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RESEARCH ARTICLE

The Spider Fauna of the Terzioglu Campus of Çanakkale Onsekiz Mart University

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Abstract

Çanakkale Onsekiz Mart University Terzioglu Campus was built on an area with different heights and different habitats. The aim of this study was to determine the spider species fauna which were distributed in the campus area due to the lack of any detailed study on spider fauna of the campus area. In this study, the spider fauna of the Terzioglu Campus area of Çanakkale Onsekiz Mart University was investigated between September 2018 and July 2019. The spiders were collected by pitfall traps, sifting and hand aspirators. A total of 86 spider species belonging to 30 families were determined. The most common species in the study area were *Amaurobius erberi* (Keyserling, 1863) and *Pisaura mirabilis* (Clerck, 1957).

Keywords: Aranea, Spider, Fauna, Çanakkale, Turkey

Introduction

Spiders (Arachnida, Araneae) spread around the world 400 million years ago and have conquered all ecological environments (Foelix, 2011). All spiders are carnivores (Foelix, 2011) and they are dominant predators of many living things in the terrestrial ecosystem (Wise, 1995; Bond *et al.*, 2014) and constitute a source of food for vertebrate animals.

Spiders are represented by120 families, 4159 genera and 48424 species in the world (World Spider Catalog, 2020). The first detailed list of the Turkish spider fauna was published by Karol (1967) and contained 302 species of spiders. Recently, Demir & Seyyar (2017) published an updated checklist of spiders in Turkey. Now, the total number of species of Araneae in Turkey is 1129, belonging to 349 genera and 54 families.

Despite the increase in studies on Turkish spiders in recent years, there are still many regions of the country that remain poorly studied. The aim of this preliminary study is to make a contribution to the spider diversity of Turkey.

Material and Methods

Terzioğlu Campus of Çanakkale Onsekiz Mart University is located in the southern part of the Çanakkale Province on an area bordered by the Beldemiz Site in the north, Radar Road in the south, the PTT links in the east and the Çanakkale-İzmir road in the west. The height of the area

varies between 10-280 m and it is located (40° 06′ 43.05”E, 26° 24′ 57.48”N) in a 3-hectare forest area.

As a research area, forest and bush areas in the campus were selected. Spiders were collected between September 2018 and July 2019, by pitfall traps, sifting of leaf litter and hand aspirator methods. The collected samples were placed in labeled tubes containing 70% ethyl alcohol.

The identification of the samples was made by using BOECO BSZ-405 stereomicroscope. The general distribution and taxonomic characteristics of all spider species were followed by Nentwig *et al.*, (2020). In the identification of spider species, the keys of Brignoli (1978), Chatzaki (2002), Deltshev and Blagoev (2001), Marusik (2009), Metzner (2011), Le Peru (2011), Bosmans *et al.* (2013) were used. The specimens are stored in the Zoology Museum of Çanakkale Onsekiz Mart University (COMU-ZM).

