

Studies on snout-beetles (Coleoptera: Curculionoidea) from the upper Arieş River basin

Lucian Alexandru TEODOR & Alexandru CRIŞAN

Summary

We have recorded 156 species, from 74 genera, 12 subfamilies and 7 families of Curculionoidea in the studied area (tab. 1). *Glocianus incisus* (SCHULTZE) is new for Romanian fauna. *Omphalapion dispar* (GERM.) and *Trachyphloeus inermis* BOH. are new for Transylvanian fauna. Two species are very rare: *Cyanapion (Bothyorrhynchapion) gyllenhalii* (KIRBY) and *Parethelcus pollinarius* (FORST.), 16 species are rare: *Neocoenorhinus pauxillus* (GERM.), *Omphalapion dispar* (GERM.), *Kalcapion pallipes* (KIRBY), *Protapion ononidis* (GYLL.), *Oxystoma ochropus* (GERM.), *Notaris (Erycus) aterrimus* (HAMPE), *Amalus scortillum* (HERBST), *Ceutorhynchus sulcicollis* (PAYK.), *Mogulones pallidicornis* (BRIS.), *Zacladus (Scythocladus) exiguus* (OLIV.), *Z. (s. str.) geranii* (PAYK.), *Rutidosoma (Scleropteridius) fallax* (OTTO), *Otiiorhynchus (s. str.) perdix* (OLIV.), *O. (Tournieria) coarctatus* STIERLIN, *Polydrusus (Eurodrusus) confluens* STEPHENS and *Leiosoma oblongulum* (BOH.), three species are endemical for Romania: *Otiiorhynchus (Dorymerus) rufomarginatus* STIERLIN., *O. (s. str.) remotegranulatus* STIERLIN and *O. (s. str.) antennatus* STIERL., the first two are also rare and 5 species are endemical in Carpathian area: *Rhinomias maxillosus* PETRI, *Otiiorhynchus (Dorymerus) cymophanus* BOH., *O. (Dorymerus) opulentus* GERM. *O. (Dorymerus) obtusus* BOH. and *Leiosoma bosnicum* DAN., the last two are rare too.

Rezumat

Cercetări asupra curculionidelor (Coleoptera: Curculionoidea) din bazinul superior al Arieşului

În zona cercetată am identificat 156 specii, din 74 genuri, 12 subfamilii și 7 familii de Curculionoidea (tab. 1). *Glocianus incisus* (SCHULTZE) este semnalată de noi pentru prima dată în fauna României, iar *Omphalapion dispar* (GERM.) și *Trachyphloeus inermis* BOH., sunt semnalate de noi pentru prima dată în fauna Transilvaniei. Am semnalat două specii foarte rare: *Cyanapion (Bothyorrhynchapion) gyllenhalii* (KIRBY) și *Parethelcus pollinarius* (FORST.), 16 specii rare: *Neocoenorhinus pauxillus* (GERM.), *Omphalapion dispar* (GERM.), *Kalcapion pallipes* (KIRBY), *Protapion ononidis* (GYLL.), *Oxystoma ochropus* (GERM.), *Notaris (Erycus) aterrimus* (HAMPE), *Amalus scortillum* (HERBST), *Ceutorhynchus sulcicollis* (PAYK.), *Mogulones pallidicornis* (BRIS.), *Zacladus (Scythocladus) exiguus* (OLIV.), *Z. (s. str.) geranii* (PAYK.), *Rutidosoma (Scleropteridius) fallax* (OTTO), *Otiiorhynchus (s. str.) perdix* (OLIV.), *O. (Tournieria) coarctatus* STIERLIN, *Polydrusus (Eurodrusus) confluens* STEPHENS și *Leiosoma oblongulum* (BOH.), trei specii endemice pentru România: *Otiiorhynchus (Dorymerus) rufomarginatus* STIERLIN., *O. (s. str.) remotegranulatus* STIERLIN și *O. (s. str.) antennatus* STIERL. dintre care primele două sunt rare și 5 specii endemice în Carpați: *Rhinomias maxillosus* PETRI, *Otiiorhynchus (Dorymerus) cymophanus* BOH., *O. (Dorymerus) opulentus* GERM. *O. (Dorymerus) obtusus* BOH. și *Leiosoma bosnicum* DAN. dintre care ultimele două sunt rare.

