

Linzer biol. Beitr.	44/1	449-464	31.7.2012
---------------------	------	---------	-----------

**Contribution to the knowledge of the  
*Cardiophorus* ESCHSCHOLTZ 1829  
(Coleoptera, Elateridae, Cardiophorinae) fauna of Turkey**

N. GULPERCIN & S. TEZCAN

**Abstract:** This paper provides new faunistic data about 15 species of *Cardiophorus* ESCHSCHOLTZ 1829 (Coleoptera, Elateridae, Cardiophorinae) from Turkey collected different localities between 1962 and 2005. The material is presented together with collecting dates and locality data. For each species new distributional localities were also reported and given with attached maps.

**Key words:** Coleoptera, Elateridae, Cardiophorinae, *Cardiophorus*, Fauna, Turkey.

### Introduction

The Elateridae is a widespread and rather large family of Coleoptera, with more than 10000 described species approximately 750 genera worldwide. There are some descriptions and faunistical records on Turkish elaterids in the entomological literature. In this family, *Cardiophorus* is quite rich genus and the studies of SAHLBERG 1912-1913, GUGLIELMI & PLATIA 1985, LODOS 1998, GULPERCIN & TEZCAN 2006, 2009, KESDEK et al. 2006, LÖBL & SMETANA 2007, MERTLIK & PLATIA 2008 and GULPERCIN & TEZCAN 2011 have great importance.

Recently, the distributional catalogue of Turkish Elateridae (Coleoptera) fauna has been published (GULPERCIN & TEZCAN 2010). In this publication, a total of 66 species belonging to *Cardiophorus* have been listed with their distributional data.

The material of *Cardiophorus* was collected from different localities of Turkey in 1962-2005. The material is deposited in the Lodos Entomological Museum (LEMT) of Department of Plant Protection, Faculty of Agriculture, University of Ege, Izmir, Turkey. The aim of the present study is to contribute to the knowledge of the *Cardiophorus* fauna of the Turkey by evaluating the material deposited in this museum.

Provinces of the collected specimens are given in alphabetical order in the following list. Material have been determined by C.M.F. Hayek (Austria), G. Platia (Italy), R. Preiss (England), N. Lodos and N. Gulpercin (Turkey). Classification and nomenclature of the *Cardiophorus* suggested by LÖBL & SMETANA (2007) have been followed in this study.

## Results

In this study, fifteen species belonging to *Cardiophorus* are recorded. Recent distribution of each species in Turkey were also given with maps within the text.

### Family E l a t e r i d a e LEACH 1815

#### Subfamily C a r d i o p h o r i n a e CANDÉZE 1860

#### Genus *C a r d i o p h o r u s* ESCHSCHOLTZ 1829

##### *Cardiophorus anticus* ERICHSON 1840

**Material examined:** Samsun: Çarşamba, 07.VI.1973, weeds, 1 ex. Totally 1 specimen.

**Distribution in Turkey:** Turkey (LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Adana (Pozantı), Antalya (Çakıllı, Elmalı), Mersin (Güzeloluk), Samsun (Çarşamba) (PLATIA & GUDENZI 2000); Mersin (Güzeloluk) (DUSANEK & MERTLIK 2004); Ankara (Çamlidere) (KABALAK & SERT 2005). Distributional map of *C. anticus* in Turkey is given on Fig. 1.

##### *Cardiophorus cyanipennis* MULSANT & WACHANRU 1852

**Material examined:** Adana: Central province, 02.V.1985, *Triticum* sp., 1 ex., *Triticum aestivum* LINNAEUS 1753, 2 exs., weeds, 1 ex., Ceyhan, 09.V.1985, weeds, 1 ex., Tufanbeyli (1400 m), 05.VI.1984, weeds, 1 ex.; Antalya: Central province, 19.V.1986, *Quercus ilex* LINNAEUS 1753, 2 exs., Dağ, 17.V.1986, *Q. ilex*, 1 ex.; Kahramanmaraş: Nurhak Mountain (1800 m), 13.VI.1985, weeds, 1 ex., Gavurdağı, 08.VI.1985, weeds, 1 ex.; Malatya: Akçakale, 20.IV.1972, 1 ex.; Mersin: Silifke, 03.VI.1972, *Vitis vinifera* LINNAEUS 1758, 1 ex., Tarsus, 28.IV.1985, *T. aestivum*, 2 exs. Totally 15 specimens.

**Distribution in Turkey:** Turkey (LODOS 1998; LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Karaman, Mersin (Tarsus) (SAHLBERG 1912-1913); Adana (GUGLIELMI & PLATIA 1985); İzmir (GULPERCIN & TEZCAN 2006); İzmir [Bornova, Çeşme, Narlıdere, Kemalpaşa (Ören), Ödemiş (Central province, Bozdağ)] (GULPERCIN & TEZCAN 2009). Distributional map of *C. cyanipennis* in Turkey is given on Fig. 2.

