

# An overview on Cerambycidae family (Insecta, Coleoptera) in Northern Albania

Ariana Striniqi Laçe<sup>1</sup>, Kastriot Misja<sup>2</sup>

<sup>1</sup>Shkodra University "Luigj Gurakuqi", Faculty of Natural Sciences, Department of Biology, Shkodra

<sup>2</sup>Tirana University, Faculty of Natural Sciences, Department of Biology, Tirana,  
Albania

**Abstract— In this paper, there are presented 40 Coleoptera species belonging to the Cerambycidae family. These data are the result of several years of monitoring, based on expeditions carried out in different areas of the country. Seven species of this family growing in Northern Albania have been presented in this paper for the first time.**

**Keywords- Coleoptera, Cerambycidae family, Northern Albania**

## I. INTRODUCTION

Coleopteras represent the largest order of the animal world as well as one of the most important steps of the food chain and ecosystem. Consequently, it is very important to study them. Observing Coleopteras in general and Scarabidae in particular, plays an important role in providing information about the Albanian entomofauna.

The study of the variety of habitats constitutes one of the most interesting fields of research of the Albanian Entomofauna. Information on this area of study is scarce, but for the findings of a German expedition conducted in different parts of Albania and the doctoral thesis, The Western Coastal Field of Albania (2001) by A.Paparisto that provide information on Coleoptero fauna. The insects of the Cerambycidae family play an important role in the food chain, decomposition processes, and crop pollination.

Some species of this family, *Pentodon idiota*, *Epicometis*, *Oxytherea funesta*, *Anoma lavis*, *Cetonia aurata* are known to damage agricultural and forestry economies. There are 15.000 types pertaining to this family that are known worldwide. Meanwhile, 74 species are reported to exist in Albania, of which 40 species are collected by us including 7 ones selected for first time. We focused on 398 samples of this family.

There were established 5 research stations that facilitated the arrangement of a variety of expeditions. The material has been collected from 2000 to the present. The frequency of collecting exemplars has been unsystematic.

Depending on the diversity of the species of this family, the collection is based on different methods such as:

1 - Mower nets; 2 - Nets entomological; 3 - A Simple Comb; 4 - Entomological forceps 5- Japanese umbrellas, Pitt's traps.

The results of this study derived from the processing of the data concerning the collected material. For each sample is recorded: the place, the date, the number of samples and the collector. The procedure we followed is: we conserved the collected species until the processing of the data, placed them in glass jars with a mixture of alcohol etelic containing 70% white vinegar and distilled water in the ratio 80:5:20, enriched with a few drops of ether. The collected material has been stored and observed by stereomicroscope according to well-known methods (Anonymous 1964, 1965, Colas 1969, Friese 1967, Paparisto 2001).

In some cases, we consulted with the scientific fund of the Museum of Natural Sciences in Tirana with regard to the collected material.

## II. SCARABIDAE FAMILY

15 000 species of this family are known worldwide; 74 species are reported in Albania, of which 42 species are collected by us, 6 ones for the first time.

Genera *Geotrupes* Lats

6 species are reported in Albania, of which 4 species are collected by us, 1 for the first time.

1 *Geotrupes vernalis* L:

Eurosiberian; The number of the samples observed is 8.

Recorded in June 2011 (5e)

Region: Shkodër, May 2012 (3e)

*Geotrupes silvaticus* Ponz

Eurosiberian; The number of the samples observed is 17.

Reç. 10 – 15 May 2012 ( 2 e )

Rrapsh 10 August 2012 ( 11 e )

Rrapsh 10 August 2012 ( 2 e )

Bogë 20 July 2011 (2 e)

*Geotrupes mutator* Marsh

Euroasiatic; The number of the samples observed is 9.

Reç. 10 – 15 May 2012 ( 2 e )

Rrapsh. 10 August 2012 ( 3e )

Bogë 20 July 2011 (4 e)

*Geotrupes spiniger* Marsh

Eurosiberian; The number of the samples observed is 3.

Rrapsh, 10 – 12 May 2011 ( 1e )

Shkodër, June 2012 (2 e)

Genera : *Scarabaeus* L

Imagot form dust balls that I carried to the nest. They are insects with a low gloss black body of a large size; 20 - 30 mm. 4 species are reported in Albania, 2 of which are collected by us.

5. *Scarabaeus affinis* Brulle

Mediterranean; The number of samples observed is 10.

