

Eastern Zangezur economic districts Longhorn beetles (*Coleoptera*, *Cerambycidae*) of Karabakh

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Before the occupation, 53 of 280 species belonging to the fauna of longhorn beetles of Azerbaijan were recorded in the territory of Karabakh. These species belong to the following genera: *Aegomorphus*, *Agapanthia*, *Aseum*, *Cerambyx*, *Certallum*, *Chlorophorus*, *Dinoptera*, *Dorcadion*, *Echinocerus*, *Enoploderes*, *Gracilia*, *Hesperophanes*, *Isotomus*, *Judolia*, *Leiopus*, *Mallosia*, *Molorchus*, *Necydalis*, *Oberea*, *Pachytodes*, *Penichroa*, *Phymatodes*, *Phytoecia*, *Plagionotus*, *Prionus*, *Purpuricenus*, *Ropalopus*, *Rosalia*, *Rutpela*, *Saperda*, *Spondylis*, *Stenurella*, *Stictoleptura*, *Strangalia*, *Stromatium*, *Trichopherus*. Of these species, *Rosalia alpina* (Linnaeus, 1758), *Prionus asiaticus* Faldermann, 1837, *Necydalis (Necydalis) ulmi* Chevrolat, 1838, *Mallosia (Eumallosia) herminae* Reitter, 1890, *Cerambyx (Cerambyx) dux* (Faldermann, 1837), *C. (Cerambyx) cerdo acuminatus* Motschulsky, 1853 are few. *R. alpina* is included in the IUCN Red List and the Red Book of Azerbaijan under the VU category. Species of the genera *Purpuricenus*, *Cerambyx*, *Enoploderes*, *Molorchus*, *Necydalis*, *Prionus*, *Ropalopus*, *Rosalia*, *Saperda*, *Spondylis*, *Isotomus*, *Judolia*, *Leiopus*, *Pachytodes*, *Penichroa*, *Chlorophorus*, *Dinoptera*, *Stictoleptura*, *Aegomorphus*, *Gracilia*, *Aseum*, *Hesperophanes*, *Phymatodes*, *Rutpela*, *Stenurella*, *Strangalia* feed on the trunks of trees and shrubs, *Agapanthia*, *Certallum*, *Dorcadion*, *Echinocerus*, *Mallosia*, *Phytoecia* on herbaceous plants. Some species of *Oberea* and *Plagionotus* feed on the trunks of deciduous trees, and some on grasses. *Stromatium* and *Trichopherus* damage wooden structures. The liberation of the Karabakh lands from occupation opens up new prospects for Azerbaijani scientists to conduct research in these areas. The re-study of the entomofauna of Karabakh will create conditions for the discovery of rare and endangered species in this area.

Keywords: Fauna, longhorn beetles, species composition, Red Book, rare species, endangered species

INTRODUCTION

Located in the southeastern part of the Lesser Caucasus Karabakh, with its charming nature, occupies a key place among the charming places in Azerbaijan. The relief and climate of Karabakh determined the formation of rich fauna and flora here. Like the Lankaran and Nakhchivan regions of Azerbaijan, Karabakh has always attracted the attention of scientists and researchers. The existence of desert, semi-desert, steppe, dry steppe, mountain xerophyte, alpine, subalpine, low-mountain, plain landscapes created conditions for

the formation of a rich entomofauna, including rare and endangered species (Constructive geography of the Azerbaijan Republic, 1996). However, due to the fact that this rich territory was under Armenian occupation for a long time, Azerbaijani scientists could not conduct new scientific research. In the post-occupation period, the rich nature of Karabakh creates a reliable basis for active research and the discovery of new species.

The eggs and larvae of the longhorn beetles may not have suffered from the destruction that occurred during the Karabakh war, as they live a rather secretive life inside the trees. During the

new monitoring, it will be possible to record most of these insects again in the same habitats.

RESULTS AND DISCUSSION

The article is written on the basis of the materials of the entomological collection of the Institute of Zoology of the Ministry of Science

and Education of the Republic of Azerbaijan and the literary data of entomologists who conducted research in Karabakh in the pre-occupation period. Available information in this area is summarized. It has been established that 59 species of longhorn beetles inhabit the territory of Karabakh (Table).