##### *Cardiophorus discicollis* (HERBST 1806)

**Material examined:** Antalya: Seki, 09.VI.1973, weeds, 1 ex.; Aydın: Köşk, 24.IV.1972, *Punica granatum* LINNAEUS 1753, 1 ex.; Bilecik: Central province, 27.V.1971, *Prunus domestica* LINNAEUS 1753, 1 ex.; Çanakkale: Eceabat, Seddülbahir, 30.VI.1975, *Platanus* sp., 1 ex., Gökçeada, 18.V.1971, *Rhododendron* sp., 2 exs.; Denizli: Çivril, 11.V.1972, *Pyrus communis* LINNAEUS 1752, 1 ex.; İzmir: Balçova, 11.V.1971, *Prunus dulcis* (MILLER 1768) D.A. WEEB 1967, 4 exs., Bayındır, 24.IV.1973, *Crataegus* sp., 1 ex., Bergama, 14.V.1971, *Spartium junceum* LINNAEUS 1763, 1 ex., Bornova, IV.1962, 1 ex., Kemalpaşa, 08.V.1969, weeds, 1 ex., Kınık, Poyracık, 16.V.1969, weeds, 7 ex.; Ören, 05.V.1994, *Cerasus avium* (LINNAEUS 1755), 1 ex., Menderes, Gümüldür, 09.IV.1973, weeds, 1 ex., Ödemiş, 24.IV.1973, *Rubus* sp., 1 ex., weeds, 1 ex., Bozdağ (165 m), [38° 27' N-28° 03' E], 18.V.2004, *Mespilus germanica* LINNAEUS 1763, 1 ex.; Kilis: Central province, 26.IV.1988, *Sinapis* sp., 1 ex.; Kütahya: Simav, 07.V.1973, *Rubus* sp., 1 ex.; Manisa: Kula, 15.IV.1975, *Pyrus elaeagnifolia* PALLAS 1793, 1 ex., *Quercus* sp., 1 ex., Sultanyayla, 29.V.1970, *C. avium*, 1 ex., *Rosa* sp., 1 ex., *Ulmus* sp., 1 ex.; Mersin: Silifke, Kırobası (1200 m), 29.V.1984, *Cupressus* sp., 1 ex., Uzuncahisar, 29.V.1984, weeds, 1 ex.; Muğla: Yatağan, 08.V.1972, *Rosa* sp., 1 ex.; Tekirdağ: Şarköy, 03.V.1973, *C. avium*, 1 ex.; Uşak: Eşme, 30.IV.1973, *P. elaeagnifolia*, 1 ex. Totally 39 specimens.

**Distribution in Turkey:** Turkey (LODOS 1998; LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Antalya (Akseki), Çankırı (İlgaz), İzmir (Selçuk) (PLATIA & GUDENZI 2002); Ankara (Nallıhan, Topraksu) (KABALAK & SERT 2005); Ankara, Eskişehir, Tokat, Yozgat (KESDEK et al. 2006); İzmir [Balçova, Bayındır (Central province, Söğütören), Bergama, Bornova, Kemalpaşa, Kiraz, Menderes (Gümüldür), Ödemiş (Central province, Bozdağ) (GULPERCIN & TEZCAN 2009). Distributional map of *C. discicollis* in Turkey is given on Fig. 3.

#### ***Cardiophorus graminaeus* (SCOPOLI 1763)**

**Material examined:** Bolu: Central province, 08.VI.1973, weeds, 1 ex.; Bursa: Central province, 30.V.1971, *Castanea sativa* MILLER 1768, 1 ex. Totally 2 specimens.

**Distribution in Turkey:** Turkey (LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Karaman, Mersin (Tarsus) (SAHLBERG 1912-1913). Distributional map of *C. graminaeus* in Turkey is given on Fig. 4.

#### ***Cardiophorus hinkei* FRIVALDSZKY 1837**

**Material examined:** İzmir: Bornova, 09.IV.2005, 1 ex. Totally 1 specimen.

**Distribution in Turkey:** Turkey (PREISS & PLATIA 2003; DUSANEK & MERTLIK 2004; LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008). Distributional map of *C. hinkei* in Turkey is given on Fig. 5.

#### ***Cardiophorus impressiventris* SCHWARZ 1900**

**Material examined:** Mersin: Gülnar, 20.IV.1985, weeds, 1 ex., Güzeloluk, 25.IV.1985, *Quercus* sp., 2 exs. Totally 3 specimens.

**Distribution in Turkey:** Turkey (LODOS 1998; LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Adana [as *C. boyadjiani* PIC 1908] (SCHENKLING 1925-1927); Mersin (Namrun-Çamlıyayla) (GUGLIELMI & PLATIA 1985); Adana (Pozanti-Akdağ), Antalya (Side), Kahramanmaraş (Göksun, Pazarcık), Kayseri (Sarioğlan), Mersin (Arslanlı, Bolkar Mountain, Erdemli-Aydınlar, Çamlıyayla, Gülnar-Kayrak, Güzeloluk, Mut, Namrun, Sertavul Pass, Tarsus), Osmaniye (PLATIA & GUDENZI 2002). Distributional map of *C. impressiventris* in Turkey is given on Fig. 6.

#### ***Cardiophorus kindermanni* CANDEZE 1860**

**Material examined:** Hatay: Yayladağ, 31.V.1985, *Quercus* sp., 1 ex.; Kahramanmaraş: Gavurdağı, 08.VI.1985, *Quercus* sp., 2 exs.; Karaman: Ermenek, 26.IV.1979, *P. granatum*, 1 ex.; Mersin: Çamlıyayla-Namrun, 01.VI.1984, *Malus domestica* BORKH., 1803, 1 ex., 09.VII.1986, weeds, 1 ex., Fındıkpınarı, 06.VII.1986, *Quercus* sp., 1 ex., Güzeloluk, 06.VII.1986, *Quercus* sp., 1 ex., Silifke, Uzuncahisar (1440 m), 29.V.1984, *P. domestica*, 1 ex., weeds, 1 ex.; Niğde: Çiftelhan, 29.IV.1979, *Prunus* sp., 1 ex. Totally 11 specimens.

**Distribution in Turkey:** Turkey (LODOS 1998; LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Hatay (Akbez) [as *C. akbesianus* PIC 1899] (SCHENKLING 1925-1927). Distributional map of *C. kindermanni* in Turkey is given on Fig. 7.

#### ***Cardiophorus lundbergi* PLATIA & GUDENZI 2000**

**Material examined:** Antalya: Central province, 19.V.1986, *Q. ilex*, 1 ex.; İzmir: Ödemiş, Bozdağ, 24.V.1978, *Pinus* sp., 1 ex. Totally 2 specimens.

**Distribution in Turkey:** Turkey (LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Antalya (Akseki-Irmasan Pass) (DUSANEK & MERTLIK 2004). Distributional map of *C. lundbergi* in Turkey is given on Fig. 8.

