

Olenici N., Fodor E., 2021. The diversity of saproxylic beetles' community from the Natural Reserve Voievodeasa Forest, North-Eastern Romania.

Supplementary Table 1 Taxonomic and ecological classification of Coleoptera species identified in Voievodeasa Forest nature reserve (S – obligate saproxylic species, H – phytophagous species, E – species dependent on ephemeral resources such as decomposing fungi, faeces, corpses, N – other non-saproxylic species).

No.	Family/subfamily	Species	Ecological group
1.	Anobiidae / Anobiinae	<i>Anobium punctatum</i> De Geer 1774	S
2.		<i>Hadrobregmus pertinax</i> (Linnaeus 1758)	S
3.		<i>Hemicoelus costatus</i> (Aragona 1830)	S
4.		<i>Hemicoelus fulvicornis</i> (Sturm 1837)	S
5.		<i>Hemicoelus nitidus</i> (Fabricius 1792)	S
6.		<i>Hemicoelus rufipennis</i> (Duftschmid 1825)	S
7.		<i>Microbregma emarginatum</i> (Duftschmid 1825)	S
8.	Anobiidae / Dorcatominae	<i>Dorcatoma (Dorcatoma) robusta</i> A. Strand 1938	S
9.	Anobiidae / Eucradinae	<i>Ptinomorphus imperialis</i> (Linnaeus 1767)	S
10.	Anobiidae / Ernobiinae	<i>Episernus granulatus</i> Weise 1887	S
11.		<i>Xestobium (Hyperisus) plumbeum</i> (Illiger 1801)	S
12.		<i>Xestobium plumbeum</i> var. <i>aeneicolle</i> Bach, 1852	S
13.		<i>Ernobius abietinus</i> (Gyllenhal 1808)	S
14.	Anobiidae / Ptiliniinae	<i>Ptilinus fuscus</i> (Geoffroy in Fourcroy 1785)	S
15.		<i>Ptilinus pectinicornis</i> (Linnaeus 1758)	S
16.	Anthribidae / Anthribinae	<i>Anthribus nebulosus</i> Forster 1770	N
17.		<i>Dissoleucas niveirostris</i> (Fabricius 1798)	S
18.		<i>Platystomos albinus</i> (Linnaeus 1758)	S
19.	Anthribidae / Choraginae	<i>Choragus sheppardi</i> Kirby 1819	S
20.	Aphodiidae / Aphodiinae	<i>Acrossus depressus</i> (Kugelann 1792)	N
21.		<i>Acrossus rufipes</i> (Linnaeus 1758)	N
22.		<i>Agoliinus nemoralis</i> (Erichson 1848)	N
23.		<i>Aphodius fimetarius</i> (Linnaeus 1758)	N
24.		<i>Limarus zenkeri</i> (Germar 1813)	N
25.		<i>Oxyomus sylvestris</i> (Scopoli 1763)	N
26.		<i>Volinus sticticus</i> (Panzer 1798)	N
27.	Apionidae / Apioninae	<i>Protapion fulvipes</i> (Geoffroy 1785)	H
28.	Buprestidae / Agrilinae	<i>Agrilus laticornis</i> (Illiger 1803)	S
29.	Byturidae	<i>Byturus tomentosus</i> (De Geer 1774)	H
30.	Cantharidae / Cantharinae	<i>Ancistronycha violacea</i> (Paykull 1798)	N
31.		<i>Cantharis livida</i> var. <i>rufipes</i> Herbst 1784	N
32.		<i>Cantharis (Cantharis) nigricans</i> Muller 1766	N
33.		<i>Cantharis (Cantharis) pellucida</i> Fabricius 1792	N
34.		<i>Podabrus (Podabrus) alpinus</i> (Paykull 1798)	N
35.		<i>Podistra (Absidia) rufotestacea</i> (Letzner 1845)	N
36.		<i>Rhagonycha (Rhagonycha) fulva</i>	N
37.		<i>Rhagonycha (Rhagonycha) lignosa</i> (Muller 1764)	N
38.		<i>Rhagonycha (Rhagonycha) translucida</i> (Krynicky 1832)	N

No.	Family/subfamily	Species	Ecological group
39.	Cantharidae / Malthininae	<i>Malthinus biguttatus</i> (Linnaeus 1758)	S
40.		<i>Malthinus flaveolus</i> (Herbst 1786)	S
41.	Carabidae / Harpalinae	<i>Diachromus germanus</i> (Linne 1758)	N
42.	Carabidae / Licininae	<i>Badister (Trimorphus) sodalis</i> (Duftschmid 1812)	N
43.	Carabidae / Rhysodinae	<i>Rhysodes sulcatus</i> (Fabricius 1787)	S
44.	Carabidae / Trechinae	<i>Ocydromus (Peryphanes) dalmatinus</i> (Dejean 1831)	?
45.	Cerambycidae / Cerambycinae	<i>Anaglyptus mysticus</i> (Linnaeus 1758)	S
46.		<i>Callidium coriaceum</i> Paykull 1800	S
47.		<i>Molorchus minor</i> (Linnaeus 1758)	S
48.		<i>Obrium brunneum</i> (Fabricius 1792)	S
49.		<i>Phymatodes testaceus</i> (Linnaeus 1758)	S
50.		<i>Rosalia alpina</i> (Linnaeus 1758)	S
51.	Cerambycidae / Lepturinae	<i>Alosterna tabacicolor</i> (De Geer 1775)	S
52.		<i>Cortodera femorata</i> (Fabricius 1787)	S
53.		<i>Oxymirus cursor</i> Linnaeus 1758	S
54.		<i>Leptura aurulenta</i> Fabricius 1792	S
55.		<i>Pidonia lurida</i> (Fabricius 1792)	S
56.		<i>Rhagium (Rhagium) inquisitor</i> Linnaeus 1758	S
57.		<i>Rhagium (Megarhagium) mordax</i> (De Geer 1775)	S
58.		<i>Rutpela maculata</i> (Poda 1761)	S
59.		<i>Stenurella melanura</i> (Linnaeus 1758)	S
60.		<i>Stictoleptura rubra</i> (Linnaeus 1758)	S
61.	Cerambycidae / Prioninae	<i>Prionus (Prionus) coriarius</i> (Linnaeus 1758)	S
62.	Cerambycidae / Spondylidinae	<i>Tetropium fuscum</i> (Fabricius 1787)	S
63.	Cerylonidae / Ceryloninae	<i>Cerylon fagi</i> Brisout de Barneville 1867	S
64.		<i>Cerylon ferrugineum</i> Stephens 1830	S
65.		<i>Cerylon histeroides</i> (Fabricius 1792)	S
66.	Cetoniidae / Cetoniinae	<i>Protaetia (Netocia) fieberi</i> (Kraatz 1880)	S
67.	Chrysomelidae / Alticinae	<i>Aphthona euphorbiae</i> (Schrank 1781) [?]	H
68.		<i>Chaetocnema hortensis</i> (Geoffroy 1785)	H
69.		<i>Phyllotreta undulata</i> Kutschera 1860 [?]	H
70.		<i>Phyllotreta vittula</i> (Redtenbacher 1849)	H
71.	Chrysomelidae / Cassidinae	<i>Cassida (Cassidulella) nobilis</i> Linnaeus 1758	H
72.		<i>Cassida (Odontionycha) viridis</i> Linnaeus 1758	H
73.	Chrysomelidae / Galerucinae	<i>Galeruca (Galeruca) tanacetii</i> (Linnaeus 1758)	H
74.	Cleridae / Clerinae	<i>Opilo mollis</i> (Linnaeus 1758)	S
75.	Cleridae / Tillinae	<i>Tillus elongatus</i> (Linnaeus 1758)	S

