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**COMPARATIVE ANALYSES OF THE REPRESENTATION OF
THE CETONIIDAE LEACH FAMILY ON MOUNT OZREN NEAR
SARAJEVO, IN ACCORDANCE WITH THE STATED TEMPERATURE
AND BAROMETRIC PRESSURE**

SUMMARY

During ecological research into the Cetoniidae Leach family (1815), on the vertical profile of the south slopes of Mount Ozren near Sarajevo, a comparison was made between the number of units and species, and temperature values and barometric pressure recorded.

The samples were collected in the period April-September 2008 and 2009 at six selected localities (Orlovac, Nahorevo, Čavljak, Skakavac, Bukovik and Crepoljsko) with a scope of 41 terrain visits, where seven species had been ascertained and the research covered six localities.

The analysis of the selected material has shown that the biggest number of individuals was collected between 13th July 2008 and 5th July 2009. In both cases, exclusively the individuals of the species *Oxythyrea funesta* were collected: in 2008, 111 individuals were collected; in 2009, 112 individuals were collected. More than 20 individuals were collected in a single day, on more than one occasion: on 7th June 2008 (31 individuals of the *Cetonia aurata* species); on 10th June 2009 (21 individuals of the *Oxythyrea funesta* species and one individual each of the *Cetonia aurata*, *Trichius sexuali* and *Valgus hemipterus* species); on 12th June 2009 (32 individuals of the *Oxythyrea funesta* species and three individuals from each of the *Cetonia aurata* and *Trichius sexualis* species); and on 23rd June 2009 (20 individuals of the *Oxythyrea funesta* species).

It has been ascertained that temperature values were higher on the days when the samples collected were largest. However, a correlation between the values of barometric pressure and the number of individuals collected has not been determined.

Key words: Cetoniidae, fauna, biodiversity, Ozren, Sarajevo, Bosnia and Herzegovina

INTRODUCTION

Zoological research has a long tradition in Bosnia and Herzegovina, but, in quantitative terms, the literature in the field is small compared to any other country in the region or in Europe. The ratio of entomological research studies to

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the variety of existing fauna – which is considered to number around 30,000 species (Lelo, 2011) – is especially small.

Ecological research into coleoptera was originally done in the Socialist Republic of Bosnia and Herzegovina (Tabaković-Tošić, 1991); however, except for pragmatic research conducted by entomologists on agricultural and forestry land, these studies did not reach an appropriate level.

The most important data on the Cetoniidae Leach of Bosnia and Herzegovina were presented by Rene Mikšić after the Second World War. Mikšić researched in Bosnia and Herzegovina, as well as the whole Balkan peninsula and a big part of the Palearctic (see, for example, Mikšić 1950, 1953, 1955, 1956, 1958, 1962, 1965, 1970, 1976, 1977, 1980, 1982, 1987). After the war in Bosnia and Herzegovina in 1992–95, there were just a few research studies conducted in this field, and further research was mainly done by the authors (Lelo 2000, 2003, 2006; Lelo and Kašić-Lelo 2006a, 2006b; Lelo and Škrijelj 2001; Kašić-Lelo 2005, 2011; Kašić-Lelo and Lelo 2005, 2006, 2007, 2009a, 2009b; Kašić-Lelo et al. 2006).

We can say categorically that ecological research into the Cetoniidae leach (Cetoniidae Leach, 1815) had not been done before (Lelo and Kašić-Lelo 2010; Kašić-Lelo 2011).

Mount Ozren near Sarajevo is located by coordinates 43° and 44° of north latitude and 18° and 19° of east longitude. The mountain covers an area of approximately 280 km². From the south side, it is bordered by the river Miljacka, and on the north by the peak of Mount Ozren (Bandijera on the height of 1,452 m); on the east, it is bordered by the Mokranjsko Miljacka area: Sumbulovac, Bilgorci, Stublinsko, Stublinski krš, Ozrenska paljika; and on the west it is bordered by the riverbed of the Kosevo stream, Nahorevom, and the slopes of Bjelosava. On the northwest, it is bordered by the Peracki stream, the gorge of the Susica river and Karica Caira (Redžić 1991; Kašić-Lelo 2011).

