

An updated checklist of the Thomisidae (Araneae) of Turkey with zoogeographical remarks

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Abstract

This updated checklist of Thomisidae of Turkey is based on published and unpublished records available to the author. At present, 79 species belonging to 14 genera of family Thomisidae have been identified in Turkey.

Keywords: Araneae, Thomisidae, Turkey.

Introduction

Arachnological studies of Turkey began towards the end of the 19th century. They were increased during the 20th century, specially faunistic and taxonomic works. Recently, they continued with an increased speed. In the fauna of Turkey, Thomisidae must be regarded as an insufficiently studied family. The most important papers dealing with the thomisid fauna of the country are those of Kulczyński (1903), Nosek (1905), Roewer (1959), and Simon (1875, 1879, 1884, 1914). Early studies on this family were carried out by Karol (1966a, 1966b, 1966c, 1966d, 1968), who described four new *Xysticus* species from Turkey. However, *X. sislii* Karol, 1966, *X. turcicus* Karol, 1966 and *X. pelini* Karol, 1968 are now synonyms of *X. thessalicus* Simon, 1916 (Wunderlich, 1995), and *X. jezequeli* Karol, 1966 is a synonym of *X. gymnocephalus* Strand, 1915 (Assi, 1986). The previous works were densely concentrated on central Anatolian region, Black Sea region, and the Mediterranean region, i.e. central parts of Turkey.

Turkey has significant ecological properties. It may be the origin country of many spider taxa and it may also be a refugium (an area where conditions have enabled a species or a community of species to survive after extinction in surrounding areas) for living creatures affected by geological and climatic changes more than many countries in the World.

A list of 44 species belonging to 10 genera of family Thomisidae from Turkey was firstly published by Karol (1967). Afterwards, both Turkish and foreign researches made important contributions to the Turkish thomisid fauna. They recorded 55 species belonging to 12 genera from Turkey (Bayram, 2002). According to the checklist of Topçu *et al.* (2005), the Turkish thomisid fauna comprises 56 valid species belonging to 10 genera, most of which were known from a single or just a few localities.

The present checklist is based on all available published and some unpublished records of the distribution of thomisid spiders in Turkey. A total of 79 species from family Thomisidae are recorded in this country. The principal paper is that of Topçu *et al.* (2005), which was based on 41 publications. Now, 21 species are added from recently published 14 papers (i.e. Marusik *et al.*, 2005; Topçu *et al.*, 2006; Logunov, 2006; Logunov & Demir, 2006; Özdemir *et al.*, 2006; Varol *et al.*, 2006; Demir *et al.*, 2006, 2007a, 2007b, 2008, 2008a, 2008b, In press; Bayram *et al.*, 2007).

Material and Methods

The present checklist of the thomisid species of Turkey is mainly based on the data included in “A Checklist of the spiders of Turkey” (Topçu *et al.*, 2005). It is compiled using published records and original data. World distribution of all species follows Platnick (2008). Distribution of species in geographical regions of Turkey is summarized in remarks according to Topçu *et al.* (2005) [MR = Marmara, AR = Aegean, CAR = Central Anatolia, BSR = Black Sea Region, EAR = East Anatolia, SAR = Southeastern Anatolia Region and MER = Mediterranean Regions]. The present zoogeographical characterization is based on the chorotype classification of Anatolian fauna, recently proposed by Vigna Taglianti *et al.* (2000). In this study, as possible as one chorotype description can be identified for each taxon. But this kind of description can not be possible for some taxa, so one or two chorotypes are used for them. The species which are recorded from only one locality in Turkey are characterised by an asterisk (*).

Taxonomy

Family Thomisidae Sundevall, 1833

Genus *Coriarachne* Thorell, 1870

Coriarachne depressa (C.L. Koch, 1837)

Records in Turkey: Aegean and Mediterranean region in Turkey (Bayram, 2002).

Distribution in Turkey: AR and MER. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Genus *Cozyptila* Lehtinen & Marusik, 2005

Cozyptila blackwalli (Simon, 1875)

Records in Turkey: Ankara (Logunov & Demir, 2006).

Distribution in Turkey: CAR *. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Cozyptila guseinovorum Marusik & Kovblyuk, 2005

Records in Turkey: Sakarya, İzmir (Marusik *et al.*, 2005).

Distribution in Turkey: MR and AR. **Chorotype:** Central Asiatic + East European.

World Distribution: Central Asia, Russia, Turkey.

