) *Gaeolaelaps scarites* sp. nov., a new laelapid mite (Acari: Mesostigmata) associated with *Scarites terricola* (Coleoptera:

- Carabidae) from Iran. *International Journal of Acarology*, 45(3): 119–124. DOI: [10.1080/01647954.2018.1554701](https://doi.org/10.1080/01647954.2018.1554701)
- Saeidi, Z., Nemati, A. & Khalili-Moghadam, A. (2016) Description of a new species of *Gaeolaelaps* (Acari: Laelapidae) from Iran. *ZooKeys*, 612: 31–40.
- Sakenin Chelav, H., Kamali, K., Ostovan, H. & Saboori, A. (2006a) Some Ascidae mites from Iran (Mesostigmata). In: Bruin, J. (Ed.), *Abstract Book of 12th International Congress of Acarology, Amsterdam, The Netherlands*, p. 180.
- Sakenin Chelav, H., Ostovan, H. & Kamali, K. (2006b) Introduce of Ascidae (Acari: Mesostigmata) from Amol region. In: Manzari, S. (Ed.), *Abstract Book of the 17th Iranian Plant Protection Congress, Karaj, Iran*, p. 184.
- Salarzehi, S., Hajiqanbar, H., Faraji, F., Joharchi, O., Noei, J. & Oliyai, A. (2011) Fauna of some mesostigmatic mites (Acari: Mesostigmata) in Kashmar region, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 56.
- Sambon, L.W. (1928) The parasitic Acarians of animals and the part they play in the causation of the Eruptive Fevers and other diseases of Man. Preliminary considerations based upon an ecological study of Typhus Fever. *Annals of Tropical Medicine and Parasitology*, 22(1): 67–132.
- Sammataro, D., Gerson, U. & Needham, G. (2000) Parasitic mites of honeybees: Life History, Implications, and Impact. *Annual Review of Entomology*, 45: 519–548.
- Samšínák, K. (1960) Über einige forstwirtschaftlich wichtige Milben der Gattung *Proctolaelaps* Berlese 1923. *Československá Parasitologie*, 7: 297–307.
- Samšínák, K. (1962) Neue entomophili Acari aus China. *Casopis Československe Společnosti entomologické (Acta Societatis entomologicae Cechosloveniae)*, 59: 186–204 + 184 plates.
- Samšínák, K. (1964) Termitophile Milben aus der VR China. 1. Mesostigmata. *Entomologische Abhandlungen*, 32: 33–52.
- Saravani Rad, S., Ramroodi, S., Joharchi, O. & Sahebzadeh, N. (2019) A new species of *Laelaspis* Berlese (Acari: Mesostigmata: Laelapidae) from southeast Iran. *International Journal of Acarology*, 45(3): 125–130. DOI: [10.1080/01647954.2018.1534888](https://doi.org/10.1080/01647954.2018.1534888)
- Sayadi, Z., Saboori, A. & Khani, A. (2011) Fauna of stored product mites (Acari) in Sistan region, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 33.
- Sayadi, Z., Saboori, A., Khani, A. & Ramrodi, S. (2012) Some stored product mites in Sistan region, Iran. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 492.
- Sayedi, M., Saboori, A., Kamali, K., Kharazi Pakdel, A. & Tork, M. (2006) Fauna of stored product mites of Karaj, Iran. In: Manzari, S. (Ed.), *Abstract Book of the 17th Iranian Plant Protection Congress, Karaj, Iran*, p. 187.
- Schrank, F. & Von, P. (1803) Fauna Boica, Durchgedachte Geschichte der in Baiern einheimischen und zahmen Thiere. Philipp Krüll, Universitätsbuchhändler, Landshut, 272 pp.
- Schweizer, J. (1961) Die Landmilben der Schweiz (Mittelland, Jura und Alpen). Parasitiformes Reuter. *Denkschriften der Schweizerischen Naturforschenden Gesellschaft*, 84: 1–207.
- Seiedy, M., Saboori, A., Kamali, K. & Kharazi Pakdel, A. (2009) Mites (Acari) found in flour mills in the Karaj region of Iran. *Systematic and Applied Acarology*, 14: 191–196.
- Seifori, M., Saboori, A. & Vafai Shooshtari, R. (2006) A faunistic survey of eviphidoid mites (Mesostigmata: Eviphidoidea) in the soil of Arak region, Markazi Province, Iran. In: Bruin, J. (Ed.), *Abstract Book of 12th International Congress of Acarology, Amsterdam, The Netherlands*, p. 187.

