

## ANNOTATED CHECKLIST OF THE SEED BEETLES (COLEOPTERA: CHRYSOMELIDAE: BRUCHINAE) OF TURKEY

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### Abstract

The Bruchinae (Coleoptera: Chrysomelidae) fauna of Turkey is reviewed and an annotated checklist is presented, along with the taxa distribution by the country's provinces. In total, 122 species arranged in 14 genera are listed as the seed beetle fauna of Turkey, which constitutes approximately 25% of the Palearctic Bruchinae fauna. Additionally, the questionable or problematic records of 11 species are evaluated separately.

KEY WORDS: Chrysomelidae, Bruchinae, Seed beetles, Checklist, Turkey

### Introduction

Bruchinae or seed beetles are economically important because their larvae generally feed on seeds. Additionally, some seed-beetle species are significant pests of stored products of humans (Southgate, 1979). Bruchinae were treated as a family until recently, but now they represent one of 13 subfamilies of Chrysomelidae (Bouchard *et al.*, 2011).

The first and sole comprehensive contribution to the Bruchinae of Turkey was performed by Decelle and Lodos (1989), who reported 106 seed-beetle species in the country. Recently, Ekiz *et al.* (2013) presented a checklist of Turkish Chrysomelidae excluding Bruchinae. They listed 776 species and provided data on the distribution by Turkish provinces. However, the list of Chrysomelidae remained incomplete as the data on Bruchinae are missing. The aim of the present paper was to present an annotated checklist of Turkish seed beetles, along with data on the distribution by Turkish provinces.

## Materials and Methods

This checklist is the consequence of careful reviews of the available literature on Turkish Bruchinae. The tribes, subtribes, genera and species of seed beetles are listed alphabetically according to Anton (2010). The valid name, junior synonyms (if any), and distribution by the provinces of Turkey are provided for each listed species. Informative remarks are given for certain species. A map showing the administrative provinces of Turkey is provided (Fig. 1).

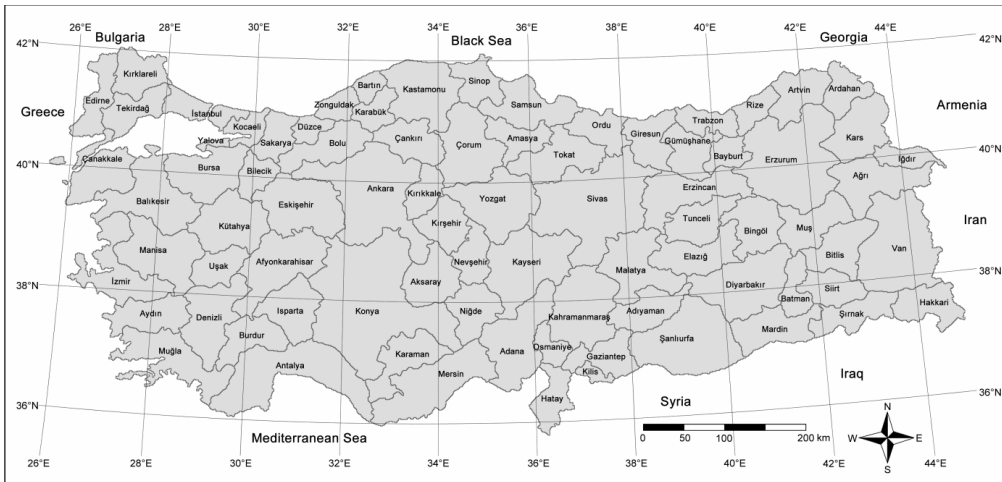


Figure 1. A map of the administrative provinces of Turkey.

## Results

In total, 122 species of Bruchinae inhabiting Turkey arranged in 4 tribes, 4 subtribes and 14 genera [Amblycerini Bridwell, 1932, Spermophagina Borowiec, 1987, *Spermophagus* Schönherr, 1833 (eight species), *Zabrotes* Horn, 1885 (one species), Bruchini Latreille, 1802, *Acanthoscelidina* Bridwell, 1946, *Acanthobruchidius* Borowiec, 1980 (one species), *Acanthoscelides* Schilsky 1905 (one species), *Bruchidius* Schilsky 1905 (70 species), *Callosobruchus* Pic, 1902 (three species), *Mimosestes* Bridwell, 1946 (one species), *Paleoacanthoscelides* Borowiec, 1985 (two species), *Palaeobruchidius* Egorov, 1989 (one species), *Pseudopachymerina* Zacher, 1952 (one species), *Salviabruchus* Decelle, 1982 (one species), subtribe Bruchina Latreille, 1802, *Bruchus* Linnaeus, 1767 (28 species), Pachymerini Bridwell, 1929, *Caryedontina* Bridwell, 1929, *Caryedon* Schönherr, 1823 (three species), and Rhaebini Blanchard, 1845, *Rhaebus* Fischer von Waldheim, 1824 (one species)] are presented along with their distribution by provinces of the country. After this checklist, 11 species with doubtful presence in Turkey are listed separately, with additional comments and remarks.

**A list of the species****Family Chrysomelidae Latreille, 1802****Subfamily Bruchinae Latreille, 1802****Tribe Amblycerini Bridwell, 1932****Subtribe Spermophagina Borowiec, 1987****Genus *Spermophagus* Schönherr, 1833*****Spermophagus calystegiae* (Lukjanovitch & Ter-Minassian, 1957)**

Distribution in Turkey: Adiyaman, Ağrı, Amasya, Ankara, Antalya, Aydın, Bitlis, Bursa, Erzurum, Eskişehir, Gümüşhane, İstanbul, Kars, Kütahya, Tunceli (Borowiec, 1985a, 1987; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Mergen, 2000; Anton, 2010; Güdek, 2020).

***Spermophagus caricus* Decelle, 1982**

Distribution in Turkey: Antalya, Bilecik, Muğla (Decelle, 1982a; Decelle & Lodos, 1989; Borowiec, 1991; Anton, 2010).

Remarks: This species is originally described from Turkey. Anton (1998a) synonymized it with *Spermophagus turanicus* (Lukjanovitch & Ter-Minassian, 1957), however, according to Savitsky (2000), they represent two distinct species. Anton (2010) listed both as valid species. *Spermophagus turanicus* does not occur in Turkey.

***Spermophagus caucasicus* Baudi di Selve, 1886**

Distribution in Turkey: Kahramanmaraş, Mersin, Tokat, Tunceli (Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Spermophagus confusus* Borowiec, 1986**

Distribution in Turkey: Amasya, Antalya, Artvin, Hatay, İstanbul, Kocaeli, Mardin, Mersin, Tunceli (Schilsky, 1905; Zampetti, 1981; Borowiec, 1984, 1985a, 1986, 1991; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

Remarks: Schilsky (1905) and several additional authors (Zampetti 1981; Borowiec 1984, 1985a) erroneously recorded *Spermophagus variolosopunctatus* Gyllenhal, 1833 from Turkey. These records are attributed to *S. confusus*.

***Spermophagus kuesteri* Schilsky, 1905**

Distribution in Turkey: Ağrı, Amasya, Ankara, Antalya, Artvin, Aydın, Balıkesir, Bilecik, Bursa, Çanakkale, Çorum, Denizli, Diyarbakır, Edirne, Erzurum, Eskişehir, Hakkari, Hatay, Iğdır, İstanbul, İzmir, Karaman, Kars, Kayseri, Konya, Mardin, Mersin, Muş, Nevşehir, Niğde, Trabzon, Tunceli, Van, Yozgat (Sahlberg, 1913; Alkan, 1966; Zampetti, 1981; Borowiec, 1984, 1985a, 1991; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Spermophagus lukjanovitschi* Savitsky, 2000**

Distribution in Turkey: Its distribution by the provinces of the country is not available in the reviewed literature. According to Anton (2010), it is distributed in the Asian part of Turkey.

Remarks: Savitsky (2000) described this species from Israel. Its junior synonym, *Spermophagus arcis* Delobel, is described from Latakia, Syria. This species is probably distributed in southern Turkey.

***Spermophagus pubiventris* Baudi di Selve, 1886**

Distribution in Turkey. Adana, Urfa (Decelle & Lodos 1989; Anton 2010).

***Spermophagus sericeus* (Geoffroy, 1785)**

Distribution in Turkey: Adana, Ağrı, Amasya, Ankara, Antalya, Artvin, Aydın, Bayburt, Bilecik, Bolu, Burdur, Çanakkale, Çankırı, Çorum, Erzurum, Giresun, Gümüşhane, İzmir, Kahramanmaraş, Kocaeli, Konya, Kütahya, Mardin, Muğla, Samsun, Sivas, Tokat, Trabzon, Tunceli, Van (Zampetti, 1981; Borowiec, 1984, 1991; Borowiec & Anton, 1993; Anton, 2010; Güdek, 2020).