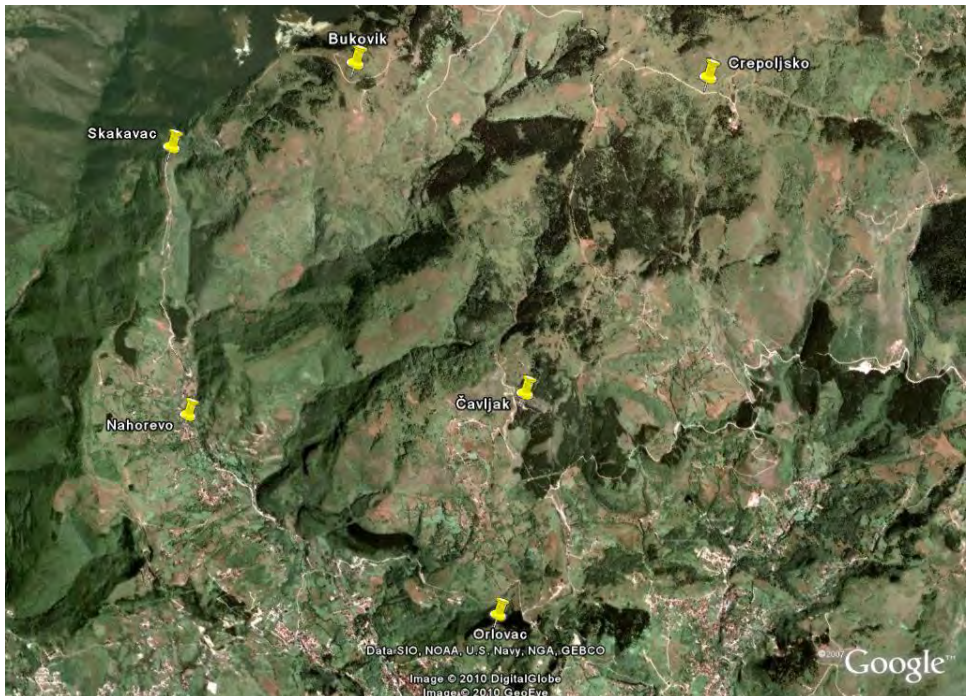
MATERIAL AND METHODS

Research into the Cetoniidae leach family (1815) was done in the period from April to September 2008 and 2009 in six localities (Orlovac, Nahorevo, Skakavac, Čavljak, Bukovik and Crepoljsko) of the south slope of Mount Ozren, near Sarajevo (see pictures 1 and 2; tab. 1). Forty-nine samples were collected from the field visits (17 field visits in 2008 and 24 visits in 2009).

During the course of the field research, 594 specimens were collected by the standard method: they were hunted by entomological net or by hand (depending on situation), then they were put into a flacon with acetyl alcohol (CH₃COOH+C₂H₅OH) in proportion 1:3. The collected material was kept in special boxes in order to provide better storage and transportation (Storch and Welsch 1993; Schmidt 1970; Brajković and Tomanović 2000; Lelo and Kašić-Lelo 2010).



Picture 1. The position of Mt. Ozren and the research area on the blind map of Bosnia and Herzegovina (created by: S. Đug using GIS software)



Picture 2. The position of the research localities on Mt. Ozren (using Google Earth software)

Table 1. Summary of researched localities on Mount Ozren

No	Toponym (and pointer of the locality)	Latitude and longitude	Height above sea level of the pointer (m)
1.	Orlovac	43°53'09,68'' N 18°25'53,33'' E	869
2.	Nahorevo	43°54'53,46'' N 18°24'32,50'' E	781
3.	Skakavac	43°56'07,98'' N 18°25'28,90'' E	1,113
4.	Cavljak	43°54'06,65'' N 18°26'49,64'' E	1,202
5.	Crepoljsko	43°55'02,86'' N 18°29'01,32'' E	1,411
6.	Bukovik	43°55'57,95'' N 18°26'55,75'' E	1,492

During laboratory analysis, material was taken out of the flacons and carefully checked through a 4x-8x loupe. After that, the units were prepared in such a way that they were pricked by entomological needles sizes 1 and 2, depending on the size of the insect, and precisely marked and left to dry for a period of 14 days. After this period, the insects were put into entomological boxes.

Determination and identification of the species within the frame of the Cetoniidae family was done in accordance with the aim of analysing many morphological anatomic characteristics and in accordance with the key for subfamily identification of Scarabaeoidea: Baraud 2001.

RESULTS AND DISCUSSION

During the research conducted on the south slopes of Mt. Ozren near Sarajevo from April to September 2008 and 2009, 594 units were collected from seven species of the family Cetoniidae leach (1815) (Tables 1 and 2).

Table 1. List of Cetoniidae leach collected on Mt. Ozren during 2008 and 2009

No.	Species
1.	<i>Valgus hemipterus</i> (Linnaeus, 1758)
2.	<i>Gnorimus nobilis</i> (Linnaeus, 1758)
3.	<i>Trichius fasciatus</i> (Linnaeus, 1758)
4.	<i>Trichius sexualis</i> Bedel, 1906
5.	<i>Cetonia aurata</i> (Linnaeus, 1761)
6.	<i>Tropinota hirta</i> (Poda, 1761)
7.	<i>Oxythyrea funesta</i> (Poda, 1761)

Table 2. Summary of the absolute values of collected Cetoniidea per locality/vegetation unity on Mt. Ozren in the sample collected during 2008 and 2009

