Research Paper Biology

Database of Chrysomelidae Family (Insect Coleoptera) In Malesia E Madhe Region

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ABSTRACT

The study of Chrysomelidae Family is of great importance not only for the enrichment of systematical data of Albanian insect fauna, but also for the role individuals of this family play in food chain and in biological war. Until now, more than 24.000 species of Chrysomelidae Family are known and about 232 of them are found in Albania. In this study, the diversity of species of Chrysomelidae Family in Malësia e Madhe Region, is presented. We have classified about 18 species that beong to 12 Genea , from which 3 species are reported for the first time for Albania. (Timarcha coriaria, Chrysomela hyperici, Chrysomela haemoptera).

KEYWORDS Coleptera, Chrysomelidae Family, Malësia e Madhe Region

Introduction

We characterize the Coleopteras of this family by a short oval body, or slightly extended. In Albania are reported 232 species, from which we have collected 18 species. Tarseae have four to five segments, antennae no longer than half of the body and the body dimensions small to medium. We have studied about 112 exemplars from this family. A great number of species of this family are known as detrimental to agricultural crops. Some species live in soil and the greatest part of species is mono-oligofag. Larvae live and feed on leaves. We can say that the Chrysomelidae Family constitutes an important link of the food chain and biological war.

Materials and Methods

The material is collected during the period March-September (2007-2010_ at some stations of Malësia e Madhe Region (Bogë, Rec, Razëm, Koplik). Insects have been selected randomly. The collection methods have been various, such as: Japanese umbrellas, air entomological nets and mowing ones, the uptake, Pitt's traps etc. Also, we have used the already known methods for determining Coleopteras (Anonimous 1964, 1965, Colas 1969, Friese 1967, Paparisto 2001.)

Results and discussion

We have determined 18 species of Crysomelidae Family that belong to 12 different Genes. A description of their morphology and the habitat where they live, their chronology and the place where they are collected is made for each species. Below, we have described 18 species.

Chrysomelidae Family

Insects of this family are short-oval body or slightly prolonged. Tarseae with 4-5 segments, antennae no longer than half of the body and the body size of small-medium. 24.000 species are known in the world. For Albania are reported 232 species, we collected 18 species, 3 of which are collected for the first time.

1-Gene Lema Lact; For Albania is reported one species collected from us.

1a-(Lema melanopus Lac); Palaearctic

2-Gene Smaragdina Chery; Have metal color and small body sizes, from 2.5 to 4 mm. For Albania 2 species are reported, from which we have found one species.

2a-Smaragdina Chery; Palaearctic

3-Gene Labidostomis Redt; Found in trees, willow etc.. For Albania, are reported four species, from which we have found two.

3a-Labidostomis longimana L.; Euroasiatic

4-Gene Lachnaia Lac; Have yellow elitres with 3 black spots and the average body size of 9-13 mm. For Albania, one species is reported.

4a-Lachnaia sexpunctata Seg; Euroasiatic

5-Gene Leptinotarsa Stal.: Have yellow ribbons and 5 tapes, an average body size of 9-12 mm. For Albania is reported one species.

5a-Leptinotarsa decemlineata Stal.: Palaearctic

6-Gene Clytra Laich; Have black elitres, with black spots, median sizes, from 6 to 12 mm. For Albania 4 species are reported, from which we have collected one species.

6a-Clytra quadripunctata L.: Palaearctic

7-Gene Cryptocephalus Geoffr.: Found in herbage plants. For Albania are reported 25 species, from which we have found 2.

7a-Cryptocephalus sericeus L.: Palaearctic

7b-Cryptocephalus frenatus Laich: Palaearctic

8-Gene Phytodecta Kby.: Have stipple time elitres, median size 4.5 mm-5 mm. For Albania are reported 2 species, from which we have found one for the first time.

8a-Phytodecta formicate Bruggn.: Euroasiatic

8b-Phytodecta laticolois Sffr..: Euroasiatic

9-Gene Timarcha Latr.: Elitres with garbled stipples. For Albania are reported 4 species, from which we have found one of them for the first time.

9a-Timarcha coriaria Laich: Euroasiatic

10-Gene Chrysomela L.: Found in sandy and bushy environments. For Albania 17 species are reported, from which we have found 4 species.