Remarks: According to Decelle and Lodos (1989), this species is one of the most common Bruchinae species in Turkey. They have examined over 200 specimens from many parts of Turkey, with no exact localities provided.

**Genus *Zabrotes* Horn, 1885*****Zabrotes subfasciatus* (Boheman, 1833)**

Distribution in Turkey: Adana, İstanbul (Özer, 1962; Decelle & Lodos, 1989; Anton, 2010).

Remarks: According to Anton (2010), this species was introduced to Turkey from North America.

**Tribe Bruchini Latreille, 1802****Subtribe Acanthoscelidina Bridwell, 1946****Genus *Acanthobruchidius* Borowiec, 1980*****Acanthobruchidius spiniger* (Baudi di Selve, 1886)**

Distribution in Turkey: Adana, Aydın, Diyarbakir, Elazığ, Gaziantep, Hatay, İzmir, Mersin, Urfa (Sahlberg, 1913; Borowiec, 1984; Decelle & Lodos, 1989; Anton, 2010).

**Genus *Acanthoscelides* Schilsky, 1905*****Acanthoscelides obtectus* (Say, 1831)**

Distribution in Turkey: Adana, Bilecik, Bolu, Bursa, Denizli, Edirne, Eskişehir, Giresun, İstanbul, Kahramanmaraş, Kırklareli, Sakarya, Tekirdağ, Trabzon, Uşak (Atak, 1975; Zampetti, 1984; Decelle & Lodos, 1989; Yabaş & Ulubilir, 1993; Özdem, 1997; Anton, 2010; Turanlı & Kismalı, 2011).

Remarks: This species is introduced from the Americas, and it was first detected in Turkey by Alkan (1966). Although the species is reported for Turkey in several faunistic papers, its distribution in the country is much

wider and it can be found in all bean-growing areas. Decelle and Lodos (1989) examined specimens from many parts of Turkey but did not provide exact localities.

### **Genus *Bruchidius* Schilsky, 1905**

#### ***Bruchidius albolineatus* (Blanchard, 1844)**

Distribution in Turkey: Hatay (Decelle & Lodos, 1989; Anton, 2010).

#### ***Bruchidius albopictus* (Allard, 1883)**

Distribution in Turkey: Adana, Amasya, Diyarbakır, Gaziantep, Hakkari, Malatya, Manisa, Mardin, Mersin (Zampetti, 1981; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

#### ***Bruchidius annulicornis* (Allard, 1868)**

Distribution in Turkey: Artvin, İstanbul, İzmir, Mardin, Mersin, Tunceli (Schilsky, 1905; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

#### ***Bruchidius anobioides* (Baudi di Selve, 1886)**

Distribution in Turkey: Antalya, Aydın, Bitlis, Diyarbakır, İzmir, Kahramanmaraş, Mersin (Borowiec, 1985b; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 1998b; 2010)

#### ***Bruchidius armeniacus* Ter-Minassian, 1969**

Distribution in Turkey: Its distribution by the provinces of the country is not available in the reviewed literature. According to Anton (2010), it is distributed in the Asian part of Turkey.

Remarks: Ter-Minassian (1969) described this species from Armenia, in an area very close to the Turkish border. It is probably distributed in the northeastern part of Turkey.

#### ***Bruchidius biguttatus* (Olivier, 1795)**

Distribution in Turkey: Adana, Antalya, Artvin, Aydın, Balıkesir, Bilecik, Bitlis, Çanakkale, Çorum, Isparta, İstanbul, İzmir, Karaman, Kocaeli, Konya, Mersin, Muğla, Tekirdağ, Trabzon (Sahlberg 1913; Zampetti 1981; Borowiec 1984; Decelle & Lodos 1989; Borowiec & Anton 1993; Mergen 1996b; Anton 2010).

#### ***Bruchidius bimaculatus* (Olivier, 1795)**

Distribution in Turkey: Adana, Amasya, Ankara, Antalya, Artvin, Aydın, Balıkesir, Bilecik, Bitlis, Bolu, Çanakkale, Çorum, Gaziantep, Hakkari, Isparta, İstanbul, İzmir, Kahramanmaraş, Karaman, Kilis, Konya, Kütahya, Malatya, Manisa, Mardin, Mersin, Sakarya, Samsun, Şanlıurfa, Tokat, Uşak, Zonguldak (Alkan, 1966; Zampetti, 1981; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

#### ***Bruchidius bituberculatus* Schilsky, 1905**

Distribution in Turkey: Antalya, Bitlis, Çanakkale, İzmir, Kahramanmaraş, Mersin, Tunceli (Schilsky, 1905; Sahlberg, 1913; Borowiec, 1985b; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

#### ***Bruchidius borowieci* (Anton, 1998)**

Distribution in Turkey: Adana, Çorum (Anton, 1998b, 2010).

***Bruchidius bythinocerus* (Reitter, 1890)**

Distribution in Turkey: Its distribution by the provinces of the country is not available in the reviewed literature. According to Anton (2010), it is distributed in the Asian part of Turkey.

Remarks: Reitter (1890) described this species from Ordubad District in the Nakhchivan part of Azerbaijan, very close to the Turkish border. It is probably distributed in the eastern part of Turkey.

***Bruchidius calabrensis* (Blanchard, 1844)**

Distribution in Turkey: Ankara, Antalya, Aydın, Bitlis, Bursa, Çorum, İstanbul, İzmir, Manisa, Mersin, Sakarya, Sinop (Daniel & Daniel, 1904; Bodemeyer, 1906; Sahlberg, 1913; Zampetti, 1981; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Mergen, 1996b).

Remarks: A synonym of *B. calabrensis*, *Bruchidius varipictus* (Motschulsky, 1873) (Yus Ramos, 2010), appeared separately in Anton (2010: p. 347). In fact, Anton has already given this synonymy in the "New acts and comments" section (p. 63) of the Catalogue of Palaearctic Coleoptera (Löbl & Smetana, 2010), but this was skipped in the Bruchinae part. In this case, *Bruchidius stylophorus* (K. Daniel, 1904) appeared as a synonym of two species (Anton, 2010: p. 342 and 347). Thus, all the data relevant to these three species from the literature were combined and attributed to *B. calabrensis*.

***Bruchidius canescens* (Motschulsky, 1874)**

Distribution in Turkey: Adana, Adıyaman, Antalya, Aydın, Konya, Mersin (Decelle & Lodos 1989; Anton et al. 1997; Anton 2010).

***Bruchidius caninus* (Kraatz, 1869)**

Distribution in Turkey: Çankırı, Isparta, İzmir, Kastamonu, Mersin, Sivas (Sahlberg, 1913; Zampetti, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius cinerascens* (Gyllenhal, 1833)**

Distribution in Turkey: Ankara, Antalya, Aydın, Çanakkale, Denizli, Diyarbakır, Eskişehir, Giresun, Kahramanmaraş, Kayseri, Kırşehir, Kocaeli, Nevşehir, Trabzon, Tunceli, Van (Ganglbauer, 1905; Sahlberg, 1913; Zampetti, 1981; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius cisti* (Fabricius, 1775)**

Distribution in Turkey: Amasya, Antalya, Aydın, Balıkesir, Çanakkale, Eskişehir, İzmir, Konya, Mardin, Nevşehir, Niğde, Şanlıurfa (Borowiec, 1984, 1987; Zampetti, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius dilutus* (Motschulsky, 1874)**

Distribution in Turkey: Diyarbakır, Kars (Decelle & Lodos, 1989; Anton, 2010; Güdek, 2020).

***Bruchidius dispar* (Gyllenhal, 1833)**

Distribution in Turkey: Amasya, Antalya, Bolu, İzmir, Kütahya, Mersin, Trabzon (Borowiec, 1984; Zampetti, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius fischeri* (Hummel, 1827)**

Distribution in Turkey: Its distribution by the provinces of the country is not available in the reviewed literature. According to Anton (2010), it is distributed in the Asian part of Turkey.

***Bruchidius foveolatus* (Gyllenhal, 1833)**

Distribution in Turkey: Adana, Amasya, Antalya, Aydın, Balıkesir, Bolu, Bursa, Çanakkale, Denizli, Edirne, Eskişehir, Giresun, Hatay, İstanbul, İzmir, Kırklareli, Kocaeli, Kütahya, Manisa, Mardin, Mersin, Muğla, Samsun, Sinop, Şanlıurfa, Tokat, Tunceli, Zonguldak (Schilsky, 1905; Bodemeyer, 1906; Sahlberg, 1913; Zampetti, 1981, 1984; Borowiec, 1984, 1987; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 1998a, 1998b, 2010).

***Bruchidius fulvescens* (Baudi di Selve, 1886)**

Distribution in Turkey: Its distribution by the provinces of the country is not available in the reviewed literature. According to Anton (2010), it is distributed in the Asian part of Turkey.

