

Expansion of Distribution Records for Nine Subfamilies Of Carabidae (Coleoptera) With Two New Records in Turkey¹

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J. Entomol. Sci. 44(4): 323-340 (October 2009)

Abstract Carabid (Coleoptera: Carabidae) specimens from various environs in Turkey were examined. Eighty-one species/subspecies representing 20 genera in 9 subfamilies were identified. The subfamilies represented were Brachininae (5 species/subspecies), Broscinae (1 species), Carabinae (24 species/subspecies), Elaphrinae (1 species), Nebriinae (6 species/subspecies), Omophroninae (1 species), Paussinae (1 species), Scaritinae (5 species/subspecies), and Trechinae (37 species/subspecies). All but a few of these species/subspecies are new records of distribution in several Turkish provinces. Furthermore, identification of *Bembidion* (*Bembidionetolitzkya*) *cyaneum* Chaudoir, 1846 and *Bembidion* (*Bembidionetolitzkya*) *coeruleum* Audinet-Serville, 1821 (Coleoptera: Carabidae: Trechinae) are the first recorded occurrences of these species in Turkey. Previously published records from Turkey, geographical distribution and chorotype information are provided for each species.

Key Words geographic distribution, Turkey, Carabidae, Nebriinae, Carabinae, Elaphrinae, Omophroninae, Paussinae, Brachininae, Scaritinae, Broscinae, Trechinae

The carabid (Coleoptera: Carabidae) fauna from the Anatolian Peninsula is relatively small in terms of diversity and total number of species (about 1100 identified so far) compared with the potential carrying capacity of the varied topography and habitats of the area (Casale and Vigna Taglianti 1999). Casale and Vigna Taglianti (1999) stated that the true carabid diversity in the area is underestimated. Thus, efforts are underway to establish geographic distributional information for carabid taxa in Turkey. The objective of the study reported here was to catalog the occurrence of carabids collected by Owe Nodmar and other Swedish coleopterists and to integrate these distribution data with those previously reported. The primary focus of these efforts was within 9 subfamilies of Carabidae – Brachininae, Broscinae, Carabinae, Elaphrinae, Nebriinae, Omophroninae, Paussinae, Scaritinae, and Trechinae.

Materials and Methods

Specimens examined in this study are deposited in the collection of Owe Nodmar (Juvansmala 370 34 Holmsjö, Sweden). Nomenclature follows that of Löbl and Smetana (2003), while the zoogeographical chorotypes used were proposed by Casale and

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Vigna Taglianti (1999) and Vigna Taglianti et al. (1999). Some more taxonomically difficult species were identified by Mr. Claude Jeanne (Langdon, France). Those coleopterists who collected the specimens examined are Folke Gabrielsson (Villavägen 1, SE-914 41, Sweden [FG]), Stig Lundberg (Rektorsgatan 5, SE-972 42, Luleå, Sweden [SL]), Owe Nodmar (Juvansmala 370 34 Holmsjö, Sweden [ON]), Roger Pettersson (Dept. of Wildlife, Fish and Environmental Studies, Swedish Univ. of Agricultural Sciences, SE-901 83, Umea, Sweden [RP]), and Mikael Sörensson (Dept. of Cell and Organism Biology, Lund Univ., Sölvegatan 35, SE-223 62, Lund, Sweden [MS]). The initials of individual collectors are noted with the specimens each collected.

Results

The following is a list of the species/subspecies of Carabidae that were examined in this study. These are divided by subfamilies. Information presented with each species/subspecies includes the material examined, the location from which the specimens were collected, and the collector (initials of collector, see above) along with known geographical distribution in Turkey and chorotypic information.

Subfamily Nebriinae Laporte, 1834

Casale and Vigna Taglianti (1999) reported 58 (3 of which are uncertain) species/subspecies occurring in Turkey that belong to the subfamily Nebriinae, whereas Löbl and Smetana (2003) reported the number as 50. We examined 6 species/subspecies in our study with 4 from tribe Nebriini and 2 from tribe Notiophilini. Löbl and Smetana (2003) reported that all Nebriinae from Turkey are from either Nebriini or Notiophilini.

Tribe Nebriini Laporte, 1834

Casale and Vigna Taglianti (1999) reported the number of species/subspecies belonging to this tribe as 47, whereas Löbl and Smetana (2003) reported 42.

***Leistus* Frölich, 1799**

Ten species/subspecies of this genus are known from Turkey (Löbl and Smetana 2003).

***Leistus (Pogonophorus) spinibarbis rufipes* Chaudoir, 1843**

Material examined: Antalya: Akseki, 16.05.1996, (ON), 2 specimens. **Previously published records from Turkey:** Turkey (Löbl and Smetana 2003); Kahramanmaraş (Avgin 2006a); Başkonuş mountain (Avgin 2006b); Ahır mountain (Avgin 2006c); Kahramanmaraş, Osmaniye (Avgin and Emre 2007). **Geographical distribution:** This subspecies is widely distributed in the Mediterranean Region of Turkey. Its range exemplifies a Europeo-Mediterranean chorotype.

***Nebria* Latreille, 1802**

Thirty-two species/subspecies are known from Turkey (Löbl and Smetana 2003).

***Nebria (Alpaeus) fischeri* Faldermann, 1836**

Material examined: Giresun: Sebinkarahisar, 28.05.1998, (ON), 4 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** Specimens

examined were collected in the Black Sea Region of Turkey. Its range exemplifies a Ponto-Caucasian chorotype.

***Nebria (Eunebria) picicornis* Fabricius, 1801**

Material examined: Trabzon: Zigana Geçidi, 21.05.1996, (ON), 3 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Black Sea Region. Its range exemplifies a European chorotype.