Sort	Locality	Orlovac		Nahorevo		Skakavac		Čavljak		Crepoljsko		Bukovik	
		♂♂	♀♀	♂♂	♀♀	♂♂	♀♀	♂♂	♀♀	♂♂	♀♀	♂♂	♀♀
<i>Valgus hemipterus</i>	2008	-	-	-	-	-	-	-	-	-	-	-	-
	2009	11	2	-	-	-	-	-	-	-	-	-	-
<i>Gnorimus nobilis</i>	2008	-	-	-	-	-	-	-	-	-	-	-	-
	2009	-	-	-	1	-	-	-	-	-	-	1	-
<i>Trichius fasciatus</i>	2008	-	-	-	-	-	-	-	-	-	-	-	-
	2009	1	-	-	-	1	-	-	-	-	-	-	-
<i>Trichius sexualis</i>	2008	7	2	-	-	-	-	-	-	-	-	-	-
	2009	6	1	-	-	-	-	-	-	-	-	-	-
<i>Cetonia aurata</i>	2008	2	3	-	-	-	-	19	16	-	-	1	-
	2009	8	14	2	-	2	-	15	14	-	-	1	2
<i>Tropinota hirta</i>	2008	-	-	-	-	-	-	-	-	-	-	-	-
	2009	-	-	4	-	-	-	-	-	-	-	-	-
<i>Oxythrea funesta</i>	2008	4	1	3	10	-	-	65	47	-	-	-	-
	2009	119	56	68	45	2	2	7	2	7	3	10	7
Sum through years	2008	13	6	3	10	-	-	84	63	-	-	1	0
		19		13		0		147		-		1	
	2009	145	73	74	46	5	2	22	16	7	3	12	9
		218		120		7		38		10		21	
Total		158	79	77	56	5	2	106	79	7	3	13	9
		237		133		7		185		10		22	

Analysis of the collected material showed that the greatest number of unities was collected between 13th July 2008 and 5th July 2009. In both cases, units of *Oxythrea funesta* were collected: In 2008 there were 111, and in 2009, 112 units. More than 20 units in a day were collected on several occasions: 7th June 2008 (31 units of *Cetonia aurata*); 10th June 2009 (21 units of *Oxythrea funesta* and only one unit of each of the following: *Cetonia aurata*, *Trichius sexualis* and *Valgus hemipterus*); 12th June 2009 (32 units of *Oxythrea funesta* and three units of *Cetonia aurata* and *Trichius sexualis*); and 23rd June 2009 (when again 20 units of *Oxythrea funesta* were collected; tables 3 and 4).

Analysis of the data on air temperature and barometric pressure showed that, in the five days mentioned, the following values were measured: 13th July 2008 (range of measured temperatures: 25.5–36.5; meteorological station data: 17.8–34.0; range of measured pressures: 934–935; meteorological station data: 942.0–941.1; 111 individuals collected); 5th July 2009 (range of measured temperatures: 24.0–31.5, meteorological station data: 18.0–26.9; range of measured pressures: 932–933, meteorological station data: 937.0–939.3; 112 individuals collected), 7th June 2008 (range of measured temperatures: 24.0–27.0, meteorological station data: 11.6–22.2; range of measured pressures: 930–931, meteorological station data: 936.4–938.0; 31 individuals collected), 10th June 2009 (range of measured temperatures: 26.0–32.0, meteorological station data: 17.2–29.2; range of measured pressures: 939–940, meteorological station data: 943.6–948.0; 24 individuals collected), 12th June 2009 (range of measured temperatures: 21.5–20.0 meteorological station data: 15.2–22.2, range of measured pressures: 935–936, meteorological station data: 944.4–946.9; 38 individuals collected) and 23rd June 2009 (range of measured temperatures:

21.0–24.5, meteorological station data: 11.5–16.6; range of measured pressures 930–931, meteorological station data: 935.4–937.3; 20 individuals collected).

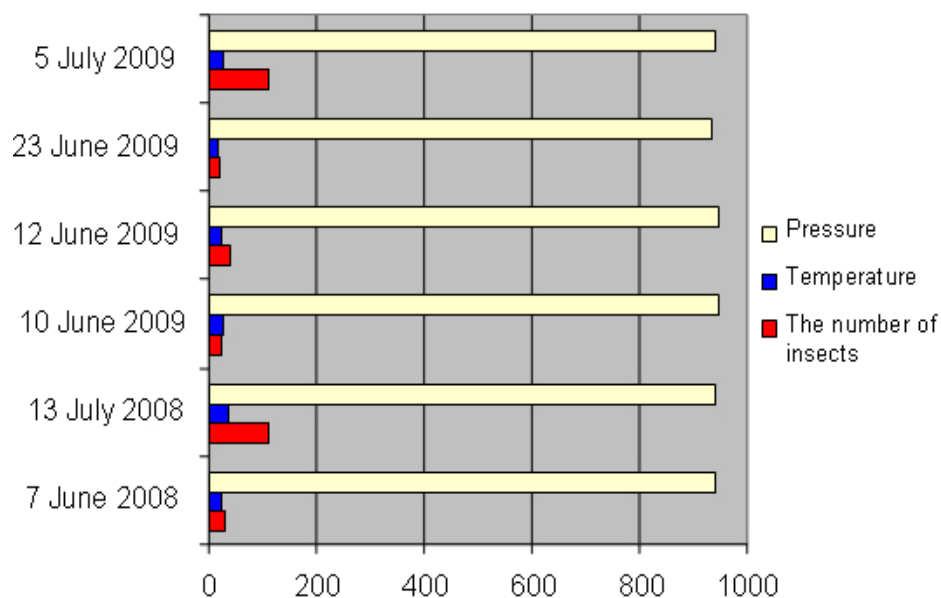
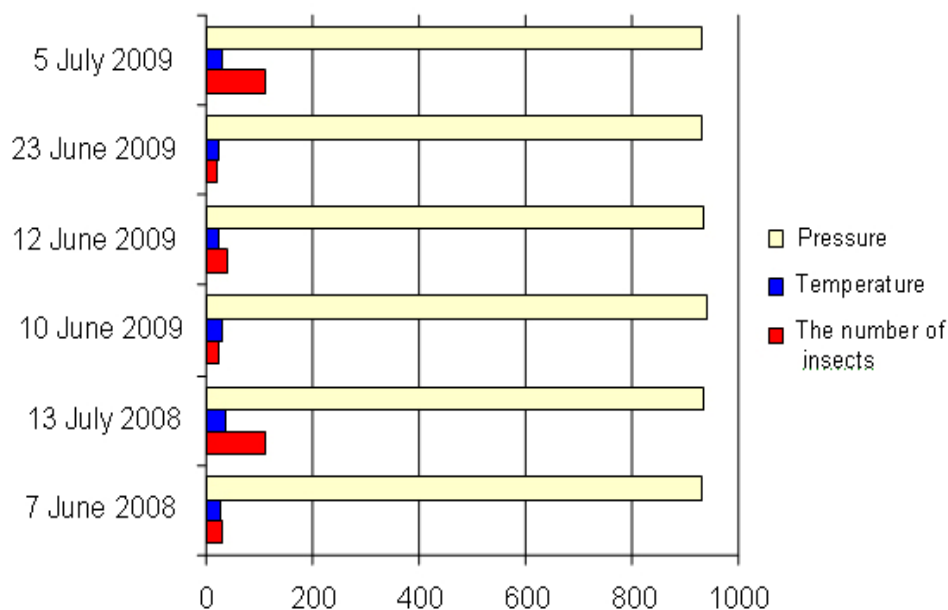
Table 3 Comparative summary of time values of temperatures of the air by Hydro meteorological biro of Bosnia and Herzegovina (station Bjelave; “K”) and personal measuring, that is, observed values “U”) for research days in 2008