### ***Cardiophorus megathorax* FALDERMANN 1835**

**Material examined:** Diyarbakır: Central province, 07.V.1970, cruciferous plant, 8 exs., 20.V.1970, *T. aestivum*, 10 exs.; Eskişehir: Sivrihisar, Elcik, 09.VII.1973, *Triticum* sp., 4 exs.; İzmir: Gaziemir, Trazlı, 13.IV.2004, under stone, 1 ex., Kiraz, 04.IV.2004, *Onopordum* sp., 1 ex., Ödemiş, Bozdağ, Büyük Çavdar (1461 m), [38° 21' N-28° 07' E], 15.VI.2004, *Rosa canina* LINNAEUS 1753, 2 exs., (1537 m), [38° 28' N-28° 06' E], 15.VI.2004, *Urtica* sp., 2 exs., Küçük Çavdar (1485 m), [38° 18' N-28° 07' E], 15.VI.2004, rosaceous plant, 1 ex., Gölcük, (1287 m), [38° 18' N-28° 02' E], 15.VI.2004, *Pinus* sp., 1 ex., Selçuk, Şirince, 21.V.2003, *Olea europaea* LINNAEUS 1758, 1 ex.; Manisa: Sultanyayla, 29.V.1970, *Prunus mahaleb* LINNAEUS 1753, 1 ex.; Nevşehir: Gülşehir, 26.VI.1980, *Euphorbia* sp., 2 exs. Totally 34 specimens.

**Distribution in Turkey:** Turkey (LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Turkey [as *C. antennalis* DESBROCHERS DES LOGES 1875] (LODOS 1998); Çorum [as *C. antennalis*] (GUGLIELMI & PLATIA 1985); Bilecik (Karaköy) (DUSANEK & MERTLIK 2004); Adıyaman (Kahta, Nemrut Mountain), Bingöl (Solhan), Antalya (Alanya-Dim River, Perge, Sağırın), Çorum (İskilip-Domkayatepe Pass), Denizli (Pamukkale), Erzincan (Pülümür), Gaziantep, İzmir (Aydın Mountains), Kahramanmaraş (Ağabeyli), Muğla (Fethiye-Üzümlü), Nevşehir, Şanlıurfa (Birecik, Halfeti) (PLATIA & GUDENZI 2002); Ankara (Hacıkadın, Polath), Artvin (İşhan, Kınalıçam, Yusufeli), Bilecik, Erzincan (Tercan), Erzurum [İspir (Madenköprübaşı), Oltu, Şenkaya (Turnalı)], Eskişehir, Konya [Güneysınır (Gürağaç), Sille], Sivas (Hisar) (KESDEK et al. 2006); İzmir (Ödemiş) [as *C. antennalis*] (GULPERCIN & TEZCAN 2009). Distributional map of *C. megathorax* in Turkey is given on Fig. 9.

### ***Cardiophorus nigratissimus* BUYSSON 1891**

**Material examined:** Adıyaman: Kahta, Nemrut Mountain (2000 m), 17.VI.1976, weeds, 4 exs.; Ankara: Beypazarı, 10.VII.1979, *Onopordum* sp., 1 ex.; Aydın: Söke, Kapaklı, 20.V.1970, weeds, 1 ex., Karacasu, 13.V.1972, *P. communis*, 1 ex.; Diyarbakır: Central province, 08.V.1970, apiaceous plant, 1 ex., 12.VI.1972, poaceous plants, 2 exs., 11.VI.1976, weeds, 4 exs., Çermik, 14.VI.1972, weeds, 1 ex., Ergani, 08.VI.1972, 8 exs.; Gaziantep: Oğuzeli, 08.VI.1972, weeds, 2 exs.; Hatay: Dörtüol, 28.V.1985, weeds, 1 ex.; Isparta: Central province, 12.VI.1973, weeds, 6 exs.; İzmir: Kiraz, 04.VI.2004, *Prunus persica* LINNAEUS 1753, 1 ex., Ödemiş, 30.IV.2003, *P. communis*, 2 exs., Bozdağ, Büyük Çavdar, 19.VI.2003, *Urtica* sp., 1 ex., *Rubus* sp., 1 ex., (1537 m), [38° 28' N-28° 06' E], 15.VI.2004, *Urtica* sp., 3 exs., (1461 m), [38° 21' N-28° 07' E], 15.VI.2004, *R. canina*, 1 ex., Selçuk: Çamlık, 01.VI.1971, *T. aestivum*, 1 ex., Yılanlı (1092 m), [38° 16' N-28° 06' E], 01.VI.2004, *C. avium*, 1 ex.; Kahramanmaraş: Nurhak Mountain (1800 m), 13.VI.1985, weeds, 1 ex.; Niğde: Çamardı, 29.VI.1980, weeds, 1 ex.; Osmaniye: Bahçe, Almanpınarı, 08.VI.1972, 2 exs.; Şanlıurfa: Ceylanpınarı, 05.VI.1976, weeds, 7 exs., Siverek, 15.VI.1972, *Pistacia vera* LINNAEUS 1753, 1 ex., Totally 55 specimens.

**Distribution in Turkey:** Turkey (LODOS 1998; LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Western Anatolia, Denizli (Babadağ), İzmir (Menderes, Menemen) (SAHLBERG 1912-1913); Amasya, Ankara (Elmadağ, Kalecik), Çorum (Boğazkale), Eskişehir (Sivrihisar), Gümüşhane, Bayburt, Hatay (Antakya-Güvenç), İzmir (Selçuk-Efes), Manisa (Akhisar), Mersin (Gülek-Çamalan, Mut, Tarsus) (GUGLIELMI & PLATIA 1985); Adana (Seyhan), Erzincan (Gölbaşı), Erzurum (Gavurdağı), Hakkari (Şemdinli), Hatay (İskenderun-Kırıkhan), Kahramanmaraş (Narlı),

Kayseri (Suşehri), Nevşehir, Mersin (Çamlıyayla-Namrun, Gülek-Çamalan, Tarsus), Osmaniye, Siirt, Şanlıurfa (Sama) (PLATIA & GUDENZI 2002); Adana (Nallıhan, Seyhan), Erzincan (Gölbaşı, Tercan), Erzurum (Gavurdağı), Hakkari (Şemdinli), Hatay (Kırıkhan), Kahramanmaraş (Narlı), Kayseri (Kültepe), Mersin (Tarsus), Nevşehir, Osmaniye, Sivas (Suşehri), Şanlıurfa (KABALAK & SERT 2005); Ankara (Hacıkadın, Nallıhan, Polatlı), Diyarbakır (Silvan), Erzincan (Tercan), Eskişehir, Konya [Güneysınır (Gürağaç)] (KESDEK et al. 2006). Distributional map of *C. nigratissimus* in Turkey is given on Fig. 10.