***Nebria (Nebria) brevicollis* Fabricius, 1792**

Material examined: Antalya: Yarpuz, 22.05.1998, (ON), 3 specimens; Trabzon: Zigana Geçidi, 21.05.1996, (ON), 2 specimens; Ordu: 20 km Akkus, 20.05.1996, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Black Sea and Mediterranean Regions. Its range exemplifies a Turano-European chorotype.

Tribe Notiophilini Motschulsky, 1850

Casale and Vigna Taglianti (1999) report 11 species (3 are uncertain) belonging to this subfamily as occurring in Turkey; Löbl and Smetana (2003) report the number as 8. All species are from only one genus.

***Notiophilus* Duméril, 1806**

***Notiophilus danieli* Reitter, 1897**

Material examined: Antalya: Kac, 15.06.1994, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Gaziantep, Kahramanmaraş (Avgin 2006a); Ahır mountain (Avgin 2006c). **Geographical distribution:** This species is distributed in southern Turkey. Its range exemplifies an Eastern Mediterranean chorotype.

***Notiophilus interstitialis* Reitter, 1889**

Material examined: Antalya: Yarpuz, 16.05.1996, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Niğde (Avgin and Özdikmen 2008). **Geographical distribution:** The specimens examined were collected in the Mediterranean and Central Anatolian regions of Turkey. Its range exemplifies an Eastern Mediterranean chorotype.

Subfamily Carabinae Latreille, 1802

We examined specimens representing 24 species/subspecies of the subfamily Carabinae. It is one of the most studied groups of the Carabidae. Adults are relatively large in size and prey upon important insect pests and are, thus, considered beneficial and are used in biological control programs in several countries. Some species are regarded as “endangered” and are legally protected in several countries.

Tribe Carabini Latreille, 1802

Hurka (1996) reports there are about 1000 species representing genera living worldwide in temperate and subtropical zones and especially the tropics. Casale and Vigna Taglianti (1999) reported 283 species/subspecies belonging to this tribe that

occur in Turkey, whereas Löbl and Smetana (2003) reported 226. Those species in Turkey represent 2 genera (Löbl and Smetana 2003).

***Calosoma* Weber, 1801**

Löbl and Smetana (2003) report 13 species/subspecies in Turkey.

***Calosoma (Callisthenes) eversmanni* Chaudoir, 1850**

Material examined: Kahramanmaraş: Gözeçik, 30.05.1998, (ON, SL, RP, MS), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Central and western Turkey: approximately from Tuz Lake to the southeast up to Çorum, Merzifon, Amasya and Tokat and to the west as far as Eskişehir environs (Obydov 2002); Turkey (Löbl and Smetana 2003); Aksaray (Avgın and Özdikmen 2008). **Geographical distribution:** The species is widely distributed in the central, northern and southern parts of Turkey. Its range exemplifies a Central Anatolian endemic chorotype.

***Calosoma (Calosoma) sycophanta* Linné, 1758**

Material examined: İçel: 20 km n Erdemli, 26.05.1996, (ON, RP, SL), Running on oak trees, 2 specimens; İçel: Gülek Bogazi, 24.05.1997, (ON), Running on oak trees, 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Ankara (Kocatepe and Mergen 2004); Adıyaman, Kahramanmaraş (Avgın 2006a); Başkonuş mountain (Avgın 2006b); Ahır mountain (Avgın 2006c). **Geographical distribution:** Distributed from central to southern Turkey. Its range exemplifies a Palearctic (Holarctic) chorotype.

***Carabus* Linné, 1758**

Löbl and Smetana (2003) reported 213 species/subspecies of this genus in Turkey. Cavazzuti (2006) characterized its distribution and life history in Turkey.

***Carabus (Archicarabus) gotschi* Chaudoir, 1846**

Material examined: Gümüşhane: w. Siran, 29.05.1997, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999). **Geographical distribution:** The specimens examined in this paper were collected in the Black Sea Region of Turkey. Its range exemplifies an Anatolia chorotype.

***Carabus (Archicarabus) gotschi turcicus* Motschulsky, 1865**

Material examined: Gümüşhane: Gümüşhane, 28.05.1997, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999). **Geographical distribution:** The specimens examined were collected in the Black Sea Region of Turkey. Its range exemplifies an Anatolia chorotype.

***Carabus (Archicarabus) victor* Fischer von Waldheim, 1836**

Material examined: Artvin: Artvin, 28.05.1998, (ON), 2 specimens; Trabzon: Zigana Geçidi, 21.05.1996, (ON), 3 specimens; İçel: 20 km s. Gülnar, 27.05.1996, (ON), 1 specimen; Trabzon: Zigana Geçidi, 21.05.1996, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Artvin, Bolu, Gümüşhane, Kastamonu, Sinop, Sivas (Lassalle 2003); Turkey (Löbl and Smetana 2003); Artvin, Ardahan, Giresun, Gümüşhane, Kars, Ordu, Trabzon, Rize (Cavazzuti 2006). **Geographical distribution:** This species is widely distributed in the Black Sea Region of Turkey. Its range exemplifies a Ponto-Caucasian chorotype.

***Carabus (Cytilocarabus) cribratus* Quensel, 1806**

Material examined: Giresun: Egribel Geçidi, 25.05.1998, (ON, RP), 3 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Kayseri (Avgın 2006a); Artvin, Bingöl, Bitlis,

Bolu, Erzurum, Kars, Rize, Tunceli (Cavazzuti 2006). **Geographical distribution:** This species occurs mostly in the central, eastern and northern parts of Turkey. Its range exemplifies an Armeno-Caucasian chorotype.

