

## Heteroptera (Insecta: Hemiptera) fauna of Kastamonu and Bartın Provinces in Turkey

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**ABSTRACT:** In this study, Heteroptera records belonging to different species taxa collected from Kastamonu and Bartın provinces in 2019 were reviewed. In this study, 3 species of 2 genera from Anthocoridae, 3 species of 3 genera from Coreidae, 2 species of 2 genera from Cydnidae, 7 species of 7 genera from Lygaeidae, 8 species of 6 genera from Miridae, 3 species of 3 genera from Nabidae, 6 species of 5 genera from Pentatomidae, 1 species of 1 genus from Pyrrhocoridae, 1 species of 1 genus from Reduviidae, 6 species of 4 genera from Rhopalidae, and 3 species of 3 genera from Tingidae were recorded.

In total, 43 species from 37 genera of 11 families were recorded in Kastamonu and Bartın provinces. Among them, *Coreus marginatus* (Linnaeus, 1758) (Coreidae), *Nysius graminicola* (Kolenati, 1845) (Lygaeidae), *Lygus pratensis* (Linnaeus, 1758), *Orthops (Montanorthops) forelii* Fieber, 1858 (Miridae), *Nabis (Nabis) pseudoferus* Remane, 1949 (Nabidae), *Dolycoris baccarum* (Linnaeus, 1758) (Pentatomidae), *Corizus hyoscyami hyoscyami* (Linnaeus, 1758) and *Rhopalus (Rhopalus) subrufus* (Gmelin, 1790) (Rhopalidae) have been found the most abundant and widespread species.

In addition, new localities are mentioned for some species which have already been reported from Kastamonu and Bartın.

**KEYWORDS:** Hemiptera, Heteroptera, Fauna, Turkey

**To cite this article:** Yazıcı, G., 2022, Heteroptera (Insecta: Hemiptera) fauna of Kastamonu and Bartın Provinces in Turkey, *J.Het.Turk.*, 4(1):43-55

**DOI:**10.5281/zenodo.6590272

**To link to this article:** <https://www.j-het.org/wp-content/uploads/2022/05/V41-A6.pdf>

**Received:** Apr 29, 2022; **Revised:** May 18, 2022; **Accepted:** May 18, 2022; **Published online:** May 30, 2022

## INTRODUCTION

Zhang (2011) states that the order Hemiptera Linnaeus, 1758 ranks fifth in the world with 104,165 species after the orders Coleoptera, Diptera, Lepidoptera, and Hymenoptera. Heteroptera Latreille, 1810 is a suborder of Hemiptera which contains 42,347 described species (Henry, 2009). The number of species listed from the Palaearctic Region increased from 8571 to 9365 in the period between the publication of the original five volumes (1995-2006) and 2012 (Aukema & Rieger, 1995; 1996; 1999; 2001; 2006).

Turkey occupies Asia Minor between the Mediterranean Sea and the Black Sea and stretches into continental Europe. It has been known to possess a rich fauna of Heteroptera. Thus, faunistic and systematic studies about the Heteroptera have been conducted by both foreign and native researchers in Turkey (Hoberlandt, 1955; Önder, 1976, Önder et al., 2006; Lodos et al., 1978, 1998, 1999, 2003; Péricart, 1983; Yardım, 1990; Kiyak et al., 2004, Kiyak & Akar, 2010, Kiyak & Baş 2021; Bolu et al., 2006; Dursun, 2009, 2011a,

2011b; Fent & Aktaç, 2009, Fent, 2011, Fent & Dursun, 2019; Yıldırım et al., 2011, 2013 a, b., 2014; Maral et al., 2013; Matocq et al., 2014; Küçükbasmacı, 2014, Küçükbasmacı et al., 2016; Yazıcı et al., 2015a,b, 2016, 2017a,b, 2019; Çerçi et al., 2018, Çerçi & Gözüaçık, 2019, Çerçi & Özgen, 2021; Zengin & Dursun, 2019; Pehlivan & Atakan, 2020).

This paper aims to present new collection and biological data on Heteroptera in Turkey.

## MATERIALS and METHODS

The Heteroptera material was collected from different localities in Kastamonu and Bartın 2019.

The insect samples for this study were collected by sweeping plants with an insect net.

Provinces, where the specimens were collected, are given in alphabetical order in the following list. The material is deposited in the Nazife Tuatay Plant Protection Museum, Turkey (NTM).

## RESULTS

In this study, 43 species of 37 genera belonging to 11 families from the suborder Heteroptera were recorded from Turkey.

