

Further spider (Arachnida: Araneae) material deposited in the Agricultural Zoology Museum of Iran (AZMI), Iranian Research Institute of Plant Protection

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doi: 10.5431/aramit5403

Abstract. The results of the examination of further spider material deposited in the Agricultural Zoology Museum of Iran, Iranian Research Institute of Plant Protection (Tehran, Iran), are reported, most of them from cereal fields and fruit orchards. A total of 634 specimens were studied, out of which, 106 species belonging to 70 genera and 27 families were identified. Five species are recorded for the fauna of Iran for the first time and documented by photos: *Brigittea civica* (Lucas, 1850) (Dictynidae), *Pardosa roscai* (Roewer, 1951) (Lycosidae), *Tetragnatha isidis* (Simon, 1880) (Tetragnathidae), *Trachyzelotes miniglossus* Levy, 2009 and *Zelotes tenuis* (L. Koch, 1866) (both Gnaphosidae). New provincial records are provided for additional 64 species. Earlier records of *Heliophanus aeneus* (Hahn, 1832) in Iran are corrected to *Heliophanus flavipes* (Hahn, 1832) based on the re-examination of original material. Subsequently, *H. aeneus* has to be removed from the Iranian Checklist.

Keywords: fauna, Middle East, museum collection, new records, range extensions

Zusammenfassung. Weiteres Spinnenmaterial (Arachnida: Araneae) aus dem Agricultural Zoology Museum of Iran (AZMI), Iranian Research Institute of Plant Protection. Ergebnisse der Untersuchung weiteren Spinnenmaterials aus dem Agricultural Zoology Museum of Iran, Iranian Research Institute of Plant Protection (Tehran, Iran), werden vorgestellt, der Großteil von Getreidefeldern und Obstplantagen. Insgesamt wurden 634 Individuen aus 106 Arten, 70 Gattungen und 27 Familien bestimmt. Fünf Arten wurden erstmals für den Iran nachgewiesen und werden mithilfe von Fotos dokumentiert: *Brigittea civica* (Lucas, 1850) (Dictynidae), *Pardosa roscai* (Roewer, 1951) (Lycosidae), *Tetragnatha isidis* (Simon, 1880) (Tetragnathidae), *Trachyzelotes miniglossus* Levy, 2009 und *Zelotes tenuis* (L. Koch, 1866) (beide Gnaphosidae). Für weitere 64 Arten werden Neunachweise für iranische Provinzen vorgelegt. Frühere Nachweise von *Heliophanus aeneus* (Hahn, 1832) aus dem Iran stellten sich nach einer Untersuchung des Originalmaterials als fehlbestimmte Exemplare von *Heliophanus flavipes* (Hahn, 1832) heraus. *H. aeneus* muss dementsprechend von der iranischen Checkliste entfernt werden.

The department of Agricultural Zoology, Iranian Research Institute of Plant Protection houses a museum with collections of different groups of animals, including a collection of spiders. The collection was originally made by Fariba Mozaffarian in 1996 and was partly studied by the subsequent curators (e.g. Mozaffarian et al. 2000, Mozaffarian 2000, Mozaffarian & Tirgari 2000, Ghavami 2006). Further study was made by Zamani (2015), as a result of which, a total of 180 specimens, belonging to 25 families, 60 genera and 77 species was identified, including nine new species records for the fauna of Iran. In the present paper, we aim to report the results of an investigation on a larger bulk of the material deposited in this museum, which was not included in the previous studies. A total of 634 specimens were examined. A small portion of these specimens containing undetermined and undescribed species will be dealt with in future publications.

Material and methods

The collection was thoroughly revised between January and March 2017. The epigynes were removed, cleared and cleaned with 10 % KOH. Nomenclature and distribution information follow Zamani et al. (2017). Information on the previous Iranian records of the species (and not including the new provincial records) are mentioned as "Iranian provinces" (Fig. 1) and are based on Zamani et al. (2017). Taxonomic references with reliable illustrations were used for identification of the material, and are cited throughout the text for each species, but the full list of taxonomic references can be found at World Spider Catalog (2017). Collection data are given in as much detail as possible, but still, for some records even the year or province

is unknown, or only the province is known (those studied specimens without any labels are not included in this paper, but deposited in the collection). Photographs were made using an Olympus SC100 camera attached to an Olympus SZ-61 stereomicroscope at the entomology lab of the Shiraz University of Medical Sciences. Depositories (including those for re-examined and comparative material) involve the following institutions and abbreviations: Agriculture Zoology Museum, Iranian Research Institute of Plant Protection (AZMI), Jalal Afshar Zoological Museum of University of Tehran (JAZM).

List of species

Family Agelenidae C. L. Koch, 1837

Agelescape gideoni Levy, 1996

Identification. Levy (1996)

Material. Tehran Province: 1♂ (AZMI), Shahriar, Andisheh, apple garden, 8 May 2001 (A. Bahramishad).

Distribution. Turkey to Iran. Iranian provinces: Alborz, Mazandaran and Tehran.

Family Araneidae Clerck, 1757

Aculepeira talishia (Zawadsky, 1902)

Identification. Levi (1977)

Material. Tehran Province: 2♂♂ 2♀♀ (AZMI), Varjin Conserved Area, 35°55'30"N, 51°36'41"E, alt. 253 m. (F. Mozaffarian); Zanjan Province: 1♂ 3♀♀ 1j (AZMI), Khanchay, field by the river.

Distribution. Turkey, Russia, Georgia, Azerbaijan, Iran. Iranian provinces: Mazandaran and Azerbaijan-e Gharbi. Our new record from Tehran (southern slopes of Central Alborz Mountains) is the easternmost in the whole known range.

Argiope bruennichi (Scopoli, 1772)

Identification. Bjørn (1997), Jäger (2012)



Fig. 1: Map of Iran with provincial boundaries

Material. Zanjan Province: 1♂ (AZMI), Abbar-Gilvan Rd.

Distribution. Palaearctic. Iranian provinces: Chahar Mahal & Bakhtiari, Azerbaijan-e Gharbi or Azerbaijan-e Sharghi, Fars, Gilan, Golestan, Mazandaran, Qazvin, Khorasan-e Razavi and Zanjan.

Argiope lobata (Pallas, 1772)

Identification. Bjørn (1997), Jäger (2012)

Material. Yazd Province: 1♀ (with mating plug) (AZMI), Mehriz, pomegranate and citrus orchards.

Distribution. Old World. Iranian provinces: Ardabil, Fars, Kerman, Mazandaran, Khorasan-e Razavi, Khorasan-e Jonubi, Tehran and Zanjan.

Hypsosinga pygmaea (Sundevall, 1831)

Identification. Levi (2002), Roberts (1995)

Material. Mazandaran Province: 1♀ (AZMI), surroundings of Amol, rice land, 21 July 1996 (F. Mozaffarian); Mazandaran Province: 2♀♀ (AZMI), surroundings of Amol, rice land, 21 July 1996 (F. Mozaffarian).

Distribution. Holarctic. Iranian provinces: Gilan, Golestan, Isfahan, Mazandaran and Zanjan.

Larinoides cornutus (Clerck, 1757)

Identification. Šestáková et al. (2014)

Material. Zanjan Province: 1♀ (AZMI), Khanchay, field by the river.

Distribution. Holarctic. Iranian provinces: Golestan and Kerman.

Leviellus caspicus (Simon, 1889)

Identification. Levi (1974)

Material. Tehran Province: 1♀ (AZMI), Tehran, Darband, October 1996 (F. Mozaffarian); Yazd Province: 1♀ (AZMI),

Yazd, Taft, pomegranate orchard, 24 October 1998 (Ghayoomi, Jafari).

Distribution. Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan and Iran. Iranian provinces: Tehran. Our material from Yazd Province is the southernmost record in the whole known distribution range.

Mangora acalypha (Walckenaer, 1802)

Identification. Levy (1987), Roberts (1995)

Material. Markazi Province: 25♀♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 19 April 1998 (F. Mozaffarian); Tehran Province: 1♀ (AZMI), Varamin, Yam village, pomegranate orchard (A. Bahramishad).

Distribution. West Palaearctic. Iranian provinces: Alborz, Gilan, Golestan, Mazandaran, Qazvin, Semnan and Tehran.