Table. Species of longhorn beetles recorded on the territory of Karabakh

1	2
Tribes and species	Place of finding
PRIONINI Latreille, 1802	
<i>Prionus asiaticus</i> Faldermann, 1837	Tertter
ENOPOLODERINI Danilevsky in Althoff & Danilevsky, 1997	
<i>Enoploderes (Enoploderes) sanguineum</i> Faldermann, 1837	Kalbajar -Lachin
RHAMNUSIINI Danilevsky in Althoff & Danilevsky, 1997	
<i>Rhamnusium graecum</i> Schaufuss, 1862	Khojali, Khojavend, Khankendi, Shusha, Aghdere
RHAGIINI Kirby, 1837	
<i>Rhagium (Megarhagium) fasciculatum</i> Faldermann, 1837	Kalbajar -Lachin
<i>Dinoptera (Dinoptera) collaris</i> Linnaeus, 1758	Khojali, Khojavend, Khankendi, Shusha, Aghdere
<i>Cortoderaq pseudomophlus</i> Reitter, 1889	Khojali, Khojavend, Khankendi, Shusha, Aghdere
LEPTURINI Latreille, 1804	
<i>Vadonia unipunctata unipunctata</i> Fabricius, 1787	Khankendi, Shusha
<i>Judolia erratica erratica var. erythrura</i> (Küster, 1848)	Khankendi, Shusha
<i>Stictoleptura (Stictoleptura) cordigera cordigera</i> Fuessly, 1775	Khojali, Khojavend, Khankendi, Shusha, Aghdere
<i>Stictoleptura (Stictoleptura) scutellata</i> (Fabricius, 1781)	Khankendi
<i>Pachytodes erratica erratica var. erythrura</i> (Küster, 1848)	Khojali, Khojavend, Khankendi, Shusha, Lachin, Kalbajar
<i>Pachytodes erraticus erraticus</i> (Dalman, 1817)	Khojali, Khojavend, Khankendi, Shusha, Lachin, Kalbajar
<i>Leptura quadrifasciata</i> Linnaeus, 1758	Khojali, Khojavend, Khankendi, Shusha,
<i>Stenurella (Stenurella) melanura melanura</i> Linnaeus, 1758	Khojali, Khojavend, Khankendi, Shusha,
<i>Stenurella (Priscostenurella) bifasciata bifasciata</i> (O.F. Müller, 1776)	Khankendi
<i>S. (Nigrostenurella) nigra nigra</i> (Linnaeus, 1758)	Khojali, Khojavend, Khankendi, Shusha, Lachin,
<i>Strangalia attenuata</i> (Linnaeus, 1758)	Khankendi
<i>Rutpela maculata</i> (Poda von Neuhaus, 1761)	Khankendi
NECYDALINI Latreille, 1825	
<i>Necydalis (Necydalis) ulmi</i> Chevrolat, 1838	Khojali, Khojavend, Khankendi, Shusha, Aghdere
ASEMINI Thomson, 1860	
<i>Asemum striatum</i> (Linnaeus, 1758)	Khojali, Khojavend, Khankendi, Shusha, Aghdere
SPONDYLIDINI Audinet-Serville, 1832	
<i>Spondylis buprestoides</i> (Linnaeus, 1758)	Khojali, Khojavend, Khankendi, Shusha, Aghdere
HESPEROPHANINI Mulsant, 1839	
<i>Hesperophanes sericeus</i> (Fabricius, 1787)	Jabrayil
<i>Trichopherus holosericeus</i> (Rossi, 1790)	Kalbajar-Lachin, Xankendi
<i>Stromatium auratum</i> (Böber, 1793)	Tertter
CERAMBYCINI Latreille, 1804	
<i>Cerambyx (Cerambyx) cerdo acuminatus</i> Motschulsky, 1853	Aghdam, Lachin
<i>C. (Cerambyx) dux</i> (Faldermann, 1837)	Aghdam, Khankendi
<i>C. (C.) miles</i> (Bonelli, 1812)	Khojali, Khojavend, Khankendi, Shusha, Aghdere
COMPSOCERINI Thomson, 1864	
<i>Rosalia alpina</i> (Linnaeus, 1758)	Shusha
PURPURICENINI Thomson, 1864	
<i>Purpuricenus budensis</i> (Götz, 1783)	Askeran, Aghdere, Khankendi
<i>P. budensis budensis var. punctiger</i> Apfelbeck	Askeran

