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Research Article

An Up–To–Date Checklist of Turkish Lygaeoidea (excluding Rhyparochromidae) (Hemiptera: Heteroptera) with additional records

Meral Fent[1*] Ahmet Dursun[2]

[1]Trakya University, Faculty of Science, Department of Biology, Edirne Türkiye
E-mail: m_fent@hotmail.com ORCID: 0000-0001-5787-6714
[2] Amasya University, Faculty of Science, and Arts Department of Biology, 05100, Amasya/Türkiye,
E-mail: ahmet.dursun@amasya.edu.tr ORCID ID: 0000-0002-5114-7470
*Corresponding author

ABSTRACT: In this study, an updated list of the Turkish Lygaoeidea superfamily (excluding Rhyparochromidae) is presented along with the results obtained from field studies carried out in 91 localities with different habitat characteristics in 5 Provinces in the Thrace Region between 2015 and 2020. As a result of the evaluation of materials collected in the region, 53 species belonging to 7 families were identified of which 16 are first records for Turkish Thrace. The first exact locality records were given for two species from the Thrace Region. In addition, as a result of reviewing the studies carried out in Türkiye so far, it has been determined that 49 genera and 146 species/subspecies belonging to 10 families (Artheneidae, Berytidae, Blissidae, Cymidae, Geocoridae, Heterogastridae, Lygaeidae, Oxycarenidae, Pachygronthidae, Piesmatidae) from the Lygaeoidea superfamily are distributed, but 7 of these species need to be confirmed. The distributions of the species are handled separately for the European part (Thrace) of Türkiye and the Asian part (Anatolia). With the 16 new records obtained in this study, 71 species are from European Türkiye and 137 species are from Asian Türkiye (2 species are distributed only in European Türkiye, 68 species only in Asian Türkiye and 69 species in both parts). The type localities of 7 species are in Türkiye (Anatolia) and 2 species of them are endemic to Anatolia.

KEYWORDS: Heteroptera, Lygaeoidae, Türkiye, Anatolia, Turkish Thrace, chek–list, faunistic

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INTRODUCTION

Türkiye consists of two peninsulas (Thrace and Anatolia) located on two continents (Europe and Asia), and its actual area, including lakes and islands, is 814,578 km² and its projection area is 783,562 km².

It is a large country with a roughly rectangular shape, located between the 36° and 42° north parallels and the 26° and 45° east meridians. The part called Anatolia, also known as the Asian Türkiye, has an area of 755,688 km² and covers the largest part of the country.

Turkish Thrace (European Türkiye), located at the southeastern part of the European continent, has an area of 23,764 km², corresponding to 3% of the country.

These two peninsulas are separated by the Dardanelles and Bosphorus straits and the Marmara Sea. The country has borders with Bulgaria and Greece in the northwest, Georgia in the northeast, Armenia, Iran and Azerbaijan (Nakhichevan) in the east, and Iraq and Syria in the southeast.

It is surrounded by Cyprus Island and the Mediterranean Sea in the south, the Aegean Sea in the west, and the Black Sea in the north. Türkiye is geographically divided into 7 regions (Marmara, including the Thrace, Aegean, Mediterranean, Central Anatolia, Black Sea, Eastern Anatolia and Southeastern Anatolia) and administratively 81 Provinces (76 of which are only in Anatolia, 3 only in Thrace and Çanakkale and İstanbul in both regions (Figure 1.) (Anonym 2024).

Figure 1. Map of Türkiye with a position of the major (bio)geographic regions and of the Provinces (Hürriyet com.tr)

More than half of Türkiye consists of high areas with an altitude exceeding 1,000 meters.

The average altitude is 1141 meters. Approximately one-third of the country is covered by medium–altitude plains, plateaus and mountains, and 10% is covered by low areas. The highest and mountainous areas are located in the eastern part. The northern part is divided into the Northern Anatolian Mountains, while The Taurus Mountains cover the southern, eastern and southeastern parts.

There are agriculturally productive delta plains on the Black Sea, Mediterranean and Aegean Sea coasts, and lake bottom plains in Central Anatolia. The most common type of plains are tectonic plains located on fault lines. Plateaus are mostly found in the Eastern Black Sea Region and Central Anatolia (Figure 2.) (Anonym 2024)

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Figure 2. Topographig map of Türkiye (Wikipedia)

The geographical position of Türkiye at the junction of the African–Asian the European continents, makes the country serve as a natural bridge where many species migrate between these continents. This structure, combined with the variable land structure, creates a rich diversity of plant species and plant communities. About 11000 plant taxa are known to naturally spread in Türkiye, among which 35% (≈3500) are endemic. 5 main vegetation types are dominant in Türkiye. These are Forest, Maki, Garig, Steppe and Alpine vegetation types. Forest vegetation, one of the most important vegetation types with different structures and characteristics, constitutes approximately 27% of the country's area. Forest vegetation shows significant diversity according to the European Siberian, Mediterranean and Iran–Turanian flora areas (Aksoy et al., 2014).

Türkiye has gained the characteristics of a small continent in terms of biodiversity due to being involved in three biogeographic regions (Europe–Siberia, Mediterranean and Iran–Turan) and their transition zones, being a bridge between two continents, and its variable topography and climate that provide many different macro– or micro– habitats. Türkiye has forest, mountain, steppe, wetland, coastal and marine ecosystems and different forms and combinations of these ecosystems. In addition, the constantly changing tectonic evolution of Anatolia in Tertiary and Quaternary periods (Anatolia or its main continent, the Aegean plate, connected with the European, Arabian, Iranian and Caucasian plates many times throughout the Tertiary, especially in the Miocene) enabled faunal changes and its topographic structure, and the region became an important shelter during the Quaternary Ice Age due to its different ecological and climatic conditions.. All these features supported the biodiversity and endemic species formation in Türkiye (Demirsoy, 1996; Çıplak, 2003). As with many vertebrate and invertebrate groups, findings regarding Heteroptera reveal the species richness in Türkiye. Fent et al. (2011) listed 100 species/subspecies from aquatic and semi-aquatic Heteroptera. Fent & Dursun (2022) presented 174 species/subspecies in their checklist of the family Pentatomidae. Çerçi et al. (2024) stated that the number of Heteroptera species in Türkiye is around 1668, considering the results of available faunistic studies conducted in the country so far, together with 6 new species they recently described.

Turkish Thrace is the smallest part of

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Turkish territory located in the Southeastern corner of the Balkan Peninsula. The region generally consists of low altitudes, with an average altitude of 180 m above sea level, well below the Türkiye average of 1141 m. Altitudes between 0–250 m constitute 83.1% of Turkish Thrace, altitudes between 250–500 m constitute 13.4%, and altitudes between 500–1000 m constitute 3.5%. The highest point of the region is Mahya Hill (1035 m.) located in the Istranca Mountain range. Istranca Mountains in the north, Belgrad Forests in the northeast, and Ganos Mountains in the south of the region are covered with moist type forests in high places. Southern slopes of the Istranca Mountains (up to 500–600 m), Çatalca Peninsula, Koru Mountains and Gelibolu Peninsula in the south have dry oak forests. In the coastal area, there is a Mediterranean plant community dominated by maquis. In the central part of the Thrace Region, the Ergene Basin lies, which consists of large agricultural lands and has the characteristics of an anthropogenic steppe (Dönmez, 1969).

The Lygaeoidea is a very large süperfamily of the suborder Heteroptera, consisting of true bugs that include seed bugs and their allies, with more than 4,600 described species belonging to 16 families worldwide. Most species in this group feed on seeds or sap, but a few are predatory. The Lygaeoidea superfamily has 257 genera, 1164 species and 52 subspecies belonging to 15 families in the Palaearctic Region (Aukema, 2018). The number of species of families in the Palaearctic Region is as follows: Artheneidae 4 genera, 16 species; Berytidae 15 genera, 60 species, 6 subspecies; Blissidae 9 genera, 60 species; Colobathristidae 2 genera, 7 species; Cymidae, 2 genera, 18 species; Geocoridae 6 genera, 77 species, 9 subspecies; Heterogastridae 10 genera, 34 species; Lygaeidae 32 genera, 160 species, 16 subspecies; Malcidae 3 genera, 32 species, 1 subspecies; Meschiidae 1 genus 1 species; Ninidae 3 genera, 7 species; Oxycarenidae 19 genera, 58 species, 6 subspecies; Pachygronthidae 6 genera, 17 species, 3 subspecies, Piesmatidae 2 genera 21 species and Rhyparochromidae 143 genera, 596 species and 11 subspecies (Aukema, 2018).

The highest number of species belongs to the Rhyparochromidae family, followed by the Lygaeidae family.

The Artheneidae, Blissidae, Cymidae, Geocoridae, Heterogastridae, Oxycarenidae, Pachygronthidae and Rhyparochromidae families, which were previously subfamilies of the Lygaeidae family but were raised to the family level by Henry (1997), are spread on all continents and are the second largest after Miridae in the world with 4000 species belonging to 650 genera.

The studies on the Lygaeoidea süperfamily in Türkiye were carried out by foreign researchers in the last quarter of the 19th century. Except for the recent studies, in these studies, the family Lygae -idae is given in its former form (subfamilies were not elevated to family status). Horváth (1883, 1894, 1898, 1901, 1905, 1916, 1918, 1919) recorded many species (with a new species) from many localities of Anatolia, especially in western (Bursa, Aydın, İstanbul), southern and eastern Anatolia. Reuter, (1890, 1895), Puton & Noualhier (1895), Gadeau de Kerville (1939) and Esherich (1987) gave species records from various Provinces of Anatolia, especially Ankara and İzmir. Fahringer (1922) presented species records from the Belgrad Forests in the European part of İstanbul and the south of Anatolia, and Kritshenko (1918, 1924) presented species records from various localities in Eastern Anatolia, especially Kars. Linnavuori, (1953, 1965) recorded 24 species from various localities, mostly in Western Anatolia. When Hoberlandt (1956) evaluated his records from Provinces such as Edirne in the Thrace Region, Bolu Ankara, Adana, Afyon, Mersin, and Gaziantep in Anatolia, as well as other records given from Türkiye up to that time, he reported 171 species, one of which was new, belonging to the Lygaeoidae superfamily. In the following years, Seidenstücker, (1953a, b, 1957, 1958,

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1960a, b, 1965) recorded a new species and a new subspecies from the family Berytidae with others records. Wagner (1959, 1966), Péricart (1999a, b), Matocq et al. (2000, 2010, 2014), and Şerban (2010) gave some faunistic records belonging to the Lygaeoidea superfamily in different Provinces in Anatolia and Thrace.

The studies of local researchers started later and have continued until today. Aysev (1974) identified 32 species in her study on the Lygaeidae family in the Aegean Region. Çağatay, (1986, 1988, 1989a, b, 1995) has provided many records as well as male genital studies of various subfamilies.

Lodos et al. (1978) in their study to determine the pest fauna of the Marmara and Aegean Regions, identified 64 species belonging to 9 subfamilies from the Lygaeidae family. Lodos et al. (1999), in their detailed study to identify the pest fauna in the Western Black Sea, Central Anatolia and Mediterranean Regions, recorded 149 species belonging to 12 subfamilies of the Lygaeidae family in these three regions. Çakır & Önder (1990) conducted a detailed study on the Geocorinae subfamily in Türkiye and identified 8 species from this subfamily, which includes important predator species. Apart from these studies, many researchers have conducted studies on Lygaeoidea in various regions in Thrace and Anatolia (Önder et al., 1981, 1983, 1984; Kıyak, 1990, 1993, 2000, 2016a b; Özsaraç et al., 2001; Fent & Aktaç, 2008; Kıyak & Akar, 2010; Öncül–Abacıgil et al., 2010; Fent, 2011; Fent & Japoshvili, 2012; Yazıcı et al., 2015, 2022; Fent & Dursun, 2016a b; Çerçi et al., 2018, 2022; Yazıcı, 2019, 2022a, b; Özgen et al., 2021a–c; Çerçi & Özgen, 2021; Fent & Okyar, 2022; Çerçi & Koçak, 2023; Eser & Dursun, 2023a b; Yence & Fent, 2023).

The studies on the Thrace Region so far are limited. The first records belong to foreign researchers and started in the early 1900s.

Horváth (1918) recorded 8 species from İstanbul, Fahringer (1922) recorded 5 species from İstanbul, Hoberlandt (1956) recorded 32 species from Edirne, and Wagner (1966) recorded 2 species.

While listing the Heteroptera of the Balkan Peninsula, Josifov (1986) recorded 43 species from Turkish Thrace without specifying locality (as ET).

Lodos et al. (1978), in their study to determine the pest fauna of the Marmara and Aegean Regions, identified 22 species in the Thrace part. Önder et al. (1984), in their study in Edirne using light traps, identified 17 species, and Fent & Aktaç, (2008), in their study on the determination of adult wintering Heteroptera species in Edirne, identified 16 species from Lygaeidae.

While Önder et al. (2006) gave 41 species/subspecies in the Turkish catalogue, Péricart (2001a, b) reported 66 species/subspecies from Lygaeidae and Berytidae from the Thrace Region (35 of Thrace Region (35 of these species are from the Rhyparochoriminae subfamily) in the Palaearctic catalogue.

MATERIALS AND METHODS

The field studies were carried out in 91 different localities in the Thrace Region during the spring–autumn periods between 2015–2020 (Table 1., Figure 3.).

The research material was captured with the help of the insect nets from herbaceous plants, a Japanese umbrella from trees and bushes, and a suction tube from the soil and plant roots.

In addition to this material, samples collected from various Provinces in Anatolia by A. Dursun (second author) were given under Asian Türkiye.

To identify the specimens, we used the following keys: Stichel (1956-1962) and Péricart (1999a, b). In addition, the studies carried out in Türkiye to date have been scanned and the species and the Provinces where they are distributed are given. Palaearctic distributions of the species are taken from Aukema (2018).

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Table 1. Studied localities in Thrace Region, altitudes, coordinates and sampling dates

Loc. no	Locality	Altitude	Coordinate	Sampling date
1	Edirne (Uzunköprü–Saçlımüsellim)	69 m	41°25'746N 26°37'57E	13.06.2015
2	Kırklareli (Kofçaz–Kadıköy)	387 m	41°48'40N 27°10'44E	17.06.2015
3	Tekirdağ (Hayrabolu–Danişment)	77 m	41°17'59N 26°57'78E	18.06.2015
4	Tekirdağ (Hayrabolu–between Danişment–Çerkezmüsellim)	96 m	41°16'19N 27°1'34E	18.06.2015
5	Kırklareli (Pehlivanköy)	41 m	41° 20'45N 26°55'29E	19.06.2015
6	Kırklareli (Pınarhisar–İslambeyli)	165 m	41°42'4N 27°37'35E	21.06.2015
7	Kırklareli (between Yenice–Demirköy around sand pit)	689 m	41°44'55N 27°40'13E	21.06.2015
8	Kırklareli (Demirköy–Sislioba)	138 m	41°57'38N 27°54'48E	24.06.2015
9	Kırklareli (Demirköy–İğneada)	0 m	41°52'28N 27°59'2E	24.06.2015
10	Kırklareli (Demirköy–Boztaş)	368 m	41°54'48N 27°38'52E	25.06.2015
11	Kırklareli (Demirköy–Istranca)	403 m	41°55'46N27°36'27E	25.06.2015
12	Kırklareli (Demirköy–Hamdibey)	459 m	41°51'46N 27°45'50E	26.06.2015
13	Kırklareli (Demirköy–between Hamdibey –Yeşilce)	390 m	41°52'38N 27°42'18E	26.06.2015
14	Kırklareli (Demirköy–Longoz Forest)	19 m	41°49'16N 27°57'12E	27.06.2015
15	Kırklareli (Vize–Kıyıköy)	5 m	41°38'5N 28°5'19E	28.06.2015
16	Kırklareli (Demirköy–Sivriler)	334 m	41°46'51N 27°51'55E	28.06.2015
17	Kırklareli (Pınarhisar–Mahya Hill)	647 m	41°47'18N 27°37'56E	30.06.2015
18	Edirne (Center)	41 m	41°38'59N 26°37'24E	01.07.2015 10.10.2018
19	Edirne (Center–Uzgaç)	252 m	41°48'27N 26°24'14E	01.07.2015 08.07.2015
20	Edirne (Center–Kırköy)	252m	41°6'21N 26°43'20E	04.07.2015
21	Edirne (Center–Suakacağı)	35 m	41°50'27N 26°35'11E	05.07.2015
22	Edirne (Süleoğlu–Büyük Gerdelli village)	252 m	41°44'10N 26°56'54E	05.07.2015
23	Edirne (Lalapaşa–Ömeroba)	352m	41°55'40N 26°56'54E	15.07.2015
24	Edirne (Uzunköprü)	33 m	41°16'72N 26°40'52E	15.07.2015
25	Kırklareli (Center–Çağlayık)	453 m	42°2'5N 27°20'25E	15.08.2015
26	Tekirdağ (between Saray–Bahçeköy)	281m	41°30'43N 28°0'32E	18.08.2015
27	Tekirdağ (between Saray–Safaalan)	213 m	41°26'25N27°59'58E	18.08.2015 11.06.2016
28	İstanbul (Çatalca–Binkılıç)	215 m	41°23'55N 28°11'40E	18.08.2015
29	İstanbul (Çatalca–İhsaniye)	133 m	41°15'15N 28°23'41E	18.08.2015
30	İstanbul (Silivri–Fener Köyü)	58 m	41°8'40N 28°15'56E	19.08.2015
31	Tekirdağ (Center–Naip Köy)	105 m	40°52'59N 27°25'26E	19.08.2015
32	Tekirdağ (Center–Mermer)	112 m	40°51'22N 27°22'23E	20.08.2015
33	Tekirdağ (Şarköy–Uçmakdere)	140 m	40°47'57N 27°21'49E	20.08.2015
34	Tekirdağ (Şarköy)	120 m	40°38'15N 27°5'55E	21.08.2015
35	Tekirdağ (Şarköy–Yeniköy)	167 m	40°39'27N 27°3'34E	11.06.2017
36	Kırklareli (Center–Üsküp)	268 m	41°43'23N 27°22'45E	22.08.2015 21.05.2016 06.06.2016
37	Kırklareli (Center–Çukurpınar)	509 m	41°49'5N 27°28'10E	22.08.2015 21.05.2016
38	Edirne (Uzunköprü road)	79 m	41°19'27N 26°43'59E	27.08.2015
39	Edirne (Enez–Dalyan, Hisarlı, Karagöl, Taşaltı)	5 m	40°43'29N 26°4'57E	31.08.2015 01.09.2015 03.09.2015

40	Kırklareli (Lüleburgaz–Evrensekiz)	73 m	41°22'11N 27°29'42E	14.05.2016
41	Edirne (Süloğlu–Dam)	252 m	41°46'8N 26°54'36E	15.05.2016
42	Edirne (Uzunköprü–Çöpköy)	56 m	41°13'11N 26°49'22E	16.05.2016 08.06.2016
43	Edirne (Uzunköprü–Ömerbey)	50 m	41°15'407N 26°50'13E	16.05.2016
44	Çanakkale (Gelibolu–Ilgardere)	141 m	40°18'7N 26°28'38E	17.05.2016
45	Çanakkale (between Eceabat–Kilitbahir)	7 m	40°9'31N 26°22'16E	17.05.2016
46	Çanakkale (Eceabat–between Behramlı–Şehitlik)	78 m	40° 6'27N 26°14'22E	17.05.2016
47	Edirne (Keşan– Küçük Yerlisu–Koru Mountains)	252 m	40°43'30N 26°43'52E	18.05.2016
48	Edirne (Meriç–Olacak village)	47 m	41°12'55N 26°28'25E	19.05.2016
49	Edirne (Meriç–Akıncılar road)	9 m	41°11'32N 26°31'8E	20.05.2016
50	Edirne (Meriç–Kadıdondurma)	46 m	41°10'25N 26°21'18E	20.05.2016
51	Edirne (Havsa–Hasköy–Saksağan Stream)	252 m	41°39' 38N 26°53' 21E	21.05.2016
52	Kırklareli (Center–Beypınar)	544 m	41°47'58N 27°30'20E	22.05.2016 06.06.2016
53	Kırklareli (Center–Kavakdere)	152 m	41°35'54N 27°16'7E	03.06.2016
54	Kırklareli (Center–Deveçatağı)	139 m	41°34'45N 27°18'37E	04.06.2016
55	Edirne (Lalapaşa–Hacıdanişment)	508 m	41°54'35N 26°49'26E	07.06.2016
56	Edirne (İpsala road)	38 m	40°57'43N 26°25'24E	08.06.2016
57	Kırklareli (Babaeski)	78 m	41°25'28N 27° 7'21E	09.06.2016
58	Kırklareli (Center–Kavaklı)	147 m	41°38'46N 27° 9'58E	09.06.2016
59	İstanbul (Çatalca–Danamandıra)	168 m	41°19'27N 28°15'44E	11.06.2016
60	İstanbul (between Çatalca–İhsaniye)	250 m	41°18'10N 28°19'56E	11.06.2016
61	İstanbul (Çatalca–Yazlık)	5 m	41°18'53N 28°31'45E	12.06.2016
62	İstanbul (Arnavutköy road)	116 m	41°16'14N 28°38'26	12.06.2016
63	İstanbul (Çatalca–Dağyenice)	95 m	41°16'34N28°29'3E	12.06.2016
64	İstanbul (Çatalca–Hisarbeyli)	75 m	41°21'56N28°28'46E	13.06.2016
65	İstanbul (Silivri–between Danamandıra–Küçüksinekli)	186 m	41°18'2N 28°14'12E	13.06.2016
66	İstanbul (Çatalca–Akalan Bridge)	158 m	41°15'15N 28°23'41E	14.06.2016
67	İstanbul (Silivri–Küçüksinekli)	156 m	41°12'55N 28°12'43E	15.06.2016
68	Kırklareli (Pınarhisar)	283 m	41°37'13N 27°30'17	16.06.2016
69	Kırklareli (Center–Üsküpdere)	219 m	41°41'13N 27°22'21E	16.06.2016
70	Edirne (Uzunköprü–Kavacık)	34 m	41°11'14N 26°39'56E	14.07.2016
71	Edirne (Uzunköprü–Çavuşlu)	100 m	41° 4' 56N 26° 47' 15E	14.07.2016
72	Edirne (Uzunköprü–Mestanlar)	151 m	41°7'11N 26°50'45E	15.07.2016
73	Kırklareli (Lüleburgaz–Kırıkköy)	273 m	41°28'05N27°15'41E	15.07.2016
74	Kırklareli (Vize–Doğanca)	238 m	41°34'44N 27°36'57E	16.07.2016
75	Tekirdağ (Ergene–Esenler)	104 m	41°13'1N 27°38'54E	17.07.2016
76	Tekirdağ (Muratlı–Hanoğlu)	93 m	41°11'33N 27°21'45E	17.07.2016
77	Tekirdağ (Çorlu–next to the Unilever)	94 m	41°14'33N 27°41'59E	18.07.2016
78	Tekirdağ (Muratlı–Ballıhoca)	77 m	41°12'55N 27°30'52E	18.07.2016
79	Tekirdağ (Saray–Çaylaköy)	123 m	41°23'47N 27°52'45E	18.07.2016
80	Edirne (Keşan–Koru Mountains)	70 m	40°38'0N 26°56'28E	21.07.2016
81	Edirne (Keşan–Kocahıdır)	40 m	40°48'25N 26°25'42E	22.07.2016
82	Edirne (Keşan–Mecidiye)	53 m	40°39'26N 26°33'05E	22.07.2016
83	Edirne (Enez–Gülçavuş– coastal path)	38 m	40°37'15N 26°10'9E	23.07.2016
84	Edirne (Keşan–Karahisar)	22 m	40°45'54N 26°30'22E	24.07.2016
85	Edirne (Center–Balkan Campus)	41 m	41°38'59N 26°37'24E	08.05.2017 16.05.2017 28.06.2017 21.06.2018 29.06.2018 01.07.2018 25.07.2018 03.08.2018

86	Tekirdağ (Şarköy–Uluman)	227 m	40°42'26N 27°5'55E	11.06.2017
87	Tekirdağ (Malkara–Ahmetpaşa village)	158 m	40°53'50N 26°48'57E	22.06.2017
88	Tekirdağ (Malkara–betweenYaylaköy–Yaylagöne)	189 m	40°54'34N 26°48'12E	22.06.2017
89	Tekirdağ (Malkara–Izgar village)	179 m	40°51'42N 26°48'24E	22.06.2017
90	Tekirdağ (Malkara–betweenYaylaköy–Yaylagöne)	189 m	40°54'34N 26°48'12E	22.06.2017

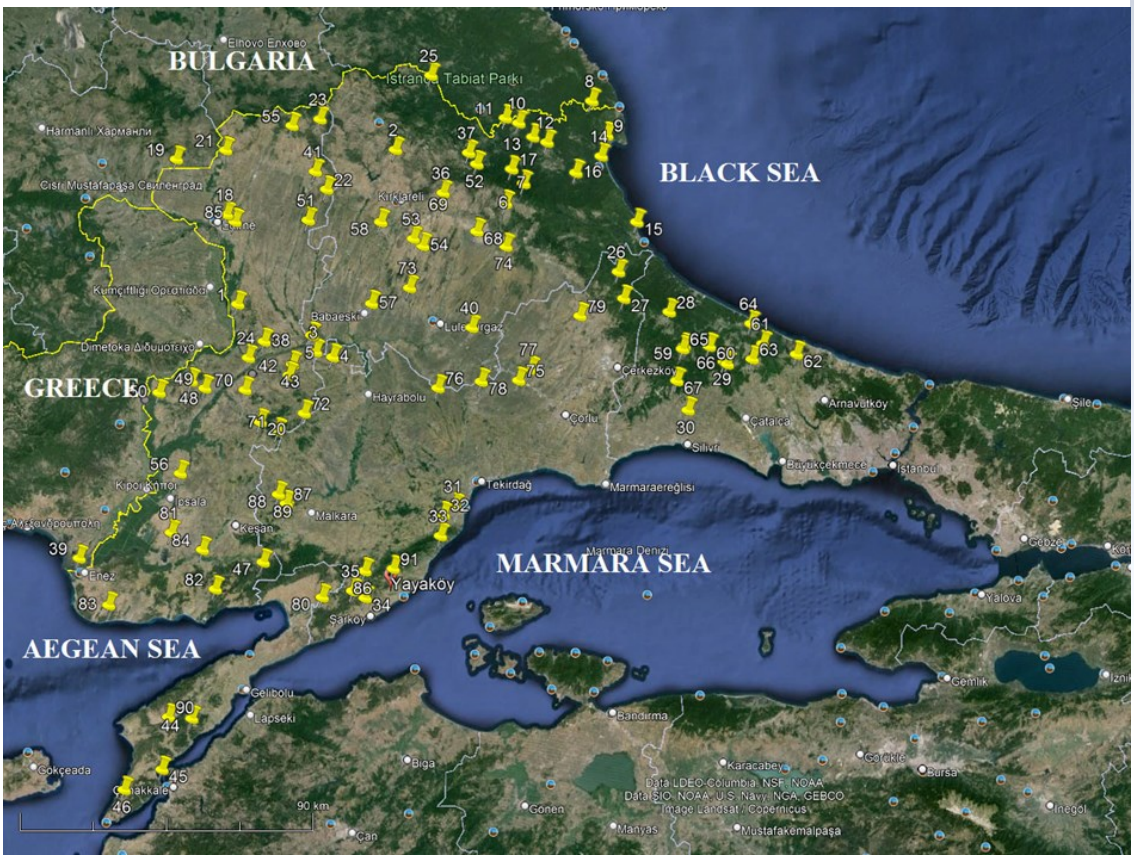

Figure 3. Studied localities in Thrace Region (Google Earth)

Ordo HEMIPTERA
Subordo HETEROPTERA
Infraordo PENTATOMOMORPHA
Superfamily LYGAEOIDEA Schilling, 1829

Family ARTHENEIDAE Stål, 1872
Subfamily ARTHENEINAE Stål, 1872
Tribe ARTHENEINI Stål, 1872

Genus *Artheneis* Spinola, 1837
***Arthenis alutacea* Fieber, 1861**
Asian Türkiye: Adana, Aksaray, Ankara, Antalya, Balıkesir, Denizli, Elazığ, Eskişehir, Gaziantep, Iğdır, İzmir, Kahramanmaraş, Karaman, Kars, Kırıkkale, Mersin, Muğla, Nevşehir, Niğde, Osmaniye **(**Reuter, 1890; Horváth, 1894; Kiritshenko, 1918; Linnavuori, 1953; Hoberlandt, 1956; Lodos et al., 1978, 1999; Çağatay, 1988;

Péricart, 1999a; Önder et al., 2006; Özgen et al., 2021a; Çerçi et. al., 2022).
European Türkiye: Çanakkale, Edirne (Lodos et al., 1978; Çağatay, 1988).
Distribution in Palaearctic: Europe: Crete, Greece, Italy, Macedonia, Anatolia, Middle East.
Note: Péricart (1999a) stated that all of the rich material collected by Seidenstücker, from Anatolia may belong to *Artheneis wagneri* and that the material should be checked to give the exact distribution of *A. alutacea* from Anatolia. Aukema (2018) gave the distribution of *A. alutacea* for Türkiye as "Asian Türkiye? ". However, apart from Seidenstücker, other researchers also provide various records from Anatolia, which confirm its existence in Anatolia.

***Artheneis balcanica* (Kormilev, 1938)**
Asian Türkiye: Afyonkarahisar, Ankara, Balıkesir, Bolu Bursa, Diyarbakır, Elazığ, Gaziantep, İzmir, Karabük, Karaman, Kastamonu, Konya, Nevşehir, Niğde, Zonguldak (Lodos et al., 1978, 1999; Çağatay, 1988; Péricart, 1999a; Önder et al., 1981, 2006; Matocq et al., 2014).
Distribution in Palaearctic: Balkans, Russia (ST), Ukraine, Asian Türkiye, Middle East and Central Asia.
Note: Widely spread throughout the peninsular part of Anatolia, except perhaps the humid strip of the northern coast; towards the East to the Euphrates (Aukema 2018).

***Artheneis foveolata* Spinola, 1837**
Asian Türkiye: Adana, Ankara, Antalya, Erzincan, İzmir, Karabük, Karaman, Konya, Kütahya, Manisa, Mersin, Nevşehir, Niğde, Osmaniye, Zonguldak (Linnavuori, 1953; Hoberlandt, 1956; Özbek et al., 1996; Lodos et al., 1999; Péricart, 1999a; Önder et al., 2006).
Distribution in Palaearctic: Europe: Bosnia Hercegovina, Crete, Croatia, France, Greece, Italy, Macedonia, Malta, Spain. North Africa: Algeria, Egypt?, Morocco, Tunisia. Asia: Asian Türkiye, Cyprus?
Note: Péricart (1999a) reported that this species, distributed in the Mediterranean basin, is common in the western basin, but records from the eastern basin, Egypt, and Türkiye, may belong to other related species and need to be confirmed. However, numerous findings of other researchers confirm the existence of this species in Anatolia.

***Artheneis hyrcanica* (Kolenati, 1845)**
Asian Türkiye: Amasya, Ankara, Aydın, Denizli, Elazığ, Hatay, Isparta, İzmir, Kahramanmaraş, Mersin, Tunceli **(**Hoberlandt, 1956; Lodos et al., 1978, 1999; Kerzhner, 1997; Péricart, 1999a; Önder et al., 2006; Matocq et al., 2014).
Distribution in Palaearctic: Europe: Greece. Asia: Armenia, Asian Türkiye, Azerbaijan, Iran, Iraq, Georgia?, Syria.

***Artheneis intricata* 05. G. Putshkov, 1969**
Asian Türkiye: Adana, Hatay, Kahramanmaraş, Niğde (Péricart, 1999a).
Distribution in Palaearctic: European Kazakhstan, Russia, Ukraine, Asian Türkiye, Central Asia, and China.

Genus *Holcocranum* Fieber, 1860
***Holcocranum saturejae* (Kolenati, 1845)**
Material examined: EUROPEAN TÜRKİYE: Çanakkale Province**:** Between Behramlı –Şehitlik, 17.05.2016, 1 ♂; Edirne Province**:** Keşan–Koru Mountains, 21.07.2016, 1 ♂; Mecidiye, 22.07.2016, 1 ♂; Kocahıdır, 22.07.2016, 5 ♀♀, 5 ♂♂; Karahisar,

24.07.2016, 3 ♀♀; Uzunköprü–Çavuşlu, 14.07.2016, 1 ♀, 2 ♂♂; İstanbul Province**:** Çatalca–Danamandıra, 11.06.2016, 15 ♀♀, 10 ♂♂; Silivri–between Danamandıra–Küçüksinekli 13.06.2016, 1 ♂; Kırklareli Province**:** Center–Üsküp, 21.05.2016, 1 ♂; Kavakdere, 03.06.2016, 1 ♂; Deveçatağı, 04.06.2016, 3 ♀♀, 2 ♂♂; Tekirdağ Province**:** Ergene–Esenler, 16.07.2016, 1 ♀; next to the Unilever, 17.07.2016, 1 ♂; Muratlı–Hanoğlu, 17.07.2016, 44 ♀♀, 41 ♂♂.

European Türkiye: Edirne (Önder et al., 1984, 2006; Fent & Aktaç, 2008).

Asian Türkiye: Bursa, Diyarbakır, Elazığ, Hatay, İzmir, Kahramanmaraş, Karaman, Kocaeli, Mersin, Sakarya (Seidenstücker, 1958; Çağatay, 1988; Lodos et al., 1999; Péricart, 1999a; Önder et al.,1981, 2006; Çerçi et al., 2018; Fent et al., 2022; Çerçi & Koçak, 2023; Eser & Dursun, 2023b).

Distribution in Palaearctic: Eastern and southern Europe, European and Asian Türkiye, North Africa, Transcaucasia, Middle East. Extralimital: Tropical Africa, North America (USA, introduced).

Family BERYTIDAE Fieber, 1851
Subfamily BERYTINAE Fieber, 1851
Tribe BERYTINI Fieber, 1851

Genus: *Apoplymus* Fieber, 1859
***Apoplymus pectoralis* Fieber, 1859**

European Türkiye: İstanbul **(**Péricart, 1984)

Asian Türkiye: Amasya, Ankara, Balıkesir, Bursa, Çankırı, İstanbul, İzmir, Kastamonu, Kayseri, Konya, Malatya, Mardin, Sinop, Zonguldak (Reuter, 1890; Önder et al., 1983, 2006; Péricart, 1984**;** Morkel 2007; Dursun, 2016; Eser & Dursun, 2023b).

Distribution in Palaearctic: Eastern (Balkans) and southern Europe, European and Asian Türkiye, Algeria, Morocco, Tunisia, Cyprus, Middle East.

Genus *Neides* Latreille, 1802
***Neides aduncus* Fieber, 1859**

Asian Türkiye: Antalya, Çanakkale, Isparta, İzmir, Kocaeli, Manisa, Samsun (Linnavuori, 1953; Önder et al., 1983**;** Péricart, 1984; Morkel 2007).

Distribution in Palaearctic: Eastern (Balkans) and southern Europe, North Africa, Asian Türkiye, Cyprus, Israel.

***Neides afghanus* Seidenstücker, 1968**

Asian Türkiye: Anatolia (without locality information) (Péricart, 2001b).

Distribution in Palaearctic: Asia: Afghanistan, Asian Kazakhstan, Asian Türkiye, Iran, Kirgizia, Tadzhikistan, Turkmenistan, Uzbekistan, Yemen.

***Neides brevipennis* Puton, 1895**

Asian Türkiye: Adıyaman, Diyarbakır, Elazığ, Gaziantep, Hatay, Kahramanmaraş, Karaman, Kayseri, Konya, Malatya, Mardin, Mersin, Niğde, Şanlıurfa, Van (Puton 1895; Puton & Noualhier, 1895; Seidenstücker, 1958; Péricart, 1984; Matocq et al., 2014; Kıyak, 2016a; Kemal & Koçak, 2018; Çerçi & Özgen, 2021; Çerçi & Koçak, 2023).

Distribution in Palaearctic: Europe: Croatia?, Asia: Armenia, Asian Türkiye, Azerbaijan, Iran, Iraq, Israel, Jordan, Lebanon, Syria, Turkmenistan, Yemen.

Note: The type locality of this species is “Asia Minor” (Péricart, 2001b).

Neides tipularius (Linnaeus, 1758)

European Türkiye: Edirne (Hoberlandt, 1956; Josifov, 1986; Önder et al., 2006)

Asian Türkiye: Amasya, Ankara, Bingöl, Çankırı, Elazığ, Kars, Kahramanmaraş, Kastamonu, Kayseri, Konya, Kütahya, Manisa, Niğde (Horváth, 1905; Kiritshenko, 1918, 1924; Hoberlandt, 1956; Seidenstücker, 1958; Péricart, 1984**;** Çağlar, 1992; Kıyak, 1993; Önder et al., 2006; Morkel 2007; Küçükbasmacı & Kıyak, 2015; Kıyak, 2016a; Çerçi & Özgen, 2021; Eser & Dursun, 2023b).
Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, Azerbaijan, Armenia, Asian Kazakhstan, Georgia, Iran, Iraq, Uzbekistan.

Tribe BERYTININI Southwood & Leston, 1959

Genus *Berytinus* Kirkaldy, 1900
Subgenus *Berytinus* Kirkaldy, 1900
***Berytinus clavipes* (Fabricius, 1775)**
European Türkiye: Turkish Thrace (without locality information) (Péricart, 1984, 2001)
Asian Türkiye: Çankırı, Diyarakır (Lodos et al., 1984; Bolu 2020; Yazıcı et al., 2022)
Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, Transcaucasia, Central Asia and the Far East.

***Berytinus hirticornis nigrolineatus* (Jakovlev, 1903)**
European Türkiye: Turkish Thrace (without locality information) (Péricart, 2001b)
Asian Türkiye: Akşehir, Ankara, Diyarbakır, Hatay, Isparta, Karaman, Konya (Seidenstücker, 1957 as *Berytinus nigrolineatus*; Péricart, 1984; Matocq et al., 2014; Çerçi & Koçak, 2023)
Distribution in Palaearctic: Europe: Bulgaria, Crete, Greece, Italy, Russia, Ukraine, European and Asian Türkiye, Afghanistan, Transcaucasia, Cyprus, MidIe East, Central Asia.

***Berytinus hirticornis pilipes* (Puton, 1875)**
Asian Türkiye: Ankara (Kıyak, 2016b).
Distribution in Palaearctic: Europe: Crete, France, Greece, Italy, Portugal, Spain. North Africa: Algeria, Canary Islands, Morocco, Madeira, Tunisia. Asia: Asian Türkiye.

***Berytinus minor minor* (Herrich–Schaeffer, 1835)**
European Türkiye: Turkish Thrace (without locality information) (Péricart, 1984, 2001)
Asian Türkiye: Nevşehir (Kıyak *et al.,* 2004**)**
Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, Transcaucasia, Iran, Russia. Extralimital: North America (Canada, USA).

Subgenus *Lizinus* Mulsant & Rey, 1870
***Berytinus consimilis* (Horváth, 1885)**
Asian Türkiye: Ankara, Eskişehir, Sakarya **(**Horváth, 1905; Hoberlandt, 1956; Péricart, 1984; Önder et al., 2006)
Distribution in Palaearctic: Eastern and Southern Europe, Asian Türkiye, Georgia.

***Berytinus distinguendus* (Ferrari, 1874)**
European Türkiye: Turkish Thrace? (Péricart, 2001b)
Asian Türkiye: Bilecik, Burdur, Çanakkale, Elazığ, Gümüşhane, İzmir, Konya, Manisa, Niğde (Seidenstücker, 1957; Péricart, 1984; Çerçi et al., 2018)
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian

Türkiye, Transcaucasia, Cyprus, Iran, Israel, Central Asia.