***Bruchidius glycyrrhizae* (Gyllenhal, 1839)**

Distribution in Turkey: Mersin, Muş (Decelle & Lodos, 1989).

Remarks: A new record of this species for Turkey was reported by Decelle and Lodos (1989), who noted that the specimen from Muş Province is a dark form (*obscuripennis* Lukjanovitch & Ter-Minassian, 1957) of the species. However, Anton (2010) did not include Turkey in the distribution range of the species. Its actual distribution range (i.e., Iran and Iraq) quite fits the given distribution in Turkey.

***Bruchidius holosericeus* (Schönherr, 1832)**

Distribution in Turkey: Antalya, Aydın, Bilecik, Bolu, Çanakkale, Denizli, Hatay, İstanbul, İzmir, Malatya, Mardin, Mersin, Sakarya, Tunceli (Baudi de Selve 1886; Sahlberg 1913; Zampetti 1981; Borowiec 1984; Decelle & Lodos 1989; Borowiec & Anton 1993; Anton 2010; Sert & Özdemir 2019).

***Bruchidius imbricornis* (Panzer, 1795)**

Distribution in Turkey: Aksaray, Ankara, Bolu, Çankırı, Eskişehir, İstanbul, Konya, Niğde, Sakarya, Zonguldak (Ganglbauer, 1905; Schilsky, 1905; Bodemeyer, 1906; Sahlberg, 1913; Zampetti, 1981; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius kieneri* Zampetti, 1992**

Distribution in Turkey: Its distribution by the provinces of the country is not available in the reviewed literature. It is distributed in the Asian part of Turkey (Anton *et al.*, 1997; Anton, 2010).

***Bruchidius koenigi* Schilsky, 1906**

Distribution in Turkey: Antalya, Iğdır (Lukjanovitch & Ter-Minassian, 1957; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius lateobscurus* (Pic 1904)**

Distribution in Turkey: Its distribution by the provinces of the country is not available in the reviewed literature. It is distributed in the Asian part of Turkey (Anton 2010).

Remarks: Distribution of this species is quite interesting. Namely, it is found only in Spain, Algeria and Turkey (Anton, 2010). Although Anton (2010) listed it as a valid species, Yus Ramos (2010) stated that it is a junior synonym of *Bruchidius poupillieri* (Allard, 1868).

***Bruchidius lineatus* (Allard, 1868)**

Distribution in Turkey: Antalya, Aydın, Balıkesir, Bursa, Gümüşhane, İstanbul, İzmir, Konya, Mardin, Mersin, Uşak (Baudi de Selve, 1886, 1890; Zampetti, 1981; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius lividimanus* (Gyllenhal, 1833)**

Distribution in Turkey: Antalya, Bitlis, İzmir, Karaman, Konya, Mersin, Muğla, Tunceli (Sahlberg, 1913; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius loebli* Borowiec, 1985**

Distribution in Turkey: Antalya (Anton 1998b, 2010)

Remarks: Some authors (Decelle & Lodos, 1989; Anton, 1998a, 1998b) suspected that it is a synonym of *Bruchidius suratus* (Motschulsky, 1874).

***Bruchidius longulus* Schilsky, 1905**

Distribution in Turkey: Çorum, İzmir, Kars, Konya, Mersin (Schilsky, 1905; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius lucifugus* (Boheman, 1833)**

Distribution in Turkey: Erzincan, Erzurum, Nevşehir (Decelle & Lodos, 1989; Anton, 2010; Güdek, 2020)

Remarks: This species is also reported from northeastern Turkey by Lukjanovitch & Ter-Minassian (1957), but with no exact locality provided. Decelle and Lodos (1989) reported a female specimen labeled "Kl. Asien: Süd Taurus, W. Siehe", indicating its presence on the Taurus Mountains, but it cannot be determined which province it is.

***Bruchidius lutescens* (Blanchard, 1844)**

Distribution in Turkey: Adıyaman, Afyonkarahisar, Ağrı, Amasya, Ankara, Antalya, Aydın, Balıkesir, Bayburt, Bilecik, Bitlis, Çanakkale, Çankırı, Çorum, Diyarbakır, Elazığ, Erzurum, Gaziantep, Gümüşhane, Hatay, İzmir, Kahramanmaraş, Kayseri, Konya, Manisa, Mardin, Mersin, Niğde, Siirt, Tokat, Van, Yozgat (Pic, 1904; Ganglbauer, 1905; Bodemeyer, 1906; Sahlberg, 1913; Alkan, 1966; Borowiec, 1984, 1987; Zampetti, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius marginalis* (Fabricius, 1776)**

Distribution in Turkey: Erzurum, Mersin (Zampetti, 1984; Borowiec, 1987; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius monstrosicornis* (Pic, 1904)**

Distribution in Turkey: Afyonkarahisar, Aksaray, Ankara, Bilecik, Burdur, Çanakkale, Erzincan, Isparta, Konya, Manisa, Nevşehir, Uşak (Pic, 1904; Zampetti, 1981, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010; Güdek, 2020).



***Bruchidius mordelloides* (Baudi di Selve, 1886)**

Distribution in Turkey: Adana, Antalya, Çorum, Mersin, Van (Decelle & Lodos, 1989; Borowiec & Anton, 1993; Mergen, 1996b; Anton, 2010).

***Bruchidius mulsanti* (Brisout de Barneville, 1863)**

Distribution in Turkey: Adana, Adıyaman, Antalya, Bolu, Bursa, Denizli, Mersin (Schilsky, 1905; Sahlberg, 1913; Zampetti, 1981; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Mergen, 1996b; Anton, 2010).

***Bruchidius murinus* (Boheman, 1829)**

Distribution in Turkey: Aydın, Balıkesir, Bursa, Çanakkale, Denizli, İstanbul, İzmir, Konya, Manisa, Muğla, Sinop, Trabzon, Yalova (Bodemeyer, 1906; Sahlberg, 1913; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius nanus* (Germar, 1824)**

Distribution in Turkey: Adana, Artvin, Bilecik, Bolu, Çorum, İstanbul, İzmir, Karaman, Kırklareli, Konya, Mersin (Bodemeyer, 1906; Sahlberg, 1913; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius obscuripes* (Gyllenhal, 1839)**

Distribution in Turkey: Ankara, Antalya, Aydın, Diyarbakır, Erzurum, İzmir, Kayseri, Konya, Malatya, Mersin, Samsun, Sivas, Tokat, Tunceli, Siirt (Ganglbauer, 1905; Zampetti, 1981; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius ochraceus* (Baudi di Selve, 1886)**

Distribution in Turkey: Its distribution by the provinces of the country is not available in the reviewed literature. According to Anton (2010), it is distributed in the Asian part of Turkey.

Remarks: Baudi de Selve (1886) described this species from Syria and Lebanon. It is probably distributed in the southern part of Turkey.

***Bruchidius olivaceus* (Germar, 1824)**

Distribution in Turkey: Its distribution by the provinces of the country is not available in the reviewed literature. According to Anton (2010), it is distributed in both European and Asian parts of Turkey.

***Bruchidius picipes* (Germar, 1824)**

Distribution in Turkey. Antalya, Artvin, Bolu, Mersin (Schilsky, 1905; Zampetti, 1981; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius planicornis* Anton and Delobel, 2017**

Distribution in Turkey. Van (Anton and Delobel 2017).

***Bruchidius poecilus* (Germar, 1824)**

Distribution in Turkey: Adana, Aydın, Bursa, Çorum, İzmir, Konya, Kütahya, Mersin, Nevşehir, Trabzon, Şanlıurfa (Schilsky, 1905; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius poupillieri* (Allard, 1868)**

Distribution in Turkey: Ankara, Yozgat (Zampetti, 1984; Decelle & Lodos, 1989; Anton, 2010).

***Bruchidius pubicornis* Lukjanovitch & Ter-Minassian, 1957**

Distribution in Turkey: Its distribution by the provinces of the country is not available in the reviewed literature. According to Anton (2010), it is distributed in the Asian part of Turkey.

***Bruchidius pusillus* (Germar, 1824)**

Distribution in Turkey: Antalya, Artvin, Aydın, Bayburt, Bursa, Erzincan, Erzurum, Gümüşhane, İzmir, Kars, Muğla (Borowiec, 1984, 1987; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010; Güdek, 2020).

***Bruchidius pygmaeus* (Boheman, 1833)**

Distribution in Turkey: Antalya, Aydın, Bilecik, Burdur, Çanakkale, Eskişehir, Isparta, İzmir, Kırklareli, Manisa, Mersin, Sivas, Tokat (Sahlberg, 1913; Zampetti, 1981; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Mergen, 1996a; Anton, 2010).