1	2
GRACILIINI Mulsant, 1839	
<i>Gracilia minuta</i> (Fabricius, 1781)	Khojali, Khojavend, Khankendi, Shusha, Aghdere
MOLORCHINI Mulsant, 1863	
<i>Molorchus (Molorchus) umbellatarum umbellatarum</i> (Schreber, 1759)	Khojali, Khojavend, Khankendi, Shusha, Aghdere
CERTALLINI Faimaire, 1854	
<i>Certallum ebulinum</i> (Linnaeus, 1767)	Aghdam
<i>C. ebulinum ruficolle</i> (Fabricius, 1781)	Aghdam
CALLIDIINI Kirby, 1837	
<i>Ropalopus (Ropalopus) clavipes</i> (Fabricius, 1775)	Khankendi
<i>Semanotus ruscicus ruscicus</i> Fabricius, 1776	Khojali, Khojavend, Khankendi, Shusha, Aghdere
<i>Phymatodes testaceus</i> (Linnaeus, 1758)	Ağdam
<i>Phymatodes (Phymatodes) lividus</i> Rossi, 1794	Khojali, Khojavend, Khankendi, Shusha, Aghdere
CLYTINI Mulsant, 1839	
<i>Plagionotus arcuatus</i> (Linnaeus, 1758)	Fizuli
<i>P. arcuatus lugubris</i> (Ménétriés, 1832)	Khankendi
<i>Echinocerus floralis floralis</i> (Pallas, 1773)	Fizuli
<i>Isotomus speciosus ssp. comptus</i> (Mannerheim, 1825)	Khankendi
<i>Chlorophorus varius varius</i> (O.F.Müller, 1766)	Shusha
<i>Ch. sartor</i> (O.F.Müller, 1766)	Shusha
<i>Xylotrechus (Xylotrechus) arvicola</i> (Olivier, 1795)	Shusha
DORCADIINI Latreille, 1825	
<i>D.(C.) shirvanicum azerbajdzhanicum</i> Plavilstshikov, 1937	Khojali, Khojavend, Khankendi, Shusha, Aghdere
<i>D.(C.) scabricolle corpulentum</i> Ménétriés, 1832	Shusha, Terter, Khankendi
<i>Dorcadion (Cribridorcadion) seminudum</i> Kraatz, 1873	Khojali, Khojavend, Khankendi, Shusha, Aghdere
<i>D. scabricolle var. lutescens</i> Kraatz, 1873	Terter
<i>D. sulcipenne caucasicum</i> Küster, 1847	Shusha
<i>D. shushense</i> Lazarev, 2010	Shusha
ACANTHODERINI Thomson, 1860	
<i>Aegomorphus clavipes</i> (Schrank, 1781)	Khojali, Khojavend, Khankendi, Shusha, Aghdere
ACANTHOCININI Blanchard, 1845	
<i>Leiopus nebulosus caucasicus</i> Ganglbauer, 1887	Khojali, Khojavend, Khankendi, Shusha, Aghdere
SAPERDINI Mulsant, 1839	
<i>Saperda (Compsidia) populnea</i> (Linnaeus, 1758)	Khojali, Khojavend, Khankendi, Shusha, Aghdere
<i>Saperda (Anaerea) carcharias</i> Linnaeus, 1758	Khojali, Khojavend, Khankendi, Shusha, Aghdere
<i>Oberea (Oberea) linearis</i> (Linnaeus, 1761)	Khojali, Khojavend, Khankendi, Shusha, Aghdere
<i>Mallosia (Eumallosia) herminae</i> Reitter, 1890	Khankendi
<i>Phytoecia (Paracoptosia) compacta</i> (Ménétriés, 1832)	Aghdam, Fizuli, Terter
<i>Phytoecia (Musaria) puncticollis puncticollis</i> Faldermann, 1837	Aghdam, Fizuli, Terter
AGAPANTHIINI Mulsant, 1839	
<i>Calamobius filum</i> Rossi, 1790	Khankendi, Shusha, Aghdere
<i>Agapanthia (Epoetes) cynarae cynarae</i> (Germar, 1817)	Khankendi, Shusha, Aghdere
<i>A. (E.) villosoviridescens</i> (De Geer, 1775)	Khankendi, Shusha, Aghdere

Images of most species of longhorn beetles are found on flowering plants, but they are divided into separate groups according to the feeding of larvae. Thus, species from 26 genera (*Purpuricenus*, *Cerambyx*, *Enoploderes*, *Molorchus*, *Necydalis*, *Prionus*, *Ropalopus*, *Rosalia*, *Saperda*, *Spondylis*, *Isotomus*, *Judolia*,

