

Species Composition of Chortobiont Beetles (*Coleoptera: Lycidae, Lampyridae, Cantharidae, Oedemeridae*) Less Studied In Azerbaijan

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ABSTRACT

The paper contains information about hortobiont beetle species from families Lycidae, Lampyridae, Cantharidae and Oedemeridae less studied in Azerbaijan. Check list of species distributed in Azerbaijan is presented basing on own materials and literature data. Materials were collected in the Greater Casucasus, the Kur River lowland, Lankaran and Middle Araz (Nakhchivan) natural regions and was recorded 1 species from Lycidae, 2 species from Lampyridae, 4 species from Cantharidae and 4 species from Oedemeridae families. From them *Oedemera virescens* (Linnaeus, 1767), *Cantharis rufâ* Linnaeus, 1758, *Cantharis melaspis* Chevrolat, 1854, *Cantharis melaspoides* Wittmer, 1971 and *Metacantharis clypeata* Illiger, 1798 are new to Azerbaijan fauna.

Key words: *Lycidae, Lampyridae, Cantharidae, Oedemeridae*, fauna, hortobiont

Azərbaycan'da Az Çalışılmış Hortobiont Böcek Gruplarının (*Coleoptera: Lycidae, Lampyridae, Cantharidae, Oedemeridae*) Tür Kompozisyonları

Eser Bilgisi:

Araştırma makalesi

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ÖZET

Bu çalışmada Azerbaycan'da az çalışılmış Lycidae, Lampyridae, Cantharidae ve Oedemeridae ailelerine ait olan hortobiont böcekler konusunda bilgi verilmiştir. Azerbaycan'da kayda alınmış bu gruplara ait böceklerin listesi hem literatür bilgileri hem de şahsi materyaller doğrultusunda sunulmuştur. Araştırma verileri Azerbaycan'ın Büyük Kafkas, Küçük Kafkas, Nahçıvan, Lenkeran doğal bölgelerinde çeşitli biyotoplardan toplanmış ve Lycidae ailesine ait 1 tür, Lampyridae ailesine ait 2 tür, Cantharidae ailesine ait 7 tür ve Oedemeridae ailesine ait 4 tür böcek kayda alınmıştır. Bunlardan *Oedemera virescens* (Linnaeus, 1767), *Cantharis rufâ* Linnaeus, 1758, *Cantharis melaspis* Chevrolat, 1854, *Cantharis melaspoides* Wittmer, 1971 ve *Metacantharis clypeata* Illiger, 1798 Azerbaycan faunası için ilk sayılmaktadırlar.

Anahtar kelimeler: *Lycidae, Lampyridae, Cantharidae, Oedemeridae* fauna, hortobiont

INTRODUCTION

Despite the fact that researches on the insect fauna of Azerbaijan have been carried

out from the 19th century, there are some groups of insects that have not been studied until now. These are Oedemeridae, Lycidae, Lampyridae, Cantharidae families.

There are about 4,000 species of soldier beetles (Cantharidae) and 1500 species of false blister beetles (Oedemeridae) distributed in the world. In the book "Animal world of Azerbaijan" (1996) 3 species of the soldier beetles (*Cantharis obscura* L., *C.livida* L., *C.fusca* L.) and 1 species of false blister beetles *Oedemera femorata* (it is cited as *Oedemera flavescens* in the book) are cited as the most common species in Azerbaijan entomofauna. In the territory of the former USSR there have been recorded 60 species of Oedemeridae (50 of which were registered in the territory of Russia). About 600 species of this family widely distributed in Palearctica, Nearctica, Neotropica. However these beetles are common in temperate zones. N.G. Samedov the expert in Azerbaijan Coleoptera (1963) stated that 64 species of the soldier beetles are recorded in Caucasus and 25 in Azerbaijan, of which 5 - are considered as pests. During recent years the Cantharidae collection in Azerbaijan were carried out by foreign scientists only. Russian scientist S.Kazantsev (2004) has recorded 17 species of Cantharidae in Azerbaijan according to his collections carried out in 80-90s of the 20th century.

The first records about false blister beetles in Azerbaijan belong to P.A.Zaytsev (1941). He has found *Dolichopyga sieversi* in Nakhchivan which was later renamed by V.Svihla (2006) as *Chitona fucata tristis* (Faldermann, 1837) after revision of genus *Chitona*. V.Svihla recorded in Azerbaijan 3 species from genus *Chitona* and 9 species from genus *Oedemera*.