Cozyptila thaleri Marusik & Kovblyuk, 2005

Records in Turkey: Sakarya, Bolu, Konya, Ankara (Logunov & Demir, 2006).

Distribution in Turkey: MR and CAR. **Chorotype:** Eastern European.

World Distribution: Turkey, Ukraine.

Genus *Diaea* Thorell, 1869

Diaea livens Simon, 1876

Records in Turkey: Bursa (Bayram *et al.*, 2002); Gaziantep (Özdemir *et al.*, 2006).

Distribution in Turkey: MR, MER and SAR. **Chorotype:** Holarctic.

World Distribution: USA, Central Europe to Azerbaijan.

Genus *Ebrechtella* Dahl, 1907

Ebrechtella tricuspidata (Fabricius, 1775)

Records in Turkey: Çankırı, Ankara, Yozgat (Demir *et al.*, 2007a).

Distribution in Turkey: CAR *. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Genus *Heriaeus* Simon, 1875

Heriaeus buffoni (Audouin, 1825)

Records in Turkey: İstanbul (Kulczyński, 1903).

Distribution in Turkey: MR *. **Chorotype:** North African + South West Asiatic.

World Distribution: North Africa, Israel.

Heriaeus graminicola (Doleschall, 1852)

Records in Turkey: Niğde, Mersin (Topçu *et al.*, 2006).

Distribution in Turkey: MER *. **Chorotype:** European + Central Asiatic.

World Distribution: Europe to Central Asia.

Heriaeus hirtus (Latreille, 1819)

Records in Turkey: İstanbul (Simon, 1875; Pavese, 1876).

Distribution in Turkey: MR *. **Chorotype:** European.

World Distribution: Europe to Georgia.

Heriaeus melloteei Simon, 1886

Records in Turkey: Niğde, Mersin, Adana (Topçu *et al.*, 2006); İstanbul (Kulczyński, 1903).

Distribution in Turkey: MR, CAR and MER. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Heriaeus orientalis Simon, 1918

Records in Turkey: İstanbul (Kulczyński, 1903).

Distribution in Turkey: MR *. **Chorotype:** Balkano – Anatolian.

World Distribution: Greece, Turkey, Ukraine.

Heriaeus pilosus Nosek, 1905

Records in Turkey: Sivas, Nevşehir, Kayseri (Nosek, 1905); Erzurum, Tokat (Loerbroks, 1983); Turkey (Reimoser, 1919).

Distribution in Turkey: CAR, EAR and BSR. **Chorotype:** Anatolian endemic.

World Distribution: Turkey.

Heriaeus setiger (O.P.-Cambridge, 1872)

Records in Turkey: Muğla (Dalmas, 1920).

Distribution in Turkey: AR *. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Heriaeus simoni Kulczyński, 1903

Records in Turkey: Hatay, İstanbul (Kulczyński, 1903); İzmir, Bursa, Aydın (Loerbroks, 1983); Turkey (Reimoser, 1919).

Distribution in Turkey: MR and MER. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Heriaeus spinipalpus Loerbroks, 1983

Records in Turkey: Adana, Bitlis, Erzurum, Van (Loerbroks, 1983).

Distribution in Turkey: MER and EAR. **Chorotype:** Mediterranean.

World Distribution: Eastern Mediterranean.

Genus *Misumena* Latreille, 1804

Misumena vatia (Clerck, 1757)

Records in Turkey: İstanbul (Simon, 1875; Pavesi, 1876); Sakarya (Nosek, 1905); Turkey (Reimoser, 1919); Niğde, Mersin (Topçu *et al.*, 2006).

Distribution in Turkey: MER, CAR and MR. **Chorotype:** Holarctic.

World Distribution: Holarctic.

Genus *Monaeses* Thorell, 1869

Monaeses israeliensis Levy, 1973

Records in Turkey: Antalya (Bayram *et al.*, 2007).

Distribution in Turkey: MER *. **Chorotype:** West Asiatic + Central Asiatic.

World Distribution: Greece, Turkey, Israel, Lebanon, Central Asia.

Genus *Ozyptila* Simon, 1864

Ozyptila ankarensis Karol, 1966

Records in Turkey: Ankara (Karol, 1966c).

Distribution in Turkey: CAR *. **Chorotype:** Anatolian endemic.

World Distribution: Turkey.