Keywords: snout-beetles, upper Arieş River basin, faunistics, ecology, Romania

Introduction

This paper is a continuation of our research done on the Curculionoidea (Coleoptera) from the Arieş River basin, research that have been started in 1991-1992 and published beginning with 1993 (TEODOR 1993; TEODOR and CRIŞAN 1996; TEODOR, CRIŞAN and SEFFER 2000; TEODOR, CRIŞAN and NISTOR 2001; TEODOR, CRIŞAN and BELDEAN 2002.). Be-

fore our studies, we only had few data about snout-beetles of this area, and these referred to only 23 species (CSIKI 1916; PETRI 1912, 1925/1926; MARCU 1957; ENDRÖDI 1960, 1969, 1970; TEODOREANU 1986). Recently, snout-beetle fauna from Arieş River basin began to be studied even by others (KOCs and PODLUSSÁNY 1999).

Only two species of snout-beetles from the upper Arieş River basin were mentioned till now by

other authors, : *Otiorhynchus* (*s. str.*) *fuscipes* (OLIVIER, 1807), in Arieșeni locality and *Otiorhynchus* (*Dorymerus*) *weberi* MERKL, 1897, in Arieșeni and Cucurbăta Mare, by ENDRÖDI (1960). Of our data we published only 23 species of snout-beetles coming from Gârda Seacă Valley (TEODOR, CRIȘAN and BELDEAN 2002).

Material and methods

The biological material was collected between 1997-20001, in collecting points from different ecosystems in 19 location: Vârtop Pass, Arieș

springs, Arieșeni, Arieșeni-Gârda de Sus, Iarba Rea Valley, Gârda de Sus, Casa de Piatră, Vultur Valley, Filești Valley, Gârda Seacă-Dobrești, Scărișoara, Scărișoara-Albac, Albac, Arieșul Mic spring, Plai, Avram Iancu, Câmpeni, Abrud and Cărpiniș (fig. 1).

In the studied areas we chose collecting points from the following types of ecosystems: spruce forests, mixed forests of coniferous and deciduous trees, mixed deciduous trees forests, coppices, deforested areas, natural grasslands (hayfields and pastures) and forage cultures (clover).

