

Contributions to the knowledge of the leaf beetle fauna (Coleoptera: Chrysomelidae) from Maramureş (northern Romania)

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Summary

The paper represents a synthesis regarding the presence of the chrysomelid species in Maramureş, based on the material collected from this area between 1995 and 2004, and also on the bibliographical reports. There are listed 214 species, belonging to 55 genera from 11 subfamilies, representing about 40% of the number of leaf beetles species known in Romanian fauna. Also, the general distribution of each species is given. Some endemic species to the Carpathian Mountains: *Sclerophaedon carpathicus* (Weise), *Neocrepidodera transsilvanica* Fuss, *Psylliodes frivaldszkyi* Weise, the Alpine-Carpathian range: *Neocrepidodera cyanescens* (Duftschmid) and to the Carpathian and Dinaric Mountains: *Psylliodes subaeneus* Kutschera are presented.

Key words: Coleoptera, Chrysomelidae, leaf beetle fauna, Maramureş, northern Romania.

Introduction

In the second half of the 19th century FRIVALDSZKY (1871) published the first data about the chrysomelid fauna from Maramureş Mountains, especially from the Vaser Valley, Făina. The most of published records (1871-1951) regarding the chrysomelid species of Maramureş came from Rodna Mountains which were better studied. After 1951, SZÉL & ALL. (1995) mentioned 37 species for Rodna Mountains (Borşa) and Gutâi Mountains (Firiza, Baia Mare and Izvoara).

In 1995 the “Grigore Antipa” National Museum of Natural History (Bucharest) has begun the study on the faunal diversity of Maramureş, within the project “*Knowledge of the invertebrates of Maramureş*”. GĂLDEAN & PĂRVU (1997) have published the goals of the research program in Maramureş.

MAICAN & SERAFIM published in 2001 a first synthesis concerning the leaf beetle fauna from Maramureş. The study was based on the material collected by the museum's specialists between 1995 and 1998, from 50 new sites (Maramureş Depression, Igriş Plateau, the basins of the Iza - including the Mara basin, tributary of Iza river, Vişeu and Săpânţa rivers, Rodna and Gutâi Mountains) and also on the bibliographical sources: FRIVALDSZKYI (1871), KUTHY (1897), PETRI (1912, 1925-1926), PANIN (1944), CSIKI (1951), KASZAB (1962), KONNERTH-IONESCU (1963), ROŞCA (1973, 1974), GRUEV & ALL. (1993), SZÉL & ALL. (1995).

The studies on the fauna of Maramureş were resumed in June 2003. Most of the collecting sites from Maramureş and Ţibleş Mountains are new (MAICAN & SERAFIM 2004).

In the 18 to 24th of July 2004 period, faunal researches continued in the plateau and hilly areas of the Vişeu basin, including the valleys of the streamlets Coşnea, Socolău (tributaries of Rica), Rica (tributary of Ruscova), Vişeu, Pop-Ivan and Hututeanca (tributaries of Frumuşeaua), Vaser, Făina (tributary of Vaser). The material collected from these areas wasn't published until now.

Material and methods

Over 3,400 leaf beetles specimens were studied in the period 2001-2006. Most of them were collected using the entomological net, by shaking the trees or directly from plants. Recent collecting sites and the localities cited in literature are presented in Table 1:

Collection sites

The Iza basin

- B. - Bârsana
 Be. - Berbești, bank of the Mara river
 B.T. - Tătaru dam, Ocna Șugatag
 B.V. - Bogdan Vodă
 C. - Călinești, Văleni, Săcătura forestry house
 C.P. - Pleșca chalet, Ocna Șugatag
 Co. - Cornești (Călinești village), left bank of the Coșeu river
 c.s.S. - Slătioara forestry house, Strâmtura
 D. - Desești, 7 km south of the Izvoarele resort
 Dr. - Dragomirești, Baicu forestry house
 I. - Ieud
 L.C. - Lunca lui Cosiță, Dragomirești
 M. - Mara, Desești
 Nă. - Nănești, Bârsana
 M.G. - Gutâi Mts (without other specifications)
 M.Ț. - Țibleș Mts (without other specifications)
 P.B. - Berșotă rivulet, Strâmtura
 R. - Rozavlea

 R.S. - Rona de Sus
 S. - Săliște, Valley of Idișor streamlet (Țibleș Mts)

 Sb. - Sârbi (Budești village), left bank of Coșeu river

 S.I. - Izvoarele resort
 Si.S. - Siliște de Sus

 St. - Strâmtura, Slătioara Valley
 S.M. - Sighetu Marmației

 V.Iz. - Valley of Iza river
 V. Mes. - Valea Mesteacănului (Țibleș Mts)

 V.P. - Valley of Pălăcuț streamlet, Dragomirești (Țibleș Mts)

 V.Sf. - Valley of Sfundău streamlet, Dragomirești (Țibleș Mts)
 V.St. - Valley of Stedea river, Desești

Va.Iz. - Vadu Izei, Sighetu Marmației

The Săpânța basin

- C.Ș. - Șipote cascade, Săpânța
 c.s.C. - Colibi forestry house, Săpânța
 Sp. - Săpânța, Brustani forestry house
 T.D. - Tăul lui Dumitru
 V.N. - Valley of Nireș river
 V.R. - Valley of Runcu river
 V.Sp. - Valley of Săpânțioara river

Other areas

- B.M. - Bocicioiu Mare, Valley of Tisa river
 Ba.M. - Baia Mare, Izvoara
 F. - Firiza, Lăpuș Basin
 M.M. - Maramureș (without other specifications)
 V.Lp. - Valley of Lăpuș river
 V.T. - Valley of Tisa river

The Vișeu basin

- B.C. - between Bardău and Cozia (Maramureș Mts)
 Bo. - Borșa
 B.Bo. - Baia Borșa
 Bi. - Bistra
 Cf.R.B. - the Rica-Budescu confluence
 Cf.P.H. - the Pop-Ivan - Hututeanca confluence
 Cf.V.T. - the Vișeu-Tisa confluence
 c.s.Co. - Coșnea forestry house, Poienile de sub Munte
 c.s.R. - Repedea forestry house
 Iz.D. - Izvorul lui Dragoș, Moisei
 L. - Leordina
 Mi. - Miclușa hamlet, Repedea
 P.I. - Pop Ivan Peak (Maramureș Mts)
 Po.E. - Elmo clearing, 2 km upstream Repedea
 Po.S. - Smereceni clearing, 7 km upstream Repedea
 P.S.M. - Poienile de sub Munte
 V.Bi. - Valley of Bistra river
 V.B. - Valley of Bălăsâna river, 4 km upstream Baia Borșa
 V.Bu. - Valley of Budescu river
 V.C. - Valley of Cărligătura river, 17 km upstream Repedea
 V.Co. - Valley of Coșnea streamlet, Poienile de sub Munte
 V.Cv. - Valley of Cvașnița river, Poienile de sub Munte
 V.F. - Valley of Frumușeaua river, 7 km upstream Crasna Vișeului
 V.Fă. - Făina, Valley of Vaser river (Maramureș Mts)
 V.H. - Valley of Hututeanca river, 12 km upstream Crasna Vișeului
 V.J. - Vișeu de Jos
 V.L. - Valley of Lutoasa streamlet, Coșnea forestry house, Poienile de sub Munte
 V.P.I. - Valley of Pop-Ivan river, 12 km upstream Crasna Vișeului
 V.Ri. - Valley of Rica streamlet, Poienile de sub Munte
 V.So. - Valley of Socolău streamlet, 2 km upstream of the Socolău-Rica confluence
 V.Vi. - Valley of Vișeu river

Rodna Mountains

- Cor. - Corongiș Peak
 c.I.P.R. - Laboratory House "Pietrosu Rodnei"
 In. - Ineu Peak
 Să. - Săcel, Izvorul Albastru al Izei
 M.Rod. - Rodna Mts (without other specifications)
 M.R. - Roșu Mountain
 P.R. - Pietrosu Rodnei
 Rod. - Rodna (the Someșul Mare basin)
 Rod.V. - Rodna Veche
 V.Bă. - Valea Băilor (the Someșul Mare basin)
 V.M. - Valea Măriilor (the Someșul Mare basin)
 V.Ro. - Valley of Roșu rivulet (the Someșul Mare basin)
 V.S. - Valley of Saca streamlet (the Someșul Mare basin)
 V.V. - Valea Vinului (the Someșul Mare basin)

The identification was made according to the external morphology and to genitalia (aedeagus for males, spermateca for females), using WARCHALOWSKI'S (1985, 1991, 1993, 1994, 1995, 1998, 2003) papers. The nomenclature and the systematics are given after WARCHALOWSKI (2003).