No.	Family/subfamily	Species	Ecological group
76.	Ciidae / Ciinae	<i>Cis alter</i> Silfverberg 1991 [<i>Cis nitidus</i> (Fabricius 1792)]	S
77.		<i>Cis bidentatus</i> (Olivier 1790)	S
78.		<i>Cis boleti</i> (Scopoli 1763)	S
79.		<i>Cis comptus</i> Gyllenhal 1827	S
80.		<i>Cis dentatus</i> Mellie 1848	S
81.		<i>Cis fagi</i> Walth 1839	S
82.		<i>Cis fissicornis</i> Mellie 1848	S
83.		<i>Cis glabratus</i> Mellie 1848	S
84.		<i>Cis hispidus</i> (Paykull 1798)	S
85.		<i>Cis jacquemartii</i> Mellie 1848	S
86.		<i>Cis micans</i> (Fabricius 1792)	S
87.		<i>Cis lineatocribratus</i> Mellie 1848	S
88.		<i>Cis punctulatus</i> Gyllenhal 1827	S
89.		<i>Cis rugulosus</i> Mellie 1848	S
90.		<i>Octotemnus glabriculus</i> (Gyllenhal 1827)	S
91.		<i>Octotemnus mandibularis</i> (Gyllenhal 1813)	S
92.		<i>Orthocis alni</i> (Gyllenhal 1813)	S
93.		<i>Orthocis festivus</i> (Panzer 1793)	S
94.		<i>Orthocis linearis</i> (J. Sahlberg 1901)	S
95.		<i>Rhopalodontus strandi</i> Lohse 1969	S
96.		<i>Sulcacis (Sulcacis) affinis</i> (Gyllenhal 1827)	S
97.		<i>Sulcacis (Entypocis) fronticornis</i> (Panzer 1809)	S
98.	Coccinellidae / Chilocorinae	<i>Chilocorus renipustulatus</i> (Scriba 1790)	N
99.	Coccinellidae / Coccinellinae	<i>Psyllobora vigintiduopunctata</i> (Linnaeus 1758)	N
100.	Cryptophagidae / Atomariinae	<i>Atomaria (Atomaria) nigrirostris</i> Stephens 1830	N
101.	Cryptophagidae /	<i>Antherophagus nigricornis</i> (Fabricius 1787)	N
102.	Cryptophaginae	<i>Antherophagus pallens</i> (Fabricius 1781)	N
103.		<i>Pteryngium crenatum</i> (Fabricius 1798)	S
104.	Cucujidae	<i>Cucujus cinnaberinus</i> (Scopoli 1763)	S
105.		<i>Pediacus dermestoides</i> (Fabricius 1792)	S
106.	Curculionidae /	<i>Nedyus quadrimaculatus</i> (Linnaeus 1758)	H
107.	Ceutorhynchinae	<i>Rhinoncus pericarpus</i> (Linnaeus 1758)	H
108.	Curculionidae / Curculioninae	<i>Orchestes (Salius) fagi</i> (Linnaeus 1758)	H
109.		<i>Tychius (Tychius) picirostris</i> (Fabricius 1787)	H
110.	Curculionidae / Dryophthorinae	<i>Dryophthorus corticalis</i> (Paykull 1792)	S
111.	Curculionidae / Entiminae	<i>Otiorhynchus (Prilisvanus) rugosus krattereri</i> Boheman 1843	S
112.		<i>Phyllobius (Dieletus) argentatus</i> (Linnaeus 1758)	S
113.		<i>Phyllobius (Phyllobius) pyri</i> (Linnaeus 1758)	S
114.		<i>Polydrusus (Eustolus) pterygomalis</i> Boheman 1840	S
115.		<i>Sitona macularius</i> (Marsham 1802)	S

No.	Family/subfamily	Species	Ecological group	
116.	Curculionidae / Scolytinae	<i>Cryphalus abietis</i> (Ratzeburg 1837)	S	
117.		<i>Cryphalus piceae</i> (Ratzeburg 1837)	S	
118.		<i>Crypturgus cinereus</i> (Herbst 1793)	S	
119.		<i>Crypturgus hispidulus</i> Thomson 1870	S	
120.		<i>Dryocoetes autographus</i> (Ratzeburg 1837)	S	
121.		<i>Dryocoetes hectographus</i> Reitter 1913	S	
122.		<i>Ernoporicus fagi</i> (Fabricius 1798)	S	
123.		<i>Hylastes cunicularius</i> Erichson 1836	S	
124.		<i>Ips typographus</i> (Linnaeus 1758)	S	
125.		<i>Phloeotribus spinulosus</i> (Rey 1883)	S	
126.		<i>Pityogenes chalcographus</i> (Linnaeus 1761)	S	
127.		<i>Pityokteines vorontzowi</i> (Jakobson 1895)	S	
128.		<i>Pityophthorus pityographus</i> (Ratzeburg 1837)	S	
129.		<i>Polygraphus poligraphus</i> (Linnaeus 1758)	S	
130.		<i>Taphrorychus bicolor</i> (Herbst 1793)	S	
131.		<i>Trypodendron domesticum</i> (Linnaeus 1758)	S	
132.	<i>Trypodendron lineatum</i> (Olivier 1795)	S		
133.	<i>Xyleborinus saxesenii</i> (Ratzeburg 1837)	S		
134.	<i>Xyleborus dispar</i> (Fabricius 1792)	S		
135.	<i>Xylechinus pilosus</i> (Ratzeburg 1837)	S		
136.	<i>Xylosandrus germanus</i> (Blandford 1894)	S		
137.	Dascillidae / Dascillinae	<i>Dascillus cervinus</i> (Linnaeus 1758)	N	
138.	Dasytidae / Dasytinae	<i>Dasytes (Mesodasytes) aeratus</i> Stephens 1829	S	
139.		<i>Dasytes (Dasytes) buphtalmus</i> Baudi 1873	S	
140.		<i>Dasytes (Metadasytes) caeruleus</i> (De Geer 1774)	S	
141.		<i>Dasytes (Mesodasytes) plumbeus</i> (Muller 1776)	S	
142.		Dermestidae	<i>Megatoma (Megatoma) undata</i> (Linnaeus 1758)	S
142.	Dytiscidae / Agabinae	<i>Agabus (Gaurodytes) melanarius</i> Aube 1837	N	
143.	Elateridae / Denticollinae	<i>Athous (Athous) haemorrhoidalis</i> (Fabricius 1801)	H	
144.		<i>Athous (Haplathous) subfuscus</i> (O. F. Muller 1764)	H	
145.		<i>Athous (Athous) vittatus</i> (Gmelin 1790)	H	
146.		<i>Crepidophorus mutilatus</i> (Rosenhauer 1847)	S	
147.		<i>Denticollis interpositus</i> Roubal 1941	S	
148.		<i>Denticollis linearis</i> (Linnaeus 1758)	S	
149.		<i>Denticollis rubens</i> Piller & Mitterpacher 1783	S	
150.		<i>Hemicrepidius hirtus</i> (Herbst 1784)	S	
151.		Elateridae / Elaterinae	<i>Ampedus (Ampedus) elegantulus</i> (Schonherr 1817)	S
152.			<i>Ampedus (Ampedus) erythrogonus</i> (P.W. Muller 1821)	S
153.	<i>Ampedus (Ampedus) nigrinus</i> (Herbst 1784)		S	
154.	<i>Ampedus (Ampedus) rufipennis</i> (Stephens 1830)		S	
155.	<i>Adrastus kryshkali</i> Dolin 1988		H	
156.	<i>Dalopius marginatus</i> (Linnaeus 1758)		H	
157.	<i>Ischnodes sanguinicollis</i> (Panzer 1793)		S	
158.	Elateridae / Melanotinae	<i>Melanotus (Melanotus) castanipes</i> (Paykull 1800)	S	
159.		<i>Melanotus (Melanotus) villosus</i> (Fourcroy 1785)	S	
160.	Endomychidae / Endomychinae	<i>Endomychus coccineus</i> (Linnaeus 1758)	S	
161.	Endomychidae / Lycoperdininae	<i>Mycetina cruciata</i> (Schaller 1783)	S	
162.	Eriirhinidae / Eriirhininae	<i>Tanysphyrus (Tanysphyrus) lemnae</i> (Fabricius 1792)	H	