Date Hours		Values of air temperatures from 7 ^h till 16 ^h in °C									
		7	8	9	10	11	12	13	14	15	16
16.4. 2008.	K	6.2	6.2	6.6	7.6	9.0	9.6	10.6	13.0	9.0	7.6
	U	-	-	-	10.5	12.0	13.0	-	17.5	-	11.0
4.5. 2008.	K	7.0	8.0	9.4	12.2	13.0	13.6	14.6	16.0	15.6	13.2
	U	-	-	12.5	-	15.5	18.5	27.0	24.5	-	19.0
13.5. 2008.	K	8.6	11.3	14.3	17.2	18.7	20.2	20.0	19.7	20.1	20.6
	U	-	15.0	-	19.5	-	24.5	-	24.0	-	-
16.5. 2008.	K	11.2	14.3	18.2	18.4	18.8	20.4	21.8	22.8	23.1	22.4
	U	-	-	23.0	23.0	-	24.5	-	-	28.5	-
22.5. 2008.	K	11.4	13.2	15.5	17.8	18.5	19.2	19.8	19.8	19.6	19.5
	U	-	-	-	21.0	-	24.0	25.5	-	-	26.0
23.5. 2008.	K	12.6	13.5	16.0	17.2	18.0	18.4	17.6	20.4	21.0	18.4
	U	-	17.5	-	21.0	-	23.5	-	-	26.0	-
6.6. 2008.	K	13.8	16.0	18.6	19.6	20.2	21.6	21.0	22.0	19.4	20.6
	U	-	19.5	-	24.0	-	26.0	-	26.5	-	-
7.6. 2008.	K	11.6	13.6	15.4	18.4	19.0	20.4	21.0	22.2	20.4	14.0
	U	-	-	-	24.0	-	25.5	-	27.0	-	-
11.6. 2008.	K	14.8	17.2	19.6	21.8	24.4	25.0	26.2	25.4	24.5	25.6
	U	-	-	-	27.0	-	29.0	-	31.5	-	-
15.6. 2008.	K	11.8	13.1	14.0	14.6	15.4	16.2	16.6	18.4	16.4	14.0
	U	-	-	17.5	-	-	-	21.0	22.5	-	19.0
11.7. 2008.	K	15.8	18.4	21.6	24.0	27.0	29.2	30.0	31.8	32.2	32.0
	U	-	22.5	-	27.5	-	32.0	-	33.5	-	32.5
13.7. 2008.	K	17.8	20.6	23.6	27.8	28.4	30.0	32.6	34.0	31.2	30.4
	U	-	-	25.5	-	32.0	32.0	-	36.5	-	31.5
27.7. 2008.	K	16.6	17.0	17.9	18.8	20.5	22.2	23.9	24.5	22.6	20.8
	U	-	-	20.5	-	23.5	26.0	-	28.0	-	-
9.8. 2008.	K	16.3	16.6	17.6	19.8	20.0	18.2	17.6	17.4	17.0	18.0
	U	-	19.0	-	23.0	-	24.0	-	22.0	-	-
24.8. 2008.	K	16.8	18.5	20.0	21.4	23.0	24.2	20.8	18.3	18.2	18.0
	U	-	23.0	-	-	-	27.0	-	24.0	-	21.5
7.9. 2008.	K	18.6	21.2	25.4	27.7	30.2	33.3	33.4	33.8	32.7	30.7
	U	-	-	-	-	33.5	35.0	-	35.0	-	33.0
21.9. 2008.	K	6.6	6.9	7.0	7.0	7.6	7.6	7.8	8.4	8.6	8.8
	U	-	-	-	-	-	10.5	-	12.5	-	13.0