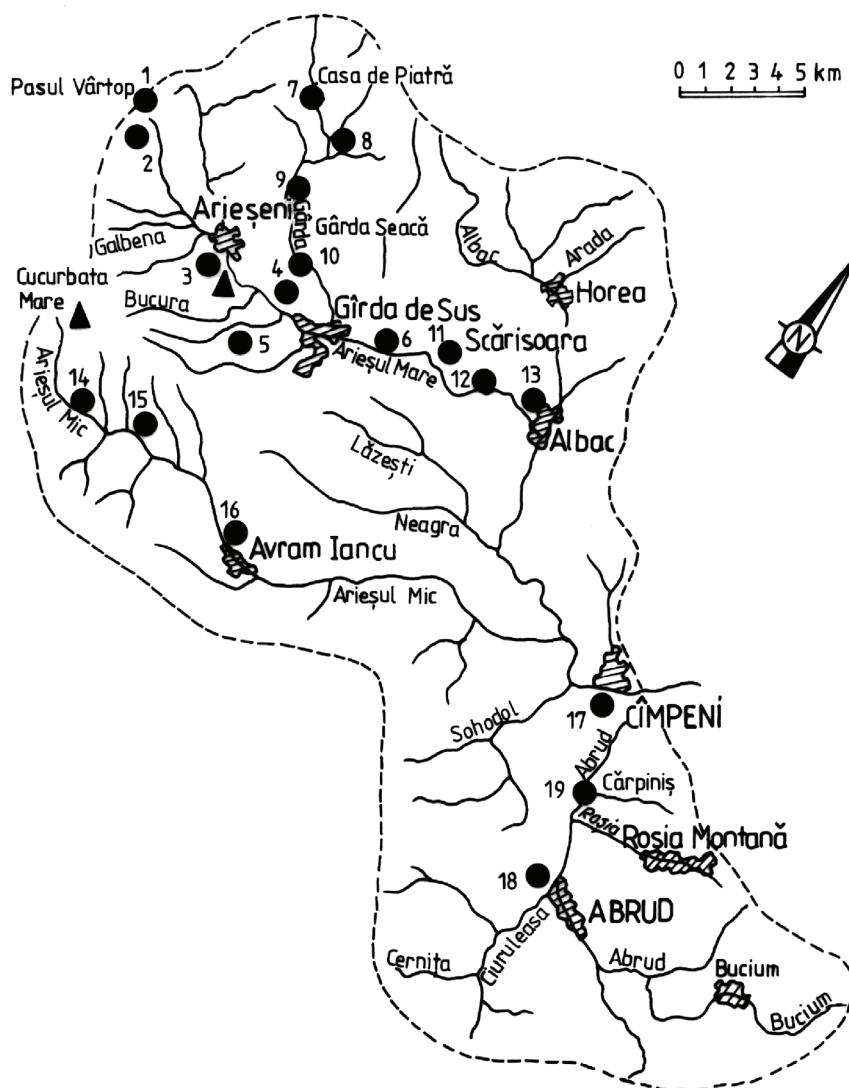


Fig. 1 Location of the studied places from the Arieș River upper basin: ● = our studied places, snout-beetles identified by us: 1. Pasul Vârtop, 2. Izvoarele Arieșului, 3. Arieșeni, 4. Arieșeni-Gârda de Sus, 5. Valea Iarba Rea, 6. Gârda de Sus, 7. Casa de Piatră, 8. Valea Vultur, 9. Valea Filești, 10. Gârda Seacă-Dobrești, 11. Scărișoara, 12. Cheile Albacului, 13. Albac, 14. Spre Izvorul Arieșului Mic, 15. Plai, 16. Avram Iancu, 17. Câmpeni, 18. Abrud, 19. Cărpiniș; ▲ = snout-beetles identified by others authors (map of the researched area, modified after Popescu Argeșel, 1984).

Locations and collecting points from the upper Arieș River basin (fig. 1):

1. Vârtop Pass, situated at 1150 m altitude in the spruce forests storey.

1a. Rared spruce forests, Sphagno-Piceetum, situated on the right side of the valley, with North-Western aspect.

2. Arieș springs, area situated at about 1,5 km by Vârtop Pass, in front of Bubești village, in the spruce forests storey.

2a. Spruce forests, Sphagno-Piceetum, situated on the right side of the valley, at 1100 m altitude, with hygrophilous glades.

3. Arieșeni, around of Arieșeni village.

3a. A Carpino-Fagetum association, situated on the right side of valley, with Western aspect, at 800-850 m altitude.

3b. Hayfield, *Nardo-Festucetum rubrae* association, situated near the Carpino-Fagetum, 800-850 m altitude, on a slope with Western aspect.

3c. Pasture, *Festuceto (rubrae)-Agrostietum* association, situated at 800-850 m altitude, on a slope with Western aspect.

3d. Coppice, *Alneto-Salicetum* association, at 800 m altitude, on the Arieș River side, with best represented hygrophilous herbous vegetation.

4. Arieșeni-Gârda de Sus, an area between Arieșeni and Gârda de Sus villages, at 800 m altitude.

4a. Spruce forests, Oxalo-Piceetum, situated on a slope with Southern aspect, where in the herbous stratum, the acidophilous and hygrophilous species are dominant.

4b. A mezophilous pasture, *Lilio-Plantaginetum majoris* association, with *Festuca rubra* and *Agrostis tenuis* as major representative species, pasture situated on the left side of Arieș River.

4c. Coppice, *Salicetum capreae* association, on the left side of Arieș River, with best represented hygrophilous herbous vegetation.

5. Iarba Rea Valley, affluent of Arieș River, area situated in the mixed forests-coniferous and deciduous trees storey.

5a. A Piceo-Fagetum association, at 750 m altitude, on a slope with Western aspect and with best represented hygrophilous herbous vegetation.

5b. Hayfield, *Nardo-Festucetum rubrae* association, at 750 m altitude, on a slope with Eastern aspect.

6. Gârda de Sus, a village situated at about 725 m altitude, in the mixed forests-coniferous and deciduous trees storey.

6a. A Chrysantemo rotundifolio- Piceo-

Fagetum, situated on a slope with Western aspect, on the left side of Arieș River.

