

An annotated checklist of spiders deposited in the Arachnida collection of the Institute of Zoology, Scientific Center of Zoology and Hydroecology of the NAS RA, Yerevan, Armenia. Part I

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An annotated checklist of spiders deposited in the Arachnida collection of the Institute of Zoology, Scientific Center of Zoology and Hydroecology of the NAS RA, Yerevan, Armenia. Part I

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Abstract. Data on Armenian spider species are summarized. A catalogue of spiders collected during 1988–1998 and deposited in the Institute of Zoology collection, Yerevan, Armenia is given. The review revealed 20 species belonging to nine families. Fourteen species are recorded for Armenia for the first time. Thus, the number of spider species known from Armenia rises to 190. *Liocranum rupicola* (Walckenaer, 1830) is recorded for the first time in the Caucasus.

Keywords: Araneae, Caucasus, country list, new records

Zusammenfassung. Kommentierte Checkliste der Spinnentiersammlung des Institute of Zoology, Scientific Center of Zoology and Hydroecology of NAS RA, Jerewan, Armenien. Teil I. Die Daten zu den Spinnen Armeniens werden zusammengefasst. Wir erstellen einen Katalog der 1988–1998 gesammelten Spinnen, die in der Sammlung des Instituts für Zoologie in Jerewan, Armenien, hinterlegt sind. Diese Liste enthält 20 Arten aus neun Familien. Vierzehn Arten werden erstmals für Armenien nachgewiesen, dadurch erhöht sich die bekannte Artensumme für Armenien auf 190. *Liocranum rupicola* (Walckenaer, 1830) wird erstmals für den Kaukasus gemeldet.

Ամփոփում. ՀՀ ԳԱԱ կենդանաբանության եվ հիդրոէկոլոգիայի գիտական կենտրոնի սարդակերպերի հավաքածուում պահպանված սարդերի մեկնաբանված ստուգացանկ, ՀՀ ԳԱԱ կենդանաբանության եվ հիդրոէկոլոգիայի գիտական կենտրոն, Երևան, Հայաստան: Մաս I. Սույն հոդվածով ամփոփվում են Հայաստանի սարդերի տեսակային կազմի վերաբերյալ տվյալները: Ներկայացված է 1988–1998 թվականներին հավաքված և Կենդանաբանության ինստիտուտի հավաքածուում պահպանված սարդերի ստուգացուցակ, Երևան, Հայաստան: Ուսումնասիրությունը պարունակում է ինը ընտանիքի պատկանող 20 տեսակ սարդերի տվյալներ, որոնցից տասնչորսը գրանցվել է առաջին անգամ Հայաստանում: Այսպիսով, Հայաստանից հայտնի սարդերի քանակը հասել է 190-ի: Կովկասում առաջին անգամ է գրանցվում *Liocranum rupicola* (Walckenaer, 1830) տեսակը:

Spiders are a little studied group of animals in the Armenian fauna, along with most other invertebrates. Spiders from Armenia were first mentioned by Koch (1878) and Kulczyński (1895). Only a few papers on spiders from areas within the contemporary boundaries of Armenia have been published since (Charitonov 1936, 1956, Mcheidze 1964, 1997, Ovtsharenko 1982, 1994, Wesołowska 1986, Eskov 1987, Tanasevitch 1987, 1990, Dunin 1984, 1988, 1989, 1991, 1992, Marusik 1989, Mikhailov 1986, 1987, 1990, 1992, 2003, 2013, 2016). Some important papers for the study of the Armenian spider fauna were published by D. V. Logunov (Logunov 1996, 1998, 1999, 2015, Logunov & Guseinov 2002, 2008, Rakov & Logunov 1997, Zyuzin & Logunov 2000). Vadimir Zacharjan, who was the main collector of our material, wrote a single publication (Dunin & Zacharjan 1991).

Based on his material, Zacharjan provided some data on spiders to the country's First National Report to the Convention of Biological Diversity (H. Khachatryan pers. comm.). While 302 species belonging to 30 families are quoted for the Armenian fauna in the First National Report (Ministry of Nature Protection 1999; families are listed only in the Armenian version of the Report, Annex 9). In the Fifth National Report, 325 spider species are quoted (Ministry of Nature Protection 1999, Appendix 3; the number “600 species” mentioned in Appendix 4 is an obvious mistake). Unfortunately, Zacharjan's unpublished list of species, which served a background for these numbers, is lost.

The number of spider species from Armenia given in other sources is very low. In the comprehensive check-list of the spiders of the former Soviet Union territories, Mikhailov (2013) listed 118 spider species for Armenia, adding nine more species in Addendum 2 to the Catalogue (Mikhailov 1999). Summarizing further data, he mentioned 141 species for Armenia (Mikhailov 2016) and 15 more spider species are listed for the country by Mikhailov & Propistsova (2017). Finally, in the on-line Faunistic Database on the Spiders of the Caucasus Ecoregion (Otto 2020) the list of Armenian spiders includes 163 species – while Nentwig et al. (2020) have 162 recorded species – not including the latest publication (Zarikian 2020), which added thirteen species such that the formal recorded species number of spiders in Armenia is 176.

This paper aims to provide new data on the spiders of Armenia. The material is kept in the collection of the Institute of Zoology, Scientific Center of Zoology and Hydroecology, National Academy of Sciences of Armenia.

Materials and methods

The material was collected between 1988–1998 from various sites in Armenia (Fig. 1 and Tab. 1) by staff of our Institute, Dr. Vladimir Zacharjan and Arthur Sukiasyan, and utilised sweeping, pitfall trapping and visual search and collecting systems. The material is kept in 70% ethanol. Most of the material was identified by the collectors themselves and part of it by the first author of the present paper based on Jones-Walters (1989) and Nentwig et al. (2020). Approximate GPS data based on the field notes are given in Tab. 1. In the list of species, the order of families and species follows that of Otto (2020). The world distribution is taken from the World Spider Catalog (2020) and the distribution in the Caucasus from Otto (2020) and Nentwig et al. (2020). The data on habitats

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are based on the field experience of the second author and do not refer to precise collection sites, however, they match the Armenian habitat at that time. An abbreviated checklist of Armenian spider species is given in Tab. 2.