No.	Family/subfamily	Species	Ecological group
163.	Erotylidae / Tritominae	<i>Triplax aenea</i> (Schaller 1783)	S
164.		<i>Triplax carpathica</i> Reitter 1890	S
165.		<i>Triplax elongata</i> Lacordaire 1842	S
166.		<i>Triplax russica</i> (Linnaeus 1758)	S
167.		<i>Triplax scutellaris</i> Charpentier 1825	S
168.		<i>Tritoma bipustulata</i> Fabricius 1775	S
169.	Eucnemidae / Eucneminae	<i>Eucnemis capucina</i> Ahrens 1812	S
170.	Eucnemidae / Melasinae	<i>Hylis foveicollis</i> (Thomson 1874)	S
171.		<i>Hylis procerulus</i> (Mannerheim 1823)	S
172.		<i>Melasis buprestoides</i> (Linnaeus 1761)	S
173.		<i>Microrhagus lepidus</i> Rosenhauer 1847	S
174.		<i>Microrhagus pygmaeus</i> (Fabricius 1792)	S
175.	Hydraenidae / Hydraeninae	<i>Hydraena (Hydraena) assimilis</i> Rey 1885	N
176.		<i>Hydraena (Hydraena) melas</i> Dalla Torre 1877	N
177.	Histeridae / Abraeinae	<i>Abraeus (Postabraeus) granulum</i> Erichson 1839	S
178.		<i>Plegaderus (Plegaderus) caesus</i> (Herbst 1792)	S
179.		<i>Plegaderus (Plegaderus) dissectus</i> Erichson 1839	S
180.	Histeridae / Histerinae	<i>Margarinotus (Ptomister) striola</i> (Sahlberg 1819)	E
181.	Histeridae / Sapriniinae	<i>Gnathoncus nannetensis</i> (Marseul 1862)	N
182.	Hydrophilidae / Hydrophilinae	<i>Megasternum concinnum</i> (Marsham 1802)	E
183.		<i>Cercyon (Cercyon) lateralis</i> (Marsham 1802)	E
184.	Kateretidae	<i>Brachypterus urticae</i> (Fabricius 1792)	H
185.		<i>Heterhelus scutellaris</i> (Heer 1841)	H
186.	Laemophloeidae / Laemophloeinae	<i>Cryptolestes alternans</i> (Erichson 1846)	S
187.	Lampyridae / Lampyrinae	<i>Lampyris noctiluca</i> (Linnaeus 1767)	N
188.	Latridiidae / Cortinicariinae	<i>Corticara gibbosa</i> (Herbst 1793)	N
189.		<i>Corticarina minuta</i> (Fabricius 1792)	N
190.	Latridiidae / Latridiinae	<i>Cartodere (Aridius) nodifer</i> (Westwood 1839)	S
191.		<i>Enicmus amici</i> Lohse 1981	N
192.		<i>Enicmus atriceps</i> Hansen 1962	S
193.		<i>Enicmus fungicola</i> Thomson 1868	S
194.		<i>Enicmus rugosus</i> (Herbst 1793)	S
195.		<i>Enicmus testaceus</i> (Stephens 1830)	S
196.		<i>Latridius porcatus</i> Herbst 1793	N
197.		<i>Latridius brevicollis</i> (Thomson 1868)	S
198.		<i>Latridius hirtus</i> (Gyllenhal 1827)	S
199.		<i>Latridius minutus</i> (Linnaeus 1767)	N
200.		<i>Stephostethus alternans</i> (Mannerheim 1844)	S
201.		<i>Stephostethus angusticollis</i> (Gyllenhal 1827)	S
202.		<i>Stephostethus rugicollis</i> (Olivier 1790)	S

No.	Family/subfamily	Species	Ecological group	
203.	Leiodidae / Leiodinae	<i>Agathidium (Agathidium) badium</i> Erichson 1845	N	
204.		<i>Agathidium (Neoceble) confusum</i> Brisout 1863	N	
205.		<i>Agathidium (Cyphocele) discoideum</i> Erichson 1845	S	
206.		<i>Agathidium (Neoceble) haemorrhoum</i> Erichson 1845	N	
207.		<i>Agathidium (Agathidium) laevigatum</i> Erichson 1845	N	
208.		<i>Agathidium (Neoceble) mandibulare</i> Sturm 1807	N	
209.		<i>Agathidium (Neoceble) nigripenne</i> (Fabricius, 1792)	S	
210.		<i>Agathidium (Neoceble) plagiatum</i> (Gyllenhal 1810)	N	
211.		<i>Agathidium (Neoceble) rotundatum</i> (Gyllenhal 1827)	N	
212.		<i>Agathidium (Agathidium) seminulum</i> (Linnaeus 1758)	N	
213.		<i>Amphicyllis globus</i> (Sahlberg 1833)	N	
214.		<i>Anisotoma castanea</i> (Herbst 1792)	S	
215.		<i>Anisotoma humeralis</i> (Fabricius 1792)	S	
216.		<i>Anisotoma orbicularis</i> (Herbst 1792)	S	
217.		<i>Colenis immunda</i> (Sturm 1807)	N	
218.		<i>Leiodes politus</i> (Marsham 1802)	N	
219.		<i>Liadopria serricornis</i> (Gyllenhal 1813)	S	
220.		Leiodidae / Coloninae	<i>Colon (Myloechus) angulare</i> Erichson 1837	N
221.			<i>Colon (Myloechus) dentipes</i> (Sahlberg 1822)	N
222.	<i>Colon (Eurycolon) rufescens</i> Kraatz 1850		N	
223.	Leiodidae / Cholevinae	<i>Anemadus strigosus</i> (Kraatz 1852)	E	
224.		<i>Catops fuliginosus</i> Erichson 1837	E	
225.		<i>Catops kirbyi</i> (Spence 1815)	E	
226.		<i>Catops nigricantoides</i> Reitter 1901	E	
227.		<i>Catops picipes</i> (Fabricius 1787)	E	
228.		<i>Catops subfuscus</i> Kellner 1846	E	
229.		<i>Catops tristis</i> (Panzer 1794)	E	
230.		<i>Choleva (Choleva) cisteloides</i> (Frolich 1799)	N	
231.		<i>Choleva (Choleva) reitteri</i> Petri 1915	N	
232.		<i>Nemadus (Nemadus) colonoides</i> (Kraatz 1851)	E	
233.		<i>Ptomaphagus (Ptomaphagus) variicornis</i> (Rosenhauer 1847)	N	
234.		<i>Sciodrepoides fumatus</i> (Spence 1815)	E	
235.		<i>Sciodrepoides watsoni</i> (Spence 1815)	E	
236.	Lucanidae / Lucaninae	<i>Platycerus caraboides</i> (Linnaeus 1758)	S	
237.	Lucanidae / Syndesinae	<i>Ceruchus chrysomelinus</i> (Hochenwart 1785)	S	
238.		<i>Sinodendron cylindricum</i> (Linnaeus 1758)	S	
239.	Lycidae / Erotinae	<i>Benibotarus (Sibetarus) taygetanus</i> (Pic 1905)	S	
240.		<i>Dictyopectera aurora</i> (Herbst 1874)	S	
241.		<i>Platycis cosnardi</i> (Chevrolat 1839)	S	
242.		<i>Platycis minutus</i> (Fabricius 1787)	S	
243.		<i>Pyropterus nigroruber</i> (De Geer 1774)	S	
244.		Lymexylidae / Hylecoetinae	<i>Hylecoetus dermestoides</i> (Linnaeus 1861)	S