### **Anthocoridae Fieber, 1836**

#### ***Anthocoris nemoralis* (Fabricius, 1794)**

Material examined: Bartın, Hacıosmanoğlu, 109 m, 24.04.2019, ♀, ♂, N 41°33'21", E 32°, 09', 56".

Distribution in Turkey: Ankara, Antalya, Erzincan, Erzurum, Kayseri, Mardin, Mersin (Hoberlandt, 1955; Yıldırım et al., 2013; Matocq et al., 2014; Yazıcı, 2019).

#### ***Orius (Heterorius) minutus* (Linnaeus, 1758)**

Material examined: Kastamonu, Pınarbaşı, Öyükören, 859 m, 25.04.2019, ♂, N 41° 35'42", E 32°55'45".

Distribution in Turkey: Adana, Adıyaman, Ankara, Antalya, Artvin, Edirne, Erzincan, Erzurum, Iğdır, Kars (Hoberlandt, 1955; Yıldırım et al., 2013; Pehlivan & Atakan, 2020).

#### ***Orius (Orius) niger* (Wolff, 1811)**

Material examined: Kastamonu, Pınarbaşı, Öyükören, 859 m, 25.04.2019, ♀, N 41° 35'42", E 32°55'45".

Distribution in Turkey: Adana, Adıyaman, Ankara, Antalya, Artvin, Bayburt, Diyarbakır, Edirne, Elazığ, Erzincan, Erzurum, Iğdır (Hoberlandt, 1955; Yıldırım et al., 2013; Matocq et al., 2014; Pehlivan & Atakan, 2020).

### **Coreidae Leach, 1815**

#### ***Ceraleptus gracilicornis* (Herrich-Schaeffer, 1835)**

Material examined: Kastamonu, Tosya, 735 m, 27.04.2019, ♂, N 41°1'32", E 34°3'21".

Distribution in Turkey: Amasya, Aydın, Bursa, Çorum, Denizli, Edirne, Erzincan, Erzurum, Hatay, İstanbul, Kayseri, Kastamonu, Sinop (Hoberlandt, 1955; Önder et al., 2006; Dursun, 2011b; Yıldırım et al., 2013; Küçükbasmacı & Kıyak, 2015; Fent & Dursun, 2019; Zengin & Dursun, 2019; Akman & Dursun, 2021).

#### ***Coreus marginatus* (Linnaeus, 1758)**

Material examined: Kastamonu, Merkez, 773 m, 27.04.2019, ♀, N 41°22'9", E 33°50'45", Araç, 673 m, 26.04.2019, ♂, N 41°14'36", E 33°19'42", Pınarbaşı, Öyükören, 859 m, 25.04.2019, ♀, N 41°35'42", E 32°55'45", Tosya, 735 m, 27.04.2019, ♀, N 41°1'32", E 34°3'21", Ekincik, 762 m, 27.04.2019, ♀, 2 ♂♂, N 41°1'52", E 34°3'2".

Distribution in Turkey: Adana, Ağrı, Amasya, Ankara, Antalya, Ardahan, Artvin, Aydın, Balıkesir, Bartın, Bilecik, Bingöl, Burdur, Bursa, Çanakkale, Çankırı, Çorum, Denizli, Edirne, Elazığ, Erzurum, Gaziantep, Hatay, İstanbul, İzmir, Kars, Kastamonu, Kayseri, Kırşehir, Kocaeli, Mardin, Muğla, Muş, Samsun, Sinop (Horváth, 1901; Kiritshenko, 1924; Hoberlandt, 1955; Önder et al., 2006; Dursun & Fent, 2009; Yıldırım et al. 2013; Matocq et al., 2014; Fent & Dursun 2019; Zengin & Dursun, 2019; Akman & Dursun, 2021; Çerçi & Özgen, 2021; Kıyak & Baş, 2021).

#### ***Syromastus rhombeus* (Linnaeus, 1767)**

Material examined: Kastamonu, Pınarbaşı, Öyükören, 859 m, 25.04.2019, ♂, N 41°35'42", E 32°55'45".

Distribution in Turkey: Adana, Ağrı, Amasya, Ankara, Artvin, Aydın, Balıkesir, Burdur, Bursa, Çorum, Edirne, Elazığ, Erzurum, Gaziantep, Hatay, Isparta, İstanbul, İzmir, Kahramanmaraş, Kars, Kayseri, Kastamonu, Manisa, Nevşehir, Sivas, Sinop, Tokat, Van (Horváth, 1883, 1901; Kiritshenko, 1918, 1924; Hoberlandt, 1955; Linnavuori, 1965; Tuatay et al., 1972; Kıyak et al., 2004; Önder et al., 2006; Dursun & Fent, 2009; Dursun, 2011b; Yıldırım et al., 2013; Fent & Dursun 2019; Zengin & Dursun, 2019; Akman & Dursun, 2021; Kıyak & Baş, 2021).