For information regarding the present distribution range of the species, GRUEV'S (2003 a, b, c, d) and WARCHALOWSKI'S (2003) papers were consulted.

The zoogeographical affiliation of some species is presented according to GRUEV (2003 c, d), based on newer ecological and distributional data:

S – Siberian complex (EAP – Euroasiatic Palaearctic element; SibE – Siberoeuropean subelement; SSibE – Southsiberoeuropean subelement; TrPal – Transpalaearctic subelement; HPal – Holopalaearctic subelement); E – European complex (CE – Centraleuropean element; SbM – Submediterranean element; HSbM – Holosubmediterranean subelement; ESbM – Eastsubmediterranean subelement); SWAs – Southwest Asiatic complex (SbIn – Subiranian element; IT – Iranoturanian subelement).

The subfamilies are listed in the presumed phyletic position (SEENO & WILCOX 1982) and the genera and species in alphabetical order.

The studied material is preserved in the Coleoptera Collection of the "Grigore Antipa" National Museum of Natural History from Bucharest.

Abbreviations:

* - species reported for the first time in Maramureş by MAICAN & SERAFIM (2001, 2004);

** - species cited in literature and found again by us;

*** - species unreported from Maramureş until now;

- commented species; Mts - Mountains.

Results and Discussions

Taxonomical structure of the leaf beetle fauna from Maramureş includes 214 species, belonging to 55 genera, from the following subfamilies: Donaciinae (5 species), Orsodacninae (2 species), Zeugophorinae (one species), Criocerinae (5 species), Clythrinae (8 species), Cryptocephalinae (26 species), Eumolpinae (2 species), Chrysomelinae (68 species), Galerucinae (11 species), Alticinae (76 species) and Cassidinae (10 species) (Table 2).

The collecting sites and localities, the general distribution and the bibliographical sources for each species are presented.

Based on the analysis of the material collected between 1995 and 2003, 35 chrysomelid species were reported for the first time in the Maramureş area (MAICAN & SERAFIM 2001, 2004). The species *Cryptocephalus fulvus* (Goeze), *Hydrothassa marginella* (Linnaeus), *Luperus flavipes* (Linnaeus), *Longitarsus apicalis* (Beck) and *Cassida prasina* Illiger, found in the material collected in 2004, were not reported from Maramureş until now.

From zoogeographical point of view, among the European endemics of Alticinae, the following species have been recorded in fauna of Maramureş: *Neocrepidodera transsilvanica* Fuss, *Psylliodes frivaldszkyi* Weise (endemic species for the Carpathians), *Longitarsus pallidicornis* Kutschera, *Longitarsus rubellus* (Foudras), *Minota carpathica* Heikertinger, *Neocrepidodera melanostoma* (Redtenbacher), *Orestia aubei* Allard, *Phyllotreta christinae* Heikertinger (endemic species for the most of European mountains), *Neocrepidodera cyanescens* (Duftschmid) (endemic species for the Alpine-Carpathian range) and *Psylliodes subaeneus* Kutschera (endemic species for the Carpathian and Dinaric Mountains). Also, among Chrysomelinae, *Sclerophaedon carpathicus* (Weise) is a valuable species, endemic for the eastern Carpathians.

Commented species

Oulema septentrionis (Weise) was reported by SZÉL & ALL. (1995) from Borşa (Rodna Mountains). It is a rare species in the Carpathian Basin, more frequent in Transylvania. The general areal includes the northern Europe (from Ireland to Finland), northern Russia and Volga river basin, Central Europe, Spain.

Cryptocephalus carpathicus Frivaldszkyi – terra typica: Maramureş, Carpathian Mountains. For Romania, it was recorded only from a few localities from Transylvania. The species was found again in 1996, from Săpânţa (two specimens). Its general distribution is represented by the Carpathian, Tatra and Pienini Mountains.

Chrysolina weisei (Frivaldszkyi) is a rare mountainous species, possible endemic to the Romanian Carpathians. It was mentioned only in some areas of Romania: Bălan (PETRI Collection), Haţeg (DEUBEL Collection) (according to PETRI 1912); Retezat Mountains, Rodna Mountains, Cibin, Băile Herculane, Braşov (PANIN 1944, with older data). We consider that the presence of this species in the Romanian fauna needs confirmation.

Minota obesa (Waltl) has an uncertain status in the Romanian fauna. For Romania there are only a few old cited, for example: Pietrosu Rodnei

(FRIVALDSZKYI 1871), Bocicioiu Mare (KUTHY 1897), Turnu-Roșu, Parâng Mountains, Avrig, Brașov, Rodna Mountains (PETRI 1912). According to a review of the *Minota* species (BIONDI 1986), it is prob-

Conclusions

This paper represents a synthesis regarding the presence of the leaf beetles species in the Maramureș area, using the material collected between 1995 and 2004, during the “Knowledge of the invertebrates of Maramureș” project, and also the bibliographical reports.

214 species, belonging to 55 genera from 11 subfamilies are presented, representing about 40% of the number of chrysomelid species known in the Romanian fauna.

Most of the localities and sites from the Maramureș and Țibleș Mountains and also from the basins of Săpânța, Iza, Mara and Vișeu rivers, represent new records for the leaf beetles presence.

In the Vișeu river basin and Rodna Mountains were recorded most of the species (116, respectively 113 species).

From zoogeographical point of view, among the European endemics of Alticinae, the following species have been recorded in the Maramureș fauna: *Neocrepidodera transsilvanica* Fuss, *Psylliodes frivaldszkyi* Weise (endemic species for the Carpathians), *Longitarsus pallidicornis* Kutschera, *Longitarsus rubellus* (Foudras), *Minota carpath-*

ably a misidentification of *Minota carpathica* Heikertinger or *Minota halmae* (Apfelbeck). The general areal of this species includes Germany, Sudetes and Alps.

ica Heikertinger, *Neocrepidodera melanostoma* (Redtenbacher), *Orestia aubei* Allard, *Phyllotreta christinae* Heikertinger (endemic species for most of the European mountains), *Neocrepidodera cyanescens* (Duftschmid) (endemic species for the Alpine-Carpathian range) and *Psylliodes subaeneus* Kutschera (endemic species for the Carpathian and Dinaric Mountains). Also, from Chrysomelinae, *Sclerphaedon carpathicus* (Weise) is a valuable species, endemic for the Eastern Carpathians.