No.	Family/subfamily	Species	Ecological group
245.	Melandryidae / Melandryinae	<i>Abdera (Caridua) affinis</i> (Paykull 1799)	S
246.		<i>Abdera (Caridua) flexuosa</i> (Paykull 1799)	S
247.		<i>Melandrya barbata</i> (Fabricius 1792)	S
248.		<i>Orchesia (Orchesia) fusiformis</i> Solsky 1871	S
249.		<i>Orchesia (Orchesia) micans</i> (Panzer 1794)	S
250.		<i>Orchesia (Clinocara) minor</i> Walker 1837	S
251.		<i>Orchesia (Clinocara) undulata</i> Kraatz 1853	S
252.		<i>Serropalpus (Serropalpus) barbatus</i> (Schaller 1783)	S
253.	Melandryidae / Osphyinae	<i>Conopalpus testaceus</i> (Olivier 1790)	S
254.	Monotomidae / Monotominae	<i>Monotoma (Monotoma) picipes</i> Herbst 1793	N
255.	Monotomidae / Rhizophaginae	<i>Rhizophagus (Rhizophagus) bipustulatus</i> (Fabricius 1792)	S
256.		<i>Rhizophagus (Rhizophagus) dispar</i> (Paykull 1800)	S
257.		<i>Rhizophagus (Rhizophagus) nitidulus</i> (Fabricius 1798)	S
258.		<i>Rhizophagus (Rhizophagus) parallelocolis</i> Gyllenhal 1827	S
259.		<i>Rhizophagus (Rhizophagus) perforatus</i> Erichson 1845	S
260.	Mordellidae / Mordellinae	<i>Mordellistena (Mordellistena) variegata</i> (Fabricius 1798)	S
261.		<i>Mordellochroa abdominalis</i> (Fabricius 1775)	S
262.		<i>Tomoxia bucephala</i> (Costa 1854)	S
263.	Mycetophagidae /	<i>Litargus (Litargus) connexus</i> (Geoffroy 1785)	S
264.	Mycetophaginae	<i>Mycetophagus (Mycetophagus) ater</i> (Reitter 1879)	S
265.		<i>Mycetophagus (Ulolendus) atomarius</i> (Fabricius 1787)	S
266.		<i>Mycetophagus (Philomyces) populi</i> Fabricius 1798	S
267.		<i>Mycetophagus (Mycetoxides) fulvicollis</i> Fabricius 1793	S
268.		<i>Mycetophagus (Mycetophagus) quadripustulatus</i> (Linnaeus 1761)	S
269.		<i>Triphyllus bicolor</i> (Fabricius 1777)	S
270.	Nitidulidae / Cryptarchinae	<i>Pityophagus ferrugineus</i> (Linnaeus 1758)	S
271.	Nitidulidae / Epuraeinae	<i>Epuraea aestiva</i> (Linnaeus 1758)	N
272.		<i>Epuraea angustula</i> Sturm 1844	S
273.		<i>Epuraea biguttata</i> (Thunberg 1784)	S
274.		<i>Epuraea deubeli</i> Reitter 1898	S
275.		<i>Epuraea longula</i> Erichson 1845	S
276.		<i>Epuraea marseuli</i> Reitter 1872	S
277.		<i>Epuraea melanocephala</i> (Marsham 1802)	?
278.		<i>Epuraea melina</i> Erichson 1843	?
279.		<i>Epuraea neglecta</i> (Heer 1841)	S
280.		<i>Epuraea pallescens</i> (Stephens 1835)	S
281.		<i>Epuraea pygmaea</i> (Gyllenhal 1808)	S
282.		<i>Epuraea silacea</i> (Herbst 1784)	S
283.		<i>Epuraea terminalis</i> Mannerheim 1843	S
284.		<i>Epuraea unicolor</i> (Olivier 1790)	N
285.		<i>Epuraea variegata</i> (Herbst 1793)	S
286.	Nitidulidae / Meligethinae	<i>Brassicogethes aeneus</i> (Fabricius 1775)	H
287.	Nitidulidae / Nitidulinae	<i>Cychramus luteus</i> (Fabricius 1787)	S
288.		<i>Cyllodes ater</i> (Herbst 1792)	S
289.		<i>Ipidia binotata</i> Reitter 1875	S
290.		<i>Pocadius ferrugineus</i> (Fabricius 1775)	E
291.		<i>Thalycra fervida</i> (Olivier 1790)	E
292.	Oedemeridae / Nacerdinae	<i>Nacertes (Xanthochroa) gracilis</i> (W. Schmidt 1846)	S

No.	Family/subfamily	Species	Ecological group
293.	Oedemeridae / Oedemerinae	<i>Ischnomera cyanea</i> (Fabricius 1792)	S
294.		<i>Ischnomera sanguinicollis</i> (Fabricius 1787)	H
295.		<i>Oedemera (Oedemera) pthysica</i> (Scopoli 1763)	H
296.	Omalisidae	<i>Omalisus (Omalisus) fontisbellaquaei</i> Geoffroy 1785	N
297.	Prostomidae	<i>Prostomis mandibularis</i> (Fabricius 1801)	S
298.	Pyrochroidae / Pyrochroinae	<i>Schizotus pectinicornis</i> (Linnaeus 1758)	S
299.	Rutelidae / Rutelinae	<i>Phyllopertha horticola</i> (Linnaeus 1758)	H
300.	Salpingidae / Salpinginae	<i>Rabdocerus foveolatus</i> (Ljungh 1823)	S
301.		<i>Salpingus planirostris</i> (Fabricius 1787)	S
302.		<i>Salpingus ruficollis</i> (Linnaeus 1761)	S
303.	Silphidae / Nicrophorinae	<i>Nicrophorus investigator</i> Zetterstedt 1824	E
304.		<i>Nicrophorus vespilloides</i> Herbst 1783	E
305.	Silphidae / Silphinae	<i>Oiceoptoma thoracicum</i> (Linnaeus 1758)	E
306.	Silvanidae / Silvaninae	<i>Silvanoprus fagi</i> (Guerin-Meneville 1844)	S
307.		<i>Silvanus bidentatus</i> (Fabricius 1792)	S
308.	Sphindidae / Aspidiphorinae	<i>Aspidiphorus orbiculatus</i> (Gyllenhal 1808)	S
309.	Sphindidae / Sphindinae	<i>Sphindus dubius</i> (Gyllenhal 1808)	S
310.	Staphylinidae / Habrocerinae	<i>Habrocerus capillaricornis</i> (Gravenhorst 1806)	N
311.	Staphylinidae / Micropeplinae	<i>Micropeplus latus</i> Hampe 1861 [?]	N
312.	Staphylinidae / Omaliinae	<i>Acidota crenata crenata</i> (Fabricius 1793)	N
313.		<i>Eusphalerum (Eusphalerum) sorbi</i> (Gyllenhal 1810)	N
314.	Staphylinidae / Paederinae	<i>Rugilus (Rugilus) mixtus</i> (Lohse 1956)	N
315.		<i>Rugilus (Rugilus) rufipes</i> Germar 1836	N
316.	Staphylinidae / Proteininae	<i>Proteinus atomarius</i> Erichson 1840	E
317.	Staphylinidae / Scaphidiinae	<i>Scaphidium quadrimaculatum</i> Olivier 1790	S
318.		<i>Scaphisoma obenbergeri</i> Lobl 1963	S
319.		<i>Scaphisoma agaricinum</i> (Linnaeus 1758)	S
320.	Staphylinidae / Staphylininae	<i>Platydracus (Platydracus) fulvipes</i> (Scopoli 1763)	N
321.	Staphylinidae / Tachyporinae	<i>Lordithon lunulatus</i> (Linnaeus 1760)	E
322.		<i>Tachyporus solutus</i> Erichson 1839	N
323.	Tenebrionidae / Alleculinae	<i>Mycetochara axillaris</i> (Paykull 1799)	S
324.		<i>Prionychus ater</i> (Fabricius 1775)	S
325.	Tenebrionidae / Diaperinae	<i>Hypophloeus unicolor</i> (Piller & Mitterpacher 1783)	S
326.	Tenebrionidae / Tenebrioninae	<i>Stenomax aeneus</i> (Scopoli 1763)	S
327.	Tetratomidae / Hallomeninae	<i>Hallomenus binotatus</i> (Quensel 1790)	S
328.	Tetratomidae / Tetratominae	<i>Tetratoma (Abstrulia) ancora</i> Fabricius 1790	S
329.	Throscidae / Throscinae	<i>Aulonthroscus brevicollis</i> (Bonvouloir 1859)	N
330.		<i>Aulonthroscus laticollis</i> (Ribinsky 1896)	N
331.		<i>Trixagus carinifrons</i> (Bonvouloir, 1859)	H
332.		<i>Trixagus dermestoides</i> (Linnaeus 1766)	H
333.	Trogidae	<i>Trox (Trox) perrisii</i> Fairmaire 1868	S
334.	Trogositidae / Peltinae	<i>Ostoma ferruginea</i> (Linnaeus 1758)	S
335.		<i>Thymalus limbatus</i> (Fabricius 1787)	S
336.	Trogositidae / Trogositinae	<i>Nemozoma elongatum</i> (Linnaeus 1761)	S
337.	Zopheridae / Colydiinae	<i>Bitoma crenata</i> (Fabricius 1775)	S

