

NEW DATA ON THE KNOWLEDGE OF BEETLE FAUNA (INSECTA: COLEOPTERA) IN THE “BÂRNOVA-REPEDEA FOREST” SITE OF COMMUNITY IMPORTANCE (ROSCI 01235, IAȘI, ROMANIA)

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Abstract. 103 coleopteran species, belonging to 11 families were found during our faunal sampling in 2012 in the Bârnova-Repedea Forest site. Out of them *Carabus variolosus* Fabricius, *Lucanus cervus* (Linnaeus), *Cerambyx cerdo* Linnaeus, *Morimus funereus* Mulsant and *Rosalia alpina* (Linnaeus) are species of community interest, included in the Annex II of the Habitat Directive. *Carpelimus gusarovi* Gildenkov and *Stenus doderoi* Bondroit were collected by the authors, for the first time in Romania. *Carabus excellens* (Fabricius), a rare species, was rediscovered in this site, and specific faunistic data on the species *Colon (Myloechus) dentipes* (C. R. Sahlberg) are provided for the first time.

Résumé. 103 espèces de coléoptères, appartenant à 11 familles ont été trouvées durant notre échantillonnage faunistique dans la forêt de Bârnova-Repedea. Parmi eux, les espèces *Carabus variolosus* Fabricius, *Lucanus cervus* (Linnaeus), *Cerambyx cerdo* Linnaeus, *Morimus funereus* Mulsant et *Rosalia alpina* (Linnaeus) sont des espèces d'intérêt communautaire, incluses dans l'Annexe II de la Directive d'habitats. *Carpelimus gusarovi* Gildenkov et *Stenus doderoi* Bondroit ont été collectées par les auteurs, pour la première fois en Roumanie. *Carabus excellens* (Fabricius), une espèce rare, a été redécouverte dans ce site, et les données faunistiques spécifiques sur l'espèce *Colon (Myloechus) dentipes* (C. R. Sahlberg) sont fournies pour la première fois.

Key words: Coleoptera, Natura 2000, Bârnova-Repedea Forest, faunistics.

INTRODUCTION

In 2007, Bârnova-Repedea Forest was declared site of community interest (SCI), being part of Natura 2000 European ecological network in Romania. In this site, there are also four protected areas of national interest: Repedea Hill Fossil Site, Poiana cu Schit Flora Reserve, Poieni, Cărbunărie Forest Reserve and Pietrosu Forest Reserve. Also, this site overlaps ROSPA0092 Bârnova Forest. From biogeographic point of view, the site is placed in the continental bioregion, in Moldavian Tableland. It lays south to Iași and covers 12.216 ha and is at an average altitude of 299 m. According to Natura 2000 Standard Form, the habitats of community interest are represented by the Dacian forests of oak and hornbeam (55%) and by the beech forests of the type *Asperulo-Fagetum* (33%). For the designation of the forest as SCI, the presence of five mammal species, one amphibian, nine invertebrate species included in the Annex II of the Directive of the Council 92/43/CEE had also an important role. Bârnova-Repedea Forest is also famous by some other plant and animal species which are mentioned in international conventions and red lists.

Taking into account the special conservation importance of the site, the surface and microhabitat diversity of the area, we can assert that the coleopteran fauna of the Bârnova-Repedea Forest is insufficiently known. In 1911, Jonescu published a paper with over 240 coleopteran species from the surroundings of Iași, respectively the field Pester and hills Bârnova, Repedea and Tomești. More recently, Varvara & Varvara (1991) and Varvara (2004) published two articles which deal with

the Carabidae fauna from the Bârnova forest. Different articles report coleopteran species from the area Bârnova-Repedea, belonging to the family Cerambycidae and other Coleoptera included in the Annex II of Habitats Directive 92/43/EEC (so called Natura 2000 species), or rare species of local interest (e.g. Dascălu, 2005, 2006, 2007; APM-Iași, 2008; Serafim, 2005-2007, 2009, 2010).

In this paper, we complete the list of the coleopteran species of the area, not only with the data on coleopteran species of community interest (Natura 2000), but also with other species which could be collected during this short research period, mentioning that the subsequent studies are absolutely necessary both for completing the list of the coleopteran fauna and for updating continuously the data from an area of a special conservation interest.

MATERIAL AND METHODS

The presence in the Bârnova-Repedea Forest SCI was possible as a result of the authors' participation at the SINCRON Project, "Necessary services and equipments for the implementation of the Management Integrated System and Awareness in Romania of Natura 2000 Network" – Lot 1: „Development of the management plans by using an electronic online database with GIS support“.

The beetle fauna was sampled during two campaigns within the periods 4-9 of June, respectively 2-11 of July 2012, primarily aiming at assessing the conservation status of the characteristic habitats of the coleopteran species of community interest, mentioned in the Natura 2000 Standard Form, and their distribution in descriptive format and GIS.

Different working methods were used in the field: observation/identification of the attacked old trees, the checking of burrows and litter with the entomological rake, followed by direct sampling with the exhaustor and tweezers, the checking of the piles of logs (beech, hornbeam, oak, linden) which were present in the established transects, collecting with soil traps, light traps, sampling with Winkler net, record of the observation points and geographical coordinates (with Trimble Juno 3B and Garmin eTrex GPS), photography.

Within SCI Bârnova-Repedea Forest, the following habitat types were investigated: compact forest areas with old oak specimens, and compact forest areas with beech, areas with scatter century-old oaks, hilly meadows in limestone areas, flooding meadow areas and ripic microhabitats in mixed forest (beech and beech-oak) as well as the forests from the Repedea Hill. Collecting sites are presented in figure 1.