Ozyptila atomaria (Panzer, 1801)

Records in Turkey: Van (Bayram, 1996a, b), Kırıkkale (Bayram *et al.*, 2005).

Distribution in Turkey: EAR and SAR. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Ozyptila claveata (Walckenaer, 1837)

Records in Turkey: İzmir (Lehtinen, 2002); Gaziantep (Özdemir *et al.*, 2006; Varol *et al.*, 2006); Niğde (Topçu *et al.*, 2006).

Distribution in Turkey: AR and SAR. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Ozyptila clavidorsa Roewer, 1959

Records in Turkey: Gaziantep (Roewer, 1959).

Distribution in Turkey: SAR *. **Chorotype:** Anatolian endemic.

World Distribution: Turkey.

Ozyptila conostyla Hippa, Koponen & Oksala, 1986

Records in Turkey: Yozgat (Hippa *et al.*, 1986).

Distribution in Turkey: CAR *. **Chorotype:** Caucasian.

World Distribution: Turkey to Turkmenistan.

Ozyptila praticola (C.L. Koch, 1837)

Records in Turkey: İstanbul (Roewer, 1959); Van (Bayram, 1996a; Bayram & Varol, 1996); Denizli (Bayram *et al.*, 1998); Kırıkkale (Bayram *et al.*, 2005); Adana (Topçu *et al.*, 2006).

Distribution in Turkey: MR, EAR, AR, CAR and MER. **Chorotype:** Holarctic.

World Distribution: Holarctic.

Ozyptila rauda Simon, 1875

Records in Turkey: Zonguldak (Roewer, 1959).

Distribution in Turkey: BSR (WBR) *. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Ozyptila sanctuaria (O.P.-Cambridge, 1871)

Records in Turkey: Van (Bayram, 1996a); Kırıkkale (Bayram *et al.*, 2005).

Distribution in Turkey: EAR and CAR. **Chorotype:** European.

World Distribution: Europe.

Ozyptila simplex (O.P.-Cambridge, 1862)

Records in Turkey: Turkey (Caporiacco, 1935); Gaziantep (Özdemir *et al.*, 2006); Adana (Topçu *et al.*, 2006).

Distribution in Turkey: EAR and MER. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Ozyptila spirembola Wunderlich, 1995

Records in Turkey: Bolu (Wunderlich, 1995).

Distribution in Turkey: MR *. **Chorotype:** Anatolian endemic.

World Distribution: Turkey.

Ozyptila tricoloripes Strand, 1913

Records in Turkey: Kahramanmaraş, Hatay, (Demir *et al.*, 2008a).

Distribution in Turkey: MER *. **Chorotype:** Turanian.

World Distribution: Israel, Azerbaijan, Turkmenistan.

Genus *Pistius* Simon, 1875

Pistius truncatus (Pallas, 1772)

Records in Turkey: Niğde, Mersin (Topçu *et al.*, 2006); İstanbul (Simon, 1879); Turkey (Karol, 1967).

Distribution in Turkey: CAR, MER and MR. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Genus *Runcinia* Simon, 1875

Runcinia grammica (C.L. Koch, 1837)

Records in Turkey: Sakarya (Nosek, 1905); Mersin, Adana (Topçu *et al.*, 2006); Balıkesir (Karol, 1966d); İstanbul, Hatay (Kulczyński, 1903); Turkey (Karol, 1967; Caporiacco, 1935); Bursa (Kaya & Uğurtaş, 2007).

Distribution in Turkey: MR, MER and AR. **Chorotype:** Palearctic + Ethiopian.

World Distribution: Palearctic, St. Helena, South Africa.

Genus *Synema* Simon, 1864

Synema globosum (Fabricius, 1775)

Records in Turkey: Kocaeli, Sakarya (Nosek, 1905); Hatay, Kilis, Adana, Osmaniye (Demir *et al.*, 2007b); Gaziantep (Özdemir *et al.*, 2006); Niğde, Mersin, Adana (Topçu *et al.*, 2006); Bursa (Karol, 1966d); İstanbul (Simon, 1875; Pavesi, 1876); Hatay, İstanbul (Kulczyński, 1903); Turkey (Strand, 1917; Caporiacco, 1935); Aydın (Giltay, 1932); Osmaniye (Roewer, 1959); Bursa (Kaya & Uğurtaş, 2007).

Distribution in Turkey: MR, MER, SAR, AR and CAR. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Synema plorator (O.P.-Cambridge, 1872)

Records in Turkey: Osmaniye, Kahramanmaraş (Demir *et al.*, 2007b); Bursa (Karol, 1966d).