#### ***Cardiophorus pavesii* PLATIA & GUDENZI 2000**

**Material examined:** Adana: Central province, 02.V.1985, *T. aestivum*, 1 ex.; Antalya: Central province, 19.V.1986, *Q. ilex*, 2 exs., Güllükdagi, 24.V.1986, *Quercus* sp., 1 ex., Dağ, 17.V.1988, *Q. ilex*, 1 ex. Totally 5 specimens.

**Distribution in Turkey:** Turkey (LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008). Distributional map of *C. pavesii* in Turkey is given on Fig. 11.

#### ***Cardiophorus rotundicollis* FRIVALDSZKY 1845**

**Material examined:** İzmir: Menderes, Cumaovası, 09.IV.1973, weeds, 3 exs., Gümüldür, 09.IV.1973, 1 ex., Seferihisar, 20.IV.1972, *Matricaria* sp., 1 ex. Totally 5 specimens.

**Distribution in Turkey:** Turkey [as *C. turgescens* BUYSSON 1891] (LODOS 1998); Turkey (LODOS 1998; LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Western Anatolia, İzmir (Selçuk-Efes) (SAHLBERG 1912-1913); Balıkesir (Susurluk-Sultançayır), Bursa (Karacabey), İzmir (Aydın Mountains, Selçuk-Efes, Gümüldür, Seferihisar, Selçuk), Muğla (Bodrum, Milas) (PLATIA & GUDENZI 2002); İzmir [Bayındır, Gümüldür (Central province, Cumaovası), Seferihisar] (GULPERCIN & TEZCAN 2009). Distributional map of *C. rotundicollis* in Turkey is given on Fig. 12.

#### ***Cardiophorus ruficruris* BRULLE 1832**

**Material examined:** Denizli: Central province, 25.IV.1968, *Prunus dulcis*, 6 exs.; İzmir: Bayındır, 14.IV.1967, weeds, 1 ex., Bergama, 14.V.2003, *P. elaeagnifolia*, 2 exs.; Ödemiş, 24.IV.1973, *Rubus* sp., 7 exs., Birgi, 01.VI.2004, *Juniperus* sp., 2 exs., Bozdağ, 24.V.1978, *Pinus* sp., 3 exs., (2000 m), 24.V.1978, *Pinus* sp., 3 exs., Yılanlı (1092 m), [38° 16' N-28° 06' E], 01.VI.2004, *C. sativa*, 1 ex., *C. avium*, 2 exs., Ödemiş, Gölcük, 19.VI.2003, pitfall, 1 ex.; Manisa: Kula, 18.IV.1975, weeds, 8 exs. Totally 36 specimens.

**Distribution in Turkey:** Turkey (LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Central and Western Anatolia, Karaman (SAHLBERG 1912-1913); Ankara (Nallıhan), Denizli (Pamukkale), İzmir (Aydın Mountains, Bozdağ, Ödemiş, Selçuk, Torbalı) (PLATIA & GUDENZI 2002); İzmir (Bayındır, Ödemiş) (GULPERCIN & TEZCAN 2009). Distributional map of *C. ruficruris* in Turkey is given on Fig. 13.

#### ***Cardiophorus sacratu* ERICHSON 1840**

**Material examined:** Adana: Central province, 02.V.1985, *T. aestivum*, 1 ex., Pozanti, 30.IV.1985, *Pinus* sp., 1 ex.; Aydın: Köşk, 24.IV.1972, *Lupinus* sp., 4 exs., Sultanhisar, 20.V.1970, weeds, 1 ex.; Gaziantep: Central province, 06.VI.1985, *Pyrus* sp., 2 exs., *Juglans regia* LINNAEUS 1753, 1 ex., Oğuzeli, 24.IV.1986, weeds, 2 exs.; Hatay: Altınözü, 27.IV.1986, weeds, 1 ex.; İzmir: Kemalpaşa, 23.II.1988, under bark, 1 ex., Kemalpaşa, Ören, 12.V.1994, knock down, 1 ex., 18.V.1994, sticky yellow trap, 1 ex., 03.V.1999, knock down, 1 ex., Kiraz, 04.IV.2004,

*Onopordum* sp., 2 exs.; Menemen, 24.IV.1983, weeds, 1 ex., Ödemiş, Bozdağ (165 m), [38° 27' N-28° 03' E], 18.V.2004, *P. persica*, 1 ex., *M. germanica*, 1 ex., Muradiye, 14.V.1970, weeds, 2 exs.; Kayseri: Çırgalan, 01.VI.1973, weeds, 1 ex.; Mardin: Central province, 03.VI.1976, *Quercus* sp., 1 ex.; Mersin: Gülnar, 25.V.1984, *Cupressus* sp., 3 exs., *Quercus* sp., 1 ex., Güzeloluk (1710 m), 06.VII.1986, *Juniperus* sp., 1 ex., Tarsus, 27.IV.1985, weeds, 1 ex., Silifke, İncekum, 23.IV.1985, 1 ex. Totally 33 specimens.