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Table 2

List of the leaf beetles species reported from Maramureş

Taxa	Collecting sites	Hydrographical basin		Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vişeu Săpânţa				
DONACIINAE Kirby, 1837							
<i>*Donacia marginata</i> Hoppe, 1795	I., C.	+				16, 17	Europe, Asia Minor, western Siberia, northern Africa S/EAP/SibE
<i>Donacia semicuprea</i> Panzer, 1796	V.Bă.			+		2	British Islands, southern Scandinavia, Central Europe
<i>Donacia thalassina</i> Germar, 1811	V.Ro.			+		2	Europe, Siberia, North-western China, Japan S/EAP/TrPal
**Plateumaris sericea (Linnaeus, 1761) [<i>Plateumaris discolor</i> Panzer, 1795]	V.Ro., Să.			+		2, 17	from Ireland and northern Spain to Japan TrPal
**Plateumaris consimilis (Schrank, 1781)	V.Fă., M.Rod., Să., St., C., V.F., c.s.R., c.s.Co., C.P., Bi., D., Po.E., P.S.M., V.L., V.P.I., Dr., Cf.R.B., V.Bu., V.Sf., V.H., V.P., S., V.P.I.	+		+		3, 20, 16, 17	Palaeartic (from western Europe to Japan)
ORSODACNINAE Thomson, 1866							
**Orsodacne cerasi (Linnaeus, 1758)	M.M., M.Rod., V.V., V.S., V.Ro., Să., c.l.P.R., c.s.R., Po.E., S., c.s.C., V.F., C.P.	+	+	+	+	2, 3, 16, 17	Europe, Siberia, Asia Minor
<i>Orsodacne humeralis</i> Latreille, 1804 [<i>Orsodacne lineola</i> Panzer, 1795]	M.M.				+	3	France, Central Europe, Italy, Balkans, Asia Minor E/SbM/HSbM
ZEUGOPHORINAE Chûjô, 1952							
**Zeugophora flavicollis (Marsham, 1802)	S.M., Si.S., V.Iz.	+				2, 15, 16	Central and western Europe
CRIO CERINAE Latreille, 1807							
<i>Lema cyanella</i> (Linnaeus, 1758)	M.M.				+	3	from Spain to Korea S/EAP/TrPal

Taxa	Collecting sites	Hydrographical basin			Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vişeu	Săpânţa				
** <i>Lilioeris merdigera</i> (Linnaeus, 1758)	M.Rod., V.Bă., P.S.M., S.	+	+		+	2, 20, 17	from Iberian Peninsula, France to Japan S/EAP/TrPal	
* <i>Oulema gallaeciana</i> (Heyden, 1870)	Iz.D., R.S., St., Po.S., Po.E., V.F., P.S.M., S.	+	+			16, 17	Europe, Danube River basin, western Siberia, european Russia S/EAP/SibE	
* <i>Oulema melanopus</i> (Linnaeus, 1758)	R.S., c.s.R.	+	+			17	from Ireland, southern Norway and Morocco to western Siberia and Mongolia S/EAP/SibE	
# <i>Oulema septentrionis</i> (Weise, 1880)	Bo.		+			24	Central and northern Europe, Volga basin	
CLYTHRINAE Kirby, 1837								
* <i>Clytra laeviuscula</i> (Ratzeburg, 1837)	Co., P.S.M.	+				16, 17	Europe, Caucasus, Asia Minor, Central Asia, Altai S/EAP/SSibE	
* <i>Clytra quadripunctata</i> (Linnaeus, 1758) [<i>Clytra appendicina</i> Lacordaire, 1848]	V.F., P.S.M., V.F.	+				16, 17	from northern Spain, Ireland to Central Asia, Siberia and Mongolia S/EAP/SibE	
* <i>Coptocephala unifasciata</i> (Scopoli, 1763)	P.S.M.	+				17	from northern Spain and Belgium to Central Asia, Mongolia, Kazakhstan S/EAP/SibE	
<i>Labidostomis humeralis</i> (Schneider, 1792)	M.M.				+	3	Europe, Asia Minor E/CE	
** <i>Labidostomis longimana</i> (Linnaeus, 1761)	V.M., B., Iz.D., I., c.s.C., V.Vi., V.J., V.F., R.S., Nă., V.N., Sp., P.S.M., V.L., L., V.Cy., V.H., L.C., Bi., V.Vi., c.s.Co.	+	+		+	2, 16, 17	Europe, Asia Minor, Siberia, Mongolia S/EAP/SibE	
** <i>Smaragdina flavicollis</i> (Charpentier, 1825)	V.V., D., Co., R.S., Dr.	+	+		+	2, 16, 17	Europe	
** <i>Smaragdina salicina</i> (Scopoli, 1763)	V.Fă., Dr., I., B.	+	+			3, 16, 17	Central Europe, Caucasus E/CE	

Taxa	Collecting sites	Hydrographical basin		Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vişeu Săpânta				
<i>Smaragdina xanthaspis</i> (Germar, 1824)	St., Sp., V.B., V.H., B.C., Cf.P.H.	+	+			16, 17	northern Italy, Balkans, Danube basin, southern Ukraine, Asia Minor E/SbM/ESbM
CRYPTOCEPHALINAE Gyllenhal, 1813							
** <i>Cryptocephalus aureolus</i> Suffrian, 1847	V.Fă., M.Rod., In., M.R., V.V., V.M., V.Bă., St., Sp., Po.S.	+	+	+		3, 19, 2, 16	from Spain and Great Britain to Russia, Caucasus and Central Asia
* <i>Cryptocephalus biguttatus</i> (Scopoli, 1763)	Dr., Co.	+				16, 17	Europe, Asia Minor, southern Siberia S/EAP/SSibE
* <i>Cryptocephalus bilineatus</i> (Linnaeus, 1767)	V.N., L., C., D.	+	+			16, 17	TrPal
** <i>Cryptocephalus bipunctatus</i> (Linnaeus, 1758)	M.M., B.M., Iz.D., I. St., c.s.R., Po.S., L., D., Sb., V.R., M., Sp., V.F., P.S.M., Bi., Po.E., V.Cv., V.H., c.s.Co., Dr., V.Vi., Bi., V. Co.	+	+		+	3, 15, 16, 17	from Portugal and Ireland to Korea, northern Africa S/EAP/HPal
**# <i>Cryptocephalus carpathicus</i> (Fruvald-szkyi, 1883)	M.M., c.s.C.		+		+	4, 17	Carpathian Mts, Tatra Mts, Pienini Mts
<i>Cryptocephalus chrysopus</i> (Gmelin, 1888)	M.M., S.M.	+			+	3, 15	Central Europe, southern France, northern Italy, Crimea, Bulgaria E/CE
* <i>Cryptocephalus connexus</i> Olivier, 1808	D.	+				16	southern Europe, Caucasus, Asia Minor, Kazakhstan SWAs/SbIn/IT
** <i>Cryptocephalus flavipes</i> Fabricius, 1781	Cor., T.D., D.	+	+	+		2, 16	Europe, Asia Minor, Central Asia, Siberia S/EAP/SibE
* <i>Cryptocephalus frenatus</i> Laicharting, 1781	V.Iz.	+				16	France, Germany, Poland, Italy, Danube basin, northern Balkan Peninsula
<i>Cryptocephalus frontalis</i> Marsham, 1802	M.Rod., Cor.			+		19, 21, 2	Central Europe