Results and Discussion

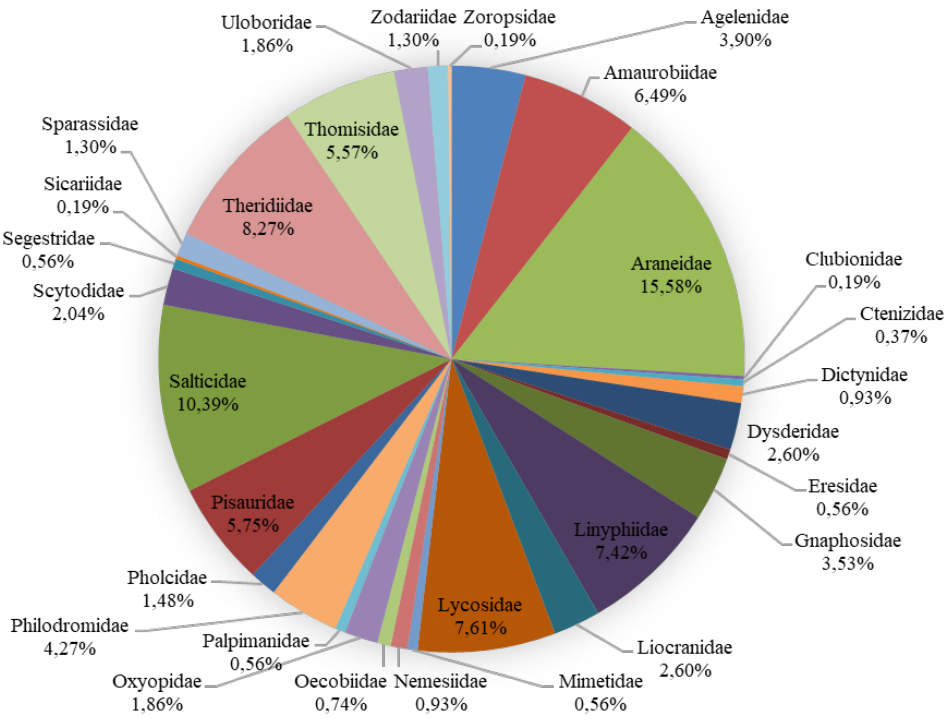
In this study, the spider fauna of the Terzioğlu Campus of Çanakkale Onsekiz Mart University was investigated. The study is a preliminary list of campus spider fauna before the thesis work of the spider fauna in Terzioğlu Campus.
The total number of species of Araneae in Turkey is 1129, belonging to 349 genera and 54 families The Linyphidae family contains 68 genera and are families with the highest species biodiversity in Turkey. The Salticidae family, containing 134 species is the family with the most species (Danısman *et al.*, 2019). In this study, the Salticidae family had the largest number of genera with 12 genera, and the Theridiidae family had the largest number of species with 15 species.
As a result of field studies, 539 specimens were collected and among them 86 species of 30 families were determined. Adult and juvenile individuals belonging to 25 families were encountered from the collected samples. 110 males and 216 females were identified. Adult samples could not be obtained in 5 families from the collected samples and 213 juvenile individuals were identified on a genus level (Table 1). According to the data obtained from the collected individuals, the female/male ratio was 1.96:1 and the adult/juvenile ratio was 1.50:1.

Most of the data obtained in the study was collected from adult and young individuals belonging to the Araneidae family. The Araneidae family consist of diverse small and large taxa (Jäger, 2012; Jones, 1983; Loksa, 1972), and members of the family include species that can build orb-webs between plants, shrubs and tree branches.

Table 1. The spider individuals collected from the Terzioğlu Campus of Çanakkale Onsekiz Mart University

Family	Adult Females	Adult Males	Juveniles
Agelenidae	9	1	11
Amaurobiidae	14	13	8
Araneidae	35	13	36
Clubionidae	-	-	1
Ctenizidae	2	-	-
Dictynidae	-	3	2
Dysderidae	-	1	13
Eresidae	2	-	1
Gnaphosidae	5	6	8
Linyphiidae	23	10	7
Liocranidae	6	7	1
Lycosidae	17	11	13
Mimetidae	1	1	1
Nemesiidae	-	-	5
Oecobiidae	-	-	4
Oxyopidae	2	-	8
Palpimanidae	1	2	-
Philodromidae	12	11	-
Pholcidae	2	3	3
Pisauridae	4	4	23
Salticidae	26	9	21
Scytodidae	11	-	-
Segestridae	2	-	1
Sicariidae	-	-	1
Sparassidae	-	-	7
Theridiidae	24	7	16
Thomisidae	13	6	11
Uloboridae	3	-	7
Zodariidae	2	1	4
Zoropsidae	-	1	-

The ophistosoma structure of the species belonging to the Araneidae family, which has taxon-specific colors and patterns, has a wide variety of appearance and sometimes there is a significant difference in size and color between the sexes (J. Gál *et al.* 2016). The study area consisted of herbaceous and woody plants, as bushes and forested areas provide a suitable habitat for family members to build orb-web and to spread.



Araneidae is currently the third most diverse spider family in the world, containing 3052 species in the genus 178 (World Spider Catalog, 2020). In our country, the Aranediae family is currently the 9th most diverse spider family among 54 families with 58 species (Danışman *et al.*, 2019).

The most abundant and common spiders were, *Amaurobius erberi* (Keyserling, 1863) and *Pisaura mirabilis* (Clerck, 1957). In addition, the collection of the samples in the study area with an aspirator generally enabled the capture of samples that actively navigate the place and build orb-web.

As a result of the field studies, 35 samples belonging to *Amaurobius erberi* (Keyserling, 1863) species were collected. *Amaurobius erberi* (Keyserling, 1863) burrows itself under objects on the ground with a small funnel or tube or a mesh built in tree bark. The openings of the land are made up of stony structures and the bark of the forests provide suitable habitats for the species.