***Berytinus geniculatus* (Horváth, 1885)**
Asian Türkiye: Amasya, Ankara, Çanakkale, Çankırı, Erzurum, İzmir, Kahramanmaraş, Kayseri, Konya, Niğde (Linnavuori, 1953; Péricart, 1984; Önder et al., 2006; Yazıcı et al., 2015; Kıyak, 2016a; Eser & Dursun, 2023b**)**
Distribution in Palaearctic: Eastern and southern Europe. North Africa, Asian Türkiye, Azerbaijan, Georgia, Iraq, Israel?, Jordan.

***Berytinus montivagus* (Meyer–Dür, 1841)**
European Türkiye: Tekirdağ (Péricart, 1984; Josifov, 1986)
Asian Türkiye: Adana, Afyonkarahisar, Ankara, Aydın, Balıkesir, Bursa, Çanakkale, Denizli, Diyarbakır, İzmir, Manisa, Mersin, Şanlıurfa (Linnavuori, 1953; Hoberlandt, 1956; Péricart, 1984**;** Lodos et al., 1984; Önder et al., 2006; Matocq et al., 2014; Yazıcı, 2022b)
Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, North Africa, Transcaucasia, Middle East, Central Asia.

***Berytinus setipennis* (Saunders, 1876)**
Asian Türkiye: Aydın, Bitlis, Bursa, Muğla, Yalova (Péricart, 1984; Seidenstücker, 1960a)
Distribution in Palaearctic: Southern Europe, North Africa, Asian Türkiye, Azerbaijan?, Israel.

***Berytinus signoreti* (Fieber, 1859)**
Asian Türkiye: Ankara, Bursa **(**Horváth, 1883; Hoberlandt, 1956; Önder *et al.,* 2006)
Distribution in Palaearctic: Wide distribution in Europe. Asian Türkiye, Cyprus.

***Berytinus striola* (Ferrari, 1874)**
Asian Türkiye: Adana, Bursa, Diyarbakır, Elazığ**,** Hatay, İzmir, Kahramanmaras, Mardin Muğla (Péricart, 1984; Matocq et al., 2014; Çerçi et al., 2018)
Distribution in Palaearctic: Eastern and southern Europe, North Africa, Armenia, Asian Türkiye, Cyprus, Georgia, Iraq, Israel, Lebanon, Syria.

Subfamily GAMPSOCORINAE Southwood & Leston, 1959
Tribe GAMPSOCORINI Southwood & Leston, 1959

Genus *Gampsocoris* Fuss, 1852
***Gampsocoris culicinus culicinus* Seidenstücker, 1948**
European Türkiye: Edirne (Hoberlandt, 1956; Josifov, 1986; Önder et al., 2006; Fent & Dursun, 2016b)
Asian Türkiye: Amasya, Gümüşhane (Eser & Dursun, 2023b).
Distribution in Palaearctic: Eastern and southern Europe, European and Asain Türkiye, North Africa, Asian Kazakhstan, Kirgizia, Russia.

***Gampsocoris culicinus melitenus* Seidenstücker, 1965**
European Türkiye: Edirne? (Péricart, 1984).
Asian Türkiye: Malatya (Péricart, 1984).
Distribution in Palaearctic: Europe: European Türkiye?, Ukraine. Asia: Asian Türkiye.
Note: Type locality of this subspecies Gündüs–Bey [=Gündüzbey] Malatya (Péricart, 2001b).
Note: The distributions of *G. culicinus melitenus*, which was described by Seidenstücker,

(1965) from Malatya in Anatolia and the nominate subspecies *G. culicunus culicinus* are not clear in European Türkiye. While giving the distribution of these two subspecies in the catalog [probably according to Péricart (1984)], Aukema (2018) showed *G. culicinus melitenus* in European Türkiye but did not give any record of *G. culicinus culicinus*. Péricart (1984) did not give the distributions of the subspecies of *Gampsocoris culicinus* separately, but showed them with different symbols on the map (he used the symbols "■, □" for *G. culicinus culcinus* and "●,○" for *G. culicinus melitenus*. ■, ●: examples that the author has checked, □, ○: examples that the author has not checked). The record marked with the symbol "□" from Edirne by Péricart (1984) is the record given by Hoberlandt (1956) as *G. culicinus* (before Seidenstücker, (1965) described *G. culcinus melitenus*), and this record most likely belongs to the nominate subspecies, not to *G. culicinus melitenus*. *G. culicinus culicinus* was given from European Türkiye by Josifov (1986) and Fent & Dursun, (2016b), in addition to from Hoberlandt (1956).

***Gampsocoris enslini* Seidenstücker, 1953**
European Türkiye: Edirne (Seidenstücker, 1958).
Asian Türkiye: Adana, Aydın, Mersin (Seidenstücker, 1953b; Hoberlandt, 1956; Péricart, 1984; Önder et al., 2006)
Distribution in Palaearctic: Balkans, European and Asian Türkiye, Transcaucasia, Iran, Yemen.
Note: The type locality of this species is Taurus, Namrun (Mersin) (Péricart, 2001b).

***Gampsocoris punctipes pallidus* Hoberlandt, 1951**
Asian Türkiye: Adana, Ankara, Antalya, Aydın, Diyarbakır, Düzce Hatay, İzmir, Kahramanmaraş, Karaman (Hoberlandt, 1956; Seidenstücker, 1965; Önder et al., 1981; Lodos et al., 1984; Péricart, 1984; Matocq et al., 2014; Çerçi & Koçak, 2023)
Distribution in Palaearctic: Asia: Asian Türkiye, Cyprus, Iran, Iraq, Israel, Syria, Tadzhikistan, Uzbekistan.

***Gampsocoris punctipes punctipes* (Germar, 1822)**
European Türkiye: Edirne, Kırklareli (Şerban, 2010; Josifov, 1986; Fent & Dursun, 2016b).
Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, North Africa, Transcaucasia, Israel, Lebanon, Saudi Arabia.

Subfamily METACANTHINAE Douglas & Scott, 1865
Tribe METACANTHINI Douglas & Scott, 1865

Genus *Metacanthus* A. Costa, 1843
Subgenus *Cardopostethus* Fieber, 1859
Metacanthus annulosus (Fieber, 1859)
Asian Türkiye: Adıyaman, Ankara, Artvin, Balıkesir, Bingöl, Elazığ, Gümüşhane, Hatay, İzmir, Kastamonu, Konya, Kütahya, Manisa, Mersin, Sinop, Zonguldak (Seidenstücker, 1960a as *Metacanthus breviceps*; Péricart, 1984; Morkel 2007; Matocq et al., 2014; Dursun, 2016)
Distribution in Palaearctic: Eastern and southern Europe, Asian Türkiye, Cyprus, Israel, Lebanon.

Subgenus *Metacanthus* A. Costa, 1843
Metacanthus meridionalis (A. Costa, 1843)
European Türkiye: Edirne, Tekirdağ (Fent & Dursun, 2016b)
Asian Türkiye: Amasya, Ankara, Balıkesir, Bursa, Bitlis, Çankırı, Hakkari, İzmir,

Manisa, Mardin (Horváth, 1883; Reuter, 1890; Péricart, 1984; Önder et al., 2006; Matocq et al., 2014; Dursun, 2016; Eser & Dursun, 2023b; Yazıcı et al., 2023)
Distribution in Palaearctic: Eastern and southern Europe, European and Asian Türkiye Azerbaijan, Georgia, Iran, Iraq, Israel, Yemen.

Tribe METATROPINI Henry, 1997

Genus *Metatropis* Fieber, 1859
***Metatropis rufescens* (Herrich–Schaeffer, 1835)**
Asian Türkiye: Rize (Kment & Fent, 2012)
Distribution in Palaearctic: Wide distribution in Europe. Armenia, Asian Türkiye, Georgia, Israel?, Japan, Russia.

Family BLISSIDAE Stål, 1862
Subfamily BLISSINAE Stål, 1862

Genus *Blissus* Burmeister, 1835
***Blissus hirtulus* Burmeister, 1835**
Asian Türkiye: Hatay (Çerçi et al., 2024)
Distribution in Palaearctic: North Africa, Arab Emirates, China (SE), Japan, Saudi Arabia, Yemen. Extralimital: Borneo, India and tropical Africa (Chad, Ethiopia, Sudan).

***Blissus putoni* Jakovlev, 1875**
Asian Türkiye: İzmir (Péricart, 1999a),
Distribution in Palaearctic: Europe: European Kazakhstan, Greece, Russia. Asia: Armenia, Asian Kazakhstan, Asian Türkiye, Azerbaijan, China.

Genus *Dimorphopterus* Stål, 1872
***Dimorphopterus blissoides* (Baerensprung, 1859)**
Material examined: EUROPEAN TÜRKİYE: Çanakkale Province**:** Gelibolu–Yolağzı village (Uzunhızarlı Dam) 28.05.2019, 1 ♀; Edirne Province: Uzunköprü–Çöpköy, 16.05.2016, 1 ♀; İpsala road (20. km) 08.06.2016, 1 ♀, 2 ♂♂; Keşan–Mecidiye, 22.07.2016, 1 ♀, 3 ♂♂, 10 nymphs. İstanbul Province: Silivri–Fenerköy, 19.08.2015, 2 ♀♀, 3 ♂♂, 5 nymphs; Kırklareli Province**:** Lüleburgaz–Evrensekiz, 14.05.2016, 15 ♀♀, 21 ♂♂; Center–Kavaklı, 09.06.2016, 8 ♀♀, 27 ♂♂.
European Türkiye: This study. New record for the Turkish Thrace.
Asian Türkiye: Amasya, Elazığ, Mersin (Linnavuori, 1953; Péricart, 1999a; Çerçi et al., 2018; Eser & Dursun, 2023b).
Distribution in Palaearctic: Europe: Eastern and southern Europe, Armenia, Asian Türkiye Azerbaijan, Israel, Iraq.

***Dimorphopterus doriae* (Ferrari, 1874)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province: Enez (Karagöl), 01.09.2015, 1 ♀; Süloğlu (Dam), 15.05.2016, 1 ♂; Meriç–Akıncılar road, 19.05.2016, 1 ♀, 2 ♂♂; Kırklareli Province: Center–Üsküp, 22.08.2015, 1 ♀.
European Türkiye: This study. New record for the Turkish Thrace.
Asian Türkiye: Aksaray, Amasya, Bolu İzmir, Niğde, Tokat, Yalova **(**Reuter, 1890; Lodos et al., 1999 as *Blissus doriai*; Péricart, 1999a; Önder et al., 1983, 2006 as *Blissus doriae;* Eser & Dursun, 2023b).
Distribution in Palaearctic: Europe: Eastern and southern Europe, Armenia, Asian Kazakhstan, Asian Türkiye, Azerbaijan, Iran, Syria.

***Dimorphopterus spinolae* (Signoret, 1857)**

Material examined: EUROPEAN TÜRKİYE: Edirne Province: Uzunköprü–Kavacık, 14.07.2016, 1 ♂, 6 nymphs; İstanbul Province: Silivri–Fenerköy, 19.08.2015, 1 ♂.
European Türkiye: This study. New record for the Turkish Thrace.
Asian Türkiye: Konya, Sinop, Sivas **(**Lodos et al., 1999; Önder et al., 2006)
Distribution in Palaearctic: Wide distribution in Europe. Asian Türkiye, Azerbaijan, Iran, Japan?, Central Asia.

Genus *Ischnodemus* Fieber, 1837
***Ischnodemus caspius* Jakovlev, 1871**
Material examined: EUROPEAN TÜRKİYE: Çanakkale Province: Gelibolu–Yolağzı village (Uzunhızarlı Dam), 28.05.2019, 15 ♀♀, 12 ♂♂, Edirne Province: Enez (Karagöl), 01.09.2015, 1 ♀; Süloğlu (Dam), 15.05.2016, 1 ♂; Meriç–Akıncılar road, 19.05.2016, 1 ♀, 2 ♂♂; Kırklareli Province: Center–Üsküp, 22.08.2015, 1 ♀.
European Türkiye: This study. New record for the Turkish Thrace.
Asian Türkiye: Amasya, Diyarbakır, İzmir, Kahramanmaraş (Lodos et al., 1999; Péricart, 1999a; Önder et al., 2006; Fent et al., 2022; Eser & Dursun, 2023b).
Distribution in Palaearctic: Balkans, Egypt. Afghanistan, Asian Türkiye, Middle East, Central Asia.

***Ischnodemus genei* (Spinola, 1837)**
Asian Türkiye: Artvin, Bursa**,** Mardin **(**Horváth, 1883; Reuter, 1895; Péricart, 1999a; Matocq et al., 2014).
Distribution in Palaearctic: Southern Europe North Africa, Asian Türkiye, Iraq, Israel.

***Ischnodemus sabuleti* (Fallén, 1826)**
Material examined: İstanbul Province: Between Çatalca–İhsaniye, 11.06.2016, 62 ♀♀, 65 ♂♂; Hisarbeyli, 13.06.2016, 2 ♂♂; Akalan Bridge, 14.06.2016, 1 ♀, 1 ♂; Silivri–between Danamandıra–Küçüksinekli, 13.06.2016, 6 ♀♀, 5 ♂♂; Kırklareli Province: Pehlivanköy, 19.06.2015, 11 ♀♀, 9 ♂♂; Tekirdağ Province: Hayrabolu–Danişment, 18.06.2015, 1 ♂; between Danişment–Çerkezmüsellim, 18.06.2015, 1 ♂; between Saray–Safaalan, 18.08.2015, 1 ♂.
European Türkiye: İstanbul (Horváth, 1918; Önder *et al.,* 2006)
Asian Türkiye: Bursa, Hatay, Mersin (Horváth, 1883, 1901; Önder et al., 2006).
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian Kazakhstan, Asian Türkiye, Central Asia, Syria.

***Ischnodemus suturalis* Horváth, 1883**
European Türkiye: Turkish Thrace (Protić 1987; Péricart, 1999a).
Asian Türkiye: Ankara, Bursa, Gaziantep, İzmir, Mardin, Osmaniye **(**Horváth, 1883; Reuter, 1885; Seidenstücker, 1958; Lodos et al., 1999; Péricart, 1999a; Önder et al., 2006; Kıyak & Akar, 2010).
Distribution in Palaearctic: Europe: European Türkiye, Serbia. Asia: Asian Türkiye, Israel, Syria.
Note: The type locality of this species is Brussa [=Bursa] (Péricart, 2001a).

Family CYMIDAE Baerensprung, 1860
Subfamily CYMINAE Baerensprung, 1860
Tribe CYMINI Baerensprung, 1868

Genus *Cymodema* Spinola, 1837
***Cymodema tabida tabida* Spinola, 1837**
Material examined: EUROPEAN TÜRKİYE: Edirne Province: Uzunköprü–Çavuşlu,

14.07.2016, 1 ♂; İstanbul Province: Between Çatalca–İhsaniye, 11.06.2016, 34 ♀♀, 47 ♂♂, 10 nymphs; Çatalca–Yazlık, 12.06.2016, 1 ♂; Hisarbeyli, 13.06.2016, 1 ♀, 1 ♂; Akalan Bridge, 14.06.2016, 1 ♂; Tekirdağ Province: Between Saray–Safaalan, 11.06.2016, 1 ♀, 1 ♂; Çorlu–next to the Unilever, 17.07.2016, 1 ♀, 1 ♂; Muratlı–Hanoğlu, 17.07.2016, 44 ♀♀, 41 ♂♂, 10 nymphs.
European Türkiye: This study. New record for the Turkish Thrace.
Asian Türkiye: Mersin (Péricart, 1999a).
Distribution in Palaearctic: Eastern and southern Europe, North Africa, Asian Türkiye, Israel. Extralimital: Chad, Sudan.

Genus *Cymus* Hahn, 1832
***Cymus aurescens* Distant, 1883**
Material examined: EUROPEAN TÜRKİYE: Tekirdağ Province**:** Şarköy–Yayaköy, 17.08.2020, 1 ♀.
European Türkiye: İstanbul (Belgrad Forest) (Péricart, 1999a).
Asian Türkiye: Adana (Taurus Montains), Konya (Péricart, 1999a).
Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, Central Asia, China (NE), Russia.

***Cymus claviculus* (Fallén, 1807)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province: Center, 01.07.2015, 1 ♂; Uzunköprü–Kavacık, 14.07.2016, 2 ♀♀; Kırklareli Province: Center–Çağlayık, 15.08.2015, 1 ♂.
European Türkiye: Edirne (Josifov, 1986; Péricart, 1999a).
Asian Türkiye: Adana, Amasya, Ankara, Antalya, Bartın, Bursa, Çanakkale, Çankırı, Diyarbakır, Hatay, İzmir, Kahramanmaraş, Karaman, Kocaeli, Konya, Mersin, Muğla, Sakarya, Zonguldak **(**Horváth, 1901; Gadeau de Kerville, 1939; Hoberlandt, 1956; Aysev, 1974; Lodos et al., 1978, 1984, 1999; Péricart, 1999a; Önder et al., 1981, 2006; Bektaş & Tezcan, 2014; Çerçi & Koçak, 2023; Yazıcı et al., 2023; Eser & Dursun, 2023b).
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian Türkiye, Middle East, Central Asia.

***Cymus glandicolor* Hahn, 1832**
Material examined: EUROPEAN TÜRKİYE: Edirne Province: Center–Uzgaç, 01.07.2015, 2 ♀♀, 9 ♂♂; İstanbul Province**:** Çatalca–İhsaniye, 11.06.2016, 4 ♂♂; Akalan Bridge, 14.06.2016, 2 ♂♂.
European Türkiye: İstanbul (Horváth, 1918).
Asian Türkiye: Adana, Afyonkarahisar, Amasya, Ankara, Antalya, Bartın, Bursa, Erzurum, Hatay, Kahramanmaraş, Karaman, Kars, Kastamonu, Kırşehir, Kocaeli, Kütahya, Osmaniye, Yalova, Yozgat, Zonguldak **(**Horváth, 1883, 1901; Kiritshenko, 1918; Hoberlandt, 1956; Lodos et al., 1978, 1999; Péricart, 1999a; Önder et al., 2006; Fent & Dursun, 2016a; Çerçi & Koçak, 2023; Eser & Dursun, 2023b).
Distribution in Palaearctic: Wide distribution in Europe. Asian Türkiye, Central Asia, China, Iran, Japan, Korea, Russia.

***Cymus gracilicornis* Vidal, 1940**
Asian Türkiye: Kahramanmaraş, Mersin **(**Péricart, 1999a).
Distribution in Palaearctic: North Africa, Asian Türkiye, Middle East. Extralimital: Cabo Verde Island; Sudan.

***Cymus melanocephalus* Fieber, 1861**
Material examined: EUROPEAN TÜRKİYE: Edirne Province: Enez (Dalyan Lake), 31.08.2015, 50 ♀♀, 38 ♂♂; Karagöl, 01.09.2015, 7 ♀♀, 9 ♂♂; Süloğlu (Dam),

15.05.2016, 1 ♀; Uzunköprü–Çöpköy, 16.05.2016, 13 ♀♀, 13 ♂♂; 08.06.2016, 2 ♀♀; Ömerbey, 16.05.2016, 2 ♀♀; Meriç–Olacak village, 19.05.2016, 1 ♂; Keşan–Mecidiye, 22.07.2016, 1 ♀; Kocahıdır, 22.07.2016, 12 ♀♀, 13 ♂♂; Center–Balkan Campus, 16.05.2017, 5 ♀♀, 3 ♂♂; 03.08.2018, 4 ♀♀, 3 ♂♂; İstanbul Province**:** Çatalca, 18.08.2015, 2 ♂♂; Danamandıra, 11.06.2016, 55 ♀♀, 38 ♂♂; Between Çatalca−İhsaniye, 11.06.2016, 15 ♀♀, 15 ♂♂; Hisarbeyli, 13.06.2016, 7 ♀♀, 9 ♂♂; Akalan Bridge, 14.06.2016, 4 ♀♀, 4 ♂♂; Arnavutköy road, 12.06.2016, 2 ♀♀; Silivri–between Danamandıra–Küçüksinekli, 13.06.2016, 33 ♀♀, 26 ♂♂; Kırklareli Province: Kofçaz–Kadıköy, 17.06.2015, 1 ♀; Demirköy–Sislioba, 24.06.2015, 2 ♂♂; İğneada, 24.06.2015, 1 ♀, 2 ♂♂; between Hamdibey–Yeşilce, 26.06.2015, 1 ♂; Center–Üsküpdere, 16.06.2016, 1 ♂; Vize–Doğanca, 16.07.2016, 82 ♀♀, 80 ♂♂; Tekirdağ Province: Between Saray–Safaalan, 11.06.2016, 10 ♀♀, 11 ♂♂; Çorlu–next to the Unilever, 17.07.2016, 10 ♀♀, 3 ♂♂; Ergene–Esenler, 17.07.2016, 2 ♀♀, 2 ♂♂; Muratlı–Ballıhoca, 16.07.2016, 10 ♀♀, 14 ♂♂; Hanoğlu, 17.07.2016, 1 ♀; Saray–Çaylaköy, 18.07.2016, 43 ♀♀, 46 ♂♂; Malkara–Izgar village, 22.06.2017, 3 ♀♀, 2 ♂♂; Ahmetpaşaköy, 22.06.2017, 6 ♀♀, 2 ♂♂.

European Türkiye: Çanakkale, Edirne, İstanbul **(**Horváth, 1918; Hoberlandt,1956; Lodos et al., 1978; Josifov, 1986; Önder et al., 1984, 2006; Yazıcı, 2022b).

Asian Türkiye: Adana, Amasya, Ankara, Antalya, Bartın, Bayburt, Bolu Bursa, Çanakkale, Çankırı, Diyarbakır, Erzincan, Erzurum, Gaziantep, Hatay, İzmir, Karabük, Kahramanmaraş, Karaman, Kastamonu, Kayseri, Kırşehir, Kocaeli, Konya, Mersin, Muğla, Nevşehir, Niğde, Ordu, Sinop, Sivas, Tunceli, Yalova, Yozgat, Zonguldak **(**Horváth, 1883, 1901; Hoberlandt, 1956; Aysev, 1974; Lodos et al., 1978, 1999; Péricart, 1999a; Önder et al., 2006; Bektaş & Tezcan, 2014; Matocq et al., 2014; Yazıcı et al., 2015, 2022; Fent & Dursun, 2016a; Özgen et al., 2021a; Çerçi & Koçak, 2023; Yence & Fent, 2023; Eser & Dursun, 2023b).

Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian Türkiye, Middle East, Central Asia.

***Cymus turcicus* Matocq, 2000**

Asian Türkiye: Konya (Beyşehir) (Matocq, 2000)

Distribution in Palaearctic: Asia: AsianTürkiye.

Note: The type locality of this species is Beyşehir (Konya) (Péricart, 2001a). This species is endemic to Anatolia (Dursun & Fent, 2017).

Family GEOCORIDAE Baerensprung, 1860
Subfamily BLEDIONOTINAE Reuter, 1878
Tribe BLEDIONOTINI Reuter, 1878

Genus *Bledionotus* Reuter, 1878
***Bledionotus systellonotoides* Reuter, 1878**

Asian Türkiye: Bursa (Seidenstücker, 1960a; Péricart, 1999b)

Distribution in Palaearctic: Asia: Afghanistan, Asian Türkiye, Cyprus, Iraq, Syria, Tadzhikistan.

Subfamily GEOCORINAE Dahlbom, 1851

Genus *Geocoris* Falén, 1814
Subgenus *Eilatus* Linnavuori, 1972
***Geocoris chloroticus* Puton, 1888**

Asian Türkiye: Hatay, Kahramanmaraş, Kilis, Mersin (Lodos et al.,1999)

Distribution in Palaearctic: Portugal, Spain, Greece. North Africa, Asian Türkiye, Middle East, Central Asia. Extralimital: Cabo Verde Is, India, Sudan.

Subgenus *Geocoris* Fallén, 1814

***Geocoris ater* (Fabricius, 1787)**

Material examined: EUROPEAN TÜRKİYE: Edirne Province: Enez Çıkışı, 03.09.2015, 1 ♂; Süloğlu (Dam), 15.05.2016, 1 ♂; Center–Balkan Campus, 08.05.2017 2 ♀♀, 28.06.2017, 1 ♀, 1 ♂; Kırklareli Province**:** Deveçatağı, 04.06.2016, 1 ♀, 1 ♂.

European Türkiye: Edirne (Fent & Okyar, 2022).

Asian Türkiye: Afyonkarahisar, Aksaray, Amasya, Ankara, Antalya, Aydın, Çorum, Denizli, Erzurum, Gaziantep, Hatay, İzmir, Kahramanmaraş, Karaman, Kastamonu, Kayseri, Konya, Manisa, Mersin, Muğla, Nevşehir, Niğde, Sinop, Yozgat **(**Puton & Noualhier, 1895, as *Geocoris ater* var. *albipennis and* var. *ataenius*; Lodos et al., 1978, as *G. ater* var. *pallescens*, 1999; Tezcan & Önder, 2003; Önder et al., 1983, 2006; Çakır & Önder, 1990; Kaya & Hıncal, 1991; Péricart, 1999a; Bektaş & Tezcan, 2014; İner & Tezcan, 2014; Yılmaz & Dursun, 2022; Çerçi & Koçak, 2023; Yazıcı et al., 2023; Yence & Fent, 2023).

Distribution in Palaearctic: Wide distribution in Europe. Asian Türkiye, Middle East, Central Asia, Afghanistan, Far East.

***Geocoris grylloides* (Linnaeus, 1761)**

Asian Türkiye: Amasya, Diyarbakır, Isparta, Mardin, Muş (Wagner, 1959; Çakır & Önder, 1990; Péricart, 1999a; Önder et al., 2006; Fent & Japoshvili, 2012; Yılmaz & Dursun, 2022).

Distribution in Palaearctic: Wide distribution in Europe. Asian Türkiye, Iran, Central Asia, Far East.

***Geocoris lapponicus* Zetterstedt, 1838**

Asian Türkiye: Artvin, Kayseri (Erciyes Mountain) **(**Kerzhner 1979; Péricart, 1999a).

Distribution in Palaearctic: Wide distribution in Europe. Asian Türkiye, China, Georgia, Mongolia, Russia.

***Geocoris lineola lineola* (Rambur, 1839)**

Material examined: EUROPEAN TÜRKİYE: İstanbul Province: Silivri–Küçüksinekli, 15.06.2016, 2 ♀♀, 4 ♂♂; Kırklareli Province: Center–Çukurpınar, 21.05.2016, 1 ♂; Tekirdağ Province: Muratlı–Ballıhoca, 16.07.2016, 1 ♂.

European Türkiye: This study. New record for the Turkish Thrace.

Asian Türkiye: Adana, Amasya, Ankara, Antalya, Aydın, Balıkesir, Bolu Çorum, Denizli, Diyarbakır, Gaziantep, İzmir, Kahramanmaraş, Kayseri (Aladağlar Mts.), Osmaniye, Manisa, Mersin, Muğla **(**Kiritshenko, 1918; Hoberlandt, 1956 as *Geocoris lineola* and *G. lineola* var. *distinctus*; Aysev, 1974; Çağatay, 1989a; Çakır & Önder, 1990; Péricart, 1999a; Kıyak, 2000; Önder et al., 2006; Öncül–Abacıgil et al., 2010; Şerban, 2010; Bektaş & Tezcan, 2014; İner & Tezcan, 2014; Yazıcı, 2022b; Yılmaz & Dursun, 2022; Yence & Fent, 2023).

Distribution in Palaearctic: Balkans, southern Europe, North Africa, Asian Türkiye, Middle East.

***Geocoris megacephalus* (Rossi, 1790)**

Material examined: EUROPEAN TÜRKİYE: Edirne Province: Uzunköprü road, 27.08.2015, 3 ♀♀; Çavuşlu, 14.07.2016, 1 ♀; Süloğlu (Dam), 15.05.2016, 1 ♀; Keşan–Mecidiye, 22.07.2016, 1 ♀; Center–Balkan Campus, 08.05.2017, 1 ♀; İstanbul Province: Silivri–Küçüksinekli, 15.06.2016, 1 ♀; Tekirdağ Province: Between Saray–Safaalan, 18.08.2015, 1 ♂; Çorlu–next to the Unilever, 17.07.2016, 2 ♀♀.

European Türkiye: Edirne, Tekirdağ (Çakır & Önder, 1990; Fent & Okyar, 2022).

Asian Türkiye: Adana, Adıyaman, Aksaray, Amasya, Ankara, Antalya, Aydın, Balıkesir, Denizli, Diyarbakır, Elazığ, Hatay, İzmir, Kahramanmaraş, Karaman, Kayseri, Malatya, Manisa, Mardin, Mersin, Muğla, Nevşehir, Niğde, Siirt, Şanlıurfa, Uşak **(**Hoberlandt, 1956; Aysev, 1974; Önder & Adıgüzel, 1979; Önder et al., 1983, 2006; Çağatay, 1989a; Çakır & Önder, 1990; Lodos et al., 1999; Péricart, 1999a; Öncül–Abacıgil et al., 2010; Bektaş & Tezcan, 2014; Matocq et al., 2014; Yazıcı et al., 2015; Yazıcı, 2019; Çerçi & Özgen, 2021; Yılmaz & Dursun, 2022; Çerçi & Koçak, 2023).
Distribution in Palaearctic: Eastern and southern Europe, North Africa, Asian Türkiye, Middle East, Afghanistan, Central Asia.

***Geocoris pallidipennis pallidipennis* (A. Costa, 1843)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province**:** Süloğlu (Dam), 15.05.2016, 1 ♀, 2 ♂♂.
European Türkiye: This study. New record for the Turkish Thrace.
Asian Türkiye: Adana, Adıyaman, Amasya, Ankara, Batman, Bursa, Diyarbakır, Gaziantep, Hatay, İzmir, Kahramanmaraş, Kayseri, Kilis, Manisa, Mardin, Mersin, Niğde, Şanlıurfa, Tunceli, Van **(**Hoberlandt, 1956, *G. pallidipennis and G. pallidipennis* var. *semipunctatus*), Çağatay, 1989a; Çakır & Önder, 1990; Büyük & Özpınar, 1999; Lodos et al., 1999; Péricart, 1999a; Tezcan & Önder, 2003; Koçak & Kemal, 2012; İner & Tezcan, 2014; Kemal & Koçak, 2018; Önder et al., 2006; Özgen 2021; Yılmaz & Dursun, 2022).
Distribution in Palaearctic: Eastern and southern Europe, North Africa, Middle East, Asian Türkiye, Transcaucasia, China, Korea. Extralimital: India, Pakistan.

***Geocoris phaeopterus* (Germar, 1838)**
Asian Türkiye: Adana, Hatay, Karaman, Mardin, Şanlıurfa **(**Péricart, 1999a; Matocq et al., 2014; Çerçi & Koçak, 2023).
Distribution in Palaearctic: Europe: France, Italy, Spain. North Africa, Asian Türkiye, Middle East. Extralimital: Pakistan, South Africa, Cabo Verde Isl.

***Geocoris pubescens* (Jakovlev, 1871)**
Asian Türkiye: Amasya, Ankara, Elazığ, İzmir, Kahramanmaraş, Karaman, Kastamonu, Malatya, Sinop **(**Péricart, 1999a; Fent & Dursun, 2016a; Kıyak, 2016a; Çerçi & Özgen, 2021; Çerçi et al., 2022; Yılmaz & Dursun, 2022; Çerçi & Koçak, 2023).
Distribution in Palaearctic: Balkans, Russia, Ukraine, North Africa, Asian Türkiye, Transcaucasia, Middle East. Extralimital: Cabo Verde Is, Sudan.

Subgenus *Piocoris* Stål, 1872
***Geocoris erythrocephalus* (Lepeletier & Serville, 1825)**
Material examined: EUROPEAN TÜRKİYE: Çanakkale Province**:** Ilgardere, 17.05.2016, 1 ♀; Edirne Province**:** Center–Uzgaç, 01.07.2015, 2 ♀♀, 1 ♂; Keşan–Koru Mountains (Küçükyerlisu), 18.05.2016, 2 ♀♀, 1 ♂; Kocahıdır, 22.07.2016, 1 ♀, 1 ♂; Mecidiye, 22.07.2016, 2 ♀♀, 2 ♂♂, Karahisar, 24.07.2016, 2 ♀♀, 1 ♂; Uzunköprü–Kavacık, 14.07.2016, 1 ♀, 1 ♂; Çavuşlu, 14.07.2016, 6 ♀♀, 7 ♂♂; Mestanlar, 14.07.2016, 1 ♂; Center–Balkan Campus, 08.05.2017 2 ♀♀,1 ♂; 21.06.2018, 1 ♀; 29.06.2018, 1 ♀; Kırklareli Province**:** Center–Çağlayık, 15.08.2015, 1 ♀; Üsküp, 21.05.2016, 1 ♂; Beypınar, 06.06.2016; 2 ♀♀, 1 ♂; Demirköy–Boztaş, 25.06.2015, 1 ♂; Between Hamdibey–Yeşilce, 26.06.2015, 1 ♀; Pınarhisar, 16.06.2016, 3 ♀♀; Lüleburgaz–Kırıkköy, 15.07.2016, 2 ♀♀, 1 ♂; İstanbul Province**:** Çatalca–Binkılıç, 18.08.2015, 3 ♀♀, 2 ♂♂; Hisarbeyli, 13.06.2016, 1 ♀, 1 ♂; Tekirdağ Province**:** Center–Mermer, 20.08.2015, 11 ♀♀, 10 ♂♂; Uçmakdere, 20.08.2015, 1 ♀; Şarköy, 21.08.2015, 1 ♀; Çorlu–next to the Unilever, 17.07.2016, 1 ♀, 1 ♂; Muratlı–Ballıhoca, 16.07.2016, 8 ♀♀, 4 ♂♂; Hanoğlu, 17.07.2016, 1 ♂.

European Türkiye: Çanakkale, Edirne, İstanbul, Tekirdağ (Fahringer, 1922; Hoberlandt, 1956; Lodos et al., 1978, as *Piocoris erythrocephalus*; Josifov, 1986; Çakır & Önder, 1990; Péricart, 1999a; Önder et al., 2006, as *P. erythrocephalus*; Fent & Aktaç, 2008; Fent & Okyar, 2022).
Asian Türkiye: Adana, Afyonkarahisar, Amasya, Ankara, Antalya, Aydın, Balıkesir, Bartın, Bilecik, Bolu Burdur, Bursa, Çanakkale, Çankırı, Çorum, Denizli, Diyarbakır, Düzce, Elazığ, Erzincan, Erzurum, Eskişehir, Gaziantep, Gümüşhane, Hakkari, Hatay, Isparta, İstanbul, İzmir, Kahramanmaraş, Karabük, Karaman, Kars, Kastamonu, Kayseri, Kırşehir, Kilis, Kocaeli, Konya, Kütahya, Malatya, Manisa, Mardin, Mersin, Muğla, Nevşehir, Niğde, Siirt, Sinop, Şanlıurfa, Trabzon, Osmaniye, Uşak, Yalova, Yozgat, Zonguldak **(**Horváth, 1883, 1901, 1905; Puton, 1892; Escherich, 1897; Hoberlandt, 1956; Wagner, 1959, 1966; Linnavuori, 1965; Aysev, 1974; Lodos et al., 1978, 1999; Çağatay, 1989a; Çakır & Önder, 1990; Özsaraç & Kıyak 2001; Péricart, 1999a; Önder et al., 1983, 2006, as *Piocoris erythrocephalus*; Kıyak, 1990, 1993, 2000, 2016a; Özsaraç et al., 2001; Beyaz & Tezcan, 2002; Gençer et al., 2004; Kıyak et al., 2004; Kaplan 2007; Kıyak & Akar, 2010; Şerban, 2010; Sert et al., 2013; Bektaş & Tezcan, 2014; Matocq et al., 2014; Yazıcı et al., 2015, 2022; Fent & Dursun, 2016a; Yazıcı, 2019, 2022a, b; Çerçi & Özgen, 2021; Çerçi et al., 2018, 2022; Çerçi & Koçak, 2023; Yence & Fent, 2023).
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asia: Asian Türkiye, Middle East, Transcaucasia.

***Geocoris luridus* (Fieber, 1844)**
Asian Türkiye: Adana, Adıyaman, Ankara, Diyarbakır, Elazığ, Gaziantep, Hatay, İzmir, Kahramanmaraş, Karaman, Kilis, Konya, Mardin, Mersin, Osmaniye, Şanlıurfa (Puton & Noualhier, 1895; Seidenstücker, 1958, as *Piocoris luridus*; Çağatay, 1989a; Çakır & Önder, 1990; Büyük & Özpınar, 1999; Lodos et al., 1999; Önder et al., 2006, as *P. luridus*; Matocq et al., 2014; Çerçi et al., 2018; Çerçi & Özgen, 2021; Özgen et al., 2021c; Sabuncu et al., 2021; Yazıcı, 2022b).
Distribution in Palaearctic: North Africa, Asian Türkiye, Middle East, Central Asia, Extralimital: Ethiopia, Sudan.

***Geocoris nebulosus* (Montandon, 1907)**
Asian Türkiye: Adana **(**Péricart, 1999a).
Distribution in Palaearctic: North Africa, Asian Türkiye, Middle East, Extralimital: Djibouti, Sudan.

***Geocoris putonianus* Bergroth, 1892**
Asian Türkiye: Diyarbakır, Elazığ, Mardin, Van (Matocq et al., 2014; Kemal & Koçak, 2018; Çerçi & Özgen, 2021; Özgen et al., 2021c).
Distribution in Palaearctic: Asia: Armenia, Asian Kazakhstan, Asian Türkiye Iran, Kirgizia, Tadzhikistan, Turkmenistan, Uzbekistan.

Subfamily HENESTARINAE Douglas & **Scott, 1865**

Genus *Engistus* Fieber, 1844
***Engistus exsanguis exsanguis* Stål, 1872**
Asian Türkiye: Karaman (Çerçi & Koçak, 2017)
Distribution in Palaearctic: Greece, Russia (ST) Spain, Ukraine. North Africa, Asian Türkiye, Middle East, Central Asia, Extralimital: Cabo Verde Is, Mauritania, W Pakistan, Sudan.

***Engistus salinus* (Jakovlev, 1874)**

Asian Türkiye: Aksaray, Çorum (Lodos et al., 1999; Çerçi et al., 2022).
Distribution in Palaearctic: European Kazakhstan, Greece, Russia, Ukraine Asiaan Türkiye, Central Asia, China (NO), Iran, Mongolia.

Genus *Henestaris* Spinola, 1837
***Henestaris halophilus* (Burmeister, 1835)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province**:** Enez (Karagöl) 01.09.2015, 1 ♀, 1 ♂; Uzunköprü–Kavacık, 14.07.2016, 1 ♂; Tekirdağ Province: Between Saray–Safaalan, 18.08.2015, 1 ♀; Şarköy, 21.08.2015, 1 ♀.
European Türkiye: This study. New record for the Turkish Thrace.
Asian Türkiye: Adana, Antalya, Çanakkale (Gökçeada) Erzurum, Konya, Hatay, Mersin (Kiritshenko, 1924 as *H. cremeus*; Hoberlandt, 1956 as *H. cremeus*; Seidenstücker, 1958 as *H. cremeus*; Lodos et al., 1999; Péricart, 1999a; Önder et al., 2006).
Distribution in Palaearctic: Wide distribution in Europe. Morocco, Asian Türkiye, Central Asia, China (NE NW), Iran, Syria, Mongolia, Russia.

***Henestaris kareli* Hoberlandt, 1956**
Asian Türkiye: Ankara, Çorum, Konya, Yozgat **(**Hoberlandt, 1956; Lodos et al., 1999; Péricart, 1999a; Önder et al., 2006).
Distribution in Palaearctic: Asia: Asian Türkiye.
Note: The type locality of this species is Mogan Gölü (Ankara) (Péricart, 2001a). This species is endemic to Anatolia (Dursun & Fent, 2017).