### **Cydnidae Billberg, 1820**

#### ***Ochetostethus opacus* (Scholtz, 1847)**

Material examined: Kastamonu, Araç, 673 m, 26.04.2019, ♀, N 41°14'36", E 33°19'42".

Distribution in Turkey: Adana, Antalya, Çorum, Edirne, Erzurum Gaziantep, İzmir, Kahramanmaraş, Karaman, Kayseri, Konya, Manisa, Mersin, Osmaniye, Tekirdağ (Önder et al., 2006; Fent & Aktaç, 2009; Yazıcı et al., 2015b).

#### ***Tritomegas bicolor* (Linnaeus, 1758)**

Material examined: Kastamonu, Merkez, 773 m, 27.04.2019, ♀, ♂, N 41°22'9", E 33°50'45".

Distribution in Turkey: Ankara, Antalya, Edirne, Erzincan, Erzurum, İstanbul, Kocaeli

(Hoberlandt, 1955; Önder et al., 2006; Fent & Aktaş, 2009; Kiyak & Akar, 2010; Yazıcı et al., 2015b).

### **Lygaeidae Schilling, 1829**

#### ***Nysius graminicola* (Kolenati, 1845)**

Material examined: Bartın, Hatipler, 20 m, 24.04.2019, 2 ♀♀, N 41°35'14", E 32°8'17", Kuruçayı, Aydoğmuş, Dere Mah., 40 m, 25.04.2019, ♀, ♂, N 41°48'31", E 32°40'12", Curuhlu, 96 m, 25.04.2019, ♀, N 41°49'37", E 32°39'46", Küçük kızılkuş, 115 m, 24.04.2019, ♀, N 41°34'12", E 32°8'59", Ulus, Aktaş, 339 m, 25.04.2019, 2 ♀♀, ♂, N 41°32'14", E 32°34'9".

Distribution in Turkey: Adana, Afyonkarahisar, Artvin, Aydın, Balıkesir, Bayburt, Burdur, Çanakkale, Çorum, Denizli, Edirne, Erzincan, Erzurum, Eskişehir, Gaziantep, Hatay, Isparta, İstanbul, İzmir, Kahramanmaraş, Kars, Kayseri, Kocaeli, Konya, Manisa, Mersin, Muğla, Nevşehir, Tekirdağ, Uşak, Zonguldak (Hoberlandt, 1955; Önder et al., 2006; Yazıcı et al., 2015a).

#### ***Spilostethus saxatilis* (Scopoli, 1763)**

Material examined: Kastamonu, Tosya, Ekincik, 762 m, 27.04.2019, ♀, N 41°1'52", E 34°3'2".

Distribution in Turkey: Adana, Aksaray, Ankara, Ardahan, Burdur, Diyarbakır, Elazığ, Erzincan, Erzurum, Eskişehir, Gaziantep, Kars, Konya, Malatya, Mersin, Sivas, Tunceli, Yozgat (Hoberlandt, 1955; Matocq et al., 2014; Yazıcı et al., 2015a; Çerçi et al., 2018; Çerçi & Özgen, 2021).

#### ***Tropidothorax leucopterus* (Goeze, 1778)**

Material examined: Kastamonu, Tosya, Ekincik, 735 m, 27.04.2019, ♂, N 41°1'32", E 34°3'21", 762 m, 27.04.2019, ♀, ♂, N 41°1'52", E 34°3'2".

Distribution in Turkey: Ankara, Antalya, Artvin, Bursa, Çorum, Erzincan, Erzurum, Iğdır, Kastamonu, Konya, Manisa, Niğde, Zonguldak (Önder et al., 2006; Yazıcı et al., 2015a).

### **Geocoridae Baerensprung, 1860**

#### ***Geocoris (Piocoris) erythrocephalus* (Lepeletier & Serville, 1825)**

Material examined: Bartın, Ulus, Aktaş, 339 m, 25.04.2019, ♂, N 41°32'14", E 32°34'9" Kastamonu, Tosya, Ekincik, 762 m, 27.04.2019, ♀, ♂, N 41°1'52", E 34°3'2".

Distribution in Turkey: Adana, Amasya, Ankara, Antalya, Diyarbakır, Edirne, Elazığ, Erzurum, Hatay, Kars, Mardin, Nevşehir (Hoberlandt, 1955; Çakır & Önder, 1990; Kiyak et al., 2004; Matocq et al., 2014; Yazıcı et al., 2015a; Yazıcı, 2019; Yılmaz & Dursun, 2022).