Carabus (Heterocarabus) marietti Cristofori & Jan, 1837

Material examined: Giresun: Egribel Gecidi, 26.05.1998, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Adapazarı, Ankara, Bolu, Çankırı, İstanbul, İzmit, Kırıkkale, Zonguldak (Cavazzuti 2006). **Geographical distribution:** The species range in Turkey is mostly in the Black Sea and Central Anatolian regions. Its range exemplifies a Northwestern Anatolian chorotype.

Carabus (Ischnocarabus) tenuitarsis Kraatz, 1877

Material examined: Giresun: Egrebil Gecidi, 22.05.1998, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Black Sea Region of Turkey. Its range exemplifies a Central Anatolian endemic chorotype.

Carabus (Lamprostus) nordmanni Chaudoir, 1848

Material examined: Trabzon: Zigana Geçidi, 21.05.1996, (ON, RP, SL, FG), 4 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999). **Geographical distribution:** The specimens examined were collected in the Black Sea Region of Turkey. Its range exemplifies a Northeastern Anatolian endemic chorotype.

Carabus (Lamprostus) torosus giresuni Breuning, 1964

Material examined: Giresun: Egribil Gecide, 22.05.1998, (ON), 2 specimens; Giresun: Yavuzkema1, 22.05.1998, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Black Sea Region of Turkey. Its range exemplifies an Anatolian endemic chorotype.

Carabus (Megodontus) bonvouloiri Chaudoir, 1863

Material examined: Amasya: Amasya, 19.05.1996, (ON), 2 specimens; Trabzon: Zigana Geçidi, 21.05.1996, (ON, RP, SL, FG), 3 specimens. **Previously published records from Turkey:** Artvin (Cavazzuti 1986); Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Rize (Avgin and Özdkimen 2008). **Geographical distribution:** This species is distributed in the Black Sea Region of Turkey. Its range exemplifies a Northeastern Anatolian endemic chorotype.

Carabus (Mimocarabus) maurus osculatii Osculati, 1844

Material examined: Sivas: Yagdonguran Geçidi, 30.05.1998, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Bitlis, Van (Cavazzuti 2006). **Geographical distribution:** This species is mostly distributed in the Eastern Anatolia Region of Turkey. Its range exemplifies a Southwestern Asiatic chorotype.

Carabus (Oreocarabus) porrectangulus porrectangulus Géhin, 1885

Material examined: Giresun: Egribel Geçidi, 25.05.1998, (ON, RP), 2 specimens; Giresun: Tersundag, 24.05.1998, (RP), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Erzincan, Erzurum, Gümüşhane (Cavazzuti 2006). **Geographical distribution:** This subspecies is distributed in the Black Sea and Eastern Anatolian Regions of Turkey. Its range exemplifies a Northern Anatolian endemic chorotype.

***Carabus (Pachycarabus) roseri soganliensis* Heinz & Korge, 1964**

Material examined: Rize: S. Ikezdere, 27.05.1998, (ON, RP), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Artvin, Rize, Trabzon (Cavazzuti 2006). **Geographical distribution:** This subspecies is distributed in the Black Sea region of Turkey. Its range exemplifies an Anatolian endemic chorotype.

***Carabus (Pachystus) graecus morio* Mannerheim, 1830**

Material examined: Antalya: Akseki, 16.05.1996, (ON), 2 specimens; Antalya: Elmalı, 14.06.1996, (ON), 2 specimens; İçel: 20 km n Erdemli, 01.06.1998 (FG, ON), 1 specimen; Kahramanmaraş: Göksun, 31.05.1998, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Kahramanmaraş (Avgin 2006a); Afyon, Ankara, Işık mountain, Niğde (Avgin and Özdikmen 2008). **Geographical distribution:** This subspecies is mostly distributed in the Central Anatolian and Mediterranean regions of Turkey. Its range exemplifies an Eastern Mediterranean chorotype.

***Carabus (Procerus) scabrosus mentor* Blumenthal & Breuning, 1967**

Material examined: Bolu: 10 km s. Gerede, 18.05.1996, (ON), 1 specimen. **Previously published records from Turkey:** Tekirdağ (Schweiger 1962); Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** This subspecies is distributed in the Marmara Region of Turkey. Its range exemplifies an Anatolian endemic chorotype.

***Carabus (Procrustes) anatolicus lycicus* Breuning, 1932**

Material examined: Antalya: Yarpuz, 22.05.1998, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Mediterranean Region of Turkey. Its range exemplifies an Anatolian endemic chorotype.

***Carabus (Procrustes) chevrolati thirkii* Chaudoir, 1857**

Material examined: Giresun: Sebinkarahisar, 20.05.1997, (ON), 2 specimens; Ordu: 20 km n. Akkus, 20.05.1996, (ON), 3 specimens; Trabzon: Zigana Geçidi, 21.05.1996, (ON), 3 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** This subspecies is distributed from Ordu to Trabzon provinces in the Black Sea Region of Turkey. Its range exemplifies an Anatolian endemic chorotype.

***Carabus (Sphodristocarabus) rotundicollis* Mandl, 1955**

Material examined: Artvin: Cankutaran Geçidi, 28.05.1998, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Black Sea Region of Turkey. Its range exemplifies a Northeastern Anatolian endemic chorotype.

***Carabus (Sphodristocarabus) gilnickii* E. Deyrolle, 1869**

Material examined: Trabzon: Zigana Geçidi, 21.05.1996, (ON, RP, FG), 3 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in Black Sea Region of Turkey. Its range exemplifies a Northeastern Anatolian endemic chorotype.

***Carabus (Sphodristocarabus) heinzi* Breuning, 1964**

Material examined: Giresun: Egribel Geçidi, 26.05.1998, (SL, ON, RP), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna

Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in Black Sea Region of Turkey. Its range exemplifies a Northeastern Anatolian endemic chorotype.