**Distribution in Turkey:** Turkey (LODOS 1998; LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Western Anatolia, İzmir, Karaman (SAHLBERG 1912-1913); Adana, İzmir (Selçuk-Efes), Nevşehir (GUGLIELMI & PLATIA 1985); Adana, Gaziantep, Hatay (İskenderun, Yayladağı), İzmir, Mersin (Silifke), Nevşehir (PLATIA & GUDENZI 2000); Ankara (Ayaş) (KABALAK & SERT 2005); Erzurum [Ilıca (Atlhkonak), Pasinler], Eskişehir, Kars, [Digor (Yeniköy), Kağızman, Sarıkamış (Karakurt), Konya [Güneysınır (Gürağaç)], İzmir (Ödemiş) (GULPERCIN & TEZCAN 2009). Distributional map of *C. sacratus* in Turkey is given on Fig. 14.

### ***Cardiophorus vestigialis* ERICHSON 1840**

**Material examined:** Amasya: Central province, 10.V.1973, *M. domestica*, 2 exs.; Bilecik: Central province, 28.V.1971, *P. domestica*, 1 ex.; Bursa: Mudanya, 29.V.1971, *Centaurea* sp., 1 ex.; Denizli: Central province, 11.V.1972, *P. communis*, 2 exs.; Gümüşhane: Şiran, 11.VII.1973, *Rosa* sp., 1 ex.; Kastamonu: Central province, 25.V.1973, *M. domestica*, 1 ex.; Manisa: Akhisar, 31.V.1978, 2 exs.; Mersin: Anamur, 18.IV.1985, *Cistus* sp., 1 ex.; İzmir: Kiraz, 04.V.2004, *J. regia*, 1 ex., *P. elaeagnifolia*, 2 exs., [38° 11' N-28° 14' E], *J. regia*, 1 ex., Menemen, Hatundere, 19.I.1972, *O. europaea*, under bark, 2 exs., Narlıdere, 11.II.1972, *P. elaeagnifolia*, 2 exs., Seferihisar, 20.IV.1972, *Cydonia* sp., 3 exs., Selçuk, Şirince, 21.V.2003, *O. europaea*, 1 ex., Torbalı, 15.V.2003, *C. avium*, 2 exs., Ödemiş, 24.I.1972, *Platanus* sp., 1 ex., Bozdağ, 29.V.2003, *Quercus* sp., 1 ex., Büyük Çavdar, 19.VI.2003, *Urtica* sp., 1 ex.; Tokat: Central province, 25.V.1973, *M. domestica*, 1 ex. Totally 29 specimens.

**Distribution in Turkey:** Turkey [as *C. erichsoni* BUYSSON 1901] (HEYDEN et al. 1906; LESEIGNEUR 1970; TARNAWSKI 1984; LODOS 1998); Turkey (LODOS 1998; LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Turkey [as *C. atramentarius* ERICHSON 1840] (LODOS 1998); Western Anatolia, Karaman (SAHLBERG 1912-1913); Ankara (Kazan), Kars (Değirmenlidere), Mersin (Silifke) (GUGLIELMI & PLATIA 1985); İzmir (GULPERCIN & TEZCAN 2006); Ankara, Artvin (Hatıla Valley), Erzurum [Aşkale (Kop Pass), Pınarkapan, Pasinler (Çalıyazı), Şenkaya (Turnalı), Yumaklı], Mersin (Tarsus) (KESDEK et al. 2006); İzmir (Narlıdere, Ödemiş, Seferihisar) (GULPERCIN & TEZCAN 2009). Distributional map of *C. vestigialis* in Turkey is given on Fig. 15.

### **Zusammenfassung**

Vorliegende Arbeit behandelt *Cardiophorus*-Material (Elateridae), das an verschiedenen Orten in der Türkei im Zeitraum 1962 bis 2005 aufgesammelt wurde. Fünfzehn Arten aus ein Gattung konnten nachgewiesen werden, die Funddaten nebst Verbreitungsangaben für die Türkei wurden festgehalten.

## References

- DUSANEK V. & J. MERTLIK (2004): Elateridae. Click Beetles of the Palearctic Region. — <http://www.elateridae.com>.
- GUGLIELMI A. & G. PLATIA (1985): Contributio alla conoscenza oks Elateridi di Grecia e Turchia. — *Fragmenta Entomologica*, Roma **18** (1): 169-224.
- GULPERCIN N. & S. TEZCAN (2006): Contribution to the Elateridae (Coleoptera) fauna of cherry orchards in Izmir province of Turkey. VIII<sup>th</sup> European Congress of Entomology, 17-22 September 2006, Izmir, Turkey. Abstract Book, 1-160, 120.
- GULPERCIN N. & S. TEZCAN (2009): Faunistic notes on the species of Elateridae (Coleoptera) in Izmir province of Turkey. — *Munis Entomology and Zoology* **4** (2): 447-454.
- GULPERCIN N. & S. TEZCAN (2010): Distributional Catalogue of Turkish Elateridae (Insecta: Coleoptera) Fauna. — *Meta Basım*, Bornova, Izmir, Turkey, 1-63.
- GULPERCIN N. & S. TEZCAN (2011): Elateridae (Insecta: Coleoptera) fauna of farming terraces in Aspat (Strobilos) ancient city and its territorium, Bodrum, Muğla, western Turkey. — *Selçuk Üniversitesi Selçuk Tarım ve Gıda Bilimleri Dergisi*. [In press].
- HEYDEN L.V., REITTER E. & J. WEISE (1906): *Catalogus Coleopterorum Europae, Caucasi et Armeniae Rossicae*. — Berlin, 1-774.
- KABALAK M. & O. SERT (2005): Ankara İli Elateridae (Coleoptera) familyası türleri üzerinde faunistik çalışmalar. — *Türkiye Entomoloji Dergisi* **29** (1): 49-60.
- KESDEK M., PLATIA G. & E. YILDIRIM (2006): Contribution to the knowledge of clickbeetles fauna of Turkey (Coleoptera: Elateridae). — *Entomofauna, Zeitschrift für Entomologie* **35**: 417-432.
- LESEIGNEUR L. (1970): Révision des *Zorochores européens* (Col.: Elateridae). — *Bulletin de la Société Linnéenne de Lyon* **39** (1): 19-44.
- LODOS N. (1998): Türkiye Entomolojisi VI. — Ege Üniversitesi Ziraat Fakültesi Yayınları No: 529, Bornova, Izmir, 2-50.
- LÖBL I. & A. SMETANA (2007): *Catalogue of Palearctic Coleoptera*. Volume 4. Elateroidea, Derodontoidea, Bostrichoidea, Lymexyloidea, Cleroidea, Cucujoidea. — Apollo Books, Stenstrup, 1-935.
- MERTLIK J. & G. PLATIA (2008): Catalogue of the family Cebrionidae, Elateridae, Lissomidae, Melasidae and Throscidae from Turkey. — *Elateridarium* **2**: 1-40.
- PLATIA G. & I. GUDENZI (2000): Descrizione di un nuovo genere e tredici nuove specie di elateridi della regione paleartica con note geonemiche. — *Quaderno di Studi e Notizie di Storia Naturale della Romagna* **13**: 65-81.
- PLATIA G. & I. GUDENZI (2002): Revisione dei *Cardiophorus* della Turchia. II. Le specie unicolori (Coleoptera: Elateridae). — *Boll. Soc. Entomol. Ital.*, **134** (1): 27-55.
- PREISS R. & G. PLATIA (2003): The click beetles of Cyprus with descriptions of two new the genus *Heterumelater* OHIRA 1968 (Coleoptera: Elateridae). — *Z. Arb. Gem. Öst. Ent.* **55**: 97-123.
- SAHLBERG J. (1912-1913): *Coleoptera mediterranean orientalia, quae in Aegyptia, Palaestina, Syria, Caramania atque in Anatolia occidentali anno 1904*. — *Ofversigt af Finska Vetenskaps-Societetens Förhandlingar* **60** (13): 127-132.
- SCHENKLING Ş. (1925-1927): *Coleopterorum Catalogus* (Pars 80 & 88). — W. Junk, Berlin W. 15, 636 pp.
- TARNAWSKI D. (1984): Die Schnellkäfer Bulgariens (Coleoptera, Elateridae). — *Polskie Pismo Entomologiczne de Pologne* **54**: 235-281.