Tab. 1: Collecting sites

Site No.	Site name	coordinates	Altitude (m a.s.l.)
1	Tumanyan	40.5900°N 44.3900°E	857
2	Hankavan	40.6282°N 44.5342°E	1900
3	Sevan	40.3440°N 44.5835°E	2020
4	Yerevan	40.1240°N 44.3330°E	1230
5	Jrarat, “Vordan karmir” state sanctuary	40.0755°N 44.2401°E	840
6	Goght	40.1375°N 44.8138°E	1750
7	“Khosrov forest” State Reserve, Vedi area	between 39.9700°N 44.8700°E and 39.9900°N 44.9000°E	1300–1460
8	Yeghegnadzor	39.7422°N 45.3283°E	1242
9	Areni	39.7227°N 45.1906°E	1081
10	Kapan	39.1227°N 46.2420°E	780
11	Gudemnis	38.9381°N 46.1784°E	1350
12	Meghri	38.9058°N 46.2540°E	1193

List of species

Family Pholcidae

Pholcus phalangioides (Fuesslin, 1775)

Material examined: 2 ♂♂, 6 ♀♀, Areni, 22. May 1988; 2 ♂♂, 6 ♀♀, Yerevan, 4. May 1993; 2 ♂♂, 6 ♀♀, env. Tumanyan, 6. Apr. 1991, all V. Zacharjan leg.

Distribution. Europe, North Caucasus, Georgia, Azerbaijan, Africa, Asia, Australia, New Zealand and numerous islands, introduced to the Americas. New record for the Armenian fauna.

Habitat. Warm corners, occupied and abandoned buildings.

Family Tetragnathidae

Tetragnatha dearmata Thorell, 1873

Material examined. 1 ♀, Jrarat, “Vordan karmir” state sanctuary, 13. Aug. 1994; 1 ♂, 3 ♀♀, Meghri, 2. Jun. 1989, all V. Zacharjan leg.

Distribution. North America, Europe, North Caucasus, Azerbaijan, Russia (from European part to Far East). New record for the Armenian fauna.

Habitat. Wetlands or in the vicinity of water.

Tetragnatha extensa (Linnaeus, 1758)

Material examined. 3 ♀♀, Jrarat, “Vordan karmir” state sanctuary, 1. May 1996; 4 ♀♀, env. Sevan town, 17. Jun. 1998, all A. Sykiasyan leg.

Distribution. North America, Greenland, Europe, Turkey, North Caucasus Georgia, Azerbaijan, Russia (from European part to Far East), Iraq, Iran, Kazakhstan, Central Asia, China, Korea, Japan. In Armenia recorded in the Armenian highland by Mikhailov (2000).

Habitat. Grasslands and in low vegetation, especially at the waterside and in wetlands.

Tetragnatha montana Simon, 1874

Material examined. 1 ♂, Khosrov Forest State Reserve, Vedi area, 25. Jun. 1998, A. Sykiasyan leg.

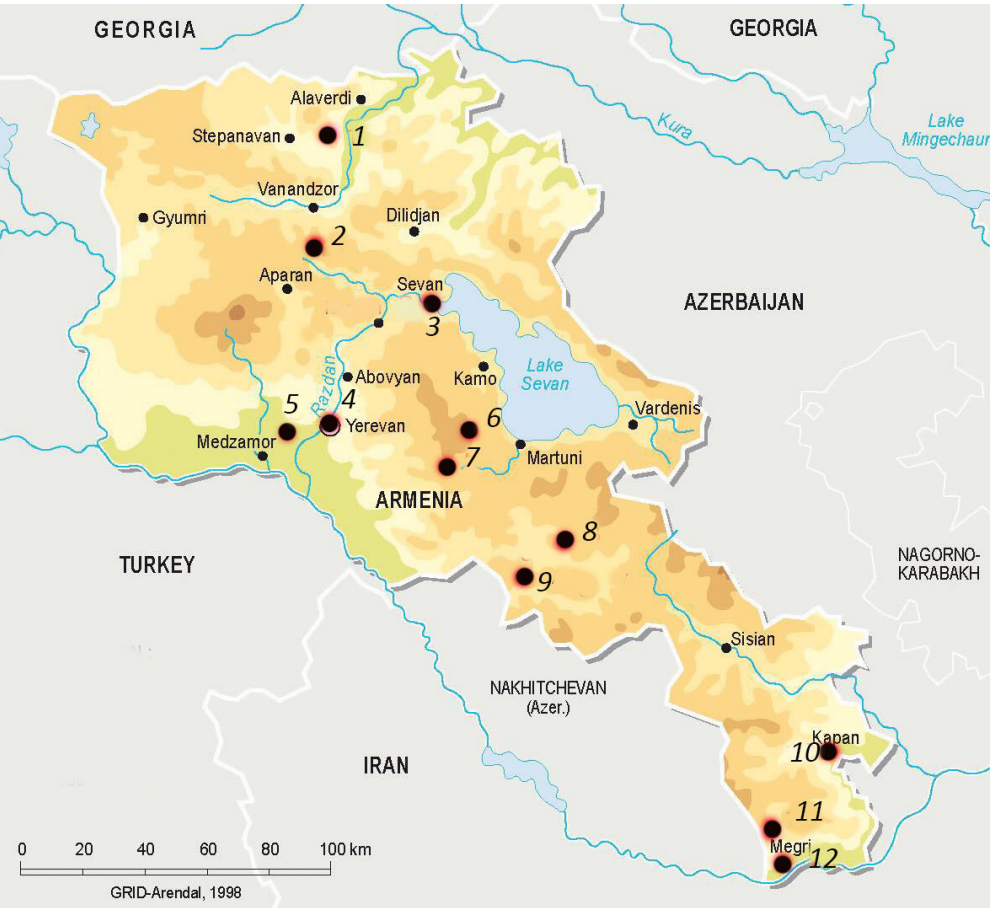


Fig. 1: Map of Armenia with collecting sites (Map provided by Philippe Rekacewicz, Emmanuelle Bournay, UNEP/GRID-Arendal. <https://www.grida.no/resources/5338>)
1 – Tumanyan;
2 – Hankavan;
3 – Sevan;
4 – Yerevan;
5 – Jrarat;
6 – Goght;
7 – Khosrov;
8 – Yeghegnadzor;
9 – Areni;
10 – Kapan;
11 – Gudemnis;
12 – Meghri

Distribution. Europe, Turkey, North Caucasus, Georgia, Azerbaijan, Russia (from European part to Far East), Central Asia. New record for the Armenian fauna.

Habitat. Low vegetation in a variety of habitats, mostly at low altitudes.

Tetragnatha nigrita Lendl, 1886

Material examined. 2 ♀♀, Gudemnis, 13. Jun. 1989; 1 ♀, Kapan, 5. Jun. 1989, all V. Zacharjan leg.

Distribution. Europe, North Caucasus, Georgia, Azerbaijan, Russia (from European part to Far East), Central Asia, China, Japan. New record for the Armenian fauna.

Habitat. Arable and waterside lands.

Tetragnatha pinicola L. Koch, 1870

Material examined. 1 ♀, 1 ♂, Sevan town, 17. Jun. 1998, A. Sykiasyan leg.