The specimens (except the Natura 2000 species) are preserved in the Coleopteran Collection of „Grigore Antipa” National Museum of Natural History and in the Coleopteran Collection of „Emil Racoviță” Institute of Speleology of the Romanian Academy.

For morphological details and photos of the aedeagi were used the stereomicroscopes Stemi 2000-C, Discovery.V8 and the digital camera Nikon D 700 with Nikkon 105 mm F 2.8 objective.

RESULTS AND DISCUSSIONS

A number of 103 coleopteran species of the families Carabidae (21), Histeridae (1), Staphylinidae (48), Silphidae (3), Leiodidae (4), Lucanidae (2), Geotrupidae (2), Scarabaeidae (4), Anobiidae (1), Tenebrionidae (1), Cerambycidae (16) were identified (Tab. 1).

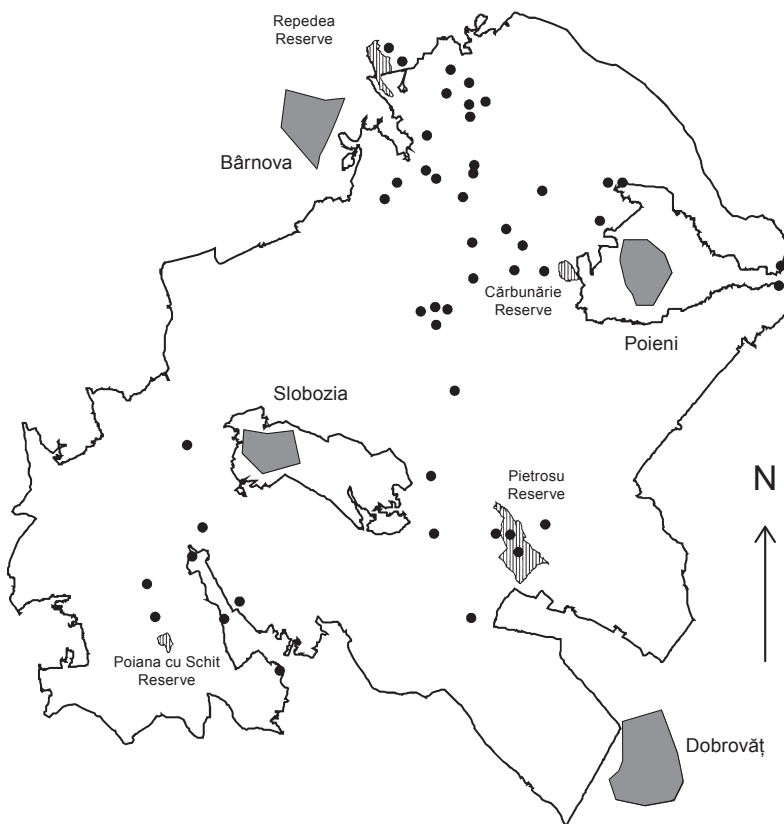


Fig. 1 - The map of collecting/observing sites from “Bârnova-Repedea Forest” SCI (Iași county).

From the seven coleopteran species mentioned in Standard Form Natura 2000 ROSCI 0135 Bârnova-Repedea Forest, five species were observed: *Carabus variolosus* Fabricius, *Lucanus cervus* (Linnaeus), *Cerambyx cerdo* Linnaeus, *Morimus funereus* Mulsant, and *Rosalia alpina* (Linnaeus). All these species are also protected by the national legislation, being included in the Annexes 3 and 4 A of OUG 57/2007, on the regime of the protected natural areas, conservation of the natural habitats, of wild flora and fauna.

Carabus variolosus Fabr. (Fig. 2 A) is a ripicolous, silvicolous species, extremely hygrophilous, stenotopic for beech forested areas, being an indicator of the wet areas of the unaltered beech or beech-oak forests. EU code 4014.

Lucanus cervus (L.) (Fig. 2 B a-d) is a silvicolous, saproxylic species. Specimens (males and females) were observed / photographed in site, on *Quercus* sp., *Fagus* sp., *Carpinus* sp. trunks, but also in litter. Flying specimens (males) were observed and specimens during copulation were photographed. Exoskeleton remains were also found. In comparison with the other Natura 2000 coleopteran species it is, by far, the most frequent species of this site. EU code 1083.

Cerambyx cerdo L. (Fig. 3 A) is a stenotopic (predominantly in oak forests), lignicolous, xylophagous, saproxylic species. On the 6th of June, a rainy day, two areas with century-old oaks, with a specific attack of *Cerambyx cerdo* were visited, exoskeleton remains being found at the tree bases. On the 9th of June, a sunny day,

Table 1

Beetle species identified from ROSCI0135 Bârnova-Repedea Forest (Iași county).