***Bruchidius quinqueguttatus* (Olivier, 1795)**

Distribution in Turkey: Adana, Adıyaman, Ankara, Antalya, Artvin, Aydın, Balıkesir, Bilecik, Bitlis, Burdur, Çanakkale, Çankırı, Çorum, Diyarbakır, Erzincan, Erzurum, Gaziantep, Hatay, İzmir, Kahramanmaraş, Karaman, Kayseri, Kırklareli, Konya, Malatya, Manisa, Mardin, Mersin, Muğla, Uşak, Van, Yozgat (Baudi de Selve, 1890; Ganglbauer, 1905; Bodemeyer, 1906; Sahlberg, 1913; Zampetti, 1981, 1984; Borowiec, 1984, 1987; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius reitteri* Schilsky, 1906**

Distribution in Turkey: Bitlis, Erzurum, Iğdır, Konya, Sivas, Van (Lukjanovitch & Ter-Minassian 1957; Zampetti 1981, 1984; Decelle & Lodos 1989; Borowiec & Anton 1993; Anton 2010).

Remarks: A doubtful female specimen was also reported from Aydın province (western Anatolia) by Decelle and Lodos (1989), but this species is presumably limited to eastern Anatolia and the record from Aydın Province is unlikely.

***Bruchidius richteri* Lukjanovitch & Ter-Minassian, 1954**

Distribution in Turkey: Sivas (Zampetti, 1984; Decelle & Lodos, 1989; Anton, 2010).

***Bruchidius robustus* Lukjanovitch & Ter-Minassian 1957**

Distribution in Turkey: Its distribution by the provinces of the country is not available in the reviewed literature. According to Anton (2010), it is distributed in the Asian part of Turkey.

***Bruchidius rufisurus* (Allard, 1883)**

Distribution in Turkey: Antalya, Bitlis, İzmir, Mersin (Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius seminarius* (Linnaeus, 1767)**

Distribution in Turkey: Adana, Antalya, Artvin, Aydın, Bilecik, Bitlis, Bolu, Bursa, Çanakkale, Diyarbakır, İstanbul, İzmir, Kocaeli, Konya, Malatya, Manisa, Mardin, Mersin, Muğla, Muş, Samsun, Tekirdağ, Tunceli, Zonguldak (Sahlberg, 1913; Zampetti, 1981, 1984; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius sericatus* (Germar, 1824)**

Distribution in Turkey: Adıyaman, Antalya, Aydın, Çorum, İzmir, Mersin, Trabzon, Tunceli, Van (Sahlberg, 1913; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius serraticornis* (Fabricius, 1775)**

Distribution in Turkey: Mardin, Şanlıurfa (Decelle & Lodos, 1989; Anton, 2010).

***Bruchidius siliquastri* Delobel, 2007**

Distribution in Turkey: İstanbul (Hızal & Parlak, 2013).

***Bruchidius sivasensis* Zampetti, 1984**

Distribution in Turkey: Ağrı, Ankara, Bitlis, Kahramanmaraş, Konya, Sivas (Zampetti, 1984; Decelle & Lodos, 1989; Anton, 2010).

***Bruchidius steveni* (Gyllenhal, 1839)**

Distribution in Turkey: Kars, Van (Zampetti, 1984; Decelle & Lodos, 1989; Anton, 2010).

***Bruchidius talyshensis* Ter-Minassian, 1969**

Distribution in Turkey: Its distribution by the provinces of the country is not available in the reviewed literature. According to Anton (2010), it is distributed in the Asian part of Turkey.

***Bruchidius terrenus* Sharp, 1886**

Distribution in Turkey: İstanbul (Hızal & Parlak, 2013).

***Bruchidius tibialis* (Boheman, 1829)**

Distribution in Turkey: Adana, Antalya, Bitlis, Bolu, Bursa, Isparta, İstanbul, İzmir, Karaman, Kocaeli, Konya, Malatya, Manisa, Muğla, Sakarya, Samsun, Sinop, Tokat, Yalova, Zonguldak (Schilsky, 1905; Bodemeyer, 1906; Sahlberg, 1913; Zampetti, 1981, 1984; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius trifolii* (Motschulsky, 1874)**

Distribution in Turkey. Balıkesir, Bilecik, İzmir, Mardin, Sakarya, Şanlıurfa (Bodenheimer 1941; Decelle & Lodos 1989; Borowiec & Anton 1993; Anton 2010).

***Bruchidius tuberculatus* (Hochhut, 1847)**

Distribution in Turkey: Adana, Adıyaman, Amasya, Ankara, Antalya, Aydın, Bilecik, Bitlis, Burdur, Bursa, Çanakkale, Denizli, Diyarbakır, Edirne, Elazığ, Gaziantep, Hakkari, Hatay, Isparta, İstanbul, İzmir, Kahramanmaraş, Kırklareli, Malatya, Mardin, Mersin, Muğla, Samsun, Şanlıurfa, Tokat, Van (Sahlberg, 1913; Zampetti, 1981; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius unicolor* (Olivier, 1795)**

Distribution in Turkey: Bitlis, Erzurum, Van (Borowiec & Anton 1993; Anton 2010).

***Bruchidius varipes* (Boheman, 1839)**

Distribution in Turkey: Artvin, Bayburt, Erzurum, Gümüşhane (Güdek, 2020)

Remarks: One specimen of this species is reported under the name *Bruchidius bagdassarjani* Lukjanowitsh & Ter-Minassian, 1954, with the label "Turkey: Ali Hadsha, 16 VIII 1906, 1 spn., leg. LENDT (HNHM)" by Borowiec (1987). Later, Decelle and Lodos (1989) reported the same data, with a note that the locality may be "Ali Sha" in Iran. Anton (2010) did not list Turkey as part of the distribution range of this species. However, the species is recently recorded from several Turkish provinces by Güdek (2020).

***Bruchidius varius* (Olivier, 1795)**

Distribution in Turkey: Amasya, Ankara, Antalya, Aydın, Bolu, Çanakkale, Çorum, Eskişehir, Iğdır, İzmir, Kahramanmaraş, Karaman, Kars, Kocaeli, Konya, Mersin, Sakarya, Samsun, Tokat, Tunceli, Zonguldak (Ganglbauer, 1905; Sahlberg, 1913; Zampetti, 1981; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchidius villosus* (Fabricius, 1792)**

Distribution in Turkey: Erzurum, İstanbul, Kars, Kastamonu, Trabzon, Zonguldak (Decelle & Lodos, 1989; Anton, 2010; Güdek, 2020).

***Bruchidius virgatoides* Lukjanovitch & Ter-Minassian 1957**

Distribution in Turkey: Its distribution by the provinces of the country is not available in the reviewed literature. According to Anton (2010), it is distributed in the Asian part of Turkey.

***Bruchidius virgatus* (Fåhræus, 1839)**

Distribution in Turkey: Çankırı, Erzurum, Mersin (Baudi de Selve, 1886; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

Remarks: The holotype of *Bruchidius varipubens* Pic, 1953, a junior synonym of *B. virgatus*, is labeled "Erzurum".

**Genus *Callosobruchus* Pic, 1902*****Callosobruchus analis* (Fabricius, 1781)**

Distribution in Turkey: Bursa, İzmir Sakarya (Özer, 1961; Gül-Zümreoğlu, 1972; Decelle & Lodos, 1989; Anton, 2010).

***Callosobruchus chinensis* (Linnaeus, 1758)**

Distribution in Turkey: Ankara, Bursa, Hatay, Kocaeli, Mersin (Özer, 1961; Alkan, 1966; Decelle & Lodos, 1989; Anton, 2010).

***Callosobruchus maculatus* (Fabricius, 1775)**

Distribution in Turkey: Amasya, Ankara, Antalya, Aydın, Balıkesir, Bursa, Çanakkale, Denizli, Elazığ, İstanbul, İzmir, Kocaeli, Sakarya, Şanlıurfa, Trabzon, Uşak (Özer, 1961; Alkan, 1966; Decelle & Lodos, 1989; Anton, 2010; Turanlı & Kısmalı, 2011).

**Genus *Mimosestes* Bridwell, 1946*****Mimosestes mimosae* (Fabricius, 1781)**

Distribution in Turkey: This species is reported from Turkey with no exact locality provided (Pic, 1913; Alkan, 1966; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

Remarks: This species originated in Central America and was introduced to some European countries, including Turkey (Borowiec & Anton, 1993; Anton, 2010).

**Genus *Palaeobruchidius* Egorov, 1989*****Palaeobruchidius plagiatu*s (Reiche and Saulcy, 1857)**

Distribution in Turkey: Adana, Adıyaman, Çankırı, Erzurum, Hatay, Konya, Yozgat (Schilsky, 1905; Bodemeyer, 1906; Decelle & Lodos, 1989; Anton, 2010; Güdek, 2020).

**Genus *Paleoacanthoscelides* Borowiec, 1985*****Paleoacanthoscelides gilvoides* (Lukjanovitch & Ter-Minassian, 1957)**

Distribution in Turkey: Erzincan, Gümüşhane (Borowiec & Anton, 1993; Anton, 2010).