6b. Coppice, *Coryletum avellanae* association, bordering the Arieș River.

7. At Casa de Piatră, on Gârda Seacă Valley.

7a. A Piceo-Fagetum association, where *Fagus sylvatica* is dominant, situated at 800 m altitude on the right side of the valley with Eastern aspect, near the Coiba Mare cave and with best represented hygrophilous herbous vegetation.

7b. Pasture, *Festuceto (rubrae)-Agrostietum* association, situated at 800 m altitude near the *Piceo-Fagetum*, with Eastern aspect and with rare bushes and trees.

7c. Coppice, *Salicetum capreae* association, on the left side of the valley on a slope with Western aspect and bordering the valley too (at 800 m altitude).

7d. Deforested area, at 790 m altitude, on the left side of the valley and with Western aspect. This area have a best represented herbous vegetation and numerous bushes of *Fagus sylvatica*, *Salix caprea*, *Rubus idaeus* and *Vaccinium myrtillus*.

7e. A mezophilous hayfield, at 790 m altitude and Western aspect, with *Trifolium* species and also with *Salix caprea* and *Fagus sylvatica* bushes.

8. Vultur Valley, affluent of Gârda Seacă Valley.

8a. A Piceo-Fagetum association, where *Fagus sylvatica* is dominant, at 780 m altitude, on a slope with South-Western aspect.

8b. Pasture, *Festuceto (rubrae)-Agrostietum* association, at 780 m altitude, on a slope with South-Western aspect.

9. Filești Valley, affluent of Gârda Seacă Valley.

9a. The Filești glade, at 790 m altitude, along of Filești Valley, mezohygrophilous to hygrophilous hayfield, with rare bushes and trees (*Rubus idaeus*, *Corylus avellana*, *Salix caprea*, *Fagus sylvatica* and *Picea abies*).

10. Gârda Seacă-Dobrești, an area between Gârda Seacă and Dobrești villages, at 750 m altitude.

10a. A Piceo-Fagetum association, where *Fagus sylvatica* is dominant, with Western aspect and with best represented hygrophilous herbous vegetation.

10b. Coppice, *Salicetum* association, nearby the Gârda Seacă Valley, with a hygrophilous herbous vegetation.

11. Scărișoara, a village situated at about 700 m altitude.

11a. Spruce forest, *Oxalo-Piceetum* mezophilous association, on the left side of Arieş River on slope with Western aspect.

12. Scărişoara-Albac, an area between Scărişoara and Albac villages, at about 600 m altitude.

12a. Coppice, *Stellario-Alnetum incanae* association bordering the Arieş River.

13. Albac, a village situated at 600 m altitude.

13a. A mezophilous pasture, *Festuceto (rubrae)-Agrostietum* association, in the Arieş River meadow.

14. Arieşul Mic spring, at 790 m altitude, area situated in the mixed forests-coniferous and deciduous trees storey.

14a. A Piceo-Fagetum association, with *Vaccinium myrtillus*, *Oxalis acetosella*, *Rubus* and *Calamagrostis*, situated on the left side of the Arieşul Mic Valley, on a slope with Southern aspect.

14b. Coppice, *Salicetum* association, with a better represented hygrophilous herbous vegetation and situated on the border of Arieşul Mic River nearby the *Piceo-Fagetum*

15. Plai, a village situated at 750 m altitude, on the Arieşul Mic Valley.

15a. A Carpino-Fagetum association, with *Fagus sylvatica* and *Carpinus betulus* as dominant species and also with *Corylus avellana*, *Alnus* and *Salix* species, situated on the left side of Arieşul Mic River on a slope with Southern aspect.

15b. Hayfield, mezohygrophilous association, with bushes and trees: *Coryllus avellana*, *Salix caprea* and *Fagus sylvatica*. situated on the left side of Arieşul Mic River.

15c. Hayfield, mezohygrophilous association, with, *Festuca rubra*, *Genista sagitalis*, *Myosotis sylvatica*, *Carex* and *Mentha* species and also with bushes of *Corylus avellana*, *Fagus sylvatica* and *Picea abies*, situated on a slope with Southern aspect.