Distribution in Turkey: MER and MR. **Chorotype:** South West Asiatic + Central Asiatic.

World Distribution: Slovakia to Israel, Central Asia.

Synema utotchkini Marusik & Logunov, 1995

Records in Turkey: Kahramanmaraş (Demir *et al.*, 2007b).

Distribution in Turkey: MER *. **Chorotype:** Caucasian.

World Distribution: Kazakhstan, Kyrgyzstan, Turkey.

Genus *Thomisus* Walckenaer, 1805

Thomisus citrinellus Simon, 1875

Records in Turkey: Black Sea Region (Topçu *et al.*, 2005).

Distribution in Turkey: BSR (MBR) *. **Chorotype:** Afrotropico - Mediterranean.

World Distribution: Mediterranean, Africa, Yemen, Socotra, Seychelles.

Thomisus onustus Walckenaer, 1805

Records in Turkey: Van (Bayram, 1996b; Bayram & Varol, 1996); Denizli (Bayram *et al.*, 1998); Manisa, İzmir, Aydın (Bayram *et al.*, 2000); Sakarya, Sivas, Konya, Kayseri (Nosek, 1905); Kırıkkale (Bayram *et al.*, 2005); Gaziantep (Özdemir *et al.*, 2006); Niğde, Mersin, Adana (Topçu *et al.*, 2006); Ankara (Karol, 1966d); Turkey (Caporiacco, 1935; Ono & Martens, 2005); İstanbul (Simon, 1875; Pavesi, 1876; Kulczyński, 1903; Giltay, 1932); İzmir (Kulczyński, 1903); Hatay, Gaziantep (Roewer, 1959); Bursa (Kaya & Uğurtaş, 2007).

Distribution in Turkey: EAR, AR, MR, SAR, MER and CAR. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Thomisus zyuzini Marusik & Logunov, 1990

Records in Turkey: Osmaniye (Demir *et al.*, 2008a).

Distribution in Turkey: MER *. **Chorotype:** South West Asiatic + Central Asiatic.

World Distribution: Saudi Arabia to Central Asia.

Genus *Tmarus* Simon, 1875

Tmarus piochardi (Simon, 1866)

Records in Turkey: Diyarbakır, Muğla (Bayram *et al.*, 2007).

Distribution in Turkey: SAR and MER. **Chorotype:** Mediterranean.

World Distribution: Mediterranean.

Tmarus stellio Simon, 1875

Records in Turkey: Ankara (Demir *et al.*, 2007a).

Distribution in Turkey: CAR *. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Genus *Xysticus* C.L. Koch, 1835

Xysticus abditus Logunov, 2006

Records in Turkey: Niğde (Logunov, 2006).

Distribution in Turkey: CAR *. **Chorotype:** Balkano – Anatolian.

World Distribution: Bulgaria, Turkey.

Xysticus acerbus Thorell, 1872

Records in Turkey: Turkey (Simon, 1914); İstanbul (Simon, 1875; Pavesi, 1876); Gaziantep (Roewer, 1959).

Distribution in Turkey: MR and SAR. **Chorotype:** European + Central Asiatic.

World Distribution: Europe to Central Asia.

Xysticus anatolicus Demir, Aktaş & Topçu, 2008

Records in Turkey: Kayseri (Demir *et al.*, 2008b).

Distribution in Turkey: CAR *. **Chorotype:** Anatolian endemic.

World Distribution: Turkey.

Xysticus audax (Schrank, 1803)

Records in Turkey: İstanbul, Adana, Osmaniye, Hatay (Roewer, 1959); Turkey (Simon, 1914).

Distribution in Turkey: MR and MER. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Xysticus bacurianensis Mcheidze, 1971

Records in Turkey: Trabzon (Logunov & Demir, 2006).

Distribution in Turkey: BSR *. **Chorotype:** Turanian + East European.

World Distribution: Turkey, Russia, Georgia, Azerbaijan.

Xysticus bifasciatus C.L. Koch, 1837

Records in Turkey: Konya (Bayram & Allahverdi, 1994, 1999); Manisa, İzmir, Aydın (Bayram *et al.*, 2000); Kırıkkale (Bayram *et al.*, 2005); Niğde (Topçu & Demir, 2004; Topçu *et al.*, 2006).