***Carabus (Sphodristocarabus) macrogonus* Chaudoir, 1847**

Material examined: Trabzon: Zigana Geçidi, 21.05.1996, (RP, ON), 1 specimen. **Previously published records from Turkey:** Ordu (Cavazzuti 1986); Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** This species primarily occurs in the Black Sea Region of Turkey. Its range exemplifies a Northern Anatolian endemic chorotype.

***Carabus (Tomocarabus) scabripennis ponticola* Deuve & Simard, 1977**

Material examined: Ünye: n. Akkus, 24.05.1998, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Giresun (Cavazzuti 2006). **Geographical distribution:** This species is primarily distributed in the Black Sea Region of Turkey. Its range sub-species exemplifies an Anatolian endemic chorotype.

***Carabus (Tribax) puschkini ponticus* E. Deyrolle, 1869**

Material examined: Trabzon: Zigana Geçidi, 21.05.1996, (ON, RP, SL, FG), 3 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** This subspecies is distributed in the Black Sea Region of Turkey. Its range exemplifies an Anatolian endemic chorotype.

Subfamily Elaphrinae Erichson, 1837

Four species belonging to the type genus, *Elaphrus* Fabricius, are recorded from Turkey (Löbl and Smetana 2003), but Casale and Vigna Taglianti (1999) are not certain of the occurrence of one. We examined specimens from only one species in our study.

Tribe Elaphrini Erichson, 1837

***Elaphrus* Fabricius, 1775**

***Elaphrus (Elaphrus) riparius* Linné, 1758**

Material examined: Konya: Bakaran, 16.05.1997, (ON), 4 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999). **Geographical distribution:** The specimens examined were collected in the Central Anatolian Region of Turkey. Its range exemplifies a Holarctic chorotype.

Subfamily Omophroninae Bonelli, 1810

Tribe Omophronini Bonelli, 1810

Only one genus including 2 species belonging to this tribe and subfamily are reported from Turkey (Casale and Vigna Taglianti 1999, Löbl and Smetana 2003). We examined 1 specimen of 1 of those species in our study.

***Omophron* Latreille, 1802**

***Omophron (Omophron) limbatum* Fabricius, 1777**

Material examined: Konya: Beyşehir Gölü, 15.05.1996, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999);

Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Central Anatolian Region of Turkey. Its range exemplifies a Palearctic chorotype.

Subfamily Paussinae Latreille, 1807

Tribe Paussini Latreille, 1807

Only one genus including 1 species belonging to this tribe and subfamily is reported from Turkey (Casale and Vigna Taglianti 1999, Löbl and Smetana 2003). We examined 1 species representing this subfamily in our study.

***Paussus* Linné, 1775**

***Paussus turcicus* I. Frivaldszky von Frivald, 1835**

Material examined: Antalya: Akseki, 17.05.1996, (ON,SL, RP, FG), Under stones, 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Mediterranean Region of Turkey. Its range exemplifies an Eastern Mediterranean chorotype.

Subfamily Brachininae Bonelli, 1810

Casale and Vigna Taglianti (1999) recorded 22 (3 uncertain) species/subspecies belonging to this subfamily from Turkey, whereas Löbl and Smetana (2003) reported 20. Two or 3 genera are represented in Turkey: *Aptinus* Bonelli, 1810; *Brachinus* Weber, 1801; and *Mastax* Fischer von Waldheim, 1827. However, the occurrence of *Mastax* in Turkey requires confirmation (Casale and Vigna Taglianti 1999). We examined specimens representing 5 of those species/subspecies.

Tribe Brachinini Bonelli, 1810

***Aptinus* Bonelli, 1810**

Two species of *Aptinus* occur in Turkey (Löbl and Smetana 2003).

***Aptinus cordicollis creticus* Pic, 1903**

Material examined: İçel: N. 20 km n Erdemli, 26.05.1996, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); İçel (Kesdek and Yıldırım 2007). **Geographical distribution:** This species is distributed in the Mediterranean Region of Turkey. Its range exemplifies an Anatolian endemic chorotype.

***Brachinus* Weber, 1801**

Löbl and Smetana (2003) reported 19 species/subspecies of this genus from Turkey.

***Brachinus (Brachinus) alexandri* F. Battoni, 1984**

Material examined: Giresun: Sebinkarahisar, 20.05.1997, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Iğdır (Kesdek and Yıldırım 2007). **Geographical distribution:** This species is primarily distributed in the Black Sea and Eastern Anatolia regions of Turkey. Its range exemplifies a Turano-European chorotype.

***Brachinus (Brachynidius) bodemeyeri* Apfelbeck, 1904**

Material examined: İçel: N. 20 km Erdemli, 26.05.1996, (ON), 3 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Kahramanmaraş (Avgin 2006a); Başkonuş mountain (Avgin 2006b); Ahır mountain (Avgin 2006c). **Geographical distribution:** This species is primarily distributed in the Mediterranean Region of Turkey. Its range exemplifies a Turano-European chorotype.

***Brachinus (Brachynidius) brevicollis* Motschulsky, 1844**

Material examined: Antalya: Gündoğmuş, 12.06.1994, (ON), 3 specimens; Antalya: Yarpuz, 18.06.1994, (ON), 2 specimens; İçel: N. 20 km Erdemli, 26.05.1996, (ON), 3 specimens; Konya: Bakaran, 16.05.1997, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Kahramanmaraş (Avgin 2006a); Başkonuş mountain (Avgin 2006b); Ahır mountain (Avgin 2006c); Ardahan, Erzincan, Erzurum, Kars (Kesdek and Yıldırım 2007). **Geographical distribution:** This species is widely distributed in the central, northern and southern parts of Turkey. Its range exemplifies a Turano-Mediterranean chorotype.