### **Rhyparochromidae Amyot & Serville, 1843**

#### ***Aphanus rolandri* (Linnaeus, 1758)**

Material examined: Kastamonu, Merkez, 773 m, 27.04.2019, ♂, N 41°22'9", E 33°50'45".

Distribution in Turkey: Adana, Ankara, Antalya, Bolu, Çorum, Elazığ, Erzurum, Kahramanmaraş, Kars, Kırşehir, Mardin, Zonguldak (Hoberlandt, 1955; Önder et al., 2006; Matocq et al., 2014; Yazıcı et al., 2015a).

#### ***Beosus quadripunctatus* (Müller, 1766)**

Material examined: Bartın, Ulus, Aktaş, 339 m, 25.04.2019, ♀, ♂, N 41°32'14", E 32°34'9".

Distribution in Turkey: Adana, Ankara, Artvin, Çanakkale, Diyarbakır, Elazığ, Erzurum, Iğdır, Mardin (Hoberlandt, 1955; Fent, 2011; Matocq et al., 2014; Yazıcı et al., 2015a).

***Drymus (Sylvadrymus) brunneus (Sahlberg, 1848)***

Material examined: Kastamonu, Pınarbaşı, Mirahor, 841 m, 25.04.2019, ♂, N 41°38'59", E 32°54'20".

Distribution in Turkey: Erzincan, Erzurum, Hatay, Kahramanmaraş (Hoberlandt, 1955; Önder et al., 2006; Yazıcı et al., 2015a).

**Miridae Hahn, 1831**

***Liocoris tripustulatus (Fabricius, 1781)***

Material examined: Kastamonu, Daday, Köşeler, 1116 m, 26.04.2019, ♂, N 41°31'15", E 33°12'36", Pınarbaşı, Mirahor, 841 m, 25.04.2019, ♀, N 41°38'59", E 32°54'20".

Distribution in Turkey: Adana, Artvin, Bayburt, Diyarbakır, Elazığ, Erzurum, Hatay, Iğdır, Kahramanmaraş, Mardin (Hoberlandt, 1955; Matocq et al., 2014; Yazıcı & Yıldırım, 2016; Çerçi & Özgen, 2021).

***Lygus pratensis (Linnaeus, 1758)***

Material examined: Bartın, Küçükkızılkum, 115 m, 24.04.2019, ♀, N 41°34'12", E 32°8'59", Kurucuşile, Aydoğmuş, Dere Mah., 40 m, 25.04.2019, 2 ♀♀, ♂, N 41°48'31", E 32°40'12", Ulus, Aktaş, 339 m, 25.04.2019, ♀, N 41°32'14", E 32°34'9"; Kastamonu, Araç, Alınören, 857 m, 26.04.2019, 3 ♀♀, 2 ♂♂, N 41°13'50", E 33°27'30".

Distribution in Turkey: Adana, Ankara, Ardahan, Bayburt, Bursa, Çanakkale, Diyarbakır, Edirne, Erzincan, Erzurum, Gaziantep, Hatay, Iğdır, Kahramanmaraş, Kars, Mardin (Hoberlandt, 1955; Fent, 2011; Matocq et al., 2014; Kaçar & Dursun, 2015; Yazıcı & Yıldırım, 2016).

***Lygus rugipennis Poppius, 1911***

Material examined: Kastamonu, Araç, Alınören, 857 m, 26.04.2019, ♀, 3 ♂♂, N 41°13'50", E 33°27'30".

Distribution in Turkey: Adapazarı, Adıyaman, Artvin, Bayburt, Elazığ, Erzincan, Erzurum, Iğdır, İskenderun, Kars, Konya, Mersin, Trabzon (Çerçi et al., 2018; Yazıcı & Yıldırım, 2016).

***Macrolophus melanotoma (A. Costa, 1853)***

Material examined: Kastamonu, Pınarbaşı, Öyükören, 859 m, 25.04.2019, ♀, ♂, N 41°35'42", E 32°55'45".

Distribution in Turkey: Ankara, Mardin (Önder et al., 2006; Matocq et al., 2014).

***Notostira elongata (Geoffroy, 1785)***

Material examined: Kastamonu, Araç, Alınören, 857 m, 26.04.2019, ♀, N 41°13'50", E 33°27'30".

Distribution in Turkey: Ankara, Çankırı, Çorum, Erzurum, Kars, Kayseri, Kütahya, Mersin, Nevşehir, Sinop, Yozgat (Önder, 1976; Yardım, 1990; Önder et al., 2006; Yazıcı & Yıldırım, 2017b).