As a result of the field studies, 31 individuals belonging to *Pisaura mirabilis* (Clerck, 1957) were collected. This species walks actively on the ground and hunts free. The study area consisted of herbaceous plants, as shrubs and dead leaves provide a suitable habitats for the species.

Table 2. The list of the spiders of Terzioğlu Campus of Çanakkale Onsekiz Mart University

Family	Genera	Species	Global Distribution	Material Examined
Agelenidae C.L. Koch, 1837	*Agelena* Walckenaer, 1805	*Agelena* sp.		Juveniles: 11♀♀
		Agelena orientalis C.L. Koch, 1837	Italy to Central Asia, Iran	Adults: 2♀♀
	Maimuna Lehtinen 1967	*Maimuna vestita* (C.L. Koch, 1841)	Eastern Mediterranean	Adults: 7♀♀ 1♂♂
Amaurobiidae (Keyserling, 1863)	*Amaurobius* C.L. Koch, 1837	*Amaurobius erberi* (Keyserling, 1863)	Canary Island, Europe, Turkey, Caucasus	Adults: 14♀♀ 13♂♂
		Amaurobius sp.		Juveniles: 8♀♀

Araneidae Clerck, 1757	*Agalenatea* Archer, 1951	*Agalenatea redii* (Scopoli, 1763)	Europe, Turkey, Caucasus, Russia (Europe to South Siberia), Iran, C.Asia, China	Adults: 10♀♀ 1♂♂
	Araneus Clerck, 1757	*Araneus diadematus* Clerck, 1757	Europe, Middle East, Turkey, Caucasus, Russia (Europe to Far East), Iran, Central Asia, China, Japan. Introduced to North America	Adults: 1♂♂
		Araneus sp.		Juveniles: 12♀♀
	Cyclosa Menge, 1866	*Cyclosa sierrae* Simon, 1870	Southern Europe, Hungary, Ukraine, Turkey, Caucasus, Iran	Adults: 7♀♀ 6♂♂
		Cyclosa sp.		Juveniles: 14♀♀
	Gibbaranea Archer, 1951	*Gibbaranea biturberculata* (Walckenaer, 1802)	North Africa, Europe, Turkey, Israel, Russia, Iran, Central Asia to China, Japan, India	Adults: 2♀♀ 1♂♂
		Gibbaranea sp.		Juveniles: 2♀♀
	Glyptogona Simon, 1884	*Glyptogona sextuberculata* (Keyserling, 1863)	Italy to Israel	Adults: 6♀♀ 2♂♂
	Mangora O.Pickard-Cambridge, 1889	*Mangora acalypha* (Walckenaer, 1802)	Madeira, Europe, North Africa, Turkey, Middle East, Caucasus, Russia, C.Asia	Adults: 4♀♀ 2♂♂
	Zilla C.L. Koch, 1834	*Zilla diodia*	North Africa, Europe, Turkey, Caucasus, Russia, Iran	Adults: 1♀♀
		Zilla sp.		Juveniles: 5♀♀ 1♂♂
	Zygiella O.Pickard-Cambridge, 902	*Zygiella keyserlingi* (Ausserer, 1871)	Southern Europe, Ukraine, Turkey	Adults: 5♀♀
		Zygiella sp.		Juveniles: 1♀♀ 2♂♂
Clubionidae Wagner, 1887	*Clubiona* Latreille, 1804	*Clubiona* sp.		Juveniles: 1♂♂
Ctenizidae Thorell, 1887	*Cyrtocarenum* Ausserer, 1871	*Cyrtocarenum cunicularium* (Olivier, 1811)	Greece (incl. Crete, Rhodes), Turkey	Adults: 2♀♀
Dictynidae O.Pickard-Cambridge, 1871	*Brigittea* Lehtinen, 1967	*Brigittea latens* (Fabricius, 1775)	Europe to Central Asia	Adults: 1♂♂
	Dictyna Sundevall, 1833	*Dictyna* sp.		Juveniles: 1♀♀
	Lathys Simon, 1884	*Lathys* sp.		Juveniles: 1♀♀
	Scotolathys Simon, 1884	*Scotolathys simplex* Simon, 1884	Algeria, Spain, North Macedonia, Greece, Ukraine, Israel	Adults: 2♂♂
Dysderidae C.L. Koch, 1837	*Dysdera* Latreille, 1804	*Dysdera crocata* C.L. Koch, 1838	Europe, Caucasus, Iraq, Central Asia. Introduced to North America, Chile, Brazil, Australia, New Zealand, Hawaii	Adults: 1♂♂
	Harpactea Bristowe, 1939	*Harpactea* sp.		Juveniles: 13♂♂
Eresidae C.L. Koch, 1845	*Eresus* Walckenaer, 1805	*Eresus sandaliatus* (Martini & Goeze, 1778)	Europe	Adults: 2♀♀
		Eresus sp.		Juveniles: 1♀♀

