

ROVE BEETLES (COLEOPTERA: STAPHYLINIDAE) FROM THE DEAD WOOD IN THE FORESTS OF THE LOWER DNIESTER, REPUBLIC OF MOLDAVA

SVETLANA BACAL, ALEXANDER DERUNKOV

Abstract. *The paper completes the faunistic data on the rove beetles of the Lower Dniester based on the material collected in November 2008-March 2009 (19 species) and on the verification in the list of staphylinids from Republic of Moldova.*

Keywords: *rove beetles, Republic of Moldova, fauna.*

Rezumat. *Coleoptere stafilinide (Coleoptera: Staphylinidae) din lemnul descompus al pădurilor Nistrului Inferior, Republica Moldova. Lucrarea completează lista faunistică a stafilinidelor Nistrului Inferior, conform materialului colectat în noiembrie 2008-Martie 2009 (19 specii) și în baza verificării listelor de stafilinide existente în Republica Moldova.*

Cuvinte cheie: *stafilinide, Republica Moldova, faună.*

INTRODUCTION

In the Republic of Moldova, the information about the fauna of Staphylinidae appeared for the first time in 1912, in the work of ІАТЕНТОВСКИІ (ЯЦЕНТКОВСКИЙ, 1912), in which the author presented a list of dates and places of collection of 70 species. In 1917, the authors MILLER and ZUBOVSKI (МИЛЕР & ЗУБОВСКИ, 1917) included this list in the general list of beetles from Basarabia. In 1957, the researchers Medvedev and Sapiro (МЕДВЕДЕВ & ШАПИРО, 1957) mentioned in their paper 4 new records of staphylinid species from Basarabia.

Rove beetles enumerated in the authors' works above, were collected by chance from different biocoenoses.

Later, there were made complex researches in some agrocoenoses. As a result of the research carried out by ADASCHEVICI (АДАШКЕВИЧ, 1972) in 1972, 117 species of staphylinids were published. NECULISEANU (НЕКУЛИСЯНУ, 1984) mentioned 23 species in 1984, but some of them were identified as genera. Since 2003 till 2008 after a study of epigeal beetles from Landscape Reserve "Codrii Tigheci" 11 new species were added (STAN & BACAL, 2006). Thus, the rove beetles fauna from the Republic of Moldova numbers more than 230 species, about 30% of the expected number of Staphylinidae from the region.

MATERIAL AND METHODS

The materials discussed in this paper were extracted from the rotten wood of deciduous forests of the Lower Dniester by means of the separation method in the period of November 2008-March 2009. The subarid forest was selected for study. It is located in the proximity of locality Gradinita (46 39' N 29 35'E), where a Mediterranean vegetation prevails, the main tree vegetation is represented by oaks *Quercus petraea* and *Quercus pubescens*. This paper presents preliminary results concerning a peculiar diversity of the coleopteran group the study of which was only fragmentary in the region of the Lower Dniester. As a result of direct study, a rich material was found in this area, and the paper comprises meaningful issues. By means of the method of separation from the soil and the wooden material in the process of decomposition 19 staphylinids species were extracted, eleven of them are mentioned for the first time in the republic's fauna.

RESULTS AND DISCUSSIONS

According to the analysis of the literature in the field we may mention that the zone of the Lower Dniester was quoted in the previous works. Thus, 18 species of staphylinids were found in this region only. The flotation method was not used in the Republic of Moldova till present for the extraction of staphylinids. Therefore, practically all collected material is new for this region. Only one common species was tracked down from those 18 quoted. And about 1/3 from the discussed material is new for the republic's fauna.

Table 1. List of the identified staphylinids from the Lower Dniester.
Tabel 1. Lista faunistică a stafilinidelor identificate în pădurile Nistrului Inferior.