Distribution in Turkey: CAR and AR. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Xysticus bufo (Dufour, 1820)

Records in Turkey: İstanbul (Simon, 1875; Pavese, 1876); İzmir (Pavese, 1876).

Distribution in Turkey: MR and AR. **Chorotype:** Mediterranean.

World Distribution: Mediterranean.

Xysticus caperatus Simon, 1875

Records in Turkey: Osmaniye (Demir, *et al.*, In press).

Distribution in Turkey: MER *. **Chorotype:** Mediterranean + East European.

World Distribution: Mediterranean, Russia.

Xysticus cribratus Simon, 1885

Records in Turkey: Turkey (Lehtinen, 2002); Ankara (Karol, 1966d).

Distribution in Turkey: CAR *. **Chorotype:** Mediterranean + Asiatic.

World Distribution: Mediterranean to China, Sudan.

Xysticus cristatus (Clerck, 1757)

Records in Turkey: Van (Bayram, 1994, 1996b, c; Bayram *et al.*, 1999; Bayram & Varol, 1999); Manisa, İzmir, Aydın (Bayram *et al.*, 2000); Denizli (Bayram *et al.*, 1998); Konya (Bayram & Allahverdi, 1999); Kırıkkale (Bayram *et al.*, 2005); Niğde, Mersin (Topçu *et al.*, 2006); Trabzon (Logunov & Demir, 2006).

Distribution in Turkey: EAR, SAR, AR, CAR, MER and BSR. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Xysticus demirsoyi Demir, Topçu & Türkes, 2006

Records in Turkey: Niğde (Demir, *et al.*, 2006).

Distribution in Turkey: CAR *. **Chorotype:** Anatolian endemic.

World Distribution: Turkey.

Xysticus edax (O. P.-Cambridge, 1872)

Records in Turkey: Osmaniye, Kilis, Kahramanmaraş, Hatay (Demir, *et al.*, In press).

Distribution in Turkey: MER *. **Chorotype:** South West Asiatic.

World Distribution: Israel.

Xysticus erraticus (Blackwall, 1834)

Records in Turkey: Van (Bayram, 1996a).

Distribution in Turkey: EAR *. **Chorotype:** West Palearctic.

World Distribution: Europe, Russia.

Xysticus ferrugineus Menge, 1876

Records in Turkey: Niğde (Topçu & Demir, 2004; Topçu *et al.*, 2006).

Distribution in Turkey: CAR *. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Xysticus ferus O.P.-Cambridge, 1876

Records in Turkey: Muğla (Dalmas, 1920).

Distribution in Turkey: MER *. **Chorotype:** East Mediterranean.

World Distribution: Cyprus, Egypt, Israel.

Xysticus gallicus Simon, 1875

Records in Turkey: Turkey (Simon, 1914, Karol, 1967; Ono & Martens, 2005); Kayseri (Nosek, 1905).

Distribution in Turkey: CAR *. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Xysticus graecus C.L. Koch, 1837

Records in Turkey: Ankara (Karol, 1966d), Bursa, İstanbul (Kulczyński, 1903).

Distribution in Turkey: CAR and MR. **Chorotype:** East Mediterranean + East European.

World Distribution: Eastern Mediterranean, Russia.

Xysticus gymnocephalus Strand, 1915

Records in Turkey: Ankara (Karol, 1966a, 1966d).

Distribution in Turkey: CAR *. **Chorotype:** South West Asiatic.

World Distribution: Turkey, Lebanon, Israel.

Xysticus kaznakovi Utochkin, 1968

Records in Turkey: Kahramanmaraş, Osmaniye (Demir, *et al.*, In press).

Distribution in Turkey: MER *. **Chorotype:** Central Asiatic.

World Distribution: Central Asia.

Xysticus kochi Thorell, 1872

Records in Turkey: Sakarya, Kayseri (Nosek, 1905); Turkey (Reimoser, 1919); Konya (Bayram & Allahverdi, 1994, 1999); Denizli (Bayram *et al.*, 1998); Van (Bayram & Varol, 2000); Kırıkkale (Bayram *et al.*, 2005); Niğde, Mersin (Topçu *et al.*, 2006); Ankara, Bursa (Karol, 1966d); İstanbul (Simon, 1875; Pavesi, 1876); Turkey (Caporiacco, 1935); Çankırı, Konya, Yozgat, Isparta, Bolu, Adana, Kayseri, Sinop, Zonguldak, Nevşehir (Logunov & Demir, 2006).