Gnaphosidae Pocock, 1898	*Drassodes* Westring, 1851	*Drassodes lapidosus* (Walckenaer, 1802)	Europe, Turkey, Caucasus, Russia, Israel, Iran, Central Asia, China, Korea, Japan	Adults: 1♀♀ 1♂♂
		Drassodes lutescens (C.L. Koch, 1839)	Mediterranean, Ukraine, Caucasus, Russia, Central Asia, Iran, Pakistan	Adults: 1♀♀ 2♂♂
		Drassodes sp.		Juveniles: 7♀
	Nomisia Dalmas, 1921	*Nomisia aussereri* (L. Koch, 1872)	Mediterranean, Eastern Europe, Turkey, Middle East, Caucasus, Russia, Kazakhstan, Central Asia, China	Adults: 1♀♀
		Nomisia sp.		Juveniles: 1♀♀
	Zelotes Gistel, 1848	*Zelotes cingarus* (O.Pickard-Cambridge, 1874)	Albania, North Macedonia, Bulgaria, Greece, Turkey, Tajikistan	Adults: 2♀♀ 1♂♂
		Zelotes subterraneus (C.L. Koch, 1833)	Europe, Turkey, Caucasus, Russia, Central Asia, China	Adults: 2♂♂
Linyphiidae Blackwall, 1859	*Centromerus* Dahl, 1886	*Centromerus albidus* Simon, 1929	Europe, Turkey	Adults: 1♀♀
	Frontinellina Van Helsdingen, 1969	*Frontinellina frutetorum* (C.L. Koch, 1835)	Europe, North Africa, Turkey, Caucasus, Russia (Europe to South Siberia), Iran, Kazakhstan, Central Asia	Adults: 9♀♀
		Frontinellina sp.		Juveniles: 7♀♀
	Gonatium Menge, 1868	*Gonatium cappadocium* Millidge, 1981	Turkey	Adults: 1♀♀
	Neriene Blackwall, 1833	*Neriene furtiva* (O.Pickard-Cambridge, 1871)	Europe, North Africa, Russia (Europe to South Siberia)	Adults: 1♀♀
	Sintula Simon, 1884	*Sintula retroversus* (O.Pickard-Cambridge, 1875)	Europe, Turkey, Caucasus	Adults: 10♀♀ 7♂♂
	Tapinopa Westring, 1851	*Tapinopa gerede* Saaristo, 1997	Turkey	Adults: 1♀♀ 1♂♂
	Walckenaeria Blackwall, 1833	*Walckenaeria alticeps* (Denis, 1952)	Europe, Turkey, Caucasus, Russia (Europe to Middle Siberia), Iran	Adults: 1♂♂
Liocranidae Simon, 1897	*Mesiotelus* Simon, 1897	*Mesiotelus scopensis* Drensky, 1935	North Macedonia, Bulgaria, Greece, Turkey, Iran	Adults: 6♀♀ 7♂♂
		Mesiotelus sp.		Juveniles: 1♀♀
Lycosidae Sundevall, 1833	*Alopecosa* Simon, 1885	*Alopecosa albofasciata* (Brullé, 1832)	Mediterranean to Central Asia	Adults: 12♀♀ 9♂♂
		Alopecosa sp.		Juveniles: 6♀♀ 4♂♂
	Hogna Simon, 1885	*Hogna radiata* (Latreille, 1817)	Europe, Turkey, Caucasus, Russia, Kazakhstan, Iran, Central Asia	Adults: 4♀♀
		Hogna sp.		Juveniles: 3♀♀
	Pardosa C.L. Koch, 1847	*Pardosa hortensis* (Thorell, 1872)	Europe, Turkey, Caucasus, Russia, Iran, Japan	Adults: 1♂♂
	Trabea Simon, 1876	*Trabea paradoxa* Simon, 1876	Southern Europe, Turkey	Adults: 1♂♂
	Trochosa C.L. Koch, 1847	*Trochosa ruricola* (De Geer, 1778)	Europe, Turkey, Caucasus, Russia, Kazakhstan, Iran, Central Asia, China, Japan, Korea, North America, Cuba, Puerto Rico,	Adults: 1♀♀
Mimetidae Simon, 1881	*Ero* C.L. K och, 1836	*Ero flammeola* Simon, 1881	Canary Is., Portugal to Greece (Corfu), Turkey, Israel	Adults: 1♂♂
		Ero sp.		Juveniles: 1♀♀
	Mimetus Hentz, 1832	*Mimetus laevigatus* (Keyserling, 1863)	Mediterranean to Central Asia	Adults: 1♀♀