- Seifoori, M., Glida, H., Saboori, A. & Bertrand, M. (2008) Iranian Macrochelids II short description of four new species what about the genus *Macrocheles*? *Acarologia*, 48(1–2): 41–45.
- Sekonji, M.H., Nemati, A. & Hatami, M. (2011) Some edaphic mites of Mesostigmata (Acari) from Kashan, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 52.
- Sellnick, M. (1940a) Die Milbenfauna Islands. *Meddelanden Från Göteborgs Musei Zoologiska Avdelning*, 83: 1–129.
- Sellnick, M. (1940b) Die Milbenfauna Islands. *Göteborgs Kungliga Vetenskaps- och Vitterhets-Samhälles Handlingar*, 5, 6B (14): 1–129.
- Sellnick, M. (1943) Eine zweite neue Antennoseius-Art aus Ostpreussen (Acar.). *Zoologischer Anzeiger*, 143: 201–203.
- Sellnick, M. (1944) Zercon C.L. Koch. *Acari. Blätter für Milbenkunde*, 6: 1–5.
- Sellnick, M. (1945) Alte und neue Milbenarten. *Acari. Blätter für Milbenkunde*, 6: 42–49.
- Sellnick, M. (1951) Zwei neue Milbenarten aus dem Marchfelde. *Zeitschrift für angewandte Entomologie*, 32 (2): 275–278.
- Sellnick, M. (1953) Ichthyostomatogaster nyhleni, eine neue Acaride aus Schweden. *Entomologisk Tidskrift*, 74: 24–37.
- Sellnick, M. (1958) Die Familie Zerconidae Berlese. *Acta Zoologica Academiae Scientiarum Hungaricae*, 3: 313–368.
- Sepasgozarian, H. (1977) The 20 years researches of Acarology in Iran. *Journal of the Iranian Society of Engineers*, 54: 40–50.
- Sepasgozarian, H. (1978) *Stored pests of Iran and their control*. Tehran University Publication, No. 1026, p. 287.
- Shafei, A., Moemenbellah-Fard, M.D., Azizi, K., Nabavizadeh, S.H., Dabaghmanesh, T. & Soltani, A. (2020) Prevalence of allergenic arthropods in domestic dwellings of referrals to an asthma and allergy clinic in the Islamic Republic of Iran. *East Mediterr Health Journal*, 26(5): 586–593. DOI: [10.26719/emhj.19.087](https://doi.org/10.26719/emhj.19.087)
- Shahhosseini, M.Dj. & Kamali, K. (1989) A checklist of insects, mites and rodents affecting stored products in Iran. *Journal of Entomological Society of Iran (Supplement)*, 5: 1–47.
- Shams, M.H., Kazemi, S. & Saboori, A. (2016) A new species of the genus *Blattisocius* Keegan (Acari: Mesostigmata: Blattisociidae) from Iran. *Systematic and Applied Acarology*, 21(1): 139–145.
- Shamsi, M.H. & Saboori, A. (2013) *Cheiroseius manouchehrii* sp. nov. (Acari: Mesostigmata), a new species from Iran. *Systematic and Applied Acarology*, 18(2): 130–136.
- Shamsi, M.H., Saboori, A. & Faraji, F. (2008) Fauna of asid mites (Acari: Mesostigmata) in Damghan region, Semnan Province, Iran. In: Bertrand, M., Kreiter, S., McCoy, K. D., Migeon, A., Navajas, M., Tixier, M.S. & Vial, L. (Eds.), *Proceedings of the 6th European Congress of Acarology, Montpellier, France*, pp. 245–249.
- Shariati, R., Jalalizand, A. & Moradi-Faradonbeh, M. (2017) The fauna of edaphic mites (Acari: Mesostigmata) in Saman County, Southwest Iran. In: Hajiqaanbar, H. & Saboori, A. (Eds.), *Abstract book of the Third International Persian Congress of Acarology, Tehran, Iran*, p.36.
- Sharifi, M., Mozafari, F., Taghinezhad, N. & Javanbakht, H. (2008) Variation in ectoparasite load reflects life history traits in the lesser mouse-eared bat *Myotis blythii* (Chiroptera: Vespertilionidae) in western Iran. *Journal of Parasitology*, 94: 622–625.
- Shayan, A. & Rafinejad, J. (2006) Arthropod parasites of rodents in Khorram Abad District, Lorestan Province of Iran. *Iranian Journal of Public Health*, 35(3): 70–76.

