

New records of Pentatomidae (Hemiptera: Heteroptera) for the fauna of Kosovo

Devrim BAYMAK¹ Suat KIYAK²

¹National Institute of Public Health of Kosova, 10000 Nëna Tereze, Pristina, KOSOVA

²Gazi University, Faculty of Arts and Sciences, Department of Biology, 06500 Teknikokullar, Ankara, TURKEY

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

ABSTRACT: The samples in this study, in which 6 new species from the Pentatomidae (Hemiptera: Heteroptera) family were recorded, were collected in several field studies conducted in different provinces of Kosovo in 2011-2012.

These newly recorded species for the fauna of Kosovo are: *Carpocoris mediterraneus* (Tamanini, 1958) *Codophila varia* (Fabricius 1787) *Anthemina varicornis* (Jakovlev, 1874) *Eurydema ventralis* Kolenati 1846 *Ancyrosoma leucogrammes* (Gmelin 1790) *Tholagmus flavolineatus* (Fabricius 1798).

Also the distribution of each species were showed on the map.

KEYWORDS: Heteroptera, fauna, Kosovo, Pentatomidae, new records.

To cite this article: Baymak, D., Kiyak, S., 2021, New records of Pentatomidae (Hemiptera: Heteroptera) for the fauna of Kosovo, *J.Het.Turk.*, 3 (1):76-80

DOI:10.5281/zenodo.4841107

To link to this article: <https://www.j-ht.org/wp-content/uploads/2021/05/V31-A8.pdf>

Received: Feb 2, 2021; **Revised:** Apr 20, 2021; **Accepted:** Apr, 21, 2021; **Published online:** May 31, 2021

INTRODUCTION

Suborder Heteroptera (Hemiptera) are represented by 9365 species and 246 subspecies belong to 1632 genera in the Palearctic region (Aukema et al., 2013).

According to Rieder (2006), "the family Pentatomidae is the largest in the Pentatomoidea, presently containing over 4700 species in nearly 900 genera. Its members occur worldwide, and are especially diverse in both Old World and New World tropics." and "numbers of

Palaeartic Pentatomidae (Heteroptera) are 219 genera, 841 species and 19 subspecies".

The known fauna of Heteroptera species in Kosovo is usually based on several studies on 19 and 20-century studies, and we have given the literature information about these studies in our previously Baymak & Kiyak (2019- 2020) studies.

MATERIAL AND METHODS

A total of 58 adult specimens of six species were collected from 12 locations

of Kosovo In July and August 2011-2012. (Figure 1 and Table 1).

The specimens were collected by insect trap and killed in 70% alcohol jars and were prepared based on technical and standards of data collection of the zoology museum.

The samples were determined using identification keys by Stichel (1957-1962) and Bei-Bienko (1964).

In Table 2 was given the provinces of Kosovo where new faunistic records of six species belonging to Pentatomidae collected and recorded. (Table 2).

The distribution of the species is marked on the map (Figure 1). All samples are deposited in the collection of the Zoological Museum of Gazi University (ZMGU), Ankara, Turkey.

RESULTS

New recorded data on Heteroptera fauna of Kosovo are as follows:

Family: Pentatomidae Leach, 1815

Genus: *Carpocoris* Kolenati, 1846

Carpocoris mediterraneus Tamanini, 1958

Material examined:

Lok. D1, Prizren (Lokvica) 42°10'6.N, 20°47'46.E, 700-900 m, 21.07.2011; 6♀♀, 5♂♂;

Lok. D3, Prizren (Sredska) 42°10'30.N, 20°51'21.E, 750-850 m, 24.07.2012; 1♀;

Lok. D2, Prizren (Virmica) 42°9'55.N, 20°33'45.E, 270-320 m, 04.07.2012; 17♀♀, 3♂♂.