Nemesiidae Simon, 1889	*Raveniola* Zonstein, 1987	*Raveniola* sp.		Juveniles: 5♂♂
Oecobiidae Blackwall, 1862	*Oecobius* Lucas, 1846	*Oecobius* sp.		Juveniles: 4♀♀
Oxyopidae Thorell, 1870	*Oxyopes* Latreille, 1804	*Oxyopes heterophthalmus* (Latreille, 1804)	Europe, North Africa to Middle East, Turkey, Caucasus, Kazakhstan, China	Adults: 1♀♀
		Oxyopes lineatus Latreille, 1806	Europe, Turkey, Caucasus, Russia (Europe to Central Asia), Middle East, Central Asia	Adults: 1♀♀
		Oxyopes sp.		Juveniles: 7♀♀ 1♂♂
Palpimanidae Thorell, 1870	*Palpimanus* Dufour, 1820	*Palpimanus orientalis* Kulczynski, 1909	Albania, Greece, Turkey	Adults: 1♀♀ 2♂♂
Philodromidae Thorell, 1870	*Pulchellodromus* Wunderlich, 2012	*Pulchellodromus pulchellus* (Lucas, 1846)	Mediterranean	Adults: 4♀♀ 2♂♂
	Thanatus C.L. Koch, 1837	*Thanatus atratus* Simon, 1875	Europe, Turkey, Caucasus, Russia	Adults: 1♀♀
		Thanatus pictus L. Koch, 1881	Europe, Turkey, Caucasus, Russia (Europe to West Siberia), Kazakhstan, Iran	Adults: 1♀♀
		Thanatus vulgaris Simon, 1870	North America, Europe, North Africa, Turkey, Israel, Caucasus, Russia , Iran, Kazakhstan, Central Asia, China, Korea	Adults: 5♀♀ 8♂♂
	Tibellus Simon, 1875	*Tibellus macellus* Simon, 1875	Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan	Adults: 1♀♀ 1♂♂
Pholcidae C.L. Koch, 1850	*Holocnemus* Simon, 1873	*Holocnemus pluchei* (Scopoli, 1763)	Europe, northern Africa	Adults: 2♀♀ 3♂♂
		Holocnemus sp.		Juveniles: 1♀♀ 2♂♂
Pisauridae Simon, 1890	*Pisaura* Simon, 1886	*Pisaura mirabilis* (Clerck, 1757)	Europe, Turkey, Middle East, Caucasus, Russia, Central Asia, China	Adults: 4♀♀ 4♂♂
		Pisaura sp.		Juveniles: 21♀♀ 2♂♂