Taxa	Collecting sites	Hydrographical basin			Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vișeu	Săpâlnța				
** <i>Cryptocephalus fulvus</i> Goeze, 1777	V.N.		+				Palaeartic	
** <i>Cryptocephalus hypochoeridis</i> (Linnaeus, 1758)	common species, frequently in the studied areas					3, 19, 2, 16, 17	Europe, Asia Minor, southern Siberia S/EAP/SSibE	
* <i>Cryptocephalus imperialis</i> Laicharting, 1781	Cf.R.B.		+			17	northern Spain, France, Danube basin, Balkans, Ukraine, Asia Minor E/CE	
** <i>Cryptocephalus moraei</i> (Linnaeus, 1758)	V.Fă., M.Rod., V.V., V.Ro., R.S., I., c.s.C., Iz.D., Sp., D., S.M., Be., V.N., Bi., L., P.S.M., c.s.Co., L.C., Dr., B.C., V.Ri.	+	+			3, 19, 2, 21, 24, 16, 17	Europe (excepting northern Scandinavia), Asia Minor E/CE	
** <i>Cryptocephalus ocellatus</i> Drapiez, 1819	Rod., V.F., I., Mi., R., Si.S., V.P.I., Cf.P.H.	+	+			2, 16, 17	Europe, Asia Minor, Iran, Kazakhstan, western Siberia S/EAP/SibE	
* <i>Cryptocephalus octacosmus</i> Bedel, 1891	Nă.	+				17	Europe, Central Asia, western Siberia S/EAP/SibE	
** <i>Cryptocephalus octopunctatus</i> (Scopoli, 1763)	V.Vi., V.R., S.	+	+			3, 16	Central Europe, France, Italy, Danube River basin, southern Finland	
<i>Cryptocephalus quadriguttatus</i> Richter, 1820	M.M., V.V.			+	+	2, 3	Danube River basin, Romania, southern Poland, Ukraine, Russia, Caucasus	
<i>Cryptocephalus quadripustulatus</i> Gyllenhal, 1813	M.Rod., Cor.			+		19, 2	Europe, Caucasus	
<i>Cryptocephalus quercei</i> Suffrian, 1848	V.V.			+		2	Central and northern Europe	
** <i>Cryptocephalus sericeus</i> (Linnaeus, 1758)	M.G., M.Rod., V.S., Bo., I., C., Iz.D., St., Sp., Po.E., D., Co., R.S., c.s.C., V.N., Po.S., c.s.R., Bi., c.s.Co., Dr., L., V.F., V.H., S., L.C., V.Fă.	+	+			3, 19, 2, 24, 16, 17	Europe, Asia Minor, Kazakhstan, Siberia, North-western China S/EAP/SibE	

Taxa	Collecting sites	Hydrographical basin		Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vișeu Săpânta				
* <i>Cryptocephalus strigosus</i> Germar, 1824	Co.		+			16	northern Italy, Danube River basin E/SbM/ESbM
* <i>Cryptocephalus violaceus</i> Laicharting, 1781	V.Cv., V.H., Dr., Po.E.	+				17	Europe, Asia Minor
** <i>Cryptocephalus vittatus</i> Fabricius, 1775	M.G., B.M., R.S., I., St., Sp., V.F., Po.S., D., R.S., V.N., Po.E., V.Bi., L., V.H., c.s.R., L.C., V.P., S., V.P.I., Cf.P.H., V.Vi., c.s.Co.	+	+	+	+	3, 15, 24, 16, 17	Iberian Peninsula, France, Central Europe, Danube River basin, Dniro River basin
** <i>Pachybrachis hieroglyphicus</i> (Laicharting, 1781)	Rod., Nă., L.	+		+		2, 17	Europe, Asia Minor, Kazakhstan, Siberia S/EAP/SibE
** <i>Pachybrachis sinuatus</i> (Mulsant & Rey, 1859)	M.Rod., P.B., B., I., c.s.R., C.P., D., B.T., Nă., V.Bi., Cf.R.B., L., c.s.Co., L.C., V.Vi., V.Fă., Cf.P.H., V.So.	+		+		19, 20, 2, 16, 17	southern France, Central Europe, Balkans, Asia Minor E/CE
EUMOLPINAE Thomson, 1859							
<i>Bromius obscurus</i> (Linnaeus, 1758)	B.M.				+	15	Europe, Palaearctic Asia; introduced also in North America
* <i>Eumolpus asclepiadeus</i> Pallas, 1776	Co.		+			16	France, Italy, Germany, Poland, Danube River basin, Caucasus, Central Asia
CHRYSOMELINAE Latreille, 1802							
<i>Chrysolina carpathica</i> (Fuss, 1856)	M.Rod.			+		18, 19, 22	Carpathian Mts, Sudeten Mts, Stara Planina
<i>Chrysolina cerealis</i> (Linnaeus, 1767)	M.Rod.			+		18	from Great Britain and northern Spain to Amur River basin TrPal
* <i>Chrysolina chalcites</i> (Germar, 1824)	B.T.	+				16	eastern Europe, Caucasus, Turkey, Rhode Island, Cyprus, Syria, Central Asia SWAs/SbIn/IT

Taxa	Collecting sites	Hydrographical basin		Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vişeu Săpânța				
**Chrysolina coeruleans (Scriba, 1791)	Bo., St.	+	+	+		16, 24	Central Europe, France, Italy, Asia Minor E/CE
<i>Chrysolina cuprina</i> (Duftschmid, 1825)	V.V., V.S.	+	+	+		2	especially in mountainous regions from Central Europe
**Chrysolina fastuosa (Scopoli, 1763)	V.Fă., M.G., M.Rod., V.V., V.S., V.Ro., Rod., St., Iz.D., P.B., V.J., Bi., C.P., B.T., R.S., D., c.s.R., P.S.M., c.s.Co., V.H., V.P.I., Dr., V.P., V.Sf., S., B.C., c.s.Co., Cf.V.T.	+	+	+		3, 19, 2, 18, 16, 17	Europe, Caucasus, Asia Minor, Central and western Siberia S/EAP/SibE
<i>Chrysolina fimbrialis</i> (Küster, 1845)	M.Rod.			+		18, 22	northern Italy, Balkans, Danube River basin
<i>Chrysolina geminata</i> (Paykull, 1799)	B.M., V.V.	+			+	15, 2	Europe, from Pyrénées and Norway to Lithuania, Ukraine and Bulgaria
**Chrysolina globipennis (Suffrian, 1851)	Ba.M., B.M., V.Fă., M.Rod., V.V., V.F., Bi., V.P.I.	+		+		15, 19, 2, 22, 16, 17	Carpathian Mts
*Chrysolina haemoptera (Linnaeus, 1758)	Iz.D.	+				16	Europe, Caucasus, Asia Minor, Iran E/CE
<i>Chrysolina hemisphaerica</i> (Germar, 1817)	M.Rod., V.Lp.			+		19, 18, 2	Alps Mts, Sudeten Mts, Carpathian Mts
**Chrysolina herbacea (Duftschmid, 1825)	common species, frequently in the studied areas					2, 3, 24, 16, 17	Europe, Caucasus, Asia Minor, Iran, Afghanistan, Altai Mts S/EAP/SSibE
<i>Chrysolina hyperici</i> (Förster, 1771)	M.M.				+	3	Europe, Caucasus, Asia Minor, Kazakhstan, northern Africa E/CE
<i>Chrysolina lichenis</i> (Richter, 1820)	M.Rod., In., V.Ro.	+		+		19, 2	Alps Mts, Sudeten Mts, Carpathian Mts
<i>Chrysolina marcastica</i> (Germar, 1824)	M.G., M.Rod., V.V., V.Bă., M.R., Cor.	+		+		3, 19, 18, 2	Slovenia, Alps Mts, Sudeten Mts, Carpathian Mts