***Paleoacanthoscelides gilvus* (Gyllenhal, 1839)**

Distribution in Turkey. Adıyaman, Amasya, Ankara, Erzurum, Hakkari, Iğdır, Kars, Kayseri, Konya (Ganglbauer, 1905; Schilsky, 1905; Zampetti, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

**Genus *Pseudopachymerina* Zacher, 1952*****Pseudopachymerina spinipes* (Erichson, 1833)**

Distribution in Turkey: Adana, Antalya (Acatay, 1962; Decelle & Lodos, 1989; Anton, 2010).

**Genus *Salviabruchus* Decelle, 1982*****Salviabruchus retusus* (Baudi di Selve, 1886)**

Distribution in Turkey: Adana, Kahramanmaraş, Mardin (Zampetti, 1981; Decelle, 1982b; Decelle & Lodos, 1989; Anton, 2010).

**Subtribe Bruchina Latreille, 1802****Genus *Bruchus* Linnaeus, 1767*****Bruchus affinis* Frölich, 1799**

Distribution in Turkey: Ağrı, Ankara, Balıkesir, Bursa, Konya (Lukjanovitch & Ter-Minassian, 1957; Decelle & Lodos, 1989; Mergen & Çağatay, 1990; Anton 2010; Kaynaş, 2014).

***Bruchus altaicus* Fähræus, 1839**

Distribution in Turkey: Sinop, Trabzon, Tunceli (Zampetti, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchus anatolicus* Anton, 1999**

Distribution in Turkey: Antalya (Anton, 1999, 2010).

Remarks: This species is endemic to Turkey.

***Bruchus atomarius* (Linnaeus, 1761)**

Distribution in Turkey: Adana, Amasya, Ankara, Antalya, Burdur, Denizli, Hatay, Isparta, Konya, Osmaniye (Sahlberg, 1913; Zampetti, 1981, 1984; Decelle & Lodos, 1989; Mergen, 1996a; Anton, 2010; Kaynaş, 2014).

***Bruchus brachialis* Fähræus, 1839**

Distribution in Turkey: Afyonkarahisar, Ağrı, Amasya, Antalya, Aydın, Bilecik, Çorum, Erzurum, İzmir, Kars, Konya, Kütahya, Malatya, Manisa, Muğla, Tekirdağ, Tokat (Schilsky, 1905; Zampetti, 1981; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010; Kaynaş, 2014; Güdek, 2020).

***Bruchus dentipes* Baudi di Selve, 1886**

Distribution in Turkey: Elazığ, Erzurum, Hatay, İzmir, Konya, Malatya, Mardin, Ordu, Şanlıurfa, Trabzon (Schilsky, 1905; Zampetti, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchus emarginatus* Allard, 1868**

Distribution in Turkey: Amasya, Ankara, Artvin, Aydın, Bilecik, Bitlis, Bolu, Çankırı, Çorum, Denizli, Gaziantep, Isparta, İzmir, Kahramanmaraş, Karaman, Kastamonu, Konya, Malatya, Mersin, Nevşehir, Niğde, Samsun, Uşak (Schilsky, 1905; Bodemeyer, 1906; Sahlberg, 1913; Zampetti, 1981, 1984; Borowiec, 1984; Decelle & Lodos, 1989; Mergen & Çağatay, 1990; Borowiec & Anton, 1993; Anton, 2010; Turanlı & Kismalı, 2011).

***Bruchus ervi* Frölich, 1799**

Distribution in Turkey: Adıyaman, Ağrı, Ankara, Antalya, Bursa, Çanakkale, Çorum, Diyarbakır, Elazığ, Hatay, İstanbul, İzmir, Malatya, Mardin, Şanlıurfa, Tunceli (Özer, 1961; Alkan, 1966; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010; Turanlı & Kismalı, 2011; Güdek, 2020).

***Bruchus hamatus* Miller, 1881**

Distribution in Turkey: Ağrı, Ankara, Çorum, Erzurum, Gümüşhane, Hakkari, Konya, Malatya, Nevşehir, Niğde, Tunceli (Bodemeyer, 1906; Borowiec, 1984; Zampetti, 1984; Decelle & Lodos, 1989; Mergen & Çağatay, 1990; Borowiec & Anton, 1993; Anton, 2010; Güdek, 2020).

***Bruchus laticollis* Boheman, 1833**

Distribution in Turkey: Ankara, Antalya, Artvin, Çorum, İzmir, Kırklareli, Konya, Niğde, Sinop, Şanlıurfa, Tokat, Trabzon (Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton 1993; Anton, 2010).

***Bruchus lentis* Frölich, 1799**

Distribution in Turkey: Ankara, Bursa, Çorum, Denizli, Isparta, İstanbul, İzmir, Kayseri, Manisa, Niğde, Tokat (Özer, 1961; Alkan, 1966; Gül-Zümreoğlu, 1972; Borowiec, 1984; Decelle & Lodos, 1989; Mergen & Çağatay, 1990; Anton, 2010).

***Bruchus libanensis* Zampetti, 1993**

Distribution in Turkey: Its distribution by the provinces of the country is not available in the reviewed literature. According to Anton (2010), it is distributed in the Asian part of Turkey.

***Bruchus loti* Paykull, 1800**

Distribution in Turkey: Ağrı, Artvin, Bolu, Gümüşhane, Hakkari, İzmir, Trabzon (Zampetti, 1981; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010; Güdek, 2020).

***Bruchus lugubris* Fähræus, 1839**

Distribution in Turkey: Ağrı, Ardahan, Erzincan, Erzurum, Gümüşhane, Iğdır, Kars (Decelle & Lodos, 1989; Anton, 2010; Güdek, 2020).

***Bruchus luteicornis* Illiger, 1794**

Distribution in Turkey: Adıyaman, Erzurum, Hatay, Mardin, Mersin, Siirt, Şanlıurfa, Van (Baudi de Selve, 1886; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchus mirabilicollis* Ter-Minassian, 1968**

Distribution in Turkey: Hakkari (Decelle & Lodos, 1989; Borowiec & Anton, 1993).

***Bruchus nikdeli* Delobel & Sadeghi, 2014**

Distribution in Turkey: Erzurum (Güçlü & Anton, 2022).

***Bruchus pisorum* (Linnaeus, 1758)**

Distribution in Turkey: Ankara, Antalya, İzmir, Kastamonu, Mersin, Muğla, Sakarya (Gül-Zümreoğlu, 1972; Borowiec, 1984; Zampetti, 1984; Decelle & Lodos, 1989; Mergen & Çağatay, 1990; Borowiec & Anton, 1993; Anton, 2010).

***Bruchus rufimanus* Boheman, 1833**

Distribution in Turkey: Ağrı, Ankara, Artvin, Aydın, Bolu, Bursa, Çanakkale, Çankırı, Çorum, Denizli, İstanbul, İzmir, Konya, Manisa, Mersin, Ordu, Sinop, Sivas, Tokat (Gül-Zümreoğlu, 1972; Zampetti, 1981, 1984; Borowiec, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010; Kaynaş, 2014; Güdek, 2020).

***Bruchus rufipes* Herbst, 1783**

Distribution in Turkey: Ağrı, Amasya, Ankara, Antalya, Artvin, Bilecik, Bursa, Çorum, Isparta, İstanbul, İzmir, Kırklareli, Konya, Kütahya, Mersin, Nevşehir, Sakarya, Sinop, Sivas, Trabzon, Tunceli, Uşak (Ganglbauer, 1905; Schilsky, 1905; Özer, 1961; Alkan, 1966; Zampetti, 1981, 1984; Borowiec, 1984, 1987; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010; Kaynaş, 2014).

***Bruchus sibiricus* Germar, 1824**

Distribution in Turkey: Erzurum, Hakkari, Kars, Tunceli (Borowiec & Anton, 1993; Anton, 2010).

***Bruchus signaticornis* Gyllenhal, 1833**

Distribution in Turkey: Adana, Ankara, Antalya, Burdur, Bursa, Hatay, Isparta, İstanbul, Sivas (Zampetti, 1984; Decelle & Lodos, 1989; Mergen, 1996a; Anton, 2010).

***Bruchus tetragonus* (Baudi di Selve, 1886)**

Distribution in Turkey: Diyarbakır, Kahramanmaraş, Mardin, Siirt (Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010).

***Bruchus tristiculus* Fähræus, 1839**

Distribution in Turkey: Adana, Antalya, Burdur, Bursa, Hakkari, Hatay, İstanbul, İzmir, Mersin (Decelle & Lodos, 1989; Mergen, 1996a; Anton, 2010).

***Bruchus tristis* Boheman, 1833**

Distribution in Turkey: Ankara, Burdur, Edirne, Elazığ, Eskişehir, Hatay, Isparta, İstanbul, İzmir, Kütahya, Mersin (Borowiec, 1984; Decelle & Lodos, 1989; Mergen, 1996a; Anton, 2010).