Salticidae Blackwall, 1841	*Carrhotus* Thorell, 1891	*Carrhotus* sp.		Juveniles: 1♀♀
	Euophrys C.L. Koch, 1834	*Euophrys frontalis* (Walckenaer, 1802)	Europe, Turkey, Caucasus, Russia, Kazakhstan, Iran, Central Asia, China, Korea, Japan	Adults: 1♂♂
		Euophrys rufibarbis (Simon, 1868)	Southern Europe, N.Africa, Turkey, China	Adults: 3♀♀ 1♂♂
		Euophrys sp.		Juveniles: 2♀♀
	Evarcha Simon, 1902	*Evarcha jucunda* (Lucas, 1846)	Canary Is., Mediterranean, Belgium, Germany	Adults: 5♀♀
	Heliophanus C.L. Koch, 1833	*Heliophanus kochii* Simon, 1868	Macaronesia, North Africa, Europe, Turkey, Caucasus, Kazakhstan, Canada, USA	Adults: 1♀♀ 1♂♂
	Menemerus Simon, 1868	*Menemerus semilimbatus* (Hahn, 1829)	Canary Is., Mediterranean, E.Europe, Turkey, USA,Caucasus, Iran, Argentina, Chile	Adults: 6♀♀ 2♂♂
	Neon Simon, 1876	*Neon* sp.		Juveniles: 3♀♀
	Pellenes Simon, 1876	*Pellenes brevis* (Simon, 1868)	Portugal, Spain, France, Italy, Germany, Bulgaria, Macedonia, Greece, Ukraine, Turkey, Cyprus, Iran	Adults: 1♂♂
		Pellenes sp.		Juveniles: 4♀♀ 5♂♂
	Philaeus Thorell, 1869	*Philaeus chrysops* (Poda, 1761)	Europe, North Africa to Middle East, Turkey, Caucasus, Russia, Iran, Central Asia, Korea Afghanistan, China, Mongolia,	Adults: 5♀♀
	Phlegra Simon, 1876	*Phlegra* sp.		Juveniles: 1♀♀
	Pseudeuophrys Dahl, 1912	*Pseudeuophrys lanigera* (Simon, 1871)	Europe, Turkey, Caucasus, USA	Adults: 5♀♀
	Saitis Simon, 1876	*Saitis* sp.		Juveniles: 4♀♀
		Saitis tauricus Kulczynski, 1905	Italy, Hungary, N.Macedonia, Bulgaria, Greece, Turkey, Ukraine	Adults: 1♀♀ 3♂♂
	Salticus Latreille, 1804	*Salticus* sp.		Juveniles: 1♀♀
Scytodidae Blackwall, 1864	*Scytodes* Latreille, 1804	*Scytodes thoracica* (Latreille, 1802)	Europe, North Africa, Turkey, Iran, Asia to China, Korea, Japan, N.America, Argentina, India, Australia, New Zealand	Adults: 11♀♀
Segestriidae Simon, 1893	*Segestria* Latreille, 1804	*Segestria senoculata* (Linnaeus, 1758)	Europe, Turkey, Caucasus, Iran	Adults: 2♀♀
		Segestria sp.		Juveniles: 1♀♀
Sicariidae Keyserling, 1880	*Loxosceles* Heineken & Lowe, 1832	*Loxosceles* sp.		Juveniles: 1♀♀
Sparassidae Bertkau, 1872	*Micrommata* Latreille, 1804	*Micrommata* sp.		Juveniles: 7♀♀

Theridiidae Sundevall, 1833	*Achaeridion* Wunderlich, 2008	*Achaeridion conigerum* (Simon, 1914)	Europe, Turkey	Adults: 1♀♀
	Asagena Sundevall, 1833	*Asagena phalerata* (Panzer, 1801)	Europe, Turkey, Caucasus, Russia, Kazakhstan, Iran, C.Asia, China, Korea	Adults: 1♂♂
	Enoplognatha Pavesi, 1880	*Enoplognatha afrodite* Hippa & Oksala, 1983	Southern Europe	Adults: 1♀♀
		Enoplognatha sp.		Juveniles: 2♀♀
	Episinus Walckenaer, 1809	*Episinus* sp.		Juveniles: 1♂♂
	Euryopis Menge, 1868	*Euryopis episinoides* (Walckenaer, 1847)	Mediterranean to Turkey, Israel, Reunion, India, China	Adults: 1♀♀ 2♂♂
	Kochiura Archer, 1950	*Kochiura aulica* (C.L. Koch, 1838)	Cape Verde Is., Canary Is., N.Africa, Europe, Turkey, Caucasus, Iran	Adults: 1♀♀
		Kochiura sp.		Juveniles: 3♀♀
	Neottiura Menge, 1868	*Neottiura herbigrada* (Simon, 1873)	Madeira, Mediterranean, Ukraine, China, Korea	Adults: 1♀♀
	Parasteatoda Archer, 1946	*Parasteatoda lunata* (Clerck, 1757)	Europe, Turkey, Israel, Caucasus, Russia, Iran	Adults: 1♀♀
	Pholcomma Thorell, 1869	*Pholcomma gibbum* (Westring, 1851)	Europe, North Africa, Turkey, Azerbaijan,	Adults: 1♂♂
	Steatoda Sundevall, 1833	*Steatoda albomaculata* (De Geer, 1778)	North America, Europe, North Africa to Israel, Russia, Iran, Kazakhstan, Central Asia, China, Korea, Japan	Adults: 3♀♀
		Steatoda paykulliana (Walckenaer, 1806)	Europe, Mediterranean to Central Asia	Adults: 5♀♀
		Steatoda triangulosa (Walckenaer, 1802)	Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Iran, Central Asia. Introduced to Canada, USA, Canary Is.	Adults: 4♀♀
		Steatoda sp.		Juveniles: 3♀♀
	Theridion Walckenaer, 1805	*Theridion adrianopoli* Drensky, 1915	North Macedonia, Bulgaria, Albania, Greece, Turkey	Adults: 3♀♀ 1♂♂
		Theridion betteni Wiehle, 1960	Europe, Turkey	Adults: 1♂♂
		Theridion melanurum Hahn, 1831	Macaronesia, North Africa, Europe, Turkey, Caucasus, Russia , USA	Adults: 2♀♀ 1♂♂
	Theridion Walckenaer, 1805	*Theridion mystaceum* L. Koch, 1870	Europe, Turkey, Russia (Europe to South Siberia), China	Adults: 1♀♀
		Theridion sp.		Juveniles: 3♀♀ 4♂♂

