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## **New locality records of Crabronidae, Evaniidae, Ichneumonidae, Leucospidae, Mutillidae, Pompilidae, Sapygidae, Sphecidae, Tiphidae and Vespidae (Hymenoptera: Apocrita) from Turkey**

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**A b s t r a c t :** This investigation is based on material of the Crabronidae, Evaniidae, Ichneumonidae, Leucospidae, Mutillidae, Pompilidae, Sapygidae, Sphecidae, Tiphidae and Vespidae (Hymenoptera: Apocrita) collected from different localities of Turkey between 1952-2018. In this study, 92 species and subspecies from 63 genera of 10 families are presented along with new locality records from Turkey.

**K e y w o r d s :** Hymenoptera, Crabronidae, Evaniidae, Ichneumonidae, Leucospidae, Mutillidae, Pompilidae, Sapygidae, Sphecidae, Tiphidae, Vespidae, fauna, Turkey.

### **Introduction**

The kingdom Animalia is here estimated to have a total of 1,659,420 described species in 40 phyla. Among these, the most successful phylum Arthropoda alone represents 1,302 809 species, or about 78.5% of the total. The Insecta with 1,070,781 species are the most successful group, and it alone accounts for over 80% of all arthropods (ZHANG 2013). The Hymenoptera are one of the four largest insect orders, with over 152,677 described recent species around the world (AGUIAR et al. 2013).

The fauna of Crabronidae, Evaniidae, Ichneumonidae, Leucospidae, Mutillidae, Pompilidae, Sapygidae, Sphecidae, Tiphidae and Vespidae of Turkey contains a large number of species in comparison with other Mediterranean countries, which are well known for their high biodiversity. The great richness and diversity of these families in the Turkish fauna is the result of the various topographic and climatic structure of the country. On the other hand, Turkey is a boundary of East Mediterranean, Sumerian and Irano-Turanian provinces of Palearctic Region that caused the richness of the fauna (YILDIRIM 2016a).

Some latest studies on the fauna of the Crabronidae, Evaniidae, Ichneumonidae, Leucospidae, Mutillidae, Pompilidae, Sapygidae, Sphecidae, Tiphidae and Vespidae (Hymenoptera: Apocrita) of Turkey were conducted by YILDIRIM (2008, 2012, 2014, 2015, 2016a, b), YILDIRIM et al. (2014, 2016), LELEJ & YILDIRIM (2009), YILDIRIM & LELEJ (2012, 2016), YILDIRIM & GUSENLEITNER (2012, 2015) and YILDIRIM & WAHIS (2010, 2011).

This paper aims to present new collection and biological data on Crabronidae, Evaniidae, Ichneumonidae, Leucospidae, Mutillidae, Pompilidae, Sapygidae, Sphecidae, Tiphidae and Vespidae (Hymenoptera: Apocrita) in Turkey.

## Material and Methods

The material of the Crabronidae, Evaniidae, Ichneumonidae, Leucospidae, Mutillidae, Pompilidae, Sapygidae, Sphecidae, Tiphidae and Vespidae (Hymenoptera: Apocrita) were collected from different localities of Turkey between 1952 and 2018. Provinces of the collected specimens are given in alphabetical order in the following list. The material is deposited in the collection of LEMT (Lodos Entomological Museum Turkey) and EMET (Entomological Museum, Erzurum, Turkey).

Material was collected by a variety of methods, mostly by sweeping grasses in meadows and pasture lands containing a variety of flowering plants.

## Results

In this study, 92 species and subspecies from 63 genera of the families Crabronidae, Evaniidae, Ichneumonidae, Leucospidae, Mutillidae, Pompilidae, Sapygidae, Sphecidae, Tiphidae and Vespidae (Hymenoptera: Apocrita) are recorded from Turkey, and are listed below.

### Family C r a b r o n i d a e

#### *Nysson interruptus* (FABRICIUS, 1798)

Material examined: İzmir: Bornova, 11.IX.1980, ♀.

#### *Philanthus triangulum* (FABRICIUS, 1775)

Material examined: Diyarbakır: Ergani, 920 m, 10.VIII.2013, ♀; İzmir: Bornova, 02.VI.1985, ♀, 20.VII.1988, ♀, 05.IV.2013, *Citrus reticulata*, ♀, Dikili, 3.9.2012, *Rosa* sp., 2♀♀; Sanlıurfa: Sesigür, 11.IX.2015, ♀, Hilvan, 27.VI.2017, ♀.

#### *Stizus perrisi* DUFOR, 1838

Material examined: Kahramanmaraş: Göksun, 11.VI. 1985, ♀.

#### *Cerceris arenaria* (LINNAEUS, 1758)

Material examined: Erzurum: Atatürk University field, 1850 m, 31.VII.2014, ♀; Manisa: Şehzadeler, Güzelköy, 01.V.2016, ♀, ♂.

#### *Cerceris bupresticida* DUFOR, 1841

Material examined: İzmir: Menemen, 06.VIII.2015, ♂.

#### *Liris niger* (FABRICIUS, 1775)

Material examined: İzmir: Bornova, 10.VIII.1983, ♀.

### Family E v a n i i d a e

#### *Evania dimidiata* FABRICIUS, 1804

Material examined: Diyarbakır: Ergani, 920 m, 05.VII.2013, 2♂♂; İstanbul: Üsküdar, 63 m, 12.VII.2012, ♂; Tunceli: Mazgirt, Meşelik, 900 m, 28.VIII.2011, ♂.

***Prosevania fuscipes* (ILLIGER, 1807)**

Material examined: Antalya: Kepez, 112 m, 23.VI.2012, ♀, 18.VII.2012, ♀, ♂; İzmir: 11.VIII.1983, ♂, Bornova, 22.VI.1978, ♀, Karşıyaka, 25.VI.1983, ♀.

**Family I c h n e u m o n i d a e**

***Anomalon cruentatum* (GEOFFROY, 1785)**

Material examined: Tunceli: Adakoy, 1280 m, 20.VII.2014, 2♀♀.