Genus: *Codophila* Mulsant & Rey, 1866

Codophila varia (Fabricius, 1787)

Material examined:

Lok. D5, Gjakova (Radonic) 42°28'7.N 20°25'32.E, 450-500 m, 29.07.2012; 1♂;

Lok. D2, Prizren (Virmica) 42°9'55.N, 20°33'45.E, 270-320 m, 04.07.2012; 1♀;

Lok. D4, Prizren (Pousko) 42°9'13.N 20°47'28.E, 900-1200 m, 22.07.2012; 1♀.

Genus: *Antheminia* Mulsant & Rey, 1866

Antheminia varicornis (Jakovlev, 1874)

Material examined:

Lok. D7, Prizren (Prevalac) 42°9'42.N 20°54'42.E, 1200-1500 m, 24.07.2012; 3♀♀;

Lok. D6, Prizren (Musnikova) 42°10'36.N 20°54'31.E, 950-1000 m, 24.07.2012; 1♀;

Lok. D8, Dragas (Brod) 42°0'2.N 20°41'28.E, 1000-15000 m, 30.07.2012; 1♀.

Genus: *Eurydema* Laporte 1833

Eurydema ventralis Kolenati, 1846

Material examined:

Lok. D8, Dragas (Brod) 42°0'2.N 20°41'28.E, 1000-15000 m, 30.07.2012; 1♀;

Lok. D4, Prizren (Pousko) 42°9'13.N 20°47'28.E, 900-1200 m, 22.07.2012; 4♀♀;

Lok. D9, Pristina (Germia) 42°40'3.N 21°13'38.E 700-1000 m, 22.07.2012; 1♀.

Genus: *Ancyrosoma* Amyot & Serville, 1843

Ancyrosoma leucogrammes (Gmelin, 1790)

Material examined:

Lok. D9, Pristina (Germia) 42°40'3.N 21°13'38.E m, 700-1000 m 22.07.2012; 2♀♀, 4♂♂;

Lok. D10, Stripce 42°15'57.N 21°6'21.E 650-750 m, 28.07.2012; 1♀;

Lok. D5, Gjakova (Radonic) 42°28'7.N 20°25'E 450-500 m, 29.07.2012; 1♀;

Lok. D11, Shtime (Belaj) 42°26'14.N 21°1'23.E 600-650 m, 25.07.2012; 1♀;

Lok. D12, Suvareka 42°22'58.N 20°52'2.E 600-650 m, 27.08.2012; 2♀♀.

Genus: *Tholagmus* Stål, 1860

Tholagmus flavolineatus (Fabricius, 1798)

Material examined:

Lok. D4, Prizren (Pousko) 42°9'13.N 20°47'28.E 900-1200 m, 22.07.2012; 3♀♀.



Figure 1. Study area and localities Pentatomidae (D1-D12) at the Republic of Kosovo

Table 1. Sampling localities of Heteroptera specimens from Kosovo. Geographical coordinates, sampling date.

Loc.no:	Province	Cordinates	Altitude (m)	Sampling Date
D1	Prizren (Lokvica)	42°10'6.N 20°47'46.E	700-900	21.07.2011
D2	Prizren (Virmica)	42° 9'55.N 20°33'45.E	270-320	04.07.2012
D3	Prizren (Sredska)	42°10'30.N 20°51'21.E	750-850	24.07.2012
D4	Prizren (Pousko)	42° 9'13.N 20°47'28.E	900-1200	22.07.2012
D5	Gjakova (Radonic)	42°28'7.N 20°25'32.E	450-500	29.07.2012
D6	Prizren (Musnikova)	42°10'36.N 20°54'31.E	950-1000	24.07.2012
D7	Prizren (Prevalac)	42° 9'42.N 20°54'42.E	1200-1500	24.07.2012
D8	Dragas (Brod)	42° 0'2.03N 20°41'28.E	1000-1500	30.07.2012
D9	Pristina (Germia)	42°40'3.N 21°13'38.E	700-1000	22.07.2012
D10	Stripce	42°15'57.N 21° 6'21.E	650-750	28.07.2012
D11	Sthime (Belaj)	42°26'14.N 21° 1'23.E	600-650	25.07.2012
D12	Suvareka	42°22'58.N 20°52'2.E	600-650	27.08.2012

Table 2. Heteropteran species recorded from Kosovo provinces.