Neoscona adianta (Walckenaer, 1802)

Identification. Ledoux (2008), Roberts (1995)

Material. Golestan Province: 1♀ (AZMI), Gonbad Kavous, cotton field, summer 1999 (Khoramly).

Distribution. Palaearctic. Iranian provinces: Alborz, Ardebil, Gilan, Golestan, Isfahan, Kordestan, Mazandaran, Qazvin and Tehran.

Neoscona subfuscata (C. L. Koch, 1837)

Identification. Levy (1998)

Material. Yazd Province: 1♀ (AZMI), Mehriz, pomegranate and citrus orchards, 19 June 1998 (Ghayoomi, Jafari).

Distribution. Old World. Iranian provinces: Golestan, Kerman, Markazi and Mazandaran.

Singa hamata (Clerck, 1757)

Identification. Roberts (1995)

Material. Mazandaran Province: 1 sub♀ (AZMI), surround-

ings of Tonekabon, rice land, 6 August 1996 (F. Mozaffarian); Mazandaran Province: 1♀ (AZMI), surroundings of Amol, rice land, 4 May 1996 (F. Mozaffarian).

Distribution. Palaearctic. Iranian provinces: Gilan.

Family Clubionidae Wagner, 1887

Clubiona phragmitis C. L. Koch, 1843

Identification. Almquist (2006)

Material. Mazandaran Province: 1♂ (AZMI), surroundings of Tonekabon, rice land, 6 August 1996 (F. Mozaffarian).

Distribution. Palaearctic. Iranian provinces: Gilan and Mazandaran.

Family Corinnidae Karsch, 1880

Castianeira arnoldii Charitonov, 1946

Identification. Marusik & Mikhailov (2010)

Material. Fars Province: 1♂ (AZMI), Shiraz, corn field, 19 June 2011; Markazi Province: 1♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 4 August 1999 (A. Bahramishad).

Distribution. Turkmenistan, Uzbekistan and Iran. Iranian provinces: Fars, Golestan, Markazi, Khorasan-e Razavi and Tehran.

Family Dictynidae O. Pickard-Cambridge, 1871

Brigittea civica (Lucas, 1850) (Fig. 2)

Identification. Wiehle (1953: sub *Dictyna*)

Material. Fars Province: 1♀ (AZMI), Shiraz, olive orchard, 1999 (M. Fallahzadeh).

Distribution. Europe, North Africa, Turkey and North America. Iran: New record for the fauna, with our material representing its easternmost limit in the whole known range of distribution.

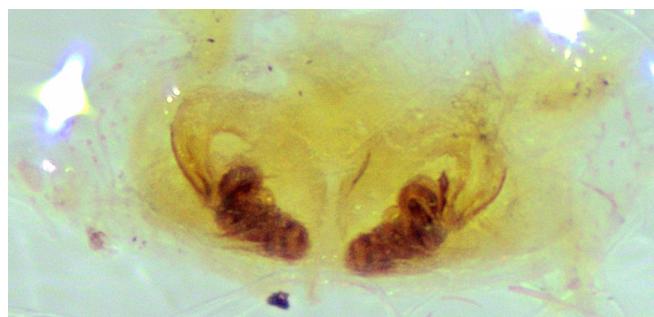


Fig. 2. *Brigittea civica*, dorsal view of vulva

Family Eresidae C. L. Koch, 1845

Stegodyphus pacificus Pocock, 1900

Identification. Kraus & Kraus (1989)

Material. Markazi Province: 1j (AZMI), Saveh, Yal Abad, pomegranate orchard, 6 July 1999 (A. Bahramishad); Tehran Province: 2♂♂1♀ (AZMI), PPDRI park, autumn 2001 (A. Bahramishad); Tehran Province: 1♀ (AZMI), PPDRI park, 26 August 2000 (B. Habibian); Tehran Province: 3♀♀ (AZMI), PPDRI park, 23 September 2000; Tehran Province: 2♀♀ (AZMI), PPDRI park, 1999 (F. Mozaffarian); Tehran Province: 1♀ (AZMI), PPDRI park, 30 April 2000 (Cheraghian); Tehran Province: 6♀♀ (AZMI), PPDRI park, 5 August 2000 (A. Bahramishad).

Distribution. Jordan to India. Iranian provinces: Alborz, Gilan, Kerman, Qazvin, Khorasan-e Razavi, Khorasan-e Jonubi and Tehran.

Family Eutichuridae Lehtinen, 1967

Cheiracanthium mildei L. Koch, 1864

Identification. Paquin & Dupérré (2003)

Material. Khorasan-e Razavi Province: 1♂1♀ (AZMI), Ferdows, pomegranate orchard, 30 May 1998 (Kamali); Semnan Province: 1♂ (AZMI), Shahrood, 12 May 2000; Azerbaijan-e Gharbi Province: 1♂ (AZMI), pome orchard, 24 May 1998 (A. Khalil Aria).

Distribution. West Palaearctic and Nearctic. Iranian provinces: Golestan, Kerman, Kohgiluyeh & Boyer-Ahmad and Tehran.

Cheiracanthium pennyi O. Pickard-Cambridge, 1873

Identification. Almquist (2006)

Material. Alborz Province: 2♂♂ (AZMI), Mard Abad, Pol-e Ferdows, 8 May 2001 (A. Bahramishad); Tehran Province: 2♂♂1♀ (AZMI), Varamin, Yam village, pomegranate orchard, 8 May 2000 (F. Mozaffarian, A. Bahramishad).

Distribution. Palaearctic. Iranian provinces: Ardebil, Fars, Golestan, Khorasan-e Shomali, Khorasan-e Razavi, Semnan and Tehran.

Family Filistatidae Ausserer, 1867

Zaitunia vahabzadehi Zamani & Marusik, 2016

Identification. Zamani & Marusik (2016)

Material. Tehran Province: 1♀ (AZMI), Velenjak, agricultural garden, 29 April 2001.

Distribution. This species was previously known only from the original description, from Tehran Province of Iran. This record is the northernmost in the known distribution range.

Family Gnaphosidae Pocock, 1898

Drassodes lapidosus (Walckenaer, 1802)

Identification. Kovblyuk (2008), Roberts (1995)

Material. Semnan Province: 1♀ (AZMI), no further data available; Tehran Province: 1♂1♀ (AZMI), Velenjak, agricultural garden, 29 April 2001 (F. Mozaffarian).

Distribution. West and Central Palaearctic. Iranian provinces: Gilan, Azerbaijan-e Gharbi or Azerbaijan-e Sharghi, Gilan, Golestan, Kerman, Mazandaran, Khorasan-e Razavi and Tehran.

Haplodrassus dalmatensis (C. L. Koch, 1866)

Identification. Lecigne (2016)

Material. Fars Province: 1♂3s♂♂1♀ (AZMI), Shiraz, corn field, 10 April 2011; Ilam Province: 1♂1j (AZMI), Shirvan, Chardavol, wheat field, 2 May 2001 (F. Mozaffarian).

Distribution. West Palaearctic. Iranian provinces: Khorasan-e Razavi, Semnan and Tehran.

Nomisia conigera (Spassky, 1941)

Identification. Chatzaki (2010)

Material. Tehran Province: 1♀ (AZMI), Velenjak, agricultural garden, 29 April 2001 (F. Mozaffarian).

Distribution. Turkey to Tajikistan. Iranian provinces: Azerbaijan-e Sharhi or Azerbaijan-e Gharbi province. Our record is the southernmost known locality in the known distribution range.

Nomisia ripariensis (O. Pickard-Cambridge, 1872)

Identification. Levy (1995)

Material. Tehran Province: 1♂ (AZMI), Varamin, Sharif Abad, Kolin village, wheat field, 8 May 2000 (A. Bahramishad, F. Mozaffarian)

Distribution. Greece to Iran. Iranian provinces: Golestan, Kerman, Mazandaran, Khorasan-e Razavi and Tehran.

Talanites dunini Platnick & Ovtsharenko, 1991

Identification. Platnick & Ovtsharenko (1991)

Material. Markazi Province: 1♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 23 July 1999 (A. Bahramishad).

Distribution. Israel to Turkmenistan. Iranian provinces: Gilan and Mazandaran. This record is the southernmost in the known distribution range.