	Species	Collecting/observing sites	Geographical coordinates/Airpad coordinates, altitude
	Family Carabidae Latreille, 1802		
1	<i>Agonum (Olisares) hypocrita</i> Apfelbeck, 1904	1 ♀, 1 ♂, Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
		1 ♂, Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
2	<i>Abax parallelus</i> (Duftschmid, 1812)	1 ♀, Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
		1 ♂, Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
3	<i>Bembidion (Peryphoratus) dalmaninum</i> Dejéan, 1831	1 ♀, Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
4	<i>Bembidion (Eupetadromus) dentellum</i> (Thunberg, 1787)	2 ♂, Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
5	<i>Bembidion (Metalina) lampros</i> (Herbst, 1784)	1 ♀, 2 ♂, Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
6	<i>Bembidion (Philochthius) lunulatum</i> (Fourcroy, 1785)	1 spec., Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
		1 ♀, glade at the oak forest skirt (with specimens of century-old oaks), 3.07.2012	N: 47°03'55.2"; E: 27°40'01.8"; 373 m
7	<i>Carabus (Procrustes) coriaceus rugifer</i> Kraatz, 1877	2 ♀, 1 ♂, Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
		7 ♀, 5 ♂, Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
8	<i>Carabus (Morphocarabus) excellens</i> Fabricius, 1798	1 ♀, 1 ♂, Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
9	<i>Carabus (Carabus) granulatus</i> Linnaeus, 1758	1 ♂, Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
10	<i>Carabus (Chaeocarabus) intricatus intricatus</i> Linnaeus, 1761	1 ♀, Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
11	<i>Carabus (Hygrocarabus) variolosus</i> Fabricius, 1787	1 ♀, Pietrosu Forest Reserve, bank of Dobrovăț stream, 9.06.2012	X: 702994.475783239; Y: 613178.155019704
		1 ♀, Rediu valley, 10.07.2012	N: 46°59'40.7"; E: 27°36'14.1"; 327 m
12	<i>Carabus (Megodontus) violaceus wolffi</i> Dejéan, 1826	1 ♀, glade at the oak forest skirt (with specimens of century-old oaks), 3.07.2012, (soil traps)	N: 47°03'55.2"; E: 27°40'01.8"; 373 m
13	<i>Chlaenius (Chlaenius) nitidulus</i> (Schrank, 1781)	2 ♀, Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
14	<i>Chlaenius (Chlaenius) vestitus</i> (Paykull, 1790)	2 ♀, Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
15	<i>Dyschirides globosus</i> (Herbst, 1783)	1 ♀, Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
16	<i>Platynus (Limodromus) assimilis</i> (Paykull, 1790)	32 spec. (♂, ♀) Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
		15 spec. (♂, ♀) Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
17	<i>Pterostichus (Omaseus) melanarius</i> (Illiger, 1798)	1 ♂, Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
18	<i>Pterostichus (Pseudomaseus) anthracinus</i> (Illiger, 1798)	1 ♂, Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
19	<i>Pterostichus (Platysma) niger</i> (Schaller, 1783)	1 ♀, Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
20	<i>Pseudophonus rufipes</i> (De Geer, 1774)	1 ♂, Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
21	<i>Stenolophus mixtus</i> (Herbst, 1784)	1 ♂, Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
	Family Histeridae Gyllenhal, 1808		
22	<i>Margarinotus (Grammosterhus) ruficornis</i> (Grimm, 1852)	1 spec., Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
	Family Staphylinidae Latreille, 1802		
23	<i>Aleochara (Euryodma) brevipennis</i> Gravenhorst, 1806	1 spec., Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
24	<i>Aleochara intricata</i> Manneheim, 1830	1 spec, the bank of Dobrovăț stream (Pietrosu Forest Reserve), cow dung, 4.06.2012	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
25	<i>Aloconota (Aloconota) gregaria</i> (Erichson, 1839)	1 ♂, the edge of deciduous forest (Pietrosu Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
26	<i>Anorychus nitidulus</i> (Gravenhorst, 1806)	1 ♀, Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m

Table 1 (continued)

