

A CONTRIBUTION TO THE TAXONOMIC ANALYSIS FOR SPECIES SEED BUGS IN SOME HABITATS

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Abstract

This paper present studying of *Lygaeidae* for the different ecosystems in Spille, M. Robit, Golem, Divjaka and Kolonja stations. Study of the systematical aspects for the families *Lygaeidae* in different habitas is presented in that paper. The biological material was collected during the period of time 2012-2013. In our study, we determined 41 exemplars for this family. The family *Lygaeidae* was presented by 10 genera and 12 species. The *Lygaeidae* family includes species of small to middle dimensions. Their scutellum looks like Y letter, and their legs own tarsus composed by 3 segments. They are phytofage species, but it has been found that some species can feed also with the vegetative parts. In that family are identified some predators. The systematical analysis to the *Lygaeidae* resulted that the genera represented by the highest number of speies was *Lygaeus* and *Ischnodemus* by 2 species, and frequency 16.67%. By analyzing the material the station with more species, is K.Kasta, with 8 species or frequency 66.67%, while with less species, is Peqin with with 3 species or frequency 25.00%. This study is important on the taxonomical and ecological aspects to the fauna. Based on their morphology, like tiny insects, we have compared our findings with previous monitorations, and it has resulted that thier status is constant.

Key words: *Hemiptera*, *Lygaeidae*, *ekosystems*

Introduction

They are distinguished from two simple eyes and two composed eyes, and the head is very small. They have one trumpet with four segments, and their antennas are composed of four segments. Scutellum contain on swelling like Y letter, their legs have composed tarsus from 3 segments (Slater, 1975).

The *Lygaeidae* family includes species of small to middle dimensions, or too small. Some of them show bright colors, red, black and yellow, but mainly are dominated by the red and black color (Dolling, 1991; Péricart, 1988).

They are phytofage species, which feed by seed, but some species can feed also with the vegetative parts, like flowers. In that family are identified some predators (Servadei, 1967; Miller, 1971; Servadei et al. 1972; Silvestri, 1939).

This paper presents our study on the species belonging to this family for the ecosystems of Elbasan region attempting to give a thorough analyze of the species from this family.

Materials and Methods

The biological material is collected during the expeditions of 2012-2013 in the ecosystem habitats of Elbasan, stations of K. Krastës, Bradasheshit, Papërit, Peqin and Mirakë.

Samplings of the biological material were realized randomly in the May-September period, respectively during the 09⁰⁰-15⁰⁰ day hours.

Entomological mowing nets of 80cm diameter, aspirators and Pitt's traps were employed. Mowing with Entomological nets is achieved according to the diagonals for surfaces of 100 m² (10m x 10m), passing five times across each square' diagonal (Colas, 1969; Chapman,1988).

After collection, the individuals are placed in plastic bottles, labelled with the date and station.

The fine biological materials are placed in plastic flacons 150-200 cc. they were sent to the scientific laboratory and preserved in bottles of ethanol solution 95%, acetic acid, distilled water in 80:5:20 ml, and some ether drops (Colas, 1969; Chapman, 1988).

Determination of the collected material was analyzed by observing with stereomicroscope *ZEISS (Carl Zeiss)*, and use of determination keys to this family, previous collections, and other article for this family (AUKEMA et al. 1999; HALIMI et al, 2013; MISJA, 1976).

Results and Discussion

In this study are determined species of the *Lygaeidae* family by listing them in the table according to the encountered species in the different ecosystems for K. Krastës, Bradasheshit, Papërit, Peqin and Miras stations.