10a-Chrysomela cerealis L.: Euroasiatic

10b-Chrysomela hyperici Frost: Euroasiatic

10c-Chrysomela quadrigemina Sffr.: Euroasiatic

10d-Chrysomela haemopetra L.: Euroasiatic

11-Gene Cassida L.: Have wide and pressing body, non-metallic color, median size 3.5mm-8mm. For Albania are reported 11 species, from which we have found 2 species.

11a-Cassida nobilis L.: Euroasiatic

11b-Cassida vittata Vill.: Euroasiatic

12-Gene Luperus Geoffr.: For Albania are reported 2 species, from which we have found one species.

12a-Luperus viridipennis Germ.: Euroasiatic

Table no.1: Species collected for first time

Familly	Gender	Author	Species	Author
Chrysomelidae	Timarcha	Latr	Timarcha coriaria	Laich
	Chrysomela	L.	Chrysomela hyperici	Forst
			Chrysomela hameoptera L.	

Conclusions and Recomandations

- ❖ We identified 18 species belonging to 12 Genes. Three types are mentioned for the first time. Two of them belong to Chrysomela Gene (Cr.Hyperici and Cr.Hameoptera) and the other belongs to Timarcha Gender (T. Coriaria).
- ❖ Geners wih the largest number of species are: Chrysomella (4 species), Phytodecta (2 species), Cassida (2 species), Cryptocephalus (2 species)
- ❖ Most of the species or 66.6% of them belong to Euroasiatic Zoogeografical Groupation.
- ❖ Study areas where we collected the largest number of species were: Reçi (11 species), Boga (9 species), Koplik (9 species).
- ❖ We build a Database is build with the information related to Chrysomelidae Family of Malesia e Madhe.
- ❖ In the future, this material would be enriched more and more.
- ❖ Chrysomelidas, especially those of gene Chrysomela, are recognized as species serving as nature sanitary.
- ❖ Determining the exact habitat of species, will help protect them better.

Table no.2 Gragh no.1. Number of species according to genes

Gene	No. of species	Percentage
LEMA	1	0.06
LABIDOSTOMIS	1	0.06
LACHNAIA	1	0.06
SMARAGDINA	1	0.06
CLYTRA	1	0.06
CRYPTOCEPHALUS	2	0.11
LEPTINOTARSA	1	0.06
CRRYSOMELA	4	0.22
TIMARCHA	1	0.06
PHITODECTA	2	0.11
LUPERUS	1	0.06
CASSIDA	2	0.11
	18	100%

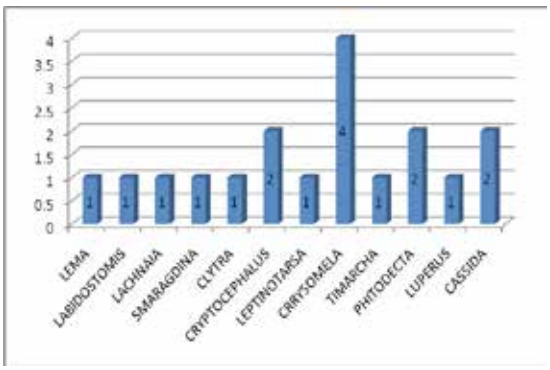


Table no.3 Gragh no.2. Number of species according to Meet-Places

Meet -Places	No. of species
RRAPSH	8
VERMOSH	4
REÇ	11
KOLPLIK	9
RAZËM	3
BOGË	9
	44

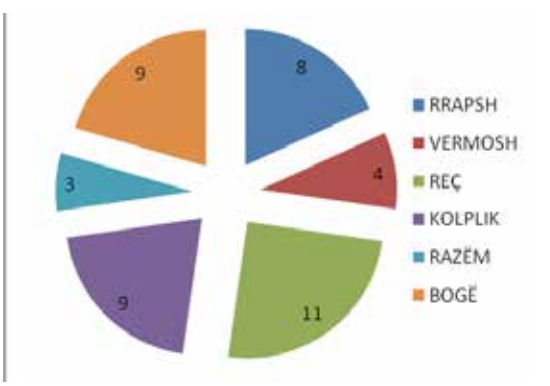
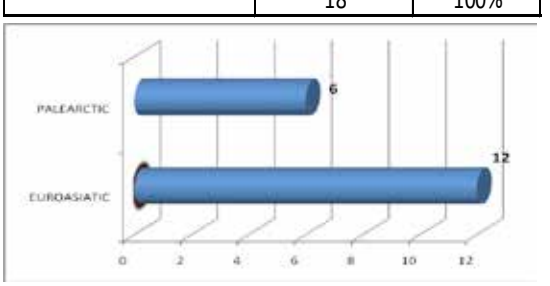