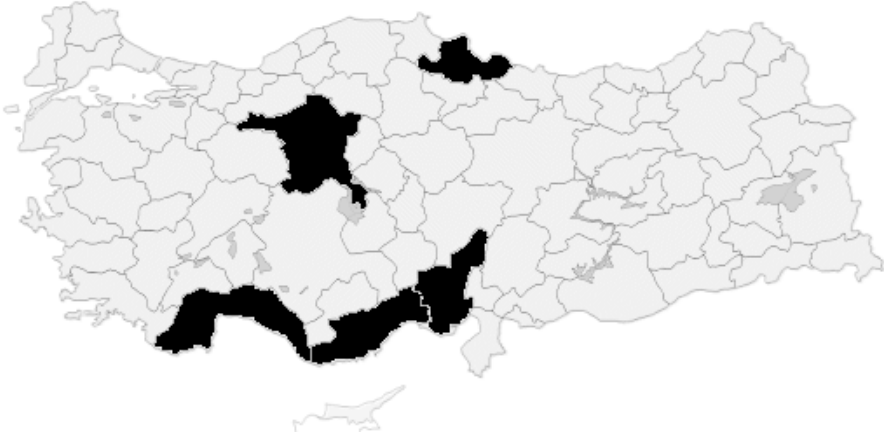
Author's addresses:

Dr. Nilay GULPERCIN  
Ege University,  
Natural History Application and Research Center  
TR-Bornova-Izmir, Turkey  
E-mail: [nilay.gulpercinege.edu.tr](mailto:nilay.gulpercinege.edu.tr)

Prof. Dr. Serdar TEZCAN  
Ege University, Faculty of Agriculture,  
Department of Plant Protection  
TR-Bornova-Izmir, Turkey  
E-mail: [serdar.tezcan@ege.edu.tr](mailto:serdar.tezcan@ege.edu.tr)



