

Ascoidea and Blattisociidae (Mesostigmata) mites of Urmia (West Azerbaijan, Iran), with identification keys to genera and species

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Abstract. A list of 19 species of the superfamily Ascoidea and family Blattisociidae (Mesostigmata) from the Urmia region (West Azerbaijan province, Iran) is presented. The specimens were collected between 2015-2016. In the survey, 19 species dependent 9 genera were identified. Of these 14 species are newly recorded for the fauna of West Azerbaijan province. Key to genera and species, locality as well as collection date of each species are given.

Key words: soil, taxonomy, Mesostigmata, Urmia, Iran.

Introduction

In the recent years soil predatory mites have been considered as potentially useful agents for the biological control of certain agricultural pests (Zhang 2003, Gerson et al. 2008). In soils, Mesostigmata are extremely abundant species-rich and play significant ecological roles (Beaulieu & Weeks 2007). Some soil and litter Mesostigmata are considered beneficial because they feed on arthropods and other invertebrates that affect human and animals (Krantz 2009). The order Mesostigmata is divided in to three suborders and it has approximately 70 families that are grouped in 26 superfamilies. Cohort Gamasina comprises most of the described species of Mesostigmata and include the most familiar families of soil predators, biocontrol agents, and vertebrate parasites (Lindquist et al. 2009).

Ascid mites have been commonly found in the upper layers of the soil, on plants and in stored products (Gerson et al. 2008). The majority of the mite species in the family Ascidae are predators and they are important in many soil systems (Halliday et al. 1998, Zhang 2003, Gwiazdowicz 2007, Gerson et al. 2008). The family has two subfamilies: Arctoseiinae and Ascinae (Lindquist et al. 2009). During two last centuries Ascidae have been known mainly from Europe, but more and more new species are described from other areas of the world (Kaluzé & Fenda 2005).

Blattisociidae is a diverse group that has adapted to a broad spectrum of terrestrial, arboreal, and subaquatic habits and this family has two subfamilies, Platyseiiinae and the Blattisociinae (Lindquist et al. 2009). Some of genera of Blattisociidae, such as *Lasioseius* Berlese, 1916, have species that are distributed worldwide and they are predators (Christan & Karg 2006).

Ameroseiidae Evans, 1961, is a family of predatory, fungivorous, and pollen-feeding mites, found in soil and litter, stored products, flowers and phoretically attached to animals associated with those habitats (Halliday 1997). This family consists of eight genera and about 150 species (Narita et al. 2013, Halliday 1997).

According to Nemati et al. (2012a, 2012b, 2013) and Kazemi & Rajaei (2013), there are some species of the Ascoidea and Blattisociidae that were reported for Irans' mite fauna. The objective of this survey is to introduce some Ascoidea and Blattisociidae mites of Urmia region, West Azerbaijan

province, Iran and provide keys to separate the species and genera of these mites.

Materials and Methods

During 2015-2016, mites were collected from various soil and litter samples of Urmia region, West Azerbaijan, Iran. The samples were placed in plastic bags and transferred to the laboratory and they were subsequently placed in Berlese funnels for mites extraction. The specimens were fixed and preserved in 75% ethanol. Then mites were cleared in warm lactic acid and mounted in Hoyers' medium. Slides were dried and ringed with insulating varnish. Morphological observations were made using compound microscopes equipped with differential interference contrast and phase-contrast optical systems. To determine the geographical location of sampling points, GPS Data+, vers. 2.91, Operation System: Android was used. Some species have been recorded after publishing checklists such as Kazemi & Rajaei (2013) and Nemati et al. (2012a, 2012b, 2013) or they have been neglected. These records are mentioned on this paper.