Nr.	Taxon	Synonym	Mentioning		Distribution
			before	actual	
	Subfamily Oxytelinae				
1.	<i>Carpelimus biliniatus</i> STEPHENS, 1834	<i>Trogophloeus bilineatus</i> (STEPHENS, 1834)	+		Cosmopolitan

2.	<i>Anotylus nitidulus</i> (GRAVENHORST, 1802)	<i>Oxytelus nitidulus</i> GRAVENHORST, 1802	+		Cosmopolitan
3.	<i>Anotylus rugosus</i> (FABRICIUS, 1775)	<i>Oxytelus rugosus</i> (FABRICIUS, 1775)	+		Holarctic
4.	<i>Anotylus tetracarlinatus</i> (BLOK, 1799)	<i>Oxytelus tetracarlinatus</i> (BLOK, 1799)	+		Holarctic
5.	<i>Bledius tricornis</i> (HERBST, 1784)		+		Transpalearctic
6.	<i>Bledius gallicus</i> (GRAVENHORST, 1806)	<i>Bledius fracticornis</i> (PAYKULL, 1790)	+		Transpalearctic
	Subfamily Oxyporinae				
7.	<i>Oxyporus rufus</i> (LINNAEUS, 1758)		+		Transpalearctic
	Subfamily Habrocerinae				
8.	<i>Habrocerus capillarcornis</i> (GRAVENHORST, 1806)			+	Cosmopolitan
	Subfamily Tachyporinae				
9.	<i>Mycetoporus forticornis</i> FAUVEL, 1875*			+	European
10.	<i>M. eppelsheimianus</i> FAGEL, 1968*	<i>M. brucki</i> auct. nec PANDELLÉ, 1869		+	European
11.	<i>Sepedophilus immaculatus</i> (STEPHENS, 1832)*			+	Transpalearctic
12.	<i>Sepedophilus marshami</i> (STEPHENS, 1832)*			+	Transpalearctic
13.	<i>Sepedophilus obtusus</i> LUZE, 1902*			+	Euromediterranean
14.	<i>Tachyporus hypnorum</i> (FABRICIUS, 1775)			+	Transpalearctic
15.	<i>Tachyporus nitidulus</i> (FABRICIUS, 1781)			+	Cosmopolitan
16.	<i>Tachyporus solutus</i> ERICHSON, 1839		+	+	Eurosiberian
17.	<i>Tachinus corticinus</i> GRAVENHORST, 1802	<i>Tachinus collaris</i> GRAVENHORST, 1802		+	Transpalearctic
	Subfamily Aleocharinae				
18.	<i>Gyrophaena joyi</i> WENDELER, 1924*	<i>Gyrophaena convexicollis</i> JOY, 1912		+	European
19.	<i>Oxypoda abdominalis</i> (MANNERHEIM, 1830)*			+	Transpalearctic
20.	<i>Acrotona fungi</i> (GRAVENHORST, 1806)*			+	Holarctic
21.	<i>Zyras haworthi</i> STEPHENS, 1832			+	Euromediterranean
	Subfamily Paederinae				
22.	<i>Sunius fallax</i> (LOKAY, 1919)*			+	Euromediterranean
23.	<i>Paederus riparius</i> (LINNAEUS, 1758)		+		Holarctic
24.	<i>Rugilus similis</i> (ERICHSON, 1839)	<i>Stilicus similis</i> ERICHSON, 1839	+		Eurocaucasian
25.	<i>Lithocharis ochracea</i> (GRAVENHORST, 1802)		+		Cosmopolitan
26.	<i>Achenium depressum</i> (GRAVENHORST, 1802)		+		European
	Subfamily Staphylininae				
27.	<i>Othius punctulatus</i> (GOEZE, 1777)			+	Euromediterranean
28.	<i>Philonthus carbonarius</i> (GRAVENHORST, 1802)	<i>Philonthus varius</i> (GYLLENHAL, 1810)		+	Holarctic
29.	<i>Philonthus salinus</i> KIESENWETTER, 1844		+		Westpalearctic
30.	<i>Philonthus punctus</i> (GRAVENHORST, 1802)		+		Transpalearctic
31.	<i>Staphylinus caesareus</i> CEDERHJELM, 1798		+		Westpalearctic
32.	<i>Ocytus brunripes</i> (FABRICIUS, 1781)	<i>Staphylinus brunripes</i> (FABRICIUS, 1781)	+		European
33.	<i>Ontholestes murinus</i> (LINNAEUS, 1758)	<i>Ontholestes dieckmanni</i> SMETANA, 1958	+		Transpalearctic
34.	<i>Quedius fulgidus</i> (FABRICIUS, 1793)	<i>Quedius assimilis</i> (NORDMANN, 1837)	+		Cosmopolitan
35.	<i>Quedius limbatus</i> (HEER, 1839)*	<i>Quedius limbatooides</i> COIFFAIT, 1963		+	Eurocaucasian
36.	<i>Quedius suturalis</i> KIESENWETTER, 1845*			+	European

Legend: The species with (*) are mentioned for the first time in the Republic of Moldova.