It is obvious that there is no correlation in the number of collected individuals and values of barometric pressure (with reference to personal measuring, as well as with control data, that is, measuring of meteorological station (Graf. 1–2). However, there is a clear correlation between the number of collected individuals and the increased values of the air temperature (Graf. 3–4; it should be noted that the specific increased temperature is felt for about 4°C higher; tables 5 and 6).

Table 4 Comparative summary of time values of air temperature by Meteorological Biro of B&H (meteorological st. of Bjelava; "K") and personal measuring by observing values ("U") for the research days in 2009

Date Hours		Values of air temperatures from 7 ^h to 16 ^h in °C									
		7	8	9	10	11	12	13	14	15	16
10.4. 2009.	K	7.4	10.0	12.6	15.6	18.8	19.6	19.2	19.8	19.8	19.0
	U	-	-	-	18.5	-	25.0	25.5	25.0	-	26.5
2.5. 2009.	K	8.8	9.6	12.0	12.4	13.3	15.4	15.6	17.1	16.2	14.8
	U	-	-	17.5	18.0	19.0	22.0	-	23.0	-	20.1
3.5. 2009.	K	7.2	9.0	12.0	14.0	16.2	17.2	17.7	18.2	15.2	16.0
	U	-	-	-	18.5	25.0	25.5	25.5	26.5	24.0	25.0
9.5. 2009.	K	11.8	14.6	17.0	19.4	21.2	22.6	24.6	25.2	25.4	25.6
	U	-	-	-	21.0	-	24.0	-	26.5	-	27.0
24.5. 2009.	K	16.8	19.0	22.0	24.6	27.2	28.0	28.0	28.6	28.4	29.0
	U	-	21.0	-	26.0	-	32.0	-	-	33.0	31.0
31.5. 2009.	K	7.4	9.5	12.2	15.0	16.4	16.8	18.0	17.6	17.0	16.6
	U	-	14.0	-	17.0	-	19.5	-	21.0	-	18.5
2.6. 2009.	K	10.6	10.6	10.6	11.0	11.0	11.0	11.5	12.0	12.5	12.2
	U	-	-	14.5	-	16.0	18.5	-	17.0	-	16.0
5.6. 2009.	K	11.6	14.5	17.6	20.8	22.6	23.2	24.6	24.0	23.6	22.6
	U	-	-	21.0	23.5	-	27.0	-	28.5	-	-
6.6. 2009.	K	18.4	20.6	23.0	24.1	22.8	22.2	22.6	23.7	24.2	23.9
	U	-	-	-	26.5	25.5	25.5	-	27.0	-	25.5
10.6. 2009.	K	17.2	18.6	19.2	22.8	25.4	25.6	26.6	29.2	28.8	28.6
	U	-	-	-	26.0	-	27.5	-	32.0	-	30.5
11.6. 2009.	K	16.0	18.0	20.2	22.0	23.6	25.0	26.2	27.4	27.7	28.2
	U	-	-	-	-	-	27.5	-	30.5	-	31.0
12.6. 2009.	K	15.2	17.2	18.6	20.5	21.0	20.6	22.2	21.8	22.0	22.0
	U	-	-	21.5	-	26.0	26.0	-	-	-	25.0
14.6. 2009.	K	13.3	14.7	17.6	20.5	22.4	23.6	25.2	26.4	27.0	27.3
	U	-	-	22.0	-	27.0	-	28.0	28.5	-	-
15.6. 2009.	K	14.6	17.8	21.6	24.2	26.2	28.8	29.6	30.0	29.2	29.6
	U	-	-	-	27.0	-	31.0	-	33.0	-	32.5
18.6. 2009.	K	16.8	18.4	20.2	21.5	22.0	24.1	24.4	24.3	25.4	25.2
	U	-	23.0	-	26.5	-	28.5	-	29.5	-	30.0
20.6. 2009.	K	17.8	20.6	24.4	25.4	26.6	28.0	28.6	29.2	29.4	28.6
	U	-	-	-	28.0	-	31.5	-	34.0	-	33.0
23.6. 2009.	K	11.5	12.0	13.0	14.4	16.6	15.6	15.6	16.6	16.4	15.6
	U	-	-	-	21.0	-	23.5	-	24.5	-	19.5
3.7. 2009.	K	16.7	17.1	18.0	18.1	19.8	20.7	23.6	20.0	21.8	23.6
	U	-	-	21.5	22.0	-	25.5	-	-	27.0	-
5.7. 2009.	K	18.0	19.0	20.8	22.0	23.8	24.7	25.9	26.9	24.3	25.2
	U	-	-	24.0	26.0	-	29.5	-	31.5	-	-
13.7. 2009.	K	12.4	15.0	18.2	21.2	23.2	24.6	25.6	26.2	26.8	27.6
	U	-	17.5	-	24.0	-	-	29.0	31.5	33.0	-
10.8. 2009.	K	15.6	17.4	19.0	21.6	24.0	25.6	27.8	29.0	27.6	26.2
	U	-	20.5	-	24.0	-	29.0	-	31.5	-	-
5.9. 2009.	K	18.5	17.6	14.8	13.2	13.3	12.6	13.0	13.1	13.2	13.6
	U	-	-	21.5	20.0	18.5	-	18.0	-	-	-
12.9. 2009.	K	13.0	14.0	14.8	16.0	17.6	17.2	17.6	18.0	18.6	18.2
	U	-	-	-	-	22.0	22.5	-	-	26.0	-
20.9. 2009.	K	12.0	13.0	14.6	18.0	20.2	22.6	25.0	24.4	24.4	24.4
	U	-	-	-	20.5	-	25.0	-	27.5	-	28.0