Our researches have carried out in the Greater Casucasus, the Kur River lowland, Lankaran and Middle Araz (Nakhchivan)

natural regions and there were recorded 4 species of the Oedemeridae and 7 species of the Cantharoidea superfamily.

The present article contains also the complete systematic list of the taxa of the Oedemeridae and Cantharoidea fauna in Azerbaijan, which has been created on the basis of the work by S.V.Kazantsev, V.Svihla.

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MATERIAL AND METHODS

All materials were collected on the flowers, trees, branches and bushes using insect sweep nets, beating sheet (Fasulati, 1971). In the Greater Caucasus natural region the materials collected in Sheki, Baku, Barda, Siazan, Guba districts, in the Middle Araz (Nakhchivan) natural region in Nakhchivan, in the Lankaran natural region in Lankaran AR, and in the Kur River lowland in Kazakh, Aghstafa districts different landscapes, different biotops (forest, desert, foothills, high mountain meadows, etc.). collected and photographs taken. Collected insects were killed in ethyl asetat and supplied with private label. Species identification has been done according to identification keys (1948) and as well as internet sites: www.BioLib.cz.image., www.MacroID.ru. To confirm the species identification the Cantharidae material was sent to S.V.Kazantsev – the expert on soldier beetles for what we expresse to him great gratitude.

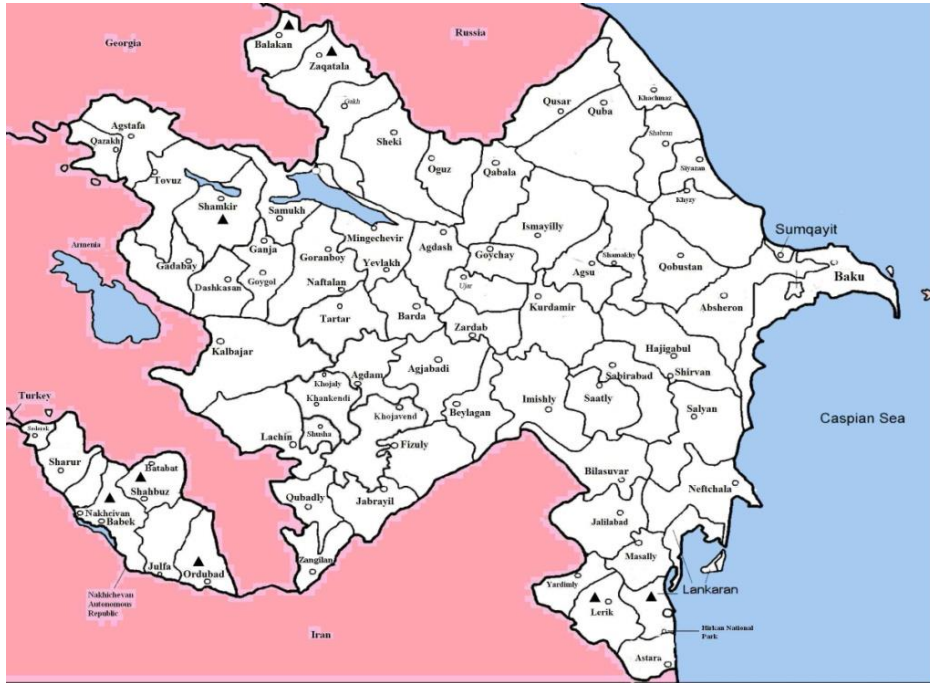


Figure 1 Collection sites

RESULTS AND DISCUSSION

Family *LYCIDAELAPORTE DE CASTELNAU*, 1840 - Net-winged beetles

1. Species *Erotides schneideri*, Kiesenwetter, 1877

Rare species found by us in May in the Lankaran district, on the motley grass. Body length 8 to 12 mm. Pronotum red-brown and longitudinally ribbed. Antennae 11 segmented, black, with lighter apex. Sexual dimorphism is expressed in smaller sizes of male compared with female. The species is met on flowers.

Distribution: Central Europe, Asia, Caucasus.

Family *LAMPYRIDAE*, LATREILLE, 1817 - Fireflies

2. Species *Lampyrus noctiluca*, Linnaeus, 1787

Males found by us in Zagatala district and females in the Zagatala district and in the Nakhchivan AR. The species is nocturnal. Length 1,2 to 1,8 sm. Females are wingless. The body of the males is cigar-shaped, the head is big and eyes are semispheric.

Distribution: Europe, Asia and North America.

3. Species *Luciola* sp.

Margins of pronotum not flattened and do not cover the head completely. Elytra and wings are developed in both male and female. We have recorded the species in the Nakhchivan AR.



Figure 2. *Luciola* sp.