Taxa	Collecting sites	Hydrographical basin		Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vişeu Săpânta				
* <i>Chrysolina marginata</i> (Linnaeus, 1758)	V.F., B.T., I., Po.E., P.S.M.	+				16, 17	Europe, Caucasus, Asia Minor, Iran, Central Asia, Siberia, Mongolia, Kazakhstan, China, northern Africa S/EAP/TrPal
** <i>Chrysolina menthae</i> (Schrank, 1776)	M.Rod., V.V., V.Ro., V.S., In., Bo., S., Bi., B.T.	+		+		19, 18, 2, 3, 24, 16, 17	Alps Mts, Sudeten Mts, Carpathian Mts
** <i>Chrysolina olivieri</i> (Bedel, 1892) [<i>Chrysomela coerulea</i> Olivier, 1807]	M.Rod., V.F.	+		+		2, 16	Alps Mts, Carpathian Mts, Dinaric Alps Mts, Stara Planina Mts
** <i>Chrysolina polita</i> (Linnaeus, 1758)	P.R., M.Rod., Rod., M.G., F., R.S., St., B., Sp., M., C.P., D., Bi., L., V.H., c.s.R., S., Cf.V.T., V.So.	+	+	+		3, 2, 24, 16, 17	Europe, western Siberia, Mongolia S/EAP/TrPal
<i>Chrysolina purpurascens</i> (Germar, 1822)	B.M., M.Rod.			+	+	15, 19	Alps Mts, Carpathian Mts, Tatra Mts, Sudeten Mts
* <i>Chrysolina rossia</i> (Illiger, 1802)	B.T.	+				16	South-eastern Europe, Slovenia, Austria E/SbM/ESbM
<i>Chrysolina staphylaea</i> (Linnaeus, 1758)	M.M., M.R., Cf.V.T.			+	+	3, 2	Europe, Caucasus, Kazakhstan, Siberia, Mongolia, China, Korea S/EAP/TrPal
* <i>Chrysolina sturmi</i> (Westhoff, 1882)	Bi., P.S.M., Cf.V.T.					16, 17	Europe, western Asia E/CE
** <i>Chrysolina umbratilis</i> (Weise, 1887)	M.Rod., V.S., Bo., Po.S.	+		+		19, 18, 2, 22, 24, 16	Carpathian Mts, Sudeten Mts, Alps Mts, Dinaric Alps Mts
** <i>Chrysolina varians</i> (Schaller, 1783)	V.Fä., M.G., M.Rod., V.V., V.S., V.Ro., Cor., In., V.Bä., Ba.M., Bo., P.R., Iz.D., c.s.C., c.s.R., C.P., D., R.S., V.St., P.S.M.	+	+	+		3, 19, 2, 24, 16, 17	Europe, western Siberia, introduced also in North America
# <i>Chrysolina weisei</i> (Frivaldszky, 1883)	M.Rod.			+		18, 22	South Carpathians
** <i>Chrysomela collaris</i> Linnaeus, 1758	B.M., Rod., St., I., B., Po.S., M., V.R., c.s.R., V.Fä.	+	+	+	+	15, 2, 16, 17	from eastern France to North-eastern Asia

Taxa	Collecting sites	Hydrographical basin			Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vișeu	Săpânța				
** <i>Chrysomela cuprea</i> Fabricius, 1775	B.M., Rod., F., St., Să.	+			+		15, 2, 24, 16	from eastern France to North-eastern Asia
** <i>Chrysomela populi</i> Linnaeus, 1758	V.Fă., Rod., St., I., D., c.s.S., L., P.S.M., c.s.R., Dr., Cf.V.T.	+	+		+		3, 2, 16, 17	Palaeartic S/EAP/HPal
* <i>Chrysomela saliceti</i> Suffrian, 1849	M., V.R., V.So., V.Fă.	+	+	+			16	from France to Mongolia
<i>Chrysomela tremula</i> Fabricius, 1787	S.M.	+					15	from Ireland to Sakhalin and Kamchatka TrPal
** <i>Chrysomela vigintipunctata</i> (Scopoli, 1763)	M.M., B.M., Rod., V.V., St., Iz.D., VF., c.s.R., M.	+	+		+		3, 15, 2, 16, 17	Europe, Palaeartic Asia S/EAP/TrPal
** <i>Gastrophysa polygoni</i> (Linnaeus, 1758)	Bo., V.Cv., V.H., Cf.P.H.		+		+		24, 17	Europe, Caucasus, Asia Minor, Central Asia, Siberia, Mongolia, China, Korea, northern Africa S/EAP/HPal
** <i>Gastrophysa viridula</i> (De Geer, 1775)	P.R., P.I., V.Ro., V.V., V.Bă., Bo., B., Iz.D., St., I., Să., Sp., c.I.P.R., Po.S., VB, VF, D, Co., S.I., V.C., Cf.R.B., V.P.I., c.s.R., V.Fă., Dr., VP., L.C., S., B.C., Cf.P.H., Cf.V.T.	+	+	+	+		15, 2, 24, 16, 17	Europe, Asia Minor, Caucasus, Central Asia; introduced also in North America
<i>Gonioctena decemnotata</i> (Marsham, 1802)	V.V.				+		2	from British Isles to Japan TrPal
<i>Gonioctena flavicornis</i> (Suffrian, 1851)	B.M.				+		15	boreo-alpine species; European populations: Fennoscandia, Pyrénées Mts, Alps Mts, Jura Mts, Ardennes Mts, Carpathians Mts; Asiatic populations: eastern Siberia
<i>Gonioctena fornicata</i> (Brüggemann, 1873)	M.M.				+		3	Danube River basin, Balkan Peninsula, Ukraine, southern Russia, Caucasus, Asia Minor E/SbM/ESbM
* <i>Gonioctena interposita</i> (Franz & Palmén, 1950)	Po.S., Dr., S., V.Fă.	+					16, 17	Alps Mts, Sudeten Mts, Carpathian Mts

Taxa	Collecting sites	Hydrographical basin		Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vişeu Săpânta				
<i>Goniocтена linnaeana</i> (Schrank, 1781)	M.M., B.M., V.Fă., S.M., Rod.	+		+	+	3, 15, 2	from northern Spain and Norway to Mongolia
<i>Goniocтена pallida</i> (Linnaeus, 1758)	V.Fă.	+				3	western Palaearctic
<i>Goniocтена viminalis</i> (Linnaeus, 1758)	V.Fă., B.M.	+			+	3, 15	from Ireland to North-eastern Asia and Korea
<i>Goniocтена quinquepunctata</i> (Fabricius, 1787)	P.R., M.Ț., V.V., V.Bă., V.Ro.	+		+		15, 2	northern, central and southern Europe
** <i>Hydrothassa glabra</i> (Herbst, 1783)	V.V., V.Bă., V.Ro., Po.S., Dr.	+				2, 17	Europe, Morocco, western Siberia
*** <i>Hydrothassa marginella</i> (Linnaeus, 1758)	V.Fă.				+		Europe
** <i>Leptinotarsa decemlineata</i> (Say, 1824)	Bo., VF., Iz.D., Po.S., V.J., Să., c.s.R., V.H., V.Vi., Cf.V.T.	+		+		24, 16, 17	Europe; introduced also in North America
** <i>Linnaeidea aenea</i> (Linnaeus, 1758)	V.Fă., B.M., V.V., V.Bă., V.Ro., V.S., F., R.S., B., St., c.s.S., Iz.D., C.Ş., V.Sp., c.s.R., V.Iz., S., V.R., D., P.B., Po.S., V.F., P.S.M., L.C., B.C., V.So., Cf.P.H., Cf.V.T., V.Ri.	+	+		+	3, 15, 2, 24, 16, 17	from Ireland to Japan TrPal
<i>Oreina alpestris</i> (Schummel, 1844)	M.Rod., V.V., V.S., V.Bă., Cor., In., Bo.	+		+		15, 2	all the European mountains, except Scandinavia and Iberian Peninsula
<i>Oreina bifrons decora</i> (Richter, 1820)	M.Rod.			+		2, 19	Carpathian Mts, Sudeten Mts
<i>Oreina cacaliae senecionis</i> (Schummel, 1844)	B.M., M.Rod., In., M.R., V.S.	+		+	+	15, 19, 2	Carpathian Mts, Sudeten Mts
** <i>Oreina coerulea</i> (Olivier, 1790)	M.G., M.Rod., V.V., In., V.S., Sp., V.N., P.S.M., Dr., S., P.R., D., Co.	+	+	+		15, 19, 2, 16, 17	Carpathian Mts, Sudeten Mts, Alps Mts, Dinaric Alps Mts, Bulgaria
** <i>Oreina intricata</i> (Germar, 1824)	M.M., M.Rod., In., M.R., V.V., Bo., P.R., c.l.P.R.			+	+	3, 19, 2, 24, 17	Carpathian Mts, Sudeten Mts, Alps Mts, Balkans
<i>Oreina plagiata</i> (Suffrian, 1861)	M.M., M.Rod., Cor.			+	+	3, 19, 2	Apennines Mts, Alps Mts, Carpathian Mts, Balkans