***Lissonota flavovariegata* (LUCAS, 1849)**

Material examined: Tunceli: Adakoy, 1280 m, 20.VII.2014, ♂, ♀.

***Alcima orbitale* (GRAVENHORST, 1829)**

Material examined: Tunceli: Adakoy, 1280 m, 20.VII.2014, ♂, ♀.

***Mesostenus grammicus* GRAVENHORST, 1829**

Material examined: Tunceli: Adakoy, 1280 m, 20.VII.2014, 2♀♀.

***Trychosis pauper* (TSCHEK, 1871)**

Material examined: Tunceli: Adakoy, 1280 m, 20.VII.2014, ♂.

***Anisobas hostilis* (GRAVENHORST, 1820)**

Material examined: Tunceli: Adakoy, 1280 m, 20.VII.2014, ♀.

***Virgichneumon tergenus* (GRAVENHORST, 1820)**

Material examined: Tunceli: Adakoy, 1280 m, 20.VII.2014, ♂.

***Exochus suborbitalis* SCHMIEDEKNECHT, 1924**

Material examined: Tunceli: Adakoy, 1280 m, 20.VII.2014, ♂.

***Exeristes roborator* (FABRICIUS, 1793)**

Material examined: Tunceli: Adakoy, 1280 m, 20.VII.2014, ♀.

***Itoplectis tunetana* (SCHMIEDEKNECHT, 1914)**

Material examined: Tunceli: Adakoy, 1280 m, 20.VII.2014, ♀.

***Pimpla spuria* GRAVENHORST, 1829**

Material examined: Tunceli: Adakoy, 1280 m, 20.VII.2014, ♂.

**Family Leucospidae*****Leucospis bifasciata* KLUG, 1814**

Material examined: Antalya: Arapsuyu, 04.VII.2002, ♀; Tunceli: Mazgirt, Meşelik, 900 m, 02.VIII.2012, ♀.

***Leucospis biguetina* JURINE, 1807**

Material examined: Bayburt: Kopdağı, 2400 m, 21.VIII.2008, ♀, 05.IX.2012, 2♀♀; Erzurum: Güngörmez, 2000 m, 19.VIII.2009, ♀, Yeşilyayla, 1950 m, 01.VII.2010, ♀, İspir, İncesu, 2100 m, 20.VIII.2009, ♀, Tortum, Arılı, 1650 m, 05.VIII.2010, ♀.

***Leucospis dorsigera* FABRICIUS, 1775**

Material examined: Edirne: 19.VII.2003, ♀; Erzurum: Horasan, Aşağıçamlık, 13.VIII.2012, ♀, Muratbağı, 1860 m, 24.VIII.2011, ♀, Hınıs, Söylemez, 1750 m, 28.VII.2005, 2♂♂, Olur, Ormanağzı, 935 m, 05.VIII.2012, ♀, Şenkaya, Akşar, 1275 m, 20.VIII.2011, ♂, Sındıran, 1400 m, 17.VII.2010, ♂, Tortum, Arılı, 1650 m, 05.VIII.2010, 2♂♂, Esendurak, 1500 m, 09.VIII.2001, ♀, Suyatağı, 21.VII.2012, ♀, Uzundere, Dikeyar, 14.VIII.2012, 2♀♀; İğdir: Aralık, 830 m, 23.VI.2010, ♀; İzmir: Bornova, 17.V.1977, ♂, 20.VI.1983, ♀; Kahramanmaraş: Göksun, 21.VII.1984, ♂; Kars: Sankamış, Karakurt, 1500 m, 21.VIII.2008, ♀, ♂; Konya: Sille, 1350 m, 10.VIII.1999, ♂; Tunceli: Mazgirt, Kalaycı, 1200 m, 25.VIII.2010, ♀, Pülümür, Sağlamtaş, 1757 m, 05.VIII.2012, ♀.

***Leucospis intermedia* ILLIGER, 1807**

Material examined: Erzurum: Horasan, Çayırözü, 1794 m, 21.VIII.2011, ♂, Hınıs, Söylemez, 1750 m, 28.VI.2005, ♂, Şenkaya, Akşar, 1275 m, 20.VIII.2011, ♀, Tortum, Derekapı, 1400 m, 05.VIII.2010, ♂; Kars: Sankamış, Karakurt, 1500 m, 21.VIII.2008, ♀; Tunceli: Ovacık, Köseler, 05.VIII.2012, ♂.

**Family Mutillidae*****Paramyrmosa radoszkowskyi* (SAUSSURE, 1880)**

Material examined: Tunceli: Mazgirt, Kalaycı, 950 m, 24.V.2011, ♂.

***Myrmilla caucasica* (KOLENATI, 1846)**

Material examined: İzmir: Bornova, 03.V.2009, *Rosmarinus officinalis*, ♀.

***Tropidotilla litoralis* (PETAGNA, 1787)**

Material examined: Kırşehir: Mucur, 1200 m, 8.VII.2015, ♀.

***Tropidotilla sareptana* (ANDRÉ, 1901)**

Material examined: İzmir: Bornova, 14.V.1978, ♂, Karaburun, 06.VII.1977, ♂.

***Tropidotilla semirufa* (ANDRÉ, 1893)**

Material examined: Kastamonu: Devrekani, Şeyhbalı, 2700 m, 12.IX.2014, ♀; Nevşehir: 11.VIII.2015, ♀.

***Dasylabris maura* (LINNAEUS, 1758)**

Material examined: Aydın: Nazilli, 23.VII.2015, ♀.

**Family P o m p i l i d a e**

***Agenioideus excisus* (MORAWITZ, 1890)**

Material examined: İzmir: Bornova, 17.V.1982, ♀, Karaburun, Mordoğan, 08.VII.1985, *Lonicera periclymenum*, ♀.