***Orthops (Orthops) basalis* (A. Costa, 1853)**

Material examined: Bartın, Ulus, Aktaş, 339 m, 25.04.2019, ♀, N 41°32'14", E 32°34'9"; Kastamonu, Araç, Alınören, 857 m, 26.04.2019, ♂, N 41°13'50", E 33°27'30".

Distribution in Turkey: Ankara, Artvin, Bayburt, Erzurum, Kars, Ordu, Samsun (Önder et al., 2006; Yazıcı & Yıldırım, 2017a).

***Orthops (Montanorthops) forelii* Fieber, 1858**

Material examined: Bartın, Ulus, Aktaş, 339 m, 25.04.2019, ♀, N 41°32'14", E 32°34'9", Kastamonu, Daday, Çamlıbel, Çöpören, 1300 m, 24.06.2019, ♂, N 41°24'8", E 33°17'56", Köşeler, 1116 m, 26.04.2019, 2 ♂♂, N 41°31'15", E 33°12'36", Pınarbaşı, Mirahor, 841 m, 25.04.2019, ♂, N 41°38'59", E 32°54'20".

Distribution in Turkey: Erzurum, Kayseri (Hoberlandt, 1955; Önder et al., 2006; Yazıcı & Yıldırım, 2017a).

***Stenodema (Brachystira) trispinosa* Reuter, 1904**

Material examined: Kastamonu, Pınarbaşı, Öyükören, 859 m, 25.04.2019, ♂, N 41°35'42", E 32°55'45".

Distribution in Turkey: Adana, Ağrı, Ankara, Erzurum, Kahramanmaraş, Kırşehir, Niğde (Önder, 1976; Yardım, 1990; Lodos et al., 2003; Önder et al., 2006; Yazıcı & Yıldırım, 2017b).

***Nabidae* A. Costa, 1853*****Himacerus (Aptus) mirmicoides* (O. Costa, 1834)**

Material examined: Kastamonu, Araç, Alınören, 857 m, 26.04.2019, ♂, N 41°13'50", E 33°27'30".

Distribution in Turkey: Bayburt, Elazığ, Erzurum, Giresun, Gümüşhane, Tokat (Linnavuori, 1965; Dursun, 2011a; Yıldırım et al., 2013; Matocq et al., 2014).

***Nabis (Nabis) pseudoferus* Remane, 1949**

Material examined: Bartın, Kuruçayı, Aydoğmuş, Dere Mah., 40 m, 25.04.2019, ♂, N 41°48'31", E 32°40'12"; Kastamonu, Merkez, 773 m, 27.04.2019, ♂, N 41°22'9", E 33°50'45", Araç, Alınören, 857 m, 26.04.2019, 9 ♀♀, 4 ♂♂, N 41°13'50", E 33°27'30", Tosya, 735 m, 27.04.2019, ♀, 2 ♂♂, N 41°1'32", E 34°3'21", Ekincik, 762 m, 27.04.2019, ♂, N 41°1'52", E 34°3'2".

Distribution in Turkey: Adana, Adıyaman, Amasya, Ankara, Artvin, Bayburt, Edirne, Erzincan, Erzurum, Giresun, Iğdır, Kars, Tokat, Trabzon (Hoberlandt, 1955; Tuatay et al., 1972; Önder et al., 2006; Dursun, 2011a; Yıldırım et al., 2013).

***Prostemma (Prostemma) aeneicolle* Stein, 1857**

Material examined: Kastamonu, Pınarbaşı, Mirahor, 841 m, 25.04.2019, ♀, N 41°38'59", E 32°54'20".

Distribution in Turkey: Adana, Kars, Mersin, Tokat (Hoberlandt, 1955; Önder et al., 2006; Dursun, 2011a).

***Pentatomidae* Leach, 1815*****Carpocoris (Carpocoris) purpureipennis* (De Geer, 1773)**

Material examined: Bartın, Küçük Kızılkum, 115 m, 24.04.2019, ♀, N 41°34'12", E 32°8'59", Kastamonu, Tosya, 735 m, 27.04.2019, ♂, N 41°1'32", E 34°3'21".



Distribution in Turkey: Adana, Ankara, Amasya, Antalya, Artvin, Aydın, Balıkesir, Bartın, Bayburt, Bilecik, Bursa, Çanakkale, Çorum, Denizli, Diyarbakır, Edirne, Erzincan, Erzurum, Hatay, Iğdır, Isparta, Karaman, Kars, Kırklareli, Konya, Manisa, Mardin, Mersin, Nevşehir, Ordu, Samsun, Sivas, Tokat, Trabzon, Tunceli, Yozgat (Hoberlandt, 1955; Dursun & Kartal, 2008a; Fent, 2011; Yıldırım et al., 2014; Bolu et al., 2006).