***Bruchus ulicis* Mulsant & Rey, 1858**

Distribution in Turkey: Adana, Adıyaman, Antalya, Burdur, Bursa, Çorum, Erzincan, Hakkari, Hatay, Isparta, İstanbul, Kocaeli, Konya, Manisa, Mersin, Niğde, Şanlıurfa (Schilsky, 1905; Alkan, 1966; Gül-Zümreoğlu, 1972; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Mergen, 1996a; Anton, 2010).

***Bruchus venustus* Fähræus, 1839**

Distribution in Turkey: Ağrı, Ardahan, Bayburt, Erzurum, Gümüşhane, Hakkari, Iğdır, Kars (Borowiec & Anton, 1993; Anton, 2010; Güdek, 2020).

***Bruchus viciae* Olivier, 1795**

Distribution in Turkey: Afyonkarahisar, Ağrı, Amasya, Ankara, Antalya, Bolu, Çankırı, Çorum, Erzurum, Konya, Samsun, Sivas, Tokat, Tunceli (Zampetti, 1981; Decelle & Lodos, 1989; Mergen & Çağatay, 1990; Borowiec & Anton, 1993; Anton, 2010; Güdek, 2020).



**Tribe Pachymerini Bridwell, 1929****Subtribe Caryedontina Bridwell, 1929****Genus *Caryedon* Schönherr, 1823*****Caryedon angeri* (Semenov, 1896)**

Distribution in Turkey: Hatay, Siirt, Şanlıurfa (Yücel, 1994; Anton & Delobel, 2004; Sertkaya *et al.*, 2005; Anton, 2010; Kemal *et al.*, 2011).

***Caryedon germari* (Küster, 1845)**

Distribution in Turkey: Ankara, Antalya, Aydın, Bilecik, Burdur, Çorum, Denizli, Diyarbakır, Edirne, Erzincan, Erzurum, Gaziantep, İzmir, Kilis, Tokat, Yozgat (Borowiec, 1984; Zampetti, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993; Anton, 2010; Güdek, 2020).

***Caryedon halperini* Anton & Delobel 2004**

Distribution in Turkey: Van (Anton & Delobel, 2004; Anton, 2010).

**Tribe Rhaebini Blanchard, 1845****Genus *Rhaebus* Fischer von Waldheim, 1824*****Rhaebus gebleri* Fischer von Waldheim, 1824**

Distribution in Turkey: Ankara, Kars, Konya (Decelle & Lodos, 1989; Anton, 1998a; 2010; Korotyaev *et al.*, 2016; Legalov, 2022).

Remarks: *Rhaebus mannerheimi* Motschulsky, 1845 is recorded for Turkey in several papers (Decelle & Lodos, 1989; Anton, 1998a; 2010; Korotyaev *et al.*, 2016). Legalov (2022) synonymized it with *Rhaebus gebleri*.

**Seed-beetle species with doubtful presence in Turkey**

***Bruchidius astragali* (Boheman, 1829):** This species is reported from Ağrı, Bitlis, Gümüşhane, Kars, Konya, Kütahya and Sivas Provinces of Turkey (Zampetti, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993). However, according to Decelle and Lodos (1989), the species is very variable and probably confused with other similar species. Anton (2010) did not list Turkey as part of the distribution range of the species.

***Bruchidius incarnatus* (Boheman, 1833):** The only record of this species from Turkey is from Ankara by Alkan (1966), who sent the specimens to the Natural History Museum in London, where they were identified as *B. incarnatus*. There is no other record of the species from Turkey. The current distribution range of the species includes southwestern Europe and northern Africa (Anton, 2010). Decelle and Lodos (1989) commented that the species was introduced to Turkey, but not successfully established.

***Bruchidius incipiens* Kolenati, 1858:** This species is reported from Turkey by several authors (Lukjanovitch & Ter-Minassian, 1957; Borowiec, 1987; Decelle & Lodos, 1989), but with no exact locality provided.

According to Anton (2010), the original description of this species lacks characters that are necessary for accurate identification and the type material is unavailable, thus the species is considered *incertae sedis*.

***Bruchidius kurdicus* Decelle, 1989:** This species was first recorded from Ankara, Bilecik, Bitlis, Diyarbakır, Giresun, Hakkari, Hatay, Mardin and Uşak (erroneously written as Afyon-Banaz) provinces of Turkey by Decelle and Lodos (1989), and later from Kütahya, Mardin, Mersin and Tunceli provinces by Borowiec and Anton (1993), with the note that their specimens were identified by J. Decelle. The formal description of this species was never published; thus, it is a *nomen nudum* according to the ICZN (Art. 13.1.1).

***Bruchidius martinezi* (Allard, 1868):** This species was recorded from Adıyaman, Antalya, Bolu and İzmir provinces of Turkey by several authors (Borowiec, 1984; Zampetti, 1984; Decelle & Lodos, 1989; Borowiec & Anton, 1993). However, according to Anton (2001), *B. martinezi* is a southwest Mediterranean species distributed from northern Africa to southern France, Sardinia and Sicily. He suggests that the records from areas other than the southwest Mediterranean can be referred to *B. cf. varius*, as both species are strongly similar.

***Bruchidius nudus* (Allard, 1868):** Schilsky (1905) first reported this species from Turkey with no exact location provided and this was repeated later in several papers (Borowiec, 1983, 1984, 1987; Campobasso *et al.*, 1999). Decelle and Lodos (1989) and Borowiec and Anton (1993) commented that the specimens from Turkey probably belong to *Bruchidius parumpunctatus* (Baudi de Selve, 1886) as *B. nudus* is distributed in the western and central Mediterranean.

***Bruchidius pauper* (Boheman, 1829):** This species is reported from Mardin Province by Borowiec and Anton (1993) as a new record for Turkey. However, according to Anton (2010), the original description of this species lacks characters that are necessary for accurate identification and the type material is unavailable, thus the species is considered *incertae sedis*.

***Bruchus perezi* Kraatz, 1868:** This species is reported from Turkey by several authors with no exact locality provided, so these records need confirmation (Borowiec, 1987; Decelle & Lodos, 1989; Borowiec & Anton, 1993).

***Caryedon akdamaricus* Decelle & Lodos, 1979:** This species was reported from Van Province (Akdamar Island) of Turkey by Decelle and Lodos (1989). However, its description has not been published so far. Therefore, it is a *nomen nudum* and not available (Johnson *et al.*, 2004).

***Caryedon pallidus* (Olivier, 1790):** Baudi de Selve (1886) reported this species from Turkey. However, according to Johnson *et al.* (2004), the records of *C. pallidus* from the literature must be carefully evaluated. Anton (2010) did not list Turkey as part of the distribution range of this species.

***Spermophagus variolosopunctatus* Gyllenhal, 1833:** This species was first reported from Turkey by Schilsky (1905) and later it was found in the country by several authors (Zampetti, 1981; Borowiec, 1984, 1985a). Although Borowiec (1986) attributed these records to *S. confusus*, Mergen (2000) reported it again from inner Anatolia and the Mediterranean region of Turkey. In fact, *S. variolosopunctatus* is distributed in several provinces of China, some parts of India and Nepal, and it was introduced to Ukraine (Anton 2010).

## Discussion

Turkey has a remarkable diversity of species because of its geographic position. This also applies to the diversity of Bruchinae in Turkey. The fauna of Bruchinae of Turkey, containing 122 species, is compared with the faunas of neighboring countries in Fig. 2. The numbers of species in Fig. 2 are taken from Ghahari and Borowiec (2017) (for Iran) and Anton (2010) (for the remaining countries). Only the southern European part of

Russia is considered in this study. Of these 14 countries, Turkey is the most diverse in terms of Bruchinae, followed by Iran with 117 seed-beetle species. New faunistic surveys from various areas and habitats of Turkey are expected to reveal new species to science and new records for the fauna of the country, resulting in an increase in the total number of the Bruchinae species. I hope that the checklist will be a guiding reference to the biodiversity, conservation and knowledge of Turkish Bruchinae.