- Shcherbak, G.I. (1971) New gamasid species of the genus *Hypoaspis* Canestrini (Acarina, Gamasoidea). *Vestnik Zoologii*, 5: 76–79.
- Shcherbak, G.I. (1980) Kleschi Semei stva Rhodacaridae Palearktiki. Naukova Dumka, Kiev, p. 216.
- Shcherbak, G.I. (1982) An interesting finding of *Dendrolaelaps* with divided carapace (Rhodacaridae, Gamasina). *Dopovidi Akademii nauki Ukrainskoi RSR, Seriya B, Kiev*, 3: 73–75
- Shcherbak, G.I. & Furman, O.K. (1975) On studying the mite fauna of the Rhodacaridae Oudemans, 1902 family from the Ukrainian fauna. *Vestnik Zoologii*, 1975(1): 45–51.
- Sheals, J.G. (1956) Notes on a collection of soil Acari. *Entomologist's Monthly Magazine*, 92: 99–103.
- Sheals, J.G. (1962) Mesostigmata: Gamasina (Acari). In: Deboutteville, C.D. & Rapoport, E. (Eds.), *Biologie de L'Amérique Australe (I). Etudes sur la faune du sol. Centre National de La Recherche Scientifique, Paris*, pp. 83–110.
- Shishehbor, P. (1991) Population dynamics of *Tetranychus turkestani* (U. & N.) (Acari: Tetranychidae) on castor bean in south-western Iran. *Abstract Book of the 10th Iranian Plant Protection Congress, Kerman, Iran*, p. 88.
- Silvestri, F. (1912) Contribuzioni alla conoscenza dei Mirmecofili. II. Di alcuni Mirmecofili dell'Italia meridionali e della Sicilia. *Bollettino del Laboratorio di Zoologia Generale e Agraria della Facoltà Agraria in Portici*, 6: 222–245.
- Skorupski, M. & Witaliński, W. (1997) *Cornigamasus ocliferius* sp. n., a new gamasid mite from Poland (Acari: Parasitidae). *Genus (Wroclaw)*, 8(1): 145–152.
- Sobhani, M.J., Ostovan, H., Hesami, S. & Kazemeini, F.S. (2011) Mites of the family Macrochelidae (Acari: Mesostigmata) in Ramjerd region, Fars Province, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 59.
- Sobhani, M.J., Ostovan, H. & Hesami, S. (2017) Fauna of machrochelid mites (Acari: Mesostigmata) in Ramjerd region (Fars Province). *Plant Protection Journal*, 8(2): 19–40.
- Soleimani, M. & Joharchi, O. (2012) First record of two species of the genus *Cosmolaelaps* (Acari: Mesostigmata: Laelapidae) for the Iranian mite fauna. *Abstract Book of 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 411.
- Soleimani, M., Ostovan, H. & Joharchi, O. (2010a) First report of *Holostaspella ornate* (Acari: Mesostigmata) from Iran. *Plant Protection Journal*, 2(1): 59–63.
- Soleimani, M., Ostovan, H. and Joharchi, O. (2010b) First report of the mite species *Androlaelaps aegypticus* (Mesostigmata: Laelapidae) from Iran. *Plant Protection Journal*, 2(2): 157–160.
- Soleimani, M., Ostovan, H. & Joharchi, O. (2011) Mesostigmatic mites (Acari: Mesostigmata) in Marvdasht region, Fars Province, Iran. In: Kazemi, S. & Saboori, A. (Eds.), *Abstract and Proceeding Book of the First Persian Congress of Acarology, Kerman, Iran*, p. 17.
- Sowerby, J. (1806) *British miscellany, or coloured figures of new, rare or little known animal subjects, many not before ascertained to be natives of the British Isles*. London.
- Strandtmann, R.W. & Furman, D.P. (1956) A new species of mite *Paraneonyssus icteridius*, from the nasal cavities of blackbirds. *Pan-Pacific Entomologist*, 32(4): 167–173.
- Taher, H., Shirdel, D., Atamehr, A. & Adldoost, H. (2012) Fauna of mesostigmatic mites (Acari: Mesostigmata) in sunflower fields of Khoy region, West Azerbaijan. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 465.