***Cryptocheilus alternatus* (LEPELETIER, 1845)**

Material examined: Kırşehir: Mucur, 1200 m, 9.VIII.2015, ♂.

***Cryptocheilus variabilis* (ROSSIUS, 1790)**

Material examined: İzmir: Bornova, 28.VI.1978, ♀.

***Dicyrtomellus tingitanus* (WOLF, 1966)**

Material examined: İzmir: Menemen, 06.VI.1952, ♀.

***Evagetes pectinipes trispinosus* (KOHL, 1886)**

Material examined: İzmir: Bornova, 15.VI.1984, ♀.

***Evagetes proximus* (DAHLBOM, 1843)**

Material examined: İzmir: Bornova, 14.X.1983, ♀.

***Priocnemis sulci* BALTHASAR, 1943**

Material examined: İzmir: Torbalı, 17.IX.1987, ♀.

**Family S a p y g i d a e**

***Sapyga caucasica schevyrevi* MORAWITZ, 1889**

Material examined: Artvin: Zeytinlik, 22.V.2002, ♂; Erzincan: Üzümlü, 25.V.2001, ♂; Erzurum: Pazaryolu, Kumaşkaya, 1800 m, 20.VII.2011, ♂; Tunceli: Mazgirt, Meşelik, 1200 m, 02.VIII.2012, 2♀♀.

***Sapygina decemguttata* (JURINE, 1807)**

Material examined: Erzincan: Çağlayan, 06.VII.2001, ♂.

***Polochrum repandum* (SPINOLA, 1805)**

Material examined: Erzurum: Uzundere, Sapanca, 1000 m, 01.V.2018, 2♀♀.

**Family S p h e c i d a e**

***Chalybion flebile* (LEPELETIER DE SAINT-FARGEAU, 1845)**

Material examined: Mersin: Mezitli, 13.VIII.2015, 2♀♀; Sanlıurfa: Hilvan, 25.VI.2017, 4♀♀.

***Sceliphron arabs* (LEPELETIER DE SAINT-FARGEAU, 1845)**

Material examined: Batman: Gerçüş, 19.VI.2016, ♂.

***Sceliphron curvatum* (F. SMITH, 1870)**

Material examined: Erzurum: Atattürk University field, 1850 m, 27.VI.2016, ♀, 28.VI.2018, ♀.

***Sceliphron destillatorium* (ILLIGER, 1807)**

Material examined: Sanlıurfa: Bozova, Çatak, 03.VII.2017, ♀.

***Sceliphron madraspatanum tubifex* (LATREILLE, 1809)**

Material examined: Corum: Boğazkale, 18.IX.2016, ♀; Tokat: Turhal, 04.VII.2017, ♀.

***Sceliphron spirifex* (LINNAEUS, 1758)**

Material examined: Adana: Çukurova, 02.V.2003, 1♀, Seyhan, 17.VI.2017, ♀; Antalya: Muratpaşa, 15.VIII.2012, *Prunus armeniaca*, ♀, 4♂♂; Bursa: Mudanya, 12.VIII.2017, ♀; Denizli: Cal, 21.VIII.2016, ♀; İstanbul: Kartal, 30.VIII.2016, ♀; İzmir: Bornova, 25.IV.2009, ♀, 15.VIII.2010, ♂, Dikili, 03.IX.2012, *Rosa* sp., ♀, ♂, Ödemiş, 17.V.2014, *Juglans regia*, 3♀♀, Menemen, 12.VIII.2015, ♂; Manisa: Salihli, 19.IX.2011, ♀; Muğla: Fethiye, 03.VIII.2011, 2♀♀.

***Sphex flavipennis* FABRICIUS, 1793**

Material examined: Amasya: Suluova, 6.VIII.2017, ♀; Erzurum: Uzundere, 1100 m, 17.VIII.2016, ♀.

***Sphex pruinosus* GERMAR, 1817**

Material examined: İzmir: Seferihisar, Beyler, 27.V.2016, ♀.

***Ammophila heydeni* DAHLBOM, 1845**

Material examined: İzmir: Bornova, 15.IV.2010, ♀.

***Podalonia fera* (LEPELETIER DE SAINT-FARGEAU, 1845)**

Material examined: Tokat: Turhal, 29.VII.2017, ♀.

***Podalonia hirsuta* (SCOPOLI, 1763)**

Material examined: Erzurum: Palandöken, 25.IX.2017, ♀, Uzundere, 1100 m, 17.VIII.2017, ♀; Denizli: 29.IV.2012, ♀; İzmir: Torbalı, 08.IV.1984, ♀.

***Podalonia tydei* (LE GUILLOU, 1841)**

Material examined: İzmir: Bornova, 24.X.1983, ♀.

**Family T i p h i i d a e**

***Methocha articulata* LATREILLE, 1803**

Material examined: İzmir: Menderes, 05.X.2003, 2♂♂; Kars: Kağızman, Kuloğlu, 01.VIII.2002, ♂, Sarıkamış, Karakurt, 1500 m, 24.VIII.2002, 2♂♂; Konya: Ereğli, 1100 m, 18.VII.2010, ♂.