Family **CANTHARIDAE**, IMHOFF, 1856
- Soldier beetles

4. Species ***Cantharis rufa*** Linnaeus, 1758

We have recorded this species in the Nakhchivan AR, Zagatala and Lankaran on the flowers for the first time. Body length 9 to 11 mm. Legs are dark brown, the body is orange. Adults are first seen in late spring or early summer.

Distribution: Most of Europe, Siberia, Turkey, Iran, Caucasus.

5. Species ***Cantharis livida*** Linnaeus, 1758

5 a. Subspecies ***Cantharis livida livida*** Linnaeus, 1758

5 b. Subspecies ***Cantharis livida rufipes*** Herbst, 1784

Body length 10 to 15 mm. Body flattened and long. Colour varies depending on subspecies. Elytra covering wings,

testaceous, black or dark brown (in *spp. rufipes*). Head, thorax, abdomen shiny testaceous. Antennae long, black with basal two or three segments testaceous. Legs testaceous, tarsi pale.

We have recorded it in May in the Balakan, Zagatala districts and Nakhchivan AR on the flowering hawthorn and dog rose bushes.

Distribution: Most of Europe, east Palearctica, North Africa, Caucasus.

6. ***Cantharis melaspis*** Chevrolat, 1854

Length 12 to 14 mm. Body flattened and long. Elytra reddish brown. Femur and tibiotarsus dark in apex. Prior to our study in Azerbaijan not registered by anyone. We have found it in the Botanical Garden in the Nakhichevan AR in June on the fruit tree blossoms.

Distribution: Iran, Turkey, Caucasus



Figure 3. *Cantharis melaspis* Chevrolat, 1854

7. *Cantharis melaspoides* Wittmer, 1971

Length 8 to 12 mm. Elytra light brown. Pronotum light with dark spot. Femur and tibiotarsus dark apically. We have found it for the first time in the village Shishtapa of the Shamkir district, on the flowering grasses in May.

Distribution: Central Asia, Turkey, Caucasus.

8. Species *Metacantharis clypeata* Illiger, 1798

Body length 8 to 10 mm. Elytra yellow. Thorax with dark spots. Prior to our study in Azerbaijan not registered by anyone. We have recorded it in Yune and July in the Shamkir district on flowering motley grass.

Distribution: Most of Europe, The European part of Russia, North Africa, Iran.

9. Species *Ragonycha fulva* Scopoli, 1763

Widely distributed and common throughout Azerbaijan. It was recorded by us in May, June and July in Balakan, Zagatala, Nakhchivan AR and Lankaran on flowering hawthorn and dog rose bushes. Body length 10 to 12 mm. Head orange. Antennae black, filiform. Elytra testaceous

and shiny with dark apices. Femora and tibiae orange, tarsi black. This is a very distinctive species; darkened elytral apices differ it from other species.

Distribution: Russia, Belarus, Lithuania, Ukraine, Georgia, North Africa, Iran.

10. *Ragonycha* sp.

Length 7 to 9 mm. Elytra light yellow. Head black, pronotum light with dark spot. We have found it around Azfilial in Lankaran district on flowering motley grass in April.

The check list of soldier beetles distributed in Azerbaijan is presented below:

Family *CANTHARIDAE* Imhoff, 1856

Subfamily *Cantharinae* Imhoff, 1856

Tribus *Cantharini* Imhoff, 1856

Genus *Boveycantharis* Wittmer, 1969

1. Species *B. finesta* Faldermann, 1835

2. Species *B. rufimana* Menetrez, 1838

Genus *Cantharis* Linnaeus, 1758

Subgenus *Cantharis* Linnaeus, 1758

3. **Species** *C.ciliceensis* Bourgeois, 1900

4. **Species** *C.livida* Linnaeus, 1758

5. **Species** *C.melaspis* Chevrolat, 1854

6. **Species** *C.melasoides* Wittmer, 1971

7. **Species** *C.rufa* Linnaeus, 1758

8. **Species** *C.terminata* Faldermann, 1835

Subgenus *Cyrtomoptila* Motschulsky, 1859

9. **Species** *C.pygmaea* Menetrez, 1832

Genus *Cordicantaris* Svihla, 1999

10. **Species** *C.cordicollis* Kuester, 1854

11. **Species** *C.talyschensis* Pic, 1900

Genus *Islamocantharis*
Wittmer&Magis,1978

12. **Species** *I.auroraensis* Kazantsev, 1989

Genus *Ragonycha* Eschscholtz, 1830

13. **Species** *R.fulva* Scopoli, 1763

14. **Species** *R.lencoranica* Kazantsev, 1992

15. **Species** *R.talyschensis* Khnozorjan, 1832

16. **Species** *R.vitticollis* Menetrez, 1832

17. **Species** *Ragonycha* sp.