Supplementary Table 2 Abundances and proportional representation of Coleoptera families captured in window traps, Voievodeasa Forest.

No.	Family	abundance	%	No.	Family	abundance	%
1	Anobiidae	809	6.0	33	Lampyridae	13	0.1
2	Anthribidae	13	0.1	34	Latridiidae	1385	10.2
3	Aphodiidae	251	1.9	35	Leiodidae	396	2.9
4	Apionidae	3	< 0.1	36	Lucanidae	39	0.3
5	Buprestidae	2	< 0.1	37	Lycidae	25	0.2
6	Byturidae	3	< 0.1	38	Lymexylidae	275	2
7	Cantharidae	78	0.6	39	Melandryidae	43	0.3
8	Carabidae	45	0.3	40	Monotomidae	95	0.7
9	Cerambycidae	68	0.5	41	Mordellidae	51	0.4
10	Cerylonidae	258	1.9	42	Mycetophagidae	177	1.3
11	Cetoniidae	1	< 0.1	43	Nitidulidae	288	2.1
12	Chrysomelidae	50	0.4	44	Oedemeridae	36	0.3
13	Cleridae	6	< 0.1	45	Omalisidae	8	0.1
14	Ciidae	722	5.3	46	Prostomidae	4	< 0.1
15	Coccinellidae	5	< 0.1	47	Ptiliidae	417	3.1
16	Cryptophagidae	495	3.7	48	Pyrochroidae	37	0.3
17	Cucujidae	18	0.1	49	Rutelidae	3	< 0.1
18	Curculionidae	917	6.8	50	Salpingidae	30	0.2
19	Dascillidae	1	< 0.1	51	Scraptiidae	94	0.7
20	Dasytidae	14	0.1	52	Scydmaenidae	35	0.3
21	Dermestidae	1	< 0.1	53	Silphidae	348	2.6
22	Dytiscidae	2	< 0.1	54	Silvanidae	4	< 0.1
23	Elateridae	379	2.8	55	Sphindidae	22	0.2
24	Endomychidae	74	0.5	56	Staphylinidae	4839	35.7
25	Eriirhinidae	1	< 0.1	57	Tenebrionidae	6	< 0.1
26	Erotylidae	133	1.0	58	Tetratomidae	6	< 0.1
27	Eucnemidae	72	0.5	59	Throscidae	101	0.7
28	Histeridae	196	1.4	60	Trogidae	1	< 0.1
29	Hydraenidae	19	0.1	61	Trogositidae	7	0.1
30	Hydrophilidae	8	0.1	62	Zopheridae	1	< 0.1
31	Kateretidae	35	0.3	63	Other families	88	0.6
32	Laemophloeidae	1	< 0.1		TOTAL	13554	100.0

Supplementary Table 3 Saproxyllic insect species from nature reserve Voievodeasa Forest – type of substrate, feeding type, Europe and their conservation status, forest naturalness indicator value, abundance (A), constancy (C), dominance (D), and ecological significance index (W). [DDW – decomposing dead wood, FDW – fresh dead wood, FUNG – wood decomposing fungi, THM – tree hollow mould, XYLO – xylophagous, MYCO – mycetophagous, PRED – predatory, NECRO - necrophagous, OPO – opophagous, EN – endangered, NT – near threatened, LC – least concern, VU – vulnerable, DD – data deficient: 1, 2 – categories of relict species according to Müller et al. (2005) and Eckelt et al., 2018; (1), (2) – categories of relicts species according to Müller et al. (2005); ! – indicator species of forest of high naturalness (according to Schmidl & Bussler, 2004)].

No.	Family/Species	Substrate	Feeding	RL-EU 27	relict	A	C (%)	D (%)	W
Anobiidae									
1	<i>Anobium punctatum</i>	DDW	XILO			2	5	0.03	0.00
2	<i>Hadrobregmus pertinax</i>	DDW	XILO			4	15	0.07	0.01
3	<i>Hemicoelus costatus</i>	DDW	XILO			6	35	0.10	0.04
4	<i>Hemicoelus fulvicornis</i>	DDW	XILO			1	5	0.02	0.00
5	<i>Hemicoelus nitidus</i>	DDW	XILO			2	5	0.03	0.00
6	<i>Hemicoelus rufipennis</i>	DDW	XILO			105	80	1.79	1.43
7	<i>Microbregma emarginatum</i>	DDW	XILO			5	5	0.09	0.00
8	<i>Dorcatoma robusta</i>	FUNG	MICO		!	13	35	0.22	0.08
9	<i>Ptinomorphus imperialis</i>	DDW	XILO			19	35	0.32	0.11
10	<i>Episernus granulatus</i>	DDW	XILO			1	5	0.02	0.00
11	<i>Xestobium plumbeum</i>	DDW	XILO			15	35	0.26	0.09
12	<i>X. plumbeum var. aeneicolle</i>	DDW	XILO			8	20	0.14	0.03
13	<i>Ernobius abietinus</i>	DDW	XILO			1	5	0.02	0.00
14	<i>Ptilinus pectinicornis</i>	DDW	XILO			622	100	10.61	10.61
15	<i>Ptilinus fuscus</i>	DDW	XILO			2	5	0.03	0.00
Anthribidae									
16	<i>Choragus sheppardi</i>	DDW	MYCO			5	10	0.09	0.01
17	<i>Dissoleucas niveirostris</i>	DDW	XYLO			2	15	0.03	0.01
18	<i>Platystomos albinus</i>	DDW	XYLO			5	30	0.09	0.03
Buprestidae									
19	<i>Agrilus laticornis</i>	FDW	XYLO			1	5	0.02	0.00
Cantharidae									
20	<i>Malthinus biguttatus</i>	DDW	PRED			4	20	0.07	0.01
21	<i>Malthinus flaveolus</i>	DDW	PRED			1	5	0.02	0.00
Carabidae									
22	<i>Rhysodes sulcatus</i>	DDW	XYLO	EN	1;!	2	10	0.03	0.00
Cerambycidae									
23	<i>Anaglyptus mysticus</i>	FDW	XYLO	LC		1	5	0.02	0.00
24	<i>Callidium coriaceum</i>	DDW	XYLO	LC		1	5	0.02	0.00
25	<i>Molorchus minor</i>	FDW	XYLO	LC		2	10	0.03	0.00
26	<i>Obrium brunneum</i>	FDW	XYLO	LC		1	5	0.02	0.00
27	<i>Phymatodes testaceus</i>	FDW	XYLO	LC		2	10	0.03	0.00