***Henestaris laticeps laticeps* (Curtis, 1836)**
European Türkiye: Tekirdağ **(**Wagner, 1966 as *H. curtulus*)
Asian Türkiye: Antalya, Çanakkale (Bozcaada), Çankırı, Hatay, İzmir, Muğla (Linnavuori, 1953; Seidenstücker, 1958 as *Henestaris curtulus*; Aysev, 1974; Lodos et al., 1999; Péricart, 1999a; Önder et al., 2006; Fent, 2011; Bektaş & Tezcan, 2014; Yazıcı, 2022b; Yazıcı et al., 2023).
Distribution in Palaearctic: Eastern and southern Europe, North Africa, Asian Türkiye, Cyprus, Iraq, Syria. Extralimital: Djibouti!

Family HETEROGASTRIDAE Stål, 1872
Subfamily HETEROGASTRINAE Stål, 1872

Genus *Heterogaster* Schilling, 1829
***Heterogaster affinis* Herrich–Schaeffer, 1835**
Asian Türkiye: Adana, Ankara, Bursa, Çankırı, Elazığ, Kastamonu, Kayseri, Nevşehir, Niğde (Aladağlar Mts.), Zonguldak **(**Horváth, 1883; Hoberlandt, 1956; Yiğit & Uygun, 1982; Çağatay, 1989b; Lodos et al., 1999; Péricart, 1999a; Kıyak, 2000; Kıyak et al., 2004; Önder et al., 2006; Kıyak & Akar, 2010; Küçükbasmacı & Kıyak, 2015; Fent & Dursun, 2016a; Çerçi & Özgen, 2021; Yazıcı, 2022b; Yazıcı et al., 2023; Yence & Fent, 2023).
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian Türkiye, Iran, Syria, Central Asia.

***Heterogaster artemisiae* Schilling, 1829**
Material examined: EUROPEAN TÜRKİYE: Edirne Province**:** Meriç–Kadıdondurma, 20.05.2016, 1 ♀; Kırklareli Province**:** Center–Beypınar, 22.05.2016; 1 ♀.
European Türkiye: Edirne (Hoberlandt, 1956; Josifov, 1986).
Asian Türkiye: Adana, Amasya, Ankara, Antalya, Düzce, Erzurum, Hatay, Kahramanmaraş, Kastamonu, Kayseri, Mersin, Niğde, (Aladağlar Mts.), Osmaniye **(**Puton & Noualhier, 1895; Hoberlandt, 1956; Çağatay, 1989b, Lodos et al., 1999; Péricart,

1999a; Önder et al., 2006; Yazıcı et al., 2015; Fent & Dursun, 2016a; Yazıcı, 2022b; Eser & Dursun, 2023b; Yence & Fent, 2023).
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian Türkiye, Iran, Iraq, Central Asia, China.

***Heterogaster cathariae* (Geoffroy, 1785)**
Asian Türkiye: Adana, Ankara, Çankırı, Elazığ, Erzurum, Gaziantep, Gümüşhane, Hatay, İzmir, Karaman, Kars, Mersin (Puton & Noualhier, 1895 as *H. cathariae* var. *bicolor*; Kiritshenko, 1918; Hoberlandt, 1956; Çağatay, 1989b; Lodos et al., 1999; Péricart, 1999a; Önder et al., 2006; Yazıcı et al., 2015, 2023; Çerçi et al., 2018, 2022; Yazıcı, 2022b; Çerçi & Koçak, 2023).
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian Türkiye, Iran, Cyprus, Central Asia, China.

***Heterogaster urticae* (Fabricius, 1775)**
European Türkiye: Turkish Thrace (without locality information) (Josifov, 1986).
Asian Türkiye: Adana, Aksaray, Amasya, Ankara, Antalya, Artvin, Aydın, Balıkesir, Bartın, Bayburt, Bilecik, Bolu Bursa, Çankırı, Erzurum, Gaziantep, Hatay, İzmir, Kahramanmaraş, Karaman, Kars, Kayseri, Kırıkkale, Kütahya, Manisa, Mersin, Muğla, Nevşehir, Osmaniye, Samsun, Trabzon, Zonguldak **(**Horváth, 1883, 1905; Hoberlandt, 1956; Aysev, 1974; Lodos et al., 1978, 1999; Yiğit & Uygun, 1982; Önder et al., 1983, 2006; Çağatay, 1989b; Tezcan & Önder, 1999; Péricart, 1999a; Öncül–Abacıgil et al., 2010; Bektaş & Tezcan, 2014; Çıtırıkkaya et al., 2015; Kıyak, 2016a; Yazıcı et al., 2015, 2023; Yazıcı, 2022b; Çerçi & Koçak, 2023; Eser & Dursun, 2023b).
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian Türkiye, Middle East, Central Asia. Extralimital (introduced): New Zealand.

Genus *Platyplax* Fieber, 1860
***Platyplax inermis* (Rambur, 1839)**
Material examined: EUROPEAN TÜRKİYE: İstanbul Province**:** Çatalca–Yazlık, 12.06.2016, 1 ♀.
European Türkiye: This study. New record for the Turkish Thrace.
Asian Türkiye: Adana, Amasya, Balıkesir, Bursa, Çanakkale, İzmir, Kastamonu, Kayseri, Mersin **(**Aysev, 1974; Lodos et al., 1978, 1999; Çağatay, 1989b; Péricart, 1999a; Önder et al., 2006; Yazıcı, 2022b; Eser & Dursun, 2023b).
Distribution in Palaearctic: Eastern and southern Europe, North Africa, Asian Türkiye, Cyprus, Israel, Yemen. Extralimital: Ethiopia.

***Platyplax salviae* (Schilling, 1829)**
Material examined: ASIAN TÜRKİYE: Giresun Province: Alucra–Arda village, 17.05.2006, 1 ♀, 1 ♂; Sivas Province: Koyulhisar–Karaağaç, 2 ♂♂.
Asian Türkiye: Adana, Antalya, Bursa, Erzurum, Karaman, Kastamonu, Kayseri, Konya, Mersin **(**Horváth, 1883, as *Platyplax salviae* var. *inermis,* 1905; Hoberlandt, 1956; Çağatay, 1989b; Lodos et al., 1999; Péricart, 1999a; Önder et al., 2006; Yazıcı et al., 2015; Fent & Dursun, 2016a; Çerçi & Koçak, 2023).
Distribution in Palaearctic: Wide distribution in Europe. Algeria, Morocco, Asian Central Asia. Iran, Israel, Afghanistan, China.

Family LYGAEIDAE Schilling, 1829
Subfamily LYGAEINAE Schilling, 1829

Genus *Apterola* Mulsant & Rey, 1866

Subgenus *Apterola* Mulsant & Rey, 1866
***Apterola kuenckeli kuenckeli* Mulsant & Rey, 1866**
Asian Türkiye: Mersin, Tokat **(**Péricart, 1999a; Lodos et al., 1999, as *Apterola pedestris*; Önder et al., 2006, as *A. pedestris*)
Distribution in Palaearctic: Europe: Bulgaria, France, Greece, Italy, Malta, Macedonia, Spain. North Africa: Algeria, Egypt, Libya, Morocco, Tunisia. Asia: Asian Türkiye.

***Apterola kuenckeli rubicunda* (Stål, 1872)**
Asian Türkiye: Adana, Elazığ, Gaziantep, Hatay, Kahramanmaraş **(**Puton & Noualhier, 1895 as *Apterola rubicunda*; Hoberlandt, 1956, as *A. rubicunda*; Lodos et al., 1999, as *A. rubicunda*; Önder et al., 2006, as *A. rubicunda* Çerçi et al., 2018).
Distribution in Palaearctic: Asia: Asian Türkiye, Cyprus, Iran, Israel, Jordan, Lebanon, Syria.

***Apterola lownii* (Saunders, 1876)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province**:** Center–Uzgaç, 01.07.2015, 5 ♀♀, 12 ♂♂; 08.07.2015, 25 ♀♀, 22 ♂♂; Kırköy, 04.07.2015, 1 ♂; Lalapaşa–Ömeroba, 15.07.2015, 1 ♀; Keşan Koru Mountains (Küçükyerlisu), 18.05.2016, 1 ♀; Kırklareli Province**:** Pınarhisar (Mahya Hill), 30.06.2015, 1 ♂.
European Türkiye: Edirne (Hoberlandt, 1956; Josifov, 1986; Péricart, 1999a; Önder et al., 2006).
Asian Türkiye: Adana, Ankara, Amasya, Kahramanmaraş, Karaman, Kayseri, Konya, Malatya, Mardin, Mersin, Niğde (Aladağlar Mts.) **(**Horváth, 1898, 1905; Hoberlandt, 1956; Péricart, 1999a; Önder et al., 2006; Kıyak & Özdamar 2017; Çerçi & Koçak, 2023; Yence & Fent, 2023; Eser & Dursun, 2023a).
Distribution in Palaearctic: Europe: Bulgaria, European Türkiye, Greece, Macedonia. Asia: Armenia, Asian Kazakhstan, Asian Türkiye, Azerbaijan, Cyprus, Georgia, Iran, Iraq, Israel, Kirgizia, Syria, Tadzhikistan, Turkmenistan, Uzbekistan.

Genus *Arocatus* Spinola, 1837
***Arocatus longiceps* Stål, 1872**
Material examined: Edirne Province**:** Uzunköprü–Kavacık, 14.07.2016, 1 ♂; Center, 13.04.2018, 1 ♀; Tekirdağ Province: Center–Mermer, 20.08.2015, 10 ♀♀, 1 ♂; Uçmakdere, 20.08.2015, 1 ♂.
European Türkiye: Çanakkale, Edirne, İstanbul, Tekirdağ (Lodos *et al.,* 1978; Önder *et al.,* 1984, 2006; Péricart, 1999a; Fent & Aktaç, 2008).
Asian Türkiye: Adana, Amasya, Ankara, Antalya, Aydın, Bartın, Burdur, Bursa, Çanakkale, Denizli, Mersin, Hatay, Isparta, İstanbul, İzmir, Kahramanmaraş, Karabük, Karaman, Mersin, Muğla, Samsun, Uşak, Zonguldak (Linnavuori, 1965; Lodos et al., 1978, 1999; Önder et al., 1983, 2006; Çağatay, 1995; Péricart, 1999a; Tezcan & Önder, 1999; Gao et al., 2013; Bektaş & Tezcan, 2014; Çerçi & Koçak, 2023; Eser & Dursun, 2023a).
Distribution in Palaearctic: Wide distribution in Europe. Madeira Asian Türkiye, Transcaucasia, Cyprus, Iran, Israel.

***Arocatus melanocephalus* (Fabricius, 1798)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province**:** Uzunköprü–Saçlımüsellim, 13.06.2015, 5 ♀♀, 4 ♂♂; Center–Balkan Campus, 25.07.2018, 1 ♂; 20.08.2019, 6 ♀♀, 2 ♂♂; 10.10.2018, 1 ♀.
European Türkiye: Edirne, İstanbul, Tekirdağ (Çağatay, 1995; Péricart, 1999a; Fent & Aktaç, 2008).
Asian Türkiye: Ankara, Aydın, Denizli, İzmir, Kahramanmaraş, Karaman, Manisa,

Muğla, Sinop, Zonguldak (Escherich, 1897; Hoberlandt, 1956; Çağatay, 1995; Lodos et al., 1999; Péricart, 1999a; Önder et al., 2006).
Distribution in Palaearctic: Wide distribution in Europe. Asian Türkiye, Transcaucasia China, Iran.

***Arocatus roeselii* (Schilling, 1829)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province**:** Center–Balkan Campus, 29.06.2018, 1 ♀.
European Türkiye: This study. New record for the Turkish Thrace.
Asian Türkiye: Ankara, Bursa (Reuter, 1890; Lodos et al., 1999; Péricart, 1999a; Önder et al., 2006).
Distribution in Palaearctic: Wide distribution in Europe. Algeria, Tunisia North Africa, Asian Türkiye, Asian Kazakhstan, Azerbaijan, Georgia, Syria.

Genus *Caenocoris* Fieber, 1860
***Caenocoris nerii* (Germar, 1847)**
Asian Türkiye: Adana, Antalya, Aydın, Hatay, İzmir, Manisa, Mersin, Muğla (Puton & Noualhier, 1895; Seidenstücker, 1958; Lodos et al., 1978, 1999; Çağatay, 1995; Péricart, 1999a; Tezcan & Önder, 2003; Önder et al., 2006; Şerban, 2010; Bektaş & Tezcan, 2014; İner & Tezcan, 2014; Çıtırıkkaya et al., 2015)
Distribution in Palaearctic: Eastern and southern Europe, North Africa, Asian Türkiye, Middle East, China (SE), Georgia, Extralimital: Oriental Region (India, Pakistan), tropical Africa.

Genus *Graptostethus* Stål, 1868
***Graptostethus servus servus* (Fabricius, 1787)**
Asian Türkiye: Ankara, Antalya, Balıkesir, Bursa, İzmir, Manisa (Bozdağlar), Muğla **(**Reuter, 1890 as *Graptostethus servus* var. *maculicollis*; Çağatay, 1995; Péricart, 1999a, Önder et al., 2006; Öncül–Abacıgil et al., 2010; Tezcan et al., 2010).
Distribution in Palaearctic: Eastern and southern Europe, North Africa, Asian Türkiye, Middle East, Far East.

Genus *Horvathiolus* Josifov, 1965
***Horvathiolus kiritshenkoi kiritshenkoi* (Horváth, 1916)**
Asian Türkiye: Adana, Antalya, Gazianatep (Péricart, 1999a; Çerçi & Tezcan, 2020).
Distribution in Palaearctic: Asia: Armenia, Asian Türkiye, Iran.

***Horvathiolus superbus* (Pollich, 1781)**
Material examined: Edirne Province**:** Keşan Koru Mountains (Küçükyerlisu), 18.05.2016, 2 ♀♀, 2 ♂♂. Sivas Province**:** Akıncılar, Sevindik village 21.09.2007, 1 ♀; Suşehri–Solak, 16.05.2007, 1 ♀.
European Türkiye: Edirne (Josifov, 1986; Fent & Aktaç, 2008).
Asian Türkiye: Adana, Afyonkarahisar, Ağrı, Amasya, Ankara, Antalya, Aydın, Balıkesir, Bolu Çankırı, Denizli, Diyarbakır, Elazığ, Gaziantep, Hatay, Isparta, İzmir, Karaman, Kayseri, Kırıkkale, Kilis, Konya, Mersin, Niğde, Uşak, Van (Puton & Noualhier, 1895; Horváth, 1905; Kiritshenko, 1918; Gadeau de Kerville,1939; Hoberlandt, 1956; Aysev, 1974; Lodos et al., 1978, 1999; Önder & Adıgüzel, 1979; Kaya & Hıncal, 1991; Çağatay, 1995; Péricart, 1999a; Tezcan & Önder, 1999; Kıyak, 1993, 2000; Önder et al., 2006; Öncül–Abacıgil et al., 2010; Fent & Japoshvili, 2012; Dursun, 2016; Kemal & Koçak, 2018; Özgen & Dioli, 2019; Çerçi & Koçak, 2023; Yazıcı et al., 2023; Yence & Fent, 2023; Eser & Dursun, 2023a).
Distribution in Palaearctic: Wide distribution in Europe. Canary Islands, Madeira Asian Türkiye, Middle East, Central Asia, China.

Note: Puton & Noualhier (1895), Horváth (1905), Kiritshenko, (1918), Gadeau de Kerville (1939), Lodos et al. *(*1978, 1999) Kıyak (1993, 2000), Önder et al. *(*2006) gave this species as *Melanocoryphus superbus* and Hoberlandt (1956) gave as *M. superbus* and *M. superbus* var. *erythropus.*

***Horvathiolus syriacus* (Reuter, 1885)**
Material examined. ASIAN TÜRKİYE: Kahramanmaraş Province: Afşin, 21.09.2008, 2 ♀♀; Sivas Province: Suşehri–Yalnıztepe, 16.05.2006, 1 ♀;
European Türkiye: Edirne, İstanbul (Horváth, 1916, 1918; Josifov, 1986; Péricart, 1999a; Önder et al., 2006; Fent & Aktaç, 2008).
Asian Türkiye: Adana, Afyonkarahisar, Ankara, Antalya, Diyarbakır, İstanbul, Kahramanmaraş, Karaman, Kars, Konya, Mersin, Niğde **(**Horváth, 1916, as *Melanocoryphus syriacus*; Hoberlandt, 1956, as *M. syriacus*; Wagner, 1959 as *M. syriacus*; Péricart, 1999a; Önder et al., 2006 as *M. syriacus*; Çerçi et al., 2022; Çerçi & Koçak, 2023).
Distribution in Palaearctic: Bulgaria, Crete, European and Asian Türkiye, Greece, Italy, Romania, Russia (ST), Spain, North Africa, Middle East, Central Asia.

Genus *Lygaeosoma* Spinola, 1837
***Lygaeosoma anatolicum* Seidenstücker, 1960**
Material examined: EUROPEAN TÜRKİYE: Edirne Province: Uzunköprü, 15.07.2015, 12 ♀♀, 2 ♂♂.
European Türkiye: This study. New record for the Turkish Thrace.
Asian Türkiye: Amasya, Bingöl, Çankırı, Erzurum, Hatay, Kırıkkale, Konya, Manisa, Mersin (Seidenstücker, 1960b; Lodos et al., 1999; Péricart, 1999a; Tezcan & Önder, 2003; Önder et al., 2006; Çerçi et al., 2022; Eser & Dursun, 2023a; Yazıcı et al., 2023).
Distribution in Palaearctic: Eastern and southern Europe, Asian Türkiye, Transcaucasia, Middle East.
Note: The type locality of this species is Antakya– Harbiye (Hatay) (Péricart, 2001a).

***Lygaeosoma angulare* Reuter, 1885**
Asian Türkiye: Akşehir, Amasya, Bingöl, Hatay, Kahramanmaraş, Konya, Manisa (Seidenstücker, 1957; Péricart, 1999a; Eser & Dursun, 2023a).
Distribution in Palaearctic: Europe: Bulgaria, Greece, Macedonia. Asia: Asian Türkiye, Cyprus, Lebanon.

***Lygaeosoma sardeum sardeum* Spinola, 1837**
Material examined: EUROPEAN TÜRKİYE: Edirne Province: Enez (Dalyan Lake), 31.08.2015, 1 ♀; Hisarlı, 31.08.2015, 1 ♀; Süloğlu (Dam), 15.05.2016, 1 ♂; Uzunköprü–Çöpköy, 16.05.2016, 2 ♀♀, 2 ♂♂; Center–Balkan Campus, 08.05.2017, 1 ♀,1 ♂; 16.05.2017, 1 ♂; 21.06.2018, 1 ♀, 1 ♂; Keşan–Koru Mountains, 21.07.2016, 1 ♂; Kırklareli Province: Center–Üsküp, 22.08.2015, 1 ♀; Pınarhisar, 16.06.2016, 1 ♂.
European Türkiye: This study. New record for the Turkish Thrace.
Asian Türkiye: Adana, Aksaray, Amasya, Ankara, Antalya, Aydın, Bingöl, Bursa, Çanakkale, Çankırı, Çorum, Diyarbakır, Düzce, Gaziantep, Hatay, İzmir, Kahramanmaraş, Karaman, Kastamonu, Kayseri, Kırıkkale, Kırşehir, Kilis, Kocaeli, Konya, Mersin, Nevşehir, Niğde, Osmaniye, Sakarya, Tokat, Yozgat (Horváth, 1883; Reuter, 1890; Puton & Noualhier, 1895; Gadeau de Kerville, 1939; Hoberlandt, 1956; Lodos et al., 1984, 1999; Péricart, 1999a; Tezcan & Önder, 1999; Kıyak, 2000; Kıyak et al., 2004; Önder et al., 2006; Şerban, 2010; Fent & Dursun, 2016a; Çerçi et al., 2018; Çerçi & Koçak, 2023; Yazıcı, 2022b; Yazıcı et al., 2023; Yence & Fent, 2023; Eser & Dursun, 2023a).
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian

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Türkiye, Iran, Syria, Middle East, Central Asia.
Note: Horváth, 1883, Gadeau de Kerville (1939), Puton & Noualhier (1895), Lodost et al (1984), Hoberlandt (1956), Lodos et al. (1999), Kıyak et al. (2004) and Önder et al. (2006) mentioned this species as *L. reticulatum*.

***Lygaeosoma sardeum erythropterum* (Puton, 1876)**
Asian Türkiye: Ankara, Antalya, Düzce, Hatay, İzmir, Kastamonu, Mersin, Kahramanmaraş, Sakarya, Tokat (Reuter, 1890 as *Lygaeosoma reticulatum* var. *erythropterum*; Puton, 1892, as *L. reticulatum* var. *erythropterum*; Puton & Noualhier, 1895 as *L. reticulatum* var. *erythropterum*; Hoberlandt, 1956 as *L. reticulatum* var. Fent & Dursun, 2016a).
Distribution in Palaearctic: Europe: Crete, Greece, Macedonia, Spain. North Africa: Morocco. Asia: Asian Türkiye, Cyprus.

***Lygaeosoma sibiricum* Seidenstücker, 1962**
Asian Türkiye: Ankara (Kızılcahamam), Kayseri (Erciyes Mountain) Péricart (1999a),
Distribution in Palaearctic: Eastern Europe, Asian Kazakhstan, Asian Türkiye, China, Iran, Mongolia, Russia, Turkmenistan.

Genus *Lygaeus* Fabricius, 1794
***Lygaeus creticus* Lucas, 1854**
Asian Türkiye: Adana, Ankara, Antalya, Aydın, Balıkesir, Gaziantep, Hakkari, Hatay, Isparta, İzmir, Karaman, Kırıkkale, Konya, Malatya, Manisa, Mardin, Mersin, Muğla, Niğde (Aladağlar Mts.), Yalova (Puton & Noualhier, 1895; Horváth,1901; Seidenstücker, 1958; Çağatay, 1995, Lodos et al., 1978, 1999; Yiğit & Uygun, 1982; Önder et al., 1983, 2006; Péricart, 1999a; Öncül–Abacıgil et al., 2010; Bektaş & Tezcan, 2014; İner & Tezcan, 2014; Matocq et al, 2014; Çıtırıkkaya et al, 2015; Çerçi & Koçak, 2023; Yence & Fent, 2023).
Distribution in Palaearctic: Balkans, southern Europe, Libya. Asian Türkiye, Middle East

***Lygaeus equestris* (Linnaeus, 1758)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province: Uzunköprü–Saçlımüsellim, 13.06.2015, 1 ♂; Uzunköprü road, 27.08.2015, 8 ♀♀; Center–Uzgaç, 01.07.2015, 2 ♀♀, 2 ♂♂; Balkan Campus, 21.06.2018, 1 ♀; 01.07.2018, 1 ♂; Süloğlu–Büyük Gerdelli village, 05.07.2015, 1 ♀, 2 ♂♂; Keşan–Koru Mountains (Küçükyerlisu), 18.05.2016, 1 ♂; Kırklareli Province: Center–Çağlayık, 15.08.2015, 2 ♀♀; Demirköy–Sislioba, 24.06.2015, 3 ♀♀, 2 ♂♂; İğneada, 24.06.2015,1 ♀; Pınarhisar, 16.06.2016, 1 ♀; İstanbul Province: Çatalca–İhsaniye, 18.08.2015, 1 ♀. **ASIAN TÜRKİYE:** Sinop Province: İnceburun, 31.07.2007, 1 ♂.; Sivas Province: Suşehri–Yalnıztepe, 16.05.2006, 1 ♂.
European Türkiye: Çanakkale, Edirne, İstanbul, Kırklareli, Tekirdağ (Fahringer, 1922; Hoberlandt, 1956; Lodos et al., 1978; Josifov, 1986; Çağatay, 1995; Fent & Aktaç, 2008; Yazıcı et al., 2015).
Asian Türkiye: Adana, Afyonkarahisar, Ağrı, Aksaray, Amasya, Ankara, Antalya, Artvin, Aydın, Balıkesir, Bartın, Bayburt, Bilecik, Bingöl, Bolu Burdur, Bursa, Çanakkale, Çankırı, Çorum, Denizli, Diyarbakır, Elazığ, Erzincan, Erzurum, Eskişehir, Gaziantep, Giresun, Hakkari, Hatay, Iğdır, Isparta, İstanbul (Büyükada), İzmir, Kahramanmaraş, Karabük, Karaman, Kars, Kastamonu, Kayseri, Kilis, Konya, Kütahya, Malatya, Manisa, Mersin, Muğla, Muş, Nevşehir, Niğde, Osmaniye, Rize, Sinop, Sivas, Trabzon, Tunceli, Uşak, Van, Yozgat (Horváth, 1883, 1901, 1905, 1919; Puton, 1892; Escherich, 1897; Kiritshenko, 1918, 1924; Fahringer, 1922; A. F. de Seabra 1926; Gadeau de Kerville, 1939; Hoberlandt, 1956; Wagner, 1959, 1966; Linnavuori,

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1965; Tuatay et. al. 1967; Lodos et al., 1978, 1999; Altınayar 1981; Yiğit & Uygun, 1982; Önder et al., 1983, 1984, 2006; Özbek & Alaoğlu, 1987; Kıyak, 1990, 1993, 2000, 2016a; Kaya & Hıncal, 1991; Çağlar, 1992; Özbek et al., 1996; Çağatay, 1995; Péricart, 1999a; 2016; Özsaraç & Kıyak 2001; Özsaraç et al., 2001; Tezcan & Önder, 1999, 2003; Gençer et al., 2004; Kıyak et al., 2004; Kıyak & Akar, 2010; Şerban, 2010; Sert & Kabalak, 2010; Fent, 2011; Fent & Japoshvili, 2012; Koçak & Kemal, 2012; Sert et al., 2013; Bektaş & Tezcan, 2014; İner & Tezcan, 2014; Matocq et al., 2014; Yazıcı et al., 2015, 2022; Küçükbasmacı & Kıyak, 2015; Fent & Dursun, 2016a; Dursun, 2016; Çerçi et al., 2018, 2022; Çerçi & Özgen, 2021; Yazıcı, 2022b; Çerçi & Koçak, ; 2023; Yence & Fent, 2023; Eser & Dursun, 2023a).
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian Türkiye, Middle East, Central Asia, China Japan, Korea, Extralimital: India (northwest), Pakistan.

***Lygaeus melanostolus* (Kiritshenko, 1931)**
Asian Türkiye: Niğde (Aladağlar Mts.) (Yence & Fent, 2023).
Distribution in Palaearctic: Asia: Asian Türkiye, China, Iran, Kirgizia, Mongolia, Tadzhikistan. Extralimital: North India?

***Lygaeus simulans* Deckert, 1985**
Asian Türkiye: Amasya, Ankara, Bolu Diyarbakır, Elazığ, Erzincan, Gümüşhane, İzmir, Kahramanmaraş, Kastamonu, Kayseri, Malatya, Nevşehir, Niğde (Péricart, 1999a; Fent & Dursun, 2016a; Özgen & Dioli, 2019; Özgen et al., 2021a; Eser & Dursun, 2023a).
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian Türkiye, Afghanistan, Cyprus, Iran, Central Asia. Far East.

Genus *Melanocoryphus* Stål, 1872
***Melanocoryphus albomaculatus* (Goeze, 1778)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province: Center–Balkan Campus, 16.05.2017, 1 ♀; Tekirdağ Province: Şarköy–Uluman, 11.06.2017, 1 ♂. **ASIAN TÜRKİYE:** Amasya Province: Center, 14.11.2006, 1 ♂.
European Türkiye: Turkish Thrace (without locality information) (Péricart, 1999a, 2001), this study, first exact records for the Turkish Thrace.
Asian Türkiye: Afyonkarahisar, Ankara, Antalya, Artvin, Çankırı, Çorum, Elazığ, Erzincan, Erzurum, Eskişehir, Isparta, Karabük, Karaman, Kars, Kastamonu, Malatya, Sakarya, Van, Zonguldak **(**Kiritshenko, 1918, 1924; Hoberlandt, 1956; Kıyak, 1990, 1993; Lodos et al., 1999; Péricart, 1999a; Önder et al., 1981, 2006; Fent & Japoshvili, 2012; Sert et al., 2013; Küçükbasmacı & Kıyak, 2015; Yazıcı et al., 2015, 2023; Fent & Dursun, 2016a; Kemal & Koçak, 2018; Özgen et al., 2021a; Yazıcı, 2022b; Çerçi & Koçak, 2023).
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian Türkiye, Iran, Iraq, Central Asia.

***Melanocoryphus tristrami* (Douglas & Scott, 1868)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province: Enez (Dalyan Lake), 31.08.2015,1 ♂; Uzunköprü–Çöpköy, 16.05.2016, 1 ♀; Lalapaşa–Hacıdanişment, 07.06.2016, 1 ♂; Center, 10.10.2018, 1 ♂; İstanbul Province**:** Silivri–Küçüksinekli, 15.06.2016, 1 ♀; Kırklareli Province: Center–Üsküp, 21.05.2016, 2 ♀♀, 4 ♂♂. **ASIAN TÜRKİYE:** Giresun Province: Alucra–Arda village, 17.05.2006, 2 ♂♂.
European Türkiye: İstanbul, Kırklareli (Péricart, 1999a).
Asian Türkiye: Adana, Afyonkarahisar, Amasya, Ankara, Antalya, Aydın, Balıkesir, Bilecik, Bitlis, Burdur, Bursa, Çanakkale, Denizli, Diyarbakır, Hatay, Isparta, İstan-

bul, İzmir, Karabük, Karaman, Kastamonu, Kayseri, Kırıkkale, Konya, Kütahya, Manisa, Mersin, Muğla, Niğde, Sakarya, Samsun, Sinop, Uşak, Zonguldak **(**Horváth, 1883, 1916; Puton & Noualhier, 1895; Hoberlandt, 1956; Çağatay, 1995; Lodos et al., 1978, 1984, 1999; Péricart, 1999a; Önder et al., 2006; Fent & Japoshvili, 2012; Dursun, 2016; Fent & Dursun, 2016a; Yence & Fent, 2023; Eser & Dursun, 2023a).
Distribution in Palaearctic: Balkans, eastern Europe, European and Asian Türkiye, Egypt, Middle East, Central Asia.

Genus *Paranysius* Horváth, 1895
***Paranysius fraterculus fraterculus* Horváth, 1895**
Asian Türkiye: Ankara, Diyarbakır (Karacadağ), Erzurum, Gaziantep **(**Hoberlandt, 1967; Çağatay, 1995; Lodos et al., 1999; Péricart, 1999a; Önder et al., 2006; Kıyak & Akar, 2010; Yazıcı et al., 2015).
Distribution in Palaearctic: European Kazakhstan, Russia Asian Türkiye, Middle East, Central Asia, China, Mongolia, Russia.

Genus *Spilostethus* Stål, 1868
***Spitostethus pandurus* (Scopoli, 1763)**
European Türkiye: Edirne, İstanbul, Kırklareli (Fahringer, 1922; Hoberlandt, 1956; Lodos et al., 1978; Josifov, 1986; Péricart, 1999a; Önder et al., 2006; Çerçi et al., 2018).
Asian Türkiye: Adana, Afyonkarahisar, Amasya, Ankara, Antalya, Aydın, Balıkesir, Bartın, Bilecik, Bolu Burdur, Bursa, Çanakkale (Bozcada, Gökçeada), Çankırı, Denizli, Diyarbakır, Elazığ, Erzincan, Erzurum, Eskişehir, Gaziantep, Giresun, Hakkari, Hatay, Iğdır, Isparta, İstanbul, İzmir, Kahramanmaraş, Karabük, Karaman, Kars, Kayseri, Kırşehir, Kilis, Konya, Kütahya, Malatya, Manisa, Mardin, Mersin, Muğla, Muş, Niğde, Osmaniye, Rize, Şanlıurfa, Uşak, Van, Zonguldak **(**Horváth, 1883, 1901, 1905, 1919; Escherich, 1897; Fahringer, 1922; Gadeau de Kerville, 1939; Hoberlandt, 1956; Wagner, 1959, 1966; Tuatay et. al., 1967; Aysev, 1974; Lodos et al., 1978, 1999; Yiğit & Uygun, 1982; Önder et al., 1983, 2006; Kıyak, 1990, 1993, 2016a; Çağatay, 1995; Péricart, 1999a; Özsaraç & Kıyak 2001; Özsaraç et al., 2001; Atlıhan et al., 2003; Tezcan & Önder, 1999, 2003; Gençer et al., 2004; Kemal & Koçak, 2008, 2018; Kıyak & Akar, 2010; Öncül–Abacıgil et al., 2010; Şerban, 2010; Koçak & Kemal, 2012; Sert et al., 2013; Bektaş & Tezcan, 2014; Matocq et al., 2014; Çıtırıkkaya et al., 2015; Yazıcı et al., 2015; Fent & Dursun, 2016a; Çerçi et al., 2018; Yazıcı, 2022b; Çerçi & Koçak, 2023; Yence & Fent, 2023; Eser & Dursun, 2023a).
Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, North Africa, Middle East, Central Asia, China, Extralimital: Afrotropical Region, Australia, Oriental Region (India, Philippines).
Note: Horváth (1883) Escherich (1897) and Gadeau de Kerville (1939) mentioned this species as *Lygaeus pandurus* var. *militaris* and Horváth (1901, 1905, 1919), Fahringer (1922), Hoberlandt (1956) Lodos et al. (1999), Önder et al. (1983, 2006) mentioned as *Lygaeus pandurus.*

***Spilostethus saxatilis* (Scopoli, 1763)**
Material examined: EUROPEAN TÜRKİYE: Tekirdağ Province**:** Between Saray–Bahçeköy, 18.08.20151 4 ♀♀, 7 ♂♂; between Saray–Safaalan, 18.08.2015, 8 ♀♀, 10 ♂♂. **ASIAN TÜRKİYE**: Samsun Province: Bafra, 10.07. 2005, 1 ♀.
European Türkiye: İstanbul (Fahringer, 1922; Josifov, 1986).
Asian Türkiye: Adana, Afyonkarahisar, Ağrı, Aksaray, Amasya, Ankara, Antalya, Ardahan, Balıkesir, Burdur, Çanakkale (Gökçeada), Çankırı, Çorum, Diyarbakır, Elazığ, Erzincan, Erzurum, Eskişehir, Gaziantep, Hakkari, Hatay, Isparta, İstanbul,

İzmir, Kahramanmaraş, Karaman, Kars, Kastamonu, Kayseri, Kırıkkale, Kırşehir, Konya, Malatya, Mersin, Muğla, Nevşehir, Niğde, Osmaniye, Sivas, Tunceli, Van, Yalova, Yozgat (Puton, 1892; Escherich, 1897; Horváth, 1901; Kiritshenko, 1918, 1924; Fahringer, 1922; Gadeau de Kerville, 1939; Hoberlandt, 1956; Linnavuori, 1965; Tuatay et. al., 1967; Aysev, 1974; Altınyar, 1981; Önder et al., 1983, 2006; Kıyak, 1990, 1993, 2000, 2016a; Çağlar, 1992; Lodos & Önder, 1992; Çağatay, 1995; Lodos et al., 1999; Péricart, 1999a; Özsaraç et al., 2001; Kıyak et al., 2004; Kıyak & Akar, 2010; Fent & Japoshvili, 2012; Koçak & Kemal, 2012; Sert et al., 2013; Matocq et al., 2014; Küçükbasmacı & Kıyak, 2015; Kemal & Koçak, 2018;Yazıcı et al., 2015, 2022; Çerçi et al., 2018; Çerçi & Özgen, 2021; Yazıcı, 2022a, b; Çerçi & Koçak, 2023; Yence & Fent, 2023; Eser & Dursun, 2023a).

Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, North Africa, Middle East, Central Asia, Extralimital: India?, Kashmir.

Note: Puton (1892), Escherich (1897), Horváth (1901), Kiritshenko, (1918, 1924), Fahringer (1922), Gadeau de Kerville (1939), Hoberlandt (1956), Lodos et al. (1999), Önder et al. (1983, 2006) are given this species as *Lygaeus saxatilis.*

Genus *Tropidothorsax* Bergroth, 1894

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

Material examined: EUROPEAN TÜRKİYE: Edirne Province: Enez (Taşaltı Lagoon), 31.08.2015, 1 ♀, 1 ♂; Kırklareli Province:–Lüleburgaz–Kırıkköy, 15.07.2016, 1 ♀. **ASIAN TÜRKİYE:** Yozgat Province: Kırkdilim, 13.03.2018, 4 ♀♀, 5 ♂♂.

European Türkiye: Edirne, Tekirdağ **(**Wagner, 1966; Dirik & Kıvan, 2016).

Asian Türkiye: Afyonkarahisar, Adana, Amasya, Ankara, Antalya, Artvin, Aydın, Bartın, Bursa, Çanakkale, Çankırı, Çorum, Denizli, Erzincan, Erzurum, Iğdır, Isparta, İzmir, Karaman, Kars, Kastamonu, Konya, Manisa, Niğde, Zonguldak (Horváth, 1883; Kiritshenko, 1918; Hoberlandt, 1956; Wagner, 1966; Aysev, 1974; Çağatay, 1995; Lodos et al., 1999; Péricart, 1999a; Önder et al., 1983, 2006; Sert & Kabalak, 2010; Şerban, 2010; İner & Tezcan, 2014; Yazıcı et al., 2015, 2022; Yazıcı, 2022a, b; Çerçi & Koçak, 2023; Eser & Dursun, 2023a).

Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, Algeria, Egypt, Central Asia, Afghanistan, Iran, Iraq, Extralimital: India.

Subfamily ORSILLINAE Ståll, 1872

Tribe NYSINI Uhler, 1876

Genus *Nysius* Dallas, 1852

***Nysius cymoides* (Spinola, 1837)**

Material examined: EUROPEAN TÜRKİYE: Edirne Province: Uzunköprü road, 27.08.2015, 1 ♂; Enez (Karagöl), 01.09.2015, 2 ♂♂; Tekirdağ Province: Center–Mermer, 20.08.2015, 1 ♀, 1 ♂; Uçmakdere, 20.08.2015, 1 ♀, 1 ♂.

European Türkiye: Edirne, Kırklareli, Tekirdağ (Hoberlandt, 1956; Lodos *et al.,* 1978; Josifov, 1986; Péricart, 1999a; Önder *et al.,* 1984, 2006).

Asian Türkiye: Adana, Adıyaman, Aksaray, Amasya, Ankara, Antalya, Artvin, Aydın, Batman, Balıkesir, Bayburt, Burdur, Bursa, Çanakkale (Gökçeada), Çorum, Denizli, Diyarbakır, Elazığ, Erzincan, Erzurum, Eskişehir, Gaziantep, Hatay, Iğdır, Isparta, İstanbul, İzmir, Kahramanmaraş, Karaman, Kars, Kayseri, Kilis, Kocaeli, Konya, Manisa, Mardin, Mersin, Muğla, Muş, Niğde (Aladağlar Mts.), Osmaniye, Siirt, Şanlıurfa, Şırnak, Tokat, Yalova, Yozgat, Van **(**Horváth, 1890; Puton, 1892; Kiritschenko, 1918; Hoberlandt, 1956, 1961; Linnavuori, 1965; Lodos *et al.,* 1978, 1984, 1999; Önder & Adıgüzel, 1979; Önder *et al.,* 1981, 2006; Özbek & Alaoğlu, 1987; Özbek et al., 1996; Péricart, 1999a; Tezcan & Önder, 1999; Beyaz & Tezcan, 2002; Atlıhan et al., 2003; Demirel, 2009; Öncül–Abacıgil et al., 2010; Matocq & Özgen, 2010; Özgen, 2012;

Bektaş & Tezcan, 2014; İner & Tezcan, 2014; Matocq et al., 2014; Yazıcı et al., 2015, 2023; Atakan et al., 2017; Çerçi et al., 2018; Özgen et al., 2020, 2021b; Yazıcı, 2020, 2022b; Fent et al., 2022; Çerçi & Koçak, 2023; Eser & Dursun, 2023a; Yence & Fent, 2023).

Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, North Africa, Middle East, Central Asia, Extralimital: Cabo Verde Is., Mauritania, Sierra Leone, Sudan.

***Nysius ericae ericae* (Schilling, 1829)**

Material examined: EUROPEAN TÜRKİYE: Edirne Province**:** Süloğlu (Dam), 15.06.2016, 22 ♀♀; Center–Balkan Campus, 08.05.2017, 1 ♀; Kırklareli Province**:** Pınarhisar (Mahya Hill), 30.06.2015, 1 ♀; Center–Çağlayık, 15.08.2015, 3 ♀♀, 2 ♂♂; Üsküp, 22.08.2015, 1 ♀.

European Türkiye: Edirne **(Fent & Okyar, 2022).**

Asian Türkiye: Adana, Amasya, Ankara, Antalya, Bolu Gaziantep, Hatay, İzmir, Kahramanmaraş, Kayseri, Kilis, Manisa, Mersin, Nevşehir, Niğde, Osmaniye, Yozgat, Zonguldak **(**Hoberlandt, 1956; Önder et al., 1983, 2006; Kıyak, 1993, 2016; Lodos et al., 1999; Péricart, 1999a; Beyaz & Tezcan, 2002; Kıyak et al., 2004; Kıyak & Akar, 2010; İner & Tezcan, 2014; Eser & Dursun, 2023a).

Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, North Africa, Middle East, Central Asia, China, Taiwan, Extralimital: Probably the whole of tropical Africa.

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

Material examined: EUROPEAN TÜRKİYE: Çanakkale Province: Ilgardere, 17.05.2016, 1 ♀; Edirne Province: Center-–Suakacağı, 05.06.2015, 1 ♀; Uzunköprü, 27.08.2015, 5 ♀♀, 5 ♂♂; Keşan–Koru Mountains (Küçükyerlisu), 18.05.2016, 2 ♀♀, 2 ♂♂; Kocahıdır, 22.07.2016, 1 ♀, 2 ♂♂; Mecidiye, 22.07.2016, 1 ♀, 1 ♂; Karahisar, 24.07.2016, 1 ♀; Uzunköprü–Kavacık, 14.07.2016, 7 ♀♀, 4 ♂♂; Kırklareli Province: Demirköy–Sislioba, 24.06.2015, 2 ♂♂; İğneada, 24.06.2015, 1 ♂; Center–Çağlayık, 15.08.2015, 2 ♀♀, 1 ♂; Üsküp, 22.08.2015, 11 ♀♀, 10 ♂♂; Pınarhisar, 16.06.2016, 2 ♀♀, 2 ♂♂; Vize–Doğanca, 16.07.2016, 7 ♀♀, 8 ♂♂; Tekirdağ Province: Between Saray–Safaalan, 18.08.2015, 1 ♀; 11.06.2016, 4 ♀♀; Center–Mermer, 20.08.2015, 45 ♀♀, 26 ♂♂; Uçmakdere, 20.08.2015, 1 ♂; Şarköy, 21.08.2015, 5 ♀♀, 5 ♂♂; Ergene–Esenler, 17.07.2016, 1 ♀; next to the Unilever, 17.07.2016, 1 ♀; Muratlı–Hanoğlu, 17.07.2016, 3 ♀♀; Saray–Çaylaköy, 18.07.2016, 1 ♀, 2 ♂♂; İstanbul Province: Çatalca, 18.08.2015, 6 ♀♀, 1 ♂; between İhsaniye–Çatalca, 18.08.2015, 1 ♀, 2 ♂♂; İhsaniye, 11.06.2016, 2 ♀♀, 4 ♂♂; Silivri–Fenerköy, 19.08.2015, 3 ♀♀, 2 ♂♂; Arnavutköy road, 12.06.2016, 2 ♀♀, 1 ♂.

European Türkiye: Çanakkale, Edirne, İstanbul, Tekirdağ, (Hoberlandt, 1956; Lodos et al., 1978; Josifov, 1986; Önder et al., 1984, 2006).

Asian Türkiye: Adana, Afyonkarahisar, Amasya, Ankara, Antalya, Artvin, Aydın, Balıkesir, Bartın, Bayburt, Bilecik, Bolu Burdur, Bursa, Çanakkale, Çorum, Denizli, Diyarbakır, Düzce, Erzincan, Erzurum, Eskişehir, Gaziantep, Hatay, Isparta, İstanbul, İzmir, Kahramanmaraş, Karabük, Karaman, Kars, Kastamonu, Kayseri, Kilis, Kocaeli, Konya, Manisa, Mersin, Mardin, Muğla, Nevşehir, Sakarya, Sinop, Osmaniye, Uşak, Zonguldak (Puton & Noualhier, 1895; Horváth, 1901, 1905; Hoberlandt, 1956; Wagner, 1966; Tuatay et al., 1967; Aysev, 1974; Lodos et al., 1978, 1999; Önder & Adıgüzel, 1979; Yiğit & Uygun, 1982; Önder et al., 1981, 1983, 2006; Péricart, 1999a; Yıldırım et al., 1999; Özsaraç et al., 2001 as *Macroparius graminicola graminicola*; Beyaz & Tezcan, 2002; Tezcan et al., 2010; Özgen, 2012; Bektaş & Tezcan, 2014; İner & Tezcan, 2014; Yazıcı et al., 2015; Dursun, 2016; Fent & Dursun, 2016a; Kıyak, 2016a; Atakan et al., 2017; Yazıcı, 2022a, b; Eser & Dursun, 2023a).

Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, North Africa, Middle East, Central Asia, Far East.

***Nysius helveticus* (Herrich–Schaeffer, 1850)**
Asian Türkiye: Adana, Amasya, Ankara, Antalya, Artvin, Balıkesir, Elazığ, Erzurum, İzmir, Kars, Kastamonu, Muğla, Kayseri, Niğde **(**Lodos et al., 1978, 1999; Kıyak, 1993; Péricart, 1999a; Önder et al., 2006; Kıyak & Akar, 2010; Tezcan et al., 2010; Yazıcı et al., 2015; Fent & Dursun, 2016a; Atakan et al., 2017; Çerçi & Özgen, 2021; Özgen et al., 2021a; Eser & Dursun, 2023a; Yence & Fent, 2023).
Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, Iran, Iraq, Central Asia, China Russia.

***Nysius immunis* (Walker, 1872)**
Asian Türkiye: Ankara, Bolu Diyarbakır, İzmir, Konya, Zonguldak **(**Horváth, 1890; Önder & Adıgüzel, 1979 as *N. stalianus*; Lodos et al., 1999 as *N. stalianus*; Péricart, 1999a; Önder et al., 2006 as *N. stalianus*; Yazıcı, 2022b).
Distribution in Palaearctic: Southern Europe, North Africa, Asian Türkiye, Cyprus.

***Nysius senecionis senecionis* (Schilling, 1829)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province**:** Süloğlu (Dam), 15.06.2016, 14 ♀♀, 20 ♂♂; Center–Balkan Campus, 08.05.2017, 10 ♀♀, 8 ♂♂; Kırklareli Province**:** Pınarhisar–İslambeyli, 21.06.2015, 2 ♀♀; Demirköy–Boztaş, 25.06.2015, 2 ♀♀, 1 ♂; Pınarhisar (Mahya Hill), 30.06.2015, 2 ♀♀; Tekirdağ Province: Center–Naip village, 19.08.2015, 4 ♀♀, 4 ♂♂.
European Türkiye: Çanakkale, Edirne (Hoberlandt, 1956; Josifov, 1986; Péricart, 1999a; Şerban, 2010; Fent & Okyar, 2022).
Asian Türkiye: Adana, Amasya, Ankara, Antalya, Artvin, Aydın, Bayburt, Bolu Bursa, Çanakkale (Gökçeada), Çorum, Denizli, Diyarbakır, Erzincan, Erzurum, Eskişehir, Hatay, İstanbul, İzmir, Karabük, Kahramanmaraş, Kars, Kayseri, Kilis, Kocaeli, Konya, Manisa, Mersin, Muğla, Nevşehir, Sakarya, Zonguldak (Horváth, 1883; Fahringer, 1922; Hoberlandt, 1956; Lodos et al., 1978, 1999; Önder & Adıgüzel, 1979; Péricart, 1999a; Yıldırım et al., 1999; Özsaraç et al., 2001 as *Tropinysius senecionis*; Önder et al., 1981, 2006; Tezcan & Önder, 2003; Şerban, 2010; Fent, 2011; Bektaş & Tezcan, 2014; Yazıcı et al., 2015; Kaya, 2018: Eser & Dursun, 2023a).
Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, North Africa, Middle East, Central Asia, Extralimital: tropical Africa.

***Nysius thymi thymi* (Wolff, 1804)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province: Meriç–Kadıdondurma, 20.05.2016, 4 ♀♀; Kırklareli Province: Center–Çağlayık, 15.08.2015, 1 ♀, 1 ♂.
European Türkiye: Edirne (Fent & Okyar, 2022).
Asian Türkiye: Adana, Amasya, Antalya, Artvin, Aydın, Bayburt, Çanakkale (Gökçeada), Denizli, Diyarbakır, Elazığ, Erzincan, Erzurum, Gaziantep, Hatay, İzmir, Kahramanmaraş, Kayseri, Kilis, Manisa, Mersin, Muğla, Osmaniye (Lodos et al., 1978, 1999; Önder & Adıgüzel, 1979; Yıldırım et al., 1999; Beyaz & Tezcan, 2002; Önder et al., 2006; Bektaş & Tezcan, 2014; İner & Tezcan, 2014; Matocq et al., 2014; Yazıcı et al., 2015; Atakan et al., 2017; Eser & Dursun, 2023a).
Distribution in Palaearctic: Wide distribution in Europe. Algeria, Asian Türkiye, Iran, Israel, Transcaucasia, Central Asia, China, Russia. Extralimital: Alaska, Canada, USA.

Tribe ORSILLINI Stål, 1872

Genus *Belonochilus* Uhler, 1871
***Belonochilus numenius* (Say 1832)**
European Türkiye: Edirne (Fent & Dursun, 2021).
Asian Türkiye: İzmir **(**Çerçi & Oruz, 2021)
Distribution in Palaearctic: Wide distribution in Europe. Madeira, Asian Türkiye. Extralimital: North America (Canada, Mexico, USA).

Genus *Camptocoris* Puton, 1886
***Camptocoris longicornis* (Puton, 1874)**
Asian Türkiye: Hatay (Amanus Mountains) (Seidenstücker, 1960a; Péricart, 1999a).
Distribution in Palaearctic: Europe: Crete, Greece, Italy, North Africa, Asian Türkiye, Middle East, Central Asia.

Genus *Orsillus* Dallas, 1852
***Orsillus depressus* (Mulsant** & **Rey, 1852)**
Material examined: EUROPEAN TÜRKİYE: Tekirdağ Province**:** Şarköy–Yeniköy, 11.06.2017, 1 ♀, 1 ♂.
European Türkiye: This study. New record for the Turkish Thrace.
Asian Türkiye: Adana, Amasya, Antalya, Çankırı, Çorum, Denizli, Elazığ, Kahramanmaraş, Karaman, Konya, Mersin, Niğde **(**Hoberlandt, 1956; Lodos et al., 1999; Péricart, 1999a; Önder et al., 2006; Çerçi & Koçak, 2023; Eser & Dursun, 2023a; Yence & Fent, 2023).
Distribution in Palaearctic: Wide distribution in Europe and North Africa, Asian Türkiye, Transcaucasia, Cyprus, Iran, Central Asia, China.

***Orsillus maculatus* (Fieber, 1861)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province**:** Enez–Gülçavuş (coastal path), 23.07.2016, 5 ♀♀, 2 ♂♂.
European Türkiye: This study. New record for the Turkish Thrace.
Asian Türkiye: Adana, Amasya, Antalya, Balıkesir, Bursa, Çanakkale, İzmir, Kahramanmaraş, Kastamonu, Kilis, Mersin, Niğde **(**Lodos et al., 1978, 1999; Péricart, 1999a; Önder et al., 2006; Dursun, 2016; Eser & Dursun, 2023a).
Distribution in Palaearctic: Southern and Eastern Europe, North Africa, Asian Türkiye, Transcaucasia, Middle East.

***Orsillus reyi* Puton, 1871**
European Türkiye: İstanbul (Horváth, 1918; Josifov, 1986; Önder *et al.,* 2006).
Asian Türkiye: Adana, Antalya, Gaziantep, Hatay, İzmir, Kahramanmaraş, Mersin (Seidenstücker, 1958; Lodos et al., 1999; Önder et al., 1983, 2006; Péricart, 1999a).
Distribution in Palaearctic: Southern Europe, Algeria, Tunisia, Asian Türkiye, Cyprus, Israel.

Genus *Ortholomus* Stål, 1872
***Ortholomus carinatus* (Lindberg, 1932)**
Material examined: EUROPEAN TÜRKİYE: Tekirdağ Province**:** Between Saray–Safaalan, 11.06.2016, 1 ♀.
European Türkiye: Edirne **(**Hoberlandt, 1956; Josifov, 1986; Péricart, 1999a; Önder et al., 2006).
Asian Türkiye: Balıkesir, Bilecik, Çanakkale, Diyarbakır, Elazığ, Isparta, Karaman, Kayseri, Kırşehir, Konya, Mardin, Niğde (Aladağlar Mts.), **(**Lodos et al*.,* 1978, 1999 as *Nysius carinatus*; Önder & Adıgüzel, 1979 as *N. carinata*; Önder et al., 2006, as *N. carinatus* and *O. carinatus*; Péricart, 1999a; Özsaraç et al., 2001; Matocq et al.,2014;

Çerçi & Özgen, 2021; Çerçi & Koçak, 2023; Yence & Fent, 2023).
Europe: European Kazakhstan, European Türkiye, France, Greece, Portugal, Spain, Ukraine. North Africa: Algeria, Morocco, Tunisia. Asia: Asian Türkiye, Iran, Iraq.

***Ortholomus punctipennis* (Herrich–Schaeffer, 1838)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province: Center–Suakacağı, 05.07.2015, 2 ♀♀; Uzunköprü–Mestanlar, 14.07.2016, 1 ♀; Kırklareli Province: Center–Çağlayık, 15.08.2015, 5 ♀♀, 2 ♂♂; Üsküp, 22.08.2015, 5 ♀♀, 2 ♂♂; Çukurpınar, 22.08.2015, 3 ♀♀, 1 ♂; Tekirdağ Province: Between Saray–Safaalan, 11.06.2016, 2 ♀♀, 6 ♂♂.
European Türkiye: Edirne, İstanbul (Belgrad Forest), (Hoberlandt, 1956; Lodos et al., 1978; Josifov, 1986; Péricart, 1999a; Önder et al., 2006).
Asian Türkiye: Ağrı, Amasya, Ankara, Antalya, Bolu Burdur, Çankırı, Çorum, Diyarbakır, Düzce, Erzurum, Gaziantep, Hatay, Isparta, Karabük, Kars, Kayseri, Nevşehir, Sivas, Uşak. **(**Kiritshenko, 1918; Hoberlandt, 1956; Linnavuori, 1965; Aysev, 1974; Lodos et al., 1978, 1999; Önder & Adıgüzel, 1979; Çağlar, 1992; Péricart, 1999a; Kıyak, 2000; Önder et al., 2006; Kıyak & Akar, 2010; Küçükbasmacı & Kıyak, 2015; Yazıcı et al., 2015; Fent & Dursun, 2016a; Eser & Dursun, 2023a).
Distribution in Palaearctic: Wide distribution in Europe. Asian Türkiye, Transcaucasia, Central Asia, China, Cyprus, Iran, Korea, Mongolia, Russia.
Note: Lodos et al., 1978, 1999, Kıyak, 2000, Önder et al., 2006, Kıyak & Akar, 2010; mentioned this species as as *Nysius punctipennis.*

Subfamily ISCHNORHYNCHINAE Stål, 1872

Genus *Kleidocerys* Stephens, 1829
***Kleidocerys ericae* (Horváth, 1908)**
Material examined: **EUROPEAN TÜRKİYE:** İstanbul Province: Çatalca–Dağyenice, 12.06.2016, 1 ♀.
European Türkiye: This study. New record for the Turkish Thrace.
Asian Türkiye: Ankara, Antalya, Balıkesir, Bartın, Bilecik, Bolu Bursa, Düzce, İstanbul, Karaman, Kocaeli, Konya, Muğla, Sinop, Sivas, Zonguldak **(**Lodos et al., 1978, 1999 as *Kleidocerys truncatus ericae* and *K. truncatus truncatus*; Önder et al., 1981, 2006 as *K. truncatus ericae* and *K. truncatus truncatus*; Şerban, 2010)
Distribution in Palaearctic: Europe: Crete, France, Ireland, Netherlands, Spain. North Africa: Algeria, Morocco, Tunisia. Asia: Asian Türkiye.

***Kleidocerys resedae resedae* (Panzer, 1797)**
Material examined: EUROPEAN TÜRKİYE: Kırklareli Province**:** Demirköy–Sivriler, 27.06.2015, 1 ♀.
European Türkiye: Turkish Thrace **(**Péricart, 2001a), this study, the first exact record for the Turkish Thrace.
Asian Türkiye: Balıkesir, Erzurum, İstanbul (Çamlıca), Muğla (Aysev, 1974; Yıldırım et al., 1999; Bektaş & Tezcan, 2014; Yazıcı et al., 2015).
Distribution in Palaearctic: (including *ericae*) Wide distribution in Europe. Asian Türkiye, Transcaucasia, Central Asia, Far East.
Note: *Kleidocerys resedae* is a Holarctic element and is known in Eurasia, from the Iberian Peninsula to Japan, reaching the latitude of 65"N in Scandinavia, and present in Siberia to the Far East. It does not seem to be known from North Africa. It is also present in Canada and the USA. In middle and southern Europe, its distribution area overlaps that of *Kleidocerys ericae*, and in the absence of reliable discriminative characteristics, it is impossible to draw a reliable distribution map

(Péricart, 1999a). Owing to the confusion with *Kleidocerys resedae*, which has almost the same chorology, only the distribution area of the complex *resedae–ericae* is given (Aukema 2018).

Family OXYCARENIDAE Stål, 1862
Subfamily OXYCARENINAE Stål, 1862

Genus *Auchenodes* Horváhth, 1891
***Auchenodes capito* Horváth, 1891**
Asian Türkiye: Gaziantep (Lodos *et al.,* 1999).
Distribution in Palaearctic: Asia: Armenia, Asian Türkiye, Azerbaijan, Jordan.

***Auchenodes costalis* (Lethierry, 1877)**
Asian Türkiye: Ankara, Balıkesir, Bursa, Erzurum, Gaziantep, Kayseri, Osmaniye, Van **(**Seidenstücker, 1958, Péricart, 1999b; Yazıcı et al., 2015).
Distribution in Palaearctic: Europe: Bulgaria, Greece, Portugal, Spain. Asia: Armenia, Asian Türkiye, Georgia, Syria.

Genus *Brachyplax* Fieber, 1860
***Brachyplax tenuis* (Mulsant** & **Rey, 1852)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province: Havsa–Hasköy (Saksağan Stream), 21.05.2016, 11 ♀♀, 4 ♂♂. İstanbul Province**:** Çatalca–İhsaniye, 11.06.2016,1 ♀; Akalan Bridge, 14.06.2016, 1 ♀; Dağyenice, 12.06.2016, 1 ♂; Silivri–Küçüksinekli, 15.06.2016, 1 ♂. Kırklareli Province: Center–Üsküp, 21.05.2016, 1 ♀, 1 ♂.
European Türkiye: Edirne (Hoberlandt, 1956; Josifov, 1986; Péricart, 1999b; Önder et al., 2006).
Asian Türkiye: Amasya, Ankara, Elazığ, Gaziantep, Hatay, İzmir, Kahramanmaraş, Karaman, Kastamonu, Kayseri, Mersin, Niğde (Horváth, 1901; Linnavuori, 1953; Hoberlandt, 1956; Seidenstücker, 1958; Aysev, 1974; Çağatay, 1986; Lodos et al., 1999; Péricart, 1999b; Önder et al., 2006; Matocq et al., 2014; Çerçi & Koçak, 2023; Eser & Dursun, 2023b; Yence & Fent, 2023).
Distribution in Palaearctic: Wide distribution in Europe and in North Africa. Asian Türkiye, Cyprus, Transcaucasia, Central Asia, Syria.
Note: Horváth (1901), Linnavuori, (1953), Hoberlandt (1956), Seidenstücker, (1958), Çağatay, (1986), Lodos et al. (1999) and Önder et al. (2006) mentioned this species as *Brachyplax palliata.*

Genus *Camptotelus* Fieber, 1860
***Camptotelus lineolatus lineolatus* (Schilling, 1829)**
Asian Türkiye: Ankara, Bolu (Abant Lake), Kayseri, Konya, Sivas (Horváth, 1905; Péricart, 1999b).
Distribution in Palaearctic: Wide distribution in Europe. Asian Türkiye, Transcaucasia, Kirgizia, Mongolia, Russia, Uzbekistan.

***Camptotelus parallelus* Horváth, 1894**
Asian Türkiye: Aksaray, Ankara, Kayseri, Niğde **(**Seidenstücker, 1957; Péricart, 1999b)
Distribution in Palaearctic: Asian Türkiye, Transcaucasia, Iran, Central Asia.

***Genus Leptodemus* Reuter, 1900**
***Leptodemus minutus* (Jakovlev, 1874)**
European Türkiye: Çanakkale, Edirne, Tekirdağ (Lodos et al., 1978).

Asian Türkiye: Afyonkarahisar, Aydın, Bilecik, Burdur, Bursa, Çanakkale (Gökçeada), Gaziantep, Hatay, Isparta, İzmir, Manisa, Kahramanmaraş, Karaman, Kilis, Kütahya, Manisa, Muğla, Siirt, Şanlıurfa, Uşak (Seidenstücker, 1960a; Çağatay, 1986, 1995; Lodos et al., 1978, 1999; Péricart, 1999b; Özsaraç et al., 2001; Önder et al., 2006; Matocq & Özgen, 2010; Sert et al., 2013; Bektaş & Tezcan, 2014; İner & Tezcan, 2014; Yazıcı & Sertkaya 2020; Çerçi & Koçak, 2023).
Distribution in Palaearctic: European Kazakhstan, Italy, Russia (ST), Spain, Ukraine. North Africa, Asian Türkiye, Middle East, Central Asia, Extralimital: Sudan.
Note: Yazıcı & Sertkaya (2020) found that this species caused damage by colonizing young seedlings of cotton (*Gossypium hirsutum*) in high numbers in Hatay, and caused wilting and deformation of the leaves with the intense suction they made.

Genus *Macroplax* Fieber, 1860
***Macroplax fasciata fasciata* (Herrich–Schaeffer, 1835)**
Material examined: EUROPEAN TÜRKİYE: Çanakkale Province**:** Ilgardere, 17.05.2016, 5 ♀♀, 1 ♂; Between Behramlı–Şehitlik, 17.05.2016, 8 ♀♀, 12 ♂♂; between Eceabat–Kilitbahir, 17.05.2016, 5 ♀♀, 11 ♂♂; Edirne Province**:** Uzunköprü–Ömerbey, 16.05.2016, 40 ♀♀, 22 ♂♂; Keşan–Koru Mountains (Küçükyerlisu), 18.05.2016, 2 ♀♀; Kocahıdır, 22.07.2016, 1 ♂; Meriç–Kadıdondurma, 20.05.2016, 10 ♀♀, 1 ♂; Kırklareli Province**:** Demirköy– Boztaş, 25.06.2015, 1 ♀; Istranca, 25.06.2015, 1 ♀; Hamdibey, 26.06.2015, 49 ♀♀, 55 ♂♂; between Hamdibey–Yeşilce, 26.06.2015, 28 ♀♀, 22 ♂♂; Vize–Kıyıköy, 28.06.2015, 4 ♀♀, 5 ♂♂; Center–Üsküp, 21.05.2016, 1 ♂; 06.06.2016, 3 ♀♀, 1 ♂; Çukurpınar, 21.05.2016, 1 ♀; Tekirdağ Province: Between Saray–Safaalan, 18.08.2015, 1 ♀, 1 ♂; 11.06.2016, 2 ♀♀, 3 ♂♂; Ergene–Esenler, 17.07.2016, 1 ♂; İstanbul Province**:** Çatalca–Danamandıra 11.06.2016, 3 ♀♀, 2 ♂♂; between Çatalca−İhsaniye, 11.06.2016, 2 ♀♀, 5 ♂♂; Akalan Bridge, 14.06.2016, 2 ♀♀, 9♂♂; Arnavutköy road, 12.06.2016, 4 ♀♀, 3 ♂♂; Dağyenice, 12.06.2016, 1 ♀, 1 ♂; Silivri–Küçüksinekli, 15.06.2016, 2 ♀♀, 1 ♂ **ASIAN TÜRKİYE:** Amasya Province: Havza–Ilıca village, 12.07.2002, 1 ♂; Hatay Province: Hassa–Akbez, 19.05.2010, 1 ♀; Aktepe, 20.05.2010, 1 ♀; Tokat Province: Niksar–Kümbetli, 20.06.2006, 3 ♀♀; Reşadiye-–Kündüryan, 28.08.2005, 1 ♀.
European Türkiye: Çanakkale, Edirne, İstanbul, Tekirdağ, (Fahringer, 1922; Çağatay, 1986; Lodos et al., 1978).
Asian Türkiye: Adana, Afyonkarahisar, Amasya, Ankara, Antalya, Artvin, Aydın, Balıkesir, Bilecik, Bursa, Çanakkale (Gökçeada), Çorum, Denizli, Düzce, Elazığ, Erzincan, Erzurum, Gaziantep, Hatay, Isparta, İstanbul, İzmir, Kahramanmaraş, Karaman, Kastamonu, Kayseri, Kırıkkale, Kırşehir, Kocaeli, Konya, Kütahya, Manisa, Mardin, Mersin, Muğla, Niğde, Osmaniye, Sakarya, Sinop, Uşak, Zonguldak (Aladağlar Mts.), Uşak (Horváth, 1883, 1905; Linnavuori, 1953; Hoberlandt, 1956; Aysev, 1974; Özbek et al., 1996; Çağatay, 1986, 1995; Lodos et al., 1978, 1999; Önder et al., 1983, 2006; Péricart, 1999b; Özsaraç et al., 2001; Matocq & Özgen, 2010; Öncül–Abacıgil et al., 2010; Fent, 2011; Fent & Japoshvili, 2012; Bektaş & Tezcan, 2014; Matocq et al., 2014; Çıtırıkkaya et al., 2015; Küçükbasmacı & Kıyak, 2015; Yazıcı et al., 2015; Fent & Dursun, 2016a; Kıyak, 2016a; Çerçi et al., 2018; Çerçi & Özgen, 2021; Yazıcı, 2022b; Çerçi & Koçak, 2023; Eser & Dursun, 2023b; Yence & Fent, 2023).
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian Türkiye, Transcaucasia, Middle East.

***Macroplax preyssleri* (Fieber, 1837)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province**:** Uzunköprü–Çöpköy, 08.06.2016, 1 ♀. **ASIAN TÜRKİYE:** Artvin Province: Şavşat–Şalcı, 21.07.2005, 1 ♀.

European Türkiye: This study. New record for the Turkish Thrace.
Asian Türkiye: Akşehir, Kastamonu **(**Péricart, 1999b; Fent & Dursun, 2016a).
Distribution in Palaearctic: Wide distribution in Europe. Asian Türkiye.

Genus *Macropternella* J.A. Slater, 1957
***Macropternella inermis* (Fieber, 1851)**
Asian Türkiye: Adana, Antalya, Mersin (Seidenstücker, 1957, 1958; Lodos et al., 1999; Péricart, 1999b; Önder et al., 2006).
Distribution in Palaearctic: Bosnia Hercegovina, Crete, Greece, Serbia, North Africa, Asian Türkiye, Middle East, Central Asia, Extralimital: Ethiopia, Sudan.

Genus *Metapoplax* Fieber, 1860
***Metopoplax fuscinervis* Stål, 1872**
Material examined: EUROPEAN TÜRKİYE: Edirne Province**:** Lalapaşa–Hacıdanişment, 07.06.2016, 1 ♂; İpsala road (20. km) 08.06.2016, 6 ♀♀, 3 ♂♂; Uzunköprü–Mestanlar, 14.07.2016, 1 ♀; İstanbul Province**:** Silivri–Küçüksinekli, 15.06.2016, 5 ♀♀; Kırklareli Province**:** Pınarhisar–İslambeyli, 21.06.2015, 23 ♀♀, 12 ♂♂; between Yenice–Demirköy (around sand pit), 21.06.2015, 13 ♀♀, 10 ♂♂; Demirköy–İğneada (Longoz Forest), 27.06.2015, 6 ♀♀, 11 ♂♂; Istranca, 25.06.2015, 2 ♀♀; Boztaş, 26.06.2015, 38 ♀♀, 28 ♂♂; Vize–Kıyıköy, 28.06.2015, 10 ♀♀, 4 ♂♂; Pınarhisar (Mahya Hill), 30.06.2015, 99 ♀♀, 87 ♂♂; Üsküp, 22.08.2015, 1 ♂; Tekirdağ Province: Malkara, between Yaylaköy–Yaylagöne, 22.06.2017, 1 ♀. **ASIAN TÜRKİYE:** Samsun Province: Bafra, 10.07.2005, 1 ♂.
European Türkiye: Edirne (Hoberlandt, 1956; Péricart, 1999b; Önder et al., 2006).
Asian Türkiye: Adana, Ankara, Antalya, Bursa, Çanakkale (Gökçeada), Denizli, Erzurum, Gaziantep, Hatay, Karabük, Kahramanmaraş, Kastamonu, Kayseri, Kırşehir, Mersin, Nevşehir, Niğde, Osmaniye, Zonguldak (Horváth, 1883; Hoberlandt, 1956; Kaya & Hıncal, 1991; Lodos et al., 1999; Péricart, 1999b; Kıyak, 2000; Özsaraç et al., 2001; Önder et al., 2006; Yence & Fent, 2023).
Distribution in Palaearctic: Southern and Central Europa, European and Asian Türkiye Algeria, Morocco, Tunisia, Cyprus, Iran, Israel.

***Metopoplax origani* (Kolenati, 1845)**
Material examined: EUROPEAN TÜRKİYE: Kırklareli Province: Center–Beypınar, 22.05.2016, 3 ♀♀, 2 ♂♂; Deveçatağı, 04.06.2016, 2 ♂♂; Babaeski, 09.06.2016, 1 ♀, 2 ♂♂; Pınarhisar, 16.06.2016, 3 ♀♀; Demirköy–Boztaş, 26.06.2015, 3 ♀♀, 2 ♂♂; Vize–Kıyıköy, 28.06.2015, 2 ♀♀, 1 ♂; Edirne Province: Uzunköprü road, 27.08.2015 1 ♀; 08.06.2016, 1 ♀, 1 ♂; Süloğlu (Dam), 15.06.2016, 22 ♀♀, 19♂♂; Uzunköprü–Çöpköy, 16.05.2016, 3 ♀♀; Meriç–Olacak village, 19.05.2016, 1 ♀; 08.06.2016, 1 ♀; Meriç–Akıncılar road, 19.05.2016, 1 ♀; Havsa–Hasköy (Saksağan Stream), 21.05.2016, 1 ♂; Enez–Hisarlı, 31.08.2015, 1 ♂; Center–Balkan Campus, 08.05.2017, 14 ♀♀, 13 ♂♂; 16.05.2017, 31 ♀♀, 27 ♂♂; İstanbul Province: Arnavutköy road, 12.06.2016, 1 ♀, 1 ♂; Silivri–Küçüksinekli, 15.06.2016, 12 ♀♀, 13 ♂♂; Tekirdağ Province: Between Saray–Safaalan, 11.06.2016, 2 ♀♀, 2 ♂♂; **ASIAN TÜRKİYE:** Sivas Province: Akıncılar–Sevindik village 21.09.2007, 1 ♂.
European Türkiye: Çanakkale, Edirne, Kırklareli **(**Hoberlandt, 1956; Lodos et al., 1978; Josifov, 1986; Önder et al., 1984; Péricart, 1999b; Fent & Okyar, 2022).
Asian Türkiye: Adana, Afyonkarahisar, Aksaray, Ankara, Antalya, Aydın, Balıkesir, Bartın, Bayburt, Bolu Burdur, Bursa, Çankırı, Çorum, Denizli, Diyarbakır, Erzurum, Eskişehir, Hatay, Iğdır, Isparta, İstanbul, İzmir, Kahramanmaraş, Karabük, Karaman, Kars, Kastamonu, Kırşehir, Kocaeli, Konya, Kütahya, Malatya, Manisa, Mardin, Mersin, Muğla, Niğde, Osmaniye, Sakarya, Uşak, Zonguldak (Horváth, 1883, 1905, 1918; Reuter, 1890; Linnavuori, 1953; Hoberlandt, 1956; Tuatay et al.,

1967; Aysev, 1974; Lodos et al., 1978, 1999; Önder & Adıgüzel, 1979; Önder et al., 1983, 2006; Çağatay, 1986; Péricart, 1999b; Tezcan & Önder, 1999; Kıyak, 2000; Bektaş & Tezcan, 2014; İner & Tezcan, 2014; Matocq et al., 2014; Yazıcı et al., 2015; Dursun, 2016; Fent & Dursun, 2016a; Atakan et al., 2017; Çerçi et al., 2018; Özgen et al., 2021b; Yazıcı, 2022b).
Distribution in Palaearctic: Wide distribution in Europe. Asian Türkiye, Transcaucasia, Middle East, Central Asia.

Genus *Microplax* Fieber, 1860

***Microplax albofasciata* (A. Costa, 1847)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province**:** Uzunköprü road, 08.06.2016, 2 ♂♂; Kırklareli Province**:** Vize–Kıyıköy, 28.06.2015, 1 ♂.
European Türkiye: Edirne, İstanbul, Tekirdağ (Hoberlandt, 1956; Sienkiewicz, 1964; Lodos et al., 1978; Josifov, 1986; Péricart, 1999b; Önder et al., 2006).
Asian Türkiye: Adana, Afyonkarahisar, Amasya, Ankara, Antalya, Balıkesir, Bilecik, Bursa, Bolkar Mountains (Konya, Mersin, Niğde) Bursa, Erzincan, Gaziantep, Karaman, Kayseri, Kütahya, Mersin, Uşak (Horváth, 1883; Reuter, 1890; Linnavuori, 1953; Lodos et al., 1978, 1999; Özbek et al., 1996; Péricart, 1999b; Önder et al., 2006; Öncül–Abacıgil et al., 2010; Sert et al., 2013; Çerçi & Koçak, 2023; Eser & Dursun, 2023b).
Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, Algeria, Tunisia, Israel.

***Microplax interrupta* (Fieber, 1837)**
Material examined: EUROPEAN TÜRKİYE: Çanakkale Province: between Eceabat–Kilitbahir, 17.05.2016, 1 ♂; Edirne Province: Meriç–Olacak village, 19.05.2016, 2 ♀♀; Lalapaşa–Hacıdanişment, 07.06.2016, 2 ♀♀, 8 ♂♂; Süloğlu (Dam), 15.06.2016, 1 ♂; İstanbul Province: Silivri–Küçüksinekli, 15.06.2016, 2 ♀♀, 2 ♂♂; Kırklareli Province: Pehlivanköy, 19.06.2015, 1 ♀; Demirköy–between Hamdibey–Yeşilce, 26.06.2015, 1 ♂; Vize–Kıyıköy, 28.06.2015, 10 ♀♀, 7 ♂♂; Tekirdağ Province**:** Between Saray–Safaalan, 11.06.2016, 2 ♂♂.
European Türkiye: Edirne (Hoberlandt, 1956; Josifov, 1986; Péricart, 1999b; Önder et al., 2006; Fent & Okyar, 2022).
Asian Türkiye: Adana, Amasya, Ankara, Antalya, Diyarbakır, Erzurum, Gaziantep, Hatay, Iğdır (Ararat Mountain), Kahramanmaraş, Karabük, Karaman, Kayseri, Kırşehir, Konya, Mardin, Mersin (Linnavuori, 1953; Hoberlandt, 1956; Çağatay, 1986; Lodos et al., 1984, 1999; Péricart, 1999b; Önder et al., 2006; Matocq et al., 2014; Yazıcı et al., 2015; Fent & Dursun, 2016a; Kıyak, 2016a; Yazıcı, 2022b; Çerçi & Koçak, 2023; Eser & Dursun, 2023b; Yence & Fent, 2023).
Distribution in Palaearctic: Wide distribution in Europe. European and Asian Türkiye, North Africa, Transcaucasia, Middle East, Central Asia, China, Mongolia, Russia.

***Microplax limbata* Fieber, 1864**
Asian Türkiye: Adana, Ankara, Diyarbakır, Gaziantep, Hatay, Kahramanmaraş, Kayseri, Mersin, Nevşehir, Niğde (Puton & Noualhier, 1895; Çağatay, 1986; Kıyak, 1993; Lodos et al., 1999; Péricart, 1999b; Önder et al., 2006; Matocq et al., 2014; Yazıcı, 2022b).
Distribution in Palaearctic: Europe: Greece. Asia: Asian Türkiye, Middle East.
Note: The type locality of this species is “Klein Asien” (Péricart, 2001a).

Genus *Oxycarenus* Fieber, 1851

Subgenus *Euoxycarenus* Samy, 1969

***Oxycarenus pallens* (Herrich–Schaeffer, 1850)**

Material examined: EUROPEAN TÜRKİYE: Çanakkale Province: Between Behramlı –Şehitlik, 17.05.2016, 1 ♂; Edirne Province**:** Uzunköprü–Ömerbey, 16.05.2016, 2 ♀♀, 1 ♂; Çöpköy, 16.05.2016, 3 ♀♀; 08.06.2016, 1 ♂; Çavuşlu, 14.07.2016, 3 ♀♀, 4 ♂♂; Meriç– Akıncılar road, 19.05.2016, 1 ♀; Olacak village, 19.05.2016, 2 ♀♀, 1 ♂; Havsa –Hasköy (Saksağan Stream), 21.05.2016, 1 ♀; Lalapaşa–Hacıdanişment, 07.06.2016, 1 ♂; İpsala road (20. km) 08.06.2016, 2 ♂♂; Süloğlu (Dam), 15.06.2016, 15 ♀♀, 9♂♂; İstanbul Province**:** Between Çatalca–İhsaniye, 11.06.2016, 1 ♂; Dağyenice, 12.06.2016, 1 ♂; Silivri–Küçüksinekli, 15.06.2016, 4 ♀♀, 1 ♂; Kırklareli Province: Pehlivanköy, 19.06.2015, 1 ♀; Lüleburgaz–Evrensekiz, 14.05.2016,1 ♀; Center–Kavakdere, 03.06.2016, 2 ♀♀, 1 ♂; Deveçatağı, 04.06.2016, 2 ♀♀; Beypınar, 06.06.2016; 1 ♀; Üsküp, 06.06.2016, 4 ♀♀; Üsküpdere, 16.06.2016, 2 ♂♂; Pınarhisar, 16.06.2016, 1 ♂; Pınarhisar–İslambeyli, 21.06.2015, 5 ♀♀, 3 ♂♂; between Yenice –Demirköy (around sand pit), 21.06.2015, 8 ♀♀, 6 ♂♂; Demirköy–İğneada (Longoz Forest), 27.06.2015, 1 ♀; Tekirdağ Province: Center–Mermer, 20.08.2015, 3 ♀♀; between Saray–Safaalan, 11.06.2016, 1 ♀; Malkara–Izgar village, 22.06.2017, 15 ♀♀, 14 ♂♂; Ahmetpaşaköy, 22.06.2017, 1 ♂; between Yaylaköy–Yaylagöne, 22.06.2017, 10 ♀♀, 8 ♂♂.