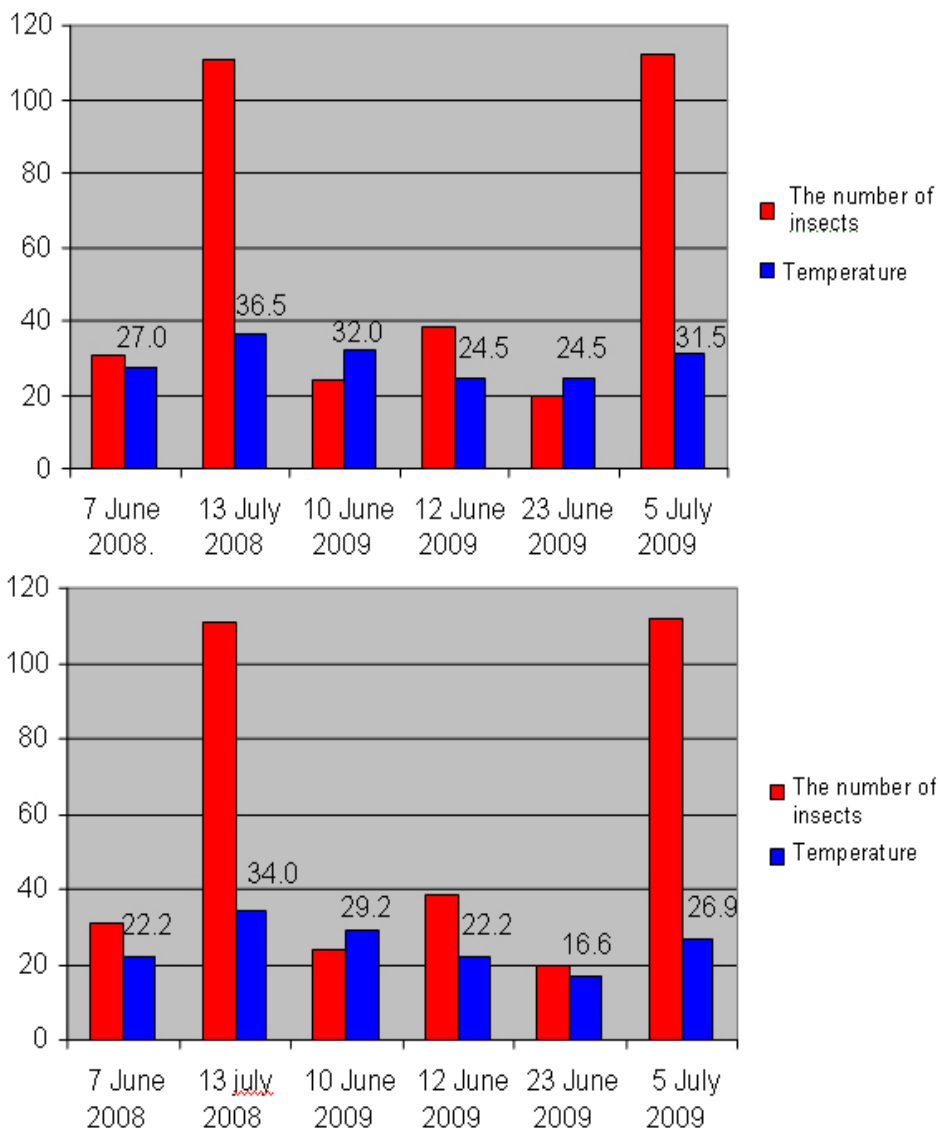
Graf. 1-2 Correlation summary of the number of collected Cetoniidea and the highest temperature value and barometric pressure reading during the six days while more than 20 individuals (above personal measures, below measures of meteorological station of Bjelave) on Mt. Ozren

Table 5 Comparative summary of time values of pressure by Hydro meteorological biro of B&H (Meteorological station of Bjelava; "K") and personal measuring by observing values ("U") for the research days in 2008