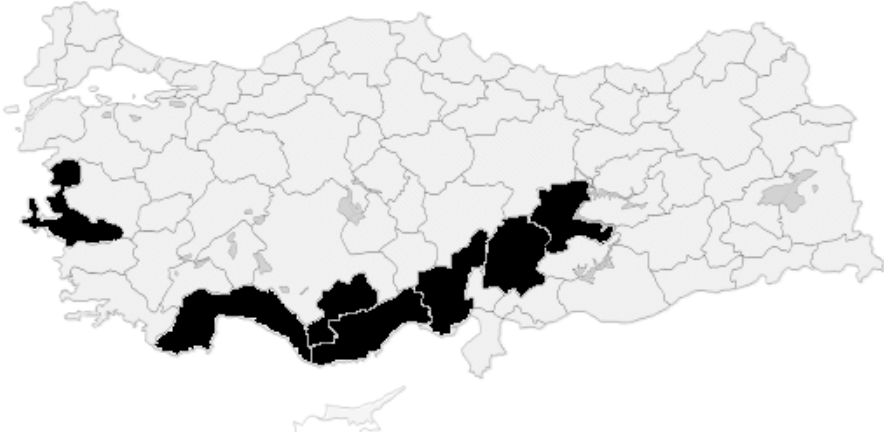
## Black Sea



## Mediterranean Sea

**Fig. 1:** Distribution of *Cardiophorus anticus* ERICHSON 1840 in Turkey.

## Black Sea



## Mediterranean Sea

**Fig. 2:** Distribution of *Cardiophorus cyanipennis* MULSANT & WACHANRU 1852 in Turkey.

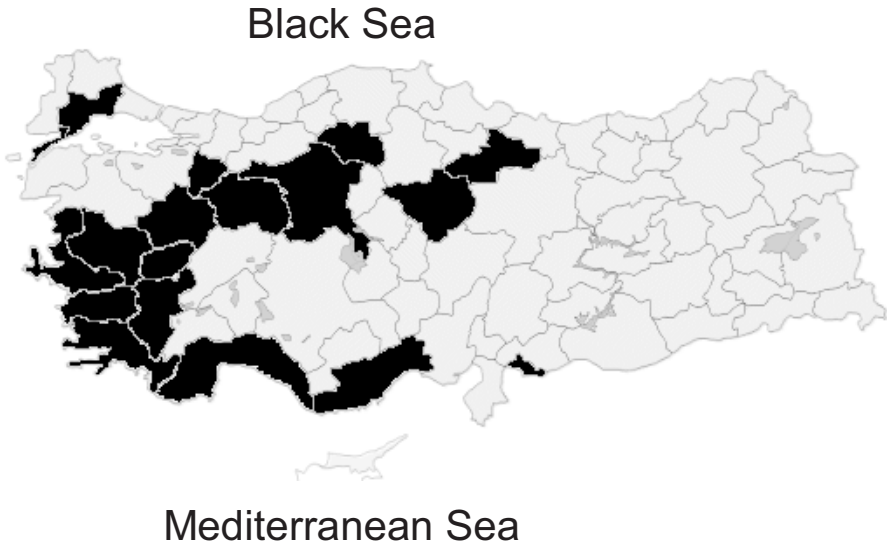


Fig. 3: Distribution of *Cardiophorus discicollis* (HERBST 1806) in Turkey.



Fig. 4: Distribution of *Cardiophorus graninaeus* (SCOPOLI 1763) in Turkey.

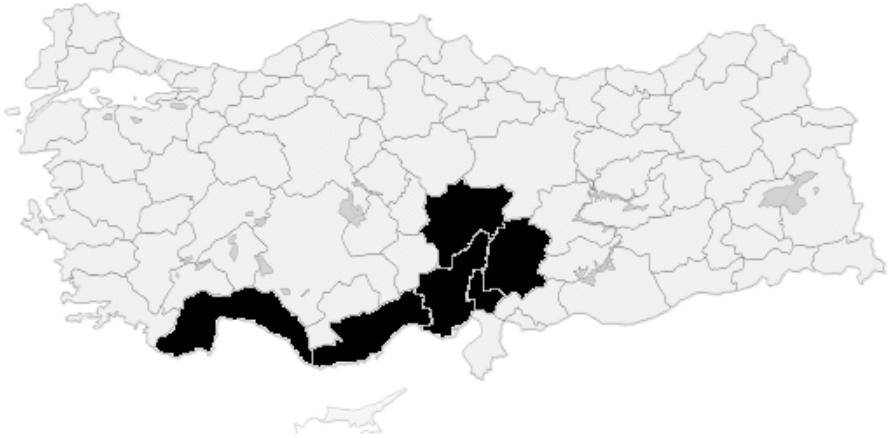
## Black Sea



## Mediterranean Sea

Fig. 5: Distribution of *Cardiophorus hinkei* FRIVALDSZKY 1837 in Turkey.

## Black Sea



## Mediterranean Sea

Fig. 6: Distribution of *Cardiophorus impressiventris* SCHWARZ 1900 in Turkey.

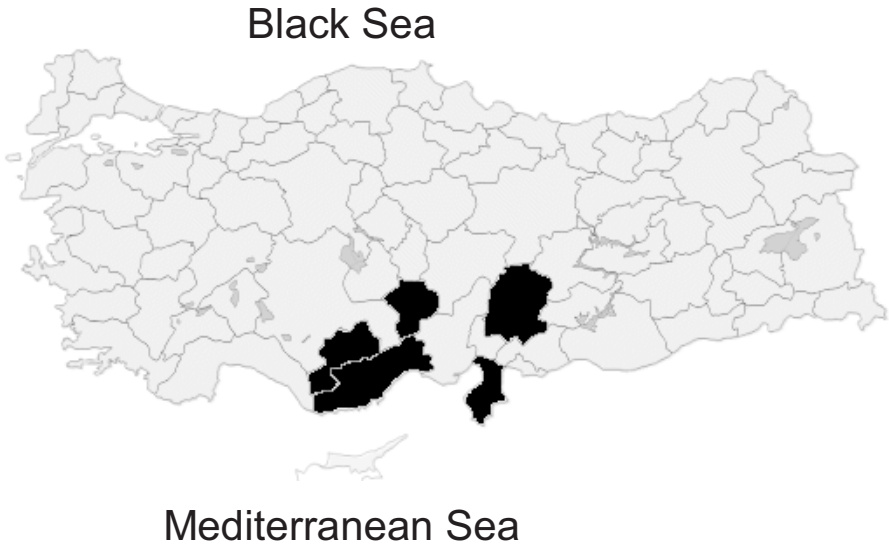
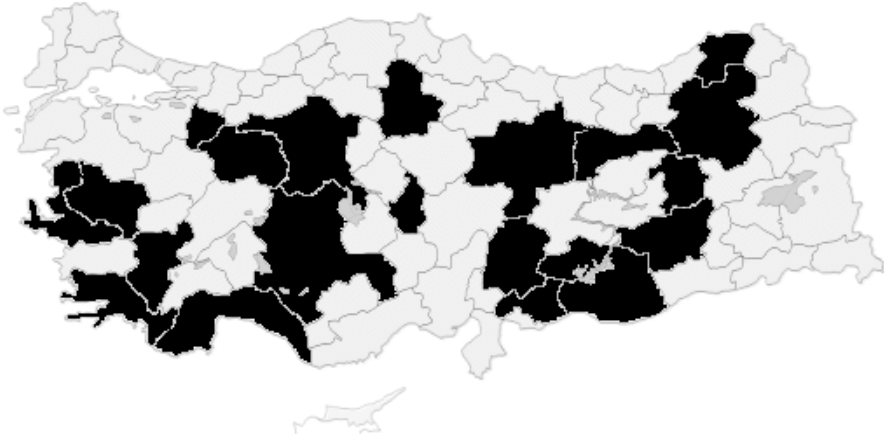


Fig. 7: Distribution of *Cardiophorus kindermanni* CANDEZE 1860 in Turkey.