### ***Dolycoris baccarum* (Linnaeus, 1758)**

Material examined: Bartın, Ulus, Aktaş, 339 m, 25.04.2019, 2 ♀♀, N 41°32'14", E 32°34'9"; Kastamonu, Araç, Alınören, 857 m, 26.04.2019, ♀, ♂, N 41°13'50", E 33°27'30", Pınarbaşı, Mirahor, 841 m, 25.04.2019, ♀, N 41°38'59", E 32°54'20".

Distribution in Turkey: Adana, Adıyaman, Amasya, Ankara, Antalya, Artvin, Balıkesir, Bayburt, Bilecik, Bursa, Çanakkale, Denizli, Diyarbakır, Elazığ, Erzincan, Erzurum, Iğdır, Isparta, İstanbul, İzmir, Karaman, Kars, Kırıkkale, Konya, Manisa, Mardin, Mersin, Muş, Nevşehir, Ordu, Samsun, Sivas, Şanlıurfa, Trabzon, Tokat, Tunceli, Zonguldak (Kıyak et al., 2004; Bolu et al., 2006; Dursun & Kartal, 2008a; Fent, 2011; Matocq et al., 2014; Yıldırım et al., 2014; Çerçi et al., 2018; Çerçi & Gözüaçık, 2019; Çerçi & Özgen, 2021).

### ***Eurydema blandum* (Horvath, 1903)**

Material examined: Bartın, Ulus, Aktaş, 339 m, 25.04.2019, ♂, N 41°32'14", E 32°34'9".

Distribution in Turkey: Adana, Amasya, Afyonkarahisar, Ankara, Antalya, Balıkesir, Bilecik, Bolu, Burdur, Çanakkale, Denizli, Erzurum, Gümüşhane, Hakkari, Isparta, İzmir, Kahramanmaraş, Kars, Kahramanmaraş, Kastamonu, Kırıkkale, Kırklareli, Kocaeli, Konya, Konya, Kütahya, Malatya, Manisa, Niğde, Ordu, Ordu, Samsun, Sinop, Şırnak, Tokat, Uşak, Yalova Iğdır, , (Hoberlandt, 1955; Lodos et al., 1998; Önder et al., 2006; Dursun & Kartal, 2008b; Çerçi & Gözüaçık, 2019).

### ***Eurydema (Eurydema) oleracea* (Linnaeus, 1758)**

Material examined: Kastamonu, Merkez, 773 m, 27.04.2019, ♂, N 41°22'29", E 33°50'45".

Distribution in Turkey: Adana, Afyon, Amasya, Ankara, Antalya, Ardahan, Bartın, Bayburt, Bilecik, Bolu, Bursa, , , Çanakkale, Çorum, Edirne, Erzincan, Erzurum, Eskişehir, Gaziantep, Gümüşhane, Isparta Hatay, Iğdır, İstanbul, Kars, Kastamonu, Kırklareli, Kocaeli, Kütahya, Manisa, Ordu, Rize, Samsun, Sakarya, Tekirdağ, Trabzon, Tunceli, Uşak, Zonguldak Mersin, Tokat, Yalova (Fahringer, 1922; Kiritshenko, 1924; Hoberlandt, 1955; Lodos et al., 1978; 1998; Önder et al., 2006; Dursun & Kartal, 2008b; Fent, 2011; Yıldırım et al., 2014; Çerçi & Gözüaçık, 2019).

### ***Nezara viridula* (Linnaeus, 1758)**

Material examined: Bartın, Kurucaşile, Curuhlu, 96 m, 25.04.2019, ♂, N 41°49'37", E 32°39'46", Kavaklı, 249 m, 25.04.2019, ♂, N 41°48'16", E 32°41'14", Ulus, Aktaş, 339 m, 25.04.2019, ♀, 4 ♂♂, N 41°32'14", E 32°34'9".

Distribution in Turkey: Adana, Amasya, Ankara, Antalya, Aydın, Balıkesir, Bilecik, Burdur, Bursa, Denizli, Erzurum, Giresun, İstanbul, İzmir, Kars, Manisa, Muğla, Ordu, Sakarya, Samsun, Tekirdağ, Tokat, Tunceli, Zonguldak (Hoberlandt, 1955; Lodos et al., 1978; 1998; Dursun & Kartal, 2008b; Yıldırım et al., 2014).