European Türkiye: Çanakkale, Edirne (Hoberlandt, 1956; Lodos et al., 1978; Josifov, 1986; Önder et al., 2006; Fent & Okyar, 2022).

Asian Türkiye: Adana, Amasya, Ankara, Antalya, Balıkesir, Bayburt, Bolu Burdur, Çankırı, Çorum, Diyarbakır, Elazığ, Erzincan, Erzurum, Gaziantep, Hatay, Iğdır, Isparta, İzmir, Kahramanmaraş, Karabük, Karaman, Kastamonu, Kayseri, Kırıkkale, Kırşehir, Kilis, Konya, Mardin, Mersin, Muğla, Nevşehir, Niğde, Siirt, Sinop, Sivas, Şanlıurfa, Van, Yozgat, Zonguldak (Linnavuori, 1953; Hoberlandt, 1956; Tuatay et al., 1967; Aysev, 1974; Önder & Adıgüzel, 1979; Önder et al., 1983, as *O. pallens*, 2006, Çağatay, 1986, 1995 *O. longiceps*; Lodos et al., 1984, 1999 as *O. longiceps*; Péricart, 1999b; as *O. longiceps* and *O. pallens*; Özbek et al., 1996; Kıyak, 2000; Kıyak et al., 2004; Öncül–Abacıgil et al., 2010; Matocq & Özgen, 2010; Kemal & Balkan, 2011; Koçak & Kemal, 2012; Bektaş & Tezcan, 2014; Matocq et al., 2014; Yazıcı et al., 2015, 2023; Dursun, 2016; Fent & Dursun, 2016a; Kemal & Koçak, 2018; Çerçi & Özgen, 2021; Yazıcı, 2022b; Çerçi & Koçak, 2023; Eser & Dursun, 2023b).

Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian Türkiye, Transcaucasia, Middle East, Central Asia, China, Mongolia, Russia, Extralimital: India, Sudan.

Subgenus *Oxycarenus* Fieber, 1837

***Oxycarenus hyalinipennis (A.* Costa, 1843)**

Material examined: EUROPEAN TÜRKİYE: Edirne Province: Kocahıdır, 22.07.2016, 1 ♀.

European Türkiye: Çanakkale (Şerban, 2010).

Asian Türkiye: Adana, Amasya, Ankara, Antalya, Çankırı, Erzurum, Gaziantep, Hatay, İstanbul (Erenköy), İzmir, Karaman, Kastamonu, Kilis, Konya, Mersin, Muğla, Niğde, Osmaniye, Sinop (Puton & Noualhier, 1895; Linnavuori, 1953; Hoberlandt, 1956; Aysev, 1974; Çağatay, 1986; Lodos et al., 1999; Önder et al., 1983, 2006; Péricart, 1999b; Bektaş & Tezcan, 2014; Yazıcı et al., 2015, 2023; Atakan et al., 2017; Yazıcı, 2022b; Eser & Dursun, 2023b).

Distribution in Palaearctic: Balkans, Southern Europe, North Africa, Asian Türkiye, Middle East. Extralimital: Oriental Region, tropical and South Africa, and introduced in South America.

***Oxycarenus lavaterae* (Fabricius, 1787)**
Material examined: EUROPEAN TÜRKİYE: Edirne Province: Center, 10.07.2021, 5 ♀♀, 3 ♂♂ (on *Tilia* sp.)
European Türkiye: İstanbul (Sarıyer) **(**Arslangündoğdu et al., 2018)
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian Türkiye, Saudi Arabia, Yemen. Extralimital: tropical and South Africa.

***Oxycarenus modestus* (Fallén, 1829)**
Asian Türkiye: Bolkar Mountains (Konya, Mersin, Niğde), Kahramanmaraş, Yalova (Linnavuori, 1953; Lodos et al., 1978, 1999; Péricart, 1999b; Önder et al., 2006).
Distribution in Palaearctic: Wide distribution in Europe. Asian Türkiye, China.

Genus *Tropidophlebia* Kerzhner, 1964
***Tropidophlebia costalis* (Herrich–Schaeffer, 1850)**
Asian Türkiye: Niğde (Aladağlar Mts.) **(**Yence & Fent, 2023)
Distribution in Palaearctic: Wide distribution in Europe. Asian Türkiye, Asian Kazakhstan, Mongolia, Russia.

Family PACHYGRONTHIDAE Stål, 1865
Subfamily PACHYGRONTHINAE Stål, 1865
Tribe TERACRIINI Stål, 1872

Genus *Cymophyes* Fieber, 1870
***Cymophyes ochroleuca* Fieber, 1870**
Asian Türkiye: Adana, Antalya, Çanakkale, Diyarbakır, Elazığ, Gaziantep, Hatay, Kahramanmaraş, Konya, Menderes River Basin, Mersin, Nevşehir (Linnavuori, 1953; Seidenstücker, 1953a; Hoberlandt, 1956; Lodos et al., 1999; Péricart, 1999a; Önder et al., 2006; Şerban, 2010; Matocq et al., 2014; Yazıcı et al., 2015; Çerçi & Özgen, 2021).
Distribution in Palaearctic: Europe: Albania, Crete, Greece. North Africa: Egypt, Libya. Asia: Asian Türkiye, Middle East.

Family PIESMATIDAE Amyot & Serville, 1843
Subfamily PIESMATINAE Amyot & Serville, 1843

Genus *Parapiesma* Péricart, 1974
***Parapiesma atriplicis* (Frey–Gessner, 1863)**
Asian Türkiye: Erzurum, Niğde, Kars **(**Yıldırım et al., 2013)
Distribution in Palaearctic: Europe: Bulgaria, European Kazakhstan, Greece, Moldavia, Romania, Russia, Ukraine. Asia: Asian Türkiye, Central Asia, China.

***Parapiesma kolenatii* (Fieber, 1861)**
Asian Türkiye: Adıyaman (Nemrut Mountain), Ağrı, Aksaray, Bitlis, Kars, Kayseri, Van (Kiritshenko, 1918; Linnavuori, 1965; Awad & Önder, 1997 as *Piesma kolenatii*; Önder et al., 2006; Heiss & Péricart, 2007; Kemal & Koçak, 2018)
Distribution in Palaearctic: Asia: Azerbaijan, Türkiye.

***Parapiesma quadratum* (Fieber, 1844)**
European Türkiye: Kırklareli (Fent & Dursun, 2019).
Asian Türkiye: Çanakkale (Gökçeada) (Heiss & Péricart, 1983, 2007; Awad & Önder, 1997**).**
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian Türkiye, Transcaucasia, Middle East, China, Kirgizia, Korea, Mongolia, Russia.

***Parapiesma salsolae* (Becker, 1867**
Asian Türkiye: Afyonkarahisar, Ankara, Çankırı, Erzincan, Erzurum, Eskişehir, İzmir, Kayseri, Kırıkkale, Kırşehir, Nevşehir, Niğde, Samsun (Hoberlandt, 1956; Heiss & Péricart, 1983, 2007; Awad & Önder, 1997 as *Piesma salsolae*; Kıyak et al., 2004 as *Piesma salsolae*; Yıldırım et al., 2013)
Distribution in Palaearctic: Central and Southern Europe, Armenia, Asian Ka zakhstan, Asian Türkiye, Azerbaijan, China, Iran, Mongolia, Russia.

Genus: *Piesma* Lepeletier & Serville, 1828
***Piesma capitatum* (Wolff, 1804)**
Asian Türkiye: Afyonkarahisar, Ankara, Aydın, Kars, Kocaeli (Kiritshenko, 1918; Hoberlandt, 1956; Awad & Önder, 1997; Önder et al., 2006; Heiss & Péricart, 2007)
Distribution in Palaearctic: Wide distribution in Europe. Egypt, Asian Türkiye, Central Asia, Far East.

***Piesma maculatum* (Laporte, 1833)**
Asian Türkiye: Amasya, Balıkesir, Bartın, Çankırı, Erzurum, Kastamonu, Samsun (Ege & Onat 1982; Awad & Önder, 1997; Yıldırım & Özbek 1990; Öncül–Abacıgil et al., 2010; Önder et al., 2006; Heiss & Péricart, 2007; Yıldırım et al., 2013; Eser & Dursun, 2023b; Yazıcı et al., 2023).
Distribution in Palaearctic: Wide distribution in Europe. North Africa, Asian Türkiye, Transcaucasia, Central Asia, Far East.

Records in need of confirmation

Family ARTHENEIDAE Stål, 1872

***Artheneis aegyptiaca* Lindberg, 1939**
Asian Türkiye: ?Kastamonu (Péricart, 1999a).
Distribution in Palaearctic: North Africa: Egypt, Libya, Morocco?, Asia: Arab Emirates, Asian Türkiye?, Iran, Iraq?, Israel, Jordan, Saudi Arabia, Sinai, Yemen. Extralimital: Sudan.
Note: Pericart (1999a) described this species from Kastamonu in Anatolia with "?". The existence of the species, which has no other records so far, needs to be confirmed in Türkiye.

***Artheneis wagneri* Ribes, 1972**
Asian Türkiye: Adana, Ankara, Çanakkale, Elazığ, Kahramanmaraş, Karaman, Niğde (Péricart, 1999a; Çerçi & Koçak, 2023)
Distribution in Palaearctic: Europe: Bulgaria, Crete, Greece, Macedonia, Spain. Asia: Armenia, Asian Türkiye?, Azerbaijan, Iran, Syria.
Note: Péricart (1999a) mentioned that considering the work of Kerzhner (1997) showing the variability and proximity of two species (*A. wagneri* and *A. intricata*), the Anatolian series of this species that he had previously examined possibly represented some or all *A. intricata*.

Family GEOCORIDAE Baerensprung, 1860

***Geocoris arenarius* (Jakovlev, 1867)**
Asian Türkiye: Antalya, Denizli, Diyarbakır, Elazığ, Hatay, Kahramanmaraş, Karaman, Konya, Mersin (Önder & Adıgüzel, 1979; Çakır & Önder, 1990; Kaya & Hıncal, 1991; Büyük & Özpınar, 1999; Lodos et al., 1999; Önder et al., 2006; Kaplan 2007).
Distribution in Palaearctic: Europe: Albania, Crete, European Kazakhstan,

Greece, Hungary, Italy, Moldavia, Romania, Russia, Serbia, Slovakia, Ukraine. Asia: Asian Kazakhstan, Armenia?, Azerbaijan?, China, Mongolia, Russia, Tadzhikistan, Uzbekistan.
Note: According to Kerzhner (1979) records from Israel, Syria, Egypt, Iran, and probably Türkiye are erroneous and probably concern *G. fedtschenkoi* (Aukema 2018).

Family LYGAEIDAE Schilling, 1829

***Horvathiolus fulvescens* (Puton, 1874)**
Asian Türkiye: Gaziantep? (Seidenstücker, 1960a, as *Melanocoryphus fulvescens*; Péricart, 1999a)
Distribution in Palaearctic: Europe: Spain. North Africa: Algeria, Libya, Tunisia. Asia: Asian Türkiye?
Note: Pericart (1999a) reports that this species is a Western Mediterranean element known from Southern Spain, Algeria, Tunisia and Libya, and its presence in Anatolia needs to be confirmed.

***Ortholomus Jordani* Hoberlandt, 1953**
Asian Türkiye: Antalya, Gaziantep, Hatay **(**Lodos et al., 1999; Önder et al., 2006)
Asia: Iraq.
Note: Aukema (2018) reports that the validity of this species, known only from Iraq, needs to be confirmed due to its similarity to *O. carinatus* and scarcity of the material (two specimens from the same locality). In this case, the validity of the species must be verified for the records in Türkiye to be accurate.

Family OXYCARENIDAE Stål, 1862

***Metopoplax ditomoides* (A. Costa, 1847)**
Asian Türkiye: Çankırı, İzmir (Yazıcı, 2022b; Yazıcı et al., 2022)
Distribution in Palaearctic: Europe: Belgium, Bosnia Hercegovina, Bulgaria, France, Great Britain, Germany, Italy, Luxembourg, Malta, Macedonia, Netherlands, Poland, Portugal, Serbia, Spain, Switzerland. North Africa: Algeria, Libya, Morocco, Tunisia. Extralimital (introduced): North America (USA).
Note: The record of this species given by Yazıcı (2022b) from İzmir is based on M.S.K. Ghauri's diagnosis in 1972. The second record, 50 years later, was made by Yazıcı et al. *(*2022) from Çankırı Province. The distribution of the species in the Palaearctic Region points to the west of Türkiye. This species needs to be confirmed in Türkiye.

Family PIESMATIDAE Amyot & Serville, 1843

***Parapiesma silenes* (Horváth, 1888)**
Asian Türkiye: Erzurum (Awad & Önder, 1997 as *Piesma silenes*)
Distribution in Palaearctic: Europe: Austria, Bulgaria, Byelorussia, Czech Republic, Kazakhstan, France, Germany, Greece, Hungary, Italy, Macedonia, Russia (ST) Serbia, Slovakia, Spain, Ukraine. Asia: Asian Kazakhstan.
Note: The record from Türkiye (Hoberlandt, 1956a: 85) refers to *salsolae* (Aukema 2018). Apart from this, the record given by Awad & Önder (1997) from Erzurum needs to be confirmed considering the Palaearctic distribution of the species.

Table 2. Check-list of Lygaeoidea (excluding Rhyparochromidae) of Türkiye. ET = European Türkiye, AT = Asian Türkiye, records in need of further confirmation are marked with '?', accepted records but without any exact published locality known to us are marked by a circle '•', the species recorded for the first time in Turkish Thrace are marked by an asterisk "*"

ARTHENEIDAE Stål, 1872		
Artheneis aegyptiaca Lindberg, 1939		AT?
Arthenis alutacea Fieber, 1861		AT
Artheneis balcanica (Kormilev, 1938)		AT
Artheneis foveolata Spinola, 1837		AT
Artheneis hyrcanica (Kolenati, 1845)		AT
Artheneis intricata 05. G. Putshkov, 1969		AT
Artheneis wagneri Ribes, 1972		AT?
Holcocranum saturejae (Kolenati, 1845)	ET	AT
BERYTIDAE Fieber, 1851		
Apoplymus pectoralis Fieber, 1859	ET	AT
Neides aduncus Fieber, 1859		AT
Neides afghanus Seidenstücker, 1968		AT
Neides brevipennis Puton, 1895		AT
Neides tipularius (Linné, 1758)	ET	AT
Berytinus clavipes (Fabricius, 1775)	ET	AT
Berytinus hirticornis nigrolineatus (Jakovlev, 1903)	ET	AT
Berytinus hirticornis pilipes (Puton, 1875)		AT
Berytinus minor minor (Herrich-Schaeffer, 1835)	ET	AT
Berytinus consimilis (Horváth, 1885)		AT
Berytinus distinguendus (Ferrari, 1874)	ET?	AT
Berytinus geniculatus (Horváth, 1885)		AT
Berytinus montivagus (Meyer-Dür, 1841)	ET	AT
Berytinus setipennis (Saunders, 1876)		AT
Berytinus signoreti (Fieber, 1859)		AT
Berytinus striola (Ferrai, 1874)		AT
Gampsocoris culicinus culicinus Seidenstücker, 1948	ET	AT
Gampsocoris culicinus melitenus Seidenstücker, 1965	ET?	AT
Gampsocoris enslini Seidenstücker, 1953	ET	AT
Gampsocoris punctipes pallidus Hoberlandt, 1951		AT

Gampsocoris punctipes punctipes (Germar, 1822)	ET	
Metacanthus annulosus (Fieber, 1859)		AT
Metacanthus meridionalis (A. Costa, 1843)	ET	AT
Metatropis rufescens (Herrich-Schaeffer, 1835)		AT
BLISSIDAE Stål, 1862		
Blissus hirtulus Burmeister, 1835		AT
Blissus putoni Jakovlev, 1875		AT
Dimorphopterus blissoides (Baerensprung, 1859)	ET*	AT
Dimorphopterus doriae (Ferrari, 1874)	ET*	AT
Dimorphopterus spinolae (Signoret, 1857)	ET*	AT
Ischnodemus caspius Jakovlev, 1871	ET*	AT
Ischnodemus genei (Spinola, 1837)		AT
Ischnodemus sabuleti (Fallén, 1826)	ET	AT
Ischnodemus suturalis Horváth, 1883	ET	AT
CYMIDAE Baerensprung, 1860		
Cymodema tabida tabida Spinola, 1837	ET*	AT
Cymus aurescens Distant, 1883	ET	AT
Cymus claviculus (Fallén, 1807)	ET	AT
Cymus glandicolor Hahn, 1832	ET	AT
Cymus gracilicornis Vidal, 1940		AT
Cymus melanocephalus Fieber, 1861	ET	AT
Cymus turcicus Matocq, 2000		AT
GEOCORIDAE Baerensprung, 1860		
Bledionotus systellonotoides Reuter, 1878		AT
Geocoris chloroticus Puton, 1888		AT
Geocoris arenarius (Jakovlev, 1867)		AT?
Geocoris ater (Fabricius, 1787)	ET	AT
Geocoris grylloides (Linnaens, 1761)		AT
Geocoris lapponicus Zetterstedt, 1838		AT
Geocoris lineola lineola (Rambur, 1839)	ET*	AT
Geocoris megacephalus (Rossi, 1790)	ET	AT
Geocoris pallidipennis pallidipennis (A. Costa, 1843)	ET*	AT
Geocoris phaeopterus (Germar, 1838)		AT
Geocoris pubescens (Jakovlev, 1871)		AT
Geocoris erythrocephalus (Lepeletier & Serville, 1825)	ET	AT
Geocoris luridus (Fieber, 1844)		AT

Geocoris nebulosus (Montandon, 1907)		AT
Geocoris putonianus Bergroth, 1892		AT
Engistus exsanguis exsanguis Stål, 1872		AT
Engistus salinus (Jakovlev, 1874)		AT
Henestaris halophilus (Burmeister, 1835)	ET*	AT
Henestaris kareli Hoberlandt, 1956		AT
Henestaris laticeps laticeps (Curtis, 1836)	ET	AT
HETEROGASTRIDAE Stål, 1872		
Heterogaster affinis Herrich-Schaeffer, 1835		AT
Heterogaster artemisiae Schilling, 1829	ET	AT
Heterogaster cathariae (Geoffroy, 1785)		AT
Heterogaster urticae (Fabricius, 1775)	ET	AT
Platyplax inermis (Rambur, 1839)	ET*	AT
Platyplax salviae (Schilling, 1829)		AT
LYGAEIDAE Schilling, 1829		
Apterola kuenckeli kuenckeli Mulsant & Rey, 1866		AT
Apterola kuenckeli rubicunda (Stål, 1872)		AT
Apterola lounii (Saunders, 1876)	ET	AT
Arocatus longiceps Stål, 1872	ET	AT
Arocatus melanocephalus (Fabricius, 1798)	ET	AT
Arocatus roeselii (Schilling, 1829)	ET*	AT
Caenocoris nerii (Germar, 1847)		AT
Graptostethus servus servus (Fabricius, 1787)		AT
Horvathiolus kiritshenkoi kiritshenkoi (Horváth, 1916)		AT
Horvathiolus fulvescens (Puton, 1874)		AT?
Horvathiolus superbus (Pollich, 1781)	ET	AT
Horvathiolus syriacus (Reuter, 1885)	ET	AT
Lygaeosoma anatolicum Seidenstücker, 1960	ET*	AT
Lygaeosoma angulare Reuter, 1885		AT
Lygaeosoma sardeum sardeum Spinola, 1837	ET*	AT
Lygaeosoma sardeum erythropterum (Puton, 1876)		AT
Lygaeosoma sibiricum Seidenstücker, 1962		AT
Lygaeus creticus Lucas, 1854		AT
Lygaeus equestris (Linnaeus, 1758)	ET	AT
Lygaeus melanostolus (Kiritshenko, 1931)		AT

Lygaeus simulans Deckert, 1985		AT
Melanocoryphus albomaculatus (Goeze, 1778)	ET•	AT
Melanocoryphus tristrami (Douglas & Scott, 1868)	ET	AT
Paranysius fraterculus fraterculus Horváth, 1895		AT
Spitostethus pandurus (Scopoli, 1763)	ET	AT
Spilostethus saxatilis (Scopoli, 1763)	ET	AT
Tropidothorax leucopterus (Goeze, 1778)	ET	AT
Nysius cymoides (Spinola, 1837)	ET	AT
Nysius ericae ericae (Schilling, 1829)	ET	AT
Nysius graminicola graminicola (Kolenati, 1845)	ET	AT
Nysius helveticus (Herrich-Schaeffer, 1850)		AT
Nysius immunis (Walker, 1872)		AT
Nysius senecionis senecionis (Schilling, 1829)	ET	AT
Nysius thymi thymi (Wolff, 1804)	ET	AT
Belonochilus numenius (Say 1832)	ET	AT
Camptocoris longicornis (Puton, 1874)		AT
Orsillus depressus (Mulsant & Rey, 1852)	ET*	AT
Orsillus maculatus (Fieber, 1861)	ET*	AT
Orsillus reyi Puton, 1871	ET	AT
Ortholomus carinatus (Lindberg, 1932)	ET	AT
Ortholomus jordani Hoberlandt, 1953		AT?
Ortholomus punctipennis (Herrich-Schaeffer, 1838)	ET	AT
Kleidocerys ericae (Horváth, 1908)	ET*	AT
Kleidocerys resedae resedae (Panzer, 1797)	ET•	AT
Family OXYCARENIDAE Stål, 1862		
Auchenodes capito Horváth, 1891		AT
Auchenodes costalis (Lethierry, 1877)		AT
Brachyplax tenuis (Mulsant & Rey, 1852)	ET	AT
Camptotelus lineolatus lineolatus (Schilling, 1829)		AT
Camptotelus parallelus Horváth, 1894		AT
Leptodemus minutus (Jakovlev, 1874)	ET	AT
Macroplax fasciata fasciata (Herrich-Schaeffer, 1835)	ET	AT
Macroplax preyssleri (Fieber, 1837)	ET*	AT
Macropternella inermis (Fieber, 1851)		AT
Metopoplax ditomoides (A. Costa, 1847)		AT?

Metopoplax fuscinervis Stål, 1872	ET	AT
Metopoplax origani (Kolenati, 1845)	ET	AT
Microplax albofasciata (A. Costa, 1847)	ET	AT
Microplax interrupta (Fieber, 1837)	ET	AT
Microplax limbata Fieber, 1864		AT
Oxycarenus pallens (Herrich-Schaeffer, 1850)	ET	AT
Oxycarenus hyalinipennis (A. Costa, 1843)	ET	AT
Oxycarenus lavaterae (Fabricius, 1787)	ET	
Oxycarenus modestus (Fallén, 1829)		AT
Tropidophlebia costalis (Herrich-Schaeffer, 1850)		AT
PACHYGRONTHIDAE Stål, 1865		
Cymophyes ochroleuca Fieber, 1870		AT
PIESMATIDAE Amyot & Serville, 1843		
Parapiesma atriplicis (Frey-Gessner, 1863)		AT
Parapiesma kolenatii (Fieber, 1861)		AT
Parapiesma quadratum (Fieber, 1844)	ET	AT
Parapiesma salsolae (Becker, 1867)		AT
Parapiesma silenes (Horváth, 1888)		AT?
Piesma capitatum (Wolff, 1804)		AT
Piesma maculatum (Laporte, 1833)		AT
TOTAL - **ET**:71 species 2 species ? **AT**:137 species 7 species ?		

DISCUSSION

In this study, an updated list of the Turkish Lygaeoidea superfamily (except Ryhparochromidae) is presented along with the species identified as a result of field studies conducted in the Thrace Region between 2015−2020. As a result of the study conducted in 91 localities in the Thrace Region, 53species belonging to 7 families (Artheneidae–1, Blissidae–5, Cymidae–5, Geocoridae–6, Heterogastridae–2, Lygaeidae–24, Oxycarenidae–10) were identified. 16 of them –*Dimorphopterus blissoides* (Baerensprung, 1859), *D. doriae* (Ferrari, 1874) *D. spinolae* (Signoret, 1857) *Ischnodemus caspius* Jakovlev, 1871, *Cymodema tabida tabida* Spinola, 1837, *Geocoris lineola lineola* (Rambur, 1839) *G. pallidipennis pallidipennis* (A. Costa, 1843) *Henestaris halophilus* (Burmeister, 1835), *Platyplax inermis* (Rambur, 1839), *Arocatus roeselii* (Schilling, 1829) *Lygaeosoma anatolicum* Seidenstücker, 1960 *L.sardeum sardeum* Spinola, 1837, *Orsillus depressus* (Mulsant & Rey, 1852) *O. maculatus* (Fieber, 1861), *Kleidocerys ericae* (Horváth, 1908) *Macroplax preyssleri* (Fieber, 1837) – were recorded for the first time from Turkish Thrace. *Cymodema tabida tabida, Arocatus roeselii* and *Macroplax preyssleri* are rarely distributed species that were previously detected in only two localities in Anatolia. The first exact locality records are given in this study for the *Melanocoryphus albomaculatus* (Goeze, 1778) and *Kleidocerys resedae resedae* (Panzer, 1797), which

were previously given without any locality information from the Thrace Region.

Additionally, as a result of reviewing the studies carried out in Türkiye so far (between 1883 and 2023) it has been determined that 49 genera and 146 species/subspecies belonging to 10 families (Artheneidae, Berytidae, Blissidae, Cymidae, Geocoridae, Heterogastridae, Lygaeidae, Oxycarenidae, Pachygronthidae, Piesmatidae) from the Lygaeoidea superfamily (except Ryhparochromidae) are distributed. However, 7 of them [*Artheneis aegyptiaca* Lindberg, 1939, *A. wagneri* Ribes, 1972, *Geocoris arenarius* (Jakovlev, 1867), *Horvathiolus fulvescens* (Puton, 1874), *Ortholomus jordani* Hoberlandt, 1953, *Metopoplax ditomoides* (A. Costa, 1847), *Parapiesma silenes* (Horváth, 1888)] has been identified as a species that is likely to be confused with related species or has a low probability of being found in Türkiye considering their Palaearctic distribution, and more evidence is needed to include these species in the Turkish list. Except for the species that need to be verified, the distribution of other species according to families is as follows: Artheneidae 6 species (1 in European, 6 in Asian Türkiye), Berytidae 24 species (10 in European, 23 in Asian Türkiye), Blissidae 9 species (6 in European, 9 in Asian Türkiye), Cymidae 7 species (5 in European, 7 in Asian Türkiye) Geocoridae 19 species (7 in European, 19 in Asian Türkiye), Heterogastridae 6 species (3 in European, 6 in Asian Türkiye), Lygaeidae 42 species (27 in European, 42 in Asian Türkiye), Oxycarenidae 19 species (11 in European, 18 in Asian Türkiye), Pachygronthidae 1 species (only in Asian Türkiye) and Piesmatidae 6 species (1 in European, 6 in Asian Türkiye).

Type localities of *Neides brevipennis* Puton, 1895, *Gampsocoris culicinus melitenus* Seidenstücker, 1965, *Ischnodemus suturalis* Horváth, 1883, *Gampsocoris enslini* Seidenstücker, 1953, *Cymus turcicus* Matocq, 2000, *Henestaris kareli* Hoberlandt, 1956, *Lygaeosoma anatolicum* Seidenstücker, 1960 and *Microplax limbata* Fieber, 1864 are Anatolia and *Cymus turcicus* and *Henestaris kareli* are endemic to Anatolia. *Horvathiolus kiritshenkoi kiritshenkoi* (Horváth, 1916), *Parapiesma kolenatii* (Fieber, 1861) are species with a limited distribution in Anatolia and its immediate surroundings, Georgia, Armenia, Azerbaijan and Iran.

When compared to the number of species in the Palaearctic Region, based on the 10 families in this study, there are 105 genera and 561 species/subspecies in the Palaearctic Region, and Türkiye constitutes approximately 25% of the number of species in the Palaearctic Region with 139 species/subspecies. This study also draws attention to Türkiye's species richness.

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Short Note

First record of *Zelus renardii* Kolenati, 1857 (Hemiptera: Heteroptera: Reduviidae) for Switzerland

Torsten van der Heyden

Immenweide 83, D-22523 Hamburg, Germany.

E-mail: tmvdh@web.de ORCID iD: 0000-0003-4138-7160

ABSTRACT: The first record of the Nearctic assassin bug species *Zelus renardii* Kolenati, 1857 (Hemiptera: Heteroptera: Reduviidae: Harpactorinae: Harpactorini) for Switzerland is reported. The European distribution of the species is discussed.

KEYWORDS: *Zelus renardii*, invasive species, first record, distribution, Switzerland, Europe.

The leafhopper assassin bug *Zelus renardii* Kolenati, 1857 (Hemiptera: Heteroptera: Reduviidae: Harpactorinae: Harpactorini) is an invasive Nearctic species which established stable populations in various countries of the Mediterranean Region (Kment & van der Heyden, 2022).

Recently, *Z. renardii* expanded its European distribution northwards from the Mediterranean Region, crossing the Alps (van der Heyden, 2023). Single specimens were found in Austria (van der Heyden & Staudinger, 2023) and in Germany (van der Heyden, 2021a, 2021b, 2023). Apparently introduced specimens were reported also from other countries: Belarus, Belgium, Czech Republic, Denmark, Finland, Great Britain, the Netherlands (van der Heyden, 2021a, 2021b; Kment & van der Heyden, 2022; Lukashuk et al. 2022; Claerebout & Lock, 2023; Aukema & Schets, 2024).

Taking the recent spread of *Z. renardii* into account, the first observation of the species in Switzerland has been expected. Now, the first record of *Z. renardii* in the country can be reported:

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On 03.08.2024, an adult specimen (Fig. 1) was found and photographed in the Botanical Garden of the University of Zurich (Nadja Baumgartner, pers. comm.). Two related photos were uploaded to the online database iNaturalist (Baumgartner, 2024).

ACKNOWLEDGEMENTS

I like to thank Nadja Baumgartner for allowing me to use her photo of *Z. renardii* to illustrate this note and for additional information about her finding.

Figure 1. Specimen of *Zelus renardii* Kolenati, 1857, Zurich, Switzerland, 03.08.2024. (Photo: Nadja Baumgartner).

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Research Article

About food plants, biology and habitat type of *Rhopalus (Aeschyntelus) maculatus* (Fieber, 1837) (Insecta: Heteroptera) and in Türkiye distribution

Suat Kıyak

Gazi University, Faculty of Sciences, Department of Biology 06500-Ankara, Türkiye,

E-mail: skiyak@gazi.edu.tr ORCID iD: 0000-0001-8167-8283

ABSTRACT: The food plants, habitat type and Turkish distribution of *Rhopalus (Aeschyntelus) maculatus* (Fieber, 1837) was studied in this paper In addition, this study provides the second record of this species from Çankırı province. The specimens were collected from Işık Mountains, in this province.

KEYWORDS: *Rhopalus maculatus*, food plants, habitat type, distribution, Türkiye

Rhopalidae is a small family consisting of 18 genera and 209 recognized species worldwide. There are 31 species belonging to 12 genera of the family in Türkiye (Dolling , 2006; Çerçi et al., 2024). Ecological, biological and faunal data of this family species in Türkiye are rare.

In this study, information about the ecology, biology, distribution and Turkish fauna of *Rhopalus maculatus* (Fieber, 1837) is given according to literatures records and my collection data. (Önder et al., 2006; Dursun, 2009; Yazıcı et al, 2022; Yıldırım et al., 2011; Matocq et al., 2014; Kıyak & Akar,2010; Küçükbasmacı & Kıyak, 2015; Çerçi et al., 2018; Bolu, 2020; Fent & Dursun 2019; Bolu, 2020; Kerzhner &cYachevskii, 1964; Hoberlandt,1955; Pehlivan, 1981; Stichel, 1955 -1962)

In 1993, a female of *Rhopalus maculatus* was collected and described from the Işık Mountains (Fig. 1). The specimens were described by the author and deposited in the insect collection of the Zoology Museum of Gazi University (ZMGU), Faculty of Sciences, Ankara, Türkiye.

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Genus: *Rhopalus* Schilling, 1827

Subgenus: *Aeschynteles* Stål, 1872

***Rhopalus (Aeschyntelus) maculatus* (Fieber, 1837)** (Fig. 1)

Corizus maculatus Fieber, 1837; *Coreus crassicornis* Latreille, 1804; *Coreus clavicornis* Boitard, 1828; *Corizus maculatus* Herrich-Schaeffer, 1840; *Rhopalus chinensis* Dallas, 1852; *Corizus ledi* Boheman, 1852; *Corizus meridionalis* Jakovlev, 1869; *Rhopalus maculatus decolor* Wagner, 1962.

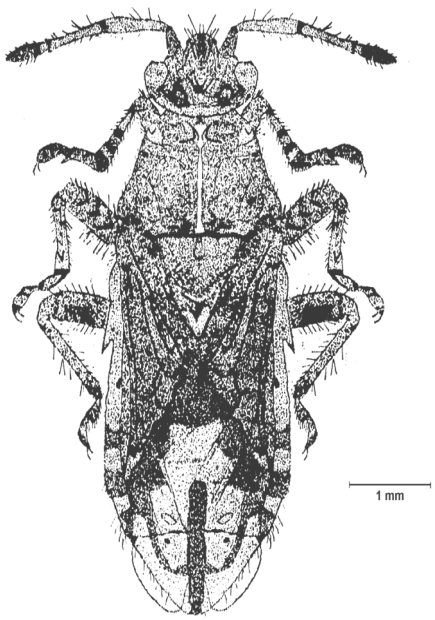

Fig.1. *Rhopalus (Aeschyntelus) maculatus* (Fieber, 1837) Dorsal view

Morphology: Proboscis extends to hind coxa - Hairs dense and light. The body is reddish brown. The abdomen is reddish yellow and has a broad, black jagged stripe along the edge.

Black pores present on body. Scutellum light brown distally. Corium with black spots. Paratergites covered with black spots distally. The connexive shows round black spots on each segment. Dorsum black on sides.

Ventral yellowish-red with black pores on ventral side. Reddish brown and best distinguished by heavily red pigmented corium, widespread yellowish-red abdomen and serrated blackish dorsal abdominal markings. Spots on connexivum usually small and rounded. Length: 7.0 mm

Biology: This species is in the egg stage in May-June, nymphs are found in July-August, adults are found between August -June. Winters as adults, and can be observed from May onwards after hibernations, and new generation emerges in August.(URL-3)

Habitat types and Food Plants: Rhopalus (Aeschyntelus) maculatus is phytophgous and feeds primarily on the fruits and leaves of its host plants. This species prefers maquis and meadows, wet meadows, grass vegetation, peat bogs and swamps as habitats. Host plants for adult food are: *Epilobium; Hypericum pulchrum; Cirsium palustre, Lythrum; Oryza sativa; Ranunculus; Rhododendron tomentosum.* (Önder et al ., 2006; URL-2; URL-3)

Material examined: Çankırı, Çerkeş, northeast of Işık mountais, north of Kısaçlı village, 1 female, 26.08.1993, ca. 1450 m. Found among grass vegetation in juniper forest.

According to the literature (Yazıcı, et al., 2022), this species was recorded in July 2013 in the villages of Aşağıbozan, Eskikıymık and Bayramören in the Ilgaz district of Çankırı province and around the village of Kuzuören in the Çerkeş district of Çankırı.

Rhopalus maculatus was given secondly recorded for Çankırı (Çerkeş) province fauna of Türkiye.

Distribution in Türkiye: The species has been previously distributed in the following localities in Türkiye: Adana, Adıyaman, Ankara(Çaldağ), Artvin, Bursa, Çankırı (Ilgaz and Çerkeş), Diyarbakır, Düzce, Elazığ, Erzincan, Erzurum, Gaziantep, Gümüşhane, İstanbul, Karabük, Kastamonu, Siirt, Sivas, Tokat (Önder et al., 2006; Dursun, 2009; Yazıcı et al, 2022; Yıldırım et al., 2011; Matocq et al., 2014; Kıyak & Akar,2010; Küçükbasmacı & Kıyak, 2015; Çerçi et al., 2018; Bolu, 2020; Fent & Dursun 2019; Çerçi and Özgen, 2021). (Fig.2)

Distribution in the world: **Europe:** Albania, Austria, Belgium, Bosnia-Hercegovina, Bulgaria, Byelorussia, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Great Britain, Germany, Greece, Hungary, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Moldavia, Netherlands, Norway, Poland, Romania, Russia (CT NT ST), Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine. **Asia:** Afghanistan, Asian Kazakhstan, Armenia, Azerbaijan, Asian Türkiye, China (CE NE NO NW SE SW WP) Georgia Iran Iraq Japan Kirgizia Korea Mongolia Russia (ES FE WS). Extralimital: Vietnam. (Aukema, 1995-2013)

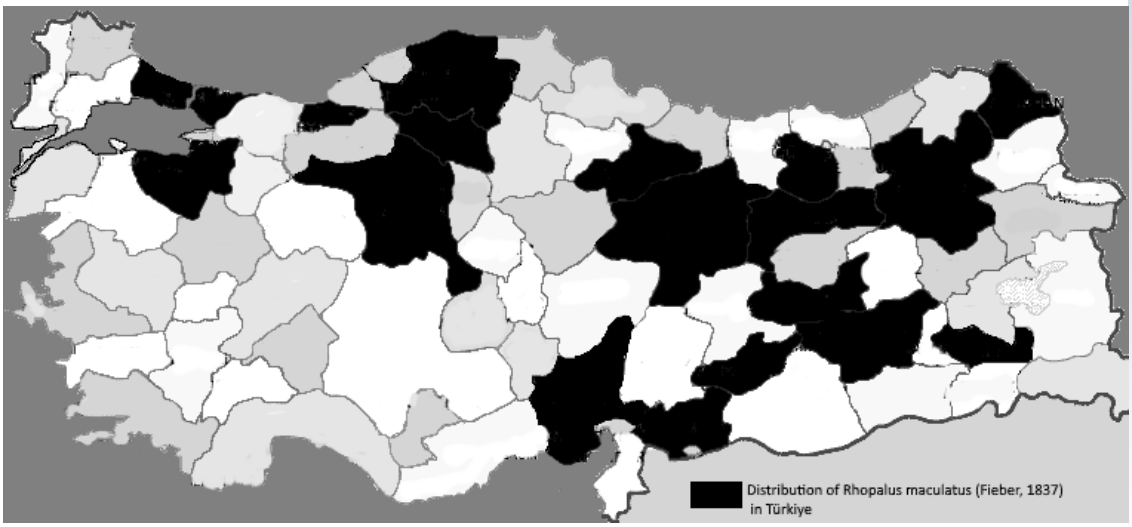

Fig.2. Distribution provinces of *Rhopalus (Aeschyntelus) maculatus* (Fieber, 1837) in Türkiye

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Short Note

First record of *Leptoglossus occidentalis* Heidemann, 1910 (Hemiptera: Heteroptera: Coreidae) in Kyrgyzstan

Torsten van der Heyden

Immenweide 83, D-22523 Hamburg, Germany.
E-mail: tmvdh@web.de ORCID iD: 0000-0003-4138-7160

ABSTRACT: The first record of *Leptoglossus occidentalis* Heidemann, 1910 (Hemiptera: Heteroptera: Coreidae: Coreinae) in Kyrgyzstan is reported. The distribution of the species in Central Asia is summarised and discussed.

KEYWORDS: *Leptoglossus occidentalis*, invasive species, first record, distribution, Kyrgyzstan, Central Asia.