Results

Family Ascidae Oudemans, 1905

Genus *Arctoseius* Thor, 1930

Arctoseius cetratus (Sellnick 1940)

Iran records: Guilan province: associated with eriophyid mite [*Aceria geranii* (Canestrini, 1891)] (Adeli et al. 2013); Markazi province: Saveh region, associated with the Mediterranean pine beetle, *Orthotomicus erosus* (Wollaston, 1857) (Farmahiny Farahani et al. 2013); Esfahan province: soil (Kadkhodaei et al. 2013); Bushehr province: Asaluyeh Port, soil (Kazemi & Alikhani 2013); North East of Iran, associated with stored food products (Khaleghabadian et al. 2013); Zanjan province: Zanjan, soil (Bigdeli et al. 2014); Lorestan province: Bishe and Badrabad districts, soil under walnut trees and peach orchard (Hasanvand et al. 2014); Chaharmahal va Bakhtiari province Saman city, Shahrekord region, soil of ant nests: *Monomorium* sp. (Hym.: Formicidae) (Khalili-Moghadam & Saboori 2015).

Material examined: Urmia. Urmia University, soil; 3♀♀; 37° 39' 29" N, 44° 58' 42" E, 1403 m; 23/Aug./2015; Shohada valley, soil and litter; 1♂; 37° 16' 48" N, 45° 08' 06" E, 1425 m; 29/Aug./2015; Band, soil of apple orchard; 2♀♀; 37° 28' 16" N, 44° 56' 52" E, 1477 m; 29/Sept./2015. Sir village, soil of apple orchard; 1♀; 37° 28' 22" N, 45° 02' 31" E, 1619 m;

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

West Azerbaijan records: This is the first report of the species for this region.

Material examined: Urmia. Shohada valley, soil and litter; 3♀♀; 37° 16' 48" N, 45° 08' 06" E, 1425 m; 29/Aug./2015;

Note: Gwiazdowicz (2004) described a new genus of the family Ascidae as *Iphidonopsis* Gwiazdowicz, 2004 based on a new species that were collected in Poland. Afterward he put some species of the genus *Arctoseius* Thor, 1930 that have not lateral incision in the middle of dorsal shield on the *Iphidonopsis*. Species such as *Arctoseius pulvisculus* (Berles, 1921) and *Arctoseius minutus* (Halbert, 1915) were changed by Gwiazdowicz (2007) following the same opinion. Eventually Gwiazdowicz (2008) transferred these species to the *Arctoseius* alongside redescription of them. *Arctoseius pulvisculus* (Berles, 1921) only has been recorded from Gorgan, for the fauna of Iran (Malek-Shahkouyi et al. 2011).

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

West Azerbaijan records: This is the first report of the species for this region.

Material examined: Urmia. Sulik village, soil and litter; 1♀; 37° 31' 04" N, 44° 46' 07" E, 1690 m; 05/Sept./2016.

Genus *Gamasellodes* Athias-Henriot, 1961***Gamasellodes bicolor* (Berlese, 1918)**

Iran records: Esfahan province, Esfahan, soil of different parts of city (Kadkhodaei et al. 2013); Southwest of East Azerbaijan Province: soil (Hashemi Khabir et al. 2013); Zanjan province: Zanjan, soil (Bigdeli et al. 2014).

Material examined: Urmia. Band, soil of apple orchard; 1♀; 37° 28' 16" N, 44° 56' 52" E, 1477 m; 27/Sept./2015.

***Gamasellodes insignis* (Hirschmann, 1963)**

West Azerbaijan records: This is the first report of the species for this region.

Material examined: Urmia. Balanoj, soil of apple orchard; 1♀; 37° 23' 21" N, 45° 09' 57" E, 1305 m; 13/Jun./2016.

Genus *Protogamasellus* Karg, 1962***Protogamasellus massula* (Athias-Henriot, 1961)**

Iran records: Guilan province: associated with eriophyid mites [*Aceria oleae* (Nalepa, 1900) and *Tegonotus hassani* (Keifer, 1959)] (Adeli et al. 2013).