Taxa	Collecting sites	Hydrographical basin			Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vişeu	Săpânţa				
<i>Oreina speciosissima</i> (Scopoli, 1763)	M.M., M.Rod., In., M.R., V.V., V.S.	+	+		+	3, 15, 19, 2	Carpathian Mts, Sudeten Mts, Alps Mts, Pyrénées Mts, Balkans	
** <i>Oreina virgulata</i> (Germar, 1824)	In., V.S., V.Ro., V.V., V.P.I., V.Sf.	+	+		+	2, 17	Carpathian Mts, Sudeten Mts, Alps Mts, Apennines Mts, Balkans	
<i>Oreina viridis</i> (Duftschmid, 1825)	P.R., Bo.	+	+		+	2, 24	Alps Mts, Vosges Mts, Carpathian Mts	
* <i>Phaedon armoraciae</i> (Linnaeus, 1758)	Va.Iz., P.S.M., c.s.R.	+	+			16, 17	Europe, Caucasus, Central Asia, Siberia	
** <i>Phaedon cochleariae</i> (Fabricius, 1792)	M.Rod., V.V., V.Ro., R.S., Să., Po.S., B.T., Cf.V.T.	+	+		+	19, 2, 24, 16, 17	Europe, Palaearctic Asia	
<i>Phaedon laevigatus</i> (Duftschmid, 1825)	M.Rod.				+	19, 2	southern part of Central Europe, northern Italy, Croatia, Bulgaria, Ukraine, Caucasus	
<i>Phaedon pyritosus</i> (Rossi, 1792)	V.Fă.		+			3	Europe, Caucasus, Asia Minor	
** <i>Phaedon segnis</i> Weise, 1884	P.R., In., M.Rod.				+	15, 19, 2, 16	Central Asia, Kazakhstan, northern Africa	
<i>Phratora atrovirens</i> (Comelius, 1857)	S.M., M.Rod.	+			+	15, 19, 2	S/EAP/Sibe	
** <i>Phratora tibialis</i> (Suffrian, 1851)	Bo., St., B., C., Va.Iz., P.R., Să., D., V.F., Iz.D., M., Nă., C.S.R., Dr., V.So.	+	+		+	2, 16, 17	Carpathian Mts, Alps Mts, Dinaric Alps Mts	
** <i>Phratora vitellinae</i> (Linnaeus, 1758)	V.Fă., Rod., V.V., Bo., In., B., c.s.R., V.F., P.S.M., L., V.Vi., V.So.	+	+		+	3, 2, 16, 17	Alps Mts, Fennoscandia, Germany, Poland, Russia, Northern Asia	
** <i>Plagiodera versicolora</i> (Laicharting, 1781)	Rod., V.Iz., St., B., I., Va.Iz., B.T., M., V.R., V.F., L., P.S.M., V.So., Cf.V.T.	+	+	+	+	2, 16, 17	European areas of mixed forests; reported also from Turkey	
							from Ireland and Pyrénées Mts to Kamchatka	
							TrPal	
							Palaearctic, India, Taiwan	
							S/EAP/HPal	

Taxa	Collecting sites	Hydrographical basin		Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vișeu Săpânta				
** <i>Sclerophaedon carniolicus</i> (Germar, 1824) [<i>Phaedon transsylvanicus</i> Fuss, 1861]	M.Rod., V.V., V.Ro., Cor., V.St.	+		+		19, 2, 16	Carpathian Mts, Dinaric Alps Mts, Alps Mts, Sudeten Mts
** <i>Sclerophaedon carpathicus</i> (Weise, 1875)	M.Rod., V.V., V.C., V.Fă.	+		+		15, 19, 2, 17	endemic species in eastern Carpathians
<i>Timarcha metallica</i> (Laicharting, 1781)	M.M., In.			+	+	3, 2	mountains of Central Europe and Balkans
<i>Timarcha rugulosa</i> H. - Schäffer, 1838	B.M., M.Rod., M.G., Ba.M.			+	+	15, 2, 24	southern Poland, Moldavia, southern Carpathians, Slovakia, Ukrainian Carpathians, southern Romania
GALERUCINAE Latreille, 1802							
** <i>Agelastica alni</i> (Linnaeus, 1758)	V.Ro., V.V., V.S., Cor., St., B., V.F., Iz.D., Bi., Să., B.T., I., Po.S., c.s.R.	+				2, 16, 17	Europe, Caucasus, Asia Minor, Central Asia, Siberia E/CE
<i>Calomicrus pinicola</i> (Duftschmid, 1825)	B.M.				+	15	from northern France to Bulgaria, basin of Dnieper River and Finland
* <i>Galeruca pomonae</i> (Scopoli, 1763)	M.	+				16	from Ireland and Portugal to Central Asia; introduced also in North America
** <i>Galeruca tanacetii</i> (Linnaeus, 1758)	V.S., V.P.I., V.H., B.T.	+				2, 16, 17	from Ireland and Portugal to Korea; introduced also in North America
** <i>Galerucella lineola</i> (Fabricius, 1781)	V.V., C., Nă., St., R., L.	+				2, 16, 17	from Ireland to Japan S/EAP/TrPal
* <i>Galerucella pusilla</i> (Duftschmid, 1825)	c.s.R., V.P.I.					17	from Catalonia and the British Isles to Siberia and Mongolia S/EAP/Sibe
** <i>Lochmaea caprea</i> (Linnaeus, 1758)	V.Fă., V.V., V.S., I., Po.S., R., B.T., D.	+				3, 2, 16, 17	from Spain, Ireland and southern Norway to Japan TrPal

Taxa	Collecting sites	Hydrographical basin		Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vișeu Săpânța				
*** <i>Luperus flavipes</i> (Linnaeus, 1767)	Po.E.		+				from Pyrénées Mts, Ireland and Norway to Mongolia
<i>Luperus viridipennis</i> Germar, 1824	Bo.		+	+		24	Alps Mts, Carpathian Mts, Balkans, Ural Mts, Central Asia
<i>Phyllobrotica quadrimaculata</i> (Linnaeus, 1758)	B.M.				+	15	Europe
* <i>Pyrrhalta viburni</i> (Paykull, 1799)	St.	+				16	Europe, from Ireland and Pyrénées Mts to basin of Ural River and Caucasus
HALTICINAE Newman, 1834							
* <i>Altica helianthemii</i> (Allard, 1859)	P.R.			+		17	Europe, Asia S/EAP/SibE
<i>Altica lythri</i> Aubé, 1843	M.Rod.			+		10	Europe, Turkey E/CE
** <i>Altica oleracea</i> (Linnaeus, 1758)	Ba.M., M.Rod., Iz.D.		+	+		3, 2, 16	from Spain and Ireland to Japan S/EAP/TrPal
<i>Altica tamaricis</i> Schrank, 1785	B.V., V.V., V.S.	+				15, 2	Europe, Palearctic Asia S/EAP/TrPal
<i>Aphthona atrocaerulea</i> (Stephens, 1831) [<i>Aphthona cyanella</i> (Redtenbacher, 1849)]	P.R.			+		10	Central and western Europe, northern Africa
<i>Aphthona atrovirens</i> (Förster, 1849)	B.Bo.		+			10	from Ireland to Black Sea E/CE
<i>Aphthona euphorbiae</i> (Schrank, 1781)	M.M.				+	3	Europe, Palearctic Asia, northern Africa S/EAP/SibE
<i>Aphthona ovata</i> Foudras, 1860	V.S.	+				2	France, Ukraine, Italy, Balkans, Cyprus, Asia Minor, Caucasus, northern Africa E/CE
<i>Aphthona stussineri</i> Weise, 1888	M.M.				+	10	European mountainous areas
<i>Aphthona venustula</i> (Kutschera, 1861)	S.M.	+				15	Europe, Caucasus, Asia Minor E/CE
* <i>Aphthona violacea</i> (Koch, 1803)	Să., Sp.	+	+	+		16	Europe, Siberia, Caucasus S/EAP/SibE