Tab. 1. List of species for *Lygaeidae* family

No	Scientific name	No. Exemplar	K. Krastës	Bradashesh	Papër	Peqin	Mirake
1	Genus <i>Beosus</i>						
1	<i>Beosus quadripunctatus</i> O.F. Müller, 1766	3			+		+
2	Genus <i>Geocoris</i>						
2	<i>Geocoris erythrocephalus</i> Le Peletier – Serville, 1825	4	+	+		+	
3	Genus <i>Henestaris</i>						
3	<i>Henestaris laticeps</i> Curtis, 1836	4			+		+
4	Genus <i>Ischnodemus</i>						
4	<i>Ischnodemus sabuleti</i> Fallén, 1826	2	+		+		+
5	<i>Ischnopeza hirticornis</i> Herrich-Schäffer, 1850	4	+	+		+	
5	Genus <i>Lygaeus</i>						
6	<i>Lygaeus equestris</i> Linnaeus, 1758	3	+		+		

7	<i>Lygaeus pandurus</i> Scopoli, 1763	5	+				+
6	Genus <i>Melanocoryphus</i>						
8	<i>Melanocoryphus albomaculatus</i> Goeze, 1778	3	+		+		
7	Genus <i>Metopoplax</i>						
9	<i>Metopoplax origani</i> Kolenati, 1845	6		+		+	+
8	Genus <i>Nysius</i>						
10	<i>Nysius graminicola</i> Kolenati, 1846	2		+	+		
9	Genus <i>Pezocoris</i>						
11	<i>Pezocoris apicimacula</i> Costa, 1853	2	+	+			
10	Genus <i>Platyplax</i>						
12	<i>Platyplax salviae</i> Schilling, 1829	3	+		+		+

From analyzing of the scientific material collected in the area under study, from a total of 41 encountered individuals, are present 10 genera and 12 species to *Lygaeidae* family (Table 2, Figure 1).

Tab. 2. Species numbers according to the genera for the *Lygaeidae* family

No	Scientific name	Species number	Species frequency
1	<i>Beosus</i>	1	8.33
2	<i>Geocoris</i>	1	8.33
3	<i>Henestaris</i>	1	8.33
4	<i>Ischnodemus</i>	2	16.67
5	<i>Lygaeus</i>	2	16.67
6	<i>Melanocoryphus</i>	1	8.33
7	<i>Metopoplax</i>	1	8.33
8	<i>Nysius</i>	1	8.33
9	<i>Pezocoris</i>	1	8.33
10	<i>Platyplax</i>	1	8.33

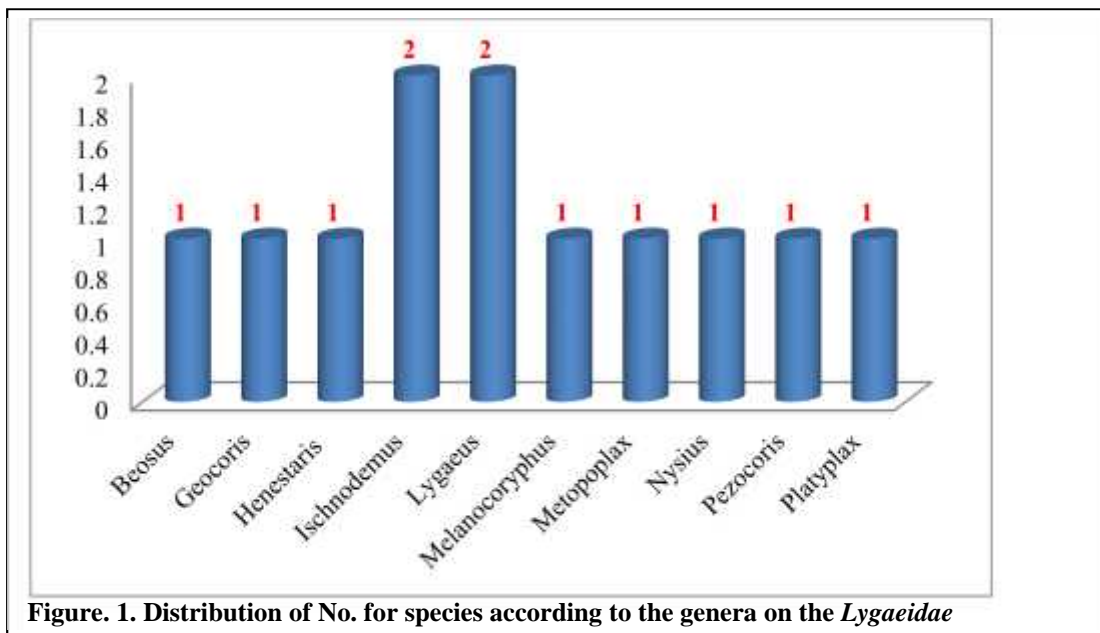


Figure. 1. Distribution of No. for species according to the genera on the *Lygaeidae*