16. Avram Iancu, a village situated at 700 m altitude on the Arieşul Mic Valley.

16a. A Piceo-Fagetum, situated on a slope with Western spect and with *Vaccinium vitis-idaea*, *Oxalis acetosella*, *Rubus idaeus* and *Calamagrostis*.

17. Câmpeni, around Câmpeni village.

17a. Rared spruce forest, *Oxalo-Piceetum* association, with small glades having herbous vegetation, situated on slop with North-Western aspect, at 550 m altitude.

18. Abrud, a village situated at about 600 m altitude, on the Abrud Valley, affluent of Arieş

River.

18a. A Carpino-Fagetum association, situated on a slope with South-Eastern aspect, with *Fagus sylvatica* and *Carpinus betulus* as dominant species and also on the forest's limit, with *Betula pendula*, *Corylus avellana* and *Crataegus monogyna*.

18b. Pasture, *Festuceto (rubrae)-Agrostietum* association, with bushes, situated on a slope with South-Eastern aspect, nearby *Carpino-Fagetum*.

19. Cărpiniş, a village situated on the Abrud Valley, at 8 km downstream from the Abrud Village.

19a. A Carpino-Fagetum association, situated at 555 m altitude on the right side of the Vârtope Valley, affluent of Abrud Valley, with North-Western aspect and with hygrophilous herbous vegetation.

19b. Pasture, a mezophilous association, situated at 555 m altitude nearby *Carpino-Fagetum*, on a slope with South-Western aspect.

19c. A Carpino-Fagetum association, situated between 525-560 m altitude, on the left side of Abrud River, with South-Eastern aspect and rare herbous vegetation.

19d. Hayfield, hygrophilous association, situated at 525 m altitude on the left side of Abrud River, nearby *Carpino-Fagetum*.

19e. Forage cultures, with *Trifolium* species, situated at 525 m altitude, upstream of the hygrophilous hayfield, on the left side of Abrud River having South-Eastern aspect.

19f. Hayfield, mezophilous association, situated at 560 m altitude, on a slope with North-Western aspect, nearby *Carpino-Fagetum*.

The biological material was collected by moving the vegetation with the entomological net or using the umbrella net. Some snout-beetles were collected using "Barber" traps and others directly from the host-plants.

The determining of the snout-beetle species was done in the laboratory according to their morphology and male genitalia, using different literature (FREUDE, HARDE and LOHSE 1981, 1983; ENDRÖDI 1961; DIECKMANN 1974, 1977, 1980, 1983, 1986, 1988; LUCHT 1987; ALONSO-ZARAZAGA 1989, 1990; ABAZZI and OSELLA 1992; COLONNELLI 1994; Behne 1994, 1998; LAWRENCE and NEWTON 1996; PODLUSSÁNY 1996).

Results and discussions

In the upper Arieş River basin, from that 19 locations, we collected 1586 snout-beetle individuals

that belong to 156 species, from 74 genera, 12 subfamilies and 7 families of Curculionoidea superfamily (tab. 1).

Table 1

Curculionoidea species from upper Arieş River basin, collected by us in 1997, 1998, 1999, 2000 and 2001
Abbreviations: Nr. ind. = Number of individuals; * = the note of loctions and collecting points corresponds to that from "Material and methods „