Talanites fagei Spassky, 1938

Identification. Murphy (2007)

Material. Tehran Province: 3♂♂ 1♀ (AZMI), Jajrood, artificial wood, 28 May 2000 (Y. M. Marusik); Tehran Province: 1♀ (AZMI), Lavasanat, 12 August 2001 (A. Bahramishad).

Distribution. Southern Europe, Russia, Caucasus to Tajikistan and Iran. Iranian provinces: Khorasan-e Shomali and Khorasan-e Razavi.

Trachyzelotes jaxartensis (Kroneberg, 1875)

Identification. Platnick & Murphy (1984), Zamani et al. (2016)

Material. Semnan Province: 1♀ (AZMI), Shahrud, 19 May 1999 (A. D. Shadmehri); Tehran Province: 1♀ (AZMI), PPDRI, inside building, 14 April 2001 (Gharaei); Tehran Province: 1♀ (AZMI), PPDRI, inside building, 11 April 2001 (F. Mozaffarian).

Distribution. Holarctic, Hawaii and South Africa. Iranian provinces: Mazandaran and Khorasan-e Razavi.

Trachyzelotes miniglossus Levy, 2009 (Fig. 3)

Identification. Levy (2009)

Material. Tehran Province: 1♀ (AZMI), Velenjak, agricultural garden, 29 April 2001 (F. Mozaffarian).

Distribution. Israel. Iran: New record for the fauna, with our material representing its easternmost limit in the whole known range.



Fig. 3. *Trachyzelotes miniglossus*, dorsal view of vulva

Zelotes longipes (L. Koch, 1866)

Identification. Almquist (2006), Marusik & Kovblyuk (2011)

Material. Mazandaran Province: 1♀ (AZMI), surroundings of Tonekabon, rice land, 19 August 1996 (F. Mozaffarian).

Distribution. Palaearctic. Iranian provinces: Gilan, Golestan, Isfahan, Markazi and Mazandaran.

Zelotes tenuis (L. Koch, 1866) (Fig. 4)

Identification. Senglet (2011)

Material. Markazi Province: 1♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 4 August 1999 (A. Bahramishad); Markazi Province: 1♀ (AZMI), same locality, 6 June 1998 (F. Mozaffarian); Markazi Province: 1♀ (AZMI), same locality, 22 June 1998 (F. Mozaffarian); Tehran Province: 1♀ (AZMI), PPDRI, inside building, 1999 (F. Mozaffarian).

Distribution. Mediterranean to Ukraine, USA. Iran: New record for the fauna, with the material from Tehran representing its easternmost limit in the whole known range.



Fig. 4. *Zelotes tenuis*, dorsal view of vulva

Family Linyphiidae Blackwall, 1859

Frontinellina frutetorum (C. L. Koch, 1834)

Identification. Bosmans (2006)

Material. Gilan Province: 3♀♀ (AZMI), Rasht, mulberry garden, summer of 2000 (Hasheminia).

Distribution. Palaearctic. Iranian provinces: Alborz, Gilan, Golestan, Ilam, Mazandaran, Khorasan-e Shomali, Qazvin, Tehran and Zanjan.

Prinerigone vagans (Audouin, 1826)

Identification. Tanasevitch (1990: sub *Erigone*).

Material. Gilan Province: 1♂ 1♀ (AZMI), Rasht, Rice Research Institute, rice land, 18 August 1996 (F. Mozaffarian); Kohgiluyeh & Boyer Ahmad Province: 1♂ (AZMI), Yasuj, Dehno, alt. 1100 m, 27 March 2001 (Saeedi); Mazandaran Province: 2♂♂ (AZMI), surroundings of Amol, rice land, 21 July 1996 (F. Mozaffarian).

Distribution. Old World. Iranian provinces: Chahar Mahal & Bakhtiari, Azerbaijan-e Sharqi, Fars, Gilan, Golestan, Ilam, Isfahan, Kerman, Kermanshah, Khuzestan, Kohgiluyeh & Boyer-Ahmad, Kordestan, Lorestan, Mazandaran, Khorasan-e Razavi, Tehran and Azerbaijan-e Gharbi.

Family Lycosidae Sundevall, 1833

Alopecosa albofasciata (Brullé, 1832)

Identification. Fuhn & Niculescu-Burlacu (1971)

Material. Tehran Province: 1♂ 1♀ (AZMI), Velenjak, agricultural garden, 29 April 2001; Tehran Province: 1♀ (AZMI), PPDRI, inside building, 14 April 2001 (Gharaei); Tehran Province: 1♂ (AZMI), Varamin, Yam village, pomegranate orchard, 14 April 2001 (A. Bahramishad).

Distribution. Mediterranean to Central Asia. Iranian provinces: Golestan. Our record from Tehran Province is the southernmost locality in the known distribution range.

Arctosa leopardus (Sundevall, 1833)

Identification. Almquist (2005)

Material. Gilan Province: 1♂ (AZMI), Rasht, Rice Research Institute, rice land, 28 June 1996 (F. Mozaffarian); Gilan

Province: 2♀ (AZMI), Rasht, Rice Research Institute, rice land, 28 June 1996 (F. Mozaffarian); Mazandaran Province: 1♀ (AZMI), surroundings of Tonekabon, rice land, 6 August 1996 (F. Mozaffarian); Mazandaran Province: 1♀ (AZMI), surroundings of Tonekabon, rice land, 6 August 1996 (F. Mozaffarian); Mazandaran Province: 1♂ (AZMI), surroundings of Tonekabon, rice land, 6 August 1996 (F. Mozaffarian).

Distribution. West and Central Palaearctic. Iranian provinces: Gilan, Golestan, Ilam, Mazandaran and Khorasan-e Razavi.

Arctosa tbilisiensis Mccheidze, 1946

Identification. Kunt et al. (2012)

Material. Ilam Province: 2♂ (AZMI), Darreh Shahr, wheat field, 25 April 2001; Isfahan Province: 1♀ (AZMI), Natanz, 22 May 2000; Markazi Province: 1♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 16 June 1998 (F. Mozaffarian); Markazi Province: 1♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 16 June 1998 (F. Mozaffarian); Markazi Province: 4♂ 18♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 15 June 1999 (F. Mozaffarian); Tehran Province: 6♂ 6♀ (AZMI), Varamin, Yam village, pomegranate orchard, 8 May 2000 (F. Mozaffarian, A. Bahramishad).

Distribution. Eastern Mediterranean to Iran. Iranian provinces: Alborz, Gilan, Golestan, Ilam, Markazi, Mazandaran, Khorasan-e Shomali, Qazvin, Qom, Khorasan-e Razavi and Tehran.

Aulonia kratochvili Dunin, Buchar & Absolon, 1986

Identification. Zonstein et al. (2015)

Material. Markazi Province: 8♂ (AZMI), Saveh, Yal Abad, pomegranate orchard, 19 April 1998 (F. Mozaffarian).

Distribution. West Palaearctic. Iranian provinces: Alborz, Golestan and Markazi.

Hogna radiata (Latreille, 1817)

Identification. Brady (2012), Loksa (1972)

Material. Fars Province: 2s♀ 1s♂ 1J (AZMI), Shiraz, corn field, 19 June 2011; Fars Province: 1♀ 1s♂ 2j (AZMI), Shiraz, corn field, 30 August–16 November 2011; Tehran Province: 1♂ (AZMI), Tehran, PPDRI, inside building, 1999 (F. Mozaffarian); Tehran Province: 1♀ (AZMI), Tehran, PPDRI, 7 November 2000 (A. Bahramishad); Tehran Province: 1♀ (AZMI), Tehran, PPDRI, 2 January 2001 (A. Bahramishad); Azerbaijan-e Gharbi Province: 1♀ (AZMI), surroundings of Piranshahr, pome orchard, 12 October 1998 (A. Khalil Aria). **Distribution.** Central Europe to Central Asia and Central Africa. Iranian provinces: Alborz, Fars, Golestan, Kermanshah, Kordestan, Markazi, Mazandaran, Khorasan-e Shomali, Khorasan-e Razavi, Tehran and Zanjan.

Comment. *Hogna radiata* is in desperate need of a revision. It's very likely that there are several species identified under this name across the wide range of distribution currently considered for this species, for details see Brady (2012).

Lycosa praegrandis C. L. Koch, 1836

Identification. Zyuzin & Logunov (2000).