Distribution in Turkey: MR, CAR, AR, SAR, MER and BSR. **Chorotype:** Palearctic.

World Distribution: Europe, Mediterranean to Central Asia.

Xysticus laetus Thorell, 1875

Records in Turkey: Konya (Nosek, 1905); Turkey (Reimoser, 1919); Mersin (Topçu *et al.*, 2006); Nevşehir, Çankırı, Konya, Kırıkkale, Bolu, Yozgat, Niğde, Antalya (Logunov, 2006); Bursa (Kaya & Uğurtaş, 2007).

Distribution in Turkey: CAR, MER and MR. **Chorotype:** East Mediterranean + South West Asiatic.

World Distribution: Italy to Central Asia.

Comment: All records of *Xysticus kempeleni* Thorell, 1872 from Turkey belong to *X. laetus* (Logunov, 2006).

Xysticus lalandei (Audouin, 1825)

Records in Turkey: Ankara (Karol, 1966d); Konya, Niğde, Kayseri (Nosek, 1905); Turkey (Strand, 1917); Muğla (Dalmas, 1920).

Distribution in Turkey: CAR and MER. **Chorotype:** North East African - Sindian.

World Distribution: Egypt, Israel.

Xysticus lanio C.L. Koch, 1835

Records in Turkey: İstanbul (Pavesi, 1876); Hatay (Roewer, 1959); Niğde, Mersin (Topçu *et al.*, 2006).

Distribution in Turkey: MR, MER and SAR. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Xysticus lineatus (Westring, 1851)

Records in Turkey: Mersin (Topçu & Demir, 2004; Topçu *et al.*, 2006).

Distribution in Turkey: MER *. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Xysticus luctator L. Koch, 1870

Records in Turkey: Niğde (Nosek, 1905).

Distribution in Turkey: CAR *. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Xysticus luctuosus (Blackwall, 1836)

Records in Turkey: Van (Bayram & Varol, 1999, 2000; Bayram *et al.*, 1999); Konya (Bayram & Allahverdi, 1994); Gaziantep (Özdemir *et al.*, 2006).

Distribution in Turkey: SAR, CAR and EAR. **Chorotype:** Holarctic.

World Distribution: Holarctic.

Xysticus macedonicus Silhavy, 1944

Records in Turkey: Gaziantep (Özdemir *et al.*, 2006).

Distribution in Turkey: SAR *. **Chorotype:** Central European.

World Distribution: Germany, Switzerland, Austria, Macedonia, Turkey.

Xysticus ninnii fusciventris Crome, 1965

Records in Turkey: Sivas (Nosek, 1905); Turkey (Reimoser, 1919); Van (Bayram *et al.*, 1999; Bayram & Varol, 2000); Mersin (Topçu *et al.*, 2006); Sivas, Çankırı, Kayseri, Konya (Logunov & Demir, 2006).

Distribution in Turkey: SAR, MER and CAR. **Chorotype:** Eastern Europe+Central Asiatic.

World Distribution: Eastern Europe to Mongolia.

Xysticus nubilus Simon, 1875

Records in Turkey: İzmir (Simon, 1914).

Distribution in Turkey: AR *. **Chorotype:** Mediterranean.

World Distribution: Mediterranean, Azores, Macronesia.

Xysticus pseudolanio Wunderlich, 1995

Records in Turkey: Bolu, Artvin (Wunderlich, 1995).

Distribution in Turkey: MR and BSR. **Chorotype:** Anatolian endemic.

World Distribution: Turkey.

Xysticus pseudorectilineus (Wunderlich, 1995)

Records in Turkey: Adana (Wunderlich, 1995); Adana, Niğde, Adana, Nevşehir, Osmaniye, Antalya, Kayseri, Mersin, Şanlıurfa, Gaziantep (Demir *et al.*, 2008).

Distribution in Turkey: MER, CAR and EAR. **Chorotype:** Anatolian endemic.

World Distribution: Turkey.

Xysticus rectilineus (O.P.-Cambridge, 1872)

Records in Turkey: Ankara (Karol, 1966d).

Distribution in Turkey: CAR *. **Chorotype:** South West Asiatic.

World Distribution: Syria, Lebanon, Israel.