***Meria dorsalis* (FABRICIUS, 1804)**

**Material examined:** Bayburt: Kopdağı, 2400 m, 05.IX.2012, ♀; Erzurum: Atatürk University field, 1850 m, 20.VIII.2010, ♀, Horasan, Aşağıçamlıkale, 2242 m, 13.VIII.2012, ♂, İspir, Çapans, 2150 m, 20.VIII.2009, 2♂♂, Narman, Kışlaköy, 1892 m, 13.VIII.2012, ♂, Oltu, İriağaç, 1100 m, 08.VIII.2000, ♀, Kaledibi, 1074 m, 17.VII.2010, ♂, Sarsaz, 1421 m, 30.VIII.2012, 3♂♂, Olur, Ormanağızı, 935 m, 05.VIII.2012, 4♂♂, Yolgözler, 1108 m, 05.VIII.2012, ♂; Pasinler, 1650 m, 24.VI.2010, ♂, Şenkaya, Akşar, 1275 m, 10.VIII.2011, ♂, Paşalı, 1106 m, 31.VII.2011, ♂, Sındıran, 17.VII.2010, 1409 m, 2♂♂, Tortum, Arılı, 1450 m, 05.VIII.2010, 2♀♀, Bağbaşı, 1191 m, 14.VIII.2012, ♂, Derekapı, 1400 m, 05.VIII.2010, 4♂♂, Dikmen, 1304 m, 14.VIII.2012, ♂; Hatay: Dörtöl, Amanos Mountain, Köşne Yaylası, 1400 m, 19.VII.2009, ♂; İğdir: Melekli, 830 m, 23.VI.2010, ♂, Suveren, 1000 m, 23.VI.2010, 2♂♂, Aralık, 830 m, 23.VI.2010, 5♂♂; Kars: Sarıkamış, 1900 m, 13.VIII.2009, ♂, Akkurt, 1600 m, 13.VIII.2009, ♀, ♂, Çifte Arılı, 1450 m, 05.VIII.2010, 4♂♂, Karakurt, 1500 m, 8.VIII.2000, ♀, 10♂♂, 13.VIII.2009, ♀, 12♂♂; Tunceli: Mazgirt, Meşelik, 900 m, 14.VIII.2011, ♂, Pülümür, Sağlamtaş, 1757, 05.VIII.2012, ♂.

***Meria geniculata* (BRULLÉ, 1832)**

**Material examined:** Erzurum: Özbek, 2000 m, 05.VIII.2011, ♂, Pasinler, 1650 m, 07.VII.2009, ♂; İğdir: Suveren, 1000 m, 23.VI.2010, ♂; Kars: Kağızman, 1750 m, 22.VI.2010, ♀, Sarıkamış, Karakurt, 1500 m, 13.VI.2009, 5♂♂, 23.VI.2009, ♂; Tunceli: Mazgirt, Meşelik, 900 m, 30.VIII.2011, ♂.

***Mesa palestinella* GUIGLIA, 1963**

**Material examined:** Erzurum: Olur, Yolgözler, 1108 m, 05.VIII.2012, ♂; Tunceli: 08.VI.1977, ♂, 03.VII.1977, 2♂♂, Mazgirt, Kalaycı, 1200 m, 20.VIII.2011, ♂, Pülümür, Közlüce, 1734 m, 07.VIII.2011, ♂.

***Pseudotiphia caucasica* (MOCSARY, 1883)**

**Material examined:** Bayburt: Kopdağı, 2400 m, 12.VIII.2009, ♀; Erzincan: Refahiye, 1500 m, 20.VI.2009, 3♀♀; İğdir: Tuzluca, 870 m, 16.VI.2009, 5♀♀; Tunceli: Mazgirt, Kalaycı, 1200 m, 03.VI.2012, ♀.

***Tiphia femorata* FABRICIUS, 1775**

**Material examined:** Bayburt: 1600 m, 12.VIII.2009, 2♀♀; Erzincan: Refahiye, 1500 m, 20.VI.2009, ♂; Erzurum: Güngörmez, 2000 m, 19.VIII.2009, 9♀♀, ♂, Güzelyayla, 2000 m, 19.VIII.2009, 3♀♀, Atatürk University field, 1850 m, 28.VII.2010, 6♀♀, 20.VIII.2010, 3♂♂, Yeşildere, 2000 m, 19.VIII.2009, 16♀♀, 3♂♂, Yeşilyayla, 1950 m, 01.VII.2010, ♂, İspir, Çapans, 1150 m, 20.VIII.2009, 21♀♀, 19♂♂, İncesu, 2100 m, 20.VIII.2009, 12♀♀, ♂, Horasan, Muratbağı, 1860 m, 24.VIII.2011, 3♀♀, ♂, Oltu, 1275 m, 20.VIII.2011, ♂, Sarsaz, 1421 m, 30.VIII.20012, ♂, Tortum, Akbaba, 2073 m, 31.VII.2011, ♀, Aksu, 1300 m, 05.VIII.2010, 3♀♀, Arılı, 1450 m, 05.VIII.2010, 2♀♀, ♂, Derekapı, 1400 m, 15.VI.2010, ♂, Şenkaya, Akşar, 1275 m, 20.VIII.2011, ♀; İğdir: Suveren, 1000 m, 23.VI.2010, ♀, 2♂♂, Tuzluca, Menderes, 1100 m, 23.VI.2010, ♀; Kars: Sarıkamış, 1900 m, 13.VIII.2009, 3♀♀, Akkurt, 1600 m, 13.VIII.2009, ♀, Çifte Şhitler, 1500 m, 22.VI.2010, ♂, Karakurt, 1500 m, 13.VIII.2009, 29♀♀, ♂, 08.IX.2002, 2♂♂; Trabzon: Vakfikebir, 24.VI.2014, ♀; Tunceli: Mazgirt, Kalaycı, 950 m, 28.IV.2010, ♂, 18.VII.2011, ♂, 20.VIII.2011, ♀, 25.VIII.2010, ♀, 30.VIII.2011, ♂, Meşelik, 900 m, 14.VIII.2012, ♀, Pertek, Mercimek, 1437 m, 30.VIII.2012, ♂, Tozkoparan, 30.VIII.2012, 1378 m, ♀, Pülümür, Sağlamtaş, 1757 m, 05.VIII.2012, ♀.

***Tiphia minuta* LINDEN, 1827**

**Material examined:** Erzurum: Oltu, 1275 m, 18.VI.2011, 5♂♂; Şenkaya, Akşar, 1275 m, 05.VI.2011, ♂.

***Tiphia persica* TURNER, 1908**

**Material examined:** Erzincan: Refahiye, 1500 m, 20.VI.2009, 25♀♀; Erzurum: Pasinler, 1650 m, 07.VII.2009, ♀; Tortum, Derekapı, 1400 m, 15.VI.2010, ♀; İğdir: Tuzluca, 870 m, 16.VI.2009, 9♀♀.