### ***Palomena prasina* (Linnaeus, 1761)**

Material examined: Bartın, Kurucaşile, Kavaklı, 249 m, 25.04.2019, ♀, N 41°48'16", E 32°41'14".

Distribution in Turkey: Adana, Antalya, Artvin, Aydın Bartın,, Bilecik, Burdur, Bursa, Çanakkale, Çorum, Denizli, Eskişehir, Erzincan, Erzurum, Gaziantep, Giresun, Gümüşhan, Hakkari, Hatay, Iğdır, İstanbul, İzmir, Kahramanmaraş, Kırıkkale, Kahramanmaraş, Kocaeli, Konya, Kütahya, Manisa, Mersin, Ordu, Sakarya, Samsun, Sinop, Tokat, Trabzon, Tunceli Zonguldak (Seidenstücker, 1958; Lodos et al., 1998; Önder et al., 2006; Yıldırım et al., 2014; Çerçi & Gözüaçık, 2019).

### **Pyrrhocoridae Amyot & Serville, 1843**

#### ***Pyrrhocoris apterus* (Linnaeus, 1758)**

Material examined: Kastamonu, Araç, Alınören, 857 m, 26.04.2019, ♀, N 41°13'50", E 33°27'30", Daday, Köşeler, 1116 m, 26.04.2019, ♂, N 41°31'15", E 33°12'36", Tosya, 735 m, 27.04.2019, ♀, N 41°1'32", E 34°3'21".

Distribution in Turkey: Adana, Adıyaman, Ağrı, Ankara, Antalya, Ardahan, Artvin, Aydın, Bayburt, Bilecik, Burdur, Bursa, Çanakkale, Edirne, Elazığ, Erzincan, Erzurum, Eskişehir, Giresun, Hatay, Iğdır, Isparta, İstanbul, Kahramanmaraş, Karaman, Kars, Kayseri, Konya, Malatya, Mersin, Muğla, Nevşehir, Niğde, Sakarya, Sivas, Şanlıurfa, Tokat, Trabzon (Hoberlandt, 1955; Kıyak et al., 2004; Önder et al., 2006; Yıldırım et al., 2015a).

### **Reduviidae Latreille, 1807**

#### ***Peirates hybridus* (Scopoli, 1763)**

Material examined: Bartın, Küçükkızılkum, 115 m, 24.04.2019, ♀, N 41°34'12", E 32°8'59".

Distribution in Turkey: Ankara, Artvin, Bursa, Diyarbakır, Eskişehir, Gaziantep, Konya, Niğde, Siirt, Uşak (Hoberlandt, 1955; Önder et al., 2006; Matocq et al., 2014).

### **Rhopalidae Amyot & Serville, 1843**

#### ***Corizus hyoscymi hyoscymi* (Linnaeus, 1758)**

Material examined: Bartın, Ulus, Aktaş, 339 m, 25.04.2019, ♂, N 41°32'14", E 32°34'9"; Kastamonu, Araç, Alınören, 857 m, 26.04.2019, ♂, N 41°13'50", E 33°27'30", Daday, Köşeler, 1116 m, 26.04.2019, ♂, N 41°31'15", E 33°12'36", Pınarbaşı, Mirahor, 841 m, 25.04.2019, ♂, N 41°38'59", E 32°54'20", Tosya, 735 m, 27.04.2019, ♂, N 41°1'32", E 34°3'21".

Distribution in Turkey: Adana, Amasya, Ankara, Antalya, Ardahan, Balıkesir, Bayburt, Burdur, Çanakkale, Diyarbakır, Edirne, Elazığ, Erzincan, Erzurum, Giresun, İstanbul, Kayseri, Mardin, Mersin, Sivas, Tokat (Hoberlandt, 1955; Dursun, 2009; Fent, 2011; Yıldırım et al., 2013a; Matocq et al., 2014; Çerçi et al., 2018; Zengin & Dursun, 2019; Çerçi & Özgen, 2021; Kıyak & Baş, 2021).

#### ***Liorhyssus hyalinus* (Fabricius, 1794)**

Material examined: Kastamonu, Araç, Alınören, 857 m, 26.04.2019, ♀, N 41°13'50", E 33°27'30".

Distribution in Turkey: Adana, Ankara, Amasya, Çanakkale, Diyarbakır, Elazığ, Erzincan, Erzurum, Giresun, Mardin, Nevşehir, Samsun, Sivas, Tokat, Tunceli (Hoberlandt, 1955; Kıyak et al., 2004; Dursun, 2009; Fent, 2011; Yıldırım et al., 2013a; Matocq et al., 2014; Çerçi et al., 2018; Zengin & Dursun, 2019; Çerçi & Özgen, 2021).