Date Hours		Values of barometric pressure from 7 ^h till 16 ^h in hPa									
		7	8	9	10	11	12	13	14	15	16
16.4. 2008.	K	940.2	941.2	940.6	940.2	940.2	940.2	940.2	939.9	940.2	940.2
	U	-	-	-	940	940	935	-	935	-	932
4.5. 2008.	K	947.6	947.8	947.6	947.2	946.8	946.1	946.1	945.7	945.3	945.6
	U	-	-	939	-	938	925	915	915	-	-
13.5. 2008.	K	944.4	944.2	944.3	944.3	943.4	942.6	941.9	941.0	940.0	939.0
	U	-	939	-	941	-	940	-	925	-	-
16.5. 2008.	K	942.1	942.1	942.1	942.1	942.1	942.0	941.5	941.0	940.8	940.4
	U	-	-	940	940	-	940	-	939	-	-
22.5. 2008.	K	939.2	939.4	939.2	938.8	938.6	938.5	938.3	938.0	938.3	938.6
	U	-	-	-	932	-	935	935	-	934	-
23.5. 2008.	K	939.9	940.0	940.2	940.2	940.0	940.0	940.0	939.7	939.4	939.7
	U	-	933	-	933	-	933	-	-	931	-
6.6. 2008.	K	937.7	937.6	937.7	937.9	937.7	937.4	937.1	936.8	936.8	936.8
	U	-	930	-	931	-	931	-	930	-	-
7.6. 2008.	K	938.0	937.9	937.4	937.4	937.0	936.8	936.4	936.4	936.8	937.4
	U	-	-	-	931	-	930	-	930	-	-
11.6. 2008.	K	944.8	944.8	944.4	944.2	943.4	943.0	942.3	941.9	941.2	940.6
	U	-	-	-	942	-	940	-	940	-	-
15.6. 2008.	K	938.9	938.9	938.9	938.9	938.9	938.9	938.9	938.9	938.9	939.4
	U	-	-	933	-	-	-	933	933	-	934
11.7. 2008.	K	945.7	945.2	945.2	945.0	944.3	943.6	943.2	943.0	942.6	942.0
	U	-	940	-	940	-	940	-	940	-	940
13.7. 2008.	K	941.1	941.1	941.1	941.1	940.8	940.4	940.0	940.0	940.4	940.8
	U	-	-	935	-	934	934	-	934	-	934
27.7. 2008.	K	940.7	940.8	940.8	940.8	940.8	940.8	940.8	941.2	941.3	941.3
	U	-	-	933	-	933	933	-	935	-	-
9.8. 2008.	K	936.4	938.2	939.0	939.2	939.2	939.2	939.2	939.6	940.0	940.2
	U	-	930	-	931	-	931	-	932	-	-
24.8. 2008.	K	937.9	938.0	937.9	937.7	938.0	938.2	938.9	941.0	941.4	941.9
	U	-	930	-	-	-	930	-	935	-	935
7.9. 2008.	K	942.2	942.6	942.6	942.8	942.6	942.4	941.9	941.2	940.8	940.8
	U	-	-	-	-	936	936	-	936	-	935
21.9. 2008.	K	943.4	943.2	943.2	943.2	943.2	943.2	942.8	942.3	942.1	941.9
	U	-	-	-	-	-	939	-	939	-	939

Table 6 Comparative summary of time values of pressure by Hydro meteorological Biro of B&H (Meteorological Station of Bjelava; "K") and personal measuring by observing values ("U") for the research days in 2009