Material examined: Urmia. Nazlu dam, soil; 3♀♀; 37° 40' 19" N, 44° 55' 22" E, 1379 m; 6/Sept./2015; Kaboodan island, soil; 2♀♀; 37° 28' 33" N, 45° 35' 21" E, 1329 m; 9/ Sept./2015.

Genus *Antennoseius* Berlese, 1916***Antennoseius (Antennoseius) bacatus* Athias-Henriot, 1961**

Iran records: Fars province: Koohmare-Sorkhi region, soil of oak forests (Kazemi & Yazdanpanah 2013); Lorestan prov-

ince: Ghalesangi and Zarinchogha districts, soil of apple orchard and under oak trees (Hasanvand et al. 2014); Chaharmahal va Bakhtiari province: Shahrekord, soil. Khuzestan province: Izeh, (Mohseni & Nemati, 2014); Zanjan province: Zanjan, soil (Bigdeli et al. 2014). Chaharmahal va Bakhtiari province: Shahrekord region, Saman city, soil of ant nests: *Monomorium* sp. (Hym.: Formicidae), (Khalili- Moghadam & Saboori 2015); North western Fars province: Komehr region, soil and litter (Abolghasemi, & Kazemi 2016).

West Azerbaijan records: This is the first report of the species for this region.

Material examined: Urmia. Govarchin ghale, Kazem dashi, soil; 7♀♀, 4♂♂ ; 38° 04' 04" N, 45° 11' 16" E, 1286 m; 14/Apr./2016.

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

Iran records: Khorasan Razavi province: Sarakhs region, ex *Cymindis (Eremocymindis) pallidula* Chaudoir, 1846 (Kazemi & Moraza 2013).

West Azerbaijan records: This is the first report of the species for this region.

Material examined: Urmia. Govarchin ghale, Kazem dashi, soil; 4♀♀; 38° 04' 04" N, 45° 11' 16" E, 1286 m; 14/Apr./2016.

Genus *Neojordensia* Evans, 1957***Neojordensia sinuate* Athias-Henriot, 1973 (Fig. 1)****Distribution and habitats**

West Azerbaijan records: This is the first report of the species for this region.

Material examined: Urmia. Band, soil of apple orchard; 2♀♀; 37° 28' 16" N, 44° 56' 52" E, 1477 m; 29/Sept./2015.

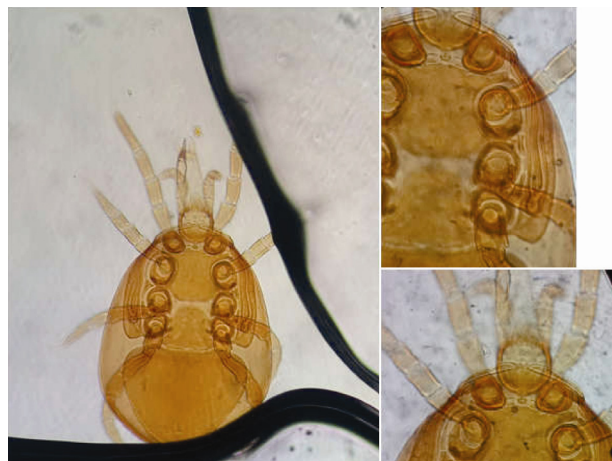


Figure 1. Female of *Neojordensia sinuate* Athias-Henriot, 1973.

Key to the genera and species of female ascids of Urmia (Which found in this survey)