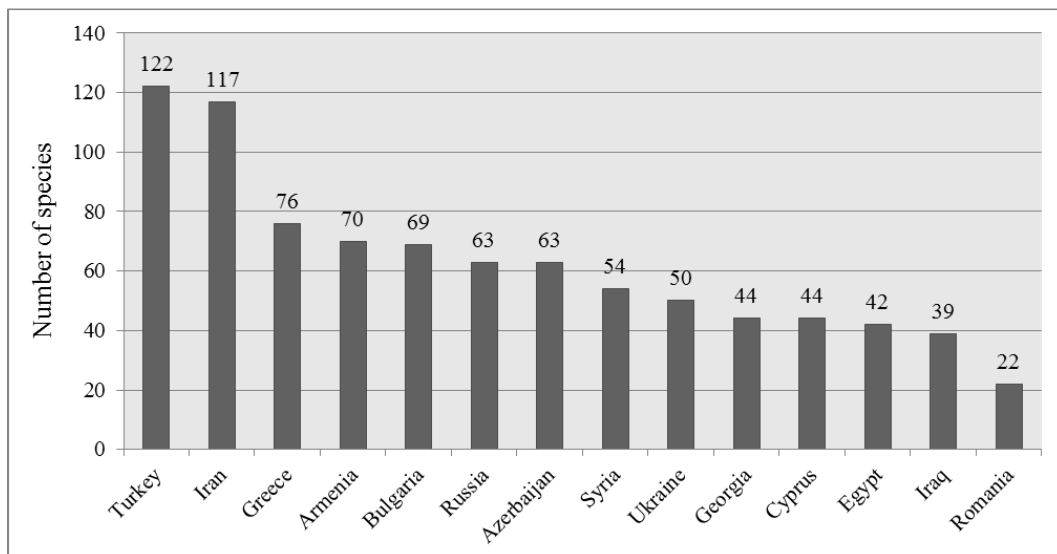


Figure 2. The numbers of species of the Bruchinae of Turkey and the neighboring countries.

## References

- Acatay, A. (1962). Über das Auftreten von einigen Forstschädlingen in der Türkei. *Zeitschrift für Angewandte Entomologie*, 51, 114-121.
- Alkan, B. (1966). *Türkiye'nin Zararlı Tohum Böcekleri (Coleoptera: Bruchidae) Faunası Üzerinde Çalışmalar*. Ankara Üniversitesi, Ziraat Fakültesi Yayınları, Ankara, Turkey, 56 pp.
- Anton, K.-W. (1998a). Results of the Czechoslovak-Iranian entomological expeditions to Iran, 1970, 1973 and 1977. Coleoptera Bruchidae. *Časopis Národního muzea, Řada přírodovědná*, 167, 73-90.
- Anton, K.-W. (1998b). Revision of the genus *Bruchidius*. Part I: The *B. seminarius* group (Coleoptera: Bruchidae). *Stuttgarter Beiträge zur Naturkunde, Serie A (Biologie)*, 573, 1-13.
- Anton, K.-W. (1999). Two new species of the *Bruchus brachialis* group from the Mediterranean region (Coleoptera: Bruchidae: Bruchinae). *Linzer biologische Beiträge*, 31, 655-660.
- Anton, K.-W. (2001). Bemerkungen zur Faunistik und Taxonomie mitteleuropäischer Samenkäfer (Coleoptera: Bruchidae). *Folia Entomologica Hungarica*, 62, 43-49.
- Anton, K.-W. (2010). Bruchinae. In Löbl, I. & Smetana, A. (Eds.), *Catalogue of Palaearctic Coleoptera, Vol. 6, Chrysomeloidea*. Apollo Books, Stenstrup, Denmark, 347-353.
- Anton, K.-W., & Delobel, A. (2004). Description of five new species in the genus *Caryedon* Schönherr, with a taxonomical note on *C. angerti* (Semenov) (Coleoptera: Bruchidae: Pachymerinae). *Genus*, 15, 65-90.

- Anton, K.-W., & Delobel, A. (2017). Three new Asian species of *Bruchidius* (Coleoptera: Chrysomelidae: Bruchinae). *Acta Entomologica Musei Nationalis Pragae*, 57, 161-172.
- Anton, K.-W., Halperin, J., & Calderon, M. (1997). An annotated list of the Bruchidae (Coleoptera) of Israel and adjacent areas. *Israel Journal of Entomology*, 31, 59-96.
- Atak, E. D. (1975). *Fasulye Tohum Böceği (Acanthoscelides Obtectus Say)'nın Biyo-Ekolojisi ve Mücadelesi Üzerinde Araştırmalar*. T.C. Tarım Bakanlığı Zirai Mücadele ve Zirai Karantina Genel Müdürlüğü, Araştırma Eserleri Serisi, Teknik Bülten 7, Ankara, Turkey, 64 pp.
- Baudi di Selve, F. (1886). Ressegna delle famiglia die Mylabridi (Bruchidi degli autori) viventi in Europa e regioni finitime. *Naturalista Siciliano*, 5, 1-138.
- Baudi di Selve, F. (1890). Mylabridum seu Bruchidum recensio a Flaminio Baudi conscriptae addenda. *Deutsche Entomologische Zeitschrift*, 34, 337-347.
- Bodemeyer, E. V. (1906). Beiträge zur Käferfauna von Klein-Asien. *Deutsche Entomologische Zeitschrift*, 1906, 417-433.
- Bodenheimer, F. S. (1941). *Türkiye Entomolojisi, 1. Entomolojiye Giriş*. Ziraat Vekâleti Neşriyatı, Ankara, Turkey, 173 pp.
- Borowiec, L. (1983). Survey of seed-beetles of Bulgaria (Coleoptera, Bruchidae). *Polskie Pismo Entomologiczne*, 53, 107-127.
- Borowiec, L. (1984). The seed-beetles from Turkey (Coleoptera, Bruchidae). *Polskie Pismo Entomologiczne*, 54, 295-301.
- Borowiec, L. (1985a). Notes on the Palaearctic *Spermophagus* Schönherr (Coleoptera, Bruchidae, Amblycerinae), with description of two new species. *Polskie Pismo Entomologiczne*, 55, 3-24.
- Borowiec, L. (1985b). The *seminarius*-group of *Bruchidius* Schilsky (Coleoptera, Bruchidae), with description of three new species. *Polskie Pismo Entomologiczne*, 55, 767-779.
- Borowiec, L. (1986). The specific status of *Spermophagus variolosopunctatus* Gyllenhal, 1833 (Coleoptera, Bruchidae, Amblycerinae), with description of a new species. *Polskie Pismo Entomologiczne*, 56, 161-164.
- Borowiec, L. (1987). The seed-beetles (Coleoptera, Bruchidae) from the Middle East. *Polskie Pismo Entomologiczne*, 57, 601-616.
- Borowiec, L. (1991). *Revision of the Genus Spermophagus Schönherr (Coleoptera: Bruchidae: Amblycerinae)*. Genus (Supplement), Biologica Silesiae. Wrocław, Poland, 198 pp.
- Borowiec, L., & Anton K.-W. (1993). Materials to the knowledge of seed beetles of the Mediterranean subregion (Coleoptera, Bruchidae). *Annals of the Upper Silesian Museum in Bytom (Entomology)*, 4, 99-152.
- Bouchard, P., Bousquet, Y., Davies, A., Alonso-Zarazaga, M., Lawrence, J., Lyal, C., Newton, A., Reid, C., Schmit, M., Slipinski, A., & Smith, A. (2011). Family-group names in Coleoptera (Insecta). *ZooKeys*, 88, 1-972.
- Campobasso, G., Colonnelli, E., Knutson, L., Terragitti, G., & Cristofaro, M. (1999). *Wild Plants and Their Associated Insects in the Palearctic Region, Primarily Europe and the Middle East*. Department of Agriculture, Agricultural Research Service, Washington DC, United States, 249 pp.
- Daniel, K., & Daniel, J. (1904). Neue Paläarktische Koleopteren. *Münchener Koleopterologische Zeitschrift*, 2, 76-93.
- Decelle, J. (1982a). Une nouvelle espèce de *Spermophagus* Schoenherr (Coleoptera: Bruchidae: Amblycerinae) de Turquie. *Bulletin & annales de la Société royale belge d'Entomologie*, 118, 31-34.
- Decelle, J. (1982b). Une espèce de Coleoptera Bruchidae du Proche-Orient inféodée aux *Salvia* (Dicotylédones, Tubiflores, Lamiaceae). *Bulletin & annales de la Société royale belge d'Entomologie*, 118, 243-248.
- Decelle, J., & Lodos, N. (1989). Contribution to the knowledge of the legume weevils of Turkey (Coleoptera: Bruchidae). *Bulletin & annales de la Société royale belge d'Entomologie*, 125, 163-212.
- Ekiz, A. N., Şen, İ., Aslan, E. G., & Gök, A. (2013). Checklist of leaf beetles (Coleoptera: Chrysomelidae) of Turkey, excluding Bruchinae. *Journal of Natural History*, 47, 2213-2287.