Xysticus robustus (Hahn, 1832)

Records in Turkey: Van (Bayram, 1996a; Bayram & Varol, 1996; Bayram *et al.*, 1999); Konya (Bayram & Allahverdi, 1994, 1999); Manisa, İzmir, Aydın (Bayram *et al.*, 2000); Kırıkkale (Bayram *et al.*, 2005); Gaziantep (Özdemir *et al.*, 2006); Niğde, Mersin (Topçu *et al.*, 2006).

Distribution in Turkey: SAR, CAR, AR, EAR and MER. **Chorotype:** European + Central Asiatic.

World Distribution: Europe to Central Asia.

Xysticus sabulosus (Hahn, 1832)

Records in Turkey: Van (Bayram *et al.*, 1999); Niğde, Mersin (Topçu *et al.*, 2006); İstanbul (Simon, 1875; Pavesi, 1876).

Distribution in Turkey: SAR, CAR and MR. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Xysticus striatipes L. Koch, 1870

Records in Turkey: Ankara (Karol, 1966d); Mersin (Topçu *et al.*, 2006); Bursa (Kaya & Uğurtaş, 2007).

Distribution in Turkey: CAR, MER and MR. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Xysticus thessalicoides Wunderlich, 1995

Records in Turkey: Antalya, Kastamonu, Bolu, Trabzon (Logunov & Demir, 2006).

Distribution in Turkey: MER, BSR and MR. **Chorotype:** Balkano – Anatolian.

World Distribution: Greece, Crete, Turkey.

Xysticus thessalicus Simon, 1916

Records in Turkey: Ankara (Karol, 1966d); Konya (Karol, 1966b, 1966d, 1968); Manisa (Azarkina & Logunov, 2000); Konya, Mersin, Yozgat (Logunov & Demir, 2006).

Distribution in Turkey: CAR, AR and MER. **Chorotype:** North East Mediterranean.

World Distribution: Balkans, Greece, Turkey, Israel.

Xysticus tristrami (O.P.-Cambridge, 1872)

Records in Turkey: Konya, Niğde, Kayseri (Nosek, 1905); Hatay (Simon, 1884).

Distribution in Turkey: CAR and MER. **Chorotype:** South West Asiatic + Central Asiatic.

World Distribution: Saudi Arabia to Central Asia.

Xysticus ulmi (Hahn, 1831)

Records in Turkey: Konya (Karol, 1966d); Van (Bayram, 1996c; Bayram *et al.*, 1999); Kırıkkale (Bayram *et al.*, 2005); Gaziantep (Özdemir *et al.*, 2006); Mersin (Topçu *et al.*, 2006).

Distribution in Turkey: CAR, SAR, EAR and MER. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Xysticus viduus Kulczyński, 1898

Records in Turkey: Niğde (Topçu & Demir, 2004; Topçu *et al.*, 2006).

Distribution in Turkey: CAR *. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Xysticus xerodermus Strand, 1913

Records in Turkey: Konya, Yozgat (Logunov & Demir, 2006).

Distribution in Turkey: CAR *. **Chorotype:** South West Asiatic.

World Distribution: Turkey, Israel.

Discussion

Turkey is a bridge between Asia and Europe. Its geographical location is very important in Palearctic region. Turkey consists of two general parts as Trace and Anatolia. The European section of Turkey is eastern Thrace. It forms the borders of Turkey with Greece and Bulgaria. The Asian part of the country, Anatolia, consists of a high central plateau with narrow coastal plains. Turkey has a great variability in topography and climate. The fact that Anatolia is surrounded from three sides by sea, its situation in the temperate climatic zone, its geological and geomorphic structure, and topography are main contributing factors affecting diversity of species in terrestrial

ecosystems. This study has increased the number of thomisid spiders in Turkey to 79 species belonging to 14 genera.