**Family V e s p i d a e*****Vespa crabro* LINNAEUS, 1758**

**Material examined:** Erzurum: Uzundere, 1100 m, 17.VIII.2016, ♂; İstanbul: Şile, 03.IX.2016, ♀; Samsun: Terme, Bafracalı, 12.VI.2016, ♀; Sinop: 03.VIII.2013, *Prunus persica*, ♀.

***Vespa orientalis* LINNAEUS, 1771**

**Material examined:** Adana: Çukurova, 19.V.2013, *Morus alba*, ♀; Adıyaman: Atatürk Barajı, 450 m, 22.VII.2013, ♀; Antalya: 05.VIII.2004, 2♂♂, 09.VIII.2011, 2♂♂, 13.VIII.2011, ♀, 31.VIII.2012, 5♂♂, Kumluca, 20.VIII.2012, ♀, Muratpaşa, 05.VIII.2012, *Carya illinoensis*, 4♂♂; Aydın: Kuşadası, 09.VIII.2008, ♀, Söke, Davutlar, 04.XI.1971, 2♂♂, Sultanhisar, 13.XII.2008, 2♂♂; Denizli: Çal, 24.VII.2016, ♀; Erzincan: Karataş, 30.VII.2015, ♀; İzmir: Bayındır, 14.V.2009, ♀, Bayraklı, 17.VIII.2013, 2♂♂, Bergama, 01.X.2012, 2♂♂, Beydağ, 17.V.2015, ♀, Bornova, 15.VIII.1999, ♀, 20.X.1999, ♀, 20.VIII.2004, 3♂♂, 10.IX.2004, ♀, 09.X.2004, ♀, 28.IV.2005, *Pinus* sp., ♀, 15.V.2005, 2♂♂, 20.V.2008, ♀, 19.IV.2009, *Salvia officinalis*, ♀, 25.IV.2009, 2♂♂, 05.V.2009, ♀, 28.IV.2010, ♀, 12.V.2010, ♀, 23.VII.2011, ♀, 12.IV.2012, ♀, 23.IV.2012, 2♂♂, 01.V.2012, ♀, 06.V.2012, ♀, 11.V.2012, ♀, 12.V.2013, *Pinus* sp., 3♀♀, 18.V.2013, *Salvia officinalis*, 6♂♂, 25.V.2013, *Thymus* sp., ♀, 15.VII.2013, ♀, 10.VIII.2013, ♀, 20.VIII.2013, ♀, 25.IX.2013, *Pinus* sp., ♀, 27.IX.2013, 3♂♂, 05.X.2013, ♀, 27.IV.2014, ♀, 03.V.2014, ♀, 05.V.2014, ♀, 25.V.2014, *Salvia officinalis*, 2♀♀, 28.V.2014, *Salvia officinalis*, ♀, 25.IV.2015, *Laurus nobilis*, ♀, 26.IV.2015, *Vitis vinifera*, ♀, 08.V.2015, 3♂♂, 09.V.2015, *Vitis vinifera*, 2♀♀, 10.V.2015, *Salix* sp., ♀, 13.V.2015, 2♀♀, 21.V.2015, *Laurus nobilis*, ♀, 24.V.2016, 3♀♀, 25.V.2016, 2♀♀, 29.V.2016, ♀, 24.X.2016, *Tilia tomentosa*, ♂, ♀, 27.X.2016, 2♂♂, ♀, 13.V.2017, *Pimpinella anisum*, ♀, 15.V.2017, *Lavandula angustifolia*, 3♀♀, 16.V.2017, *Lavandula angustifolia*, ♀, 18.V.2017, *Thymus* sp., 6♀♀, 19.V.2017, *Tilia tomentosa*, 3♂♂, 20.V.2017, *Lavandula angustifolia*, 7♀♀, 24.V.2017, *Lavandula angustifolia*, 3♀♀, 25.V.2017, *Lavandula angustifolia*, ♀, 26.V.2017, *Lavandula angustifolia*, 2♀♀, 27.V.2017, *Lavandula angustifolia*, 5♀♀, 30.V.2017, 3♀♀, Kemalpaşa, 24.V.2005, *Prunus avium*, ♀, 18.IV.2010, ♀, 27.IV.2012, ♀, 17.V.2016, ♀, Kınık, 01.XI.2012, 2♂♂, Konak, Üçyol, 09.VII.2004, ♀, Menemen, 09.VI.2012, 2♂♂, 27.VIII.2013, ♀, ♀, 01.V.2015, *Salvia officinalis*, ♀, 19.V.2015, *Matricaria* sp., ♀, *Sinapis* sp., 2♀♀, Tire, 17.VIII.2013, *Vitex agnus-castus*, ♀, 02.IX.2013, *Vitex agnus-castus*, ♀, Urla, 18.IV.2009, ♂; Manisa: Akhisar, 10.IX.2009, *Vitis vinifera*, ♀, ♀, Alaşehir, 04.V.2013, 2♀♀, 29.IX.2011, *Prunus avium*, ♀, 20.VII.2012, *Pinus* sp., ♀, Salihli, 20.X.2016, *Tilia tomentosa*, 3♂♂, Turgutlu, 20.IX.2011, ♀, 13.VIII.2012, 2♂♂; Mersin: 17.VII.2012, 2♀♀, 2♂♂, Erdemli, 18.VII.2012, *Citrus limon*, ♀, ♀, Tarsus, 16.VII.2014, ♀; Muğla: Dalaman, 08.VII.2011, *Citrus* sp., ♀, Fethiye, 07.VIII.2011, ♀.