Leptoglossus occidentalis Heidemann, 1910 (Hemiptera: Heteroptera: Coreidae: Coreinae) is a Nearctic invasive species which has colonised nearly all parts of Europe (Aukema, 2024). In Central Asia, the species has been reported from Kazakhstan (Barclay & Nikolaeva, 2018) and Uzbekistan (van der Heyden, 2023), so far.

Now, the first record of *L. occidentalis* in Kyrgyzstan can be reported: On 03.09.2024, an adult specimen (Fig. 1) was observed and photographed on a balcony in the city of Cholpon-Ata (Mikhail Orlov, pers. comm.). Two related photos were uploaded to the online database iNaturalist (Orlov, 2024).

Cholpon-Ata is located on the northern shore of Lake Issyk-Kul in the northern part of the country near the border with Kazakhstan. Likely, *L. occidentalis* arrived in Cholpon-Ata coming from the nearby region of Almaty in Kazakhstan where it

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was found several times (Barclay & Nikolaeva, 2018; iNaturalist, 2024).

The species might have entered Kyrgyzstan by human transport from the neighbouring country in the north.

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I like to thank Mikhail Orlov for allowing me to use his photo of *L. occidentalis* to illustrate this note and for additional information about his finding.

Figure 1. Specimen of *Leptoglossus occidentalis* Heidemann, 1910, Cholpon-Ata, Kyrgyzstan, 03.09.2024. (Photo: Mikhail Orlov).

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Research Article

Contributions to the Reduviidae (Hemiptera: Heteroptera) Fauna of the Thrace Region with a New Record

İlhan Asal[1] Meral Fent[2*]

[1]Baraj District, Selçuk Bey Street, Toki Hauses, 18H/6, Altındağ, Ankara, Türkiye.
E-mail: feedback32@hotmail.com

[2]Trakya University, Faculty of Science, Department of Biology, 22030, Edirne Türkiye.
E-mail: m_fent@hotmail.com; ORCID iD: 0000–0001–5787–6714

*Corresponding author

§: This study was produced from the MSc thesis

ABSTRACT: In this study, which was conducted to determine the Reduviidae fauna of Edirne Province, the material collected between 1992-2014 was evaluated and as a result, 6 genera and 11 species belonging to 4 subfamilies (Harpactorinae Peiratinae Reduviinae Stenopodainae) were identified. Of these species, *Coranus kerzhneri* P.V. Putshkov, 1982 from the Harpoctorinae subfamily is the first record for the Thrace Region.

KEYWORDS: Reduviidae, *Coranus kerzhneri,* fauna, first record, Turkish Thrace, Türkiye.

INTRODUCTION

Reduviidae is a family of Heteroptera (Hemiptera) suborder, some of which are bloodsucking ectoparasite species but the majority of which are predatory species, belonging to the Cimicomorpha infraorder.

The Reduviidae family is one of the most populous families of Heteroptera, with over 6800 species belonging to approximately 930 genera worldwide. It is represented in the Palearctic Region

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with 808 species belonging to 12 sub-families and 145 genera, and in Türkiye with 65 species belonging to 6 sub-families and 20 genera (Putshkov & Moulet, 2010; Çerçi et al., 2024).

The first studies on the Reduviidae fauna in Türkiye began towards the end of the 19th century with foreign researchers and these studies were first presented as a list by Hoberlandt (1956).

The first comprehensive list of Reduviidae was presented by Önder (1980) in his study titled "The first Reduviidae list of Turkey" and 54 species were given in this study.

Dursun & Salur (2013) reported this number as 57 with a new record in their chek-list of the Reduviidae family in Türkiye.

Finally, Çerçi et al. (2024) updated this number to 65. Six Reduviidae species (*Vachiria natolica* Stål, 1859, *Oncocephalus ocularis* Horváth, 1898, *Oncocephalus biguttula* Horváth, 1901, *Empicoris mediterraneus* Hoberlandt, 1956, *Rhynocoris hierapolitanus* Dispons, 1964 and *Reduvius nigritus* Moulet, 2020) were described from Türkiye. Of these species, *O. biguttula, R. hierapolitanus* and *R. nigritus* are endemic to Anatolia (Dursun & Fent, 2017, Moulet, 2020).

Table 1. Studied localities in Thrace Region, altitudes, coordibnates and sampling dates

Loc. No	Locality	Altitude	Coordinate	Sampling date
1	Edirne (Süloğlu–Tatarlar village)	41°46'8N 26°54'36E	236m	30.08.1992
2	Edirne (Keşan–Center)	40°51'21N 26°37'49E	91m	10.06.2002 07.07.2013
3	Edirne (Uzunköprü–Center)	41°15'58N 26°41'19E	32m	08.07.2009 20.05.2010
4	Edirne (Center)	41°40'33N 26°33'31E	41m	26.12.2009 30.05.2013 06.06.2013 25.06.2013 12.09.2013 25.09.2013 28.09.2013 13.10.2013 11.07.2014
5	Edirne (Center–Balkan Campus)	41°38'59N 26°37'24E	41 m	20.05.2010
6	Edirne (İpsala–Sultanköy)	41°59'31N 26°27'9E	74m	04.07.2010
7	Edirne (Lalapaşa–Hamzabeyli)	41°57'54N 26°38'38E	369 m	02.07.2013
8	Edirne (Lalapaşa–Hacılar village)	41°55'60N 26°46'60E	401m	02.07.2013
9	Edirne (Center–Uzgaç)	41°47'27N 26°26'14E	159m	04.07.2013
10	Edirne (Center–İskenderköy)	41°37'48N 26°40'23E	34m	15.10.2013
11	Edirne (Center–Bosnaköy)	41°37'35N 26°36'12E	41m	29.05.2014
12	Edirne (İpsala–Korucuköy)	40°54'1N 26°29'50E	75m	01.06.2014
13	Edirne (Uzunköprü–Çöpköy)	41°13'8N 26°49'18E	87m	03.07.2014
14	Edirne (Uzunköprü–Kırcasalih)	41°23'33N 26°48'11E	98m	03.07.2014
15	Edirne (İpsala–Pazardere)	40°58'40N 26°34'52E	125m	13.08.2014
16	Edirne (Keşan–Karahisar)	40°45'0N 26°30'0E	21m	26.08.2014

The studies carried out on the family Reduviidae in the Thrace Region so far belong to Reuter (1891), Horváth (1918), Fahringer (1922), Hoberlandt (1956), Seidenstücker (1958), Wagner (1966), Önder (1980), Önder et al. (1981, 1984), Davidová-Vilímová & Kment (2003), Yıldırım et al. (2010), Putshkov & Moulet (2010), Dursun & Salur (2013), Fent (2011) and Çerçi & Koçak (2016) and as a result of all these studies, 19 species belonging to 11 genera have been recorded.

MATERIALS AND METHODS

The research material was obtained from short herbaceous plants with the help of insect traps, from trees and shrubs with the help of Japanese umbrellas. In addition to these methods, light traps were used for night-active species. Putshkov (1994), Putshkov & Moulet (2010) were used for species identification. This study aims to contribute to the Reduviidae fauna of the Thrace Region.

Family REDUVIIDAE Latreille, 1807

Subfamily HARPACTORINAE Amyot & Serville, 1843

Tribus: HARPACTORINI Amyot & **Serville, 1843**

Genus *RHYNOCORIS* Hahn, 1833

***Rhynocoris (Rhynocoris) punctiventris* (Herrich-Schaeffer, 1846)**

Material examined: Edirne: İpsala – Sultanköy, 04.07.2010, 1♀; Keşan – Karahisar, 26.08.2014, 1♀.

***Rhynocoris (Rhynocoris) iracundus* (Poda, 1761)**

Material examined: Edirne: Lalapaşa – Hacılar village, 02.07.2013, 1♀; Center-Uzgaç village, 04.07.2013, 6♀♀,1♂; İpsala–Korucuköy, 01.06.2014, 1♀, 1♂.

Genus *CORANUS* Curtis, 1833

***Coranus griseus* (Rossi, 1790)**

Material examined: Edirne: Center, 09.11.2005, 1♀; Balkan Campus, 20.05.2010, 2♀♀; Uzgaç village, 04.07.2013, 1♂; İskenderköy, 15.10.2013, 1♂; Uzunköprü – Center, 08.07.2009, 1♂; Lalapaşa–Hamzabeyli, 02.07.2013, 3♀♀.

***Coranus kerzhneri* P. V. Putshkov, 1982**

Material examined: Edirne: Süloğlu – Tatarlar village 30.08.1992, 1♂; Center, 06.06.2013, 1♀, 2♂♂; İskenderköy, 15.10.2013, 3♀♀; Lalapaşa – Hamzabeyli, 02.07.2013, 1♀, 1♂.

Distribution in Türkiye: European Türkiye: This species was recorded for the first time in this study from Turkish Thrace. **Asian Türkiye:** Amasya, Bursa, Çanakkale (Biga, Bozlar), Erzurum, Manisa, Muğla, Tunceli (Putshkov, 1994; Yıldırım et al., 2010).

Distribution in Palearctic Region: Europe: Albania, Austria, Belgium, Bosnia Hercegovina, Bulgaria, Byelorussia, Corsica, Crete, Croatia, Czech Republic, European Kazakhstan, France, Greece, Hungary, Italy, Moldavia, Netherlands, Romania, Russia (ST), Sardinia, Sicily, Slovakia, Slovenia, Spain, Ukraine. **North Africa:** Canary Islands? Egypt? **Asia:** Azerbaijan, Asian Türkiye (Aukema, 2018).

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***Coranus tuberculifer* Reuter, 1881**

Material examined: Edirne: Center, 11.07.2014, 1♀; Balkan Campus, 20.05.2010, 2♀♀,1♂; Lalapaşa–Tatarlar village, 30.08.1992, 1♂; Uzunköprü–Çöpköy, 03.07.2014, 1♀; Kırcasalih, 03.07.2014, 1♂; İpsala–Pazardere, 13.08.2014, 1♂.

Genus *NAGUSTA* Stål, 1859

***Nagusta goadelii* (Kolenati, 1857)**

Material examined: Edirne: Center, 26.12.2009, 2 ♂♂.

Subfamily PEIRATINAE Amyot & Serville, 1843

Genus *PEIRATES* Serville, 1831

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

Material examined: Edirne: Center, 25.06.2013, 2♀♀, 1♂.

Subfamily REDUVIINAE Latreille, 1805

Genus REDUVIUS Fabricius, 1775

***Reduvius personatus* (Linnaeus, 1758)**

Material examined: Edirne: Keşan–Center, 07.07.2013, 1♂.

***Reduvius pallipes* Klug, 1830**

Material examined: Edirne: Keşan–Center, 10.06.2002 1♀.

Subfamily STENOPODAINAE Amyot & Serville, 1843

Genus *ONCOCEPHALUS* Klug, 1830

***Oncocephalus acutangulus* Reuter, 1882**

Material examined: Edirne-Center (41m): 30.05.2013, 1♂.

***Oncocephalus squalidus* (Rossi, 1790)**

Material examined: Edirne: Center, 30.05.2013, 1♀; 25.06.2013, 2♀♀ 1♂; 12.09.2013, 1♀; 25.09.2013, 6♀♀, 2♂♂; 28.09.2013, 16♀♀, 21♂♂; 13.10.2013, 3♀♀, 1♂.

RESULT AND DISCUSSION

In this study conducted on the Reduviidae family in Edirne Province of the Thrace Region, a total of 6 genera and 11 species were identified, including 3 genera and 6 species belonging to the Harpactorinae subfamily, 1 genus and 1 species belonging to the Peiratinae subfamily, 1 genus and 2 species belonging to the Reduviinae subfamily, and 1 genus and 2 species belonging to the Stenopodainae subfamily.

Coranus kerzhneri, recorded for the first time for the Thracian fauna, was detected in a total of 4 localities in Edirne. This species, previously known from a few

localities in Anatolia, has been recorded from many European countries, especially Edirne's neighbors Bulgaria and Greece, and in Asia only from Anatolia and Azerbaijan. Its presence in North Africa is uncertain and needs to be confirmed.

Coranus griseus and *C. tuberculifer* previously recorded in Tekirdağ and İstanbul in the Thrace Region, are widespread in Anatolia and in Palearctic Region. They generally live on the soil, in plant rosettes or under stones, sandy areas, and steppe biotopes in arid habitats (Wachman et al., 2006). During this study, they were also detected on the soil among plant roots, in rosettes of the *Verbascum densiflorum* plant, and on weeds. Their brown, grayish brown colors allow them to be well hidden in the soil.

Oncocephalus acutangulus has been identified in previous studies, in Edirne in Thrace Region and in Adana, Bursa and Hatay in Anatolia (Puton, 1892; Puton & Noualhier, 1895; Hoberlandt, 1956; Önder, 1980; Önder et al., 1981, 1984). It is also not very common in its Palearctic distribution (Aukema, 2018). It has also been identified only in Edirne-Center in the study area. *O. squalidus* is a more common species both in Türkiye and in the Palearctic distribution (Önder et al., 2006; Aukema, 2018). In this study, many specimens of this species, which is active at night and is attracted to light, were caught with light traps at different dates in Edirne-Center.

Other species identified during the study from the Reduviidae family are *Rhynocoris iracundus, R. punctiventris, Nagusta goadelii, Peirates hybridus, Reduvius pallipes, R. personatus,* although they were identified in a small number of localities and in small numbers during the study, they stand out as fairly common species both in their known distribution in Türkiye and in their Palaearctic distribution. *R. iracundus* and *R. punctiventris* are quite predatory hunters and are known to hunt various insect larvae and adults, and even insects generally larger than themselves (Wachman et al., 2006). In this study, *R. iracundus* was encountered feeding on *Carpocoris* sp. from the Pentatomidae (Heteroptera) family. *Peirates hybridus*, which is active at night, hides in the soil among plant roots or under rocks during the day (Wachman et al., 2006). During the study, it was found in the soil among plant roots during the day. *Reduvius personatus* has a very interesting behavior and lives in very different habitats. It can be found in human living spaces, in dry rural habitats, in trees, under loose tree bark, and in abandoned bird nests. They are active at night and these insects, attracted by light, enter houses through open windows (Wachman et al., 2006). During the research, one of the specimens was found inside the house at night.

When the data obtained as a result of the research were evaluated, the number of known species belonging to the Reduviidae fauna of the Thrace Region increased to 21 with the addition of one new record. This number constitutes approximately 1/3 of the Reduviidae fauna of Türkiye.

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Research Article

Effect of Atmospheric Carbon Dioxide Applications on Adult Emergence Time of *Halyomorpha halys* (Stål, 1855) (Hemiptera: Pentatomidae): A Laboratory Simulation Study

İnanç Özgen[1*], Ercan Aydoğmuş[2], Aykut Topdemir[1], Yunus Güral[3], Onur Aker[4]

[1]Department of Bioengineering, Faculty of Engineering, Fırat University, Elazığ, Türkiye
[2]Department of Chemical Eng., Faculty of Engineering, Fırat Univ., Elazığ, Türkiye
[3]Department of Statistics, Faculty of Science, Fırat University, Elazığ, Türkiye
[4]Dept. of Plant and Animal Product. Amasya Univ. Vocational School, Suluova/Amasya
*Email of corresponding author: iozgen@firat.edu.tr

ABSTRACT: This study was conducted to determine the effects of two different doses (450 ppm, 600 ppm and 670 ppm) of intermittent carbon dioxide (CO_2) application on the time required for individuals of *Halyomorpha halys* (Stål, 1855) (Hemiptera: Pentatomidae) to reach the adult stage, under controlled conditions, targeting the 1st and 3rd nymphal instars. As a result of the study, it was evaluated that CO_2 applications made at both doses had a statistical effect on nymphal development times compared to the control application (450 ppm). It was determined that in the control dose, the time from the 1st nymphal stage to the adult varied between 44-55 days, while in 600 ppm dose this period was 60 days, and in 670 ppm this period was approximately 67 days. It was determined that in the control dose, the time from the 3rd nymphal stage to the adult varied between 34-39 days, while in 600 ppm it was 44 days, and in 670 ppm it was 51 days. According to the obtained results, it was understood that the time to reach the adult increased depending on the dose compared to the control application. In studies, revealing the differences in different nymphal stages of the pest and different durations of exposure to carbon dioxide is important in terms of determining both the effects of gas exchange on the behavioral parameters of the pest and the effects of atmospheric gas exchange in the control of the pest.

KEYWORDS: *Halyomorpha halys*, Nymph development periods, Carbon dioxide application, Adult emergence time

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INTRODUCTION

Atmospheric gases have significant effects on plant species, pests and natural enemy species, including behavioral parameters. Carbon dioxide gas is also among the atmospheric gases that have significant effects on insect populations and communities. Pest diversity and their adaptation to the environment, biology, and physiology are affected by global warming. It is still not known exactly how and to what extent this effect will occur. It is also a matter of curiosity how carbon dioxide gas, which is thought to have a significant effect on global warming, will affect the adulthood of pests, and this situation should be determined by different biological studies. In particular, in parallel with these gas changes, the effect of this gas on temperature changes and changes in atmospheric gas levels will cause pests to form different biotopes. It is also expected that these biotopes will be affected by physiological changes in the plant and increase their damage status (Özgen, et al., 2024).

Halyomorpha halys (Stål, 1855) (Hemiptera: Pentatomidae) is a species that is spreading rapidly especially in Black Sea Region and causes significant damage to cultivated plants (Çerçi and Koçak, 2017; Göktürk and Tozlu, 2019; Göktürk et al., 2018). In addition to the name 'Brown skunk', this species is also called 'Brown stink bug' in Türkiye. The pest goes through 5 nymphal stages. The most characteristic feature of the nymphs is the presence of spines on their pronotums in later stages (Hoebeke and Carter, 2003). Although *Halyomorpha halys* can produce 1-5 generations per year depending on temperature and photoperiod (Niva and Takeda, 2003, Lee, 2015), in the Eastern Black Sea Region, it mostly produces 1 generation per year in Artvin province and sometimes 2 generations in coastal areas. The number of generations varies depending on the year, the plant the species feeds on, especially the temperature and humidity conditions, and the habitat in which it lives.

This study was carried out in the Bio-engineering Department of Fırat University Faculty of Engineering in order to determine the effects of three different doses of intermittent atmospheric CO_2 applications on the adult development times of *Halyomorpha halys* nymphs produced under laboratory conditions.

MATERIALS AND METHODS

Production of *Halyomorpha halys* individuals

Individuals were produced in a climate chamber where 28±1 °C temperature, 60±10% humidity, and 16/8 photoperiod conditions were provided (Figure 1). The main culture was created with adult *Halyomorpha halys* individuals collected from hazelnut fields in Black Sea Region, where the pest has a high population. The pest was collected from the region provinces (Artvin, Samsun, Trabzon) on 12-13 January 2024 as approximately 60 male and 60 female individuals that had not entered diapause. The pest was kept in room conditions for 2 days, healthy individuals were separated and kept in culture cages as 5 males and 5 females individuals, and a total of 10 individuals were kept together in 12 different culture containers. 10 adults of *Halyomorpha halys* were placed in a container measuring 25 cm in diameter × 9 cm in height (with four 2 mm diameter ventilation holes opened along the edges of the container to provide air circulation). Other individuals were also placed in a square plastic container measuring 30 cm in length × 23 cm in width × 10 cm in height. Paper towels were placed in the containers to provide hiding places and additional surface area for adults to lay eggs easily, and filter paper was placed in the holes opened on the sides of the containers. The open end of the filter paper was placed in pure water and the closed end was placed in the container to meet the water needs of the individuals. In order for the adults brought from nature to adapt to the environmental conditions, the culture containers were checked regularly 3 times a day, and it was checked whether the humidity conditions in the container remained stable and

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whether the adults drank water regularly through the filter paper and water pores. During this period, the dead individuals in the containers were collected daily and care was taken to keep the male and female ratio in the container as 1/1. The egg packages left daily were collected by hand. In order not to damage the eggs by the adults, the eggs were collected regularly on a daily basis. Approximately 1 month later, on February 8, 2024, eggs were collected from the adult individuals brought from nature. The eggs were placed in smaller containers and their hatching was monitored, and the nymphs that hatched from the eggs were fed with carrots, soybeans, and kiwi until they became adults. After the individuals became adults, the adults obtained from the laboratory offspring were separated into 5 males and 5 females again, and trial and application studies were started with the eggs obtained from these individuals (Figure 2).

Figure 1. Climate chambers where *Halyomorpha halys* (Stål, 1855) individuals were produced

RESULTS AND FINDINGS

Experimental application results

In the study, the effects of one control and two different CO_2 doses on the development of 1st and 3rd instar nymphs of *Halyomorpha halys* were determined and air samples in the cabin were taken within a 24-hour period to determine the changes in gas ratios.

Trials were initiated with nymphs that hatched on the same day as the eggs hatched. The trials began on April 1, 2024, and the newly hatched *Halyomorpha halys* nymphs were given the same amount of carrots, soybeans and kiwi (Figure 2).

For the experiments, the individuals that reached the nymphal stages were placed in the culture boxes with 5 replications for each gas dose and the experiments were started and the individuals were placed in the gas unit for CO_2 applications (Figure 3).

Figure 2. Biological stages of *Halyomorpha halys* used in the experiments

Figure 3. Carbon dioxide applications to nymphs

The development of first and third instar nymphs of *Halyomorpha halys* was examined in the study, along with the impacts of one control and two distinct CO_2 doses. Air samples were collected in the cabin over the course of a day to ascertain variations in gas ratios. Two different doses of carbon dioxide were applied intermittently in the cabin. These doses were control (450 ppm), 600 ppm, and 670 ppm CO_2 gas concentrations. The gas was given once and the nymphs were kept in the cabin for 24 hours and then the 1st and 3rd instar nymphs were taken to the air-conditioning cabin. The temperatures of the cabin where the nymphs were kept and the air-conditioning cabin were monitored in 24-hour time periods and kept at the same temperature. In the study, the first air sample was taken at the 8th minute, and the other samples were taken at the 4th, 18th, 21st, and 24th hours. For each application, 25 individuals were left as controls. No gas treatment was applied to the control environment. In the measurements, the CO_2 concentration in the control room was measured as approximately 450 ppm. After the application, the nymphs were monitored daily in the air conditioning cabinet and followed according to the time they took to become adults.

Statistical analysis results

In this article, 'Shapiro Wilk Goodness of Fit Test and Kolmogorow Smirnov Test' were used to test whether the data obtained were normally distributed. Descriptive statistics such as frequency and percentage (%) values were given for categorical data in the study, and mean and standard deviation were given for continuous data. Since normality assumptions were met, 'Independent Samples T Test' was preferred for comparing groups. In the

analyses, the statistical significance level was accepted as $p<0.05$. Statistical analyses were performed using the SPSS (Statistical Package for Social Sciences; SPSS Inc., Chicago, IL) 21 package program.

Differences between the periods' transition times to adulthood after dose application and the control groups are shown in Table 1.

Table 1. Statistical comparison of the differences between the transition times of the periods to adulthood according to the doses and the control treatments

Groups	N	Mean	Standard deviation	t	p-value
Control (450 ppm 1st period)	25	54.76	3.58	-7.040	**0.000**
600 ppm 1st period	22	60.73	2.12		
Control (450 ppm 3rd period)	25	39.08	3.55	0.446	0.658
600 ppm 3rd period	24	43.71	2.14		
Control (450 ppm 1st period)	25	54.76	3.58	-13.964	**0.000**
670 ppm 1st period	19	66.42	1.86		
Control (450 ppm 3rd period)	25	34.08	3.55	-9.380	**0.000**
670 ppm 3rd period	21	51.52	1.63		

When Table 1 is examined, the adult transition times of 600 ppm 1st stage pests are significantly higher than the adult transition times of the pests in the control group ($p<0.05$). There is no statistically significant difference between the adult transition times of 600 ppm 3st stage pests and the adult transition times of the pests in the control group ($p>0.05$). The adult transition times of 670 ppm 1st and 3rd are significantly higher than the adult transition times of the pests in the control group ($p<0.05$). The statistical differences in the adult transition times of the periods between doses and the adult transition times of different nymphal stages are shown in Table 2.

Table 2. Statistical analysis of differences between doses and their periods

Groups	N	Mean	Standard deviation	t	p-value
600 ppm 1st period	22	60.73	2.12	27.091	**0.000**
600 ppm 3rd period	24	43.71	2.14		
670 ppm 1st period	19	66.42	1.86	26.944	**0.000**
670 ppm 3rd period	21	51.52	1.63		
600 ppm 1st period	22	60.73	2.12	-9.061	**0.000**
670 ppm 1st period	19	66.42	1.86		
600 ppm 3rd period	24	43.71	2.14	-13.636	**0.000**
670 ppm 3rd period	21	51.52	1.63		

When Table 2 is examined, the transition times of 670 ppm 1st stage pests to adulthood are significantly higher than the transition times of 600 ppm 1st stage pests ($p<0.05$). The transition times of 670 ppm 3rd stage pests to adulthood are

significantly higher than the transition times of 600 ppm 3rd stage pests ($p<0.05$).

When the general results of this study are considered, the transition times of pre-adult periods with CO_2 application to adulthood are shorter than the control applications in the same period. It is known that this species reaches adulthood in 43 days without reporting food in laboratory conditions in previous studies (Fawad, et al., 2022).

In some studies, conducted under laboratory conditions, it has been reported that the transition period from egg to adult of the species varies between 44 and 52 days (Saito, et al., 1964; Kobayashi, 1967; Watanabe, et al., 1978; Yanagi and Hagihara, 1980; Oda, et al., 1981; Fujiie, 1985; Chu, et al., 1997; Qiu, 2007). These data are parallel to the data of control applications. The time it took for individuals not treated with carbon dioxide to reach adulthood also varied between 44 and 55 days. It has been determined that these periods were extended with intermittent CO_2 applications applied in the 1st and 3rd periods. These results are important in terms of determining the differences in different nymphal periods of the pest and different periods of exposure to carbon dioxide in future studies, both in terms of the effects of gas exchange on the behavioral parameters of the pest and the effects of atmospheric gas exchange on the control of the pest.

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Research Article

Overview of the distribution and biogeography of the Heteroptera (Hemiptera) Collection in The Biodiversity Science Museum of Atatürk University, Erzurum-Türkiye (ABBM)

Gülten Yazıcı[1] & Erol Yıldırım[2]

[1]Directorate of Plant Protection Central Research Institute, 06172 Yenimahalle, Ankara, Türkiye. gultenkulekci@hotmail.com, Orcid ID: 0000-0002-4550-5075

[2]Atatürk University, Faculty of Agriculture, Department of Plant Protection, 25240-Erzurum, Türkiye. eyildi@atauni.edu.tr, Orcid ID: 0000-0002-3509-425X

*Corresponding author e-mail: gultenkulekci@hotmail.com

ABSTRACT: This study reviewed faunistic and systematic studies on the Heteroptera fauna collected from numerous localities in Anatolia, particularly Eastern Anatolia between 1963 and 2017 and their distribution and biogeography are analyzed material in Atatürk University Biodiversity Science Museum, Erzurum, Türkiye (ABBM). Totally, 407 species in 221 genera belonging to the following 30 families are recorded. It was determined that 357 species were from Eastern Anatolia, 105 species from South-eastern Anatolia, 156 species from Black Sea, 171 species from Central Anatolia, 201 species from Mediterranea, 121 species from Aegean and 146 species from Marmara. Species composition, diversity and proportion of endemism varies considerably among the geographic regions of the country.

KEYWORDS: Heteroptera, Distribution, Biogeography, Atatürk University Biodiversity Science Museum (ABBM), Erzurum, Türkiye

INTRODUCTION

Insects are the most diverse group, accounting for more than half of the world's identified organisms. The order Hemiptera is the fifth largest order among the insect orders (Cassis et al., 2006; Zhang, 2011). The Heteroptera known as true bugs, is a suborder of the Hemiptera and represent the largest and most diverse group of hemimetabolous insects. This diverse group exhibiting both phytophagous and zoophagous feeding habits affects nearly every aspect of our environment (Schuh & Slater, 1995). Their roles as plant feeders, hemolymph-sucking parasites, invertebrate predators, or water-quality indicators

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make them unquestionably important organisms in our environment (Cassis et al., 2006; Henry, 2017). Worldwide are more than 45.254 species and 6184 genera. The numbers in the Palearctic regions are 9.365 species and 1632 genera (Aukema et al., 2013; Henry, 2017).

Türkiye occupies Asia Minor between the Mediterranean Sea and the Black Sea and stretches into continental Europe. It is a mountainous country averaging about 1000 meters in altitude. The topographic and climatic diversity of the region are important preconditions for the development of a rich and diverse fauna. Türkiye is generally divided into seven biogeographical regions. These are the Marmara Region, the Aegean Region, the Mediterranean Region, the Black Sea Region, and the Central, Eastern and South Eastern Anatolian Regions (Fig.1) (Yıldırım 2012a, b; Yazıcı et al., 2019). It has been known to possess a rich fauna of Heteroptera. Thus, some faunistic and systematic studies about the Heteroptera have been conducted by both foreign and native researchers in Türkiye. However, no attempt has been undertaken to evaluate the distribution and biogeography of Heteroptera in Türkiye. Yet, such a study is essential for researchers who are interested in Miridae in the West Palaearctic region including Türkiye.

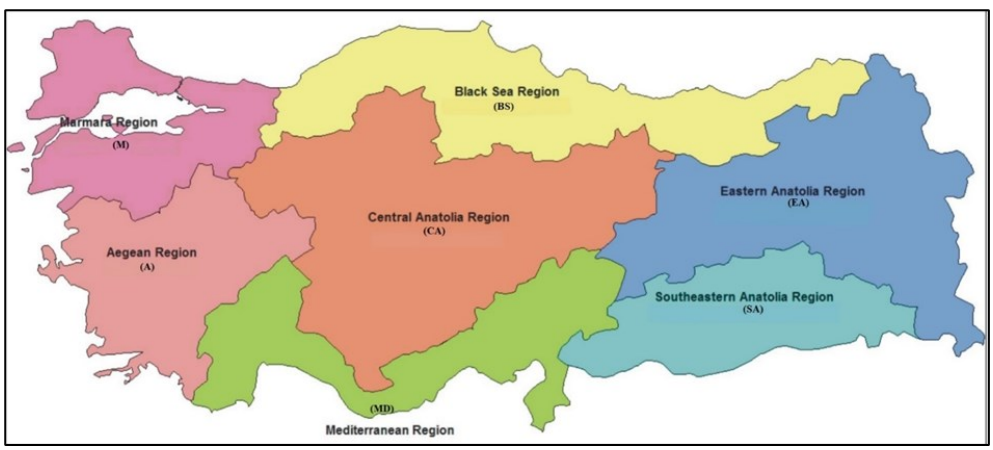

Figure 1. Biogeographical map of Türkiye (1/3.200.000) (Anonymous, 2024).

The knowledge of the Heteroptera fauna of Türkiye was first summarized by the works of Hoberlandt (1952, 1956). In the first study conducted in 1952 were reported 66 species and in the study in 1956 were reported 862 species. Later, Seidenstücker (1957, 1958, 1960), Wagner (1959, 1960, 1966), Linnavuori (1965), Tuatay et al. (1966, 1972), Önder (1976, 1980, 1982), Lodos & Önder (1978, 1979, 1980, 1982, 1983), Lodos et al. (1978, 1984, 1998, 1999, 2003), Önder et al. (1981, 1983, 1984, 1995a, 1995b, 2006), Pehlivan (1981), Çakır & Önder (1990), Çam (1993), Fent & Aktaç (1999, 2007, 2009), Tezcan & Önder (1999, 2003), Özsaraç & Kıyak (2001), Kıyak et al. (2004), Özgen et al. (2005a,b), Dursun (2009, 2011a, b), Dursun & Fent (2009, 2011a,b, 2016, 2017), Abacıgil et al. (2010), Fent (2010, 2011), Kıyak & Akar (2010), Matocq & Özgen (2010), Yıldırım et al. (2010, 2011, 2013a,b), Fent & Japoshvili (2012), Özgen (2012), Maral et al. (2013), Tezcan et al. (2013), Matocq et al. (2014), Yazıcı et al. (2014, 2015a,b), Küçükbasmacı & Kıyak (2015), Kıyak (2016), Yazıcı & Yıldırım (2016a,b,c), Çerçi & Koçak (2017), Yazıcı (2017), Aysal & Kıvan (2018), Çerçi et al. (2018), Fent & Dursun (2019, 2022), Özgen & Dioli (2019), Zengin & Dursun (2019) Çerçi & Tezcan (2020), Tezcan (2020), Akman & Dursun (2021), Çerçi & Özgen (2021), Kıyak & Baş (2021), Yılmaz & Dursun (2022), Çerçi et al. (2024) reported many species from Türkiye. In Türkiye more than 1500 species and 40 families of Heteroptera were recorded (Önder et al., 2006; Tezcan 2020, 2024). However, according to the latest research conducted by Çerçi et al. in 2024, 1668 species of Heteroptera have been recorded from Türkiye (664 species in the European part and

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1633 species in the Anatolian part) until now.

Their findings emphasized that despite the abundant research devoted over the last 150 years to the Heteroptera fauna of Türkiye, it remains incomplete in the majority, if not in all, of the regions.

In addition, it strongly encourages further research, particularly in regions with small numbers of recorded species. This endeavor will undoubtedly lead to numerous novel discoveries and provide a better understanding of the true Heteroptera diversity in Türkiye. In that case, there is much challenging work to be done to understand better this taxonomically complex and economically important group of fascinating insects.

The Entomology Museum, Erzurum, Türkiye (EMET), located in the Plant Protection Department of Atatürk University Faculty of Agriculture, has been an important resource for many academics who have been doing scientific studies and research for a long time. In this museum, which was established within Atatürk University in 1966 in order to reveal the insect diversity in our country, there are more than 200 thousand insect individuals collected from various regions of Türkiye and different countries, including more than 10 thousand identified species and more than 100 insect species that are new to world literature. This museum is among the international insect museums and was a unit where many scientists from home and abroad carried out their research and project work. However, the materials in this museum were transferred to Atatürk University Biodiversity Science Museum (ABBM), Erzurum, Türkiye, which was established within Atatürk University in 2020, and all materials are kept here. This museum, as the first nature museum in Türkiye, preserves biological riches collected from many regions of our country. In this study, all of the samples examined are preserved at Atatürk University Biodiversity Science Museum (ABBM).

MATERIAL AND METHODS

In this paper, the previous publications on the Heteroptera of Atatürk University Biodiversity Science Museum (ABBM) are reviewed and the distribution and biogeography of the Turkish fauna of Heteroptera have been analyzed.

In addition, the endemic species are also discussed. The names of the taxa to which the specimens in the museum collection belong were reviewed for homonyms, synonyms, or incorrect spellings, and if there were any problems, they were updated with valid names.

In updating the names, the Index to Organism Names (ION) based on the Thomson Reuters database was used (Anonymous, 2015a), the Planetary Biodiversity Inventory (PBI) supported by the National Science Foundation (NSF) (Anonymous, 2015b) and the Dutch Entomological Institute. Contains all information in the Catalog of Heteroptera of the Palaearctic Region (Aukema, 2022) volumes I-VI (Aukema & Rieger, 1995, 1996, 1999, 2001, 2006; Aukema *et al.* 2013), published by the Society of Heteroptera of the Palaearctic Region (1995-2013) database was used.

All examined samples are preserved at Atatürk University Biodiversity Science Museum (ABBM), Erzurum, Türkiye. The classification of identified all specimens in this collection into taxa is given and listed in the table below (Table 1).

RESULTS

As a result, 4 species in 2 genera of Gerromorpha, 10 species in 5 genera of Nepomorpha, 3 species in one genus of Leptopodomorpha, 177 species in 93 genera of Cimicomorpha and 213 species in 120 genera of Pentatomomorpha are recorded. In total, 407 species belonging to 221 genera of 30 families of Heteroptera are recorded from Atatürk University Biodiversity Science Museum (ABBM) (Table 1).

Table 1: Distribution of Heteroptera in geographic regions of Türkiye.