Analysis of the results based on the diversity for the *Lygaeidae* family, Genera *Lygaeus* and *Ischnodemus* are the most represented by 2 species or by 16.67%, other genera *Beosus*, *Geocoris*, *Henestaris*, *Melanocoryphus*, *Metopoplax*, *Nysius*, *Pezocoris* and *Platyplax* are represented by 1 specie or by 5.88%.

Analyzing of the diversity to the different stations, indicates that most represented regarding to the *Lygaeidae* family, is the K.Krasta stations by 8 species, or 66.67%, followed by Paper station with 7 species, or 41.67%, Mirake station by 6 species, or 50.00%, Bradashesh station by 5 species, or 41.67%, and Peqin with 3 species or 25.00%. (Table 3, Figure 3).

Tab. 3. The number of species according to the stations

Station	Species number	Species frequency
K.Krastës	8	66.67
Bradashesh	5	41.67
Papër	7	41.67
Peqin	3	25.00
Mirakë	6	50.00

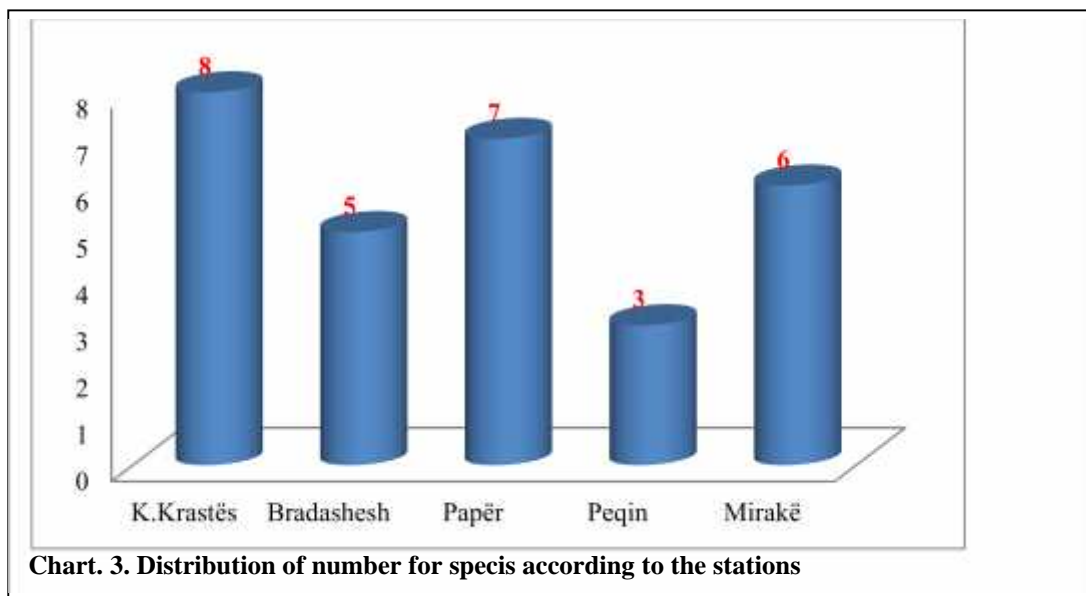


Chart. 3. Distribution of number for specis according to the stations

Conclusions

This study presents results for 34 exemplars in the ecosystems of the Elbasan region. In total are encountered 10 genera and 12 species to the *Lygaeidae* family.

Highest diversity to the *Lygaeidae* family is *Lygaeus* and *Ischnodemus* genera by 2 species, or 16.67%.

To the *Lygaeidae* family, most represented is the K.Krasta station by 8 species, or 66.67%, while with less species is Peqin with with 3 species or frequency 25.00%.

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