Distribution. Europe, Turkey, North Caucasus, Georgia, Azerbaijan, Russia (from European part to Far East), Central Asia, China, Korea, Japan. New record for the Armenian fauna.

Habitat. Woodland clearings and rides.

Family Araneidae

Araneus angulatus Clerck, 1757

Material examined. 1 ♀, Yerevan, 1. Nov. 1990, V. Zacharjan leg.

Distribution. Europe, Turkey, North Caucasus, Georgia, Azerbaijan, Russia (from European part to Far East), Iran, Central Asia, Korea. First recorded in Armenia in the Armenian highland by Mikhailov (2013).

Habitat. Woodland and scrub.

Gibbaranea gibbosa (Walckenaer, 1802)

Material examined. 1 ♀, Yerevan, 10. Oct. 1993, V. Zacharjan leg.

Distribution. From western Europe to the Urals and from Sweden to Greece, Turkey and Cyprus, in the Caucasus only known from Azerbaijan.

Habitat. Moist grasslands and shrubs.

Larinioides suspicax (O. Pickard-Cambridge, 1876)

Material examined. 1 ♂, 6 ♀♀, Jrarat, “Vordan karmir” state sanctuary, 1. Jun. 1995, A. Sykiasyan leg.

Distribution. North America, Europe, Turkey, Israel, North Caucasus, Georgia, Azerbaijan, Russia (from European part to Far East), Iran, China, Korea, Japan and Armenia. First recorded in Armenia by Mikhailov (2000).

Habitat. Bushy areas, reeds and near ponds.

Family Lycosidae

Hogna radiata (Latreille, 1817)

Material examined. 1 ♀, Yerevan, 11. Nov. 1991, V. Zacharjan leg.

Distribution. Europe, Turkey, North Caucasus, Georgia, Azerbaijan, Russia, Kazakhstan, Iraq, Iran, Central Asia. New record for the Armenian fauna.

Habitat. Warm, dry and semi-desert areas.

Lycosa praegrandis C. L. Koch, 1836

Material examined. 1 ♂, Khosrov Forest State Reserve, Vedi

area, 22. May 1990; 1 ♀, Yerevan 10. Aug. 1992, both V. Zacharjan leg.

Distribution. Albania, North Macedonia, Bulgaria, Greece, Turkey, Ukraine, Russia (European part), North Caucasus, Georgia, Azerbaijan, Kazakhstan, Iran, Central Asia. In Armenia, recorded in the Armenian highland by Mikhailov (2013).

Habitat. Dry, warm and rocky areas and steppes.

Family Dictynidae

Argenna patula (Simon, 1874)

Material examined. 1 ♀, Khosrov Forest State Reserve, Vedi area, 17. Aug. 1992, V. Zacharjan leg.

Distribution. Europe, Azerbaijan, Russia (Europe to South Siberia), Kyrgyzstan, China. New record for the Armenian fauna.

Habitat. Banks of tidal rivers.

Family Anyphaenidae

Anyphaena accentuata (Walckenaer, 1802)

Material examined. 1 ♂, Hankavan, 14. Jun. 1990, A. Sykiasyan leg.

Distribution. Europe to Central Asia, North Caucasus, Georgia, Azerbaijan, Iran. In Armenia recorded in Dilizhan by Kulczyński (1895) and Mikhailov (2013).

Habitat. Shrubs and houses.

Family Liocranidae

Liocranum rupicola (Walckenaer, 1830)

Material examined. 1 ♀, Jrarat, “Vordan karmir” state sanctuary, 16. Apr. 1989, V. Zacharjan leg.

Distribution. Europe, Turkey, Russia (European part to West Siberia). New record for the Caucasus Region and the Armenian fauna.

Habitat. Cracks in cliffs, dry stone walls and houses.

Family Sparassidae

Olios sericeus (Kroneberg, 1875)

Material examined. 1 ♀, Yerevan, 1. Sep. 1995, A. Sykiasyan leg.

Distribution. Caucasus (Russia, Georgia, Azerbaijan), Kazakhstan, Central Asia, Iran, Afghanistan. New record for the Armenian fauna.

Habitat. Dry hillsides and steppes.

Family Thomisidae

Heriaeus oblongus Simon, 1918

Material examined. 1 ♀, Yeghegnadzor, 22. May 1988, V. Zacharjan leg.

Distribution. Europe, North Caucasus, Georgia, Azerbaijan, Russia (European part) to Central Asia. New record for the Armenian fauna.

Habitat. Rocky hillsides.

Spiracme striatipes (L. Koch, 1870)

Material examined. 1 ♂, Yerevan 04. Apr. 1994, V. Zacharjan leg.

Distribution. Europe, Turkey, North Caucasus, Georgia, Azerbaijan, Russia (Europe) to Central Asia, Iran, China. New record for the Armenian fauna.

Habitat. Grasslands.

Xysticus bifasciatus C. L. Koch, 1837

Material examined. 1 ♂, Yerevan, 1. Sep. 1995, V. Zacharjan leg.

Distribution. Palaearctic species widespread in western, central Europe and North Caucasus. New record for the Armenian fauna.

Habitat. Grasslands.

Xysticus gallicus Simon, 1875

Material examined. 1 ♀, Yeghegnadzor, 22. May 1988; 1 ♀, Khosrov Forest State Reserve, Vedi area, 22. May 1990, all V. Zacharjan leg.

Distribution. Europe (without UK and Scandinavia), Turkey, North Caucasus, Georgia, Azerbaijan, Iran. New record for the Armenian fauna.

Habitat. Shrublands on foothills.

Xysticus kochi Thorell, 1872

Material examined. 1 ♂, Yeghegnadzor, 22. May 1988, V. Zacharjan leg.

Distribution. Europe, Mediterranean to Central Asia, North Caucasus, Georgia, Azerbaijan. First recorded in Armenia in Dilizhan by Kulczyński (1895).

Habitat. Woodlands and shrublands on foothills.