Leiopus, *Pachytodes*, *Penichroa*, *Chlorophorus*, *Dinoptera*, *Stictoleptura*, *Aegomorphus*, *Gracilia*, *Asemum*, *Hesperophanes*, the larvae of species belonging to the genera *Phymatodes*, *Rutpela*, *Stenurella*, *Strangalia*) feed on the trunks of forest and fruit trees and shrubs. Representatives of 6 genera (*Agapanthia*, *Certallum*, *Dorcadion*,

Echinocerus, *Mallosia*, *Phytoecia*) are herbivores both at the larval and adult stages. Some species of the genera *Oberea* and *Plagionotus* feed on the trunks of broad-leaved trees, while others feed on grasses. Representatives of the genera *Stromatium* and *Trichopherus* are considered technical pests and cause damage to wooden buildings and furniture. Among these species *Rosalia alpina* (Linnaeus, 1758), *Prionus asiaticus* Faldermann, 1837, *Necydalis (Necydalis) ulmi* Chevrolat, 1838, *Mallosia (Eumallosia) herminae* Reitter, 1890, *Cerambyx (Cerambyx) dux* (Faldermann, 1837), *C. (Cerambyx) cerdo acuminatus* Motschulsky, 1853 are rare. *R.alpina* is included in the World Red List, Appendix II of the Berne Convention of 1979 and I, II and III editions of the Red Book of Azerbaijan under the VU category (Fig. 1).



Fig. 1. *Rosalia alpina* (photo: N.Snegovaya)

The great capricorn beetle *C. (Cerambyx) cerdo acuminatus* is one of the greatest beetles in Azerbaijan (Fig. 2). Found on old oak trees.

The herbivorous longhorn beetle, which lives mainly in meadows and feeds on plant roots, was named the Shusha longhorn beetle (*Dorcadion shushense* Lazarev, 2010) since it was first recorded in Shusha in 1905 (Fig. 3).



Fig. 2. *Cerambyx cerdo acuminatus* (photo: I.Kerimova)



Fig. 3. *Dorcadion (Cribcadorcadion) shushense* (photo: M.Lazarev)

CONCLUSION

So, to date, 280 species of longhorn beetles have been registered in Azerbaijan (Samadov, 2010; Danilevsky, 2014), 59 of them were registered on the territory of Karabakh in the pre-occupation period. Of these, 3 species are found only in Terter, 23 species in Khojaly, Khojavend, Khankendi, Shusha and Aghdere, 4 species in Khankendi, Shusha, Aghdere, 2 species in Agdam, Fizuli, Terter, 8 species - only in Khankendi, 2 species in Kalbajar and Lachin, 1 species in Kalbajar, Lachin, Khankendi, 6 species only in Shusha, 2 species in Khankendi and Shusha, 1 species in Shusha, Tartar and Khankendi, 1 species only in Jabrayil, 2 species

only in Fizuli, 3 species only in Agdam, 1 species in Agdam and Lachin, 1 species in Agdam and Khankendi, 1 species recorded only in Askeran, 1 species recorded in Askeran, Aghdere and Khankendi.

The liberation of Karabakh from occupation opens up new prospects for research in these areas for Azerbaijani scientists. The re-study of the entomofauna of Karabakh will also allow monitoring of rare and endangered species in this area. These studies will also create conditions for the discovery of new species.

REFERENCES

- Constructive geography of the Azerbaijan Republic** (1996) Ed. by B.Budagov. Baku: Elm, **Volume I**: 265 p.
- Danilevsky M.L.** (2014) Longhorn beetles (*Coleoptera, Cerambycoidea*) of Russia and neighboring countries. M.: VSHK, **Part 1**: 522 p.
- Samadov N.Kh.** (2010) Longhorn beetles (*Coleoptera, Cerambycidae*) of Azerbaijan. Baku: Elm, 160 p.