- Tajedin, L., Rassi, Y., Oshaghi, M.A., Telmadarraiy, Z., Akhavan, A.A., Abai, M.R. & Arandian, M.H. (2009) Study on ectoparasites of *Rhombomys opimus*, the main reservoir of zoonotic

- cutaneous leishmaniasis in endemic foci in Iran. *Iranian Journal of Arthropod-Borne Diseases*, 3(1): 41–45
- Tajmiri, P. & Hajizadeh, J. (2013) Some mesostigmatic mites on raspberry shrubs (*Rubus* spp.) in central area of Guilan Province, Iran. *Journal of Applied Research in Plant Protection*, 2(1): 15–25.
- Takaku, G. & Hartini, S. (2001) Macrochelid mites (Arachnida: Acari: Macrochelidae: *Glypholaspis*, *Macrocheles*, *Neopodocinum*) associated with dung beetles in Bali, Indonesia. *Species Diversity*, 4: 323–345.
- Telmadarraiy, Z., Vatandoost, H., Mohammadi, S., Akhavan, A.A., Abai, M.R., Rafinejad, J., Kia, E.B., Faghieh Naini, F., Jedari, M. & Aboulhasani, M. (2007) Determination of rodent ectoparasite fauna in Sarpole-Zahab District, Kermanshah Province, Iran, 2004–2005. *Iranian Journal of Arthropod-Borne Diseases*, 1(1): 58–62.
- Tenorio, J.M. & Radovsky, F.J. (1979) Review of the subfamily Hirstionyssinae, synonymy of *Echinonyssus* Hirst and *Hirstionyssus* Fonseca, and descriptions of four new species of *Echinonyssus* (Acari: Laelapidae). *Journal of Medical Entomology*, 16(5): 370–412.
- Tikhomirov, S.I. (1969) Morfologicheskaya i ekologicheskaya struktura roda *Parasitussensu* Micherdzinski 1966 (Gamasoidea, Parasitidae). *Soobshchenie I. Podrody Eugamasus* Berl., *Parasitus* Latr., *Vulgarogamasus* subgen.s. *Zoologicheskyy Zhurnal*, 48: 1325–1477.
- Tiraboschi, C. (1904) Les rats, les souris et leurs parasites cutanés, dans leurs rapports avec la propagation de la peste bubonique. *Archives de Parasitologie*, 8: 161–349.
- Thor, S. (1930) Beiträge zur Kenntnis der invertebraten Fauna von Svalbard. *Skrifter om Svalbard og Ishavet*, 27: 1–156.
- Trach, V.A. & Khaustov, A.A. (2011) A myrmecophilous mite *Myrmozercus tauricus* sp. n. of the family Laelapidae (Acari, Mesostigmata) from Ukraine. *Vestnik Zoologii*, 45: 23–27. DOI: [10.2478/v10058-011-0003-8](https://doi.org/10.2478/v10058-011-0003-8)
- Trach, V.A. & Seeman, O. (2014) A new genus and species of Schizogyniidae (Acari: Mesostigmata) associated with carabid beetles (Coleoptera: Carabidae) from Ukraine. *Zootaxa*, 3793(2): 247–256.
- Trägårdh, I. (1910) Acariden aus dem Sarekgebirge. *Naturwissenschaftliche Untersuchungen des Sarekgebirges im Schwedisch Lappland geleitet von Dr. Axel Hamberg*, 4: 375–586.
- Trägårdh, I. (1936) *Leptogamasus*, a new genus of acari from Sweden. *Entomologisk Tidskrift*, 57: 227–234.
- Trägårdh, I. (1938) Further contributions towards the comparative morphology and classification of the Mesostigmata. *Entomologisk Tidskrift*, 59(3–4): 123–158.
- Trägårdh, I. (1941) Contributions towards the comparative morphology and phylogeny of the Mesostigmata. IV. On the Celaenopsidae and Euzerconidae. *Entomologisk Tidskrift*, 62: 169–176.
- Trägårdh, I. (1942a) Über die Trematurini Berlese (Acarina). *Zoologischer Anzeiger*, 139: 109–112.
- Trägårdh, I. (1942b) Microgyniinae, a new group of Mesostigmata. *Entomologisk Tidskrift*, 63(3–4): 120–133.
- Trägårdh, I. (1944) Zur Systematik der Uropodiden. *Entomologisk Tidskrift*, 65: 173–186.
- Trägårdh, I. (1950) Studies on the Celaenopsidae, Diplogyniidae and Schizogyniidae (Acarina). *Arkiv för Zoologi*, 2(1): 361–451.