Legendă: Speciile marcate cu asterisc (*) - sunt menționate pentru prima dată în fauna Republicii Moldova.

As a result of the species distribution analysis (LÖBL & SMETANA, 2004, ГРЕБЕННИКОВ, 2002) we ascertained that coleopteran's fauna from the zone of the Lower Dniester belongs to 8 zoogeographical elements: Transpalearctic, Westpalearctic, European, Eurosiberian, Euromediterranean, Eurocaucasian, Holarctic, Cosmopolitan. The most interesting faunistic findings are *Sunius fallax* and *Zyras haworthi*. The first species had mostly south-European

distribution. According to the Catalogue of Palaearctic Coleoptera (LÖBL & SMETANA, 2004) *S. fallax* was found in Bosnia and Herzegovina, Bulgaria, Greece, Hungary, Macedonia and Slovakia. The species is rare and prefers more or less dry plots in beech (*Fagus*) forests and riverine habitats. The species *Z. haworthi* is distributed wide all over the middle and South Europe, but it is rare everywhere. The species is myrmecophilous (connected with *Lasius* and *Formica* species) and occurs previously in the mountain regions.

Most collected rove beetle species use dead wood only as refuges. Some species (like *Gyrophana* and *Oxyporus*) are real fungicolous species. Others most likely feed on the saprophytic and mold fungi (like *Habrocerus* and some *Sepedophilus* species) grown in the wood.

CONCLUSIONS

The fauna of staphylinids discussed in this paper belongs to 7 subfamilies, 24 genera and 36 species. The faunistic list of this family in the Republic of Moldova was completed with eleven new species. In the examined zone Transpalearctic, Cosmopolitan and European staphylinid species prevails.

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REFERENCES

- LÖBL I. & SMETANA A. (Eds.). 2004. *Catalogue of Palaearctic Coleoptera*. Hydrophiloidea-Staphylinidae. Stenstrup: Apollo Books. 2: 942pp.
- STAN M. & BACAL S. 2006. *Noi contribuții la cunoașterea stafilinidelor (Coleoptera: Staphylinidae) din rezervația peisagistică „Codrii Tigheciului” (Republica Moldova)*. Muzeul Olteniei Craiova. Oltenia. Studii și comunicări. Științele Naturii. 22: 155-159.
- АДАШКЕВИЧ Б. 1972. *Полезная энтомофауна овощных полей Молдавии*: 30-38, 39-55.
- ГРЕБЕННИКОВ К. А. 2002. *Аннотированный список стафилинид (Coleoptera, Staphylinidae) Нижнего Поволжья*. Октябрь www.zin.ru/Animalia/Coleoptera/rus/st_lvc.htm.
- МЕДВЕДЕВ С. И. & ШАПИРО Д. 1957. *К познанию фауны жуков (Coleoptera) Украины*. Тр. н-и ин-та биол. и биол. Факторов. N. 30: 173-206.
- МИЛЕР Е. & ЗУБОВСКИ Н. 1917. *Материалы по энтомологической фауне Бессарабии*. Труды Бессарабского общества естествоиспытателей и любителей естествознания Т. 2. часть 1. Кишинев: Типография Бессарабского Губернского Правления: 32-150.
- НЕКУЛИСЯНУ З. 1984. *Фауна и биология коротконадкрылых жуков подсемейств Staphylininae и Paederinae (Coleoptera, Staphylinidae) в агроценозах Молдавии*. Автореферат на соискание ученой степени кандидата биологических наук. Кишинев: 18pp.
- ЯЦЕНТКОВСКИЙ Е. В. 1912. *Материалы по энтомологической фауне Бессарабии.-Жесткокрылые*. 8.-Тр. Бессараб. обществоисп. и любит. естествозн. т. 2. вып. 2: 1-16.

Bacal Svetlana

Institute of Zoology, Academy of Sciences of Moldova
Academy Str. 1,
2028 Chisinau, Republic of Moldova,
E-mail: svetabacal@yahoo.com

Derunkov Alexander

Scientific-Practical Center of the National Academy of Sciences
of Belarus for biological resources, Akademicheskaja str. 27, 220072 Minsk, Belarus,
E-mail: alex_derunkov@tut.by

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