	Species	Collecting/observing sites	Geographical coordinates/A repud coordinates, altitude
27	<i>Anoryctus rugosus</i> (Fabricius, 1775)	5 ♂, 11 ♀, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
28	<i>Anoryctus sculpturatus</i> (Gravenhorst, 1806)	1 spec., Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
29	<i>Atheia guginata</i> (Baudi di Selve, 1848)	1 ♂, environs <i>George Mărgărit</i> Centre for Creation, forest with <i>Carpinus</i> sp., <i>Quercus</i> sp., in mushrooms, 6.06.2012	N: 46°59'57"; E: 27°35'24"; 380 m
30	<i>Atheia latcollis</i> (Stephens, 1832)	1 ♀, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
31	<i>Bledius dissimilis</i> Erichson, 1840	14 ♂, 9 ♀, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
32	<i>Bledius galliensis</i> (Gravenhorst, 1806)	1 ♂, 1 ♀, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
33	<i>Carpelmus corticinus</i> (Gravenhorst, 1806)	1 ♂, 1 ♀, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
34	<i>Carpelmus exiguus</i> (Erichson, 1839)	3 ♂, 4 ♀, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
35	<i>Carpelmus fuliginosus</i> (Gravenhorst, 1802)	3 ♂, 1 ♀, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
36	<i>Carpelmus gusarovii</i> Gildenkov, 1997	1 ♂, 1 ♀, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
37	<i>Carpelmus obesus</i> (Kiesenwetter, 1844)	2 ♂, 1 ♀, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
38	<i>Carpelmus striatus</i> (Olivier, 1795)	Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
39	<i>Gyrophthalmus angustatus</i> Stephens, 1833	1 ♀, the bank of Dobrovăț stream, Pietrosu Forest Reserve, 8-10.06.2012	X: 702994.475783239, Y: 613178.155019704
40	<i>Gyrophthalmus affinis</i> Mannerheim, 1830	3 ♂, environs <i>George Mărgărit</i> Centre for Creation, forest with <i>Carpinus</i> sp., <i>Quercus</i> sp., in mushrooms, 6.06.2012	N: 46°59'57"; E: 27°35'24"; 380 m
41	<i>Gyrophthalmus bilamata</i> Thomson, 1867	2 ♂, environs <i>George Mărgărit</i> Centre for Creation, forest with <i>Carpinus</i> sp., <i>Quercus</i> sp., in mushrooms, 6.06.2012	N: 46°59'57"; E: 27°35'24"; 380 m
42	<i>Gyrophthalmus fasciata</i> (Marsham, 1802)	2 ♂, environs <i>George Mărgărit</i> Centre for Creation, forest with <i>Carpinus</i> sp., <i>Quercus</i> sp., in mushrooms, 6.06.2012	N: 46°59'57"; E: 27°35'24"; 380 m
43	<i>Gyrophthalmus joyioides</i> Wüsthof, 1937	16 ♂, environs <i>George Mărgărit</i> Centre for Creation, forest with <i>Carpinus</i> sp., <i>Quercus</i> sp., in mushrooms, 6.06.2012	N: 46°59'57"; E: 27°35'24"; 380 m
44	<i>Lathrobium elongatum</i> (Linnaeus, 1767)	2 ♀, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
45	<i>Lordithon thoracicus thoracicus</i> (Fabricius, 1777)	5 spec., environs <i>George Mărgărit</i> Centre for Creation, forest with <i>Carpinus</i> sp., <i>Ulmus</i> sp., in mushrooms, 6.06.2012; 2 spec., beech litter, at the end of the Coțofăna forestry road, 10.06.2012	N: 46°59'57"; E: 27°35'24"; 380 m X: 706382.92055411, Y: 618234.840628322
46	<i>Lypoglossa lateralis</i> (Mannerheim, 1830)	1 ♂, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
47	<i>Nehemitropia lividipennis</i> (Mannerheim, 1830)	1 ♂, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
48	<i>Neobisnius procerulus procerulus</i> (Gravenhorst, 1806)	1 ♂, 2 ♀, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
49	<i>Ocyopus kuntzeni</i> (J. Müller, 1926)	1 ♂, 1 ♀, under beech log, at the end of the Coțofăna forestry road, 10.06.2012	X: 706382.92055411, Y: 618234.840628322
50	<i>Ontholestes murinus</i> (Linnaeus, 1758)	1 spec., Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
51	<i>Oxytelus piceus</i> (Linnaeus, 1767)	1 spec., Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
52	<i>Paederus fuscipes</i> Curtis, 1826	2 ♂, 1 ♀, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
53	<i>Paederus limpopitulus</i> Erichson, 1840	1 ♂, 1 ♀, the bank of Dobrovăț stream, in deciduous forest, 4.06.2012	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
54	<i>Philonthus concinnus</i> (Gravenhorst, 1802)	1 ♂, 1 ♀, the bank of Dobrovăț stream, at the edge of deciduous forest, cow dung, 4.06.2012	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
55	<i>Philonthus debilis</i> (Gravenhorst, 1802)	1 ♂, the bank of Dobrovăț stream, at the edge of deciduous forest, cow dung, 4.06.2012	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
56	<i>Philonthus decorus</i> (Gravenhorst, 1802)	1 spec., Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
57	<i>Philonthus quisquiliarius</i> (Gyllenhal, 1810)	2 ♂, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăț stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
58	<i>Philonthus rubripennis</i> Stephens, 1832	1 ♂, 1 ♀, the bank of Dobrovăț stream, Pietrosu Forest Reserve, 8-10.06.2012	X: 702994.475783239, Y: 613178.155019704
59	<i>Philonthus succicola</i> Thomson, 1860	1 ♀, Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
60	<i>Philonthus umbratilis</i> (Gravenhorst, 1802)	1 ♂, Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
61	<i>Platydacus chalcopcephalus</i> (Fabricius, 1801)	1 ♀, under beech log, at the end of the Coțofăna forestry road, 10.06.2012.	X: 706382.92055411, Y: 618234.840628322

Table 1 (continued)