- Trägårdh, I. (1952) Acarina collected by the Mangarevan expedition to South Eastern Polynesia in 1934 by the Bernice P. Bishop Museum, Honolulu, Hawaii. Mesostigmata. *Arkiv för Zoologi*, 4(2): 45–90.

- Treat, A.E. (1955) An ectoparasite (Acarina: Mesostigmata) from moths of the genus *Zale*. *The Journal of Parasitology*, 41(6): 55–59.
- Trouessart, E. & Berlese, A. (1919) Generi nuovi di Acari. *Redia*, 14: 4.
- Turk, F.A. (1943) Studies of Acari. I. The British species of Epicriidae, with description of a new genus and two new species. *Annals and Magazine of Natural History*, 11(10): 855–860.
- Turk, F.A. (1945) Studies of Acari - Second series: Descriptions of new species and notes on established forms of parasite mit. *Parasitology*, 36(3–4): 133–141.
- Turk, F.A. (1953) A synonymic catalogue of British Acari. *Annals and Magazine of Natural History*, 12(6): 1–26, 81–99.
- Ujvári, Z., Moradian, H. & Ostovan, H. (2013) *Prozercon iranensis* sp. n., a new species of Zerconidae (Acari: Mesostigmata) from Iran. *Zoology in the Middle East*, 59: 353–357.
- Urhan, R. (1998) New species of the genus *Prozercon* (Plumatozercon) (Acari, Zerconidae) from Turkey. *Acarologia*, 39(1): 3–9.
- Urhan, R. & Ayyıldız, N. (1994) Two new species of the genus *Zercon* Koch (Acari: Zerconidae) from Turkey. *International Journal of Acarology*, 19(4): 335–339.
- Valizadeh, S., Bagheri, M., Joharchi, O. & Ahadiyat, A. (2017) Fauna of mites of the family Laelapidae (Acari: Mesostigmata) in orchards of Maragheh region, East Azarbaijan Province, Iran. In: Hajiqanbar, H. & Saboori, A. (Eds.), *Abstract book of the Third International Persian Congress of Acarology, Tehran, Iran*, pp. 41–42.
- Valizadeh, S., Ahadiyat, A., Bagheri, M. & Joharchi, O. (2019) Second world record of *Olopachys hallidayi* Özbek, 2014 (Mesostigmata: Pachylaelapidae) from Iran. *Persian Journal of Acarology*, 8(2): 169–174.
- Valle, A. (1953) Revisione di generi e sottogeneri Berlesiani di Acari (Primo contributo). *Redia*, 38: 316–360.
- Valle, A. (1954) Acarina in E. Zavattari e Coll., X Biogeografia dell'isola di Zannone (Arcipelago pontino). *Fauna Rendiconti Accad. nazion. dei XL*, 4 (4–5): 201–300.
- van Daele, E. (1975) New additions to the fauna of predatory mites from substrates of ornamental plants. Mededelingen van de Lab. Dierk. *Faculteit Landbouwwetenschappen Rijksuniversiteit Gent*, 401: 1–5.
- Vatandoost, H., Telmadarraiy, Z., Sharifi, M., Moradi, A., Kamali, M. & Taran, M. (2010) Ectoparasites of lesser mouse eared bat, *Myotis blythii* from Kermanshah, Iran. *Asian Pacific Journal of Tropical Medicine*, 3: 370–373.
- Vatankhah, F., Nemati, A., Esfandiari, M. & Shishehbor, P. (2016) Description of a new species of *Gaeolaelaps* (Acari: Laelapidae) from Iran, with a key to world species of the genus with short peritremes. *Zootaxa*, 4121(5): 566–574. DOI: [10.11646/zootaxa.4121.5.6](https://doi.org/10.11646/zootaxa.4121.5.6)
- Vinarski, M.V. & Korallo-Vinarskaya, N.P. (2017) An annotated catalogue of the gamasid mites associated with small mammals in Asiatic Russia. The family Haemogamasidae (Acari: Mesostigmata: Gamasina). *Zootaxa*, 4273(1): 1–18. DOI: [10.11646/zootaxa.4273.1.1](https://doi.org/10.11646/zootaxa.4273.1.1)
- Vitzthum, H. (1921) Acarologische Beobachtungen. 4. Reihe *Archiv für Naturgeschichte*, 86(A, 10): 1–69.
- Vitzthum, H. (1925) Fauna sumatrensis. (Beitrag Nr. 5). Acarinae. *Supplementa Entomologica*, 11: 1–79.