Nr. crt.	Families, subfamilies, species	Collected date	Nr. ind.	Code of locations and collecting points*
ANTHRIBIDAE				
Anthribinae				
1.	<i>Anthribus nebulosus</i> (FORSTER, 1771)	1.VI.1998	1	17a
		2.VI.2000	1	3b
		2.VI.2001	1	16a
RHYNCHITIDAE				
Rhynchitinae				
2.	<i>Temnocerus nanus</i> (PAYKULL, 1792)	1.VI.2001	1	10b
3.	<i>Temnocerus tomentosus</i> (GYLLENHAL, 1839)	2.VI.2001	1	14b
4.	<i>Neocoenorrhinus germanicus</i> (HERBST, 1797)	17.V.1997	2	9a
		28.VII.2000	1	7e
5.	<i>Neocoenorrhinus pauxillus</i> (GERMAR, 1824)	2.VI.1998	1	19c
6.	<i>Deporaus (s. str.) betulae</i> (LINNÉ, 1758)	2.V.1998	2	19a,c
		24.V.1998	64	18a; 19c
		25.VI.1998	1	19c
ATTELABIDAE				
Apoderinae				
7.	<i>Apoderus (s. str.) coryli</i> (LINNÉ, 1758)	24.V.1998	1	19c
APIONIDAE				
Apioninae				
8.	<i>Omphalapion dispar</i> (GERMAR, 1817)	17.V.1997	1	7d
9.	<i>Ceratapion (Acanephodus) onopordi</i> (KIRBY, 1808)	27.VII.1999	1	1a
		1.VI.2001	1	8b
		19.VIII.2001	3	15c
10.	<i>Kalcapion pallipes</i> (KIRBY, 1808)	22.IX.1998	2	19a
11.	<i>Pseudapion fulvirostre</i> (GYLLENHAL, 1833)	24.V.1998	1	19a
12.	<i>Pseudapion rufirostre</i> (FABRICIUS, 1775)	23.IV.1998	1	19a
13.	<i>Exapion (s. str.) difficile</i> (HERBST, 1797)	2.VI.2001	4	15c
		19.VIII.2001	7	15c
14.	<i>Protapion apricans</i> (HERBST, 1797)	23.IV.1998	1	19a
		24.V.1998	1	18b
		27.VII.1999	1	3c
		2, 3.VI.2000	4	5b
15.	<i>Protapion assimile</i> (KIRBY, 1808)	17.V.1997	2	7b
		24.V.1998	4	19b,d
		1.VI.1998	1	17a
		25.VI.1998	3	19a,f
		2.VI.2000	3	5b
16.	<i>Protapion fulvipes</i> (FOURCROY, 1785)	17.V.1997	1	7d
		1.VI.1998	1	17a
		25.VI.1998	10	19e
		2, 3.VI.2000	11	4b; 5b; 13a
		26.VII.2000	3	10a,b

Nr. crt.	Families, subfamilies, species	Collected date	Nr. ind.	Code of locations and collecting points*
	<i>Protapion fulvipes</i> (FOURCROY, 1785)	18.VIII.2001	1	7c
17.	<i>Protapion ononidis</i> (GYLLENHAL, 1827)	26.VII.2000	2	10b
18.	<i>Protapion trifolii</i> (LINNÉ, 1768)	17.V.1997	1	7b
		24.V.1998	2	19b
		2.VI.1998	3	19d
19.	<i>Protapion varipes</i> (GERMAR, 1817)	2.VI.2000	1	4b
20.	<i>Perapion curtirostre</i> (GERMAR, 1817)	24.V.1998	2	18b
21.	<i>Perapion violaceum</i> (KIRBY, 1808)	27.VII.1999	1	3c
		2.VI.2000	1	3d
		2.VI.2001	2	14b
22.	<i>Apion frumentarium</i> (LINNÉ, 1758)	19.VIII.2001	1	15c
23.	<i>Apion haematodes</i> (KIRBY, 1808)	2.VI.2000	3	3b
24.	<i>Catapion jaffense</i> (DESBROCHERS DES LOGES, 1895)	2.VI.2001	1	15c
25.	<i>Ischnopterapion (s. str.) loti</i> (KIRBY, 1808)	1.VI.2001	1	8b
26.	<i>Ischnopterapion (Chlorapion) virens</i> (HERBST, 1797)	24.V.1998	1	19d
		1.VI.1998	3	17a
		25.VI.1998	3	19e
27.	<i>Holotrichapion (Apions) aestimatum</i> (FAUST, 1891)	25.VI.1998	2	19f
28.	<i>Holotrichapion (s.str.) ononis</i> (KIRBY, 1808)	17.V.1997	1	7b
29.	<i>Hemitrichapion (Tinocyba) reflexum</i> (GYLLENHAL, 1833)	6.X.1999	1	13a
30.	<i>Mesotrichapion(s. str.) punctirostre</i> (GYLLENHAL, 1839)	2.VI.2000	1	5b
31.	<i>Cyanapion (Bothryorrhynchapion) gyllenhalii</i> (KIRBY, 1808)	18.VIII.2001	1	7c
32.	<i>Oxystoma cerdo</i> (GERSTACKER, 1854)	24.V.1998	1	18a
		2.VI.1998	1	19d
33.	<i>Oxystoma ochropus</i> (GERMAR, 1818)	24.V.1998	1	19c
		25.VI.1998	1	19c
		3.VI.2000	2	13a
34.	<i>Oxystoma pseudocerdo</i> DIECKMAN, 1971	1.VI.2001	1	7b
35.	<i>Eutrichapion (s. str.) ervi</i> (Kirby, 1808)	24.V.1998	1	19d
36.	<i>Eutrichapion (s. str.) viciae</i> (PAYKULL, 1800)	3.VI.2000	1	13a
NANOPHYIDAE				
Nanophyinae				
37.	<i>Nanophyes marmoratus</i> (GOEZE, 1777)	27.VII.2000	1	7a
ERIRHINIDAE				
Eirrhiniinae				
38.	<i>Notaris (Erycus) aterrimus</i> (HAMPE, 1850)	7.VII.1999	1	4a
CURCULIONIDAE				
Curculioninae				
39.	<i>Curculio nucum</i> (LINNÉ, 1758)	24.V.1998	1	18a
		7.VII.1999	1	3d
		27.VII.2000	1	7d
40.	<i>Archarius crux</i> FABRICIUS, 1776	1.VI.2001	1	8b
41.	<i>Acalyptus carpini</i> (FABRICIUS, 1792)	26.VII.2000	1	10b
42.	<i>Anoplus roboris</i> SUFFRIAN, 1839	24.V.1998	1	19a
		25.VI.1998	5	19a
		2.VI.2001	1	15a
43.	<i>Anthonomus (s. str.) pomorum</i> (LINNÉ, 1758)	23.IV.1998	1	19c
		2.VI.2001	1	14a
44.	<i>Anthonomus (s. str.) rubi</i> (HERBST, 1795)	3.VI.2000	1	11a
		18.VIII.2001	2	7c
45.	<i>Cionus scrophulariae</i> (LINNÉ, 1758)	24.V.1998	1	19d
46.	<i>Cionus tuberculosus</i> (SCOPOLI, 1792)	24.V.1998	3	19d