Taxa	Collecting sites	Hydrographical basin			Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vişeu	Săpânta				
<i>Batophila rubi</i> (Paykull, 1799)	V.Fă., M.Rod., V.V.		+				3, 19, 2, 14	Europe, Caucasus
<i>Chaetocnema aerosa</i> (Letzner, 1846)	S.M.	+					10	Europe, Caucasus, Asia Minor E/CE
<i>Chaetocnema aridula</i> (Gyllenhal, 1827)	S.M.	+					15	Europe, Palearctic Asia S/EAP/HPal
* <i>Chaetocnema chlorophana</i> (Duftschmid, 1825)	I.	+					16	Europe, Caucasus, Turkey, Iraq, Israel, Syria, North-western Africa E/CE
<i>Chaetocnema concinna</i> (Marsham, 1802)	M.Rod.				+		2	Europe, Palearctic Asia S/EAP/HPal
<i>Chaetocnema hortensis</i> (Geoffroy, 1785)	M.Rod., R.S.	+			+		19, 2, 24	Europe, Sudan, Palearctic Asia, Madeira, North-western Africa S/EAP/HPal
<i>Chaetocnema obesa</i> (Boieldieu, 1850)	S.M.	+					15	Europe, Caucasus, Turkey, Iraq, Altai Mts, Mongolia, North- western Africa S/EAP/SibE
* <i>Chaetocnema semicoerulea</i> (Koch, 1803)	B., Iz.D.	+					16	Europe, Caucasus, Asia Minor, Central Siberia S/EAP/SibE
<i>Chaetocnema tibialis</i> (Illiger, 1807)	M.Rod., In.				+		19, 2, 14	Europe, Palearctic Asia, north- ern Africa S/EAP/SibE
** <i>Crepidodera aurata</i> (Marsham, 1802)	P.R., M.Rod., I., B., c.s.R., P.S.M., V.B., Si.S., V.Iz., R., M., D, B.T., Bi., St., L., V.H., B.C.	+	+		+		3, 2, 16, 17	Europe, Palearctic Asia (except Japan), Morocco S/EAP/HPal
* <i>Crepidodera aurea</i> (Geoffroy, 1785)	St., B.T., P.S.M.	+	+				16, 17	Europe, Caucasus, Asia Minor, Cyprus, Iran, Central Asia, Ka- zakhstan, western Siberia S/EAP/SibE
<i>Derocrepis rufipes</i> (Linnaeus, 1758)	M.Ț.	+					10	Europe, Asia, Siberia S/EAP/SibE

Taxa	Collecting sites	Hydrographical basin			Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vișeu	Săpânța				
<i>Dibolia carpathica</i> Weise, 1893	M.M.					+	15	Balkans, Hungary, Romania, Caucasus, Asia Minor E/CE
<i>Dibolia femoralis</i> Redtenbacher, 1849	M.M.					+	10	Europe, Caucasus, Asia Minor E/CE
<i>Dibolia occultans</i> (Koch, 1803)	B.Bo.		+				10	Europe, Caucasus, Asia Minor, North-western Africa E/CE
<i>Hermaeophaga mercurialis</i> (Fabricius, 1792)	M.M., S.M.	+				+	3, 15	Pyrénées Mts, Alps Mts, Ukraine, Asia Minor E/CE
** <i>Hippuriphila modeeri</i> (Linnaeus, 1761)	R.S., L., c.s.Co.	+					24, 17	Europe, Siberia, Mongolia S/EAP/TrPal
<i>Longitarsus aeneicollis</i> (Faldermann, 1837)	V.M.				+		2	Europe, Caucasus, Asia Minor, Iran, Iraq, Syria, Central Asia, North-western Africa E/CE
[<i>Longitarsus suturalis</i> auctorum]								Central and northern Europe
*** <i>Longitarsus apicalis</i> (Beck, 1817)	S.	+			+		3, 2	Europe, Caucasus
<i>Longitarsus brunneus</i> (Duftschmid, 1825)	P.R.							Europe, Caucasus, Asia Minor, Iran, Syria, Cyprus E/CE
<i>Longitarsus exsoletus</i> Linnaeus, 1758	Rod.				+		2	Europe, Caucasus, Asia Minor, Iran, Syria, Cyprus E/CE
** <i>Longitarsus lycopi</i> (Foudras, 1860)	M.M.					+	10, 17	Europe, Caucasus, Asia Minor, Iran, Central Asia, Syria, Israel, Saudi Arabia, northern Africa E/CE
<i>Longitarsus medvedevi</i> Shapiro, 1956	M.M.					+	10	Ukraine, Balkans, Danube River basin E/CE
<i>Longitarsus melanocephalus</i> (De Geer, 1775)	R.S., V.F.	+					24	Europe, Palaeartic Asia S/EAP/TrPal
<i>Longitarsus noricus</i> Leonardi, 1976	Sp.					+	10	Central Europe, Balkans, Danube River basin E/CE

Taxa	Collecting sites	Hydrographical basin		Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vişeu Săpânta				
<i>Longitarsus parvulus</i> (Paykull, 1799)	Bo.		+	+		24	Europe, Caucasus, Asia Minor, Israel, Cyprus, Siberia, North-western Africa S/EAP/SibE
<i>Longitarsus pallidicornis</i> Kutschera, 1863	P.R.			+		15, 2	wide spread European-mountainous endemic species (Alps Mts, Carpathian Mts, Dinaric Alps Mts, Pyrénées Mts)
<i>Longitarsus pinguis</i> Weise, 1888	M.Rod., P.I.	+		+		19, 20, 10	South-eastern Europe (northern Italy, Danube River basin, Balkan Peninsula, Ukraine) E/CE
<i>Longitarsus rubellus</i> (Foudras, 1860)	P.R.			+		15, 2	wide spread European-mountainous endemic species, with (Tatra Mts, Carpathian Mts, Alps Mts, Dinaric Mts)
<i>Longitarsus succineus</i> (Foudras, 1860)	S.M.	+				10	Europe, Palaearctic Asia, North-western Africa S/EAP/HPal
<i>Longitarsus suturellus</i> (Duftschmid, 1825)	S.M., P.R., M.Rod., V.V., Rod.V.	+	+	+		15, 2, 19, 14, 10	Europe, Palaearctic Asia S/EAP/TrPal
<i>Minota carpathica</i> Heikertinger, 1911	M.Rod., P.R., In., M.R., V.S., Bo.	+	+	+		19, 2, 24	wide spread European-mountainous endemic species, (Carpathian Mts, Sudeten Mts, Alps Mts)
# <i>Minota obesa</i> (Waltl, 1839)	P.R., B.M., M.Rod.			+	+	3, 15, 14	European-mountainous endemic species (Sudeten Mts, Alps Mts, Carpathian Mts)
<i>Mniophila muscorum</i> (Koch, 1803)	S.M., M.Rod., M.G., Ba.M., Bo.	+		+		15, 19, 14, 24	Europe, Caucasus E/CE
<i>Neocrepidodera cyanescens</i> (Duftschmid, 1825)	P.R.			+		3	Alpine-Carpathian endemic species (Carpathian Mts, Alps Mts)