- Vitzthum, H. (1926) Acari als Commensalen von Ipiden. *Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere*, 52: 407–503.
- Vitzthum, H. (1943) Acarina. Bronn's Klassen und Ordnungen des Tierreichs, Bd. 5, Abt. 4, Bch. 5, Leipzig, pp. XI.

- Voigts, H. & Oudemans, A.C. (1904) Neue Milben aus der Umgegend von Bremen. *Zoologischer Anzeiger*, 27: 651–656.
- von Heyden, G. (1826) Versuch einer systematischen Eintheilung der Acariden. *Isis*, 18: 608–613.
- Walter, D.E. & Lindquist, E.E. (1989) Life history and behavior of mites in the genus *Lasioseius* (Acari: Mesostigmata: Ascidae) from grassland soils in Colorado, with taxonomic notes and description of a new species. *Canadian Journal of Zoology*, 67: 2797–2813.
- Walter, D.E. & Lindquist, E.E. (1997) Australian Species of *Lasioseius* (Acari: Mesostigmata: Ascidae): the porulosus group and other species from rainforest Canopies. *Invertebrate Taxonomy*, 11: 525–547.
- Walter, D.E. & Oliver J.H. (1989) *Geolaelaps oreithyiae*, n. sp. (Acari: Laelapidae), a thelytokus predator of arthropods and nematodes, and a discussion of clonal reproduction in the Mesostigmata. *Acarologia*, 30: 293–303.
- Walter, D.E. & Proctor, H.C. (1999) *Mites Ecology, Evolution and Behavior*. CAB International, Wallingford, UK, 322 pp.
- Wankel, H. (1861) Beiträge zur österreichischen Grotten-Fauna. Sitzungsberichte der kaiserlichen Akademie der Wissenschaften. *Mathematische naturwissenschaftliche*, 43: 251–264.
- Wasmann, E. (1899) Weitere Nachträge zum Verzeichniss der Ameisengäste von Holländisch Limburg. *Tijdschrift voor Entomologie*, 42: 158–169.
- Wasmann, E. (1902) Zur Kenntnis der myrmecophilen Antennophorus und anderer auf Ameisen und Termiten reitender Acarinen. *Zoologischer Anzeiger*, 25: 66–76.
- Westerboer, I. (1963) Die Familie Podocinidae Berlese 1916. Abschnitt IV. In: Stammer, H.-J. (Ed.), *Beiträge zur Systematik und Ökologie mitteleuropäischer Acarina. Band II. Mesostigmata I*. Akademische Verlagsgesellschaft Geest & Portig K.G., Leipzig, pp. 179–450.
- Westerboer, I. & Bernhard, F. (1963) Die Familie Phytoseiidae Berlese 1916. In: Stammer H.-J. (Ed.), *Beiträge zur Systematik und Ökologie Mitteleuropäischer Acarina. Band II. Mesostigmata I*. Akademische Verlagsgesellschaft Geest & Portig K.-G., Leipzig, pp. 451–777, 778–804.
- Willmann, C. (1935a) Exploration biologique des cavernes de la Belgique et du Limbourg Hollandais - XXV contribution: Acari (1). *Bulletin du Musée Royal d'Histoire Naturelle de Belgique*, 11: 1–41.
- Willmann, C. (1935b) Ueber eine eigenartige Milbenfauna im Küstengrundwasser der Kieler Bucht. *Schriften des Naturwissenschaftlichen Vereins für Schleswig-Holstein*, 20: 422–434.
- Willmann, C. (1936) Neue Acari aus schlesischen Wiesenböden. *Zoologischer Anzeiger*, 113: 273–290.
- Willmann, C. (1942) Milben aus deutschen Mineralquellen. *Zoologischer Anzeiger*, 139: 237–247.
- Willmann, C. (1949) Beiträge zur Kenntnis des Salzgebietes von Ciechocinek. 1. Milben aus den Salzwiesen und Salzmooren von Ciechocinek an der Weichsel. *Veröffentlichungen aus dem Museum für Natur-, Völker- und Handelskunde in Bremen, Reihe A*, 1: 106–142.
- Willmann, C. (1951a) Die hochalpine Milbenfauna der mittleren Hohen Tauern insbesondere des Grossglockner-Gebietes (Acari). *Bonner Zoologischer Beiträge*, 2: 141–176.