Province	The name of Species
Prizren (Lokvica)	<i>Carpocoris mediterraneus</i> (Tamanini, 1958)
Prizren (Virmica)	<i>Codophila varia</i> (Fabricius 1787) <i>Carpocoris mediterraneus</i> (Tamanini, 1958)
Prizren (Sredska)	<i>Carpocoris mediterraneus</i> (Tamanini, 1958)
Prizren (Lokvica)	<i>Codophila varia</i> (Fabricius 1787) <i>Eurydema ventralis</i> Kolenati 1846 <i>Tholagmus flavolineatus</i> (Fabricius 1798)
Gjakova (Radonic)	<i>Codophila varia</i> (Fabricius 1787) <i>Ancyrosoma leucogrammes</i> (Gmelin 1790)
Prizren (Musnikova)	<i>Anthemina varicornis</i> (Jakovlev, 1874)
Prizren (Prevalac)	<i>Anthemina varicornis</i> (Jakovlev, 1874)
Dragas (Brod)	<i>Eurydema ventralis</i> Kolenati 1846 <i>Anthemina varicornis</i> (Jakovlev, 1874)
Pristina (Germia)	<i>Eurydema ventralis</i> Kolenati 1846 <i>Ancyrosoma leucogrammes</i> (Gmelin 1790)
Stripce	<i>Eurydema ventralis</i> Kolenati 1846 <i>Ancyrosoma leucogrammes</i> (Gmelin 1790)
Sthime (Belaj)	<i>Ancyrosoma leucogrammes</i> (Gmelin 1790)
Suvareka	<i>Ancyrosoma leucogrammes</i> (Gmelin 1790)

CONCLUSION

In this study, 58 adult specimens were collected belonging to Pentatomidae (Hemiptera: Heteroptera).

These are identified as six species of *Carpocoris mediterraneus* (Tamanini, 1958), *Codophila varia* (Fabricius, 1787), *Anthemina varicornis* (Jakovlev, 1874), *Eurydema ventralis* Kolenati, 1846, *Ancyrosoma leucogrammes* (Gmelin 1790) and *Tholagmus flavolineatus* (Fabricius 1798) new records for the Heteroptera fauna of Kosovo. These species were recorded from follows Kosovo provinces: Prizren, Pristina, Shtime, Gjakova, Strpce Suvareka for the first time (Table.2)

A total of 228 Heteroptera species have been recorded as a result of the examination of previous studies in Kosovo (Baymak & Kiyak, 2020). With this 6 new records published yet, the number of species belonging to the fauna of Heteroptera in Kosovo reached 234 species.

REFERENCES

- Baymak D. and Kiyak S., 2019, Six new records for the Heteroptera (Hemiptera) fauna of Kosovo, *J. Het. Turk.*, 1(1-2),:20-24pp.
- Baymak D. and Kiyak S., 2020, Seven new records for the Heteroptera (Hemiptera) fauna of Kosovo, *J. Het. Turk.*, 2(1):3-8pp
- Rider, D. A., 2006, *Family Pentatomidae*. Pp. 233-402, in: Aukema, B. and C. Rieger (eds.), *Catalogue of the Heteroptera of the Palaearctic Region*. Vol. 5. The Netherlands Entomological Society, Amsterdam.
- Aukema, B., Rieger, C., Rabitsch, W., 2013, *Catalogue of the Heteroptera of the Palaearctic Region*. Vol. 6. Supplement. Netherlands Entomological Society, Wageningen, xxiii + 653 pp.
- Bei-Bienko, G. Ya., 1964, *Hemiptera in Keys to the Insects of the European Ussr*, Academy of Sciences of the USSR. Zoological Institute Moskova, 1: 852-1118.
- Stichel, W., 1957-1962, *IIIustrierte Bestimmungstabellen der Wanzen II. Europa (Hemiptera-Heteroptera Europae)*, Hermsdorf, Berlin, 4: 1-830.