Names of taxa	EA	SA	BS	CA	MD	A	M
Infraorder Gerromorpha							
Family Gerridae Leach, 1815							
Genus *Aquarius* Schellenberg, 1800							
Aquarius paludum (Fabricius, 1794)				+	+		
Aquarius ventralis (Fieber, 1860)	+		+		+		
Genus *Gerris* Fabricius, 1794							
Gerris (*Gerris*) *argentatus* Schummel, 1832	+					+	
Gerris (*Gerriselloides*) *lateralis* Schummel, 1832	+		+	+	+	+	
Infraorder Nepomorpha							
Family Belostomatidae Leach, 1815							
Genus *Lethocerus* Mayr, 1853							
Lethocerus (*Lethocerus*) *patruelis* (Stál, 1854)					+		+
Family Corixidae Leach, 1815							
Genus *Corixa* Geoffroy, 1762							
Corixa affinis Leach, 1817				+			
Corixa panzeri Fieber, 1848	+						
Corixa punctata (Illiger, 1807)				+			
Genus *Sigara* Fabricius, 1775							
Sigara (*Pseudovermicorixa*) *nigrolineata* (Fieber, 1848)	+						
Sigara (*Vermicorixa*) *lateralis* (Leach, 1817)	+						
Family Nepidae Latreille, 1802							
Genus *Nepa* Linnaeus, 1758							
Nepa cinerea Linnaeus, 1758				+			
Family Notonectidae Latreille, 1802							
Genus *Notonecta* Linnaeus, 1758							
Notonecta maculata Fabricius, 1794		+			+		
Notonecta glauca Linnaeus, 1758		+		+			
Notonecta meridionalis Poisson, 1926	+			+			
Infraorder Leptopodomorpha							
Family Saldidae Amyot & Serville, 1843							
Genus *Saldula* Van Duzee, 1914							
Saldula amplicollis (Reuter, 1891)	+						

Saldula arenicola (Scholtz, 1847)	+						
Saldula pallipes (Fabricius, 1794)	+						
Infraorder Cimicomorpha							
Family Anthocoridae Fieber, 1836							
Genus *Anthocoris* Fallén, 1814							
Anthocoris nemoralis (Fabricius, 1794)	+				+		
Anthocoris nemorum (Linnaeus, 1761)	+				+		
Anthocoris pilosus (Jakovlev, 1877)	+		+	+	+		
Genus *Orius* Wolff, 1811							
Orius (*Heterorius*) *minutus* (Linnaeus, 1758)	+	+	+		+		
Orius (*Orius*) *niger* (Wolff, 1811)	+	+	+	+	+	+	+
Genus *Temnostethus* Fieber, 1860							
Temnostethus (*Ectemnus*) *reduvinus* (Herrich-Schaeffer, 1850)	+		+		+		
Temnostethus (*Montandoniella*) *dacicus* (Puton, 1888)	+				+		
Genus *Xylocoris* Dufour, 1831							
Xylocoris (*Xylocoris*) *ciliatus* (Jakovlev, 1877)	+				+		
Family Lyctocoridae Reuter, 1884							
Genus *Lyctocoris* Hahn, 1836							
Lyctocoris dimidiatus (Spinola, 1837)	+						
Family Miridae Hahn, 1831							
Genus *Acetropis* Fieber, 1858							
Acetropis carinata (Herrich-Schaeffer, 1841)	+			+	+	+	
Genus *Adelphocoris* Reuter, 1896							
Adelphocoris lineolatus (Goeze, 1778)	+	+	+	+	+	+	+
Adelphocoris seticornis (Fabricius, 1775)	+		+				+
Adelphocoris vandalicus (Rossi, 1790)	+	+	+	+	+	+	+
Genus *Agnocoris* Reuter, 1875							
Agnocoris rubicundus (Fallén, 1807)	+		+	+	+		+
Genus *Alloeonotus* Fieber, 1858							
Alloeonotus fulvipes (Scopoli, 1763)	+			+			+
Genus *Alloeotomus* Fieber, 1858							
Alloeotomus gothicus (Fallén, 1807)	+	+	+			+	+
Genus *Amblytylus* Fieber, 1858							
Amblytylus nasutus (Kirschbaum, 1856)	+			+	+	+	+

Genus *Anapus* Stål, 1858							
Anapus dorsalis (Reuter, 1890)	+	+	+	+	+	+	
Genus *Aphanosoma* A. Costa, 1842							
Aphanosoma italicum A. Costa, 1842	+			+			+
Genus *Apolygus* China, 1941							
Apolygus lucorum (Meyer Dur, 1843)	+			+			
Genus *Atomoscelis* Reute,r 1875							
Atomoscelis onustus (Fieber, 1861)	+	+	+	+	+		+
Genus *Blepharidopterus* Kolenati, 1845							
Blepharidopterus angulatus (Fallén, 1807)	+		+	+			
Genus *Brachycoleus* Fieber, 1858							
Brachycoleus decolor Reuter, 1887	+	+		+	+		+
Brachycoleus lineellus Jakovlev, 1884	+	+		+	+	+	+
Genus *Brachynotocoris* Reuter, 1880							
Brachynotocoris puncticornis Reuter, 1880	+	+		+	+		
Genus *Calocoris* Fieber, 1858							
Calocoris angularis Fieber ,1864	+		+	+	+	+	+
Calocoris nebulosus Fieber, 1864	+				+	+	+
Calocoris nemoralis (Fabricius, 1787)					+		
Calocoris roseomaculatus (De Geer, 1773)	+	+	+	+	+	+	+
Genus *Camponotidea* Reuter, 1879							
Camponotidea fieberi Reuter, 1879					+		
Genus *Campylomma* Reuter, 1878							
Campylomma diversicornis Reuter, 1878	+	+			+	+	+
Campylomma nicolasi Puton & Reuter, 1883	+	+	+	+	+	+	+
Campylomma verbasci (Meyer-Dür, 1843)	+	+	+	+	+	+	+
Genus *Capsus* Fabricius, 1803							
Capsus ater (Linnaeus, 1758)	+		+				+
Genus *Charagochilus* Fieber, 1858							
Charagochilus gyllenhalii (Fallén, 1807)	+	+	+	+	+	+	+
Genus *Chlamydatus* Curtis, 1833							
Chlamydatus pullus (Reuter, 1870)	+	+	+	+	+	+	+
Genus *Chlorillus* Kerzhner, 1962							
Chlorillus pictus (Fieber, 1864)	+						
Genus *Closterotomus* Fieber, 1858							

Closterotomus costae (Reuter ,1888)					+		
Closterotomus histrio Reuter, 1877	+			+	+	+	
Closterotomus kroesus (Seidenstücker, 1977)			+		+		
Closterotomus norvegicus (Gmelin, 1790)	+		+	+	+	+	+
Genus *Conostethus* Fieber, 1858							
Conostethus roseus (Fallén, 1807)	+			+	+	+	
Genus *Creontiades* Distant, 1883							
Creontiades pallidus (Rambur, 1839)	+	+			+	+	
Genus *Criocoris* Fieber, 1858							
Criocoris crassicornis (Hahn, 1834)	+						
Genus *Deraeocoris* Kirschbaum, 1856							
Deraeocoris (*Camptobrochis*) *pallens* (Reuter, 1904)	+	+			+	+	
Deraeocoris (*Camptobrochis*) *punctulatus* (Fallén, 1807)	+	+	+	+	+	+	+
Deraeocoris (*Camptobrochis*) *serenus* (Douglas & Scott, 1868)	+	+	+	+	+	+	+
Deraeocoris (*Deraeocoris*) *ruber* (Linnaeus, 1758)	+		+	+	+	+	+
Deraeocoris (*Deraeocoris*) *rutilus* (Herrich-Schäffer, 1838)	+	+	+	+	+	+	+
Deraeocoris (*Deraeocoris*) *ventralis* Reuter, 1904	+				+	+	+
Deraeocoris (*Knightocapsus*) *lutescens* (Schilling, 1837)	+		+	+		+	+
Genus *Dionconotus* Reuter, 1894							
Dionconotus neglectus f. major Wagner, 1968					+		
Genus *Ephippiocoris* Poppius, 1912							
Ephippiocoris lunatus Poppius, 1912	+						
Genus *Europiella* Reuter, 1909							
Europiella alpina (Reuter, 1875)	+			+			
Genus *Eurycolpus* Reuter, 1875							
**Eurycolpus aureolus* Seidenstücker, 1961	+	+		+	+		
Genus *Euryopicoris* Reuter, 1875							
Euryopicoris nitidus (Meyer-Dur, 1843)	+				+	+	
Genus *Globiceps* Lepeletier & Serville, 1825							
Globiceps fulvicollis Jakovlev, 1877	+						+
Genus *Grypocoris* Douglas & Scott, 1868							
Grypocoris fieberi Douglas & Scott, 1868	+	+	+	+	+		

Genus *Halticus* Hahn, 1833							
Halticus apterus (Linnaeus, 1758)	+		+	+	+	+	
Halticus luteicollis (Panzer, 1804)	+	+	+	+	+	+	+
Genus *Heterocordylus* Fieber, 1858							
Heterocordylus tumidicornis (Herrich-Schäffer, 1835)	+		+			+	+
Genus *Hoplomachus* Fieber, 1858							
Hoplomachus thunbergii (Fallen, 1807)	+						
Genus *Horistus* Fieber, 1860							
Horistus (Horistus) infuscatus (Brullé, 1832)	+						
Horistus orientalis (Gmelin, 1790)	+	+					
Horistus turcomanus (Horvath, 1889)	+				+		
Genus *Leptopterna* Fieber, 1858							
Leptopterna ferrugata (Fallén, 1807)	+			+			+
Genus *Liocoris* Fieber, 1858							
Liocoris tripustulatus (Fabricius, 1781)	+	+	+	+	+	+	+
Genus *Lygus* Hahn, 1833							
Lygus gemellatus (Herrich-Schaeffer, 1835)	+	+		+	+		+
Lygus pratensis (Linnaeus, 1758)	+	+	+	+	+	+	+
Lygus rugulipennis Poppius, 1911	+	+	+	+	+	+	+
Genus *Macrolophus* Fiebe,r 1858							
Macrolophus costalis Fieber, 1858	+		+	+	+	+	+
Macrolophus melanotoma (A. Costa, 1853)	+	+		+			
Genus *Macrotylus* Fieber, 1858							
Macrotylus herrichi (Reuter, 1873)	+	+		+	+		
Genus *Malacocoris* Fieber, 1858							
Malacocoris chlorizans (Panze,r 1794)	+		+	+	+		+
Genus *Megacoelum* Fieber, 1858							
Megacoelum sp. cf. *brevirostre* Reuter, 1879	+						
Genus *Megaloceroea* Fieber, 1858							
Megaloceroea recticornis (Geoffroy, 1785)	+			+	+	+	+
Genus *Megalocoleus* Reuter, 1890							
Megalocoleus molliculus (Fallén, 1807)	+	+		+	+	+	
Genus *Monosynamma* J. Scott, 1864							
Monosynamma bohemanni (Fallén, 1829)	+	+		+			+

Genus *Nanopsallus* Wagner, 1952							
Nanopsallus carduellus (Horvath, 1888)	+	+		+	+	+	+
Genus *Notostira* Fieber, 1858							
Notostira elongata (Geoffroy, 1785)	+		+	+			+
Notostira erratica (Linnaeus, 1758)	+	+	+	+	+	+	+
Notostira poppiusi Reuter, 1911	+						
Genus *Oncotylus* Fieber, 1858							
Oncotylus (*Cylindromelus*) *setulosus* (Herrich-Schaeffer, 1837)	+	+		+	+		+
Oncotylus (*Oncotylus*) *punctipes* Reuter, 1875	+					+	
Oncotylus (*Oncotylus*) *pyrethri* (Becker, 1864)	+			+	+		
Oncotylus (*Oncotylus*) *viridiflavus* (Goeze, 1778)	+	+	+	+	+	+	+
Genus *Opisthotaenia* Reuter, 1901							
Opisthotaenia fulvipes Reuter, 1901	+	+	+	+		+	+
Genus *Orthocephalus* Fieber, 1858							
Orthocephalus saltator (Hahn, 1835)	+	+			+	+	+
Orthocephalus vittipennis (Herrich-Schaeffer, 1835)	+	+			+		+
Genus *Orthops* Fieber, 1858							
Orthops (*Montanorthops*) *campestris* (Linnaeus 1758)	+		+	+	+	+	+
Orthops (*Montanorthops*) *forelii* Fieber, 1858	+			+			
Orthops (*Montanorthops*) *montanus* (Schilling, 1838)	+				+	+	
Orthops (*Orthops*) *basalis* (A. Costa, 1853)	+		+	+			
Orthops (*Orthops*) *kalmii* (Linnaeus, 1758)	+	+	+	+	+	+	+
Genus *Orthotylus* Fieber, 1858							
Orthotylus (*Melanotrichus*) *flavosparsus* (C.R. Sahlberg, 1841)	+	+	+	+	+	+	+
Orthotylus (*Orthotylus*) *marginalis* Reuter, 1883	+		+	+	+	+	+
Orthotylus (*Orthotylus*) *nassatus* (Fabricius, 1787)	+	+	+	+	+	+	+
Orthotylus (*Orthotylus*) *obscurus* Reuter, 1875	+						
Genus *Paredrocoris* Reuter, 1878							
Paredrocoris pectoralis Reuter, 1878	+						
Genus *Phoenicocoris* Reuter, 1875							
Phoenicocoris obscurellus (Fallén, 1829)	+						
Genus *Phytocoris* Fallen, 1814							
**Phytocoris* (*Eckerleinius*) *obliquoides* Wagner, 1959	+			+			

Phytocoris (*Exophytocoris*) *scitulus* Reuter, 1908					+		
Phytocoris (*Leptophytocoris*) cf. *chardoni* Puton, 1887	+						
Phytocoris (*Leptophytocoris*) *ustulatus* Herrich-Schaeffer, 1835	+		+				
Phytocoris (*Phytocoris*) *tiliae* (Fabricius, 1777)	+	+	+	+			
Genus *Pilophorus* Hahn, 1826							
Pilophorus cinnamopterus (Kirschbaum, 1856)	+		+		+	+	+
Pilophorus clavatus (Linnaeus, 1767)			+	+	+	+	+
Pilophorus pusillus Reuter, 1878	+	+	+	+	+	+	+
Genus *Plagiognathus* Fieber, 1858							
Plagiognathus bipunctatus Reuter, 1883	+	+	+	+	+	+	+
Plagiognathus chrysanthemi (Wolff, 1804)	+	+	+	+	+	+	+
Plagiognathus fulvipennis (Kirschbaum, 1856)	+	+	+	+	+	+	+
Genus *Polymerus* Hahn, 1831							
Polymerus (*Poeciloscytus*) *cognatus* (Fieber, 1858)	+	+	+	+	+		+
Polymerus (*Poeciloscytus*) *microphthalmus* Wagner, 1951	+				+	+	
Polymerus (*Poeciloscytus*) *unifasciatus* (Fabricius, 1794)	+			+	+	+	+
Polymerus (*Poeciloscytus*) *vulneratus* (Panzer, 1806)	+	+	+	+	+	+	+
Genus *Psallus* Fieber, 1858							
Psallus lepidus Fieber, 1858	+	+	+				+
**Psallus oleae* Wagner, 1963			+		+		
Psallus pinicola Reuter, 1875	+		+	+			
Psallus variabilis Fallen, 1807					+		+
Genus *Reuteria* Puton, 1875							
Reuteria marqueti Puton, 1875	+				+		+
Genus *Rhabdomiris* Wagner, 1968							
Rhabdomiris striatellus striatellus (Fabricius, 1794)	+						
Genus *Stenodema* Laporte, 1833							
Stenodema (*Brachystira*) *calcarata* (Fallén, 1807)	+	+	+	+	+	+	+
Stenodema (*Brachystira*) *trispinosa* Reuter, 1904	+			+	+		
Stenodema (*Stenodema*) *holsata* (Fabricius, 1787)	+		+				+
Stenodema (*Stenodema*) *laevigata* (Linnaeus, 1758)	+	+	+	+	+	+	+
Stenodema (*Stenodema*) *turanica* Reuter, 1904	+	+	+	+	+	+	+
Stenodema (*Stenodema*) *virens* (Linnaeus, 1767)	+	+	+	+	+	+	+

Genus *Stenotus* Jakovlev, 1877							
Stenotus binotatus (Fabricius, 1794)	+		+		+		+
Genus *Sthenarus* Fieber, 1858							
Sthenarus roseri (Herrich-Schaeffer, 1838)	+	+	+	+	+	+	+
Genus *Strongylocoris* Blanchard, 1840							
Strongylocoris leucocephalus (Linnaeus, 1758)	+					+	+
Strongylocoris niger (Herrich-Schaeffer, 1835)	+						+
Genus *Taylorilygus* Leston, 1952							
Taylorilygus apicalis (Fieber, 1861)							+
Genus *Trigonotylus* Fieber, 1858							
Trigonotylus pulchellus (Hahn, 1834)	+	+	+	+	+	+	+
Trigonotylus ruficornis (Geoffroy, 1785)	+	+	+	+	+	+	+
Trigonotylus tenuis Reuter, 1893	+						
Family Nabidae A. Costa, 1853							
Genus *Himacerus* J.P. Wolff, 1811							
Himacerus (*Anaptus*) *major* (A. Costa, 1842)	+						
Himacerus (*Aptus*) *mirmicoides* (O. Costa, 1834)	+		+				
Genus *Nabis* Latreille, 1802							
Nabis (*Nabis*) *ferus* (Linnaeus, 1758)	+				+		
Nabis (*Nabis*) *pseudoferus* Remane, 1949	+	+	+	+			+
Nabis (*Nabis*) *pseudoferus orientarius* Remane, 1963	+						
Nabis (*Nabis*) *punctatus* A. Costa, 1847	+						
Family Reduviidae Latreille, 1807							
Genus *Coranus* Curtis, 1833							
Coranus griseus (Rossi, 1790)	+	+		+	+	+	
Coranus kerzhneri Putshkov, 1982	+		+			+	+
Genus *Ectomocoris* Mayr, 1865							
Ectomocoris caucasicus Linnavuori, 1972		+					
Ectomocoris ululans (Rossi, 1970)	+				+		
Genus *Nagusta* Stål, 1859							
Nagusta goedelii (Kolenati, 1857)	+		+			+	+
Genus *Oncocephalus* Klug, 1830							
Oncocephalus pilicornis Reuter, 1882					+		
Oncocephalus squalidus (Rossi, 1790)	+				+		

Oncocephalus thoracicus Fieber, 1861			+	+			
Genus *Peirates* Serville, 1831							
Peirates hybridus (Scopoli, 1763)	+	+	+	+	+		
Peirates strepitans Rambur, 1839					+	+	
Genus *Reduvius* Fabricius, 1775							
Reduvius pallipes Klug, 1830	+	+		+	+	+	+
Reduvius personatus (Linnaeus, 1758)				+	+	+	+
Genus *Rhynocoris* Hahn, 1833							
Rhynocoris bipustulatus (Fieber, 1861)					+		
Rhynocoris ibericus Kolenati, 1856	+			+			
Rhynocoris iracundus (Poda, 1761)	+						
Rhynocoris punciventris (Herrich Schaeffer, 1848)	+	+	+	+	+	+	+
Family Tingidae Laporte, 1832							
Genus *Agramma* Stephens, 1829							
Agramma (*Agramma*) *laetum* (Fallén, 1807)	+						
Genus *Catoplatus* Spinola, 1837							
Catoplatus brevicornis Akramovskaja & Golub, 1973	+						
Catoplatus carthusianus (Goeze, 1778)	+		+				
Catoplatus hilaris Horváth, 1906	+						
Catoplatus nigriceps Horváth, 1905	+						
Genus *Copium* Thunberg, 1822							
Copium adumbratum (Horváth, 1891)	+						
Copium clavicorne (Linnaeus, 1758)	+						
Genus *Derephysia* Spinola, 1837							
Derephysia (Derephysia) sinuatocollis Puton, 1879	+						
Genus *Dictyla* Stål, 1874							
Dictyla echii (Schrank, 1782)	+			+			
Dictyla nassata (Puton, 1874)	+						
Dictyla platyoma (Fieber, 1861)	+						
Dictyla rotundata (Herrich-Schaeffer, 1835)	+						
Genus *Elasmotropis* Stål, 1874							
Elasmotropis testacea selecta (Horváth, 1891)	+						
Genus *Kalama* Puton, 1876							
Kalama tricornis (Schrank, 1801)	+						

Genus *Monosteira* A. Costa, 1862							
Monosteira unicostata (Mulsant & Rey, 1852)	+						
Genus *Physatocheila* Fieber, 1844							
Physatocheila confinis (Horváth, 1905)	+						
Physatocheila dumetorum (Herrich-Schaeffer, 1838)	+			+			
Genus *Stephanitis* Stål, 1873							
Stephanitis (*Stephanitis*) *pyri* (Fabricius, 1775)	+		+	+	+		+
Genus *Tingi*s Fabricius, 1803							
Tingis (*Tingis*) *angustata* (Herrich-Schaeffer, 1838)	+		+				
Tingis (*Tingis*) *auriculata* (A. Costa, 1847)	+		+				
Infraorder Pentatomomorpha							
Family Alydidae Amyot & Serville, 1843							
Genus *Alydus* Fabricius, 1803							
Alydus calcaratus (Linnaeus, 1758)	+		+	+			
Genus *Camptopus* Amyot & Serville, 1843							
Camptopus bifasciatus Fieber, 1864	+	+					
Camptopus lateralis (Germar, 1817)	+	+	+	+	+	+	+
Camptopus tragacanthae (Kolenati, 1845)	+	+					
Genus *Megalotomus* Fieber, 1860							
Megalotomus ornaticeps (Stål, 1858)	+						
Family Berytidae Fieber, 1851							
Genus *Berytinus* Kirkaldy, 1900							
Berytinus (*Lizinus*) *geniculatus* (Horváth, 1885)	+			+			
Family Coreidae Leach, 1815							
Genus *Arenocoris* Hahn, 1834							
Arenocoris waltlii (Herrich-Schaeffer, 1834)	+		+				
Genus *Bathysolen* Fieber, 1860							
Bathysolen nubilus (Fallén, 1807)	+				+		
Genus *Centrocoris* Kolenati, 1845							
Centrocoris spiniger (Fabricius, 1781)	+	+			+		+
Centrocoris variegatus Kolenati, 1845	+		+	+	+	+	+
Genus *Ceraleptus* A. Costa, 1847							
Ceraleptus gracilicornis (Herrich-Schäffer, 1835)	+						
Genus *Coreus* Fabricius, 1794							
Coreus marginatus (Linneaus, 1758)	+		+	+	+	+	+

Genus *Coriomeris* Westwood, 1842							
Coriomeris affinis (Herrich-Schäffer, 1839)	+						
Coriomeris denticulatus (Scopoli, 1763)	+						
Coriomeris hirticornis (Fabricius, 1794)	+		+	+	+	+	+
Coriomeris scabricornis (Panzer, 1809)	+			+	+		+
Genus *Enoplops* Ammot & Serville, 1843							
Enoplops disciger (Kolenati 1845)	+			+			
Genus *Gonocerus* Berthold, 1827							
Gonocerus acuteangulatus (Goeze, 1778)	+		+		+	+	+
Gonocerus juniperi Herrich-Schaeffer, 1835					+		
Gonocerus patellatus Kiritshenko, 1916	+						
Genus *Leptoglossus* Guérin-Méneville, 1831							
Leptoglossus occidentalis Heidemann, 1910				+			+
Genus *Phyllomorpha* Laporte, 1833							
Phyllomorpha lacerata Herrich-Schaeffer, 1835	+						
Phyllomorpha laciniata (Villers, 1789)	+			+			
Genus *Spathocera* Stein, 1860							
Spathocera lobata (Herrich-Schaeffer, 1840)	+						
Genus *Syromastus* Berthold, 1827							
Syrometus rhombeus (Linnaeus, 1767)	+					+	+
Family Cydnidae Billberg, 1820							
Genus *Cydnus* Fabricius, 1803							
Cydnus aterrimus (Forster, 1771)	+				+	+	+
Genus *Macrocytus* Fieber, 1860							
Macroscytus brunneus (Fabricius, 1803)		+		+	+		
Genus *Canthophorus* Mulsant & Rey, 1866							
Canthophorus dubius (Scopoli, 1763)	+		+		+	+	+
Canthophorus melanopterus (Herrich-Schäffer, 1835)	+						
Canthophorus maculipes (Mulsant & Rey, 1852)	+		+				
Genus *Legnotus* Schiødte, 1848							
Legnotus picipes (Fallén, 1807)	+						
Genus *Ochetostethus* Fieber, 1860							
Ochetostethus opacus (Scholtz, 1847)	+						
Genus *Sehirus* Amyot & Serville, 1843							

**Sehirus dissimilis* Horváth, 1919	+						+
Sehirus luctuosus Mulsant & Rey, 1866	+						
Sehirus morio (Linnaeus, 1761)	+						
Sehirus robustus Horváth, 1895	+						
Genus *Tritomegas* Amyot & Serville, 1843							
Tritomegas bicolor (Linnaeus, 1758)	+						
Tritomegas sexmaculatus (Rambur, 1839)	+				+		+
Family Cymidae Baerensprung, 1860							
Genus *Cymus* Hahn, 1832							
Cymus melanocephalus Fieber, 1861	+		+				
Family Geocoridae Baerensprung, 1860							
Genus *Geocoris* Fallen, 1814							
Geocoris (*Geocoris*) *megacephalus* (Rossi, 1790)					+		
Geocoris (*Piocoris*) *erythrocephalus* (Lepeletier & Serville, 1825)	+				+		
Family Heterogastridae Stål, 1872							
Genus *Heterogaster* Schilling, 1829							
Heterogaster artemisiae Schilling, 1829	+						
Heterogaster cathariae (Geoffroy, 1785)	+						
Heterogaster urticae (Fabricius, 1775)	+		+				
Genus *Platyplax* Fieber, 1860							
Platyplax salviae (Schilling, 1829)	+						
Family Lygaeidae Schilling, 1829							
Genus *Kleidocerys* Stephens, 1829							
Kleidocerys Resedae (Panzer, 1797)	+						+
Genus *Lygaeus* Fabricius, 1794							
Lygaeus equestris (Linnaeus, 1758)	+		+	+	+	+	+
Genus *Melanocoryphus* Stål, 1872							
Melanocoryphus albomaculatus (Goeze, 1778)	+			+			
Genus *Nysius* Dallas, 1852							
Nysius cymoides (Spinola, 1837)	+		+		+		
Nysius graminicola (Kolenati, 1845)	+		+		+		
Nysius helveticus (Herrich-Schäffer, 1850)	+		+				
Nysius senecionis (Schilling, 1829)	+		+		+		
Nysius thymi (Wolff, 1804)	+		+		+		

Genus *Ortholomus* Stål, 1872							
Ortholomus punctipennis (Herrich-Schäffer, 1838)	+						
Genus *Paranysius* Horváth, 1895							
Paranysius fraterculus Horváth, 1895	+						
Genus *Spilostethus* Stål, 1868							
Spilostethus pandurus (Scopoli, 1763)	+	+	+	+	+	+	
Spilostethus saxatilis (Scopoli, 1763)	+	+		+	+		
Genus *Tropidothorax* Bergroth, 1894							
Tropidothorax leucopterus (Goeze, 1778)	+		+		+	+	
Family Oxycarenidae Stål, 1862							
Genus *Auchenodes* Horvath, 1891							
Auchenodes costalis (Lethierry, 1877)	+						
Genus *Macroplax* Fieber, 1860							
Macroplax fasciata (Herrich-Schäffer, 1835)	+						
Genus *Metopoplax* Fieber, 1860							
Metopoplax origani (Kolenati, 1845)	+				+		+
Genus *Microplax* Fieber, 1860							
Microplax interrupta (Fieber, 1837)	+						
Genus *Oxycarenus* Fieber, 1837							
Oxycarenus (Euoxycarenus) pallens (Herrich-Schäffer, 1850)	+						
Oxycarenus (Oxycarenus) hyalinipennis (A. Costa, 1843)					+		+
Family Pachygronthidae Stål, 1865							
Genus *Cymophyes* Fieber, 1870							
Cymophyes ochroleuca Fieber, 1870					+		
Family Pentatomidae Leach, 1815							
Genus *Acrosternum* Fieber, 1861							
Acrosternum breviceps (Jakovlev, 1889)					+		
Acrosternum heegeri Fieber, 1861	+		+		+	+	+
Acrosternum millieri (Mulsant & Rey, 1866)	+						
Genus *Aelia* Fabricius, 1803							
Aelia acuminata (Linnaeus, 1758)	+		+	+	+		+
Aelia furcula Fieber, 1868	+	+	+	+	+	+	
Aelia rostrata Boheman, 1852	+	+	+	+	+	+	+
Aelia virgata (Herrich-Schäffer, 1841)	+	+		+			

Genus *Ancyrosoma* Amyot & Serville, 1843							
Ancyrosoma leucogrammes (Gmelin, 1790)	+		+	+	+	+	+
Genus *Antheminia* Mulsant & Rey, 1866							
Antheminia lunulata (Goeze, 1778)	+		+	+			
Antheminia pusio (Kolenati, 1846)	+			+			
Genus *Apodiphus* Spinola, 1837							
Apodiphus amygdali (Germar, 1817)	+	+	+	+	+	+	+
Genus *Bagrada* Stål, 1862							
Bagrada (Nitilia) abeillei Puton, 1881	+		+				
Bagrada (Nitilia) kaufmanni Oshanin, 1870	+		+				
Genus *Brachynema* Mulsant & Rey, 1852							
Brachynema cinctum (Fabricius, 1775)	+						
Brachynema germarii (Kolenati, 1846)					+		
Genus *Carpocoris* Kolenati, 1846							
Carpocoris (Carpocoris) coreanus Distant, 1899	+						
Carpocoris (Carpocoris) fuscispinus (Boheman, 1849)	+		+	+	+		+
Carpocoris (Carpocoris) mediterraneus Tamanini, 1958	+		+	+	+	+	+
Carpocoris (Carpocoris) melanocerus Mulsant, 1852			+	+	+	+	
Carpocoris (Carpocoris) pudicus (Poda, 1761)	+		+		+	+	+
Carpocoris (Carpocoris) purpureipennis (De Geer, 1773)	+		+	+	+	+	+
Genus *Chlorochroa* Stål, 1872							
Chlorochroa (Rhytidolomia) juniperina (Linnaeus, 1758)	+						
Genus *Cnephosa* Jakovlev, 1880							
Cnephosa flavomarginata Jakovlev, 1880	+						
Genus *Codophila* Mulsant & Rey, 1866							
Codophila maculicollis (Dallas, 1851)	+		+		+	+	+
Codophila pusio (Kolenati, 1846)	+			+			
Codophila varia (Fabricius, 1787)	+			+	+	+	
Genus *Derula* Mulsant & Rey, 1856							
Derula flavoguttata Mulsant & Rey, 1856	+						
Genus *Dolycoris* Mulsant & Rey, 1866							
Dolycoris baccarum (Linnaeus, 1758)	+	+	+	+	+	+	+

Genus *Eurydema* Laporte De Castelnau, 1832							
Eurydema blandum Horvath, 1903	+	+	+	+	+	+	+
Eurydema (Horvatheurydema) fieberi Fieber, 1837	+				+		
* *Eurydema formosum* (Puton, 1895)		+					
Eurydema laticolle Horvath, 1907					+		
Eurydema (Eurydema) oleraceum (Linnaeus, 1758)	+		+	+	+		+
Eurydema (Eurydema) ornatum (Linnaeus, 1758)	+	+	+	+	+	+	+
Eurydema (Horvatheurydema) rugulosa (Dohrn, 1860)					+		
Eurydema (Rubrodorsalium) ventrale Kolenati, 1846	+		+		+	+	+
Genus *Eysarcoris* Hahn, 1834							
Eysarcoris inconspicuus (Herrich-Schäffer, 1844)	+	+	+	+	+	+	+
Eysarcoris ventralis (Westwood, 1837)	+		+		+	+	+
Genus *Graphosoma* Laporte De Castelnae, 1832							
Graphosoma italicum (Müller, 1766)	+	+	+	+	+	+	+
Graphosoma lineatum (Linnaeus, 1758)	+		+	+	+	+	+
Graphosoma melanoxanthum Horvath, 1903	+						
Graphosoma semipunctatum (Fabricius, 1775)	+	+	+	+	+	+	+
Graphosoma stali Horváth, 1881		+					
Genus *Holcostethus* Fieber, 1860							
Holcostethus albipes (Fabricius, 1781)	+						+
Holcostethus vernalis (Wolff, 1804)	+	+	+	+	+	+	+
Genus *Jalla* Hahn, 1832							
Jalla dumosa (Linnaeus, 1758)				+			
Genus *Mustha* Amyot & Serville, 1843							
Mustha spinosula (Lefebvre, 1831)	+	+	+	+	+	+	+
Mustha vicina Hoberlandt, 1997		+					
Genus *Neottiglossa* Kirby, 1837							
Neottiglossa bifida (A. Costa, 1847)	+			+			+
Neottiglossa leporina (Herrich-Schäffer ,1830)	+		+	+	+	+	
Genus *Nezara* Amyot & Serville, 1843							
Nezara viridula (Linnaeus, 1758)	+	+	+	+	+	+	+
Genus *Palomena* Mulsant & Rey, 1860							
Palomena prasina (Linnaeus, 1761)	+		+	+	+	+	+
Genus *Pausias* Jakovlev, 1905							

Pausias martini (Puton, 1890)					+		
Genus *Picromerus* Amyot & Serville, 1843							
* *Picromerus brachypterus* Ahmad & Önder, 1990			+			+	
Genus *Piezodorus* Fieber, 1860							
Piezodorus lituratus (Fabricius, 1794)	+	+	+		+		
Genus *Podops* Laporte, 1833							
Podops (Opocrates) rectidens Horvath, 1883							+
Genus *Putonia* Stål, 1872							
Putonia asiatica Jakovlev, 1885	+						
Genus *Rhaphigaster* Laporte De Castelnau, 1862							
Rhaphigaster nebulosa (Pod,a 1761)	+	+	+	+	+	+	+
Genus *Rhombocoris* Mary, 1864							
Rhombocoris regularis (Herrich-Schäffer, 1851)	+						
Genus *Risibia* Horváth, 1888							
Risibia verbasci Lodos & Önder, 1980	+						
Genus *Sciocoris* Fallén, 1829							
Sciocoris (Sciocoris) amoenus (Brullé, 1832)	+		+	+			
Sciocoris (Sciocoris) cursitans (Fabricius, 1794)	+						
Sciocoris (Sciocoris) distinctus Fieber, 1851	+			+			
Sciocoris (Sciocoris) macrocephalus Fieber, 1851	+						
Sciocoris (Sciocoris) ochraceus Fieber, 1861					+		
Sciocoris (Sciocoris) ogivus Jakovlev, 1894	+						
Sciocoris (Sciocoris) sulcatus Fieber, 1851	+						
Genus *Stagonomus* Gorski, 1852							
Stagonomus (Stagonomus) amoenus (Brullé, 1832)	+		+	+			
Stagonomus (Stagonomus)bipunctatus (Linnaeus, 1758)	+		+		+		+
Stagonomus (Stagonomus) pusillus (Herrich-Schäffer, 1830)					+		
Genus *Staria* Dohrn, 1860							
Staria lunata (Hahn, 1835)	+						+
Genus *Stenozygum* Fieber, 1861							
Stenozygum coloratum (Klug, 1845)					+		
Genus *Tarisa* Amyot & Serville, 1843							
Tarisa virescens Herrich-Schäffer, 1851	+						
Genus *Tholagmus* Stål, 1860							

Tholagmus flavolineatus (Fabricius, 1798)	+				+		
Genus *Ventocoris* Hahn, 1834							
Ventocoris (Selenodera) achivus (Horváth, 1889)					+		
Ventocoris (Selenodera) fischeri (Herrich-Schäffer, 1851)				+	+		
Ventocoris (Selenodera) halophilus (Jakovlev, 1874)	+						
Ventocoris (Ventocoris) rusticus (Fabricius, 1781)			+	+	+		
Genus *Zicrona* Amyot & Serville, 1843							
Zicrona coerulea (Linnaeus, 1758)	+		+		+		
Family Piesmatidae Amyot & Serville, 1843							
Genus *Piesma* Lepeletier & Serville, 1828							
Piesma maculatum (Laporte, 1833)	+						
Genus *Parapiesma* Péricart, 1974							
Parapiesma atriplicis (Frey-Gessner, 1863)	+						
Parapiesma salsolae (Becker, 1867)	+						
Family Plataspidae Dallas, 1851							
Genus *Coptosoma* Laporte, 1833							
Coptosoma scutellatum (Geoffroy, 1785)	+						
Family Pyrrhocoridae Fieber, 1860							
Genus *Pyrrhocoris* Fallen, 1814							
Pyrrhocoris apterus (Linnaeus, 1758)	+	+	+	+	+	+	+
Pyrrhocoris marginatus (Kolenati, 1845)	+						
Genus *Scantius* Stål, 1866							
Scantius aegyptius (Linnaeus, 1758)	+	+		+	+		
Family Rhopalidae Amyot & Audinet-Serville, 1843							
Genus *Agraphopus* Stal, 1872							
Agraphopus lethierryi Stal, 1872	+						
Genus *Brachycarenus* Fieber, 1861							
Brachycarenus tigrinus (Schilling, 1829)	+	+	+	+	+		+
Genus *Chorosoma* Curtis, 1830							
Chorosoma schillingii (Schilling, 1829)	+			+			
Genus *Corizomorpha* Jakovlev, 1883							
Corizomorpha janowskyi Jakovlev, 1883	+						
Genus *Corizus* Fallén, 1814							
Corizus hyoscyami (Linnaeus, 1758)	+	+	+	+	+	+	+

Genus *Liorhyssus* Stål, 1872							
Liorhyssus hyalinus (Fabricius, 1794)	+	+	+	+	+	+	+
Genus *Maccevethus* Dallas, 1852							
Maccevethus caucasicus (Kolenati, 1845)	+	+	+	+			
Maccevethus corsicus Signoret, 1862	+						+
Maccevethus errans (Fabricius, 1794)	+						
Genus *Rhopalus* Schilling, 1827							
Rhopalus (*Aeschyntelus*) *maculatus* (Fieber, 1837)	+						
Rhopalus (*Rhopalus*) *conspersus* (Fieber, 1837)	+						
Rhopalus (*Rhopalus*) *parumpunctatus* Schilling, 1829	+						
Rhopalus (Rhopalus) rufus Schilling, 1829	+			+	+		+
Rhopalus (*Rhopalus*) *subrufus* (Gmelin, 1790)	+	+					+
Genus *Stictopleurus* Stål, 1872							
Stictopleurus abutilon (Rossi, 1790)	+						
Stictopleurus pictus (Fieber, 1861)	+	+					
Stictopleurus punctatonervosus (Goeze, 1778)	+	+	+	+	+	+	+
Stictopleurus subtomentosus (Rey, 1888)	+						
Stictopleurus unicolor (Jakovlev, 1873)	+						
Family Rhyparochromidae Amyot & Audinet-Serville, 1843							
Genus *Aellopus* Wolff, 1811							
Aellopus atratus (Goeze, 1778)				+			
Genus *Aphanus* Laporte de Castelnau, 1833							
Aphanus rolandri (Linnaeus, 1758)	+						
Genus *Beosus* Amyot & Serville, 1843							
Beosus maritimus (Scopoli, 1763)	+	+	+	+	+	+	
Beosus quadripunctatus (Müller, 1766)	+		+				
Genus *Drymus* Fieber, 1860							
Drymus (*Sylvadrymus*) *brunneus confinis* Reuter, 1893	+						
Drymus (*Sylvadrymus*) *sylvaticus* (Fabricius, 1775)	+						
Genus *Emblethis* Fieber, 1860							
Emblethis denticollis Horváth, 1878	+		+	+	+		
Emblethis osmanus Seidenstücker, 1963	+		+	+	+	+	
Genus *Gastrodes* Westwood, 1840							

Gastrodes grossipes (De Geer, 1773)	+						
Genus *Graptopeltus* Stål, 1872							
Graptopeltus lynceus (Fabricius, 1775)	+						
Genus *Lasiocoris* Fieber, 1860							
Lasiocoris anomalus (Kolenati, 1845)	+						
Genus *Megalonotus* Fieber, 1860							
Megalonotus sabulicola (Thomson, 1870)	+						
Genus *Paromius* Fieber, 1860							
Paromius gracilis (Rambur, 1839)	+						
Genus *Peritrechus* Fieber, 1860							
Peritrechus geniculatus (Hahn, 1832)	+						
Peritrechus gracilicornis Puton, 1877	+		+				
Genus *Plinthisus* Stephen, 1829							
Plinthisus (Plinthisus) major Horváth, 1876	+						
Genus *Pterotmetus* Amyot & Serville, 1843							
Pterotmetus staphyliniformis (Schilling, 1829)	+			+			
Genus *Raglius* Stål, 1872							
Raglius confusus (Reuter, 1886)	+						+
Genus *Rhyparochromus* Hahn, 1826							
Rhyparochromus pini (Linnaeus, 1758)	+			+	+		
Rhyparochromus phoeniceus (Rossi, 1794)	+						
Rhyparochromus sanguineus (Douglas & Scott, 1868)	+						
Rhyparochromus vulgaris (Schilling, 1829)	+				+		
Genus *Remaudiereana* Hoberlandt, 1954							
Remaudiereana annulipes (Baerensprung, 1859)					+		
Genus *Scolopostethus* Fieber, 1860							
Scolopostethus affinis (Schilling, 1829)	+						
Genus *Stygnocoris* Douglas & Scott, 1865							
Stygnocoris rusticus (Fallen, 1807)	+						
Genus *Xanthochilus* Stål, 1872							
Xanthochilus quadratus (Fabricius, 1798)	+				+		
Xanthochilus saturnius (Rossi, 1790)	+						
Family Scutelleridae Leach, 1815							
Genus *Solenosthedium* Spinola, 1837							

Solenosthedium bilunatum (Lefebvre, 1827)					+		
Genus *Eurygaster* Laporte, 1833							
Eurygaster austriaca (Schrank, 1776)	+		+	+	+		+
Eurygaster dilaticollis Dohrn, 1860	+		+	+			
Eurygaster integriceps Puton, 1881	+	+	+	+	+		+
Eurygaster maura (Linnaeus, 1758)	+	+	+	+	+		
Eurygaster testudinaria (Geoffroy, 1785)	+						
Genus *Psacasta* Germar, 1839							
Psacasta (*Psacasta*) *exanthematica* (Scopoli, 1763)	+			+			
Genus *Odontoscelis* Laporte, 1833							
Odontoscelis (*Odontoscelis*) *fuliginosa* (Linnaeus, 1761)	+						
Genus *Ellipsocoris* Mayr, 1864							
Ellipsocoris trilineatus Mayr, 1864	+						
Genus *Odontotarsus* Laporte, 1833							
Odontotarsus impictus Jakovlev, 1886	+	+					
Odontotarsus purpureolineatus (Rossi, 1790)	+		+	+	+		+
Odontotarsus rufescens Fieber, 1861	+	+	+	+	+		+
Genus *Phimodera* Germar, 1839							
Phimodera flori Fieber, 1863	+						
Family Stenocephalidae Dallas, 1852							
Genus *Dicranocephalus* Hahn, 1826							
Dicranocephalus agilis (Scopoli, 1763)	+		+	+	+	+	+
Dicranocephalus albipes (Fabricius, 1781)	+		+			+	
Dicranocephalus setulosus (Ferrari, 1874)	+						
Subtotal	**357**	**105**	**156**	**171**	**201**	**121**	**146**

Remarks: EA - Eastern Anatolia, **SA -** Southeastern Anatolia, **BS -** Black Sea, **CA -** Central Anatolia, **MD -** Mediterranean, **A -** Aegean, **M -** Marmara.