- Willmann, C. (1951b) Untersuchungen über die terrestrische Milbenfauna im pannonischen Klimagebiet Österreichs. *Sitzungsberichte der Österreichischen Akademie der Wissenschaften, Mathematisch-Naturwissenschaftliche Abteilung I*, 160: 91–176.
- Willmann, C. (1953) Neue Milben aus den östlichen Alpen. *Sitzungsberichten der Österreichischen Akademie de Wissenschaften*, 162(6): 449–519.

- Wiśniewski, J. & Hirschmann, W. (1991) *Protogamasellopsis posnaniensis* nov. spec. (Acarina: Mesostigmata) aus Palmenhaus in Polen. *Bulletin of the Polish Academy of Sciences. Biological Sciences*, 39: 189–194.
- Wiśniewski, J. & Hirschmann, W. (1993) Gangsystematik der Parasitiformes Teil 548. Katalog der Ganggattungen, Untergattungen, Gruppen und Arten der Uropodiden der Erde. *Acarologie Schriftenreihe für Vergleichende Milbenkunde*, 40: 1–220.
- Wisniewski, J., Hirschmann, W. & Hiramatsu, N. (1992) New species of *Centroupoda* (Uroactiniinae, Uropodina) from Philippines, Brazil and middle Africa. *Acarologia*, 33: 313–320.
- Womersley, H. (1956) On some new Acarina–Mesostigmata from Australia, New Zealand and New Guinea. *Journal of the Linnean Society, Zoology*, 42: 505–599. DOI: [10.1111/j.1096-3642.1956.tb02218.x](https://doi.org/10.1111/j.1096-3642.1956.tb02218.x)
- Womersley, H. (1961) New species of Acarina from the intertidal zone in Netherlands New Guinea. *Zoologische Mededelingen*, 37(12): 189–209.
- Xu, X. & Liang, L. (1996) Four new species of the Hypoaspidae (Acari: Laelapidae) from moss in China. *Systematic & Applied Acarology*, 1: 189–197. DOI: [10.11158/saa.1.1.23](https://doi.org/10.11158/saa.1.1.23)
- Yahyavinezhad, M., Tahmasbi, G., Saboori, A., Monfared, A. & Klimov, P. (2010) Mites species Associated with bumblebees (*Bombus* spp.) in Iran. In: Vászrhelyi, T. (Ed.), *Preceding of European Congress of Entomology, Romania, Budapest*, p. 235.
- Yazdanpanah, S. & Kazemi, S. (2014a) Introducing the mesostigmatic mites (Acari) of oak forest of Koohmaresorkhi region in Fars Province. *Abstract book of the 3rd Integrated Pest Management Conference (IPMC), Kerman, Iran*, pp. 331–338.
- Yazdanpanah, S. & Kazemi, S. (2014b) First report of a genus and species of the family Eviphididae (Acari: Mesostigmata) from Iran. *Abstract book of the 21th Iranian Plant Protection Congress, Urmia, Iran*, p. 998.
- Zachvatkin, A.A. (1948) Systematics of genus *Laelaps* (Acarina, Parasitiformes) and the problems of its epidemiological importance. *Parasitological Collection of the Zoological Institute of the Academy of Sciences of the USSR*, 10: 51–76.
- Zaher, M.A. (1986) Predaceous & nonphytophagous mites in Egypt. Pl. 480 Programme U.S.A., Project nr. EG_ARS_30. Grant nr. FG_EG, 139: 567 pp.
- Zakeri, V., Kamali, K. & Hajiqanbar, H.R. (2011) Coprophage and edaphic mites of the families Macrochelidae and Pachylaelapidae in eastern region of Golestan Province, Iran. *Journal of Iranian Plant Pests Research*, 1(1): 17–23.
- Zare, M., Rahmani, H., Faraji, F. & Akrami, M. L. (2012a) Ascoidea (Acari: Mesostigmata) of Zanzan County of Iran with record of two new species. *Abstract Book of the 20th Iranian Plant Protection Congress, Shiraz, Iran*, p. 459.
- Zare, M., Rahmani, H., Faraji, F. & Akrami, M.A. (2012b) Phytoseioidea (Acari: Mesostigmata) of Zanzan County of Iran with two new records for Iranian mite fauna. In: Schausberger, P. (Ed.), *Abstract book of the 7th Symposium of the European Association of Acarologists, Vienna, Austria*, p. 115.
- Zarei, E. & Kazemi, S. (2014) Fauna of edaphic Mesostigmata (Acari) in apple orchards of Miandoab County, West Azarbaijan Province, Iran. *Abstract book of the 21st Iranian Plant Protection Congress, Urmia, Iran*, p. 980.