Material. Ilam Province: 1♂ (AZMI), wheat field.

Distribution. West Palaearctic. Iranian provinces: Alborz, Golestan, Khuzestan, Khorasan-e Razavi, Mazandaran and Tehran.

Pardosa aenigmatica Tongiorgi, 1966

Identification. Tongiorgi (1966), Zamani (2015)

Material. Fars Province: 3♀ (AZMI), Shiraz, corn field, 7 September 2011; Ilam Province: 3♀ (AZMI), Darreh Shahr, wheat field, 25 April 2001; Markazi Province: 2♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 19 April 1998 (F. Mozaffarian).

Distribution. Italy, Turkey, Azerbaijan, Israel and Iran. Iranian provinces: Ilam. The current material from Markazi Province represents its easternmost limit in the whole known distribution range.

Pardosa azerifalcata Marusik, Guseinov & Koponen, 2003

Identification. Marusik et al. (2003)

Material. Markazi Province: 2♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 19 April 1998 (F. Mozaffarian); Markazi Province: 1♂ (AZMI), Saveh, Yal Abad, pomegranate orchard, 19 April 1998 (F. Mozaffarian); Markazi Province: 1♂ (AZMI), Saveh, Yal Abad, pomegranate orchard, 16 June 1998 (F. Mozaffarian); Tehran Province: 42♀ (AZMI), Varamin, Sharif Abad, Kolin vil., wheat field, 8 May 2000 (F. Mozaffarian, A. Bahramishad).

Distribution. This species has been described from Azerbaijan and later recorded from northeastern Iran by Namaghi et al. (2014). The re-examined material of the previous Iranian record of this species from Khorasan-e Razavi Province (deposited in JAZM) turned out to be a misidentified *Pardosa italicica* Tongiorgi, 1966. Thus, our record from Markazi Province is the first record of this species from Iran, and the easternmost in the whole distribution range.

Pardosa cf. buchari Ovtsharenko, 1979

Identification. Marusik et al. (2012)

Material. Kohgiluyeh & Boyer-Ahmad Province: 1♀ (AZMI), Yasooj, wheat field, 1 May 2001 (Saeedi); Kohgiluyeh & Boyer-Ahmad Province: 3♀ (AZMI), Kord Laghari, wheat field, 4 May 2000 (Saeedi); Markazi Province: 1♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 16 June 1998 (F. Mozaffarian); Mazandaran Province: 1♀ (AZMI), Tonekabon, inside building, 1996 (F. Mahmoud Asl); Tehran Province: 2♀ (AZMI), Varamin, Yam village, wheat field, 18 May 2000 (F. Mozaffarian, A. Bahramishad).

Distribution. *Pardosa buchari* has been recorded in southern Ukraine, Caucasus and Iran. Iranian provinces: Golestan and Mazandaran. Our record from Kohgiluyeh & Boyer-Ahmad Province is the southeasternmost in the known distribution range (although, our identification of this material can be confirmed only by collection of males).

Pardosa italicica Tongiorgi, 1966

Identification. Fuhr & Niculescu-Burlacu (1971), Tongiorgi (1966)

Material. Fars Province: 1♀ (AZMI), Shiraz, corn field, 7 September 2011; Fars Province: 2♂ 2♀ (AZMI), Kovar, 12 April 2011; Fars Province: 1♂ (AZMI), Shiraz, corn field, 19 June 2011; Fars Province: 1♂ (AZMI), Hassan Abad, corn field, 3 July 2011; Isfahan Province: 4♂ 1♀ (AZMI), Isfahan, 2000 (Ghahari); Kohgiluyeh & Boyer-Ahmad Province: 1♀ (AZMI), Jalil Babakan, 1 May 2001; Tehran Province: 1♂ 25♀ (AZMI), Varamin-Pakdasht Rd., wheat field, Water Pump station, 16 April 2001 (F. Mozaffarian).

Distribution. Europe and Central Asia. Iranian provinces: Kohgiluyeh & Boyer-Ahmad, Khorasan-e Shomali and Khorasan-e Razavi. Our record from Fars Province is the southernmost in the known distribution range.

***Pardosa morosa* (C. L. Koch, 1870)**

Identification. Fuhrn & Niculescu-Burlacu (1971)

Material. Semnan Province: 1♀ (AZMI), Bastam, 23 May 2000.

Distribution. Europe to Central Asia. Iranian provinces: Khorasan-e Shomali and Khorasan-e Razavi.

***Pardosa paludicola* (Clerck, 1757)**

Identification. Fuhrn & Niculescu-Burlacu (1971)

Material. Tehran Province: 1♀ (AZMI), PPDRI park, 1998 (F. Mozaffarian); West Azerbaijan Province: 1♂ (AZMI), Uromieh, Kahriz, pome orchard, 20 April 1997 (A. Khalil Aria).

Distribution. Palaearctic. Iranian provinces: Mazandaran.

***Pardosa pontica* (Thorell, 1875)**

Identification. Marusik et al. (2012)

Material. Markazi Province: 2♂♂11♀♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 23 May 1999 (A. Bahramishad); Markazi Province: 1♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 15 June 1999 (F. Mozaffarian).

Distribution. Eastern Europe to Central Asia. Iranian provinces: Golestan, Khorasan-e Razavi and Tehran.

***Pardosa roscai* (Roewer, 1951) (Fig. 5)**

Identification. Fedoriak et al. (2016)

Material. Khuzestan Province: 1♂4♀♀2j (AZMI), Ahvaz, wheat field, 15 April 2001.

Distribution. Bulgaria, Romania and Turkey. Iran: New record for the fauna, with the current material representing its southeasternmost limit in the whole known distribution range.

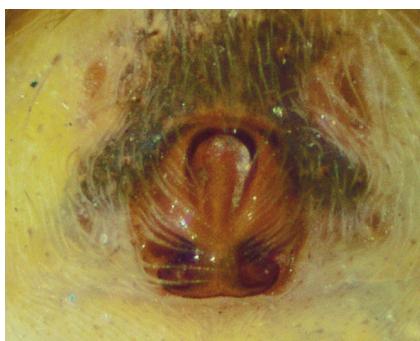


Fig. 5. *Pardosa roscai*, ventral view of epigyne

***Pirata piraticus* (Clerck, 1757)**

Identification. Nadolny & Kovblyuk (2011)

Material. Gilan Province: 1♂ (AZMI), Rasht, Rice Research Institute, rice land, 28 June 1996 (F. Mozaffarian); Mazandaran Province: 1♀ (AZMI), surroundings of Amol, rice land, 21 July 1996 (F. Mozaffarian); Mazandaran Province: 1♀ (AZMI), surroundings of Amol, rice land, 21 July 1996 (F. Mozaffarian); Mazandaran Province: 1♀ (AZMI), surroundings of Tonekabon, rice land, 6 August 1996 (F. Mozaffarian); Mazandaran Province: 1♀ (AZMI), surroundings of Tonekabon, rice land, 19 August 1996 (F. Mozaffarian); Mazandaran Province: 1♂ (AZMI), Tonekabon, Chaparsar, rice land, May 1996 (F. Mozaffarian).

Distribution. Holarctic. Iranian provinces: Azerbaijan-e Gharbi or Azerbaijan-e Sharghi, Gilan, Golestan, Isfahan, Mazandaran and Khorasan-e Razavi.

***Trochosa altera* (Roewer, 1955)**

Identification. Logunov (2012)

Material. Alborz Province: 1♀ (AZMI), Karaj, Mehrshar, pome orchard, 2 October 1998 (F. Mozaffarian); Tehran Province: 2♀♀ (AZMI), PPDRI park, 1999 (F. Mozaffarian).

Distribution. Iran (endemic): from provinces Fars, Mazandaran and Semnan.

***Trochosa ruricola* (De Geer, 1778)**

Identification. Fuhrn & Niculescu-Burlacu (1971), Hepner & Milasowszky (2006)

Material. Alborz Province: 6♂♂8♀♀8j (AZMI), Karaj, pear garden, 1 May 2001 (F. Mozaffarian).

Distribution. Holarctic. Iranian provinces: Mazandaran.

***Trochosa urbana* O. Pickard-Cambridge, 1876**

Identification. Saaristo (2010)

Material. Mazandaran Province: 1♀ (AZMI), surroundings of Tonekabon, rice land, 19 August 1996 (F. Mozaffarian); Mazandaran Province: 1♀ (AZMI), surroundings of Amol, rice land, 21 July 1996 (F. Mozaffarian).