Tab. 2: Abbreviated checklist of the Armenian spider species based on Otto (2020), including the sequence of the families. ** new record for Armenia

Species	Distribution in Armenia (Province names)	Reference
Family Nemesiidae		
<i>Raveniola dunini</i> Zonstein, Kunt & Yağmur, 2018	Syunik	Zonstein et al. (2018)
Family Scytodidae		
<i>Scytodes thoracica</i> (Latreille, 1802)	Unspecified	Mikhailov (2013)
Family Pholcidae		
<i>Pholcus phalangioides</i> (Fuesslin, 1775)**	Lori, Vayots dzor and Yerevan	Current study
Family Dysderidae		
<i>Dysdera armenica</i> Charitonov, 1956	Gegharkunik and Tavush	Charitonov (1956), Dunin (1992)
<i>Dysdera collucata</i> Dunin, 1991	Syunik	Dunin (1992)
<i>Dysdera mazini</i> Dunin, 1991	Syunik	Dunin (1992)
<i>Dysdera richteri</i> Charitonov, 1956	Yerevan and Syunik	Charitonov (1956), Dunin (1992)
<i>Harpactea armenica</i> Dunin, 18899	Yerevan and Ararat	Dunin (1989, 1992)
<i>Harpactea deelemanae</i> Dunin, 1989	Syunik	Dunin (1989, 1992)
<i>Harpactea eskovi</i> Dunin, 1989	Lori	Dunin (1989, 1992)
<i>Harpactea golovatchi</i> Dunin, 1989	Syunik	Dunin (1989, 1992)
<i>Harpactea nachitschevanica</i> Dunin, 1991	Unspecified	Mikhailov (2013)
<i>Harpactea nenilini</i> Dunin, 1989	Syunik	Dunin (1989, 1992)
<i>Harpactea secunda</i> Dunin, 1989	Tavush	Dunin (1989, 1992)
Family Eresidae		
<i>Stegodyphus lineatus</i> (Latreille, 1817)	Tavush	Dunin (1988)
Family Theridiidae		
<i>Enoplognatha latimana</i> Hippa & Oksala, 1982	Gegharkunik	Marusik (1989)
<i>Enoplognatha ovata</i> (Clerck, 1757)	Unspecified	Mikhailov (2013)
<i>Latrodectus tredecimguttatus</i> (Rossi, 1790)	Unspecified	Mikhailov (2013)
<i>Platnickina tinctoria</i> (Walckenaer, 1802)	Tavush	Kulczyński (1895)
<i>Robertus arundineti</i> (O. Pickard-Cambridge, 18917)	Tavush and Syunik	Eskov (1987)
Family Linyphiidae		
<i>Agyneta conigera</i> (O. Pickard-Cambridge, 1863)	Tavush	Tanasevitch (1990)
<i>Agyneta ramosa</i> Jackson, 1912	Tavush	Tanasevitch (1990)
<i>Agyneta rurestris</i> (C. L. Koch, 1836)	Yerevan and Lori	Kulczyński (1895), Tanasevitch (1990)
<i>Araeoncus clavatus</i> Tanasevitch, 1987	Syunik	Tanasevitch (1987)
<i>Bolyphantes alticeps</i> (Sundevall, 1833)	Gegharkunik	Tanasevitch (1987)
<i>Centromerus minor</i> Tanasevitch, 1990	Syunik, Lori and Tavush	Tanasevitch (1990)
<i>Ceratinella brevis</i> (Wider, 1834)	Tavush	Tanasevitch (1990)
<i>Ceratinella scabrosa</i> (O. Pickard-Cambridge, 1871)	Lori	Tanasevitch (1990)
<i>Diplocephalus latifrons</i> (O. Pickard-Cambridge, 1863)	Tavush and Lori	Tanasevitch (1990)
<i>Diplocephalus picinus</i> (Blackwall, 1841)	Lori	Tanasevitch (1990)
<i>Diplostyla concolor</i> (Wider, 1834)	Syunik, Lori and Tavush	Tanasevitch (1987, 1990)
<i>Erigone dentipalpis</i> (Wider, 1834)	Tavush and Gegharkunik	Tanasevitch (1987, 1990)
<i>Erigonoplus globipes</i> (L. Koch, 1872)	Gegharkunik	Tanasevitch (1990)
<i>Linyphia hortensis</i> Sundevall, 1830	Tavush and Gegharkunik	Tanasevitch (1987, 1990)
<i>Linyphia tenuipalpis</i> Simon, 1884	Gegharkunik	Tanasevitch (1987)
<i>Micrargus herbigradus</i> (Blackwall, 1854)	Lori	Tanasevitch (1990)