***Brachinus (Brachynidius) explodens* Duftschmid, 1812**

Material examined: Amasya: Amasya (ON), 5 specimens; Antalya: Akseki, 16.05.1996, (ON), 2 specimens; Antalya: Yarpuz, 16.05.1996, (ON), 3 specimens; Giresun: Sebinkarahisar, 20.05.1996, (ON), 2 specimens; İçel: N. 20 km Erdemli, 26.05.1996, (ON), 4 specimens; İçel: Gülnar 27.05.1996, (ON), 1 specimen; Konya: Bakaran, 16.05.1997, (ON), 1 specimen; Tokat: Tokat, 24.05.1998, (ON), 2 specimens. **Previously published records from Turkey:** Eskişehir (Türkkan 1998); Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Adıyaman, Gaziantep, Kahramanmaraş, Kayseri (Avgin 2006a); Başkonuş mountain (Avgin 2006b); Ahır mountain (Avgin 2006c); Bingöl, Erzincan, Erzurum, Kars (Kesdek and Yıldırım 2007); Niğde (Avgin and Özdikmen 2008). **Geographical distribution:** This species is widely distributed in the central, northern, and southern regions of Turkey. Its range exemplifies an Asiatic-European chorotype.

Subfamily Scaritinae Bonelli, 1810

Löbl and Smetana (2003) reported 44 species/subspecies of this subfamily in Turkey, whereas Casale and Vigna Taglianti (1999) reported 45, with the occurrence of 4 species being doubtful. We examined 5 species in our study.

Tribe Clivinini Rafinesque, 1815**Subtribe Clivinina Rafinesque, 1815*****Clivina* Latreille, 1802**

Casale and Vigna Taglianti (1999) reported 4 species/subspecies from this subtribe in Turkey, whereas Löbl and Smetana (2003) reported 5. We examined specimens from 2 species in our study.

***Clivina collaris* Herbst, 1784**

Material examined: Tokat: Tokat, 24.05.1998, (ON), Under stone, 4 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti

1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Black Sea Region of Turkey. Its range exemplifies a Turano-European chorotype, but it occurs in the New World (Canada, and parts of the US), the result of accidental introduction.

***Clivina laevifrons* Chaudoir, 1842**

Material examined: Konya: Bozkır Yalhöyük, 22.05.1998, (ON), Under stone, 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Central Anatolian Region of Turkey. Its range exemplifies a Turano-Mediterranean chorotype.

Tribe Dyschiriini W.Kolbe, 1880

Fedorenko (1996) provided a key, descriptions and distributional data for the species belonging to this tribe in the Palaearctic Region. Casale and Vigna Taglianti (1999) reported 35 species/subspecies (4 are doubtful) belonging to this tribe in Turkey, whereas Löbl and Smetana (2003) reported 36. We examined specimens from 2 species.

***Dyschirius* Bonelli, 1810**

***Dyschirius (Dyschiriodes) agnatus* Motschulsky, 1844**

Material examined: Amasya: Amasya, 19.05.1997, (ON), Under stone, 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Black Sea Region of Turkey. Its range exemplifies a Turano-European chorotype.

***Dyschirius (Dyschirius) humiolcus* Chaudoir, 1850**

Material examined: Artvin: Artvin, 28.05.1998, (ON), Under stone, 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Black Sea Region of Turkey. Its range exemplifies a Ponto-Caucasian chorotype.

Tribe Scaritini Bonelli, 1810

Casale and Vigna Taglianti (1999) reported 6 species/subspecies in Turkey belonging to this tribe, whereas Löbl and Smetana 2003 reported 5. We examined 1 specimen from 1 species in our study.

Subtribe Scaritina Bonelli, 1810

***Distichus* Motschulsky, 1858**

A single Turkish species belongs to this genus (Löbl and Smetana 2003).

***Distichus (Distichus) planus* Bonelli, 1813**

Material examined: Amasya: Amasya, 19.05.1996, (ON), Under stone, 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Black Sea Region of Turkey. Its range exemplifies an Afrotropico-Indo-Mediterranean chorotype.

Subfamily Broscinae Hope, 1838

One genus representing one tribe is reported from Turkey (Casale and Vigna Taglianti 1999, Löbl and Smetana 2003).

Tribe Broscini Hope, 1838

Subtribe Broscina Hope, 1838

***Broscus* Panzer, 1813**

Two species belonging to this genus occur in Turkey (Casale and Vigna Taglianti 1999, Löbl and Smetana 2003). We examined a specimen from 1 of these 2 species.

***Broscus nobilis* Dejean, 1828**

Material examined: Antalya: Gündoğmus, 12.05.1997, (ON, SL), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Gaziantep (Avgin 2006a). **Geographical distribution:** This species is primarily found in southern Turkey. Its range exemplifies an Eastern Mediterranean chorotype.

Subfamily Trechinae Bonelli, 1810

Tribe Bembidiini Stephens, 1827

Subtribe Bembidiina Stephens, 1827

***Asaphidion* Gozis, 1886**

We examined 2 species of the 4 reported for this genus as occurring in Turkey (Löbl and Smetana 2003).

***Asaphidion caraboides* Schrank, 1781**

Material examined: Antalya: Kaş, 14.06.1994, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Mediterranean Region of Turkey. The range of this species exemplifies a European chorotype.

***Asaphidion flavicorne* Solsky, 1874**

Material examined: İçel: Gülnar, 26.05.1997, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Mediterranean Region of Turkey. Its range exemplifies a Mediterranean chorotype.