Species	Collecting/observing sites	Geographical coordinates/A/rectpad coordinates, altitude
62 <i>Scopaeus debilis</i> Hochhuth, 1851	2 ♂, 7 ♀, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăţ stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
63 <i>Scopaeus laevigatus</i> (Gyllenhal, 1827)	2 ♀, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăţ stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
64 <i>Sepedophilus binotatus</i> (Gravenhorst, 1802)	1 spec., Vashui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
65 <i>Sepedophilus bipustulatus</i> (Gravenhorst, 1802)	1 ♀, beech litter, at the end of the Coţofana forestry road, 10.06.2012	X: 706382.92055411, Y: 618234.840628322
66 <i>Stenus biguttatus</i> (Linnaeus, 1758)	1 ♂, the bank of Dobrovăţ stream, in deciduous forest (Pietrosu Forest Reserve), 4.06.2012	X: 702994.475783239, Y: 613178.155019704
67 <i>Stenus doderoi</i> Bondroit, 1912	2 ♂, the bank of Dobrovăţ stream, in deciduous forest (Pietrosu Forest Reserve), 4.06.2012	X: 702994.475783239, Y: 613178.155019704
68 <i>Tachysa obrecta</i> Mulsant & Rey, 1870	7 exs, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăţ stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
69 <i>Tasgius pedator</i> (Gravenhorst, 1802)	1 ♂, the yard of "Casa boierească" pension, 9.06.2012	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
70 <i>Tetartopus rubritidius</i> (Reitter, 1909)	1 ♂, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăţ stream, 8.06.2012, light trap	N: 46°59'24.4"; E: 27°40'12.4"; 148 m
Family Silphidae Latreille, 1807		
71 <i>Microphorus vespillitoides</i> Herbst, 1784	1 ♂, Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
72 <i>Phosphorus atrata</i> (Linnaeus, 1758)	1 spec., Vashui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
73 <i>Stilpha carinata</i> Herbst, 1783	3 spec., Vashui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
Family Leiodidae Fleming, 1821		
74 <i>Apocaryps nigrita</i> (Erichson, 1837)	1 ♂, Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
75 <i>Colan (Myboechus) dentipes</i> (C. R. Sahlberg, 1834)	1 ♂, Vashui valley (flooding meadow), 7.07.2012	N: 47°03'47.2"; E: 27°42'13.9"; 235 m
76 <i>Nargus (Nargus) velox</i> (Spence, 1815)	1 ♂, Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
77 <i>Sciodrepoides wassoni</i> (Spence, 1815)	1 ♂, 1 ♀, Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0"; E: 27°42'03.7"; 265 m
Family Lucanidae Latreille, 1804		
78 <i>Dorcus parvileptepedus</i> (Linnaeus, 1758)	1 spec., Pietrosu Forest Reserve (near Dobrovăţ river), 4.06.2012	X: 703237.52988102, Y: 614322.91502548
	1 ♀, Poiana cu Cetate, "La Stejari", 6.07.2012	N: 47°0'3.65"; E: 27°35'34.81"; 388 m
	1 ♀, Pietrosul Forest Reserve (area with logs), 4.06.2012	N: 46°59'36.6"; E: 27°41'26.8"; 235 m
	1 ♂, Pietrosul Forest Reserve (predominantly beech forest, in litter), 8.06.2012	X: 704529.529302453, Y: 613431.751659419
	1 ♂, Bârmova Forest, forest skirt, in litter, 6.06.2012	N: 47°01'30"; E: 27°33'9.5"; 45 m
	1 ♂, <i>George Mărgărit</i> Centre for Creation, oak logs, 6.06.2012 (exoskeleton remains)	N: 47°00'07"; E: 27°35'31"; 390 m
	1 ♂, <i>George Mărgărit</i> Centre for Creation, predominantly <i>Carpinus</i> sp., <i>Quercus</i> sp. forest, 6.06.2012	N: 46°59'54"; E: 27°35'25"; 390 m
	3 ♂♂, Bârmova Forest, route: Centre for Creation – Poiana cu Schit (forest <i>Carpinus</i> , <i>Quercus</i> sp., <i>Tilia</i> sp., <i>Fagus</i> sp., <i>Ulmus</i> sp.), 7.06.2012	N: 46°59'30"; E: 27°35'19"; N: 46°59'26"; E: 27°35'19"
	Pietrăria forest <i>Carpinus</i> sp., <i>Quercus</i> sp., <i>Tilia</i> sp., <i>Fagus</i> sp., 8.06.2012 (route)	N: 47°04'08"; E: 27°39'12"; 208 m
	1 ♀ (dead specimen)	X: 701436.129190233, Y: 622190.235115372
	1 ♀, 1 ♂ (during copulation)	X: 701403.136978953, Y: 622071.206487614
	1 ♀, 1 ♂ (during copulation)	X: 700923.37409922, Y: 621640.722556788
	eluvia remains	X: 701317.819328531, Y: 621854.194020055
	1 ♀	X: 701564.950930772, Y: 622179.361470521
	1 ♂	X: 697829.901767991, Y: 615604.079740532
	Coţofana beech forest, 9.06.2012	
	Coţofana forestry road, 10.06.2012	X: 706382.92055411, Y: 618234.840628322
	1 ♂, end of forestry road, beech forest	X: 701976.149994178, Y: 620095.476879086
	1 ♂, log of <i>Cerastis</i> sp.	X: 704586.874140817, Y: 618408.073507073
	1 ♂ forest with <i>Fagus</i> sp., <i>Carpinus</i> sp., <i>Quercus</i> sp.	N: 47°5'12.56"; E: 27°38'43.7"
	exoskeleton remains (3 ♂, 1 ♀) relay on Repedea Hill (hollow oaks), 3.07.2012	
	1 ♂, Cărbunarie Basin, 3.07.2012	N: 47°2'35.7"; E: 27°39'29.7"
	1 ♂, glade at the oak forest skirt (with specimens of century-old oaks), 3.07.2012	N: 47°04'01.0"; E: 27°40'07.9"; 370 m
	5 ♂, 2 ♀ (and many exoskeleton rests). Integrated Control Centre, 4.07.2012	N: 47°02'54.7"; E: 27°44'44.7"

Table 1 (continued)