- 1- Dorsum completely divided into two shields, podonotal shield and opisthonotal shield.....2
- Dorsum not completely divided into two shields, with holodorsal shield or schizodorsal shield6
- 2- Leg I without claws..... *Antennoseius* Berlese, 1916...3
- Leg I with claws4
- 3- Podonotal shield with six pairs of short thickened setae*Antennoseius (Antennoseius) sabulicola* Bregetova, 1977
- Podonotal shield without short thickened setae and with nearly long plumose setae
..... *Antennoseius (Antennoseius) bacatus* Athias-Henriot, 1961
- 4- Podonotal shield with transverse line at level of z6 setae..... *Protogamasellus* Karg, 1962
- * Setae j1 noticeable longer than z1; anal opening with normal size*Protogamasellus massula* (Athias-Henriot, 1961)
- Podonotal shield without transverse line at level of z6 setae..... *Gamasellodes* Athias-Henriot, 1961...5
- 5- Peritreme long, extending to coxa I *Gamasellodes bicolor* (Berlese, 1918)
- Peritreme short, extending to coxa II.....*Gamasellodes insignis* (Hirschmann, 1963)

- 6- Genu IV and tibia IV with seven setae..... *Arctoseius* Thor, 1930...7
- Genu IV and tibia IV with nine and ten setae respectively *Neojordensia* Evans, 1957
- * Setae st1 on presternal shields; ventri-anal shield large and with 11 setae; without metapodal shields on the ventral surface *Neojordensia sinuate* Athias-Henriot, 1973
- 7- Epistome tri-ramous..... *Arctoseius pulvisculus* (Berlese, 1920)
- Epistome biramous..... 8
- 8- Setae j1, j2 and z1, z2 long, reaching the base of following setae *Arctoseius semiscissus* (Berlese, 1892)
- Setae j1, j2 and z1, z2 short, not reaching the base of following setae *Arctoseius cetratus* (Sellnick, 1940)

Family Blattisociidae Garman, 1948

Genus *Cheiroseius* Berlese, 1916

Note: All reported species of this genus herein are new records for the West Azerbaijan province.

Cheiroseius bryophilus Karg, 1969 (Fig. 2)

West Azerbaijan records: This is the first report of the species for this region.

Material examined: Urmia. Band, soil of apple orchard; 3♀♀; 37° 28' 16" N, 44° 56' 52" E, 1477 m; 29/Sept./2015.



Figure 2. Female of *Cheiroseius bryophilus* Karg, 1969.



Figure 3. Female of *Cheiroseius borealis* Karg, 1969.



Figure 4. Female of *Cheiroseius longipes* (Willmann, 1951).

***Cheiroseius borealis* Karg, 1969 (Fig. 3)**

Iran records: Zanjan province: Zanjan County, soil, rotten wood, fungi, litter, and dung (Zare et al. 2012); Lorestan province: Shirkhani district, soil under walnut trees (Hasanvand et al. 2014).

West Azerbaijan records: This is the first report of the species for this region.

Material examined: Urmia. Band, soil of apple orchard; 1♀; 37° 28' 16" N, 44° 56' 52" E, 1477 m; 29/Sept./2015. Urmia university, soil of cypress yard; 1♀; 37° 39' 29" N, 44° 58' 53" E, 1361 m; 07/Oct./2016.

***Cheiroseius longipes* (Willmann, 1951) (Fig. 4)**

Iran records: Guilan province: associated with eriophyid mite [*Aceria granati* (Canestrini and Massalongo, 1894)] (Adeli et al. 2013); Guilan province: Manjil, soil under olive trees (Mahjoori et al. 2015).

West Azerbaijan records: This is the first report of the species for this region.

Material examined: Urmia. Shohada valley, soil and lit-

ter; 2♀♀; 37° 16' 48" N, 45° 08' 06" E, 1425 m; 29/Aug./2015; Band, soil of apple orchard; 1♀; 37° 28' 16" N, 44° 56' 52" E, 1477 m; 29/Sept./2015.

***Cheiroseius curtipes* (Halbert, 1923) (Fig. 5)**

Iran records: Guilan province: collected from soil. Taklim, from soil under olive trees (Mahjoori et al. 2015).

West Azerbaijan records: This is the first report of the species for this region.

Material examined: Urmia. Band, soil of apple orchard; 1♀; 37° 28' 16" N, 44° 56' 52" E, 1477 m; 29/Sept./2015. Sulik village, soil and litter; 1♀; 37° 31' 04" N, 44° 46' 07" E, 1690 m; 05/Sept./2016.