Qarabağın uzunbiğ böcəkləri (*Coleoptera, Cerambycidae*)

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Azərbaycanın uzunbiğ böcəklər (*Cerambycidae*) faunasına aid olan 280 növün 53-ü işğalqədərki dövrdə Qarabağ ərazisində qeydə alınmışdır. Bu növlər içərisində *Rosalia alpina* (Linnaeus, 1758), *Prionus asiaticus* Faldermann, 1837, *Necydalis (Necydalis) ulmi* Chevrolat, 1838, *Mallosia (Eumallosia) herminae* Reitter, 1890, *Cerambyx (Cerambyx) dux* (Faldermann, 1837), *C. (Cerambyx) cerdo acuminatus* Motschulsky, 1853 azsaylı növlərdir. *Rosalia alpina* isə Ümumdünya Qırmızı Siyahısına və Azərbaycanın Qırmızı kitabına VU kateqoriyası ilə daxil edilmişdir. Uzunbiğ böcək cinslərindən *Purpuricenus*, *Cerambyx*, *Enoploderes*, *Molorchus*, *Necydalis*, *Prionus*, *Ropalopus*, *Rosalia*, *Saperda*, *Spondylis*, *Isotomus*, *Judolia*, *Leiopus*, *Pachytodes*, *Penichroa*, *Chlorophorus*, *Dinoptera*, *Stictoleptura*, *Aegomorphus*, *Gracilia*, *Aseum*, *Hesperophanes*, *Phymatodes*, *Rutpela*, *Stenurella*, *Strangalia* növləri meşə və meyvə ağac və kollarının gövdələrində, *Agapanthia*, *Certallum*, *Dorcadion*, *Echinocerus*, *Mallosia*, *Phytoecia* ot bitkiləri üzərində qidalanır. *Oberea*, *Plagionotus* cinslərinin bəzi növləri enliyarpaqlı ağacların gövdələrində, bəzi növləri isə otlar üzərində qidalanır. *Stromatium* və *Trichopherus* cinslərinin nümayəndələri isə ağac tikililərə ziyan vurur. Qarabağ torpağının işğaldan azad edilməsi Azərbaycan alimləri qarşısında bu ərazilərdə tədqiqatın aparılması üçün yeni-yeni perspektivlər açır. Qarabağın entomofaunasının yenidən öyrənilməsi bu ərazidə nadir və nəslə kəsilməkdə olan növlərin də aşkar edilməsinə şərait yaradacaqdır.

Açar sözlər: *Fauna, uzunbiğ böcəklər, növ tərkibi, Qırmızı Kitab, nadir növ, təhlükədə olan növ*

Жуки-усачи (*Coleoptera, Cerambycidae*) Карабаха

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Из 280 видов жуков-усачей (*Cerambycidae*) фауны Азербайджана 53 были отмечены на территории Карабаха в дооккупационный период. Из этих видов *Rosalia alpina* (Linnaeus, 1758), *Prionus asiaticus* Faldermann, 1837, *Necydalis (Necydalis) ulmi* Chevrolat, 1838, *Mallosia (Eumallosia)*

herminae Reitter, 1890, *Cerambyx (Cerambyx) dux* (Faldermann, 1837), *C. (Cerambyx) cerdo acuminatus* Motschulsky, 1853 являются редкими. Альпийская розалия включена во Всемирный Красный список и Красную книгу Азербайджана по категории VU. Личинки *Purpuricenus*, *Cerambyx*, *Enoploderes*, *Molorchus*, *Necydalis*, *Prionus*, *Ropalopus*, *Rosalia*, *Saperda*, *Spondylis*, *Isotomus*, *Judolia*, *Leiopus*, *Pachytodes*, *Penichroa*, *Chlorophorus*, *Dinoptera*, *Stictoleptura*, *Aegomorphus*, *Gracilia*, *Asemum*, *Hesperophanes*, *Phymatodes*, *Rutpela*, *Stenurella* питаются древесиной лесных и плодовых деревьев и кустарников. А личинки *Agapanthia*, *Certallum*, *Dorcadion*, *Echinocerus*, *Mallosia*, *Phytoecia* обитают на травянистой растительности. Одни виды родов *Oberea* и *Plagionotus* питаются древесиной широколиственных деревьев, другие - травами. Представители родов *Stromatium* и *Trichopherus* повреждают деревянные конструкции. Освобождение карабахских земель от оккупации открывает перед азербайджанскими учеными новые перспективы для проведения исследований этих областей. Повторное изучение энтомофауны Карабаха создаст условия для обнаружения в этой местности редких и исчезающих видов.

Ключевые слова: Фауна, жуки усачи, видовой состав, Красная книга, редкий вид, вид находящийся под угрозой исчезновения