Distribution. North and Central Africa to India. Iranian provinces: Alborz, Fars, Gilan, Kerman, Mazandaran and Khorasan-e Razavi.

***Wadicosa fidelis* (O. Pickard-Cambridge, 1872)**

Identification. Kronestedt & Zyuzin (2009)

Material. Ilam Province: 1♂1♀ (AZMI), Darreh Shahr, wheat field, 25 April 2001.

Distribution. Europe to Japan. Iranian provinces: Golestan, Khuzestan, Kordestan and Khorasan-e Razavi.

Family Miturgidae Simon, 1886

***Prochora lycosiformis* (O. Pickard-Cambridge, 1872)**

Identification. Zamani et al. (2016)

Material. Ilam Province: 1♂ (AZMI), Mehran, wheat fields (F. Mozaffarian).

Distribution. Sicily, Israel and Iran. Iranian provinces: Kerman.

Family Oecobiidae Blackwall, 1862

***Oecobius putus* O. Pickard-Cambridge, 1876**

Identification. Zamani et al. (2016)

Material. Fars Province: 23♂♂48♀♀+j (AZMI), Shiraz, inside building, fall 1996 (F. Mozaffarian).

Distribution. from Egypt to India. Iranian provinces: Hormozgan and Tehran.

***Uroctea thaleri* Rheims, Santos & van Harten, 2007**

Identification. Rheims et al. (2007)

Material. Semnan Province: 1♀ (AZMI), 7 June 2000.

Distribution. Turkey, Israel, Iran, Yemen and India. Iranian provinces: Khuzestan and Khorasan-e Razavi.

Family Oxyopidae Thorell, 1870

***Oxyopes globifer* Simon, 1876**

Identification. Levy (1999)

Material. Tehran Province: 3♀ (AZMI), Varamin, wheat field, April 1998 (Sheikhi); Tehran Province: 1♀ (AZMI), Varamin, Yam village, pomegranate orchard, 15 April 2001 (A. Bahramishad).

Distribution. Mediterranean to Tajikistan. Iranian provinces: Markazi and Mazandaran.

Oxyopes heterophthalmus (Latreille, 1804)

Identification. Levy (1999)

Material. Tehran Province: 1♂ (AZMI), Varamin, wheat field, April 1998 (Sheikhi).

Distribution. Palaearctic. Iranian provinces: Golestan and Mazandaran.

Oxyopes lineatus Latreille, 1806

Identification. Levy (1999), Weiss (1989)

Material. Fars Province: 1♂ (AZMI), Shiraz, corn field, 19 June 2011; Isfahan Province: 1♂ (AZMI), apple garden, 2001 (Emami); Tehran Province: 1♀ (AZMI), PPDRI, inside building, 25 July 1997 (Farrokhi); Zanjan Province: 1♂ (AZMI), Zarrin Abad, near the river, 13 July 2006 (F. Mozaffarian); Zanjan Province: 1♂ (AZMI), Abbar-Gilvan Rd.

Distribution. West Palaearctic. Iranian provinces: Alborz, Azerbaijan-e Gharbi or Azerbaijan-e Sharghi, Golestan, Kohgiluyeh & Boyer-Ahmad, Khorasan-e Razavi and Tehran.

Family Philodromidae Thorell, 1870

Philodromus cespitum (Walckenaer, 1802)

Identification. Ono & Martens (2005)

Material. Markazi Province: 1♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 23 May 1999 (A. Bahramishad); Azerbaijan-e Gharbi Province: 1♀ (AZMI), Nazloo, pome orchard, 19 June 1998 (A. Khalil Aria).

Distribution. Holarctic. Iranian provinces: Ardebil, Golestan, Mazandaran and Tehran.

Comment. Since there are considerable differences between the drawings of the Iranian material described in Ono & Martens and the European *P. cespitum* in Muster & Thaler (2004), a future investigation should target the true identity of *P. cespitum* in Iran.

Thanatus formicinus (Clerck, 1757)

Identification. Kastrigina & Kovblyuk (2013)

Material. Tehran Province: 1♀ (AZMI), Velenjak, agricultural garden, 29 April 2001 (F. Mozaffarian).

Distribution. Holarctic. Iranian provinces: Fars, Golestan, Khorasan-e Razavi and Tehran.

Thanatus vulgaris Simon, 1870

Identification. Kastrigina & Kovblyuk (2013)

Material. Alborz Province: 2♀ (AZMI), Karaj, wheat field (A. Bahramishad); Alborz Province: 1♂ (AZMI), Karaj, wheat field, 5 June 2000 (A. Nazari); Alborz Province: 1♀ (AZMI), Karaj, wheat field, 5 June 2000 (A. Nazari); Alborz Province: 1♂ 2♀ (AZMI), Karaj, wheat field, 31 May 2000 (A. Nazari); Fars Province: 1♀ (AZMI), Hassan Abad, 3 July 2011; Fars Province: 1♀ (AZMI), Shiraz, corn field, 7 September 2011; Isfahan Province: 1♂ (AZMI), Isfahan, corn field, summer 2000 (M. Nematollahi); Qazvin Province: 1♀ (AZMI), Takestan, alfalfa field, 5 July 2006 (F. Mozaffarian); Tehran Province: 1♀ (AZMI), Velenjak, ag-

ricultural garden, 29 April 2001 (F. Mozaffarian); Tehran Province: 17♀ (AZMI), Varamin, wheat field, April 1998 (Sheikhi).

Distribution. Holarctic. Iranian provinces: Alborz, Fars, Golestan, Hormozgan, Mazandaran and Tehran.

Tibellus oblongus (Walckenaer, 1802)

Identification. Almquist (2006)

Material. Alborz Province: 1♂ (AZMI), Karaj, wheat field, 5 May 1999 (A. Tatri); Alborz Province: 4♂ 9♀ 1s♀ 1s♂ (AZMI), Karaj, Mehrshahr, pear garden, 1 May 2001 (F. Mozaffarian); Gilan Province: 1j (AZMI), Rasht, Rice Research Institute, rice land, 28 June 1996 (F. Mozaffarian); Gilan Province: 1♀ (AZMI), Rasht, rice land, 28 June 1996 (F. Mozaffarian); Gilan Province: 3♀ (AZMI), Rasht, rice land, 24 June 1996 (Karimian); Mazandaran Province: 1♂ 1♀ (AZMI), surroundings of Tonekabon, rice land, 19 August 1996 (F. Mozaffarian); Mazandaran Province: 1♀ (AZMI), surroundings of Amol, rice land, 21 July 1996 (F. Mozaffarian).

Distribution. Holarctic. Iranian provinces: Gilan, Golestan, Mazandaran, Khorasan-e Razavi and Tehran.

Family Pholcidae C. L. Koch, 1850

Artema doriae (Thorell, 1881)

Identification: According to unpublished photos of type specimens.

Material. Tehran Province: 1♀ (AZMI), PPDRI, inside building, 1999 (F. Mozaffarian); Tehran Province: 1♂ (AZMI), Velenjak, inside building, 12 February 2001 (A. Bahramishad); Tehran Province: 2♂ (AZMI), Tehran, inside building, 1999 (F. Mozaffarian).

Distribution. This species is currently known from Iran only. It has been previously recorded in Alborz, Kerman, Kohgiluyeh & Boyer-Ahmad, Mazandaran, Semnan and Tehran provinces.

Family Phrurolithidae Banks, 1892

Orthobula charitonovi (Mikhailov, 1986)

Identification. Marusik et al. (2013)

Material. Markazi Province: 1♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 19 April 1998 (F. Mozaffarian).

Distribution. Eastern Mediterranean to Central Asia. Iranian provinces: Alborz, Fars and Tehran.

Family Pisauridae Simon, 1890

Pisaura mirabilis (Clerck, 1758)

Identification. Eyunin & Sozontov (2015)

Material. Gilan Province: 1♀ (AZMI), Rasht, Rice Research Institute, rice land, 28 June 1996 (F. Mozaffarian).

Distribution. West Palaearctic. Iranian provinces: Ardebil, Fars, Gilan, Golestan, Mazandaran, Khorasan-e Razavi, Semnan and Tehran.