Thomisidae Sundevall, 1833	*Heriaeus* Simon, 1875	*Heriaeus sp.*		Juveniles: 1♀♀
	Monaeses Thorell, 1869	*Monaeses israiliensis* Levy, 1973	Greece, Turkey, Israel, Lebanon, Iran, Central Asia, China	Adults: 2♀♀
		Monaeses sp.		Juveniles: 1♂♂
	Ozyptila Simon, 1864	*Ozyptila atomaria* (Panzer,1801)	Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Iran, Central Asia, China, Korea, Japan	Adults: 1♀♀
		Ozyptila confluens (C.L. Koch, 1845)	Southern Europe, Syria	Adults: 1♀♀
		Ozyptila sanctuaria (O.Pickard-Cambridge, 1871)	Europe	Adults: 2♂♂
		Ozyptila tricoloripes Strand, 1913	Turkey, Israel, Iran, Azerbaijan, Turkmenistan, Kazakhstan	Adults: 2♀♀ 3♂♂
	Synema Simon, 1864	*Synema globosum* (Fabricius, 1775)	Europe, Turkey, Caucasus, Russia, Israel, Iran, Central Asia, China, Korea, Japan	Adults: 1♀♀
	Thomisus Walckenaer, 1805	*Thomisus* sp.		Juveniles: 2♀♀
	Tmarus Simon, 1875	*Tmarus* sp.		Juveniles: 1♀♀ 1♂♂
	Xyticus C.L. Koch, 1835	*Xyticus acerbus* Thorell, 1872	Europe to Central Asia, Russia (Europe to Far East)	Adults: 1♀♀
		Xysticus cristatus (Clerck, 1757)	Europe, Turkey, Caucasus, Russia, Iran, Central Asia, China, Korea, Japan	Adults: 1♀♀
		Xysticus kochi Thorell, 1872	Europe, Mediterranean to Central Asia	Adults: 1♀♀ 1♂♂
		Xysticus luctuosus (Blackwall, 1836)	North America, Europe, Turkey, Caucasus, Russia, Kazakhstan, Iran, Central Asia	Adults: 1♀♀
		Xysticus sp.		Adults: 5♀♀
Uloboridae Thorell, 1869	*Uloborus* Latreille, 1806	*Uloborus* sp.		Juveniles: 7♀♀
		Uloborus walckenaerius Latreille, 1806	Madeira, Europe, Turkey, Caucasus, Russia (Europe to Far East), Iraq, Iran, Central Asia, China, Korea, Japan	Adults: 3♀♀
Zodariidae Thorell, 1881	*Zodarion* Walckenaer, 1826	*Zodarion bigaense* Bosmans, Özkütük, Varli & Kunt, 2014	Turkey	Adults: 2♀♀
		Zodarion morosum Denis, 1935	North Macedonia, Bulgaria, Albania, Greece, Turkey, Ukraine, Russia (Europe, Caucasus)	Adults: 1♂♂
		Zodarion sp.		Juveniles: 3♀♀ 1♂♂
Zoropsidae Bertkau, 1882	*Zoropsis* Simon, 1878	*Zoropsis lutea* (Thorell, 1875)	Croatia, Greece, Bulgaria, Ukraine, Turkey, Syria, Lebanon, Israel, Iran	Adults: 1♂♂

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References

Blagoev G., Deltshev C., Lazarov S., & Naumova M. (2018). The spiders (Araneae) of Bulgaria. Version: August 2018. National *Museum of Natural History, Bulgarian Academy of Sciences*. Online at http://www.nmnhs.com/spiders-bulgaria/ (accessed on 10.09.2018)