Species	Distribution in Armenia (Province names)	Reference
<i>Micrargus subaequalis</i> (Westring, 1851)	Tavush and Lori	Tanasevitch (1990)
<i>Microlinyphia impigra</i> (O. Pickard-Cambridge, 1871)	Gegharkunik	Tanasevitch (1987)
<i>Microneta viaria</i> (Blackwall, 1841)	Tavush, Lori and Syunik	Tanasevitch (1987, 1990)
<i>Nerine peltata</i> (Wider, 1834)	Tavush	Tanasevitch (1990)
<i>Oedothorax meridionalis</i> Tanasevitch, 1987	Lori	Tanasevitch (1990)
<i>Panamomops fedotovi</i> (Charitonov, 1937)	Tavush and Syunik	Tanasevitch (1987, 1990)
<i>Pelecopsis crassipes</i> Tanasevitch, 1987	Tavush and Syunik	Tanasevitch (1987, 1990)
<i>Piniphantes pinicola</i> (Simon, 1884)	Ararat	Tanasevitch (1990)
<i>Porrhomma pygmaeum</i> (Blackwall, 1834)	Tavush and Lori	Tanasevitch (1990)
<i>Scutpelecopsis krausi</i> (Wunderlich, 1980)	Tavush	Tanasevitch (1990)
<i>Sintula retroversus</i> (O. Pickard-Cambridge, 1875)	Syunik	Tanasevitch (1987)
<i>Styloctetor romanus</i> (O. Pickard-Cambridge, 18723)	Tavush	Tanasevitch (1990)
<i>Tapinocyba pallens</i> (O. Pickard-Cambridge, 1873)	Tavush and Lori	Tanasevitch (1987, 1990)
<i>Tapinopa longidens</i> (Wider, 1834)	Gegharkunik	Tanasevitch (1987)
<i>Tenuiphantes aequalis</i> (Tanasevitch, 1987)	Lori	Tanasevitch (1990)
<i>Tenuiphantes contortus</i> (Tanasevitch, 1986)	Lori and Gegharkunik	Tanasevitch (1987, 1990)
<i>Tenuiphantes mendei</i> (Kulczyński, 1887)	Tavush and Syunik	Tanasevitch (1987, 1990)
<i>Tenuiphantes tenuis</i> (Blackwall, 1852)	Gegharkunik	Tanasevitch (1987)
<i>Walckenaeria acuminata</i> Blackwall, 1833	Lori	Tanasevitch (1990)
<i>Walckenaeria antica</i> (Wider, 1834)	Lori	Tanasevitch (1990)
<i>Walckenaeria bifasciculata</i> Tanasevitch, 1987	Syunik	Tanasevitch (1987)
<i>Walckenaeria cucullata</i> (C. L. Koch, 1836)	Lori	Tanasevitch (1990)
Family Tetragnathidae		
<i>Metellina orientalis</i> (Spassky, 1932)	Gegharkunik	Marusik (1986)
<i>Tetragnatha extensa</i> (Linnaeus, 1758)	Armavir and Gegharkunik	Mikhailov (2000), current study
<i>Tetragnatha dearmata</i> Thorell, 1873 **	Armavir and Syunik	Current study
<i>Tetragnatha montana</i> Simon, 1874 **	Ararat	Current study
<i>Tetragnatha nigrita</i> Lendl., 1886**	Syunik	Current study
<i>Tetragnatha pinicola</i> L. Koch, 1870**	Gegharkunik	Current study
Family Araneidae		
<i>Aculepeira armida</i> (Audouin, 1826)	Armavir	Koch (1878)
<i>Aculepeira ceropegia</i> (Walckenaer, 1802)	Tavush	Kulczyński (1895)
<i>Araneus angulatus</i> Clerck, 1757	Yerevan	Mikhailov (2013), current study
<i>Araneus diadematus</i> Clerck, 1757	Unspecified	Mikhailov (2013)
<i>Araniella cucurbitina</i> (Clerck, 1757)	Tavush	Kulczyński (1895)
<i>Gibbaranea gibbosa</i> (Walckenaer, 1802) **	Yerevan	Current study
<i>Hypsosinga alborvittata</i> (Westring, 1851)	Armavir	Koch (1878)
<i>Larinioides cornutus</i> (Clerck, 1757)	Gegharkunik	Kulczyński (1895)
<i>Larinioides suspicax</i> (O. Pickard-Cambridge, 1876)	Armavir and Gegharkunik	Kulczyński (1895), Mikhailov (2000), current study
<i>Mangora acalypha</i> (Walckenaer, 1802)	Yerevan and Tavush	Kulczyński (1895)
<i>Neoscona adianta</i> (Walckenaer, 1802)	Armavir	Koch (1878)
Family Lycosidae		
<i>Alopecosa albofasciata</i> (Brullé, 1832)	Unspecified	Mikhailov (2013)
<i>Geolycosa dunini</i> Zyuzin & Logunov, 2000	Gegharkunik	Zyuzin & Logunov (2000)
<i>Hogna radiata</i> (Latreille, 1817) **	Yerevan	Current study
<i>Lycosa piochardi</i> Simon, 1876	Armavir	Koch (1878)
<i>Lycosa praegrans</i> C. L. Koch, 1836	Ararat	Mikhailov (2013), current study
<i>Pardosa colchica</i> Mkheidze, 1946	Kotayk and Tavush	Zyuzin & Logunov (2000)
<i>Pardosa condolens</i> (O. Pickard-Cambridge, 1885)	Unspecified	Mikhailov (2013)
<i>Pardosa italica</i> Tongiorgi, 1966	Unspecified	Mikhailov (2013)
<i>Pardosa pontica</i> (Thorell, 1875)	Syunik and Gegharkunik	Zyuzin & Logunov (2000)
<i>Trochosa terricola</i> Thorell, 1856	Gegharkunik	Mcheidze (1964)
Family Oxyopidae		
<i>Oxyopes lineatus</i> Latreille, 1806	Yerevan	Kulczyński (1895)
Family Dictynidae		
<i>Argyroneta aquatica</i> (Clerck, 1757)	Unspecified	Mikhailov (2000)

Species	Distribution in Armenia (Province names)	Reference
<i>Argenna patula</i> (Simon, 1874) **	Ararat	Current study
<i>Dictyna arundinacea</i> (Linnaeus, 1758)	Tavush	Kulczyński (1895)
<i>Dictyna ignobilis</i> Kulczyński, 1895	Gegharkunik	Kulczyński (1895)
<i>Nigma flavescens</i> (Walckenaer, 1830)	Yerevan	Kulczyński (1895)
Family Titanoeidae		
<i>Nurscia albosignata</i> Simon, 1874	Unspecified	Mikhailov (2013)
Family Cheiracanthiidae		
<i>Cheiracanthium pelasgicum</i> (C. L. Koch, 1837)	Tavush	Kulczyński (1895)
Family Miturgidae		
<i>Zora silvestris</i> Kulczyński, 1897	Unspecified	Mikhailov (2013)
Family Anyphaenidae		
<i>Anyphaena accentuata</i> (Walckenaer, 1802)	Kotayk and Tavush	Kulczyński (1895), current study
Family Liocranidae		
<i>Liocranum rupicola</i> (Walckenaer, 1830)**	Armavir	Current study
Family Clubionidae		
<i>Clubiona alpicola</i> Kulczyński, 1882	Ararat, Syunik and Lori	Mikhailov (1990)
<i>Clubiona caerulescens</i> L. Koch, 1867	Gegharkunik	Mikhailov et al. (2017)
<i>Clubiona caucasica</i> Mikhailov & Otto, 2017	Lori and Tavush	Mikhailov (1990)
<i>Clubiona corticalis</i> (Walckenaer, 1802)	Syunik	Mikhailov (1992)
<i>Clubiona golovatchi</i> Mikhailov, 1990	Syunik	Mikhailov (1990)
<i>Clubiona lutescens</i> Westring, 1851	Lori	Mikhailov (1990)
<i>Clubiona neglecta</i> O. Pickard-Cambridge, 1862	Lori and Gegharkunik	Mikhailov (1990, 2003)
<i>Clubiona pallidula</i> (Clerck, 1757)	Lori	Mikhailov (1990)
<i>Clubiona pseudoneglecta</i> Wunderlich, 1994	Gegharkunik	Mikhailov (2003)
<i>Clubiona pseudosimilis</i> Mikhailov, 1990	Gegharkunik	Mikhailov (1990)
<i>Porrhoclubiona genevensis</i> (L. Koch, 1866)	Syunik	Mikhailov (1990)
<i>Porrhoclubiona vegeta</i> (Simon, 1918)	Syunik	Mikhailov (1990)
Family Trachelidae		
<i>Orthobula charitonovi</i> (Mikhailov, 1986)	Syunik	Mikhailov (1986)
Family Zodariidae		
<i>Zodarion petrobium</i> Dunin & Zacharjan, 1991	Syunik	Dunin & Zacharjan (1991)
<i>Zodarion thoni</i> Nosek, 1905	Tavush and Gegharkunik	Dunin & Zacharjan (1991)
Family Gnaphosidae		
<i>Callilepis nocturna</i> (Linnaeus, 1758)	Tavush	Kulczyński (1895)
<i>Gnaphosa lucifuga</i> (Walckenaer, 1802)	Unspecified	Mikhailov (2013)
<i>Gnaphosa nigella</i> (L. Koch, 1878)	Armavir	Koch (1878); nomen dubium in WSC (2020), but listed by Otto (2020)
<i>Haplodrassus dalmatensis</i> (L. Koch, 1866)	Unspecified	Mikhailov (2000)
<i>Haplodrassus signifer</i> (C. L. Koch, 1839)	Armavir	Ovtsharenko (1982)
<i>Micaria alborittata</i> (Lucas, 1846)	Gegharkunik	Mikhailov (1988)
<i>Micaria formicaria</i> (Sundevall, 1831)	Gegharkunik	Mikhailov (1988)
<i>Micaria kopetdaghensis</i> Mikhailov, 1986	Gegharkunik	Mikhailov (1988)
<i>Micaria lenzi</i> Bösenberg, 1899	Gegharkunik	Mikhailov (1988)
<i>Micaria pulicaria</i> (Sundevall, 1831)	Lori	Mikhailov (1988)
<i>Nomisia aussereri</i> (L. Koch, 1872)	Unspecified	Mikhailov (2013)
<i>Synaphosus palearcticus</i> Ovtsharenko, Levy & Platnick, 1994	Armavir	Ovtsharenko et al. (1994)
<i>Zelotes petrensis</i> (C. L. Koch, 1839)	Unspecified	Mikhailov (2000)
Family Sparassidae		
<i>Olios sericeus</i> (Kroneberg, 1875) **	Yerevan	Current study
Family Philodromidae		
<i>Philodromus aureolus</i> (Clerck, 1757)	Tavush	Kulczyński (1895)
<i>Philodromus collinus</i> C. L. Koch, 1835	Tavush	Kulczyński (1895)
<i>Philodromus dispar</i> Walckenaer, 1826	Tavush	Kulczyński (1895)
<i>Philodromus juvenis</i> Kulczyński, 1895	Unspecified	Mikhailov (2013)
<i>Rhysodromus lepidus</i> (Blackwall, 1870)	Unspecified	Mikhailov (2013)
<i>Rhysodromus rikhteri</i> (Logunov & Huseynov, 2008)	Yerevan	Logunov & Guseinov (2008)
<i>Thanatus oblongiusculus</i> (Lucas, 1846)	Unspecified	Mikhailov (2013)
<i>Tibellus oblongus</i> (Walckenaer, 1802)	Unspecified	Mikhailov (2000)