- Zarei, Z., Mohebbali, M., Heidari, Z., Kia, E. B., Azarm, A., Bakhshi, H., Davoodi, J., Hassanpour, H., Roohnavaz, M., Khodabakhsh, M. & Telmadarraiy, Z. (2017) Wild rodent ectoparasites collected from northwestern Iran. *Journal of Arthropod Borne Diseases*, 11(1): 36–41.

- Zeman, P. (1982) Two new species of Hypoaspidinae (Acari: Mesostigmata: Dermanyssidae) associated with ants. *Věstník Československé Společnosti Zoologické*, 46: 231–237.
- Zendehfili, H., Zahirnia, A.H., Maghsood, A.H., Khanjani, M. & Fallah, M. (2015) Ectoparasites of rodents captured in Hamedan, Western Iran. *Journal Arthropod-Borne Disease*, 9(2): 267–273.

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کاتالوگ هرناهای میان‌سفت ایران به جز خانواده Phytoseiidae

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چکیده

در این تک‌نگاشت، کاتالوگی از تمام هرناهای میان‌سفت گزارش شده از ایران (به جز Phytoseiidae) ارائه می‌شود. این کاتالوگ ۶۱۶ گونه متعلق به ۱۸۳ جنس و ۵۱ خانواده را فهرست می‌کند. با توجه به تعداد جنس‌ها و گونه‌های فیتوزئید گزارش شده از ایران که به ترتیب ۱۵ و ۱۰۵ عدد اعلام شده است، تعداد جنس‌ها و گونه‌های میان‌سفتیان در ایران به ترتیب به ۱۹۸ و ۷۲۱ می‌رسد. تعداد گونه‌های زیرراسته Monogynaspida Camin & Gorrirossi بیشتر از Trigynaspida Camin & Gorrirossi است و دومی از Sejida Kramer بیشتر می‌باشد. گونه *Oplitis inopina* (Hull, 1923) به عنوان نخستین توصیف از کنه‌های میان‌سفتیان از ایران محسوب می‌شود که بیش از یک قرن قدمت دارد. خانواده Laelapidae دارای بیشترین تعداد جنس (۲۶) و گونه (۱۶۲) گزارش شده از ایران است و پس از آن Phytoseiidae (۱۵ جنس و ۱۰۵ گونه) و سپس Ascidae (۱۰ جنس و ۴۹ گونه) قرار دارند. جنس‌های *Gaeolaelaps* Evans & Till (۳۰ گونه)، *Laelaspis* Berlese (۲۱ گونه) و *Macrocheles* Latreille (۱۹ گونه) دارای بیشترین تعداد گونه در ایران هستند. بیشترین تعداد گونه توصیف شده از ایران متعلق به *Gaeolaelaps* (Laelapidae) با ۱۵ گونه است. هیچ توصیفی از آرایه جدید برای خانواده‌های Haemogamasidae، Ameroseiidae، Otopheidomenidae، Parholaspidae، Varroidae، Rhinonyssidae، Spinturnysidae، Dermanyssidae، Macronyssidae، Trachytidae، Polyaspididae، Dithinozerconidae، Microgyniidae، Epicriidae، Veigaiidae، Halolaelapidae، Podocinidae، Urodiaspididae و Urodinychidae، Dinychidae، Cillibidae، Trachyuropodidae، Metagynuridae برای Trigynaspida (به جز Diplogyniidae) و Sejida (به جز Sejidae) تاکنون هیچ گونه‌ای از ایران توصیف نشده است. شایان ذکر است که بالاخانواده Anictequoidea، خانواده Messoracaridae و جنس *Messoracarus* Silvestri برای نخستین بار از ایران گزارش می‌شوند. بر اساس اطلاعات منتشر شده، برای هر گونه، اطلاعات مربوط به پراکنش جغرافیایی، منابع آرایه‌شناسی و میزبان یا زیستگاه ذکر شده است. ایرادات کاتالوگ‌های قبلی اصلاح شده و رده‌بندی گونه‌های شناخته شده، به روز شده است. توضیحات لازم برای هر آرایه در مورد مسایل مختلف به عنوان یادداشت(هایی) در زیر آرایه مربوطه ذکر شده است.

واژگان کلیدی: فهرست، پراکنش، میان‌سفتیان، زیستگاه، ایران.

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