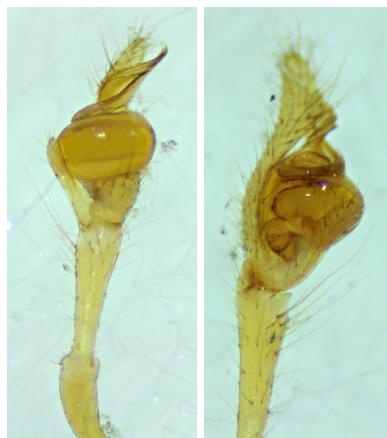
Pisaura novicia (L. Koch, 1878)

Identification. Eyunin & Sozontov (2015)

Material. Golestan Province: 1♂ (AZMI), Gorgan, wheat field, 2000 (Mobasher).

Distribution. Mediterranean to Central Asia. Iranian provinces: Gilan.

Family Salticidae Blackwall, 1841***Aelurillus marusiki* Azarkina, 2002****Identification.** Azarkina (2002)**Material.** Markazi Province: 1♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 23 May 1999 (A. Bahramishad).**Distribution.** This species is endemic to Iran, previously recorded in Fars and Tehran provinces***Bianor albobimaculatus* (Lucas, 1846)****Identification.** Logunov (2001)**Material.** Gilan Province: 1♂ (AZMI), Rasht, Rice Research Institute, rice land, 18 August 1996 (F. Mozaffarian); Gilan Province: 1♀ (AZMI), Rasht, Rice Research Institute, rice land, 28 June 1996 (F. Mozaffarian); Mazandaran Province: 1♀ (AZMI), surroundings of Amol, rice land, 4 May 1996 (F. Mozaffarian); Zanjan Province: 1♂ (AZMI), Abbar-Gilvan Rd.**Distribution.** Africa, Mediterranean to Russia, Central Asia and India. Iranian provinces: Fars, Gilan, Golestan, Khouzestan, Mazandaran, Khorasan-e Razavi and Zanjan.***Cyrba ocellata* (Kroneberg, 1875)****Identification.** Wesołowska (1996)**Material.** Tehran Province: 1♀ (AZMI), Velenjak, agricultural garden, 9 May 2001.**Distribution.** Sudan to China, Australia. Iranian provinces: Golestan, Mazandaran, Khorasan-e Razavi and Tehran.***Heliophanus equester* L. Koch, 1867****Identification.** Metzner (1999)**Material.** Alborz Province: 1♀ (AZMI), Mard Abad, Pol-e Ferdows, 8 May 2001 (A. Bahramishad); Zanjan Province: 1♀ (AZMI), Zarrin Abad, near the river, 13 July 2006 (F. Mozaffarian).**Distribution.** Italy to Iran. Iranian provinces: Fars, Tehran and Azerbaijan-e Gharbi.***Heliophanus flavipes* (Hahn, 1832)****Identification.** Metzner (1999)**Material.** Alborz Province: 1♀ (AZMI), Mard Abad, Pol-e Ferdows, 8 May 2001 (A. Bahramishad); Zanjan Province: 1♀ (AZMI), Zarrin Abad, near the river, 13 July 2006 (F. Mozaffarian).**Distribution.** Palaearctic. Iranian provinces: Azerbaijan-e Sharghi, Golestan, Mazandaran, Khorasan-e Razavi and Tehran. A re-examination of the material reported as *Heliophanus aeneus* (Hahn, 1832) from Khorasan-e Razavi Province by Namaghi et al. (2014) (deposited in JAZM) confirms that this record should belong to *H. flavipes*, thus, the presence of the former species in Iran is rejected.***Heliophanus mordax* (O. Pickard-Cambridge, 1872)****Identification.** Rakov & Logunov (1997)**Material.** Qazvin Province: 1♀ (AZMI), Takestan, alfalfa field, 5 July 2006 (F. Mozaffarian); 1♀ (AZMI), same date and locality.**Distribution.** Greece to Central Asia. Iranian provinces: Alborz, Fars, Lorestan, Mazandaran, Khorasan-e Razavi and Tehran.***Heliophanus verus* Wesołowska, 1986****Identification.** Wesołowska (1986)**Material.** Golestan Province: 1♀ (AZMI), Gonbad Kavos, cotton field, 1999 (Khoramly).**Distribution.** Azerbaijan, Turkey and Iran. Iranian provinces: Golestan, Kerman, Mazandaran and Tehran.***Mendoza canestrinii* (Ninni, 1868)****Identification.** Metzner (1999)**Material.** Mazandaran Province: 1♀ (AZMI), surroundings of Tonekabon, rice land, 6 August 1996 (F. Mozaffarian); Mazandaran Province: 1♂ (AZMI), surroundings of Tonekabon, rice land, 19 August 1996 (F. Mozaffarian); Mazandaran Province: 1♂ (AZMI), surroundings of Tonekabon, rice land, 19 August 1996 (F. Mozaffarian).**Distribution.** West and Central Palaearctic. Iranian provinces: Gilan, Golestan and Mazandaran.***Pellenes geniculatus* (Simon, 1868)****Identification.** Prószyński (2003)**Material.** Kohgiluyeh & Boyer-Ahmad Province: 1♀ (AZMI), Kalus, wheat field, 4 June 2000 (Saeedi).**Distribution.** West Palaearctic. Iranian provinces: Khorasan-e Razavi.***Philaeus chrysops* (Poda, 1761)****Identification.** Prószyński (2003)**Material.** Mazandaran Province: 1♀ (AZMI), surroundings of Tonekabon, rice land, 6 August 1996 (F. Mozaffarian); Tehran Province: 1♀ (AZMI), Velenjak, agricultural garden, 9 May 2001.**Distribution.** Palaearctic. Iranian provinces: Alborz, Chahar Mahal & Bakhtiari, Fars, Golestan, Ilam, Kermanshah, Khouzestan, Kohgiluyeh & Boyer-Ahmad, Kordestan, Lorestan, Markazi, Mazandaran, Qom, Khorasan-e Razavi, Semnan and Tehran.***Phintella castriesiana* (Grube, 1861)****Identification.** Metzner (1999)**Material.** Mazandaran Province: 1♀ (AZMI), surroundings of Tonekabon, rice land, 19 August 1996 (F. Mozaffarian).**Distribution.** Palaearctic. Iranian provinces: Gilan and Mazandaran.***Plexippus paykulli* (Audouin, 1826)****Identification.** Prószyński (2003)**Material.** Isfahan Province: 1♂ (AZMI), corn field, 2000 (M. Nematollahi).**Distribution.** Cosmopolitan. Iranian provinces: Golestan, Hormozgan, Isfahan, Kerman, Khuzestan, Mazandaran and Tehran.***Rudakius cinctus* (O. Pickard-Cambridge, 1885)****Identification.** Prószyński (2016)**Material.** Qazvin Province: 1♀ (AZMI), Zibashahr, 21 November 2000 (A. Bahramishad).**Distribution.** Azerbaijan to China. Iranian provinces: Tehran.***Rudakius spasskyi* (Andreeva, Heciak & Prószyński, 1984)****Identification.** Wesołowska (1996: sub *Pseudicius*)**Material.** Alborz Province: 1♀ (AZMI), Karaj, wheat field, 9 April 2000 (A. Nazari).**Distribution.** Azerbaijan to Central Asia. Iranian provinces: Gilan, Mazandaran and Khorasan-e Razavi.