No.	Family/Species	Substrate	Feeding	RL-EU 27	relict	A	C (%)	D (%)	W
28	<i>Rosalia alpina</i>	DDW	XYLO	LC	2;!	1	5	0.02	0.00
29	<i>Alosterna tabacicolor</i>	DDW	XYLO	LC		8	30	0.14	0.04
30	<i>Cortodera femorata</i>	DDW	XYLO			1	5	0.02	0.00
31	<i>Leptura aurulenta</i>	DDW	XYLO	LC	!	5	20	0.09	0.02
32	<i>Oxymirus cursor</i>	DDW	XYLO	LC		3	15	0.05	0.01
33	<i>Pidonia lurida</i>	DDW	XYLO	LC		2	10	0.03	0.00
34	<i>Rhagium inquisitor</i>	FDW	XYLO	LC		2	5	0.03	0.00
35	<i>Rhagium mordax</i>	FDW	XYLO	LC		23	60	0.39	0.24
36	<i>Rutpela maculata</i>	DDW	XYLO	LC		3	15	0.05	0.01
37	<i>Stenurella melanura</i>	DDW	XYLO	LC		1	5	0.02	0.00
38	<i>Stictoleptura rubra</i>	DDW	XYLO	LC		8	35	0.14	0.05
39	<i>Prionus coriarius</i>	DDW	XYLO	LC		3	5	0.05	0.00
40	<i>Tetropium fuscum</i>	FDW	XYLO	LC		1	5	0.02	0.00
Cerylonidae									
41	<i>Cerylon fagi</i>	DDW	MYCO			51	90	0.87	0.78
42	<i>Cerylon ferrugineum</i>	DDW	MYCO			132	100	2.25	2.25
43	<i>Cerylon histeroides</i>	DDW	MYCO			75	95	1.28	1.22
Cetoniidae									
44	<i>Protaetia fieberii</i>	THM	XYLO	NT	!	1	5	0.02	0.00
Ciidae									
45	<i>Cis alter</i>	FUNG	MYCO			5	15	0.09	0.01
46	<i>Cis bidentatus</i>	FUNG	MYCO			9	30	0.15	0.05
47	<i>Cis boleti</i>	FUNG	MYCO			238	100	4.06	4.06
48	<i>Cis comptus</i>	FUNG	MYCO			2	10	0.03	0.00
49	<i>Cis dentatus</i>	FUNG	MYCO			16	40	0.27	0.11
50	<i>Cis fagi</i>	FUNG	MYCO			2	10	0.03	0.00
51	<i>Cis fissicornis</i>	FUNG	MYCO			1	5	0.02	0.00
52	<i>Cis glabratus</i>	FUNG	MYCO			1	5	0.02	0.00
53	<i>Cis hispidus</i>	FUNG	MYCO			8	35	0.14	0.05
54	<i>Cis jacquemartii</i>	FUNG	MYCO			1	5	0.02	0.00
55	<i>Cis micans</i>	FUNG	MYCO			1	5	0.02	0.00
56	<i>Cis lineatocribratus</i>	FUNG	MYCO			7	25	0.12	0.03
57	<i>Cis punctulatus</i>	FUNG	MYCO			2	10	0.03	0.00
58	<i>Cis rugulosus</i>	FUNG	MYCO			364	100	6.21	6.21
59	<i>Octotemnus glabriculus</i>	FUNG	MYCO			26	75	0.44	0.33
60	<i>Octotemnus mandibularis</i>	FUNG	MYCO			3	15	0.05	0.01
61	<i>Orthocis alni</i>	FUNG	MYCO			2	10	0.03	0.00
62	<i>Orthocis festivus</i>	FUNG	MYCO			12	50	0.20	0.10
63	<i>Orthocis linearis</i>	FUNG	MYCO			2	5	0.03	0.00
64	<i>Rhopalodontus strandi</i>	FUNG	MYCO			2	10	0.03	0.00
65	<i>Sulcacis affinis</i>	FUNG	MYCO			6	30	0.10	0.03

No.	Family/Species	Substrate	Feeding	RL-EU 27	relict	A	C (%)	D (%)	W
66	<i>Sulcaxis fronticornis</i>	FUNG	MYCO			1	5	0.02	0.00
Cleridae									
67	<i>Opilo mollis</i>	DDW	PRED			1	5	0.02	0.00
68	<i>Tillus elongatus</i>	DDW	PRED			5	20	0.09	0.02
Cryptophagidae									
69	<i>Pteryngium crenatum</i>	FUNG	MYCO			17	55	0.29	0.16
Cucujidae									
70	<i>Cucujus cinnaberinus</i>	DDW	XYLO	NT	!	1	5	0.02	0.00
71	<i>Pediacus dermestoides</i>	DDW	PRED	DD	(2);!	17	45	0.29	0.13
Curculionidae									
72	<i>Dryophthorus corticalis</i>	DDW	XYLO			1	5	0.02	0.00
73	<i>Cryphalus abietis</i>	FDW	XYLO			2	10	0.03	0.00
74	<i>Cryphalus piceae</i>	FDW	XYLO			101	60	1.72	1.03
75	<i>Crypturgus cinereus</i>	FDW	XYLO			4	15	0.07	0.01
76	<i>Crypturgus hispidulus</i>	FDW	XYLO			5	15	0.09	0.01
77	<i>Dryocoetes autographus</i>	FDW	XYLO			98	80	1.67	1.34
78	<i>Dryocoetes hectographus</i>	FDW	XYLO			70	60	1.19	0.72
79	<i>Ernoporicus fagi</i>	FDW	XYLO			110	95	1.88	1.78
80	<i>Hylastes cunicularius</i>	FDW	XYLO			14	30	0.24	0.07
81	<i>Ips typographus</i>	FDW	XYLO			3	20	0.05	0.01
82	<i>Phloeotribus spinulosus</i>	FDW	XYLO			2	10	0.03	0.00
83	<i>Pityogenes chalcographus</i>	FDW	XYLO			8	30	0.14	0.04
84	<i>Pityokteines vorontzowi</i>	FDW	XYLO			1	5	0.02	0.00
85	<i>Pityophthorus pityographus</i>	FDW	XYLO			18	40	0.31	0.12
86	<i>Polygraphus poligraphus</i>	FDW	XYLO			4	15	0.07	0.01
87	<i>Taphrorychus bicolor</i>	FDW	XYLO			354	95	6.04	5.74
88	<i>Trypodendron domesticum</i>	FDW	MYCO			12	35	0.20	0.07
89	<i>Trypodendron lineatum</i>	FDW	MYCO			15	25	0.26	0.06
90	<i>Xyleborinus saxesenii</i>	FDW	MYCO			3	15	0.05	0.01
91	<i>Xyleborus dispar</i>	FDW	MYCO			2	15	0.03	0.01
92	<i>Xylechinus pilosus</i>	FDW	XYLO			2	10	0.03	0.00
93	<i>Xylosandrus germanus</i>	FDW	MYCO			37	75	0.63	0.47
Dasytidae									
94	<i>Dasytes aeratus</i>	DDW	PRED			2	10	0.03	0.00
95	<i>Dasytes buphtalmus</i>	DDW	PRED			1	5	0.02	0.00
96	<i>Dasytes caeruleus</i>	DDW	PRED			3	15	0.05	0.01
97	<i>Dasytes plumbeus</i>	DDW	PRED			1	5	0.02	0.00
Dermestidae									
98	<i>Megatoma undata</i>	DDW	PRED			1	5	0.02	0.00
Elateridae									
99	<i>Ampedus elegantulus</i>	DDW	XYLO	LC	2;!	1	5	0.02	0.00