***Cheiroseius serratus* (Halbert, 1915) (Fig. 6)**

West Azerbaijan records: This is the first report of the species for this region.



Figure 5. Female of *Cheiroseius curtipes* (Halbert, 1923).



Figure 6. Female of *Cheiroseius serratus* (Halbert, 1915).

Material examined: Urmia. Band, soil of apple orchard; 1♀; 37° 28' 16" N, 44° 56' 52" E, 1477 m; 29/Sept./2015. Nari, soil and litter; 1♀; 37° 19' 54" N, 44° 51' 57" E, 1695 m; 24/Aug./2016.

Genus *Lasioseius* Berlese, 1916

***Lasioseius youcefi* Athias- Henriot, 1959**

Iran records: Western Iran: Rijab area, soil of plum trees (Bakfard et al. 2007); Zanjan province: Zanjan County, soil, rotten wood, fungi, litter, and dung (Zare et al. 2012); Guilan Province: associated with eriophyid mite [*Eriophyes pyri* (Pagenstecher, 1857)] (Adeli et al. 2013); Southwest of East Azerbaijan Province: soil (Hashemi Khabir et al. 2013); Esfahan province: Esfahan city, soil (Kadkhodaei et al. 2013); Zanjan province, soil (Bigdeli et al. 2014); Lorestan province: Kakareza district, soil of apple orchard (Hasanvand et al. 2014); Chaharmahal va Bakhtiari Province, associated with *Fomes* sp., (Khalili-Moghadam & Nemati 2014); Chaharmahal va Bakhtiari Province: Boldaji city (Cheghakhor), Shahrekord region, soil of ant nests: *Tapinoma* sp. (Hym.: Formicidae) (Khalili- Moghadam & Saboori 2015); North western Fars province: Komehr region, soil and litter (Abolghasemi, & Kazemi 2016).

Material examined: Urmia. Rashakan, soil of apple orchard; 1♀; 37° 13' 54" N, 45° 19' 19" E, 1319 m; 15/May/2015; Urmia University, soil; 1♀; 37° 39' 29" N, 44° 58' 42" E, 1403 m; 23/Aug./2015; Nazlu dam, soil; 6♀♀; 37° 40' 19" N, 44° 55' 22" E, 1379 m; 6/Sept./2015; Band, soil of apple orchard; 15♀♀; 37° 28' 16" N, 44° 56' 52" E, 1477 m; 29/Sept./2015; Marmisho, soil; 1♀; 37° 34' 31" N, 44° 37' 40" E, 1756 m; 22/Apr./2016; Emamzade, soil of mulberry orchard; 1♀; 37° 31' 50" N, 44° 12' 13" E, 1289 m; 23/May./2016; Shohada valley, soil and litter; 3♀♀; 37° 16' 48" N, 45° 08' 06" E, 1425 m; 13/Jun./2016; Silvana, soil of apple orchard; 2♀♀; 37° 25' 23" N, 44° 51' 28" E, 1592 m; 23/Jun./2016; Nari, soil and litter; 1♀; 37° 19' 54" N, 44° 51' 57" E, 1695 m; 24/Aug./2016; Sulik village, soil and litter; 2♀♀; 37° 31' 04" N, 44° 46' 07" E, 1690 m; 05/Sept./2016.

***Lasioseius ometes* (Oudemans, 1903)**

Iran records: Zanjan province: Zanjan County, soil, rotten wood, fungi, litter, and dung (Zare et al. 2012).

West Azerbaijan records: This is the first report of the species for this region.