Reç August 2011 ( 6 e )

Rrapsh July 2012 ( 2e)

Bogë 20 July 2012 (2e)

6. *Scarabaeus sacer* L

Palarctic; Number of samples observed: 6

Reç May 2011 ( 2 e )

Rrapsh August 2012 ( 1e )

Razëm June 2012 ( 3 e )

Genera *Onthophagus* Latr

The larvae is found in terrestrial nests filled with manure and the average body size is 6 - 12 mm. 6 species are reported in Albania, 3 species are collected by us, 1 of which has been selected for the first time.

7. *Onthophagus muchicornis* L

Eurosiberian. The number of the samples observed is 18.

Reç 10 – 15 May 2011 (11e)

Reç 20 June 2012 (2 e)

Rrapsh May 2012 (3 e)

Shkodër June 2012 (2e)

8. *Onthophagus citellorum* Medv

Euroasiatic; Number of samples observed:13

Reç 10 – 15 May 2012 ( 6 e )

Rrapsh August 2012 ( 5 e )

Bogë 20 August 2012 ( 2 e )

9. *Onthophagus verticicornis* Laich

Eurosiberian; The number of the samples observed is 16.

Reç 10-12 May 2011 ( 4 e )

Reç 10-11 September 2011 ( 4 e )

Rrapsh 12-14 August 2012 ( 2 e )

Razëm June 2012 ( 6 e )

Genera : *Gymnopleurus* III

Imagot form pellets of animal manure, are black without shine and average size; 10 - 16 mm. For Albania are reported 2 species , collected from us 2 species.

10. *Gymnopleurus geoffroyi* Fuesol

Eurosiberian; Number of samples observed: 8

Reç May 2011 ( 4 e )

Rrapsh May 2011 ( 2 e )

Razëm June 2012 ( 2e )

11. *Gymnopleurus mopsus* Pall

Eurosiberian: Number of samples observed: 12

Reç 10 – 15 May 2011 ( 2 e )

Bogë 21 August 2011 ( 3 e )

Razëm 20 – 30 June 2012 ( 5 e )

Koplik 12 May 2012 ( 2 e )

Genera : *Sisyphus* Latr

Imagot form pellets animal manure, average size 10 -12 mm. For Albania is reported 1 specie , collected from us 1 specie.

12. *Sisyphus schaefferi* L

Pelearctic : Number of samples observed: 12

Reç May 2011 ( 4 e )

Rrapsh May 2011 ( 3 e )

Razëm June 2011 ( 3 e )

Bogë August 2012 ( 2 e )

Genera : *Copris* Geoffr

Larvae are placed in ground nests or animal manure piles, parents retain and protect their offspring, the average body size - large; 16 - 30 mm. In Albania, there are reported 2 species , which are collected by us.

13. *Copris hispanus* L

Pelearctic: The number of the samples observed is 11.

Reç May 2011 (5 e)

Reç September 2012 (3 e)

Rrapsh May 2012 (3 e)

14. *Copris lunaris* L

Pelearctic; The number of the samples observed is 10.

Razëm June 2011( 4 e )

Bogë August 2011 ( 4 e )

Reç September 2011 ( 2 e )

Genera *Onticellus* Serv

Middle tibia had a double wishbone, scutelumi was distinguished clearly with the late elitrave and the long hair. In Albania, there are reported 2 species, which are collected by us, 1 of them has been found for the first time.

15. *Onticellus fulvus* Steph

Pelearctic; The number of the samples observed is 8.

Shkodër, August 2011 (8e)

Genera *Amphicoma* Latr.

We find Imagot in flowers and larvae in the soil. Their bodies are covered with disheveled hair and their average size is 10 - 14 mm. In Albania, there are reported 3 species. We collected one of them.

16. *Amphicoma vulpes* Pall

Eurosiberian: The number of the samples observed is 11.

Bogë May 2011 (4 e)

Reç 10 – 15 May 2012 (5e)

Razëm 20 June 2012 (2e)

Genera: *Oryctes* III

We find the larvae of these insects in decomposing tree stumps. Insects have brown colored bodies, whose sizes range from 26 to 42 mm. In Albania, there is reported 1 specie, which has been collected by us.

17. *Oryctes nasicornis* L

Palartic; Number of samples observed: 9

Reç September 2011 ( 2 e )

Rrapsh May 2011 ( 5e )

Bogë 20 August 2012 (2e)

Genera; *Phylognatus* Esch

We find the larvae of these insects in decomposing tree trunks. They have bright and large bodies, whose size ranges from 18 to 30 mm. In Albania, there is reported 1 specie, which has been collected by us for the first time.