- Ganglbauer, K. L. (1905). Coleoptera. In Penther, A. & Zederbauer, E. (Eds.), *Ergebnisse einer naturwissenschaftlichen Reise zum Erdschas-Dagh (Kleinasien). Annalen des Kaiserlich-Königlichen naturhistorischen Hofmuseums in Wien*, 20, 246-290.
- Ghahari, H., & Borowiec, L. (2017). A checklist of seed-beetles (Coleoptera: Chrysomelidae: Bruchinae) from Iran. *Zootaxa*, 4268, 215-237.
- Güçlü, M., & Anton K.-W. (2022). First description of the female of *Bruchus nikdeli* Delobel and Sadeghi (Coleoptera: Chrysomelidae: Bruchinae) and first record from Turkey. *The Coleopterists Bulletin*, 76(1), 39-44.
- Güdek, M. (2020). *Kuzeydoğu Anadolu Bölgesi'nde Bruchinae (Coleoptera: Chrysomelidae) Tür Çeşitliliği ve Konukçularının Araştırılması*. Atatürk Üniversitesi, Fen Bilimleri Enstitüsü, Bitki Koruma Ana Bilim Dalı, PhD Thesis, Erzurum, Turkey, 282 pp.
- Gül-Zümreoğlu, S. (1972). *İzmir Bölge Zirai Mücadele Araştırma Enstitüsü Böcek ve Genel Zararlılar Kataloğu, 1928-1969, 1. Kısım*. T.C. Tarım Bakanlığı Zirai Mücadele ve Zirai Karantina Genel Müdürlüğü Yayınları, İzmir, Turkey, 119 pp.
- Hızal, E., & Parlak, N. N. (2013). *Bruchidius terrenus* and *Bruchidius siliquastri* (Coleoptera: Chrysomelidae: Bruchinae) – first records for Turkey. *Florida Entomologist*, 96, 66-70.
- Johnson, C., Southgate, B. J., & Delobel, A. (2004). A revision of the Caryedontini (Coleoptera: Bruchidae: Pachymerinae) of Africa and the Middle East. *Memoirs of the American Entomological Society*, 44, 1-120.
- Kaynaş, Ş. (2014). *Hüyük (Konya) İlçesinde Bruchidae Familyası (Baklagil Tohum Böcekleri) (Coleoptera) Türleri, Yayılışları ve Baklagil Ürünlerindeki Zararı*. Selçuk Üniversitesi, Fen Bilimleri Enstitüsü, Bitki Koruma Anabilim Dalı, MSc Thesis, Konya, Turkey, 69 pp.
- Kemal, M., Koçak, A. Ö. & Seven, E. (2011). On the species *Caryedon angeri* (Semenov), new to Siirt Province (S.E. Turkey) feeding on mesquit, *Prosopis farcta* (B. and S.) Macbride (Coleoptera, Bruchidae). *Cesa News*, 63, 20-25.
- Korotyayev, B. A., Gültekin, L., Volkovitsh, M. G., Dorofeyev, V. I., & Konstantinov, A. S. (2016). Bioindicator beetles and plants in desertified and eroded lands in Turkey. *Journal of Insect Biodiversity*, 4, 1-47.
- Legalov, A. A. (2022). Review of the genus *Rhaebus* Fischer von Waldheim, 1824 (Coleoptera: Chrysomelidae: Bruchinae). *Ecologica Montenegrina*, 55, 1-16.
- Lukjanovitch, F. K. & Ter-Minassian, M. E. (1957). *Zhuki-zernovki (Bruchidae)*. *Fauna SSSR, Zhestkokrylye. Tom XXIV. Vypusk 1*. Nauka, Moscow, 209 pp.
- Löbl, I., & Smetana, A. (2010). *Catalogue of Palaearctic Coleoptera: Chrysomeloidea (Vol. 6)*. Apollo Books, Stenstrup, 924 pp.
- Mergen, O. (1996a). Systematic studies on the *Bruchidius* Schilsky species in Mediterranean region of Turkey (Coleoptera, Bruchidae). *Turkish Journal of Entomology*, 20, 175-186.
- Mergen, O. (1996b). Systematic studies on the *Bruchidius* Schilsky species in Mediterranean region of Turkey (Coleoptera, Bruchidae). *Turkish Journal of Entomology*, 20, 259-267.
- Mergen, O. (2000). Systematic studies on the male and female genital organ structure in *Spermophagus* Schönherr (Coleoptera: Bruchidae) species. *Turkish Journal of Entomology*, 24, 153-160.
- Mergen, O., & Çağatay, N. (1990). Systematic studies on *Bruchus* species (Bruchidae, Coleoptera). *Türkiye Entomoloji dergisi*, 14, 195-206.
- Özdem, A. (1997). Researches on the biology of the Bean Weevil [*Acanthoscelides obtectus* (Say) (Col.: Bruchidae)] in Eskişehir. *Bitki Koruma Bülteni*, 37, 111-118.
- Özer, M. (1961). Türkiye'de baklagil tanelerinde zarar yapan bazı *Bruchus* türleri üzerinde incelemeler. *Ankara Üniversitesi Ziraat Fakültesi Yıllığı*, 4, 353-369.
- Özer, M. (1962). Researches on some pests of milled products and legumes in Turkey. *Yearbook of the Faculty of Agriculture, University of Ankara*, 4, 71-80.

- Pic, M. (1904). Sur divers Lariidae ou Bruchidae et *Urodon* anciens et nouveaux. *L'Echange, Revue Linnéenne*, 20, 39-40.
- Pic, M. (1913). Bruchidae. In Schenkling, S. (Ed.), *Coleopterorum Catalogus*, 55. W. Junk, Berlin, 74 pp.
- Reitter, E. (1890). Beschreibungen neuer Coleopteren aus Europa, dem Kaukasus, Russisch-Armenien und Turkestan. *Wiener Entomologische Zeitung*, 9, 189-198.
- Sahlberg, J. (1913). Coleoptera mediterranea orientalia, quae in Aegypto, Palaestina, Syria, Caramania atque in Anatolia occidentali anno 1904. *Öfversigt af Finska vatenskaps-societetens förhandlingar*, 19, 1-282.
- Savitsky, M. Y. (2000). New and little-known species of the seed-beetle genus *Spermophagus* (Coleoptera, Bruchidae). *Entomological Review*, 80, 351-358.
- Schilsky, J. (1905). Bruchidae. In Küster, H. C. & Kraatz, G. (Eds.), *Die Käfer Europas: nach der Natur beschrieben, Heft 41*. Bauer und Raspe, Nürnberg, 100 pp.
- Sert, O., & Özdemir, S. (2019). A study on the insect fauna in some provinces of central, eastern and southeastern Anatolian regions of Turkey. *Hacettepe Journal of Biology and Chemistry*, 47, 33-49.
- Sertkaya, E., Uremis, I., & Yigit, A. (2005). Natural efficiency of *Caryedon palaesticus* Southgate (Coleoptera, Bruchidae, Pachymerinae) feeding on the seeds of mesquit, *Prosopis farcta* (Banks and Sol.) Macbride. *Pakistan Journal of Biological Sciences*, 8, 85-88.
- Southgate, B. J. (1979). Biology of the Bruchidae. *Annual Review of Entomology*, 24, 449-473.
- Ter-Minassian, M. E. (1969). Novye vidy zhukov-zernovok (Coleoptera, Bruchidae) v faune Kavkaza. *Doklady Akademii Nauk Armyanskoy SSR*, 49, 273-276.
- Turanlı, D., & Kismali, Ş. (2011). Investigations on species of the Bruchidae family and their damage to stored legume seeds in Denizli and Uşak Provinces. *Bitki Koruma Bülteni*, 51, 195-205.
- Yabaş, C., & Ulubilir, A. (1993). Akdeniz Bölgesi'nde fasulye alanlarında bulunan böcek ve akar faunası. *Bitki Koruma Bülteni*, 33, 52-60.
- Yus Ramos, R. (2010). Amendments to the Catalogue of Palaearctic Coleoptera Bruchinae of Löbl & Smetana 2010 (Coleoptera: Bruchidae). *Boletín de la Asociación española de Entomología*, 34, 219-234.
- Yücel, A. (1994). A new species for Turkish fauna: *Caryedon palestunicus* Southgate (Coleoptera, Bruchidae, Pachymerinae). *Turkish Journal of Entomology*, 18, 35-39.
- Zampetti, F. (1981). Contribution to the knowledge of the Bruchidae of Turkey. I. (Coleoptera, Bruchidae). *Fragmenta Entomologica*, 16, 73-87.
- Zampetti, F. (1984). Contribution to the knowledge of the Bruchidae of Turkey. II (Coleoptera, Bruchidae). *Fragmenta Entomologica*, 17, 395-406.

## ЧЕКЛИСТА ЖИЖАКА (COLEOPTERA: CHRYSOMELIDAE: BRUCHINAE) ТУРСКЕ

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### Извод

Урађена је ревизија фауне подфамилије Bruchinae (Coleoptera: Chrysomelidae) Турске и представљена је чеклиста са коментарима, као и дистрибуција таксона по провинцијама. Представљене су укупно 122 врсте жижака из 14 родова за фауну Турске, што представља приближно 25% фауне жижака у Палеарктику. Поред тога, сумњиви или проблематични подаци за 11 врста су представљени одвојено.

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