Thyene imperialis* (Rossi, 1846)*Identification.** Metzner (1999)**Material.** Fars Province: 1♂ (AZMI), Shiraz, corn field, 27 September 2011; Golestan Province: 1♂3♀♀ (AZMI), Gonbad Kavoos, cotton field, 1999 (Khoramly); Markazi Province: 1♀ (AZMI), 10 September 2000 (Baradaran); Tehran Province: 2♂♂ (AZMI), Varamin, Yam village, pomegranate orchard, 16 April 2001 (A. Bahramishad).**Distribution.** Old World. Iranian provinces: Alborz, Ardebil, Fars, Gilan, Golestan, Hamedan, Khuzestan, Kordestan, Markazi, Mazandaran, Qazvin, Qom, Khorasan-e Razavi, Tehran and Zanjan.**Family Scytodidae Blackwall, 1864*****Scytodes strandi* Spassky, 1941****Identification.** Özkütük et al. (2013), Spassky (1941)**Material.** Tehran Province: 1♂1♀ (AZMI), Tehran, PPDRI, 17 June 2000 (Y. M. Marusik).**Distribution.** Azerbaijan to Central Asia. Iranian provinces: Mazandaran and Tehran.***Scytodes univittata* Simon, 1882****Identification.** Brescovit & Rheims (2000), Özkütük et al. (2013)**Material.** Tehran Province: 1♀ (AZMI), Tehran, inside building, 1999 (F. Mozaffarian).**Distribution.** Spain, from Canary Is. to Myanmar and synanthropic in the Neotropics. Iranian provinces: Bushehr, Fars, Isfahan, Mazandaran, Qom and Tehran.**Family Sicariidae Keyserling, 1880*****Loxosceles rufescens* (Dufour, 1820)****Identification.** Zamani et al. (2014)**Material.** Mazandaran Province: 1♀ (AZMI), Qaem Shahr, June 2004 (M. Jamal); Mazandaran Province: 3♀♀ (AZMI), Sari, Esfivard-e Shurab, Kord Kheil, 36°30'N, 53°00'E, August 1999 (A. Bahramishad).**Distribution.** Cosmopolitan. Iranian provinces: Alborz, Fars, Hormozgan, Qom, Khorasan-e Razavi, Mazandaran and Tehran.**Family Sparassidae Bertkau, 1872*****Olios sericeus* (Kroneberg, 1875)****Identification.** Moradmand et al. (2015)**Material.** Semnan Province: 1♀ (AZMI), Shahrud, 2 June 2000.**Distribution.** Caucasus, Central Asia and Iran. Iranian provinces: Isfahan, Khorasan-e Razavi and Tehran.**Family Tetragnathidae Menge, 1866*****Tetragnatha extensa* (Linnaeus, 1785)****Identification.** Russell-Smith (2011)**Material.** Mazandaran Province: 1♂ (AZMI), surroundings of Tonekabon, rice land, 6 August 1996 (F. Mozaffarian).**Distribution.** Holarctic. Iranian provinces: Ardebil, Azerbaijan-e Gharbi or Azerbaijan-e Sharghi, Gilan, Golestan, Kohgiluyeh & Boyer-Ahmad, Mazandaran and Qazvin.***Tetragnatha isidis* (Simon, 1880) (Fig. 6-8)****Identification.** Picard et al. (2014)**Material.** Mazandaran Province: 1♂ (AZMI), surroundings of Tonekabon, rice land, 19 August 1996 (F. Mozaffarian).**Fig. 6.** *Tetragnatha isidis*, habitus of a male**Figs 7-8:** *Tetragnatha isidis*, ventral and retrolateral views of male palp**Distribution.** Europe to Sumatra. Iran: New record for the fauna.***Tetragnatha javana* (Thorell, 1890)****Identification.** Yin et al. (2012)**Material.** Gilan Province: 1♂ (AZMI), Rasht, Rice Research Institute, rice land, 18 August 1996 (F. Mozaffarian); Gilan Province: 1♂ (AZMI), Rasht, Rice Research Institute, rice land, 18 August 1996 (F. Mozaffarian).**Distribution.** Africa to Japan, Philippines and Indonesia. Iranian provinces: Gilan, Golestan and Mazandaran.***Tetragnatha nigrita* Lendl, 1886****Identification.** Almquist (2005)**Material.** Gilan Province: 1♂ (AZMI), Rasht, Tootestan, 2000 (Hasheminia).**Distribution.** Palaearctic. Iranian provinces: Golestan and Mazandaran.**Family Theridiidae Sundevall, 1833*****Enoplognatha thoracica* (Hahn, 1833)****Identification.** Lecigne (2016), Roberts (1995)**Material.** Ilam Province: 13♀♀ (AZMI), Eyvan, wheat field, 9 April 2001 (F. Mozaffarian).**Distribution.** Holarctic. Iranian provinces: Isfahan.***Heterotheridion nigrovariegatum* (Simon, 1873)****Identification.** Knoflach et al. (2009)**Material.** Khorasan-e Razavi Province: 1♀ (AZMI), Kashmar, pomegranate orchard, 4 July 1999 (Kamali); Yazd Pro-

vince: 1♂ (AZMI), Yazd, Meibod, pomegranate orchard, 19 June 1998 (Ghayoomi, Jafari).

Distribution. West Palaearctic. Iranian provinces: Golestan, Mazandaran and Tehran.

Neottiura bimaculata (Linnaeus, 1767)

Identification. Almquist (2005)

Material. Markazi Province: 1♂ (AZMI), Saveh, Yal Abad, pomegranate orchard, 19 April 1998 (F. Mozaffarian).

Distribution. Holarctic. Iranian provinces: Mazandaran and Tehran.

Parasteatoda tepidariorum (C. L. Koch, 1841)

Identification. Almquist (2005)

Material. Gilan Province: 1♂ (AZMI), Rasht, Rice Research Institute, inside building, May 1996 (F. Mahmoud Asl); Mazandaran Province: 2♀♀ (AZMI), Tonekabon, inside building, 1996 (F. Mahmoud Asl).

Distribution. Cosmopolitan. Iranian provinces: Gilan, Golestan, Isfahan and Mazandaran.

Phylloneta impressa (L. Koch, 1881)

Identification. Kaya & Uğurtas (2011), Roberts (1995)

Material. Mazandaran Province: 1♀ (AZMI), surroundings of Amol, rice land, 21 July 1996 (F. Mozaffarian); Azerbajiane Gharbi Province: 1♀ (AZMI), Bazargan-Makoo Rd., pome orchard, 2 August 1997 (A. Khalil Aria); Azerbajian-e Gharbi Province: 1♂ (AZMI), Vazir Abad, pome orchard, 23 June 1998 (A. Khalil Aria).

Distribution. Holarctic. Iranian provinces: Ardebil, Fars, Golestan, Khorasan-e Razavi and Tehran.

Steatoda albomaculata (De Geer, 1778)

Identification. Kaya & Uğurtas (2011), Roberts (1995)

Material. Alborz Province: 1♀ (AZMI), Chendar, wheat field, 17 July 2001 (A. Bahramishad).

Distribution. Holarctic. Iranian provinces: Alborz, Gilan, Golestan, Kerman, Mazandaran, Qazvin, Khorasan-e Razavi, Tehran and Zanjan.

Steatoda paykulliana (Walckenaer, 1805)

Identification. Kaya & Uğurtas (2011), Levy & Amitay (1982)

Material. Fars Province: 1♂ (AZMI), Abadeh, 27 March 1998 (Farrokhi); Gilan Province: 1♀ (AZMI), Rasht, mulberry garden, summer of 2000 (Hasheminia); Qazvin Province: 1♀ (AZMI), Zibashahr, 21 November 2000 (F. Mozaffarian); Qazvin Province: 1♀ (AZMI), Nazarabad, 21 November 2000 (F. Mozaffarian); Tehran Province: 1♂ (AZMI), PPDRI park (Bahramishad); Fars Province: 1♂ (AZMI), Shiraz, corn field, 19 April 2011; Tehran Province: 1♀ (AZMI), Shahriar, apple garden, 8 May 2001 (A. Bahramishad); Tehran Province: 1♀ (AZMI), Sovojobolagh, apple garden, 21 November 2000 (F. Mozaffarian); Tehran Province: 1♂2♀♀ (AZMI), same data; Tehran Province: 1♀ (AZMI), Velenjak, agricultural garden, 18 April 2001 (A. Bahramishad).

Distribution. West Palaearctic. Iranian provinces: Alborz, Ardebil, Bushehr, Chahar Mahal & Bakhtiary, Fars, Gilan, Golestan, Hormozgan, Ilam, Khuzestan, Kohgiluyeh & Boyer-Ahmad, Kordestan, Markazi, Mazandaran, Qom, Khorasan-e Razavi, Semnan and Tehran.

Steatoda triangulosa (Walckenaer, 1802)

Identification. Kaya & Uğurtas (2011), Roberts (1995)

Material. Alborz Province: 1♀ (AZMI), Chendar, wheat field, 17 July 2001 (A. Bahramishad).