***Vespa germanica* (FABRICIUS, 1793)**

**Material examined:** Antalya: 07.VIII.2009, ♀, 10.V.2012, ♀, Kumluca, 03.IX.2012, 4♂♂; Aydın: Didim, Akbük, 12.VII.2008, ♀, Söke, 02.VIII.2010, ♀; Balıkesir: Bigadiç, 14.07.2013, ♂, ♀; Denizli: Acipayam, 10.VIII.2013, ♀, 29.IV.2012, ♀, Tavas, 20.VIII.1983, ♀; Diyarbakır: 19.IX.2002, 2♂♂; Erzurum: Palandöken, 07.X.2015 2♂♂; Isparta: 12.IX.2013, *Vitis vinifera*, ♂; İstanbul: Beykoz, 25.VIII.2008, ♂, ♀; İzmir: Balçova, 14.III.2009, ♀, 04.IV.2009, ♀, Bornova, 22.V.1983, 3♀♀, 09.IV.1984, *Lonicera perichyenum*, ♀, 05.V.1984, 2♂♂, 06.V.1984, ♀, 08.V.1984, ♀, 18.V.1984, 3♂♂, ♂, 11.V.2000, *Vicia cracca*, ♀, 20.VIII.2004, 2♂♂, 13.V.2005, ♀, 31.V.2005, ♀, 23.IV.2010, ♀, 05.IV.2013, *Citrus reticulata*, ♀, 04.V.2013, ♀, 12.V.2013, *Taraxacum officinale*, ♂, 07.IX.2015, *Pinus* sp., ♀, 08.IX.2015, *Pinus* sp., ♀, 21.IX.2015, ♀, 23.IX.2015, 2♂♂, 19.X.2015, ♀, 29.V.2016, ♀, 31.V.2017, ♀, Çiçekliköy, 29.IX.2013, ♀, Buca, 12.05.1984, ♂, 2♂♂, Karaburun, 12.VII.2008, ♀, Karşıyaka, 02.V.2005, ♀, Kemalpaşa, 27.IV.2013,



♀, Örmekköy, 04.IV.2000, ♀, Konak, Hatay, 23.X.2004, ♀, 25.X.2004, ♀, 26.X.2004, ♀, Menemen, 19.V.2015, *Sinapis* sp., ♀, Selçuk, Zeytinköy, 05.V.2014, *Triticum aestivum*, ♂, 16.V.2014, *Triticum aestivum*, ♀, Urla, 18.IV.2009, ♀, 02.V.2009, *Vicia faba*, ♀, Gülbahçe, 04.IV.2000, ♀; Konya: Kadınhan, 06.V.2012, ♀; Manisa: Alaşehir, 04.V.2013, ♀, 02.V.2016, *Vitis vinifera*, 2♂♂, 15.VII.2013, *Vitis vinifera*, ♀, Turgutlu, 13.VIII.2012, 2♂♂; Mardin: Nusaybin, Kızıltepe, 25.IX.2013, ♂; Mersin: 10.VIII.2013, ♀; Muğla: Ortaca, 27.VI.2013, ♀.

### *Vespula vulgaris* (LINNAEUS, 1758)

Material examined: Ordu: Çakırlı, 1200 m, 14.VIII.2013, 2♂♂.

### *Dolichovespula sylvestris* (SCOPOLI, 1763)

Material examined: Iğdır: 11.VI.2016, ♀.

### *Polistes dominula* (CHRIST, 1791)

Material examined: Antalya: Muratpaşa, 05.VIII.2017, *Carya illinoensis*, ♀, 2♂♂; Aydın: 03.VIII.2008, ♂, Kuşadası, Davutlar, 02.V.2009, ♂; Denizli: Honaz, 21.V.2017, ♂; Iğdır: 11.VI.2016, ♀; İzmir: Bornova, 10.V.2013, ♀, 27.IV.2014, ♀, 26.IV.2015, ♀, 20.V.2017, *Lavandula angustifolia*, ♀, 23.V.2017, *Thymus serpyllum*, ♂, Ödemiş, Bozdağ, 30.XII.1971, *Verbascum* sp., 3♀♀; Mardin: Kızıltepe, 25.IX.2013, ♀.

### *Polistes gallicus* (LINNAEUS, 1767)

Material examined: Antalya: Muratpaşa, 05.VIII.2012, *Carya illinoensis*, 3♂♂; Denizli: Honaz, 21.V.2017, ♀; İstanbul: 05.VII.2013, ♀; İzmir: Bornova, 03.VII.1983, ♀, 10.V.1984, ♀, 17.IV.1986, ♀, 21.IV.2003, *Thymus vulgaris*, 3♂♂, 21.VII.2011, 2♀♀, ♀, 05.V.2012, ♀, 10.IV.2013, *Salvia officinalis*, 6♂♂, 01.V.2013, *Lavandula angustifolia*, ♀, ♀, *Salvia officinalis*, ♀, 24.V.2013, *Carthamus tinctorius*, ♀, 05.IV.2015, *Sinapis* sp., ♀, 25.IV.2015, *Laurus nobilis*, 3♂♂, 05.V.2015, *Sinapis* sp., ♀, 17.V.2015, *Centaurea* sp., ♀, 19.V.2015, *Matricaria chamomilla*, ♀, 21.V.2015, *Juglans regia*, ♀, 21.IX.2015, ♀, 25.IX.2015, ♀, 12.VI.2016, ♀, 24.V.2016, ♀, 26.V.2016, *Matricaria chamomilla*, ♀, 29.V.2016, ♀, 06.V.2017, *Sinapis alba*, ♀, 13.V.2017, ♀, 15.V.2017, *Salvia officinalis*, ♀, 21.V.2017, ♀, 27.V.2017, *Lavandula angustifolia*, ♀, 30.V.2017, *Lavandula angustifolia*, ♀, 31.V.2017, ♀, Dikili, 03.IX.2012, *Rosa* sp., ♂, Kemalpaşa, 27.IV.2013, ♀, Menemen, 19.IX.2013, ♀, 19.VI.2015, ♀, 13.V.2015, *Salvia officinalis*, ♀, 19.V.2015, *Matricaria chamomilla*, 2♂♂, 17.V.2016, 2♂♂, 30.IV.2017, *Centaurea* sp., 2♂♂, 19.V.2017, 2♂♂, Ödemiş, 17.V.2014, *Juglans regia*, ♀, Torbalı, 23.X.2011, *Cucurbita pepo*, 2♂♂; Kastamonu: Devrekâni, Şeyhbalı, 2700 m, 22.VIII.2014, ♀; Manisa: Salihli, 04.V.2017, *Vitis vinifera*, ♀, Turgutlu, 20.IX.2011, ♀; Muğla: 17.V.1976, ♀, Ortaca, 10.VII.2016, ♀.