Species	Distribution in Armenia (Province names)	Reference
Family Thomisidae		
<i>Diaea dorsata</i> (Fabricius, 1777)	Tavush	Kulczyński (1895)
<i>Ebrechtella tricuspidata</i> (Fabricius, 1775)	Tavush	Charitonov (1936)
<i>Heriaeus oblongus</i> Simon, 1918**	Vayots dzor	Current study
<i>Misumena vatia</i> (Clerck, 1757)	Tavush	Kulczyński (1895)
<i>Ozyptila lugubris</i> (Kroneberg, 1875)	Unspecified	Mikhailov (2013)
<i>Pistius truncatus</i> (Pallas, 1772)	Armavir	Koch (1878)
<i>Psammitis ninnii</i> (Thorell, 1872)	Unspecified	Mikhailov (2013)
<i>Runcinia grammica</i> (C. L. Koch, 1837)	Yerevan	Kulczyński (1895), Mcheidze (1964)
<i>Spiracme striatipes</i> (L. Koch, 1870)**	Yerevan	Current study
<i>Synema plorator</i> (O. Pickard-Cambridge, 1872)	Yerevan, Syunik	Mcheidze (1997)
<i>Thomisus onustus</i> Walckenaer, 1805	Unspecified	Mikhailov (1999)
<i>Tmarus piger</i> (Walckenaer, 1802)	Armavir	Koch (1878)
<i>Xysticus audax</i> (Schrank, 1803)	Tavush	Kulczyński (1895)
<i>Xysticus bifasciatus</i> C. L. Koch, 1837 **	Yerevan	Current study
<i>Xysticus gallicus</i> Simon, 1875**	Ararat and Vayots dzor	Current study
<i>Xysticus kochi</i> Thorell, 1872	Tavush and Vayots dzor	Kulczyński (1895), current study
<i>Xysticus lanio</i> C. L. Koch, 1835	Unspecified	Mikhailov (2013)
Family Salticidae		
<i>Asianellus potanini</i> (Schenkel, 1963)	Yerevan	Logunov (2015)
<i>Attulus dzieduszyckii</i> (L. Koch, 1870)	Armavir	Logunov (2015)
<i>Attulus saltator</i> (O. Pickard-Cambridge, 1868)	Unspecified	Mikhailov (2000)
<i>Attulus vilis</i> (Kulczyński, 1895)	Gegharkunik	Kulczyński (1895)
<i>Ballus chalybeius</i> (Walckenaer, 1802)	Syunik	Logunov & Rakov (1998)
<i>Chalcoscirtus tanasevichi</i> Marusik, 1991	Gegharkunik	Logunov & Marusik (1999)
<i>Chinattus caucasicus</i> Logunov, 1999	Lori, Syunik and Tavush	Logunov & Guseinov (2002)
<i>Dendryphantes rudis</i> (Sundevall, 1833)	Tavush	Kulczyński (1895)
<i>Euophrys frontalis</i> (Walckenaer, 1802)	Artsakh	Logunov (2015)
<i>Evarcha arcuata</i> (Clerck, 1757)	Armavir and Tavush	Koch (1878), Logunov (2015)
<i>Evarcha armeniaca</i> Logunov, 1999	Syunik	Logunov (1999)
<i>Heliophanus auratus</i> C. L. Koch, 1835	Gegharkunik	Rakov & Logunov (1997) Logunov (2015)
<i>Heliophanus cupreus</i> (Walckenaer, 1802)	Lori, Syunik and Tavush	Logunov & Guseinov (2002)
<i>Heliophanus equester</i> L. Koch, 1867	Yerevan	Kulczyński (1895)
<i>Heliophanus flavipes</i> (Hahn, 1832)	Tavush	Logunov & Guseinov (2002)
<i>Heliophanus forcipifer</i> Kulczyński, 1895	Unspecified	Wesołowska (1986)
<i>Heliophanus lineiventris</i> Simon, 1868	Tavush	Logunov & Guseinov (2002)
<i>Heliophanus patagiatus</i> Thorell, 1875	Kotayk	Logunov (2015)
<i>Menemerus marginatus</i> (Kroneberg, 1875)	Unspecified	Mikhailov (2013)
<i>Myrmarachne formicaria</i> (De Geer, 1778)	Tavush	Logunov & Guseinov (2002)
<i>Phlaeus chrysops</i> (Poda, 1761)	Gegharkunik and Tavush	Logunov & Guseinov (2002)
<i>Phlegra cinereofasciata</i> (Simon, 1868)	Gegharkunik	Logunov (1996)
<i>Pseudeuophrys erratica</i> (Walckenaer, 1826)	Syunik and Tavush	Logunov & Guseinov (2002)
<i>Pseudicius pseudocourtauldi</i> Logunov, 1999	Syunik	Logunov (1999)
<i>Pseudomogrus albocinctus</i> (Kroneberg, 1875)	Unspecified	Mikhailov (2013)
<i>Salticus tricinctus</i> (C. L. Koch, 1846)	Gegharkunik	Logunov (2015)
<i>Synageles persianus</i> Logunov, 2004	Syunik	Logunov (2015)