There are great differences in species composition and richness between the geographic regions of Türkiye (Tab. 1, Fig. 2). In this study, 357 species, 205 genera and 27 families of the Heteroptera have been recorded from Eastern Anatolia (87,7% of the recorded species), 105 species, 71 genera and 14 families from South-eastern Anatolia (25,8%), 156 species, 98 genera and 17 families from Black Sea (38,3%), 171 species, 112 genera and 20 families from Central Anatolia(42%), 201 species, 120 genera and 21 families from Mediterranean (49,4%), 121 species, 78 genera and 13 families from Aegean (29,7%), 146 species, 97 genera and 17 families from Marmara (35,9%). The diversity of species (357), genus (205) and family (27) is highest in the Eastern Anatolia region. Besides, it determined that six species of Turkish Heteroptera are endemic and are located in Türkiye (Table 2).

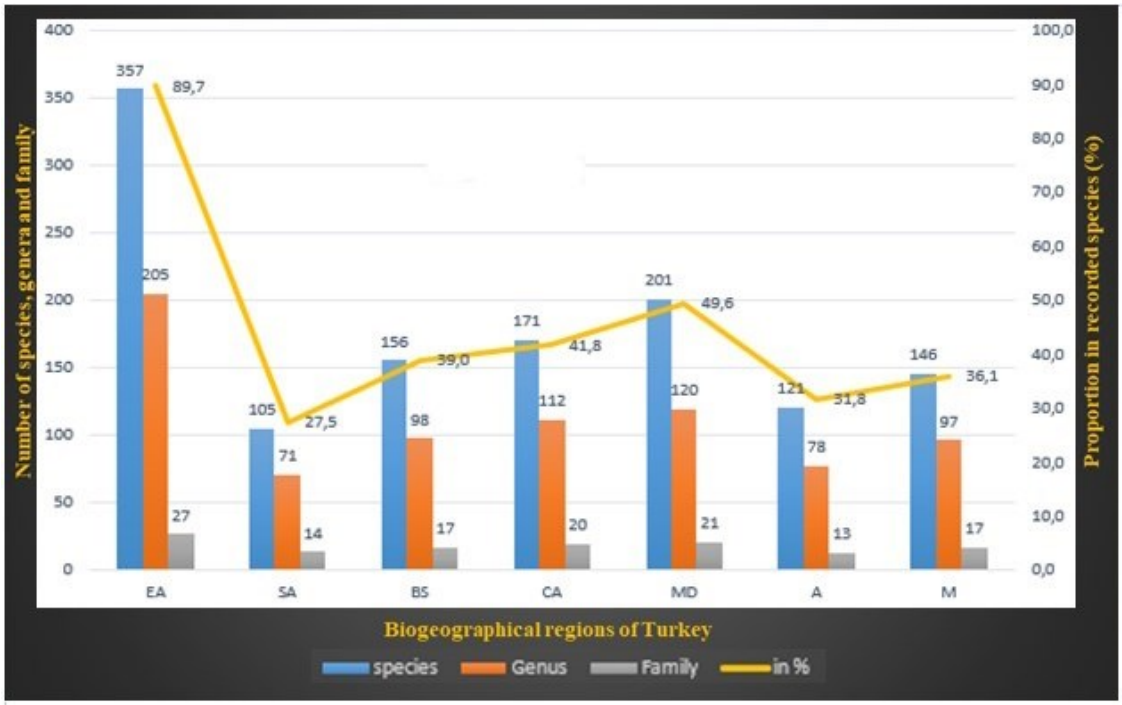

Figure 2. Number of species, genera, and families of Heteroptera in the biogeographical regions of Türkiye (EA - Eastern Anatolia, SA - Southeastern Anatolia, BS - Black Sea, CA - Central Anatolia, MD -Mediterranean, A - Aegean, M - Marmara).

Table 2: Distribution of endemic species in Biogeographic Regions of Türkiye

	EA	**SA**	**BS**	**CA**	**MD**	**A**	**M**
Eurycolpus aureolus Seidenstücker, 1961	+	+		+	+		
Phytocoris (Eckerleinius) obliquoides Wagner, 1959	+			+			
Psallus oleae Wagner, 1963			+		+		
Picromerus brachypterus Ahmad & Önder, 1990			+			+	
Total species	**2**	**1**	**2**	**2**	**2**	**1**	

There are great differences in endemic species composition and richness between the bio-geographic regions of Türkiye (Tab. 2). In this study have been recorded two species from Eastern Anatolia, one species from Southeastern Anatolia, two species from Black Sea, two species from Central Anatolia, two species from Mediterranean, one species Aegean and one species from Marmara. As a result, there is a high probability that all geographical regions can also appear.

DISCUSSION

Infraorder Gerromorpha are surface inhabiting taxa found in a wide array of habitats from the smallest, often temporary, bodies of fresh water to the world's open oceans. They in eight families are represented by more than 2000 species and 150 genera (J. Polhemus & D. Polhemus, 2008; Henry, 2017). In the Palearctic region, they are represented by 248 species from 42 genera (Aukema et al., 2013), while they are represented by 38 species and subspecies from 9 genera within 5 families in our country (Yazıcı 2020; Fent et al., 2011). This study also reported 4 species belonging to 2 genera and one family from Gerromorpha (Gerridae family).

The Nepomorpha are characterized by short antennae concealed partly or entirely by the eyes. All are predatory, except some Corixidae. Most can inflict painful bites. Almost all of them are aquatic and have legs modified for swimming (Schuh & Slater, 1995; Henry, 2017). Approximately 140 genera and 2309 species of Nepomorpha are known (Polhemus & Polhemus, 2008). This number in the Palearctic region is 268 species of 41 genera (Henry, 2017) while they are represented by 55 species and subspecies from 19 genera within 9 families in Türkiye (Yazıcı, 2020, Fent et al., 2011). This study reported 10 species belonging to 5 genera and 4 families from Nepomorpha (Belostomatidae, Corixidae, Nepidae and Notonectidae families).

Infraorder Leptopodomorpha comprises four families separated into the superfamilies Leptopodoidea and Saldoidea (Henry, 2017). There are known 381 species and 64 genera in the World (Henry, 2017). This number is 268 species and 41 genera in the Palearctic region while 21 species belong to 7 genera and two families in Türkiye (Yazıcı & Bal, 2022). This study reported 3 species belonging to one genus and one family from Leptopodomorpha.

The Cimicomorpha is one of the largest and highly diversified infraorder of the Heteroptera. All members' rostrum and other morphology are adapted to feeding on animals as their prey or hosts (Kuznetsova et al., 2011). The Cimicomorpha has been separated into seven superfamilies and 17 families, including the two largest Heteropteran families, the Miridae and Reduviidae (Henry, 2017). All World known 21.271 species and 2945 genera of Cimicomorpha. In Palearctic Region recorded 5223 species belonging to 718 genera and 13 families (Aukema et al., 2013). This number is 838 species and 9 families in Türkiye (Tezcan, 2024). This study reported 177 species belonging to 93 genera and 6 families from Cimicomorpha.

Six superfamilies have been recognized in a phylogenetic analysis of the Pentatomomorpha. The monophyly of the Pentatomo -morpha is supported by at least six synapomorphies that include the presence of lamellate pulvilli, abdominal trichobothria, an apically bulbous spermatheca, similar accessory salivary glands, an embryonic egg burster, and lack of a true operculum (Henry, 2017). They have been 18.411 species belonging to 2750 genera in the World (Henry, 2017). This number is 3502 species and 782 genera in the Palearctic region (Aukema et al., 2013) while there are more than 665 species and 18 families in Türkiye (Tezcan, 2024). This study reported 213 species belonging to 120 genera and 18 families from Pentatomomorpha.

In this study, total 407 species of 221 genera belonging to 30 families of Heteroptera were recorded from Atatürk University Biodiversity Science Museum (ABBM) Erzurum in Türkiye: 5 species belonging to 3 genera of Alydidae, 8 species belonging to 4 genera of Anthocoridae, 1 species belonging to 1 genus of Belostomatidae, 1 species belonging to 1 genus of Berytidae, 19 species belonging to 12 genera of Coreidae, 5 species belonging to 2 genera of Corixidae, 13 species belonging to 7 genera of Cydnidae, 1 species belonging to 1 genus of Cymidae, 2 species belonging to 1 genus of Geocoridae, 4 species belonging to 2 genera of Gerridae, 4 species belonging to 2 genera of Heterogastridae, 1 species belonging to 1 genus of Lyctocoridae, 13 species belonging to 8 genera of Lygaeidae, 126 species belonging to 68 genera of Miridae, 6 species belonging to 2 genera of Nabidae, 1 species belonging to 1 genus of Nepidae, 3 species belonging to 1 genus of Notonectidae, 6 species belonging to 5 genera of Oxycarenidae, 1 species belonging to 1 genus of Pachygronthidae, 79 species belonging to 38 genera of Pentatomidae, 3 species belonging to 2 genera of Piesmatidae, 1 species belonging to 1 genus of Plataspidae, 3 species belonging to 2 genera of

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Pyrrhocoridae, 16 species belonging to 7 genera of Reduviidae, 19 species belonging to 9 genera of Rhopalidae, 27 species belonging to 19 genera of Rhyparochromidae, 3 species belonging to 1 genus of Saldidae, 13 species belonging to 7 genera of Scutelleridae, 3 species belonging to 1 genus of Stenocephalidae, 20 species belonging to 11 genera of Tingidae, Among them, four species are endemic. They are *Eurycolpus aureolus* Seidenstücker 1961, *Phytocoris* (*Eckerleinius*) *obliquoides* Wagner 1959, *Psallus oleae* Wagner 1963, and *Picromerus brachypterus* Ahmad & Önder 1990 are considered to be endemic (Table 1,2).

Additionally, the most widespread species in all zoogeographic regions are (Table 1): *Camptopus lateralis* (Germar) (Alydidae), *Orius* (O.) *niger* (Wolff) (Anthocoridae), *Adelphocoris lineolatus* (Goeze), *Adelphocoris vandalicus* (Rossi), *Calocoris roseomaculatus* (De Geer), *Campylomma nicolasi* Puton and Reuter, *Campylomma verbasci* (Meyer-Dür), *Charagochilus gyllenhalii* (Fallén), *Chlamydatus pullus* (Reuter), *Deraeocoris* (*Camptobrochis*) *punctulatus* (Fallén), *Deraeocoris* (*Camptobrochis*) *serenus* (Douglas & Scott), *Deraeocoris* (*Deraeocoris*) *rutilus* (Herrich-Schäffer), *Halticus luteicollis* (Panzer), *Liocoris tripustulatus* (Fabricius), *Lygus pratensis* (Linnaeus), *Lygus rugulipennis* Poppius, *Notostira erratica* (Linnaeus), *Oncotylus* (*O.*) *viridiflavus* (Goeze), *Orthops* (*Orthops*) *kalmii* (Linnaeus), *Orthotylus* (*Melanotrichus*) *flavosparsus* (C.R. Sahlberg), *Orthotylus* (*O.*) *nassatus* (Fabricius), *Pilophorus pusillus* Reuter, *Plagiognathus bipunctatus* Reuter, *Plagiognathus chrysanthemi* (Wolff), *Plagiognathus fulvipennis* (Kirschbaum), *Polymerus* (*Poeciloscytus*) *vulneratus* (Panzer), *Stenodema* (*Brachystira*) *calcarata* (Fallén), *Stenodema* (*S.*) *laevigata* (Linnaeus), *Stenodema* (*S.*) *turanica* Reuter, *Stenodema* (*S.*) *virens* (Linnaeus), *Sthenarus roseri* (Herrich-Schaeffer), *Trigonotylus pulchellus* (Hahn), *Trigonotylus ruficornis* (Geoffroy) (Miridae), *Aelia rostrata* Boheman, *Apodiphus amygdali* (Germar), *Dolycoris baccarum* (Linnaeus), *Eurydema blandum* Horvath, *Eurydema ornatum* (Linnaeus), *Eysarcoris inconspicuus* (Herrich-Schäffer), *Graphosoma italicum* (Müller), *Graphosoma semipunctatum* (Fabricius 1775), *Holcostethus vernalis* (Wolff), *Mustha spinosula* (Lefebvre), *Nezara viridula* (Linnaeus) (Pentatomidae), *Pyrrhocoris apterus* (Linnaeus) (Pyrrhocoridae), *Rhaphigaster nebulosa* (Poda), *Rhynocoris punciventris* (Herrich Schaeffer) (Reduviidae), *Corizus hyoscyami* (Linnaeus), *Liorhyssus hyalinus* (Fabricius), *Stictopleurus punctatonervosus* (Goeze) (Rhopalidae).

In this study, 4 species in 2 genera of Gerromorpha, 10 species in 5 genera of Nepomorpha, 3 species in one genus of Leptopodomorpha, 177 species in 92 genera of Cimicomorpha and 216 species in 121 genera of Pentatomomorpha are recorded. In total, 407 species belonging to 221 genera of 30 families of Heteroptera are recorded from Atatürk University Biodiversity Science Museum (ABBM) Erzurum in Türkiye. This number corresponds to 26% of Türkiye's Heteroptera. The study revealed that there are great differences in species composition and richness between the geographic regions of Türkiye. Especially the diversity of species (357), genus (205) and family (27) is highest in the Eastern Anatolia region. Çerçi et al. (2022) conducted a study of Heteroptera species collected from numerous localities in Anatolia, articularly Eastern Anatolia, between 1998 and 2021, and 124 species in 97 genera belonging to 20 families were recorded.

Turkish Heteroptera fauna is very rich. The great richness and diversity of the Turkish Heteroptera fauna are the result of the various topographic and climatic structure of the country. On the other hand, Türkiye is a boundary of East Mediterranean, Euro-Siberian and Irano-Turanian provinces of the Palaearctic region that caused the richness of the fauna and it is a country that is located as a bridge between Europe and Asia. It has different climatic conditions. Both geographic position and climatic differentiations have some effects on flora and fauna. Because of this, Türkiye has been

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focused by Turkish and foreign scientists for a long period. However, the knowledge of Türkiye's Heteroptera fauna is still incomplete despite the research for more than a century when considering studies in recent years. At this point, we hope that our study will encourage further research on Heteroptera in Türkiye. Such data will create a solid base for zoo-geographic research on the Turkish fauna.

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Short Note

First record of *Aradus flavicornis* Dalman, 1823 (Hemiptera: Heteroptera: Aradidae) for Cyprus

Torsten van der Heyden

Immenweide 83, D-22523 Hamburg, Germany.
E-mail: tmvdh@web.de ORCID iD: 0000-0003-4138-7160

ABSTRACT: The first record of *Aradus flavicornis* Dalman, 1823 (Hemiptera: Heteroptera: Aradidae) for Cyprus is reported. The distribution of the species in the Mediterranean Region is summarised.

KEYWORDS: *Aradus flavicornis*, first record, distribution, Cyprus, Mediterranean Region.

Aradus flavicornis Dalman, 1823 (Hemiptera: Heteroptera: Aradidae) is a Palearctic species which is present in North Africa, Asia and Europe (Extralimital: Afrotropical Region). In the Mediterranean Region, the species has been reported from Albania, Andorra, Croatia, France (mainland and Corsica), Greece (mainland and Crete), Italy, Malta, Portugal, Spain (mainland and Balearic Islands) and Türkiye (European part) in Europe, from Algeria, Egypt, Libya, Morocco and Tunisia in North Africa and from Sinai and the Asian part of Türkiye in Asia (Aukema, 2024), so far.

Heiss & Péricart (2007) mentioned Cyprus as a presumable part of the distribution range of *A. flavicornis*, but no record from the island has been reported, yet.

Now, the first record of *A. flavicornis* for Cyprus can be reported: On 12.09.2024, an adult specimen was observed and

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photographed near the village of Chirokitía, located in the district of Larnaca in the south-eastern part of Cyprus.

The specimen was attracted by the artificial light of an actinic fluorescent tube (Benoît Segerer, pers. comm.) A photo of the specimen (Fig. 1) was uploaded to the online database iNaturalist (Segerer, 2024).

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Figure 1. Specimen of *Aradus flavicornis* Dalman, 1823, near Chirokitía, Cyprus, 12.09.2024. (Photo: Benoît Segerer).

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Research Article

The first exact locality records from the Turkish Thrace for *Cymatia rogenhoferi* (Fieber, 1864) and *Micronecta pusilla* (Horváth, 1895) (Hemiptera: Heteroptera)

Meral Fent[1*] Ahmet Dursun[2]

[1]Trakya University, Faculty of Science, Department of Biology, Edirne Türkiye.
E-mail: m_fent@hotmail.com; ORCID iD: 0000–0001–5787–6714

[2]Amasya University, Faculty of Arts and Science, Department of Biology, Türkiye.
E-mail:ahmetdursun55@hotmail.com; ORCID ID: 0000-0002-5114-7470.
*Corresponding author email: m_fent@hotmail.com

ABSTRACT: In this study, the first exact locality information of two aquatic Heteroptera species, *Cymatia rogenhoferi* (Corixidae) and *Micronecta pusilla* (Micronectidae), which were previously reported from the Thrace Region but whose locality was unknown, was presented.

KEYWORDS: *Cymatia rogenhoferi, Micronecta pusilla,* first exact locality, Turkish Thrace.

INTRODUCTION

A total of 31 species/subspecies (5 of them need confirmation) belonging to 7 genera of the family Corixidae Leach, 1815 have been recorded in Türkiye (Fent et al., 2011). *Cymatia* Flor, 1860, a small genus of Corixidae, is represented by 4 species in the Palearctic Region and so far *Cymatia coleoptrata* (Fabricius, 1777) and *Cymatia rogenhoferi* (Fieber, 1864) have been recorded from Türkiye (Aukema, 2018; Fent et al., 2011). However, records of *C. coleoptrata* from Türkiye (Asian part) need confirmation (see Fent et al., 2011).

While *C. rogenhoferi* is known from three localities in Anatolia, its record in Thrace Region is based on Jansson's (1986) markings on the map without specifying the locality. *Micronecta* Kirkaldy, 1897, the only genus of the family Micronectidae Jaczewski, 1924, is represented by 36

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species and 8 subspecies belonging to 8 subgenera in the Palearctic Region (Aukema, 2018). In Türkiye, three species (*M. pusilla, M. scholtzi* and *M. griseola*) and three subspecies (*M. anatolica anatolica, M. poweri poweri* and *M. wui alkani*) belonging to two subgenera (*Dichaetonecta* and *Micronecta*) are known.

M. poweri poweri was exculeded from the Thrace Region Micronectidae list by Fent et al. (2011), and its records from Anatolia need to be confirmed (see Fent et al., 2011). While *M. griseola, M. pusilla* and *M. scholtzi* are known from both the Thrace Region and Anatolia, *M. anatolica anatolica* and *M. wui alkani* were recorded only from Anatolia (Fent et al., 2011, Topkara, 2013; Topkara & Ustaoğlu, 2014). *M. pusilla* was reported from 6 localities in Anatolia, but was reported from the Thrace Region without locality information (Jansson, 1986, Fent et al., 2011).

MATERIALS AND METHODS

During the study conducted to determine the aquatic and semi-aquatic Heteroptera fauna of the Thrace Region between 2018 -2020, these two species were identified from 4 different aquatic habitats (lake, pond, stream and irrigation pond) in 4 localities belonging to 3 provinces (Edirne, Kırklareli, Tekirdağ). The aquatic forms of Nepomorpha infraordo were obtained with the help of plankton scoop from the water and from sand or mud at the water's edge. Jansson (1986) was used in the identification of the species.

RESULTS

NEPOMORPHA Popov, 1968
CORIXOIDEA Leach, 1815
CORIXIDAE Leach, 1815
CYMATIAINAE Walton, 1940
***Cymatia* Flor, 1860**
***Cymatia rogenhoferi* (Fieber, 1864)**

Material examined: Edirne: Uzunköprü – Kurtbey (stream), 41°8'006N 26°35'090E, 53 m, 11.06.2020, 1♀; **Kırklareli:** Kofçaz (irrigation pond), 12.08.2020, 41°56'593N 27°7'685E, 439 m 11♀♀, 12♂♂.

Distribution in Türkiye: European Türkiye: Without locality information (Jansson, 1986, 1995), Edirne, Kırklareli (this study). Asian Türkiye: Ankara, Konya, Van (Hoberlandt, 1952, Jansson, 1986; Kıyak, 2000; Önder et al., 2006; Koçak & Kemal, 2010; Topkara, 2013).

Distribution in Palearctic: Europe: Austria, Belgium, Bulgaria, Czech Republic, European Kazakhstan, European Türkiye, France, Germany, Great Britain, Hungary, Italy, Moldavia, Netherlands, Poland, Romania, Russia (Central and South European Territories), Serbia, Slovakia, Spain, Switzerland, Ukraine. **North Africa:** Algeria, Morocco. **Asia:** Armenia, Asian Kazakhstan, Asian Türkiye, Azerbaijan, China (Northern and Northwestern Territories), Georgia, Iran, Iraq, Kirgizia, Mongolia, Russia (West Siberia), Saudi Arabia, Tadzhikistan, Turkmenistan, Uzbekistan. Extralimital: India (Aukema, 2018).

MICRONECTIDAE Jaczewski, 1924
MICRONECTINAE Jaczewski, 1924
***Micronecta* Kirkaldy, 1897**
***Micronecta pusilla* (Horváth, 1895)**

Edirne: Havsa – Ağayeri (lake), 19.05.2018, 41°28'04N 26°57'45E, 76 m, 4♀♀, 3♂♂; **Tekirdağ:** Muratlı – Hanoğlu (pond), 23.05.2018, 41°12'03N 27°22'15E, 111 m, 1♀, 1♂.

Distribution in Türkiye: European Türkiye: Without locality information (Jansson, 1986, 1995), Edirne, Tekirdağ (this study). Asian Türkiye: Adana, Ankara, Kayseri, Konya, Sivas, Tokat (Jansson, 1986; Özesmi & Önder, 1988; Kıyak, 2000; Fent et al., 2011)

Distribution in Palearctic: Europe: Bulgaria, Croatia, European Türkiye, Hungary, Moldavia, Romania, Russia (South European Territory), Serbia, Ukraine. **Asia:** Asian Kazakhstan, Asian Türkiye, Azerbaijan, Georgia, Iraq, Kirgizia, Syria, Tadzhikistan, Turkmenistan, Uzbekistan (Aukema, 2018).

DISCUSSION

In this study conducted between 2018 – 2020 to determine the aquatic and semi-aquatic Heteroptera fauna in the Thrace Region, the first exact locality records were determined for *Cymatia rogenhoferi* and *Micronecta pusilla* species, which were given by Jansson (1986, 1995) without specifying a definitive locality information. *C. rogenhoferi* is a rare species that has been detected in a small number of localities in the Anatolian part of Türkiye, although it has a wide distribution in Europe and Asia in its Palearctic distribution. In this study, *C. rogenhoferi* specimens were detected in a small stream in Kurtbey village in Edirne-Uzunköprü district and in an irrigation pond in Kofçaz district of Kırklareli, 2-3 m inland from the shore near the place where the stream feeding the pond flows into the pond. *M. pusilla* is distributed mostly in the Central Anatolian Region of Anatolia. *M. pusilla* specimens were identified in mud and sand in the coastal area of a lake near Ağayeri village of Havsa district of Edirne and a pond in Hanoğlu village of Muratlı district of Tekirdağ.

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Research Article

First record of *Deraeocoris ruber* (Linnaeus, 1758) and *Deraeocoris rutilus* (Herrich-Schäffer, 1838) (Hemiptera: Heteroptera: Miridae) in Uzbekistan

Dilshod Musaev*, Bakhtiyor Kholmatov, Gulnora Mirzaeva, Makhsetbay Medetov, Askar Akhmedov, Lebedeva Natalya, Mahliyo Musaeva, Shokhruz Nazarov.

Institute of Zoology Academy of Sciences Republic of Uzbekistan, Bogishamol Str 232b., Tashkent 100053

e-mail: dilshod.musaev.86@mail.ru ORCID ID: 0000-0003-4837-3917
e-mail: biol_uz@mail.ru ORCID ID: 0000-0003-0003-9231
e-mail: mirzayeva.gulnora@mail.ru ORCID ID: 0000-0003-0003-9231
e-mail: m.j.medetov@mail.ru ORCID ID:0000-0003-4022-7552
e-mail: camponotus85@gmail.com ORCID ID:0000-0002-1864-5670
e-mail: lenatalya58@gmail.com ORCID ID: 0009-0009-9793-1509
e-mail: mahliyomusaeva89@gmail.com ORCID ID: 0000-0002-9105-2812
e-mail: nazarov.shoxruz@gmail.com ORCID ID: 0000-0002-9256-7885

*Corresponding author E-mail: dilshod.musaev.86@mail.ru

ABSTRACT: The article presents the first records of *Deraeocoris ruber* (Linnaeus, 1758) and *Deraeocoris rutilus* (Herrich-Schäffer, 1838) from Uzbekistan. These species were discovered in the mountainous regions of Uzbekistan, in the Tien Shan and Pamir-Alay mountain ranges. These records expand the known distributions of both species significantly towards Central Asia.

KEYWORDS: Heteroptera, Miridae, *Deraeocoris,* first records, Uzbekistan.

INTRODUCTION

The family Miridae Hahn, 1833 includes 1,538 genera and 11,101 species distributed across eight subfamilies (Bryocorinae, Cylapinae, Deraeocorinae, Mirinae, Orthotylinae, Phylinae, Psallopinae, and Isometopinae) worldwide (Schuh, 1995; Cassis & Schuh, 2012; Henry, 2017). In the Palearctic Region, this family encompasses 397 genera and 2808 species. In the insect fauna of Uzbekistan, a total of 774 Heteroptera species have been recorded, classified into 35 families. Among these, the largest family is Mir-

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idae, which comprises 224 documented species (Aukema, 2018).

The subfamily Deraeocorinae consists of approximately 800 species across 120 genera globally (Schuh & Weirauch, 2020), with 117 species from 18 genera recorded in the Palearctic Region (Aukema, 2018). Currently, five species of the genus *Deraeocoris* Kirschbaum, 1856, have been identified in Uzbekistan: *D. pilipes, D. punctulatus, D. serenus, D. ventralis*, and *D. zarudnyi* (Popov, 1965; Aukema, 2018). Recent studies of the bug fauna in Uzbekistan have also identified new species, including *Halyomorpha halys, Creontiades pallidus, Zelus renardii, Eurystylus bellevoyei*, and *Corythucha ciliata* (Grebennikov & Makhanov, 2019; Musaev et al., 2023 a,b).

We report two newly recorded species in Uzbekistan: *Deraeocoris rutilus*, collected from the mountainous regions of Surkhandarya, Jizzakh, and Tashkent provinces, and *Deraeocoris ruber*, collected from the mountainous areas of Tashkent province.

MATERIAL AND METHODS

Scientific research was conducted in 2023–2024 in the Uzbek part of the Tien Shan and Pamir mountain systems.

The species *Deraeocoris rutilus* was found at three coordinate points within the studied areas, whereas *Deraeocoris ruber* was recorded at only one location (Figure 1). The collection, storage, and preparation of bug specimens were carried out according to the methods of Golub (2012). Species identification, as well as the study of their bioecological characteristics and distribution, were based on the data from Kiritchenko (1951), Kerzhner (1997), and Popov (1965).

A 34–40 cm diameter entomological net was used for collection.

For photographic documentation of the bug specimens, a Sony Alpha macro 2.8/30 camera, a SMZ-161-TL microscope, and a Xiaomi 12x smartphone were employed.

Figure 1. Collection points of insects on the map

RESULTS

Order HEMIPTERA Linnaeus, 1758
Suborder HETEROPTERA Latreille, 1810
Infraorder CIMICOMORPHA Leston, Pendergrast & Southwood, 1954
Family MIRIDAE Hahn, 1833
Subfamily DERAEOCORINAE Douglas & Scott, 1865
Tribe DERAEOCORINI Douglas & Scott, 1865
Genus *Deraeocoris* Kirschbaum, 1856
Subgenus *Deraeocoris* Kirschbaum, 1856
Deraeocoris rutilus (Herrich-Schäffer, 1839) (Figure 2).

Material examined: Uzbekistan, Surkhandaryo region, Sherabad district, *Surkhan State Nature Reserve (*1739 m*)*, 37.859363 N, 66.634947 E, 06.28.2023, D. Musaev leg., 1♀, 1♂; Jizzakh region, Forish district, *Nurata Reserve (*1045 m*)*, 40.517241 N, 66.749535 E, 07.04.2024, Sh. Nazarov leg., 1♀. Tashkent region, Bo stonliq district, Gazalkent sity, *Oq rest area (*1140 m*)*, 41.676750 N, 69.797305 E, 12.06.2024, S. Kimyonazarov leg. (*Malus* sp.), 1♂.

There are no available literature data on the distribution of *Deraeocoris rutilus* in Central Asian countries. This species was first recorded in 1996 in the northern Gilan Province of Iran (Linnavuori, 2007). Numerous scientific articles have been published on its distribution in Turkey (Önder, 1976; Çerçi & Koçak, 2016). This bug is distinguished from other species in the same genus by its black head, pronotum, and scutellum. Its legs are also black, with two white rings on the tibia. The body length is 7-8 mm for males and 6.7-7.3 mm for females (Wagner & Weber, 1964).

General distribution: Europe: Albania, Bosnia Hercegovina, Bulgaria, Crete, Croatia, European Türkiye, Greece, Hungary, Italy, Kosovo, Macedonia, Montenegro, Romania, Russia (ST: Caucasus), Serbia, Slovakia, Slovenia, Ukraine. **Asia:** Asian Türkiye, Azerbaijan, Cyprus, Georgia, Iran, Iraq, Israel, Jordan, Lebanon, Syria (Aukema, 2018).

Figure 2. Specimen of *Deraeocoris rutilus* (Herrich-Schäffer, 1839), Tashkent region, Gazalkent sity, *Oq tosh area,* 12.06.2024, (Photo. S. Kimyonazarov).

Material examined: Uzbekistan, Tashkent region, Bo'stanliq district, *Chimgan park (*1158 m*)*, 41.525067 N, 70.033811 E, 26.05.2023, 2♀, 1♂, D. Musaev leg. **Distribution in Uzbekistan:** Photographs taken by researcher Bobur Karimov from the Institute of Botany, Academy of Sciences of Uzbekistan, on July 12, 2023, in the Ugam-Chatkal mountains, have been uploaded to the iNaturalist database (Karimov, 2023) (Figure 3).

General distribution: Europe: Albania, Andorra, Austria, Belgium, Bosnia Hercegovina, Bulgaria, Byelorussia, Crete, Croatia, Czech Republic, Denmark, Estonia, European Türkiye, Finland, France, Great Britain, Germany, Greece, Hungary, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Moldavia, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russia (CT NT ST), Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine. North Africa: Algeria, Morocco. Asia: Asian Türkiye, Azerbaijan, Georgia, Iran. EL (introduced): N America, Brazil (Aukema, 2018).

Figure 3. Specimen of *Deraeocoris ruber* (Linnaeus, 1758), Tashkent region, Bo'stanliq district, *Ugam-Chatqal mountians,* 12.07.2023, (Photo. B. Karimov).

CONCLUSION

The first records of two little-known species of Heteroptera in Uzbekistan are a significant contribution to the study of the suborder's biodiversity in Uzbekistan. The data shown in this article significantly supplement the information on their distribution. In this study, both species recorted for the first time from Uzbekistan appear to have a wide distribution in Europe while in Asia they have a limited distribution including a few countries in the Middle East and Transcaucasia. Their recording from Uzbekistan indicates that the species has expended its distribution towards Central Asia.

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AUTHOR GUIDELINES

Aims & Scope

The *Journal of the Heteroptera of Turkey* is a biannual peer reviewed international journal that publishes original articles, review articles, and short communication on all aspects of Heteroptera.

The *Journal of the Heteroptera of Turkey* publishes qualified research articles on the systematics, taxonomy, faunistical and ecology of heteroptera suborder. The topic of the research may include a wide range of heteropteran fields. Detailed studies on systematics, morphology, ecology, and phenology of heteroptera, and the biological, ecological, and faunistic formation of heteroptera taxons.

In this Journal full-papers and short communications containing original researches on any aspect of heteropteran in palaearctic region and Turkey will be considered as publication.

The *Journal of the Heteroptera of Turkey* welcomes review articles in the field of heteropteran.

The *Journal of the Heteroptera of Turkey* also published short notes on heteropteran topics. Information of the heteropteran specialists and book reviews will also be published.

We would like to make an open invitation to all potential contributors. We have a fast publishing process to process and evaluate.

Taxonomic revisions and descriptions of individual species will be accepted especially if additional information is included on habitat preferences, behavior, phenology etc. Descriptions of single specimens are discouraged.

For submitted article there are restrictions on the subject, author, geographic area, and so on of any submission (palaearctic only). For our journal mission all fields of heteroptera studies are suitable.

All papers being peer-reviewed by two referees, and under rapid publication process.

Preparation of Manuscript

All manuscripts should be written in the Turkish or English languages to be published only in the Journal of the Heteroptera and should be prepared with Microsoft Word.

Manuscripts should be written on A4 (21 cm x 29.7 cm) paper with margins of at least 2 cm in width.

All pages should be numbered consecutively. Manuscripts should be organized in the following order: Title, abstract, brief introduction, materials and methods, results, discussion, acknowledgments, references, tables and figure legends.

Parts of the Manuscript should be:

Arrange manuscripts in this order: title; name(s), address(es) and e-mail address(es) of the corresponding author(s) who will receive and approve the page proofs (research articles only); keywords; text; acknowledgments; references; tables and figure legends.

Title: The title of the manuscript should be informative and clear, not exceed 15-20 words. Just under the title full name(s) of author(s); (surname(s) in capital letters; full address(es); e-mail address(es); if available, ORCID numbers for all authors, Corresponding Author contact information should be give (each on a separate line).

Abstract: The abstract should not exceed 250-300 words (maximum), should be one paragraph.

Keywords: For subject indexing, up to 6 topical keywords in English are required (for Turkish articles).

Text: Introduction, Materials and Methods, Results, Conclusion and Discussion, Acknowledgments, References, Figure and table legends.

Use italics for Scientific names of genera, species, and subspecific taxa.
Do not use italics for abbreviations such as “spp.”, “sp.”, “ssp.”, ”var.”, ”gen.nov.”, “sp.n.”, “ssp.nov.”, “stat.n.”, “comb.n.”, “s.l.”, “s. str.”, “et al.”, and names of taxa of rank higher than genus.
For faunistic research follow this order: Taxon name, Material examined, Habitat, Host plant(s), Distribution. Example:
Miridae Hahn, 1831
Deraeocoris rutilus (Herrich-Schaeffer, 1838)
Habitat: The specimens belonging to *D. rutilus* (H.,-S., 1838) were found on *Carduus pycnocephalus* subsp. *albidus* (Bieb) Kazmi.
Materials examined: 1 male, 24.6.1996 (Loc. 1), 1 female, 24.6.1996 (Loc.6).

Distribution in Turkey: The Aegean, the Marmara, and the Anatolia regions (18,10,8,13,29).
Distribution in the world: Israel, Sardinia, Syria, Cyprus, Poland, the Balkans, Russia, and Turkey (18,25).

References: References should be prepared according to "*The Guidelines to Authors*".

The complete reference list should appear alphabetically by name at the end of the paper. A sample of the most common entries in reference lists appears below. Please note that a DOI should be provided for all references where available.

References must be cited in the text as (Dursun, 2013), Fent & Dursun (2005) or Fent et al. (1997), or in a parenthesis (Dursun, 2013; Fent & Dursun, 2005; or Fent et al. ,1997).

Journal article: Abbreviate names of periodicals basically according to the World List of Scientific Periodicals, 4th Edition, Butterworths, London, 1964–1965. (If you are not certain about the correct abbreviation, give the journal's name in full).

Fent, M., Kment, P., Elipek-Çamur, B., Kırgız, T., 2011, Annotated catalogue of Enicocephalomorpha, Dipsocoromorpha, Nepomorpha, Gerromorpha and Leptopodomorpha (Hemiptera: Heteroptera) of Turkey with new records, *Zootaxa*, 2856:1-84.

Books: Alexi Popov, A., Grozeva, S., Simov,N., Tasheva, E., 2013, *Advances in Hemipterology*, PenSoft Publishers Ltd, 377 pp., Sofia, Bulgaria.

Article/Chapter in Book: Kerzhner, I. M., Jaczewski, T. L.,1964, *Order Hemiptera (Heteroptera) 851–1118pp. I*n: *Keys to the insects of the European USSR 1. (Ed. G. Y. Bei-Bienko).* Nauka, Moskva & Leningrad [in Russian; English translation, Israel Program for Scientific Translations, Jerusalem, 1967]. 1214 pp.

No Author Given: (USDA) U.S. Department of Agriculture. 2001. Title. USDA, Beltsville, MD. (IRRI) International Rice Research Institute. 2001. Title. IRRI, City, State or Country.

Proceedings: Šeat, J., Kaur, H., Gallé, R., Torma, A. 2018, The role of road verges as secoundary linear habitats for Forest steppe Heteroptera, *8th European Hemiptera Congress*, 24-29 Jun 2018, Zawiercie, Poland. Book of Abstracts, 61 p.

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Özsaraç, Ö., 2004, Çiçekdağı (Kırşehir) Heteropterleri, Basılmamış Doktora Tezi, Gazi Üniversitesi Fen Bilimleri Enstitüsü, Ankara, 225 s.

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Using the DOI (Digital Object Identifier) Number: Nestel D., Papadopoulos N. T. & Miranda Chueca M. A. (2008). Current advances in the study of the ecology of fruit flies from Europe, Africa and the Middle East. *Journal of Applied Entomology*, DOI: 10.1111/j.1439-0418.2008.01378.x

Please note on the illustrations, figure, table, and photographs legends: Illustrations should be arranged into blocks or plates by the author(s). Figures should be provided electronically in either JPG or TIFF format. JPG images should be the highest resolution possible. TIFF images should be at 300 dpi resolution.

Morphological illustrations (if not schematic) and **photographs/** electron microscope micrographs should include scale bars. Photographs and electron microscope micrographs must be in JPEG file format (300 dpi).

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Tables should be numbered consecutively and include headings and explanations. References in the text to illustrations (schematic, photographs) and tables into parenthesis: e.g.(Fig.1) (Figs.1–4) (Table 1.) (Table 1., Figs.1-4). Morphological illustrations should be provided with scale bars.

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A holotype should always be designated for each newly described species-level taxon and at least holotypes should be deposited in public collections that provide long-term care and access for study (note that such deposition is mandatory for neotypes). For this reason, two particular recommendations (73A and 16C) should be observed in JHT.

In the Abstract must be listed new combinations, new status, new taxa, new synonyms, etc. in. The list of synonymized names must indicate their disposition. For newly should be described taxa included for all newly synonymized or combined names. Use “sp. n.”, “gen. n.” etc.. **Important note:** Descriptions based on single specimens are discouraged.

The standard order of sections for description a species is: “Diagnosis”, “Description”, “Material”, “Type locality”, “Etymology”, “Distribution”, “Biology”, and other comments if appropriate. Author(s) of species name must be provided when the scientific name of any animal species is first mentioned. (The year of publication is not compulsory. ıf you give it, then provide a full reference of this in the reference list.)

It is the *author’s responsibility* to know the group, both material and literature, well enough (preferably on a worldwide basis) to be able to ensure that all relevant taxa were taken into account and that any new taxa proposed have not already been described from elsewhere.

Accepted manuscripts are published online and in two issues at the end of May and December.