Bond E. J., Garrison L. N., Hamilton A. C., Godwin L. R., Hedin M., & Agnarsson I. (2014). Phylogenomics Resolves a Spider Backbone Phylogeny and Rejects a Prevailing Paradigm for Orb Web Evolution, *Current Biology*, *24*(15), 1765–1771. https://doi.org/10.1016/j.cub.2014.06.034

Bosmans R., Keer V. J., Smith R. A., Kronestedt, T., Alderweireldt M., Bossalaers J., & Konnıck H. (2013). Spiders of Crete (Araneae). *Newsletter Belg. arachn. Soc.,* volume 28 (suppl. 1). ISSN (Online Edition) 2295-3035

Brignoli, P. M. (1978). Some remarks on the relationships between the Haplogynae, the semi-Entelegynae and the Cribellatae (Araneae) . *Symp. Zool. Soc. Lond.* 42, 285–292.

Chatzaki, M., Thaler, K., & Mylonas, M. (2002). Ground spiders (Gnaphosidae, Araneae) of Crete (Greece). Taxonomy and distribution. *I. Rev. Suisse Zool, 109*(3), 553–601.

Danışman T., Kunt, K. B., & Özkütük, R. S. (2019). *The checklist of the spiders of Turkey*. Version 2019 (last updated 1 June 2019), online at http://www.spidersofturkey.info

Deltshev, C., & Blagoev, G. (2001). A critical checklist of Bulgarian spiders. *Araneae Bulletin of the British Arachnological Society,* 12, 110–138.

Demir, H., & Seyyar, O. (2017). Annotated Checklıst of The Spıders of Turkey, *Mun. Ent. Zool, 12*(2), 433–469.

Foelix, R. (2011). *Biology of Spiders.* 3rd ed. (New York, USA): Published by Oxford University Press, Inc. ISBN 978-0-19-973482-5

Gal J., Robson, L., & Kovacs, G. (2016). New distribution data of orb-weaver spiders in Morocco (Araneae: Araneidae). *Acta Agraria Kaposvariensis,*20(1), 82–88.

Jäger, P. (2012). A review on the spider genus *Argiope* Audouin 1826 with special emphasis on broken emboli in female epigynes (Araneae: Aranidae: Agriopinae). *Beitr. Araneol*., 7, 272–331.

Jones, D. (1983). A guide to spiders of Britain and Northern Europe. *Hamlyn Publ. Group LTD.*, London.

Karol, S. (1967b). *Türkiye Örümcekleri. I. Ön Liste*, pp. 1–37. Ankara: Ankara Üniversitesi Basımevi.

Le Peru, B. (2011). The spiders of Europe, a synthesis of data: Volume 1 Atypidae to Theridiidae. *Mémoires de la Société Linnéenne de Lyon,* 2, 1–522.

Loksa, I. (1972). Araneae ll. - *Fauna Hungariae,* 109, 1-112.

Marusik, Y. M. (2009b). Spiders (Araneae) new to the fauna of Turkey. 6. New species and genera records of Araneidae. *Turkish Journal of Arachnology*, *2*(4), 12–16.

Marusık, Y. M., Kovblyuk, M. M. & Nadolny, A. A. (2009). A survey of *Lathys* Simon, 1884, from Crimea with resurrection of *Scotolathys* Simon, 1884 (Aranei: Dictynidae). *Arthropoda Selecta* 18, 21-33.

Marusik, Y. M., & Kunt, K. B. (2009a). Spiders (Araneae) new to the fauna of Turkey. 7. New species and genera records of Linyphiidae. *Serket,* 11, 82–86.

Metzner, H. (2011). Worldwide database of jumping spiders (Arachnida, Araneae, Salticidae). Available from: http://www.jumping-spiders.com/index.php. (Accessed date April 2020)

Nentwig, W., Blick, T., Gloor, D., Hänggi, A. ve Kropf, C. (2020). Version {04.2020}. Online at https://www.araneae.nmbe.ch, accessed on 29.04.2020. doi: 10.24436/1

Wise, D. H. (1995). *Spiders in Ecological Webs*. Cambridge University Press, Cambridge. ISBN 0 521 32547 1.

World Spider Catalog. (2020). *World Spider Catalog. Natural History Museum Bern,* Available from: http://wsc.nmbe.ch, version 21.0 accessed on 29.04.2020. doi: 10.24436/2