Discussion

We summarized data on 177 spider species in Armenia, representing 15.5% of the Caucasian species (cf. Otto 2020). In comparison with neighbouring countries, there are 639 species known in Georgia and 720 species in Azerbaijan (Otto 2020).

The Armenian version of the First National Report (FNR; Ministry of Nature Protection 1999) contains six more fami-

lies that are not included in current checklist (Filistatidae, Mimetidae, Oecobiidae, Uloboridae, Pisauridae and Agele-
nidae). However, only one to five species are listed for each of these families in the FNR. Furthermore, three families contain many more species in the FNR in comparison with the current checklist: Theridiidae 22 vs. 5, Lycosidae 37 vs. 10 and Gnaphosidae 32 vs. 13. In spite of many efforts to supplement the checklist of Armenian spiders, we conclude that

the results are unfortunately still incomplete. We will thus re-compile all the available information regarding the spider fauna of Armenia in forthcoming parts of this contribution. It is highly likely that the *X. gallicus* female reported in this paper belongs actually to *X. kochi*, as the female of *X. gallicus* was collected together with the male of *X. kochi* (from the same site, Yeghegnadzor). Although the identification is controversial, we prefer to keep Zacharjan's original identification (as is written on the label) until new material can be collected from the locality.

Concerning *Clubiona caerulescens/caucasica*, that original label is *C. caerulescens*, but according to Mikhailov et al. (2017) all the material from the Caucasus belongs to a newly recognised species *C. caucasica*. We therefore exclude *C. caerulescens* from the national list. In the case of *Larinioides suspicax/folium*, the original label was *L. suspicax* and it is also its current state with respect to the WSC (2020). We therefore prefer to keep *L. suspicax* under this combination. Nevertheless, this information will surely contribute to the checklist of biodiversity for Armenia.