***Bembidion* Latreille, 1802**

Löbl and Smetana (2003) reported 99 species/subspecies of this genus in Turkey. We examined specimens representing 29 of these species/subspecies, 2 of which are new records of occurrence in Turkey.

***Bembidion (Bembidion) quadripustulatum* Audinet-Serville, 1821**

Material examined: Ankara: Çubuk, 19.05.1996, (ON), 2 specimens; Antalya: Elmalı, 14.06.1996, (ON), 4 specimens. **Previously published records from Turkey:**

Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Erzurum (Kesdek and Yıldırım 2007). **Geographical distribution:** This species is distributed primarily in southern, northern and central Turkey. Its range exemplifies a Centralasiatic-European-Mediterranean chorotype.

***Bembidion (Bembidionetolitzkya) coeruleum* Audinet-Serville, 1821**

Material examined: Adana: Feke, 31.05.1998, (ON), 1 specimen. **Geographical distribution:** This species, new to the Turkish fauna, occupies Belgium, France, Italy, Portugal, Spain, Switzerland, Algeria, Morocco, Tunisia (Löbl and Smetana 2003). Its range exemplifies a South European chorotype.

***Bembidion (Bembidionetolitzkya) cyaneum* Chaudoir, 1846**

Material examined: Trabzon: Zigana Geçidi, 21.05.1996, (ON), 2 specimens. **Geographical distribution:** This species, new to the Turkish fauna, occupies Azerbaijan, Armenia, Georgia, and the South European Territory of Russia (Löbl and Smetana 2003). Its range exemplifies a Turano-Mediterranean chorotype.

***Bembidion (Emphanes) azurescens* Dalla Torre, 1877**

Material examined: Amasya: (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999). **Geographical distribution:** The specimens examined were collected in the Black Sea Region of Turkey. Its range exemplifies a European chorotype.

***Bembidion (Emphanes) latiplaga* Chaudoir, 1850**

Material examined: Erzincan: Tercan, 26.05.1998, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Erzurum (Kesdek and Yıldırım 2007). **Geographical distribution:** This species is distributed primarily in the Eastern Anatolian Region of Turkey. Its range exemplifies a Mediterranean chorotype.

***Bembidion (Euperyphus) combustum* Ménétrié, 1832**

Material examined: Antalya: Kaş, 14.06.1994, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected from the Mediterranean Region of Turkey. Its range exemplifies a Western Palearctic chorotype.

***Bembidion (Metallina) lampros* Herbst, 1784**

Material examined: Gümüşhane: W.Siran, 29.05.1997, (ON), 4 specimens; Kastamonu: Ilgaz Dağ, 18.05.1997, (ON), 2 specimens; Trabzon: Zigana Geçidi, 21.05.1996, (RP), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Ardahan, Erzurum, Kars (Kesdek and Yıldırım 2007). **Geographical distribution:** This species occurs primarily in northern and central Turkey. Its range exemplifies a Palearctic chorotype.

***Bembidion (Metallina) properans* Stephens, 1828**

Material examined: Ankara: Çubuk, 18.05.1996, (ON), 3 specimens; Antalya: Yarpuz, 22.05.1998, (ON), 4 specimens; Konya: 10 km W.Bakaran, 17.05.1996, (ON), 2 specimens; Erzincan: 25 km W.Erzincan, 23.05.1996, (ON), 2 specimens; Giresun: Sebinkarahisar, 20.05.1997, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Adıyaman, Batman, Diyarbakır, Kahramanmaraş, Gaziantep, Malatya, Mardin, Osmaniye (Avgın 2006a); Erzurum, İzmir (Kesdek and Yıldırım 2007). **Geographical distribution:** This species is widely distributed in Turkey. Its range exemplifies a Sibe-ro-European chorotype.

***Bembidion (Nepha) vseteckai adanae* De Monte, 1953**

Material examined: Antalya: Kaş, 14.06.1994, (ON), 2 specimens; İçel: Gülnar, 26.05.1997, (ON), 3 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Adana, Ankara, Antalya, Aydın, Balıkesir, Hatay, İzmir, Kahramanmaraş, Marmaris, Mersin, Muğla (Bonavita et al. 2008). **Geographical distribution:** This subspecies is widely distributed in Turkey. Its range exemplifies an Eastern Mediterranean chorotype.

***Bembidion (Nepha) rufimacula* J. Müller, 1918**

Material examined: Konya: 10 km S.Bakaran, 17.05.1996, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Central Anatolian Region of Turkey. Its range exemplifies an Eastern Mediterranean chorotype.

***Bembidion (Notaphus) obliquum* Sturm, 1825**

Material examined: Erzincan: Tercan, 26.05.1998, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999). **Geographical distribution:** The specimens examined were collected in the Eastern Anatolian Region of Turkey. Its range exemplifies a Sibero-European chorotype.

***Bembidion (Notaphus) varium* Olivier, 1795**

Material examined: Erzincan: Tercan, 26.05.1998, (ON), 2 specimens; Amasya: 1997.05.19, (ON), 4 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Erzurum (Kesdek and Yıldırım 2007). **Geographical distribution:** The specimens examined were collected in the Black Sea and Eastern Anatolian Region of Turkey. Its range exemplifies a Palearctic chorotype.

***Bembidion (Ocydromus) atlanticum* Wollaston, 1854**

Material examined: Antalya: Elmalı, 14.06.1996, (ON), 5 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Mediterranean Region of Turkey. Its range exemplifies a Central Asiatic-Mediterranean chorotype.

***Bembidion (Ocydromus) siculum* Dejean, 1831**

Material examined: Antalya: Elmalı, 14.06.1994, (ON), 4 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected from the Mediterranean Region of Turkey. Its range exemplifies a Mediterranean chorotype.