Date	Hours	Values of barometric pressure from 7 ^h till 16 ^h in hPa									
		7	8	9	10	11	12	13	14	15	16
10.4. 2009.	K	944.2	943.7	943.2	943.2	943.0	942.1	942.0	940.8	940.2	940.2
	U	-	-	-	940	-	937	937	-	-	940
2.5. 2009.	K	943.6	944.2	944.6	945.0	944.8	944.4	944.2	944.0	944.0	944.0
	U	-	-	940	940	939	939	-	939	-	939
3.5. 2009.	K	947.2	947.4	947.0	946.3	945.9	945.2	945.0	944.2	944.0	944.0
	U	-	-	-	941	941	940	940	940	940	940
9.5. 2009.	K	949.0	949.3	949.6	949.6	949.2	948.6	948.2	947.9	947.4	947.2
	U	-	-	-	945	-	945	-	944	-	944
24.5. 2009.	K	948.0	948.0	947.3	947.0	946.3	946.1	946.3	946.8	947.0	947.0
	U	-	942	-	942	-	942	-	-	943	943
31.5. 2009.	K	948.2	948.2	947.4	947.0	946.3	945.9	945.7	945.7	945.7	945.7
	U	-	942	-	942	-	942	-	940	-	940
2.6. 2009.	K	937.7	937.2	937.0	937.0	936.7	936.7	936.7	936.8	936.8	936.8
	U	-	-	931	-	930	930	-	930	-	930
5.6. 2009.	K	941.5	941.3	938.4	938.4	938.4	938.6	938.6	938.6	938.1	938.1
	U	-	-	932	932	-	932	-	932	-	-
6.6. 2009.	K	940.3	940.0	939.6	939.2	939.6	939.7	938.5	937.9	937.6	936.8
	U	-	-	-	933	933	933	-	933	-	932
10.6. 2009.	K	948.0	947.4	946.8	946.3	945.5	945.0	944.4	944.4	944.4	943.6
	U	-	-	-	940	-	940	-	940	-	939
11.6. 2009.	K	946.5	945.7	944.4	943.6	942.6	942.0	941.5	941.6	941.5	941.5
	U	-	-	-	-	-	935	-	935	-	935
12.6. 2009.	K	946.9	946.5	946.8	946.5	945.9	945.5	945.0	944.7	944.4	944.4
	U	-	-	936	-	936	936	-	-	-	935
14.6. 2009.	K	950.4	950.5	950.4	950.0	950.1	949.9	950.5	950.8	951.0	950.6
	U	-	-	944	-	944	944	-	-	-	944
15.6. 2009.	K	950.3	950.3	949.5	949.5	949.5	948.6	948.4	947.9	947.9	947.9
	U	-	-	-	945	-	944	-	944	-	944
18.6. 2009.	K	950.0	949.7	949.3	949.1	948.4	949.3	948.4	947.6	947.0	947.2
	U	-	945	-	945	-	945	-	944	-	944
20.6. 2009.	K	942.8	941.7	940.8	940.4	940.2	940.0	938.9	938.6	938.3	937.7
	U	-	-	-	935	-	935	-	930	-	930
23.6. 2009.	K	936.0	936.6	937.3	937.3	937.3	935.4	935.4	935.4	935.4	935.7
	U	-	-	-	931	-	930	-	930	-	930
3.7. 2009.	K	942.5	942.5	942.0	941.5	941.2	941.0	940.0	939.7	939.5	938.4
	U	-	-	939	939	-	938	-	-	934	-
5.7. 2009.	K	939.2	939.2	939.3	938.5	938.5	938.5	937.9	937.7	937.7	937.0
	U	-	-	933	933	-	933	-	932	-	-
13.7. 2009.	K	946.0	946.1	945.9	945.5	945.3	945.3	944.6	944.6	944.6	944.7
	U	-	939	-	938	-	-	935	935	935	-
10.8. 2009.	K	946.8	946.8	946.3	946.3	946.3	945.6	945.2	944.7	944.0	943.6
	U	-	940	-	939	-	939	-	935	-	-
5.9. 2009.	K	941.6	941.9	943.6	945.2	945.9	947.0	947.4	946.9	946.9	946.3
	U	-	-	937	938	938	-	940	-	-	-
12.9. 2009.	K	944.6	944.6	943.9	943.7	943.6	943.4	943.4	943.4	943.4	943.4
	U	-	-	-	-	935	935	-	-	935	-
20.9. 2009.	K	945.1	945.5	945.5	945.5	945.5	945.5	945.5	945.5	945.5	945.5
	U	-	-	-	938	938	-	938	-	-	938



Graph 3-4 Correlation summary of the number of collected Cetoniidae and the highest values of temperature (values are shown) during the six days while more than 20 individuals were collected (above personal measuring values, below measuring of meteorological station of Bjelave) on Mt. Ozren

We consider that the values of temperature during 13th July 2008 and 5th July 2009 were crucial for the great number of collected individuals of this family, known typically as the heliophylle species.

CONCLUSION

By analysing the collected data during the research into the Cetoniidae leach family on Mt. Ozren during 2008 and 2009, the following conclusions were made.

- By analysing the literature, it was concluded that the existence of 13 types from the family Cetoniidae were present in the wider surroundings of Sarajevo from a possible 17.
- During the two-year study period, 594 units from the Cetoniidae family were found on the south slopes of Mt. Ozren.
- Analysed material derived from the six localities of the above-mentioned mountain, had been collected during 41 field visits, with 49 samples in total.
- The research confirmed that there are seven types of the family in question on Mt. Ozren of the 13 that have been recorded in the Sarajevo area.
- By comparison with Cetonid representation on Mt. Ozren in accordance with the stated temperature values, the correlation between the number of collected individuals and the values of the air temperatures is obvious.
- By comparison with Cetonid representation on Mt. Ozren in accordance with the recorded values of barometric pressure, a correlation was seen between the numbers of collected individuals and increased decreased values of barometric pressure.

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**KOMPARATIVNA ANALIZA ZASTUPLJENOSTI VRSTA
PORODICE Cetoniidae Leach NA PLANINI OZREN KOD
SARAJEVA PREMA KONSTATOVANIM TEMPERATURAMA
I BAROMETARSKOM PRITISKU**

U radu su prezentirani podaci o konstatovanoj fauni porodice Cetoniidae Leach, 1815 na vertikalnom profilu južnih padina planine Ozren kod Sarajeva u komparaciji sa zabilježenim vrijednostima temperature i barometarskog pritiska. Uzorci su sakupljeni u periodu april – septembar 2008. i 2009. godine na šest odabranih lokaliteta (Orlovac, Nahorevo, Čavljak, Skakavac, Bukovik i Crepoljsko) kroz 41 terenski izlazak pri čemu je konstatovano sedam vrsta.

Poređenjem je konstatovano da su vrijednosti temperature bile znatno višočije u danima kada su sakupljeni uzorci sa velikim brojem buba. S druge strane, nije utvrđena korelacija u vrijednostima barometarskog pritiska sa brojem sakupljenih individua.

Ključne riječi: Cetoniidae, fauna, biodiversity, Ozren, Sarajevo, Bosnia and Herzegovina