No.	Family/Species	Substrate	Feeding	RL-EU 27	relict	A	C (%)	D (%)	W
100	<i>Ampedus erythrogonus</i>	DDW	XYLO	LC		43	85	0.73	0.62
101	<i>Ampedus nigrinus</i>	DDW	XYLO	LC		3	15	0.05	0.01
102	<i>Ampedus rufipennis</i>	DDW	XYLO	LC		1	5	0.02	0.00
103	<i>Crepidophorus mutilatus</i>	DDW	PRED	NT	2;!	2	10	0.03	0.00
104	<i>Denticollis linearis</i>	DDW	XYLO	LC		71	95	1.21	1.15
105	<i>Denticollis interpositus</i>	DDW	XYLO	DD		1	5	0.02	0.00
106	<i>Denticollis rubens</i>	DDW	XYLO	LC	!	11	45	0.19	0.08
107	<i>Hemicrepidius hirtus</i>	DDW	XYLO			8	30	0.14	0.04
108	<i>Ischnodes sanguinicollis</i>	THM	XYLO	VU	2;!	1	10	0.02	0.00
109	<i>Melanotus castanipes</i>	DDW	XYLO	LC		76	95	1.30	1.23
110	<i>Melanotus villosus</i>	DDW	XYLO	LC		1	5	0.02	0.00
Endomychidae									
111	<i>Endomychus coccineus</i>	FUNG	MYCO			28	75	0.48	0.36
112	<i>Mycetina cruciata</i>	FUNG	MYCO		!	46	75	0.78	0.59
Erotylidae									
113	<i>Triplax aenea</i>	FUNG	MYCO	LC	!	17	50	0.29	0.15
114	<i>Triplax carpathica</i>	FUNG	MYCO	DD		1	5	0.02	0.00
115	<i>Triplax elongata</i>	FUNG	MYCO	LC	1;!	3	10	0.05	0.01
116	<i>Triplax russica</i>	FUNG	MYCO	LC		105	70	1.79	1.25
117	<i>Triplax scutellaris</i>	FUNG	MYCO	LC	!	1	5	0.02	0.00
118	<i>Tritoma bipustulata</i>	FUNG	MYCO	LC		5	25	0.09	0.02
Eucnemidae									
119	<i>Eucnemis capucina</i>	DDW	XYLO	LC		7	30	0.12	0.04
120	<i>Hylis foveicollis</i>	DDW	XYLO	LC		41	65	0.70	0.45
121	<i>Hylis procerulus</i>	DDW	XYLO	LC	!	13	30	0.22	0.07
122	<i>Melasis buprestoides</i>	DDW	XYLO	LC		1	5	0.02	0.00
123	<i>Microrhagus lepidus</i>	DDW	XYLO	LC		6	25	0.10	0.03
124	<i>Microrhagus pygmaeus</i>	DDW	XYLO	LC		4	15	0.07	0.01
Histeridae									
125	<i>Abraeus granulum</i>	DDW	?			160	100	2.73	2.73
126	<i>Plegaderus caesus</i>	DDW	PRED			21	50	0.36	0.18
127	<i>Plegaderus dissectus</i>	DDW	PRED			12	35	0.20	0.07
Laemophloeidae									
128	<i>Cryptolestes alternans</i>	FDW	PRED			1	5	0.02	0.00
Latridiidae									
129	<i>Cartodere nodifer</i>	FUNG	MYCO			15	45	0.26	0.12
130	<i>Enicmus atriceps</i>	FUNG	MYCO			279	100	4.76	4.76
131	<i>Enicmus fungicola</i>	FUNG	MYCO			11	40	0.19	0.08
132	<i>Enicmus rugosus</i>	FUNG	MYCO			386	100	6.59	6.59
133	<i>Enicmus testaceus</i>	FUNG	MYCO			303	95	5.17	4.91
134	<i>Latridius brevicollis</i>	FUNG	MYCO			6	15	0.10	0.02
135	<i>Latridius hirtus</i>	FUNG	MYCO			127	100	2.17	2.17

No.	Family/Species	Substrate	Feeding	RL-EU 27	relict	A	C (%)	D (%)	W
136	<i>Stephostethus alternans</i>	FUNG	MYCO			99	100	1.69	1.69
137	<i>Stephostethus angusticollis</i>	FUNG	MYCO			9	20	0.15	0.03
138	<i>Stephostethus rugicollis</i>	FUNG	MYCO			11	25	0.19	0.05
Leiodidae									
139	<i>Agathidium discoideum</i>	FUNG	MYCO			5	20	0.09	0.02
140	<i>Agathidium nigripenne</i>	FUNG	MYCO			15	50	0.26	0.13
141	<i>Anisotoma castanea</i>	FUNG	MYCO			4	20	0.07	0.01
142	<i>Anisotoma humeralis</i>	FUNG	MYCO			21	45	0.36	0.16
143	<i>Anisotoma orbicularis</i>	FUNG	MYCO			5	20	0.09	0.02
144	<i>Liadopria serricornis</i>	FUNG	MYCO			11	30	0.19	0.06
Lucanidae									
145	<i>Platycerus caraboides</i>	DDW	XYLO	LC		12	40	0.20	0.08
146	<i>Ceruchus chrysomelinus</i>	DDW	XYLO	NT	2;!	3	15	0.05	0.01
147	<i>Sinodendron cylindricum</i>	DDW	XYLO	LC		24	65	0.41	0.27
Lycidae									
148	<i>Benibotarus taygetanus</i>	DDW	PRED		(1);!	9	25	0.15	0.04
149	<i>Dictyopectera aurora</i>	DDW	PRED			4	20	0.07	0.01
150	<i>Platycis cosnardi</i>	DDW	PRED		!	8	35	0.14	0.05
151	<i>Platycis minutus</i>	DDW	PRED			1	5	0.02	0.00
152	<i>Pyropteris nigroruber</i>	DDW	PRED			3	10	0.05	0.01
Lymexylidae									
153	<i>Hylecoetus dermestoides</i>	FDW	MYCO			275	100	4.69	4.69
Melandryidae									
154	<i>Abdera affinis</i>	FUNG	MYCO		!	1	5	0.02	0.00
155	<i>Abdera flexuosa</i>	FUNG	MYCO			1	5	0.02	0.00
156	<i>Conopalpus testaceus</i>	DDW	XYLO			8	35	0.14	0.05
157	<i>Melandrya barbata</i>	DDW	XYLO		!	7	20	0.12	0.02
158	<i>Orchesia fusiformis</i>	FUNG	MYCO			1	5	0.02	0.00
159	<i>Orchesia micans</i>	FUNG	MYCO			4	15	0.07	0.01
160	<i>Orchesia minor</i>	FUNG	MYCO			5	20	0.09	0.02
161	<i>Orchesia undulata</i>	FUNG	MYCO			2	10	0.03	0.00
162	<i>Serropalpus barbatus</i>	DDW	XYLO			13	35	0.22	0.08
Monotomidae									
163	<i>Rhizophagus bipustulatus</i>	FDW	PRED			18	55	0.31	0.17
164	<i>Rhizophagus dispar</i>	FDW	PRED			10	35	0.17	0.06
165	<i>Rhizophagus nitidulus</i>	DDW	PRED			61	80	1.04	0.83
166	<i>Rhizophagus parallelocollis</i>	FDW	MYCO			1	5	0.02	0.00
167	<i>Rhizophagus perforatus</i>	FDW	PRED			4	15	0.07	0.01
Mordellidae									
168	<i>Mordellistena variegata</i>	DDW	XYLO			1	5	0.02	0.00
169	<i>Mordellochroa abdominalis</i>	DDW	XYLO			4	20	0.07	0.01