***Bembidion (Ocydromus) siculum smyrnense* Apfelbeck, 1904**

Material examined: Giresun: Sebinkarahisar, 20.05.1997, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Black Sea Region of Turkey. Its range exemplifies a Central Asiatic-Mediterranean chorotype.

***Bembidion (Ocydromus) zolotarewi* Reitter, 1910**

Material examined: Trabzon: Zigana Geçidi, 21.06.1996, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999). **Geographical distribution:** The specimens examined were collected in the Black Sea Region of Turkey. Its range exemplifies a Ponto-Caucasian chorotype.

***Bembidion (Ocyturanus) asiae minoris* Netolitzky, 1935**

Material examined: Erzurum: Kop Geçidi 2300 m, 23.05.1996, (ON), 2 specimens; Giresun: Sebinkarahisar, 20.05.1997, (ON), 2 specimens; Giresun: Eğribel Geçidi, 26.05.1998, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Eastern Anatolia and Black Sea regions of Turkey. Its range exemplifies an Eastern Mediterranean chorotype.

***Bembidion (Ocyturanus) praeustum* Dejean, 1831**

Material examined: Adana: N.Feke, 31.05.1998, (ON), 2 specimens; Antalya: Elmalı, 14.06.1994, (ON), 4 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Konya (Kesdek and Yıldırım 2007). **Geographical distribution:** This subspecies occupies primarily the Central Anatolian and Mediterranean regions of Turkey. Its range exemplifies a Mediterranean chorotype.

***Bembidion (Peryphanes) dalmatinum haupti* Reitter, 1908**

Material examined: Antalya: Kaş, 14.06.1994, (ON), 2 specimens; Antalya: Yarpuz, 22.05.1998, (ON), 4 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Adıyaman, Batman, Kahramanmaraş, Malatya (Avgın 2006a); Ardahan, Erzincan, Erzurum, Kars, Iğdır (Kesdek and Yıldırım 2007). **Geographical distribution:** This subspecies occupies primarily Eastern Anatolia and the Mediterranean regions of Turkey. Its range exemplifies an Eastern Mediterranean chorotype.

***Bembidion (Peryphanes) grandipenne* Schaum, 1862**

Material examined: Giresun: Sebinkarahisar, 25.05.1998, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Gaziantep, Kahramanmaraş, Kilis, Osmaniye (Avgın 2006a). **Geographical distribution:** This species occupies primarily northern and southern Turkey. Its range exemplifies an Eastern Mediterranean chorotype.

***Bembidion (Peryphus) cordicollis* Jacquelin Du Val, 1852**

Material examined: Antalya: Şelale, 11.06.1994, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Antalya, İçel, İzmir, Konya, Muğla (Toledano and Rébl 2006). **Geographical distribution:** This species occurs primarily in western, southern and central Turkey. Its range exemplifies an Eastern Mediterranean chorotype.

***Bembidion (Peryphus) femoratum* Sturm, 1825**

Material examined: Adana: N.Feke, 31.05.1998, (ON), 3 specimens; Amasya: 19.05.1997, (ON), 3 specimens; Giresun: Sebinkarahisar, 20.05.1997, (ON), 1 specimen; Gümüşhane: W. Siran, 29.05.1997, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Kahramanmaraş (Avgın 2006a). **Geographical distribution:** The specimens examined were collected in the Black Sea and Mediterranean regions. This species occupies most of northern and southern Turkey. Its range exemplifies a Sibero-European chorotype.

***Bembidion (Peryphus) subcostatum* Motschulsky, 1850**

Material examined: Adana: N.Feke, 31.05.1998, (ON), 3 specimens; Ankara: Çubuk, 18.05.1996, (ON), 2 specimens; Antalya: Elmalı, 14.06.1996, (ON), 5 specimens; Antalya: Kaş, 14.06.1996, (ON), 2 specimens; Antalya: Şelale, 11.06.1994, (ON), 2 specimens; İçel: Gülnar, 26.05.1997, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Gaziantep,

Kahramanmaraş, Şanlıurfa (Avgin 2006a); Arhan, Kars (Kesdek and Yıldırım 2007). **Geographical distribution:** The specimens examined were collected in southern, eastern and central Turkey. This species occurs primarily in northern and southern Turkey. Its range exemplifies a Turano-Mediterranean chorotype.

***Bembidion (Philochtus) inoptatum* Schaum, 1857**

Material examined: Antalya: Yarpuz, 22.05.1998, (ON), 2 specimens; Erzincan: Tercan, 26.05.1998, (RP), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Gaziantep, Kahramanmaraş, Diyarbakır, Malatya (Avgin 2006a); Erzincan, Erzurum (Kesdek and Yıldırım 2007). **Geographical distribution:** This species occurs primarily in central, southern, and western Turkey. Its range exemplifies a Southern European chorotype.

***Bembidion (Philochtus) lunulatum* Geoffroy, 1785**

Material examined: Antalya: Şelale, 11.06.1994, (ON), 2 specimens; Antalya: Side, 30.05.1992, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Ardahan, Erzurum, Kars (Kesdek and Yıldırım 2007). **Geographical distribution:** This species is distributed primarily in the Eastern Anatolian and Mediterranean regions of Turkey. Its range exemplifies a Europeo-Mediterranean chorotype.

***Bembidion (Sinechostictus) elongatum tarsicum* Peyron, 1858**

Material examined: Trabzon: Zigana Geçidi, 21.05.1996, (ON), 4 specimens. **Previously published records from Turkey:** Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Black Sea Region of Turkey. Its range exemplifies a Central Asiatic-Mediterranean chorotype.