18. *Phylognatus excavatus* Forst

Palarctic; Number of samples observed:9  
Rrapsh 10 – 15 May 2011 ( 5 e )  
Bogë 20 June 2011 ( 4 e )

Genera *Rhombonix* Hope

The color of the larvae of these insects is glossy metallic greenish blue with bronze shades and large body sizes, the most common of which range from 14 to 20 mm. In Albania, there is reported 1 specie, which has been collected by us.

19. *Rhombonix aurata* Fabr

Mediterranean: The number of the species collected is 7.  
Shkodër May 2012 (7e)

Genera: *Anomala* Serv

Their larvae are found in the soil. They are of a shiny metallic green color and their average body size is 12 - 20 mm. In Albania, there are reported 4 species, 2 of which have been collected by us.

20. *Anomala dubia* Scopoli

European; The number of samples observed is 5.  
Shkodër July 2011 ( 4 e )  
Bogë August 2012 ( 1 e )

21. *Anomala visit* Fabricius

European; Number of the samples observed is 10.  
Shkodër July 2011 ( 7 e )  
Bogë August 2012 ( 3 e )

Genera: *Phylopertha* Kby

The larvae of these insects eat plant roots, while imago are fed on leaves. They are of a shiny metallic green color and their average body size is 8 - 11 mm. In Albania, there is reported 1 specie.

22. *Phylopertha horticola* L

Erosiberian; The number of the samples observed is 7.

Razëm May 2011 ( 4 e )

Shkodër July 2011 ( 3 e )

Genera: *Anisopla* Serv

We find the larvae of these insects on the ground. There are insects that appear in a variety of colors and their average body size is 8 - 15 mm. In Albania, there are reported 6 species, 4 of which were collected by us.

23 *Anisopla tempestiva* Erich

European; The number of the samples observed is 6.  
Bogë June 2011 ( 4 e )  
Rrapsh May 2012 ( 2 e )

24. *Anisopla erichsoni* Reuter

European; The number of the samples observed is 8.  
Reç May 2012 (5e)  
Shkodër July 2012 (3e)

25. *Anisopla agricola* Poda

Eurosiberian; The number of the samples observed is 5.  
Reç May 2011 ( 5 e )

26. *Anisopla austriaca* Hbst

Eurosiberian; The number of the samples observed is 7.  
Shkodër August 2011 ( 7 e )  
Genera: *Melolontha* F

The larvae of these insects are found on the ground where they do root, and feed on the leaves of trees and shrubs. They are insects that have large proportions (21:31 mm). In Albania, there are reported 2 species, one of which is collected by us.

27. *Melolontha melolontha* L

European; Number of samples observed: 15  
Rrapsh May 2011 (5e)  
Reç May 2012 (6e)  
Bogë May 2012 (4e)

Genera: *Rhizotrgus* Ltr

They are insects fitofage, because their larvae damage the land. They have dirty yellow color and medium size (13 - 17 mm). In Albania is reported 1 species, and collected from us 1 specie.

28. *Rhizotrgus aestivus* Olivier

European; Number of samples observed: 10  
Bogë July 2011 (4e)  
Rrapsh 2011 (6e)

Genera :*Amphymallon* Berth

There are injurious insects, because their larvae are fed by the root. Usually they have dense brown and large body size (11 - 20 mm). In Albania are reported 3 species, collected from us 1 specie.

29. *Amphymallon solstitialis* L

Eurosiberian; Number of samples observed: 8

Shkodër June 2012 (8e)

Genera *Homoloplia* Steph

They are fitofage during the larvare phase, which are fed with the roots of plants. During imago phase they are fed with flowers and leaves. They have their characteristic dotted pigidi and have an average body size (5 - 8 mm). In Albania are reported 4 species, collected from us 1 specie.

30. *Homoloplia marginata* Fuessly

Euroanatolic; Numri of samples observed: 13  
Rrapsh July 2011 (4e)  
Rrapsh May 2012 (4e)  
Bogë May 2012 (5e)  
Genera :*Hoplia* III

The larvae are fed with the roots in the ground, while imagot are fed with flowers and leaves, so they are fitofage. They have an average body size (7 - 13 mm). In Albania are reported 6 species, collected from us 1 specie.