Subfamily *Malthininae*
Kiesenwetter,1852

Tribus *Malthinini* Kiesenwetter,1852

Genus *Malthininus* Latreille,1806

Subgenus *Malthininus* Latreille,1806

18. **Species** *M.aliceae* Svihla,1990

19. **Species** *M.facialis* Thomson, 1864

20. **Species** *M.gibbiceps* Reitter, 1889

Family **OEDEMERIDAE LATREILLE,**
1810 – False blister beetles

Oedemera virescens (Linnaeus, 1767).
Length 8 to12. Body colour green, really dark blue or bronze. Hind femur of male thickened. Elytra not narrowed to the top. Body looks s parallel-sided and not so massive. *O.virescens* is a typical forest dweller. It is often met on large Asteraceae (Tshernyshev & Legalov, 2008). It is widespread transpaleartic species. Prior to our study it does not registered in Azerbaijan by anyone. We have recorded it in Guba, Siazan, Sheki, Zagatala, Balakan, Shamkir, Lankaran, Lerik districts.

Distribution: Europe, Turkey, Russia, Latvia, Georgia,

Oedemera (Oedemera)femorata (Scopoli, 1763)

Length 8 to10 mm. Elytra does not cover the abdomen fully. Hind femur of males strongly roundly inflated, fully dark. Species prefers steppe landscapes and met on the steppe grasses (Tshernyshev & Legalov, 2008). Prior to our researches it was recorded in Azerbaijan by V.Şvila (1999). We have recorded it Sheki, Zagatala, Balakan, Guba, Siazan, Lankaran and Nakhchivan AR on the steppe grasses.

Distribution: South Europe, Central Asia, Russia, Turkey, South Caucasus.



Figure 4. *Oedemera femorata* ♂ *Oedemera femorata* ♀

***Oedemera lateralis* Gebler, 1829**

Length 11 to 13 mm. Wide spread species. Body metallic green. Hide femur of the males roundly inflated. Elytra narrow to the apex. The edge of the abdomen is yellow in females. Meets on inflorescence of Asteraceae and umbrellae in the forest-steppe (Tshernyshev & Legalov, 2008). Prior to our researches it was recorded in Azerbaijan by V.Şvila (1999). We have found it in Zagatala, Balakan, Guba, Siazan and Nakhchivan AR.

Distribution: Europe, Russia, South Caucasus.

***Oedemera (Oedemera) podagrariae* (Linnaeus, 1767)**

Length 8 to 13 mm. Body colour light brown or yellow, antennae black. Hide femur of male are very inflated. Head, pronotum, hide arxa ətraflar black. Pronotum in female yellow, hide femur is not inflated. Adults occur from April to August. It has been indicated for Azerbaijan by V.Şvila (1999). We have found it in Shekui, Zagatala, Balakan, Siazan, Guba and Nakhchivan AR on the steppe grasses.

Distribution: Central Europe, Turkey, Russia, Turkmenistan, Caucasus.



Figure 5. *Oedemera (Oedemera) podagrariae* ♂



Oedemera (Oedemera) podagrariae ♀

The check list of false blister beetles is distributed in Azerbaijan is presented below:

Family OEDEMERIDAE Latreille, 1810

Subfamily Oedemerinae Latreille, 1810

Tribus Asclerini Gistel, 1848

Genus *Chitona* W. Schmidt, 1844

1. *Chitona fucata fucata* (Faldermann, 1837)
 2. *Chitona fucata tristis* (Faldermann, 1837)
 3. *Chitona ganglbaueri* Reitter, 1889
- Tribus** Oedemerini Latreille, 1810
Genus *Oedemera* Olivier, 1789
4. *Oedemera croceicollis* Gyllenhal, 1827
 5. *Oedemera lateralis* Gebler, 1829
 6. *Oedemera lurida lurida* (Marsham, 1802)
 7. *Oedemera vilis vilis* Roubal, 1917 spec.
 8. *Oedemera virescens virescens* (Linnaeus, 1767)
 9. *Oedemera rostralis rostralis* Reitter, 1885
 10. *Oedemera pthysica* (Scopoli, 1763)
 11. *Oedemera podagrariae podagrariae* (Linnaeus, 1767)
 12. *Oedemera podagrariae ventralis* Menetries, 1832
 13. *Oedemera femorata* (Scopoli, 1763)

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