	Species	Collecting/observing sites	Geographical coordinates/A.repad coordinates, altitude
	Family Geotrupidae Latreille, 1802		
80	<i>Anoplotrupes stercorosus</i> (Hartmann in L.G. Seriba, 1791)	7 spec., Slobozia (pond shore in beech forest), 7.07.2012	N: 47°03'42.0", E: 27°42'03.7"; 265 m
81	<i>Bolboceus armiger</i> (Scopoli, 1772)	1 ♀, the edge of deciduous forest (Pietrosu Forest Reserve), near the bank of Dobrovăi stream, 8.06.2012, light trap	N: 46°59'24.4", E: 27°40'12.4"; 148 m
	Family Scarabaeidae Latreille, 1802		
82	<i>Cetonia aurata</i> (Linnaeus, 1758)	2 spec., Bărnova Forest, 5.07.2012	N: 47°03'46.9", E: 27°41'15.2"; 348 m
83	<i>Gnorimus nobilis</i> (Linnaeus, 1758)	1 exoskeleton remains Poiana cu Cetate, "La Stejar", 6.07.2012	N: 47°03'36.5", E: 27°35'34.81"; 388 m
84	<i>Gnorimus variabilis</i> (Linnaeus, 1758)	1 spec., Bărnova-Repedea Forest, near the forestry road Coțofăna, 10.06.2012, on log 1 exoskeleton remains Poiana cu Cetate, "La Stejar", 6.07.2012	X: 701976.149994178, Y: 620095.476879086 N: 47°03'36.5", E: 27°35'34.81"; 388 m
85	<i>Protaetia affinis</i> (Andersch, 1797)	1 spec., Bărnova Forest, 5.07.2012	N: 47°03'46.9", E: 27°41'15.2"; 348 m
	Family Anobiidae Fleming, 1821		
86	<i>Stagetus byrrhoides</i> (Mulsant et Rey, 1861)	1 spec., Vaslui valley (flooding meadow), 7.07.2012	N: 47°03'47.2", E: 27°42'13.9"; 235 m
	Family Tenebrionidae Latreille, 1802		
87	<i>Scaphidema metallicum</i> (Fabricius, 1792)	4 spec., Peștera Mare from Repedea Hill, 6.07.2012	N: 47°05'07.3", E: 27°38'37.7"; 338 m
	Family Cerambycidae Latreille, 1802		
88	<i>Agapanthia villosovicircensis</i> (De Geer, 1775)	1 spec., Pietrosu Forest (near Dobrovăi river), 4.06.2012, on flower	X: 703237.52988102, Y: 614322.91502548
89	<i>Carinodorcadion aestrops</i> (Scopoli, 1763)	1 spec., Pietrosu Forest (near Dobrovăi river), 4.06.2012, in the grass 3 spec., Bărnova, century-old oak with a characteristic attack, placed near the road towards the railway station, 9.06.2012 (two of the specimens mating) 3 spec., <i>George Măgărit</i> Centre for Creation, century-old oak with a specific attack, 6.06.2012 (two of the specimens mating) exoskeleton remains, relay from Repedea Hill (hollowed oaks), 3.07.2012	X: 703237.52988102, Y: 614322.91502548 N: 47°01'30", E: 27°33'95", 45 m N: 47°00'07", E: 27°35'31", 390 m N: 47°51'12.56", E: 27°38'43.7"; N: 47°03'36.5", E: 27°35'34.81"; 388 m N: 47°03'46.9", E: 27°41'15.2"; 348 m; N: 46°59'23.0", E: 27°39'45.1"; 222 m
90	<i>Cerambyx cerdo</i> Linnaeus, 1758	1 ♂, Bărnova Forest, 5.07.2012 exoskeleton remains, Poiana Lungă, 6.07.2012	N: 46°59'12", E: 027°35'09", 341 m N: 46°59'366", E: 27°41'268", 235 m
91	<i>Cerambyx scopolii</i> Fuessly, 1775	6 spec., Bărnova-Repedea Forest, on the road to Dobrovăi, area with logs, 8.06.2012	N: 46°59'12", E: 027°35'09", 341 m
92	<i>Dinopiera collaris</i> (Linnaeus, 1758)	1 spec., Bărnova-Repedea Forest, Poiana cu Schit, 7.06.2012	N: 46°59'366", E: 27°41'268", 235 m
93	<i>Mesosa curculionoides</i> (Linnaeus, 1761)	1 spec., Pietrosu Forest (surroundings of Dobrovăi), on log, 8.06.2012	N: 47°04'18", E: 27°39'12", 231 m
94	<i>Morimus asper</i> funereus Mulsant, 1862	1 spec., Pietrăria, on an oak stump, 8.06.2012 1 spec., Pietrosul Forest Reserve (beech logs), 8.06.2012	N: 46°59'366", E: 27°41'268", 235 m X: 701976.149994178, Y: 620095.476879086
95	<i>Pedestrodorcadion pedestre</i> (Poda, 1761)	1 spec., forestry road Coțofăna, logs <i>Ceranus</i> sp. on the side of the road, 10.06.2012	N: 47°04'08", E: 027°39'12", 208 m
96	<i>Prionus coriarius</i> (Linnaeus, 1758)	1 ♀, Bărnova Forest, 8.06.2012 1 ♂, Integrated Control Centre, 4.07.2012	N: 47°03'46.9", E: 27°41'15.2"; 348 m N: 47°02'54.7", E: 27°44'44.7";
97	<i>Rhagium sycophanta</i> (Schrank, 1781)	2 spec., Bărnova-Repedea Forest, forestry road Coțofăna, 10.06.2012 1 spec., Poiana cu Schit, on logs, 7.06.2012	X: 701976.149994178, Y: 620095.476879086 N: 46°59'12", E: 027°35'09", 341 m
98	<i>Ropalopus macropus</i> (Germar, 1824)	Relay on Repedea Hill (hollow oaks), 3.07.2012	N: 46°59'366", E: 27°38'43.7";
99	<i>Rosalita alpina</i> (Linnaeus, 1758)	1 spec., surroundings of Slobozia, century-old beech forest, 9.06.2012	N: 46°59'366", E: 27°41'268", 235 m
100	<i>Saperda scalaris</i> (Linnaeus, 1758)	1 ♂, Bărnova Forest, 4.07.2012	N: 47°04'01.0", E: 27°40'07.9"; 355 m
101	<i>Stenurella septempunctata</i> (Fabricius, 1792)	1 spec., Bărnova-Repedea Forest, coming from Poiana cu Schit, on beech log, 7.06.2012	
102	<i>Stictoleptura scutellata</i> (Fabricius, 1781)	1 spec., Bărnova-Repedea Forest – Poiana cu Schit, on flowers, 7.06.2012	
103	<i>Strangalia attenuata</i> (Linnaeus, 1758)	1 spec., Bărnova-Repedea Forest, Poiana cu Schit, on flowers, 7.06.2012	N: 46°59'12", E: 027°35'09", 341 m