31. *Hoplia parvula* Kryn

Euroasiatic; Number of samples observed: 16  
Rrapsh May 2011 (6e)  
Shkodër May 2012 (6e)  
Bogë July 2012 (4e)  
Genera: *Trichius* F

The larvae are found in decomposing stumps, while imagot live in flowers. Their characteristic are: elitrat spotted, with more body hair and average body size (10 - 15 mm). In Albania are reported 2 species, and collected 2 species from us, which 1 for the first time.

32. *Trichius zonatus* Germ

Eurosiberian; Number of samples observed: 10  
Shkodër May 2012 (8e)  
Bogë May 2012 (2e)

33. *Trichius fasciatus* L

Eurosiberian; Number of samples observed: 7

Shkodër May 2011 ( 7 e )

Genera *Epicometis* Burm

Characteristic for these larvae is the body with dense hairs white spots and average body size (8 - 14 mm). The larvae live in the soil, where they are fed with dendrite, while imago are fed with the larvae. In Albania is reported 1 specie, 1 specie of which is collected for the first time.

34. *Epicometis hirta* Poda

Pelearctic; Number of samples observed : 17

Rrapsh May 2011 ( 7 e )

Rrapsh June 2011 ( 8 e )

Shkodër May 2012 ( 2 e )

Genera *Oxytherea* Muls

The larvae live in the soil and is fed with dendrite. Instead imago are fed with flower. Their body are with white spots and hairs. They have average body size (8 - 12 mm). In Albania, are reported 2 species, which are collected 2 species from us.

35. *Oxytherea funesta* Poda  
European; Number of samples observed: 6

Razëm June 2012 ( 6 e )

36. *Oxytherea albopicta* Matsch

Palartic; Number of samples observed: 11

Reç May 2012 ( 7 e )

Rrapsh June 2012 ( 4 e )

Genera *Cetonia* Fabr They have The metallic green body and copper shades. Medium to large body size (14 - 21 mm). The larvae live in decomposing logs, and imago feed on leaves. In Albania is reported 1 specie, which is collected 1 specie from us.

37. *Cetonia aurata aurata* L

Eurosiberian; Number of samples observed: 18

Rrapsh June 2011 ( 6 e )

Bogë June 2011 ( 5 e )

Reç May 2012 ( 3 e )

Shkodër September 2012 ( 4 e )

Genera *Potosia* Mulz

Body of these insects have green metal shades, their sizes are moderate to large. The larvae of these insects live in ant nests, soil and decomposing stumps Instead imago feed on flowers and liquids derived from plants. In Albania, are reported to 5 species, which 3 species are collected from us, 1 for the first time.

38. *Potosia aeruginosa* Drury

European; Number of samples observed: 12

Bogë July 2012 ( 7 e )

Razëm July 2012 ( 5 e )

39. *Potosia affinis* Ander

Palartic; Number of samples observed : 17

Bogë May 2011 ( 11 e )

Rrapsh July 2012 ( 6 e )

40. *Potosia lugubris* Hbst

Palartic; Number of samples observed: 13

Shkodër May 2011 ( 8 e )

Bogë June 2003 ( 5 e )

REFERENCES

- [1] MISJA K, DHORA DH, 1999: “Udhëzues i Praktikave Mësimore në terren (Invertebrorët)”, 1999, pp:168-192.
- [2] STRINIQUI A., OGA J. MISJA K. “Data on threatened insects of Shkodra Lake Region. International Conference on Shkodra Lake” pp:22 – 30, 2010.
- [3] STRINIQUI A.MISJA K. (58), Insekte të rrezikuara në rrethet Shkodër dhe Malësi e Madhe. Bul. Shkencor Universiteti “Luigj Gurakuqi”, Seria e Shkencave të Natyrës., 2008, pp:137 – 143.
- [4] COLAS, “Guide de L’Entomologist”. N.Boubee & C, Paris, 1969, pp: 205–291.
- [5] LAMANI F. “Inventarizimi i insekteve demtuese te kulturave bujqesore te rrethit te Tiranes”, Buletini USHT, Seria e Shkencave Natyrore,1959, pp: 133-157.
- [6] MISJA K. “Percaktues Insektesh, Rendi Coleoptera”, 1983, pp:68-92.
- [7] MISJA K., “Entomologjia Insektet” 2003, pp:203-242.
- [8] MURRAJ XH., “Kontribut per faunen e kraheforteve (Coleoptera) te vendit tone”, 1962, pp:118-129.
- [9] MURRAJ XH., “Disa rezultate mbi studimin e Rendit te Kraheforteve (Coleoptera) te vendit tone” 1968, pp:31-45.