#### ***Rhopalus (Rhopalus) subrufus* (Gmelin, 1790)**



Material examined: Bartın, Hacıosmanoğlu, 109 m, 24.04.2019, ♀, ♂, N 41°33'21", E 32°9'56", Hatipler, 20 m, 24.04.2019, 4 ♀♀, 2 ♂♂, N 41°35'14", E 32°8'17", Kurucaşile, Kavaklı, 249 m, 25.04.2019, ♀, ♂, N 41°48'16", E 32°41'14", Ulus, Aktaş, 339 m, 25.04.2019, ♀, 3 ♂♂, N 41°32'14", E 32°34'9".

Distribution in Turkey: Ankara, Çanakkale, Edirne, Elazığ, Erzurum, Kayseri, Mardin, Sivas (Hoberlandt, 1955; Dursun, 2009; Fent, 2011; Yıldırım et al., 2013a; Matocq et al., 2014; Kıyak & Baş, 2021).

### ***Stictopleurus abutilon* (Rossi, 1790)**

Material examined: Bartın, Küçükkızılkum, 115 m, 24.04.2019, ♀, N 41°34'12", E 32°8'59", Ulus, Aktaş, 339 m, 25.04.2019, ♀, N 41°32'14", E 32°34'9".

Distribution in Turkey: Adana, Amasya, Ankara, Çanakkale, Diyarbakır, Edirne, Elazığ, Erzincan, Erzurum, Mardin, Tokat (Hoberlandt, 1955; Dursun, 2009; Fent, 2011; Yıldırım et al., 2013a; Matocq et al., 2014; Çerçi et al., 2018; Zengin & Dursun, 2019).

### ***Stictopleurus punctatonervosus* (Goeze, 1778)**

Material examined: Bartın, Hatipler, 20 m, 24.04.2019, ♀, 2 ♂♂, N 41°35'14", E 32°8'17", Ulus, Aktaş, 339 m, 25.04.2019, ♀, N 41°32'14", E 32°34'9"; Kastamonu, Tosya, 735 m, 27.04.2019, ♀, N 41°1'32", E 34°3'21".

Distribution in Turkey: Ardahan, Artvin, Bayburt, Erzurum, Giresun, Gümüşhane, İstanbul, İzmir, Kocaeli, Manisa, Ordu, Tokat (Önder et al., 2006; Dursun, 2009; Yıldırım et al., 2013a).

### ***Stictopleurus unicolor* (Jakovlev, 1873)**

Material examined: Bartın, Küçükkızılkum, 115 m, 24.04.2019, ♀, N 41°34'12", E 32°8'59".

Distribution in Turkey: Erzurum, Kars (Hoberlandt, 1955; Önder et al., 2006; Yıldırım et al., 2013a).

## **Tingidae Laporte, 1832**

### ***Corythucha ciliata* (Say, 1832)**

Material examined: Bartın, Küçükkızılkum, 115 m, 24.04.2019, 2 ♀♀, ♂, N 41°34'12", E 32°8'59".

Distribution in Turkey: Kastamonu, Tekirdağ (Küçükbasmacı, 2014; Küçükbasmacı et al. 2016; Dursun & Fent, 2017).

### ***Dictyla echii* (Schrank, 1782)**

Material examined: Kastamonu, Araç, 673 m, 26.04.2019, ♂, N 41°14'36", E 33°19'42".

Distribution in Turkey: Bayburt, Diyarbakır, Düzce, Edirne, Elazığ, Erzincan, Erzurum, Giresun, İstanbul, Kastamonu, Kars, Kayseri, Kırklareli, Mardin, Tekirdağ, Tokat (Horváth, 1883; Fahringer (1922; Maral et al., 2013; Yıldırım et al. 2013b; Matocq et al., 2014; [Dursun & Fent, 2017](#)).

### ***Tingis (Tingis) auriculata* (A. Costa, 1847)**

Material examined: Kastamonu, Araç, Alınören, 857 m, 26.04.2019, ♀, ♂, N 41°13'50", E 33°27'30".

Distribution in Turkey: Ankara, Artvin, Diyarbakır, Elazığ, Erzincan, Erzurum, Giresun, Hatay, Iğdır, Sivas, Tokat (Seidenstücker, 1954; Hoberlandt, 1955; Péricart, 1983; Maral et al., 2013; Yıldırım et al. 2013b; Matocq et al., 2014; Dursun & Fent, 2017).

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