No.	Family/Species	Substrate	Feeding	RL-EU 27	relict	A	C (%)	D (%)	W
170	<i>Tomoxia bucephala</i>	DDW	XYLO			42	75	0.72	0.54
Mycetophagidae									
171	<i>Litargus connexus</i>	FUNG	MYCO	LC		8	35	0.14	0.05
172	<i>Mycetophagus ater</i>	FUNG	MYCO	DD	2;!	1	5	0.02	0.00
173	<i>Mycetophagus atomarius</i>	FUNG	MYCO	LC		6	30	0.10	0.03
174	<i>Mycetophagus populi</i>	FUNG	MYCO	LC	!	30	80	0.51	0.41
175	<i>Mycetophagus fulvicollis</i>	FUNG	MYCO	LC	!	122	95	2.08	1.98
176	<i>Mycetophagus quadripustulatus</i>	FUNG	MYCO			1	5	0.02	0.00
177	<i>Triphyllus bicolor</i>	FUNG	MYCO	LC		9	35	0.15	0.05
Nitidulidae									
178	<i>Pityophagus ferrugineus</i>	FDW	PRED			2	10	0.03	0.00
179	<i>Epuraea angustula</i>	FDW	OPO			1	5	0.02	0.00
180	<i>Epuraea biguttata</i>	FDW	OPO			1	5	0.02	0.00
181	<i>Epuraea deubeli</i>	FDW	?			1	5	0.02	0.00
182	<i>Epuraea longula</i>	FDW	OPO			36	65	0.61	0.40
183	<i>Epuraea marseuli</i>	FDW	?			1	5	0.02	0.00
184	<i>Epuraea neglecta</i>	FDW	OPO			6	15	0.10	0.02
185	<i>Epuraea pallescens</i>	FDW	?			45	65	0.77	0.50
186	<i>Epuraea pygmaea</i>	FDW	XYLO			1	5	0.02	0.00
187	<i>Epuraea silacea</i>	FUNG	MYCO			4	10	0.07	0.01
188	<i>Epuraea terminalis</i>	FDW				1	5	0.02	0.00
189	<i>Epuraea variegata</i>	FUNG	MYCO			2	10	0.03	0.00
190	<i>Cychramus luteus</i>	FUNG	MYCO			1	5	0.02	0.00
191	<i>Cyllodes ater</i>	FUNG	MYCO			41	70	0.70	0.49
192	<i>Ipidia binotata</i>	DDW	PRED		(2)	1	5	0.02	0.00
Oedemeridae									
193	<i>Ischnomera cyanea</i>	DDW	XYLO	LC		3	10	0.05	0.01
194	<i>Ischnomera sanguinicollis</i>	DDW	XYLO	LC		5	25	0.09	0.02
Prostomidae									
195	<i>Prostomis mandibularis</i>	DDW	XYLO	NT	2;!	4	25	0.07	0.02
Pyrochroidae									
196	<i>Schizotus pectinicornis</i>	DDW	PRED			37	85	0.63	0.54
Salpingidae									
197	<i>Rabdocerus foveolatus</i>	FDW	PRED			12	30	0.20	0.06
198	<i>Salpingus planirostris</i>	FDW	PRED			5	20	0.09	0.02
199	<i>Salpingus ruficollis</i>	FDW	PRED			13	25	0.22	0.06
Silvanidae									
200	<i>Silvanoprus fagi</i>	DDW	XYLO			2	5	0.03	0.00
201	<i>Silvanus bidentatus</i>	FDW	?			2	10	0.03	0.00
Sphindidae									
202	<i>Aspidiphorus orbiculatus</i>	FUNG	MYCO			21	60	0.36	0.22

No.	Family/Species	Substrate	Feeding	RL-EU 27	relict	A	C (%)	D (%)	W
203	<i>Sphindus dubius</i>	FUNG	MYCO			1	5	0.02	0.00
Staphylinidae									
204	<i>Scaphidium quadrimaculatum</i>	FUNG	MYCO			6	35	0.10	0.04
205	<i>Scaphisoma obenbergeri</i>	FUNG	MYCO			24	65	0.41	0.27
206	<i>Scaphisoma agaricinum</i>	FUNG	MYCO			84	95	1.43	1.36
Tenebrionidae									
207	<i>Mycetochara axillaris</i>	DDW	MYCO	LC		2	15	0.03	0.01
208	<i>Prionychus ater</i>	THM	XYLO	LC		1	5	0.02	0.00
209	<i>Stenomax aeneus</i>	DDW	XYLO			1	5	0.02	0.00
210	<i>Hypophloeus unicolor</i>	DDW	PRED	LC		2	10	0.03	0.00
Tetratomidae									
211	<i>Tetratoma ancora</i>	FUNG	MYCO			2	10	0.03	0.00
212	<i>Hallomenus binotatus</i>	FUNG	MYCO			4	20	0.07	0.01
Trogidae									
213	<i>Trox perrisii</i>	THM	NECRO		(2);!	1	5	0.02	0.00
Trogositidae									
214	<i>Ostoma ferruginea</i>	FUNG	MYCO	LC	!	2	10	0.03	0.00
215	<i>Thymalus limbatus</i>	FUNG	MYCO	LC	!	1	5	0.02	0.00
216	<i>Nemozoma elongatum</i>	FDW	PRED	LC		4	5	0.07	0.00
Zopheridae									
217	<i>Bitoma crenata</i>	DDW	PRED			1	5	0.02	0.00
TOTAL						5860		100.00	

Note

Abundance (A) refers to the number of individuals pertaining to a species identified in a specified area or sample. It is expressed as an absolute value which can be further used in a rating system (rare species, relatively common, abundant or very abundant) considering that species are not equal and occupy different positions within community.

Constancy (C) evaluates the continuity of the presence or frequency of a particular species within the biotope of interest:

$$C_A = 100 \times (npA/Np)$$

Where C_A refers to the constancy of the species A, npA represent the number of samples containing species A and Np refers to the total number of samples. The obtained value includes the species in one of the categories: accidental species ($C=1-25\%$), accessory species ($C=25.1-50\%$), constant species ($C=50.1-75\%$) or eu-constant species ($C=75.1-100\%$).

Dominance (D) also considered as a measure of the relative abundance, shows the proportion of the abundance of a species from the abundances of all species identified in a community.

$$D_A = (100 \times nA)/N$$

Where D_A stands for the dominance of species A, nA represents the total number of sampled individuals of species A and N refers to all sampled individuals of all identified species. According to the calculated value, the species is included in one of the categories: subrecedent species ($D < 1.1\%$), recedent species ($D = 1.1-2\%$), subdominant species ($D = 2.1-5\%$), dominant ($D = 5.1-10\%$) or eudominant ($D > 10\%$).

Dzuba index of ecological significance (W) depicts the position of a species within community as a function of its constancy and dominance.

$$W_A = (C_A \times D_A)/100.$$

Where W_A stands for species ecological position index of the species A, C_A represents constancy of species A and D_A represents the dominance position. Interpretation of the result is performed according to the rating: accidental species ($W < 0.1\%$), accessory species (W between 0.1 and 5%) and characteristic species ($W = 5.1\%$).

Supplementary Table 4 Mean values of selected richness and diversity indices characterizing the community of saproxylic beetles in Voievodeasa nature reserve, at different sampling dates and on cummulated data. Bold numbers indicate the highest values of the corresponding indices.

Date	Shannon	Dominance (Simpson's D)	Gini-Simpson	Eveness	Berger- Parker	Chao 1	No. observed species
D1	3.22	0.094	0.905	0.255	0.219	120.2	98
D2	3.877	0.030	0.969	0.438	0.059	141.3	110
D3	3.296	0.097	0.902	0.257	0.275	140	105
D4	3.236	0.090	0.909	0.343	0.254	109.1	74
D5	3.417	0.059	0.940	0.350	0.137	99.05	87
D6	2.904	0.129	0.870	0.304	0.318	75	60
D7	2.673	0.152	0.847	0.295	0.336	68.25	49
D8	3.042	0.075	0.924	0.476	0.162	77.33	44
D9	2.885	0.061	0.938	0.895	0.111	24.5	20
Total	<i>3.914</i>	<i>0.037</i>	<i>0.9623</i>	<i>0.230</i>	<i>0.106</i>	<i>266.67</i>	<i>217</i>

Supplementary Figure 1 Bipartite networks of the main beetle trophic guilds captured in flight interception traps (Voievodeasa beech, spruce and fir forest, nature reserve): A. Xylophagous guild, B. Predatory guild, C. Mycetophagus guild. D1 – 05.23.2011, D2 – 06.06.2011, D3 – 06.20.2011, D4 – 07.05.2011, D5 – 07.18.2011, D6 – 08.01.20 1, D7 – 08.16.2011, D8 – 09.12.2011, D9 – 09.26.2011.