Taxa	Collecting sites	Hydrographical basin			Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vişeu	Săpânţa				
** <i>Neocrepidodera femorata</i> (Gyllenhal, 1813)	M.Rod., V.Sp., Dr., V.P., V.Fă.	+	+		+		2, 14, 17	the mountain areas of Western and Central Europe and of Siberia
<i>Neocrepidodera ferruginea</i> (Scopoli, 1763)	M.M., R.S., Nă.	+			+		3, 24	Europe, Caucasus, Turkey, Iran E/CE
* <i>Neocrepidodera melanostoma</i> (Redtenbacher, 1849)	P.R.				+		16	wide spread European-mountainous endemic species, (Alps Mts, Apeninnes Mts, Carpathian Mts, Dinaric Alps Mts, Vosges Mts)
** <i>Neocrepidodera transilvanica</i> (Fuss, 1864)	P.I., P.R., M.Rod., In., V.S., Bo., V.B.	+	+		+		15, 2, 19, 14, 24, 16	endemic species in Carpathian Mts (Poland, Romania, Slovakia, Ukraine)
** <i>Neocrepidodera transversa</i> (Marsham, 1802)	R.S., B., V.F., L., V.B., Iz.D., P.S.M., V.H., S., Cf.P.H.	+	+				24, 16, 17	Europe, Caucasus, Asia Minor, Cyprus E/CE
<i>Orestia aubei</i> Allard, 1859	P.R., P.I., M.Rod., V.S.	+	+		+		3, 15, 19, 2, 14	wide spread European-mountainous endemic species, (Carpathian Mts, Balkans)
<i>Phyllotreta armoraciae</i> (Koch, 1803)	B.M.					+	15	from France and Sweden to eastern Siberia
** <i>Phyllotreta atra</i> (Fabricius, 1775)	M.Rod., In., V.V., V.S., P.I., R.S., Bo., Iz.D.	+	+		+		19, 2, 14, 10, 24, 17	Europe, Palaearctic Asia S/EAP/HPal
<i>Phyllotreta christinae</i> Heikertinger, 1941	M.M., Bo.		+		+		10, 24	wide spread European-mountainous endemic species, (France, Germany, Poland, Italy, Danube River basin, Balkan Peninsula)
<i>Phyllotreta cruciferae</i> (Goeze, 1777)	M.Rod., V.V.		+		+		19, 2, 14, 10	Europe, Caucasus, Asia Minor, Central Asia, Siberia, Mongolia, northern Africa S/EAP/SibE
<i>Phyllotreta diademata</i> Foudras, 1860	M.Rod., V.V.		+		+		19, 2, 14, 10	Europe, Central Asia, India S/EAP/SibE

Taxa	Collecting sites	Hydrographical basin			Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vișeu	Săpânta				
<i>Phyllotreta flexuosa</i> (Illiger, 1794)	M.Rod., V.V.		+		+		19, 2, 14, 10	from Ireland and France to eastern Siberia TrPal
** <i>Phyllotreta nemorum</i> (Linnaeus, 1758)	V.V., P.R., Co.		+		+		2, 10, 16	Europe, Palaearctic Asia S/EAP/TrPal
<i>Phyllotreta ochripes</i> (Curtis, 1837)	B.M.				+		15	Europe, Caucasus, Turkey, Iran, Siberia, Russia S/EAP/TrPal
** <i>Phyllotreta striolata</i> (Fabricius, 1803)	P.R., c.s.R.		+		+		10, 16, 17	Europe, Caucasus, Palaearctic Asia, Indonesia S/EAP/TrPal
<i>Phyllotreta tetrastigma</i> (Comolli, 1837)	V.Mes.	+					10	Europe, western Siberia S/EAP/SibE
** <i>Phyllotreta undulata</i> (Kutschera, 1860)	M.Rod., V.V., V.S., P.R., P.I., B., V.F., V.H., I., Să., c.s.R., C.P., Nă.	+	+		+		19, 14, 10, 2, 16, 17	Europe, Caucasus, Asia Minor, Central Asia, Siberia, Mongolia, Kazakhstan S/EAP/TrPal
** <i>Phyllotreta vittula</i> (Redtenbacher, 1849)	M.Rod., In., V.S., P.R., P.I., R.S., Bo., P.R., Sp.	+	+		+		19, 2, 14, 10, 24, 16	Europe, Palaearctic Asia S/EAP/TrPal
<i>Podagrica fuscicornis</i> (Linnaeus, 1766)	M.M.					+	3	Central and southern Europe, Canary Islands, Caucasus, Syria, North-western Africa E/CE
<i>Psylliodes aereus</i> Foudras, 1860	M.Rod.				+		10	probably ssp. <i>austrica</i> Heik-ertinger, distributed in Danube River basin, Romania, Carpathian Mts
<i>Psylliodes affinis</i> (Paykull, 1799)	M.Rod., Rod. V, V.V.		+		+		2, 10	Europe, Kazakhstan, Caucasus, Siberia, Morocco S/EAP/SibE
<i>Psylliodes attenuatus</i> (Koch, 1803)	M.Rod.				+		19, 2, 14, 10	Europe, Palaearctic Asia S/EAP/TrPal

Taxa	Collecting sites	Hydrographical basin			Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vișeu	Săpânța				
<i>Psylliodes chrysocephalus</i> (Linnaeus, 1758)	M.M.				+	3	Europe, Caucasus, Asia Minor, North-western Africa E/CE	
<i>Psylliodes cucullatus</i> (Illiger, 1807)	S.M., P.R.	+			+	15, 10	from western Germany to Far East TrPal	
<i>Psylliodes frivaldskyi</i> Weise, 1888	M.Rod., P.R., In., Rod. V., V.S.	+			+	19, 14, 2, 10	endemic species in Carpathian Mts (Poland, Romania, Slovakia, Ukraine)	
<i>Psylliodes glaber</i> (Dufschmid, 1825)	P.R., P.I.		+		+	3, 2, 15	Alps Mts, Carpathian Mts, Dinaric Alps Mts	
<i>Psylliodes instabilis</i> Foudras, 1860	R.S.	+				24	Central and southern Europe, Caucasus, Asia Minor, Israel, Cyprus, North-western Africa E/CE	
<i>Psylliodes napi</i> (Fabricius, 1792)	S.M.	+				15, 10	Europe, Palearctic Asia (except Japan), North-western Africa S/EAP/HPal	
<i>Psylliodes subaeneus</i> Kutschera, 1867	M.Rod.				+	19, 2, 10	Carpathian-Dinaric endemic species (Bosnia-Herzegovina, Croatia, Montenegro, Poland, Romania, Slovakia, Ukraine)	
** <i>Sphaeroderma testaceum</i> (Fabricius, 1775)	M.M., St.	+			+	3, 16	Europe, Caucasus, Cyprus E/CE	
CASSIDINAE Gyllenhal, 1813								
<i>Cassida flaveola</i> Thunberg, 1794	M.M.				+	3	Europe, Palearctic Asia S/EAP/TrPal	
** <i>Cassida murraea</i> L.innaeus, 1767	V.V., M.G., Ba.M., c.s.R., Po.E., C.P., P.S.M.	+	+			2, 24, 16, 17	Palearctic (except northern Africa) S/EAP/TrPal	
<i>Cassida nobilis</i> Linnaeus, 1758	M.M.				+	3	from Ireland to Japan TrPal	
<i>Cassida panzeri</i> Weise, 1907	M.M.				+	3	from France to Japan	

Taxa	Collecting sites	Hydrographical basin		Rodna Mts	Other areas	Bibliographical sources	General distribution / Zoogeography
		Iza	Vişeu Săpânta				
*** <i>Cassida prasina</i> Illiger, 1798	Po.E.		+				Europe, Asia Minor, Kazakhstan, Siberia, China S/EAP/SibE
* <i>Cassida rubiginosa</i> Müller, 1776	St., c.s.R., V.F., Cf.R.B.	+				16, 17	Palaeartic, Taiwan S/EAP/HPal
* <i>Cassida sanguinolenta</i> Müller, 1776	Sp., V.F.		+			16	Europe, Palaeartic Asia S/EAP/TrPal
** <i>Cassida vibex</i> Linnaeus, 1767	M.M., V.J., V.R., Po.S., Po.E., V.Cv., c.s.Co.		+		+	3, 17	Europe, Palaeartic Asia S/EAP/TrPal
** <i>Cassida viridis</i> Linnaeus, 1758	V.T., V.Fă., Ba.M., V.V., V.S., St., Sp., V.F., Po.E., c.s.R., Po.S., Cf.R.B., c.s.Co., V.H., V.P.I., V.Fă., L.C., V.P., Dr. M.Rod.	+	+		+	3, 2, 16, 17	Palaeartic S/EAP/TrPal
<i>Cassida vittata</i> Villers, 1789				+		19, 2	from Morocco and Portugal to Japan TrPal

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