### *Polistes nimpha* (CHRIST, 1791)

Material examined: Antalya: 20.VII.2011, ♂, Muratpaşa, 05.VIII.2012, *Carya illinoensis*, ♀, ♂; Aydın: Kuşadası, Davutlar, 02.V.2009, ♂; Balıkesir: Bandırma, 27.X.2013, *Vitis vinifera*, ♀; Denizli: Honaz, 21.V.2017, ♀, Tavas, 10.VIII.1983, ♀; Erzurum: Dutçu, 24.VII.2010, ♀, ♂; İstanbul: 05.VII.2013, ♀; İzmir: Balçova, 03.V.2012, 4♀♀, Bayraklı, 15.X.2013, ♀, Bornova, 09.V.1984, ♀, 10.IV.2012, ♀, 23.IV.2012, ♀, 01.V.2012, ♀, 28.III.2013, *Lavandula angustifolia*, 3♂♂, 01.V.2013, *Salvia officinalis*, ♀, ♀, 03.V.2013, 2♀♀, 04.V.2013, ♀, 10.V.2013, ♀, 12.V.2013, ♀, ♀, 27.IX.2013, 2♀♀, ♀, 27.IV.2014, ♀, ♀, 24.V.2014, ♀, 13.VI.2014, ♀, 31.VI.2014, ♀, 03.VII.2014, 2♂♂, 25.IV.2015, *Laurus nobilis*, ♀, ♀, 26.IV.2015, ♀, 27.IV.2015, *Avena* sp., ♀, 10.V.2015, *Salix* sp., ♀, 4♂♂, 11.V.2015, ♀, 3♂♂, 12.V.2015, 2♀♀, 15.V.2015, *Daucus carota*, ♀, 16.V.2015, *Centaurea* sp., ♀, ♀, *Prunus dulcis*, ♀, 19.V.2015, *Matricaria chamomilla*, ♀, 5♂♂, 20.V.2015, *Matricaria chamomilla*, 3♀♀, 27.V.2015, *Triticum aestivum*, ♀, 29.V.2015, ♀, 01.VII.2015, ♀, 19.IX.2015, ♂, 23.IX.2015, 2♂♂, 25.IX.2015, ♂, 17.X.2015, ♂, 12.V.2016, ♀, 18.V.2016, 2♀♀, 21.V.2016, *Thymus* sp., ♀, 2♂♂, 26.V.2016, *Matricaria chamomilla*, ♀, ♀, 29.V.2016, ♀, 4♂♂, 09.V.2017, *Lavandula angustifolia*, ♀, *Vitis vinifera*, 3♀♀, 12.V.2017,

*Matricaria chamomilla*, ♀, 13.V.2017, 2♀♀, 13.V.2017, *Pimpinella anisum*, ♀, 15.V.2017, *Lavandula angustifolia*, ♀, 17.V.2017, *Centaurea* sp., 2♀♀, 18.V.2017, *Lavandula angustifolia*, ♀, 20.V.2017, *Lavandula angustifolia*, 2♂♂, 3♀♀, 21.V.2017, ♂, ♀, 23.V.2017, *Thymus serpyllum*, ♀, 27.V.2017, *Lavandula angustifolia*, ♀, ♀, 31.V.2017, ♀, Çiçekliköy, 03.V.2013, ♀, Yakaköy, 25.IV.2012, ♀, Dikili, 03.IX.2012, *Rosa* sp., ♂, 2♀♀, Kemalpaşa, 27.IV.2013, ♀, Konak, Hatay, 15.IV.2005, ♀, 04.IV.2015, ♀, Menemen, 13.V.2015, *Salvia officinalis*, ♀, 19.V.2015, *Matricaria chamomilla*, 2♀♀, 17.V.2016, ♀, 23.V.2016, *Cynara scolymus*, 4♀♀, 2♀♀, 24.V.2016, 2♀♀, ♀, 30.IV.2017, ♀, 2♀♀, *Centaurea* sp., ♀, 19.V.2017, ♀, Ödemiş, 17.V.2014, *Juglans regia*, ♀, Bozdağ, 20.XII.1971, *Verbascum* sp., ♀, Selçuk, Zeytinköy, 16.V.2014, *Triticum aestivum*, ♀; Manisa: Alaşehir, 04.V.2013, ♀, 2♀♀, 20.V.2000, ♀, 02.VI.2015, *Malva sylvestris*, 2♀♀, ♀, Salihli, 09.VII.2016, *Abelmoschus esculentus*, 5♂♂, 04.V.2017, *Vitis vinifera*, 2♀♀, Şehzadeler, Güzelköy, 01.V.2016, ♀, Turgutlu, 29.IX.2011, *Prunus avium*, ♀, ♀; Muğla: Ortaca, 16.V.2013, *Vicia faba*, 3♀♀, 10.VII.2016, 2♂♂; Sakarya: Serdivan, 11.VIII.2017, ♀.

### ***Odynerus melanocephalus armeniacus* (MORAWITZ, 1885)**

Material examined: Erzurum: Aziziye, Söğütlü, 15.VI.2012, ♀, Uzundere, Çağlayan, 960 m, N40°39'37.8" E041°40'33.3", 21.V.2016, ♂; İzmir: Urla, Gülbahçe, 10.V.2009, ♂.