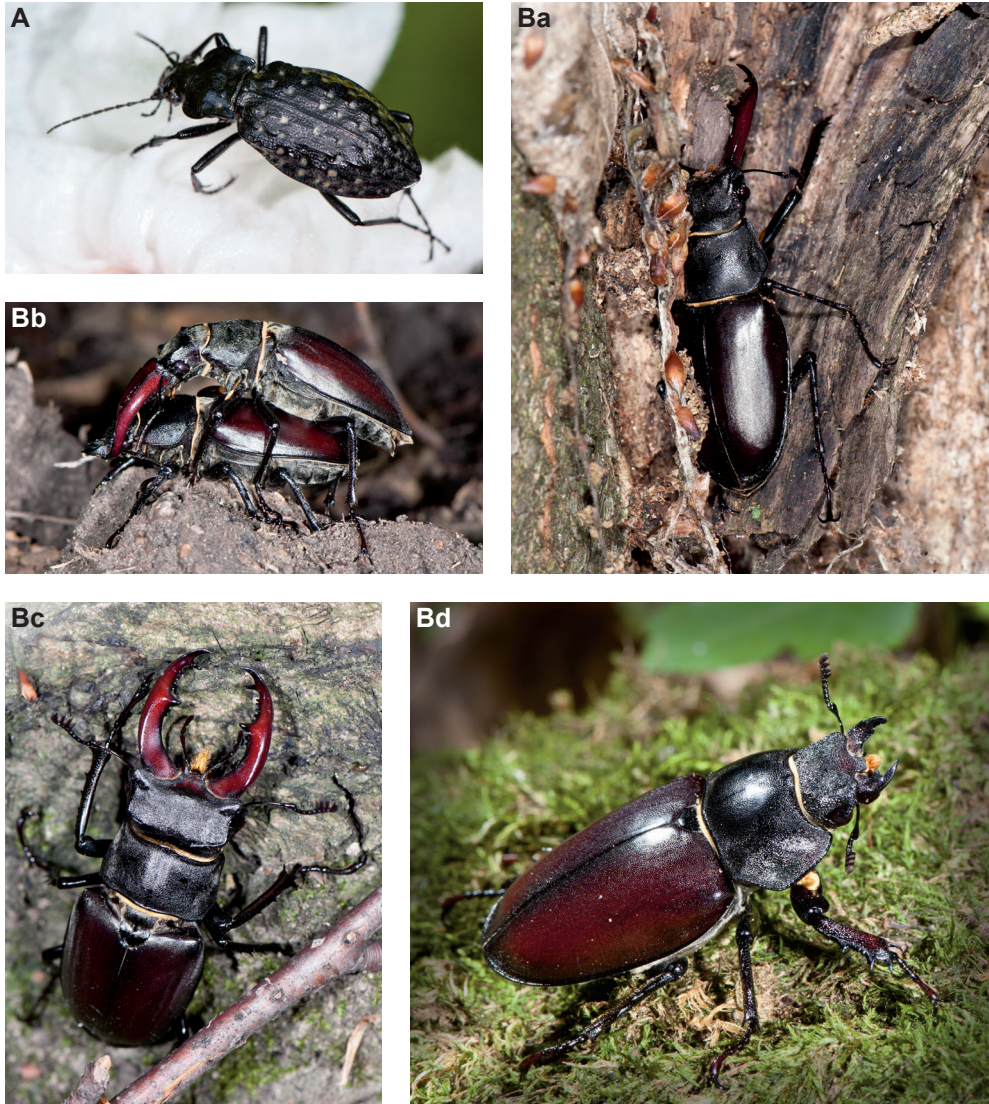


Fig. 2 - A, *Carabus variolosus* Fabricius: ♀, bank of Dobrovăț stream, Pietrosu Reserve, 9.06.2013; B, *Lucanus cervus* (Linnaeus): a, ♂, Bârnova Forest, 7.06.2013; b, ♂, ♀, Pietrăria, 8.06.2012; c, ♂, Slobozia, beech forest, 9.06.2013; d, end of Coțofana forestry road, beech forest, 10.06.2013 (photos: George Năzăreanu).

three specimens were observed in each of the two places, two of them copulating. In Poiana cu Cetate, “La Stejari” (N: 47°03’65”, E: 27°35’34.81”), there are many century-old oaks, with emergence holes specific to the attack of *Cerambyx cerdo*. EU code 1088.

At present, the specialists who deal with Cerambycidae group consider the species *Morimus funereus* Muls. as a subspecies of *Morimus asper* (Sulz.). In Romania, two subspecies are known: *M. asper funereus* (Muls.) and *M. asper asper* (Sulz.). The two subspecies have a reduced mobility and they are not able to fly.



Fig. 3 - A, *Cerambyx cerdo* Linnaeus: ♂, ♀, on oak trunk with specific attack, environs “George Mărgărit” Centre for Creation, 9.06.2013; B, *Morimus funereus* Mulsant: on *Cerasus* sp. log, Coțofana forestry road, 10.06.2013 (photos: George Năzăreanu); C, *Rosalia alpina* (Linnaeus): ♂, Bârnova Forest, 4.07.2013 (photo: Eugen Nitzu).

Morimus funereus Muls. (Fig. 3 B) was observed by us on piles of logs on the side of the forest roads, in sunny places. EU code 1089.

Rosalia alpina (L.) (Fig. 3 C), a stenotopic (for beech forested areas), silvicolous, saproxylic, species, was observed in two areas of beech forests. EU code 1087.

Rhysodes sulcatus (Fabr.), reported from the area by the presence of a specimen preserved in the collection of “Al. Ioan Cuza” University of Iași, was not observed during this investigation. We specify that, in July, the Cărbunărie and Vaslui valleys were completely dried, and Rediu valley kept water only in a small area with springs.