Table no.4 Gragh no.3. Number of species according to Zoogeografic groupation

Zoogeografic groupation	No. of species	Percentage
EUROASIATIC	12	0.67
PALEARCTIC	6	0.33
	18	100%



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Coleoptera	Curcialandae	4 gjini							47e	6
Coleoptera	Chrysomellidae	Lema melanopus	Laç	Poliarktik	Rrapsh	x	20-30 korrik 2012	1e		
					Vermosh	x	20-30 korrik 2012	1e		
									2e	1
Coleoptera	Chrysomellidae	Lobidostomis	longimana	L	Euro-aziatik	Vermosh	x	10-14 korrik 2013	1e	
									1e	1
Coleoptera	Chrysomellidae	Lachnaia	sexpunctata	Seg	Euro-aziatik	Reç	x	12-14 maj 2012	2e	
						Reç	x	20-30 gusht 2012	3e	
						Koplik	x	maj 2013	1e	
						Razëm	x	20-30 qershor 2012	3e	
									9e	1
Coleoptera	Chrysomellidae	Smargalia	cyanea	F	Poliarktik	Reç	x	korrik 2011	3e	

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Coleoptera	**Chrysomellidae**	**Cryptocephalus**							**3e**	**2**
Coleoptera	Chrysomellidae	Leptinotarsa	decemlineata	Stal	Poliarktik	Rrapsh	x	10-15 maj 2012	5e	
						Reç	x	10-15 maj 2012	3e	
						Reç	x	1-19 shtator 2012	4e	
						Bogë	x	maj 2013	4e	
						Koplik	x	maj 2013	3e	
						Razëm	x	20-30 qershor 2012	4e	
									23e	**1**
Coleoptera	Chrysomellidae	Chrysomela	cerealis	L	Euro-aziatik	Razëm	x	20-30 qershor 2012	4e	
						Koplik	x	maj 2013	2e	
						Bogë	x	10-15 shtator 2012	2e	
										8e
Coleoptera	Chrysomellidae	Chrysomela	hyperici	Frost	Euro-aziatik	Bogë	x	maj 2013	3e	
						Koplik	x	maj 2013	2e	
						Reç	x	10-15 shtator 2012	2e	

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Coleoptera	Chrysomellidae	Chrysomela	quadrigemina	Sffr	Euro-aziatik	Bogë	x	maj 2013	3e	
						Koplik	x	maj 2013	2e	
						Reç	x	10-15 shtator 2012	2e	
										7e
Coleoptera	Chrysomellidae	Chrysomela	haemoptera	L	Euro-aziatik	Rrapsh	x	10-15 maj 2012	3e	
						Koplik	x	maj 2013	2e	
						Rrapsh	x	8-10 gusht 2012	2e	
						Bogë	x	maj 2013	1e	
										8e
Coleoptera	Chrysomellidae	Chrysomela							30e	4
Coleoptera	Chrysomellidae	Thimarcha	corriaria	Laich	Euro-aziatik	Reç	x	10-15 shtator 2012	3e	
						Bogë	x	maj 2013	2e	

							Koplik	x	maj 2013	2e	
										5e	**1**

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Coleoptera	Chrysomellidae	Phytodecta	formicata	Bruggen	Euro-aziatik	Koplik	x	maj 2013	2e		
						Bogë	x	maj 2013	3e		
						Reç	x	1-10 shtator 2012	2e		
										7e	**1**
Coleoptera	Chrysomellidae	Luperus	viridipennis	Germ	Euro-aziatik	Rrapsh	x	10-15 maj 2012	3e		
						Reç	x	20 korrik 2013	2e		
						Rrapsh	x	5-10 maj 2012	1e		
						Koplik	x	maj 2013	2e		
										8e	**1**
Coleoptera	Chrysomellidae	Casside	nobilis	L	Euro-aziatik	Reç	x	10-14 maj 2012	1e		
						Rrapsh	x	10-15 maj 2012	1e		

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										2e	**2**
Coleoptera	Chrysomellidae	Casside	vittata	Vill	Euro-aziatik	Vermosh	x	10-14 korrik 2013	1e		
									1e	1	

Coleoptera Chrysomellidae Casside	3e	2
Coleoptera Chrysomellidae 14 gji	ni 156e	2

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