### ***Gymnomerus laevipes* (SHUCKARD, 1837)**

Material examined: Erzurum: Uzundere, Çağlayan, 960 m, N40°39'37.8" E041°40'33.3", 21.V.2016, ♀.

### ***Hemipterophilus bembeciformis* (MORAWITZ, 1867)**

Material examined: İzmir: Bornova, 25.IV.2009, ♀.

### ***Leptochilus hermon* GUSENLEITNER, 1971**

Material examined: Erzurum: Uzundere, Çağlayan, 914 m, N40°39'49.9" E041°40'43.1", 29.V.2015, ♂.

### ***Microdynerus microdynerus* (DALLA TORRE, 1889)**

Material examined: Erzurum: Uzundere, Çağlayan, 914 m, N40°39'49.9" E041°40'43.1", 29.V.2015, ♀.

### ***Microdynerus parvulus* (HERRICH-SCHAEFFER, 1838)**

Material examined: Erzurum: Uzundere, Çağlayan, 960 m, N40°39'37.8" E041°40'33.3", 21.V.2016, 2♂♂, 914 m, N40°39'49.9" E041°40'43.1", 29.V.2015, ♂.

### ***Alastor mocsaryi* (ANDRÉ, 1884)**

Material examined: Erzurum: Uzundere, Çağlayan, 914 m, N40°39'49.9" E041°40'43.1", 29.V.2015, ♂.

### ***Tachyancistrocerus rhodensis* (SAUSSURE, 1855)**

Material examined: İzmir: Menemen, 12.VIII.2015, ♀.

### ***Eustenancistrocerus amadanensis* (SAUSSURE, 1855)**

Material examined: Antalya: 11.VII.2014, ♂.

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***Jucancistrocerus jucundus* (MOCSÁRY, 1883)**

Material examined: Erzurum: Uzundere, Çağlayan, 914 m, N40°39'49.9" E041°40'43.1", 29.V.2015, ♂.

***Antepipona deflenda* (S.S. SAUNDERS, 1853)**

Material examined: Antalya: 11.VII.2014, ♂.

***Allodynerus floricola* (SAUSSURE, 1853)**

Material examined: Erzurum: Uzundere, Çağlayan, 914 m, N40°39'49.9" E041°40'43.1", 29.V.2015, 2♂♂.

***Allodynerus rossii* (LEPELETIER, 1841)**

Material examined: Erzurum: Uzundere, Çağlayan, 914 m, N40°39'49.9" E041°40'43.1", 29.V.2015, ♀.

***Euodynerus disconotatus* (LICHTENSTEIN, 1884)**

Material examined: Antalya: Arapsuyu, 30.VI.2012, ♂.

***Euodynerus hellenicus* BLÜTHGEN, 1942**

Material examined: Sanlıurfa: Hilvan 26.VI.2017, ♀.

***Euodynerus posticus* (HERRICH-SCHÄFFER, 1841)**

Material examined: İzmir: Bornova, 31.V.2016, *Persica vulgaris*, ♂.

***Rhynchium oculatum hebraeum* GIORDANI SOIKA, 1952**

Material examined: Adana: Ceyhan, 4.IX.2017, ♀, Çukurova, 19.V.2013, *Morus alba*, ♀; Balıkesir: Sındırgı, 27.VIII.2013, 2♀♀; İzmir: Çiğli, Harmandalı, 29.IV.2016, ♀, Dikili, 03.IX.2012, *Rosa* sp., 3♀♀; Urla, 09.VIII.2008, ♀; Mersin: Erdemli, 26.VI.2009, ♀, Tece, 21.IX.2014, ♀.

***Ancistrocerus auctus* (FABRICIUS, 1793)**

Material examined: İzmir: Bayındır, 18.V.2009, ♀, Bornova, 12.IV.2014, ♀, 03.V.2015, *Sinapis* sp., ♀, 31.V.2016, *Prunus persica*, ♀, 4♂♂; Manisa: 22.V.2000, ♀.

***Symmorphus crassicornis* (PANZER, 1798)**

Material examined: Erzurum: Atatürk University field, 1850 m, 22.VIII.2014, ♀.

***Eumenes coarctatus lunulatus* FABRICIUS, 1804**

Material examined: Erzurum: Uzundere, Çağlayan, 960 m, N40°39'37.8" E041°40'33.3", 21.V.2016, ♀, 914 m, N40°39'49.9" E041°40'43.1", 29.V.2015, ♂.

***Eumenes mediterraneus* KRIECHBAUMER, 1879**

Material examined: Adana: Seyhan, 18.VIII.2017, ♂; Adıyaman: 05.IX.2014, ♂.

***Delta dimidiatipenne* (SAUSSURE, 1852)**Material examined: Sanlıurfa: Ceylapınar, 15.VIII.2016, ♀.***Delta unguiculatum unguiculatum* (VILLERS, 1789)**Material examined: Diyarbakır: Çermik, 03.VIII.2017, ♂.***Katamenes flavigularis* (BLÜTHGEN, 1951)**Material examined: Erzurum: Uzundere, Çağlayan, 914 m, N40°39'49.9" E041°40'43.1", 29.V.2015, ♂.***Katamenes sichelii tauriae* (GIORDANI SOIKA, 1960)**Material examined: Sanlıurfa: Ceylapınar, 15.VIII.2016, ♂.**Zusammenfassung**

Die vorliegende Studie basiert auf dem Material von Hymenopteren der Familien Crabronidae, Evaniidae, Ichneumonidae, Leucospidae, Mutillidae, Pompilidae, Sapygidae, Sphecidae, Tiphidae und Vespidae (Hymenoptera: Apocrita), welche von unterschiedlichen Lokalitäten der Türkei zwischen 1952 und 2018 gesammelt wurden. In der Arbeit werden 92 Arten und Unterarten aus 63 Gattungen und 10 Familien mit zum Teil neuen Fundortangaben präsentiert.

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