Fig. 8: Distribution of *Cardiophorus lundbergi* PLATIA & GUDENZI 2000 in Turkey.

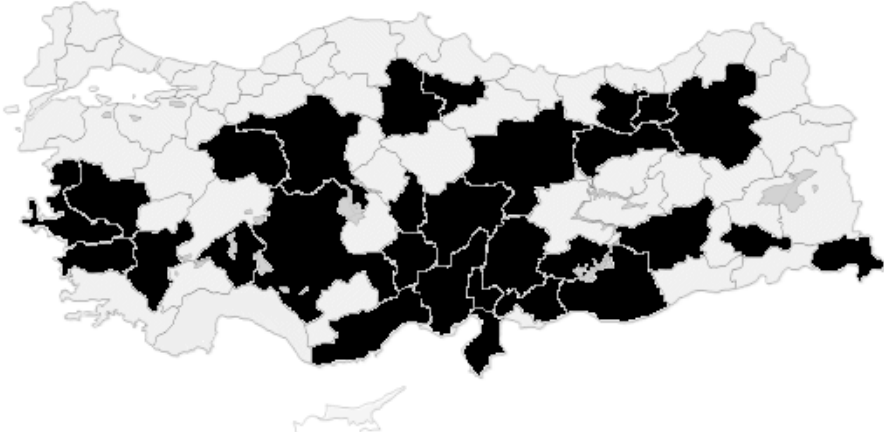
## Black Sea



## Mediterranean Sea

Fig. 9: Distribution of *Cardiophorus megathorax* FALDERMANN 1835 in Turkey.

## Black Sea



## Mediterranean Sea

Fig. 10: Distribution of *Cardiophorus nigratissimus* BUYSSON 1891 in Turkey.

## Black Sea



## Mediterranean Sea

Fig. 11: Distribution of *Cardiophorus pavesii* PLATIA & GUDENZI 2000 in Turkey.

## Black Sea



## Mediterranean Sea

Fig. 12: Distribution of *Cardiophorus rotundicollis* FRIVALDSZKY 1845 in Turkey.

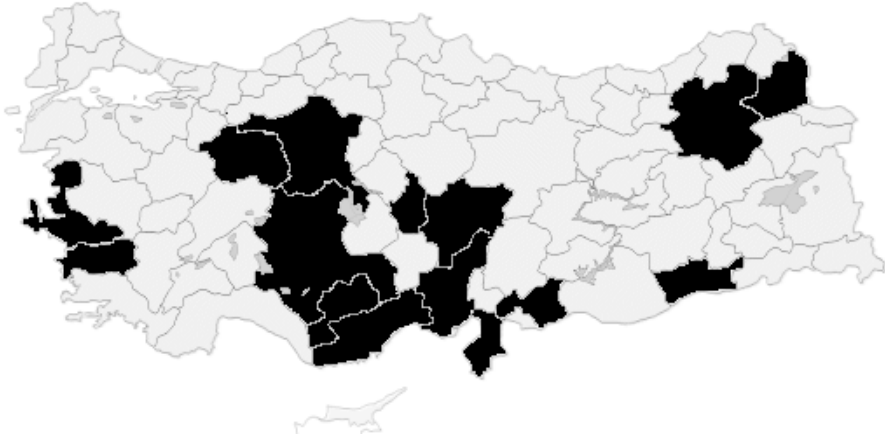
## Black Sea



## Mediterranean Sea

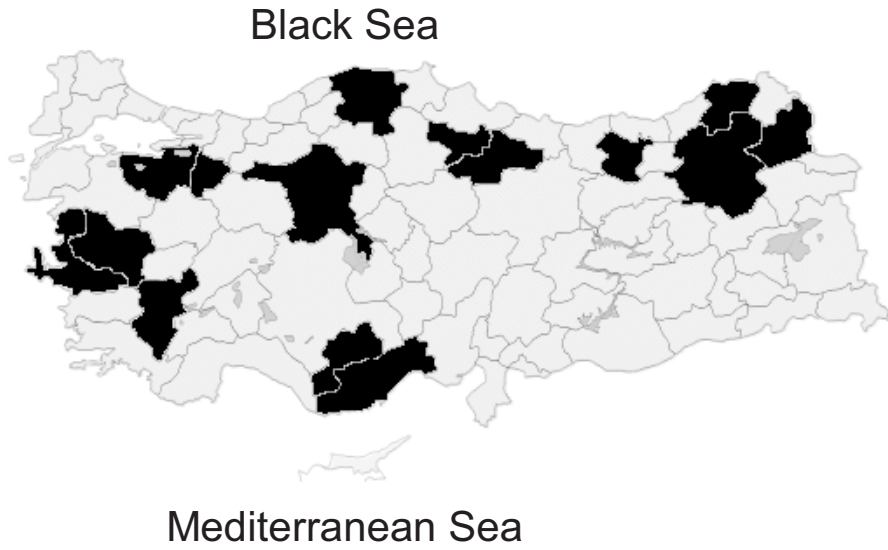
Fig. 13: Distribution of *Cardiophorus ruficruris* BRULLE 1832 in Turkey.

## Black Sea



## Mediterranean Sea

Fig. 14: Distribution of *Cardiophorus sacratus* ERICHSON 1840 in Turkey.



**Fig. 15:** Distribution of *Cardiophorus vestigialis* ERICHSON 1840 in Turkey.



# ZOBODAT - [www.zobodat.at](http://www.zobodat.at)

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Linzer biologische Beiträge](#)

Jahr/Year: 2012

Band/Volume: [0044\\_1](#)

Autor(en)/Author(s): Gülpercin Nilay, Tezcan Serdar

Artikel/Article: [Contribution to the knowledge of the \*Cardiophorus\* ESCHSCHOLTZ 1829 \(Coleoptera, Elateridae, Cardiophorinae\) fauna of Turkey 449-464](#)