References

- Charitonov DE 1936 A supplement to the catalogue of Russian spiders. – *Uchenye zapiski Permskogo Universiteta* 2: 167–222
- Charitonov DE 1956 Overview of the spider family Dysderidae in the fauna of the USSR. – *Uchenye Zapiski Molotovskogo Gosudarstvennogo Universiteta* 10: 17–39
- Dunin PM 1984 Fauna and ecology of the spiders (Aranei) of the Apsheron Peninsula (Azerbaijani SSR). In: Utochkin A (ed.) *Fauna i ekologiya paukoobrasnykh. Perm University, Perm Krai*. pp. 45–49 [in Russian]
- Dunin PM 1988 Cribellate spiders (Aranei, Cribellatae) of Azerbaijan. – *Entomologicheskoe obozrenie* 67: 190–203 [in Russian]
- Dunin PM 1989 New spider species of the *Harpactea* genus from Armenia (Aranei, Dysderidae). – *Zoologicheskii Zhurnal* 68: 142–145
- Dunin PM 1991 New species of the spider genus *Dysdera* from the Caucasus (Aranei, Haplogynae, Dysderidae). – *Zoologicheskii Zhurnal* 70 (8): 90–98
- Dunin PM 1992 The spider family Dysderidae of the Caucasian fauna (Arachnida Aranei Haplogynae). – *Arthropoda Selecta* 1 (3): 35–76
- Dunin PM & Zacharjan VA 1991 New spider species of genus *Zodariion* from the Caucasus (Aranei, Zodariidae). – *Zoologicheskii Zhurnal* 70: 142–144
- Eskov KY 1987 The spider genus *Robertus* O. Pickard-Cambridge in the USSR with an analysis of its distribution (Arachnida: Araneae: Theridiidae). – *Senckenbergiana Biologica* 67: 279–296
- Jones-Walters LM 1989 Keys to the families of British spiders, AID-GAP Shrewsbury Field Studies Council. 78 pp.
- Koch L 1878 Kaukasische Arachnoideen. In: Schneider O (ed.) *Naturwissenschaftliche Beiträge zur Kenntniss der Kaukasusländer auf Grund seiner Sammelausbeute. – Sitzungs-Berichte der Naturforschenden Gesellschaft ISIS in Dresden* 1878: 36–71, 159–160, pl. 1–2
- Kulczyński L 1895 Araneae a Dre G. Horvath in Bessarabia, Chersoneso Taurico, Transcaucasia et Armenia Russica collectae. – *Természtrajzi Füzetek* 18: 3–38
- Logunov DV 1996 A review of the genus *Phlegra* Simon, 1876 in the fauna of Russia and adjacent countries (Araneae: Salticidae: Aelurillinae). – *Genus* 7: 533–567
- Logunov DV 1998 *Pseudeuophrys* is a valid genus of the jumping spiders (Araneae, Salticidae). – *Revue Arachnologique* 12: 109–128
- Logunov DV 1999 Two new jumping spider species from the Caucasus (Aranei: Salticidae). – *Arthropoda Selecta* 7: 301–303
- Logunov DV 2015 Taxonomic-faunistic notes on the jumping spiders of the Mediterranean (Aranei: Salticidae). – *Arthropoda Selecta* 24: 33–85 – doi: [10.15298/arthscl.24.1.03](https://doi.org/10.15298/arthscl.24.1.03)
- Logunov DV & Guseinov EF 2002 Faunistic review of the jumping spiders of Azerbaijan (Aranei: Salticidae), with additional faunistic records from neighbouring Caucasian countries. – *Arthropoda Selecta* 10: 243–260
- Logunov DV & Guseinov EF 2008 A faunistic review of the spider family Philodromidae (Aranei) of Azerbaijan. – *Arthropoda Selecta* 17: 117–131
- Logunov DV & Marusik YM 1999 A brief review of the genus *Chalcoscirtus* Bertkau, 1880 in the faunas of Central Asia and the Caucasus (Aranei: Salticidae). – *Arthropoda Selecta* 7: 205–226
- Logunov DV & Rakov SY 1998 Miscellaneous notes on Middle Asian jumping spiders (Aranei: Salticidae). – *Arthropoda Selecta* 7: 117–144.
- Marusik YM 1989 New data on the fauna and synonyms of the spiders of the USSR (Arachnida, Aranei). In: Lange AB (ed.) *Fauna i Ekologiy Paukov i Skorpionov-Arachnologicheskii Sbornik Akademia Nauk SSSR, Moscow*. pp. 39–52
- Mcheidze T 1964 Spiders (Araneina). *Zhivotnyi Mir Gruzii. – Akademicheskii Nauk Gruzii SSR Publication* 2: 48–116 [in Georgian]
- Mcheidze T 1997 Spiders of Georgia: Systematics, Ecology, Zoogeographic Review. Tbilisi University, Tbilisi. 390 pp. [in Georgian]
- Mikhailov KG 1986 New species of spiders from the families Clubionidae and Liocranidae from the middle Asia and the Caucasus. – *Zoologicheskii Zhurnal* 65: 798–802
- Mikhailov KG 1988 Contribution to the spider fauna of the genus *Micaria* Westring, 1851 of the USSR. I (Aranei, Gnaphosidae). – *Spixiana* 10: 319–334
- Mikhailov KG 1990 The spider genus *Clubiona* Latreille 1804 in the Caucasus, USSR (Arachnida: Araneae: Clubionidae). – *Senckenbergiana biologica* 70 (1989): 299–322
- Mikhailov KG 1992 The spider genus *Clubiona* Latreille, 1804 (Arachnida, Aranei, Clubionidae) in the USSR fauna: a critical review with taxonomical remarks. – *Arthropoda Selecta* 1 (3): 3–34
- Mikhailov KG 1999 Catalogue of the spiders (Arachnida, Aranei) of the territories of the former Soviet Union, Addendum 2. Moscow Zoological Museum, MGU. 39 pp.
- Mikhailov KG 2000 Catalogue of the spiders of the territories of the former Soviet Union (Arachnida, Aranei), Addendum 3. Zoological Museum of the Moscow State University. 33 pp.
- Mikhailov KG 2003 The spider genus *Clubiona* Latreille, 1804 (Aranei: Clubionidae) in the fauna of the former USSR: 2003 update. – *Arthropoda Selecta* 11: 283–317
- Mikhailov KG 2013 The spiders (Arachnida: Aranei) of Russia and adjacent countries: a non-annotated checklist. – *Arthropoda Selecta*, Supplement 3: 1–262
- Mikhailov KG 2016 Advances in the study of the spider fauna (Aranei) of Russia and adjacent regions: a 2015 update. – *Vestnik zoologii* 50: 309–320 – doi: [10.1515/vzoo-2016-0038](https://doi.org/10.1515/vzoo-2016-0038)
- Mikhailov KG & Propistsova EA 2017 On the spiders (Arachnida: Aranei) from Armenia. – *Arthropoda Selecta* 26: 369–371 – doi: [10.15298/arthscl.26.4.11](https://doi.org/10.15298/arthscl.26.4.11)
- Mikhailov KG, Otto S & Japoshvili G 2017 A new species from the *Clubiona caerulescens* group from the Caucasus (Araneae: Clubionidae). – *Zoology in the Middle East* 63: 362–368 – doi: [10.1080/09397140.2017.1361188](https://doi.org/10.1080/09397140.2017.1361188)
- Ministry of Nature Protection 1999 First national report to the Convention on biological diversity incorporating a Country study on the biodiversity of Armenia. Yerevan. 104 pp. – Internet: <https://www.cbd.int/doc/world/am/am-nr-01-en.pdf> (20. Aug. 2020)
- Ministry of Nature Protection 2014 Fifth national report of the Republic of Armenia to the Convention on biological diversity. Yerevan, 106 pp. – Internet: <https://www.cbd.int/doc/world/am/am-nr-05-en.pdf> (20. Aug. 2020)
- Nentwig W, Blick T, Bosmans R, Gloor D, Hänggi A & Kropf C 2020 Spiders of Europe. Version 08.2020 – Internet: <https://www.araneae.nmbe.ch> (23. Aug. 2020) – doi: [10.24436/1](https://doi.org/10.24436/1)
- Otto S 2020 Caucasian Spiders. A faunistic database on the spiders of the Caucasus. Version 03.2020. – Internet: <https://caucasus-spiders.info> (23. Aug. 2020)

- Ovtsharenko VI 1982 Systematic list of spiders of the family Gnaphosidae (Aranei) of the European part of the USSR and the Caucasus. – Entomologicheskoe Obozrenie 61: 830-844
- Ovtsharenko VI, Levy G & Platnick NI 1994 A review of the ground spider genus *Synaphosus* (Araneae, Gnaphosidae). – American Museum Novitates 3095: 1-27
- Rakov SY & Logunov DV 1997 A critical review of the genus *Heliophanus* C. L. Koch, 1833 of middle Asia and the Caucasus (Aranei, Salticidae). – Arthropoda Selecta 5: 67-104
- Tanasevitch AV 1987 The linyphiid spiders of the Caucasus, USSR (Arachnida: Araneae: Linyphiidae). – Senckenbergiana biologica 67: 297-383
- Tanasevitch AV 1990 The spider family Linyphiidae in the fauna of the Caucasus. Fauna of the terrestrial invertebrates of the Caucasus. Nauka, Moscow. pp. 5-114
- Wesołowska W 1986 A revision of the genus *Heliophanus* C. L. Koch, 1833 (Araneae, Salticidae). – Annales Zoologici (Warszawa) 40: 1-254
- World Spider Catalog 2020 World spider catalog. Version 21.5. Natural History Museum, Bern. – Internet: <https://wsc.nmbe.ch> (23. Aug. 2020) – doi: [10.24436/2](https://doi.org/10.24436/2)
- Zarikian N 2020 A contribution to the checklist of the jumping spiders (Araneae: Salticidae) of Armenia. – Bulletin of the Iraq Natural History Museum 16: 193-202 – doi: [10.26842/binhm.7.2020.16.2.0193](https://doi.org/10.26842/binhm.7.2020.16.2.0193)
- Zonstein S, Kunt KB & Yağmur EA 2018 A revision of the spider genus *Raveniola* (Araneae, Nemesiidae). I. Species from Western Asia. – European Journal of Taxonomy 399: 1-93 – doi: [10.5852/ejt.2018.399](https://doi.org/10.5852/ejt.2018.399)
- Zyuzin AA & Logunov DV 2000 New and little-known species of the Lycosidae from Azerbaijan, the Caucasus (Araneae, Lycosidae). – Bulletin of the British Arachnological Society 11: 305-319