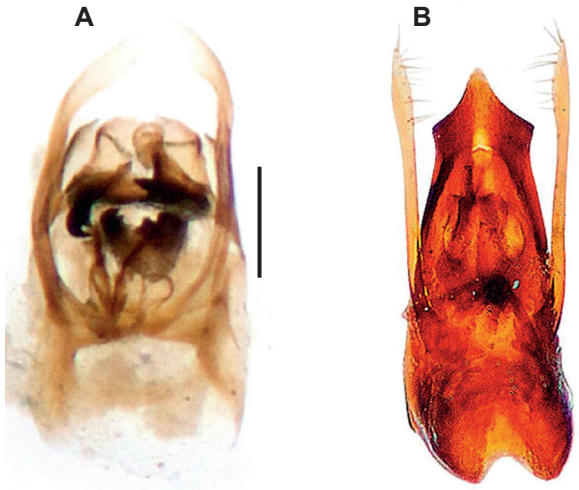


Fig. 4 - A, *Carpelimus gusarovi* Gildenkov: aedeagus (ventral view); B, *Stenus doderoi* Bondroit: aedeagus (ventral view). Scale bars: 0.1 mm (A); 0.25 mm (B).

Bolbelasmus unicornis (Schrk.), a species reported in the area by the presence of a specimen preserved in the collection of the same university (Pădurea Bârnova, 04.07.2005, leg.?, det. Fusu L., 2006), did not occur within this short period of study, but a specimen of *Bolboceras armiger* (Scop.), a species with the same requirements for habitat and food, could be collected with the light trap, at the forest skirt, in Pietrosu Forest (Dobrovăț area).

Interesting beetle species collected from Bârnova-Repedeia Forest site of community interest are presented below.

Carabus excellens (Fabr.) is a rare, umbraticolous species, known from the European sides of Russia, Ukraine and Republic of Moldova. It was observed in the Romanian fauna only in Moldavia (Suceava, Bârnova, Oituz) (Panin, 1955; Varvara, 2004).

Carpelimus gusarovi Gildenkov (Fig. 4 A) was collected by us for the first time. Very similar to *Carpelimus obesus* (Kiesenwetter) in habitus, it distinguishes by this one at the aedeagus level, by the sclerite form of the inner sac. The species is spread in: Albania, Bulgaria, Romania, Republic of Moldova, Ukraine, Russia (south European territory), Austria (Smetana, 2004), Hungary (pers. comm. Gy. Makranczy).

Stenus doderoi Bondroit (Fig. 4 B) was also collected for the first time. Volker Puthz reported its presence in Romania, for the first time, in 1972, in Baziaș, Secu, Băile Herculane, based on a few specimens from old collections.

Ocypus kuntzeni (J. Müller), a silvicolous, stenotopic species, has been collected by us up to now from areas with higher altitudes. It is the first report of this species for Moldavia.

Colon (Myloechus) dentipes (C. R. Sahlberg) is a species on whose presence in the Romanian fauna we had only very vague data so far, without reference to reliable and verifiable sites. Although in the official website "Fauna Europaea" there is an indication that the species would be present in the Romanian fauna (Růžička, 2012), according to the last published revision of the distribution of the genus *Colon*

in Eastern Europe and the Balkans (Růžička & Pavičević, 2008), this species was not reported up to now (after some reliable data) in Romania.

From the cave “Peștera cu Liliaci” - Repedeș Hill we have found only *Scaphidema metallicum* (Fabricius) an umbraticolous, detriticolous, troglone species.

The studied areas were low in altitude (200-370 m), but the presence of the beech forests, the mixture of hornbeam, oak, beech or beech with oak make the Bârnova-Repedeș Forest a very interesting site. Practically, in this site it is possible the presence of the species *Rosalia alpina* (characteristic to the beech forests, from high altitudes), as well as of the species *Morimus funereus* and *Lucanus cervus* (characteristic to the oak forests). At present, Bârnova-Repedeș site allows the presence of the species *Cerambyx cerdo*, characteristic habitats being well conserved.

As pressure factors on the coleopteran populations we can mention: uncontrolled tourism (in some certain areas), cutting of the old hollowed trees, and chemical treatments.

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NOI DATE ASUPRA CUNOAȘTERII FAUNEI DE COLEOPTERE (INSECTA: COLEOPTERA) DIN SITUL DE IMPORTANȚĂ COMUNITARĂ „PĂDUREA BÂRNOVA-REPEDEȘ” (ROSCI 01235, IAȘI, ROMÂNIA)

REZUMAT

Cu ocazia participării la proiectul SINCRON “Servicii și echipamente necesare pentru realizarea Sistemului Integrat de Management și Conștientizare în România a Rețelei Natura 2000” – Lot 1: „Elaborarea planurilor de management prin utilizarea unui sistem electronic de baze de date on line, cu suport GIS” autorii au observat/identificat pe lângă cele cinci specii de coleoptere Natura 2000 (*Carabus variolosus* Fabricius, *Lucanus cervus* (Linnaeus), *Cerambyx cerdo* Linnaeus, *Morimus asper funereus* (Mulsant) și *Rosalia alpina* (Linnaeus)) și alte 98 specii din 11 familii. Pentru fiecare specie sunt menționate situl de colectare și data colectării, iar pentru 96% dintre specii sunt date coordonatele geografice/coordonatele Arcpad. *Carpelimus gusarovi* Gildekenov, *Stenus doderoi* Bondroit au fost colectate pentru prima dată în România și completează Colecția de Coleoptere a MNINGA. *Colon (Myloechus) dentipes* (Sahlberg) este pentru prima dată semnalat în fauna României pe baza unei înregistrări certe.

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