***Bembidion (Sinechostictus) lederi anatolicum* Korge, 1964**

Material examined: Giresun: Sebinkarahisar, 25.05.1998, (ON), 1 specimen. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Black Sea Region of Turkey. Its range exemplifies an Anatolia chorotype. This subspecies is endemic to Turkey.

***Bembidion (Testedium) quadrifossulatum* Schaum, 1862**

Material examined: Konya: S. Bakaran, 17.05.1996, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Central Anatolian Region of Turkey. Its range exemplifies an Eastern Mediterranean chorotype.

***Bembidion (Trepanes) articulatum* Panzer, 1796**

Material examined: Ankara: Çubuk, 18.05.1996, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999). **Geographical distribution:** The specimens examined were collected in the Central Anatolian Region of Turkey. Its range exemplifies an Asiatic-European chorotype.

Subtribe Tachyina Motschulsky, 1862

***Tachys* Dejean, 1821**

Seven species/subspecies belonging to this genus are reported from Turkey (Löbl and Smetana 2003). We examined specimens from 1 of those.

***Tachys (Paratachys) bistriatus* Duftschmid, 1812**

Material examined: Konya: Bozkır Yalıhüyük Bakaran, 17.05.1996, (ON), 2 specimens; Tokat: 24.05.1998, (ON), 3 specimens. **Previously published records from**

Turkey: Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Central Anatolia Region of Turkey. Its range exemplifies a Western Palearctic chorotype.

***Tachyura* Motschulsky, 1862**

Fifteen species/subspecies belonging to this genus are reported from Turkey (Löbl and Smetana 2003). We examined specimens representing 2 of those.

***Tachyura (Tachyura) diabrachys* Kolenati, 1845**

Material examined: Adana: Fekke, 31.05.1998, (ON), 2 specimens; Erzurum: Kop Geçidi, 2300 m, 23.05.1996, (ON), 2 specimens; İçel: Gülnar, 26.05.1996, (ON), 2 specimens; Trabzon: Zigana Geçidi, 21.05.1996, (ON), 4 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in southern, eastern and northern Turkey. Its range exemplifies a Southern European chorotype.

***Tachyura (Tachyura) lucasi* Jacquelin du Val, 1852**

Material examined: Antalya: Sagırın, 11.06.1994, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected from the Mediterranean Region of Turkey. Its range exemplifies a Mediterranean chorotype.

Tribe Trechini Bonelli, 1810

Subtribe Perileptina Sloane, 1903

***Perileptus* Schaum, 1860**

A single species belonging to this genus is reported from Turkey (Löbl and Smetana 2003). We examined specimens of that species in our study.

***Perileptus (Perileptus) areolatus* Creutzer, 1799**

Material examined: Trabzon: Zigana Geçidi, 21.05.1996, (ON), 2 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003). **Geographical distribution:** The specimens examined were collected in the Black Sea Region of Turkey. Its range exemplifies a Europeo-Mediterranean chorotype.

Subtribe Trechina Bonelli, 1810

***Trechus* Clairville, 1806**

This genus is represented by 42 species/subspecies, 36 of which were recorded by Löbl and Smetana (2003) as occurring in Turkey. Donabauer (2004) added 6 species from northern Turkey and included taxonomic and faunistic data for the known *Trechus* species from that area. We examined specimens from 2 species in our study.

***Trechus (Trechus) asiaticus* Jeannel, 1927**

Material examined: Antalya: Akseki, 22.05.1998, (ON), 2 specimens; Antalya: Yarpuz 22.05.1998, (ON), 4 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999), Turkey (Löbl and Smetana 2003), Giresun, Samsun (Donabauer 2004). **Geographical distribution:** This species is primarily dis-

tributed in the Black Sea and Mediterranean regions of Turkey. Its range exemplifies an Eastern Mediterranean chorotype.

***Trechus (Trechus) quadristriatus* Schrank, 1781**

Material examined: Giresun: Sebinkarahisar, 23.05.1996, (ON), 2 specimens; K. Maraş: Göksun 31.05. 1998, (ON), 4 specimens. **Previously published records from Turkey:** Anatolia (Casale and Vigna Taglianti 1999); Turkey (Löbl and Smetana 2003); Giresun, Ilgaz Mountain, Küre Mountain, Samsun, Sinop (Donabauer 2004); Başkonuş Mountain National Park (Kahramanmaraş province) (Avgin 2006b). **Geographical distribution:** This species is primarily distributed in the Black Sea and Mediterranean regions of Turkey. Its range exemplifies a Turano-European-Mediterranean chorotype.

Discussion

Löbl and Smetana (2003) reported 517 species/subspecies occurring in Turkey belonging to the 9 subfamilies that were the focus of this study. We report 81 species/subspecies identified in this current study, representing 16% of the 517 reported by Löbl and Smetana (2003). The number of species/subspecies we identified by subfamily was 37 in Trechinae, 24 in Carabinae, 6 in Nebriinae, 5 in Scaritinae, 5 in Brachininae, and 1 each in Elaphrinae, Omophroninae, Paussinae, and Broscinae. All but a few of these species/subspecies are new provincial records in Turkey. In addition, *B. (Bembidionetolitzka) cyaneum* and *B. (Bembidionetolitzka) coeruleum* are two new records for Turkey, bringing the total number of species of the genus *Bembidion* occurring in Turkey to 101 (Löbl and Smetana 2003).

Acknowledgments

The authors thank Dr. George E. Ball (Department of Biological Sciences, University of Alberta, Canada) for reviewing an earlier version of this manuscript, and the authors thank Mr. Claude Jeanne (Langdon, France) for his assistance.

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