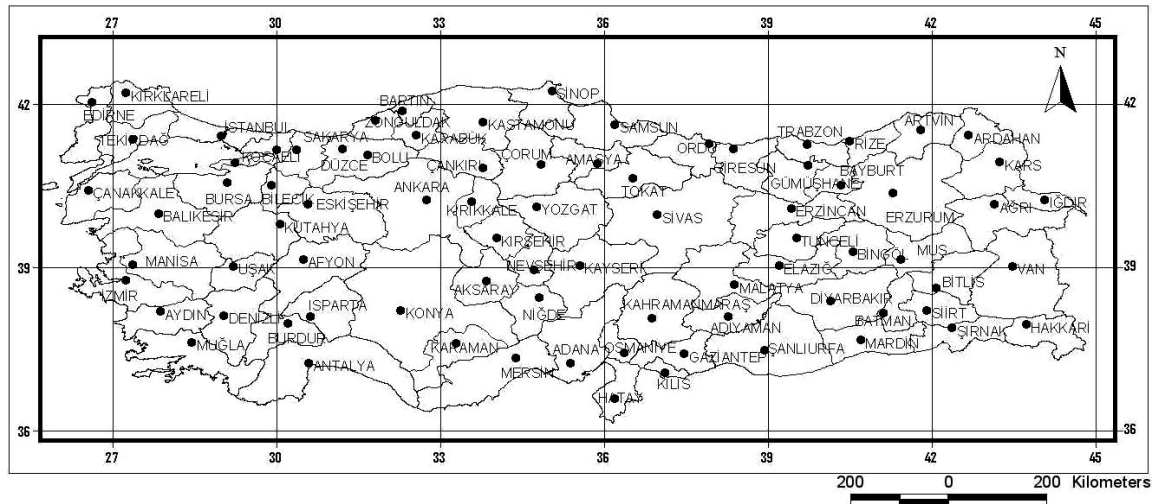


Fig. 1. Provinces of Turkey.

Zoogeographically, *Coriarachne depressa*, *Cozyptila blackwalli*, *Ebrechtella tricuspidata*, *Heriaeus melloteei*, *H. setiger*, *H. simoni*, *Ozyptila atomaria*, *O. claveata*, *O. rauda*, *O. simplex*, *Pistius truncatus*, *Runcinia grammica*, *Synema globosum*, *Thomisus onustus*, *Tmarus stellio*, *Xysticus audax*, *X. bifasciatus*, *X. cristatus*, *X. ferrugineus*, *X. gallicus*, *X. kochi*, *X. lanio*, *X. lineatus*, *X. luctator*, *X. sabulosus*, *X. striatipes*, *X. ulmi* and *X. viduus* have the Palearctic chorotype. *Cozyptila guseinovorum* has the Central Asiatic + East European chorotypes. *Cozyptila thaleri* has the Eastern European chorotype. *Diaea livens*, *Misumena vatia*, *Ozyptila praticola* and *Xysticus luctuosus* have the Holarctic chorotype. *Heriaeus buffoni* has the North African + South West Asiatic chorotypes. *Heriaeus graminicola*, *Xysticus acerbus* and *X. robustus* have the European + Central Asiatic chorotypes. *Heriaeus hirtus* and *Ozyptila sanctuaria* have the European chorotype. *Heriaeus orientalis*, *Xysticus abditus* and *X. thessalicoides* have the Balkano – Anatolian chorotype. *Monaeses israeliensis*, *Synema plorator*, *Thomisus zyuzini* and *Xysticus tristrami* have the South West Asiatic + Central Asiatic chorotypes. *Ozyptila conostyla* and *Synema utotchkini* have the Caucasian chorotype. *Ozyptila tricoloripes* has the Turanian chorotype. *Thomisus citrinellus* has the Afrotropico - Mediterranean chorotype. *Heriaeus spinipalpus*, *Tmarus piochardi*, *Xysticus bufo* and *X. nubilus* have the Mediterranean chorotype. *Xysticus bacurianensis* has the Turanian + East European chorotypes. *Xysticus cribratus* has the Mediterranean + Asiatic chorotypes. *Xysticus edax*, *X. gymnocephalus*, *X. rectilineus* and *X. xerodermus* has the South West Asiatic chorotype. *Xysticus erraticus* has the West Palearctic chorotype. *Xysticus ferus* has the East Mediterranean chorotype. *Xysticus graecus* has the East Mediterranean + East European chorotypes. *Xysticus caperatus* has the Mediterranean + East European chorotypes. *Xysticus kaznakovi* has the Central Asiatic chorotype. *Xysticus laetus* has the East Mediterranean + South West Asiatic chorotypes. *Xysticus lalandei* has the North East African - Sindian chorotype. *Xysticus macedonicus* has the Central European chorotype. *X. ninnii fusciventris* has the Eastern Europe + Central Asiatic chorotypes. *Xysticus thessalicus* has the North East Mediterranean chorotype. *Heriaeus pilosus*, *Ozyptila ankarensis*, *O. clavidorsa*, *O. spirembola*, *Xysticus anatolicus*, *X. demirsoyi*, *X. pseudolanio* and *X. pseudorectilineus* have the Anatolian endemic chorotype.

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