Material examined: Urmia. Shohada valley, soil and litter; 2♀♀; 37° 16' 48" N, 45° 08' 06" E, 1425 m; 13/Jun./2016;

Key to the genera and species of female blattisociids of Urmia (Which found in this survey)

- 1- Median lobe of pulvillus of legs II-IV slender and acute *Cheiroseius* Berlese, 1916...3
- Median lobe of pulvillus of legs II-IV broadly rounded *Lasioseius* Berlese, 1916...2
- 2- Dorsal shield without J1 and J3; ventri-anal shield with seven pairs of setae; some dorsal setae serrate
.....*Lasioseius youcefi* Athias- Henriot, 1959
- Dorsal shield with J1 and J3; ventri-anal shield with five pairs of setae; most dorsal setae tricarinate
.....*Lasioseius ometes* (Oudemans, 1903)
- 3- Posterior part of peritreme expanded behind coxa IV 5
- Posterior part of peritreme not expanded behind coxa IV 4
- 4- Ventri-anal shield with nine setae..... *Cheiroseius bryophilus* Karg, 1969
- Ventri-anal shield with 11 setae *Cheiroseius borealis* Karg, 1969
- 5- ventri-anal shield wider than long..... 6
- ventri-anal shield not wider than long..... *Cheiroseius serratus* (Halbert, 1915)
- 6- Leg I shorter than idiosoma; Tarsus I longer than tibia I..... *Cheiroseius curtipes* (Halbert, 1923)
- Leg I longer than idiosoma; Tarsus I shorter than tibia I..... *Cheiroseius longipes* (Willmann, 1951)

Family Ameroseiidae Evans, 1961

Genus *Ameroseius* Berlese, 1903

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

Iran records: Southwest of East Azerbaijan Province: soil (Hashemi Khabir et al. 2013); Chaharmahal va Bakhtiari province: associated with *Agricales* sp. (Khalili-Moghadam &

Nemati 2014); Zanjan province: Zanjan, soil (Bigdeli et al. 2014); Locality was not exactly mentioned (Chaharmahal va Bakhtiari, Isfahan, Khuzestan and Golestan provinces) (Khalili-Moghadam & Saboori 2016).

West Azerbaijan records: This is the first report of the species for this region.

Material examined: Urmia. Rashakan, soil of apple orchard; 4♀♀; 37° 13' 54" N, 45° 19' 19" E, 1319 m. Shohada valley, soil and litter; 2♀♀; 37° 16' 48" N, 45° 08' 06" E, 1425 m; 29/Aug./2015; Nazlu, soil of apple orchard; 2♀♀; 37° 40' 38" N, 44° 57' 10" E, 1370 m; 6/Sept./2015; Band, soil of apple orchard; 2♀♀; 37° 28' 16" N, 44° 56' 52" E, 1477 m; 29/Sept./2015; Marmisho, soil; 3♀♀; 37° 34' 31" N, 44° 37' 40" E, 1756 m; 22/Apr./2016; Emamzade, soil of mulberry orchard; 1♂; 37° 31' 50" N, 44° 12' 13" E, 1289 m; 23/May./2016; Sir village, soil of apple orchard; 2♀♀; 37° 28' 22" N, 45° 02' 31" E, 1619 m; Silvana, soil of apple orchard; 2♀♀; 37° 25' 23" N, 44° 51' 28" E, 1592 m; 23/Jun./2016; Sulik village, soil and litter; 3♀♀; 37° 31' 04" N, 44° 46' 07" E, 1690 m; 05/Sept./2016.

Ameroseius lidiae Bregetova, 1977

Iran records: Guilan province: Somesara, on raspberry shrubs (*Rubus* spp.), (Tajmiri & Hajizadeh 2013); Chaharmahal va Bakhtiari province: associated with *Agricales* sp., (Khalili-Moghadam & Nemati 2014); West Azerbaijan Province: Miandoab County, soil of apple orchards (Zarei & Kazemi 2014); Zanjan province: Zanjan, soil, (Bigdeli et al. 2014); North western Fars province: Komehr region, soil and litter (Abolghasemi & Kazemi 2016); Locality was not exactly mentioned (Chaharmahal va Bakhtiari, Isfahan, Khuzestan

and Golestan provinces) (Khalili-Moghadam & Saboori 2016). **West Azerbaijan records:** Miandoab County, soil of apple orchards (Zarei & Kazemi 2014).