Distribution. Cosmopolitan. Iranian provinces: Alborz, Golestan, Isfahan, Mazandaran and Tehran.

Theridion hemerobium Walckenaer, 1805

Identification. Almquist (2005)

Material. Mazandaran Province: 2♀♀ (AZMI), surroundings of Amol, rice land, 21 July 1996 (F. Mozaffarian).

Distribution. Nearctic and West Palaearctic. Iranian provinces: Gilan and Mazandaran.

Family Thomisidae Sundevall, 1833

Ebrechtella tricuspidata (Fabricius, 1775)

Identification. Lehtinen & Marusik (2008), Roberts (1995)

Material. Gilan Province: 1♀ (AZMI), Rasht, Rice Research Institute, rice land, 18 August 1996 (F. Mozaffarian); Zanjan Province: 1♂ (AZMI), Zarrin Abad, near the river, 13 July 2006 (F. Mozaffarian).

Distribution. Palaearctic. Iranian provinces: Gilan, Mazandaran and Tehran.

Runcinia grammica (C. L. Koch, 1837)

Identification. Ono & Martens (2005)

Material. Gilan Province: 1♂ (AZMI), Rasht, Rice Research Institute, rice land, 18 August 1996 (F. Mozaffarian).

Distribution. Palaearctic. Iranian provinces: Alborz, Khuzestan, Mazandaran and Tehran.

Thomisus onustus Walckenaer, 1805

Identification. Kiany et al. (2017), Roberts (1995)

Material. Tehran Province: 1♀ (AZMI), PPDRI park, 1999 (F. Mozaffarian); Yazd Province: 1♂ (AZMI), Yazd, pomegranate orchard, 28 July 1998 (Jafari); Yazd Province: 2♂♂ (AZMI), Yazd, Bafgh, pomegranate orchard, 12 July 1999 (Jafari).

Distribution. Palaearctic. Iranian provinces: Alborz, Ardebil, Fars, Gilan, Golestan, Hormozgan, Mazandaran, Khorasan-e Shomali, Qazvin, Khorasan-e Razavi, Khorasan-e Jonubi, Tehran and Zanjan.

Thomisus zyuzini Marusik & Logunov, 1990

Identification. Kiany et al. (2017), Marusik & Logunov (1990, 1995)

Material. Isfahan Province: 1♂ (only palp) (AZMI), apple garden, 2002 (Emami); Qazvin Province: 1♂2♀♀ (AZMI), Abyek, Qarpuz Abad, 23 July 2006 (F. Mozaffarian); Tehran Province: 1♂ (AZMI), Fasham, Ziaran, near the river, 35°35'6"N, 51°21'40"E, alt. 230 m (F. Mozaffarian).

Distribution. Turkey and from Saudi Arabia to Central Asia. Iranian provinces: Alborz, Fars, Isfahan, Kerman and Khorasan-e Razavi.

Tmarus piocardi (Simon, 1866)

Identification. Zamani (2015)

Material. Markazi Province: 1♂1♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 28 June 1998 (F. Mozaffarian); Markazi Province: 2♀♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 19 April 1998 (F. Mozaffarian); Markazi Province: 7♀♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 6 July 1999

(A. Bahramishad); Tehran Province: 2♂♂ (AZMI), Varamin, Pishva, 28 April 2001 (A. Bahramishad).

Distribution. Mediterranean. Iranian provinces: Markazi and Khorasan-e Razavi.

Xysticus kochi Thorell, 1872

Identification. Almquist (2006)

Material. Alborz Province: 1♀ (AZMI), Karaj, pear garden, 1 May 2000 (F. Mozaffarian); Alborz Province: 1♀ (AZMI), Karaj, wheat field, 12 May 1999; Tehran Province: 1♂ 2♀♀ (AZMI), Damavand area, Firooz Kuh, pome orchard, 14 April 1998 (F. Mozaffarian).

Distribution. Europe to Turkmenistan. Iranian provinces: Azerbaijan-e Sharghi, Gilan, Golestan, Mazandaran, Khorasan-e Razavi and Tehran.

Xysticus laetus Thorell, 1875

Identification. Logunov (2006)

Material. Unknown Province: 1♀ (AZMI), no data.

Distribution. Italy to Central Asia. Iranian provinces: Fars and Mazandaran.

Xysticus striatipes L. Koch, 1870

Identification. Kiany et al. (2017), Roberts (1998)

Material. Fars Province: 2♂♂ (AZMI), Shiraz, corn field, 18 October 2011.

Distribution. Palaearctic. Iranian provinces: Fars, Mazandaran and Tehran.

Family Titanocidae Lehtinen, 1967

Nurscia albomaculata (Lucas, 1846)

Identification. Kovblyuk et al. (2016)

Material. Gilan Province: 1♂ (AZMI), Rasht, Rice Research Institute, rice land, 28 June 1996 (F. Mozaffarian).

Distribution. Mediterranean to Central Asia. Iranian provinces: Golestan, Mazandaran, Khorasan-e Razavi and Tehran.

Titanoeca turkmenia Wunderlich, 1995

Identification. Wunderlich (1995)

Material. Gilan Province: 1♂ (AZMI), Rasht, Rice Research Institute, rice land, 28 June 1996 (F. Mozaffarian).

Distribution. Greece, Iran, Turkmenistan and Kazakhstan. Iranian provinces: Gilan, Kordestan and Mazandaran.

Family Trachelidae Simon, 1897

Trachelas minor O. Pickard-Cambridge, 1872

Identification. Bosselaers et al. (2009), Zamani et al. (2016)

Material. Markazi Province: 1♀ (AZMI), Saveh, Yal Abad, pomegranate orchard, 14 August 1999 (A. Bahramishad); Mazandaran Province: 1♀ (AZMI), surroundings of Tonekabon, rice land, 6 August 1996 (F. Mozaffarian).

Distribution. Mediterranean to Central Asia. In Iran, it has been previously recorded from an unknown province (it was presumed by the authors that the specimens were collected in Fars Province). Our record from Markazi Province is the southernmost in the known distribution range.

Discussion

A total of 634 specimens was examined, out of which 106 species belonging to 70 genera and 27 families were identi-

fied. Five species are new records for the fauna of Iran – *Brigitte civica* (Lucas, 1850), *Pardosa roscai* (Roewer, 1951), *Tetragnatha isidis* (Simon, 1880), *Trachyzelotes miniglossus* Levy, 2009 and *Zelotes tenuis* (L. Koch, 1866), raising the number of species known from this country to 620. New provincial records were provided for an additional number of 64 species. Iran now comprises the easternmost known distribution limits for six species (*Aculepeira talishia*, *Brigitte civica*, *Pardosa aenigmatica*, *P. azerifalcata*, *Trachyzelotes miniglossus*, *Zelotes tenuis*), the southernmost record for six species (*Alopexosa albofasciata*, *Leviellus caspicus*, *Nomisia conigera*, *Pardosa italicica*, *Talanites dunini*, *Trachelas minor*), the northernmost record for one species (*Zaitunia vahabzadehi*) and the southeasternmost record for two species (*Pardosa buchari*, *P. roscai*). Previous Iranian records of *Pardosa azerifalcata* and *Heliophanus aeneus* are attributed to *Pardosa italicica* and *Heliophanus flavipes*, respectively, and *Pardosa azerifalcata* is re-recorded for the fauna of Iran based on the recently examined material.

It is also noteworthy that partial or whole material of a considerable number of species from a variety of different families (25 species from 13 families) were collected from rice lands, which is in agreement with the structure of spider communities observed in ecological studies of this agroecosystem (Bambaradeniya et al. 2004, Sebastian et al. 2005). The same holds true for our records from pomegranate, citrus and olive orchards (32 species from 13 families). Ecological studies carried out in olive (Picchi et al. 2016), citrus (Mestre et al. 2012), pear (Tavares et al. 2011) and apple (Bogya et al. 1999) orchards have shown relatively high species numbers (>50) in comparably small assemblages, which is quite similar to what we have observed on the basis of our current material.

Acknowledgements

We are grateful to Yuri M. Marusik, Sergei L. Esyunin and Anton Nadolny for their comments on the identification of some of the material. The kind assistance of the staff of the entomology lab of Shiraz University of Medical Sciences in photographing the specimens is also acknowledged. The referees and Tobias Bauer gave helpful advices to improve the manuscript.

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