Material examined: Urmia. Shohada valley, soil and litter; 1♀; 37° 16' 48" N, 45° 08' 06" E, 1425 m; 29/Aug./2015; Nazlu dam, soil; 7♀♀; 37° 40' 19" N, 44° 55' 22" E, 1379 m; 6/Sept./2015; Kaboodan island, soil; 1♀; 37° 28' 33" N, 45° 35' 21" E, 1329 m; 9/ Sept./2015; Shohada valley, soil and litter; 1♀; 37° 16' 49" N, 45° 08' 05" E, 1491 m; 13/Jun./2016; Nazlu dam, soil; 3♀♀; 37° 40' 21" N, 44° 55' 26" E, 1369 m; 4/Aug./2016; Sulik village, soil and litter; 1♀; 37° 31' 04" N, 44° 46' 07" E, 1690 m; 05/Sept./2016.

Genus *Epicriopsis* Berlese, 1916

***Epicriopsis palustris* Karg, 1971**

West Azerbaijan records: This is the first report of the species for this region.

Material examined: Urmia. Shohada valley, soil and litter; 1♀; 37° 16' 48" N, 45° 08' 06" E, 1425 m; 29/Aug./2015; Urmia University, soil and litter; 4♀♀; 37° 39' 29" N, 44° 58' 42" E, 1403 m; 23/Apr./2016; Silvana, soil of apple orchard; 1♀; 37° 25' 23" N, 44° 51' 28" E, 1592 m; 23/Jun./2016; Nari, soil and litter; 3♀♀; 37° 19' 54" N, 44° 51' 57" E, 1695 m; 24/Aug./2016.

Key to the genera and species of female ameroseiids of Urmia (Which found in this survey)

- 1- Dorsal shield with 29 pairs of setae and without star-like ornamentation ***Ameroseius* Berlese, 1903...2**
 - Dorsal shield with 16 pairs of setae and with star-like ornamentation ***Epicriopsis* Berlese, 1916**
 * marginal setae of dorsal shield longer than central setae; j3 and j4 short and not reaching the base of following setae..... ***Epicriopsis palustris* Karg, 1971**
 2- J4 long and passing the posterior margin of dorsal shield ***Ameroseius corbiculus* (Sowerby, 1806)**
 - J4 short and not passing the posterior margin of dorsal shield ***Ameroseius lidiae* Bregetova, 1977**

Discussion

Our contribution to current knowledge includes 19 species of the superfamily Ascoidea and Blattisociidae from the Urmia region, West Azerbaijan province. The existence of these 19 species of this superfamily and family Blattisociidae in the Urmia region alone indicates that there is a large variety of these mites in Iran. These genera and their species number are: *Arctoseius* Thor (3); *Gamasellodes* Athias-Henriot (2); *Protogamasellus* Karg, 1962 (1); *Antennoseius* Berlese, 1916 (2); *Neojordensia* Evans, 1957 (1); *Cheiroseius* Berlese (5); *Lasioseius* Berlese (2); *Ameroseius* Berlese (2); *Epicriopsis* Berlese (1). There are some species such as *Ameroseius plumosus* (Oudemans, 1902); *Arctoseius idiodactylus* Lindquist, 1961; *Protogamasellus hibernicus* Evans, 1982; *Protogamasellus mica* (Athias-Henriot, 1961); *Cheiroseius nepalensis* (Evans & Hyatt, 1960) that were reported recently by others from West Azerbaijan province, however we could not find any information about them in our research. We are still unfamiliar with the fauna of Ascoidea and Blattisociidae in the West Azerbaijan province, thus a comprehensive investigation of these in various cities and regions of West Azerbaijan province is proposed.

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