Nr. crt.	Families, subfamilies, species	Collected date	Nr. ind.	Code of locations and collecting points*
47.	<i>Ellescus bipunctatus</i> (LINNÉ, 1758)	17.V.1997	10	7c,d
48.	<i>Dorytomus (s. str.) tortrix</i> (LINNÉ, 1761)	2.VI.2001	1	15b
49.	<i>Dorytomus (Olamus) melanophthalmus</i> (PAYKULL, 1792)	5, 6.X.1999	8	3d; 6b; 12a
50.	<i>Miarus ajugae</i> (HERBST, 1795)	3.VI.2000	1	11a
51.	<i>Miarus monticola</i> PETRI, 1912	2.VI.2000	1	4b
52.	<i>Mecinus pyraster</i> (HERBST, 1795)	2, 3.VI.2000	3	4a; 5b; 13a
		1.VI.2001	2	7b; 8b
53.	<i>Gymnetron veronicae</i> (GERMAR, 1821)	24.V.1998	1	19b
		2.VI.2001	1	15c
54.	<i>Isochnus foliorum</i> (O. F. MULLER, 1776)	5, 6.X.1999	4	3d; 12a
		26, 27.VII.2000	17	9a; 10b
		1, 2.VI.2001	7	10b; 14b
55.	<i>Isochnus populicola</i> SILFVERBERG, 1977	26.VII.2000	3	10b
		2.VI.2001	2	15a
56.	<i>Orchestes (s. st.) testaceus</i> (O. F. MULLER, 1776)	25.VI.1998	1	19a
57.	<i>Orchestes (Salius) fagi</i> (LINNÉ, 1758)	1.VI.1998	1	19a
58.	<i>Tachyerges decoratus</i> (GERMAR, 1821)	3.VI.2000	1	12a
59.	<i>Tachyerges stigma</i> (GERMAR, 1821)	17.V.1997	4	7d; 9a; 10a
		24.V.1998	1	18a
		27.VII.1999	1	3d
		2.VI.2000	1	3d
		26.VII.2000	2	10b
		1, 2.VI.2001	26	7c; 10b; 14b
18.VIII.2001	3	7c		
60.	<i>Sibinia unicolor</i> (FAHRAEUS, 1843)	2.VI.2001	1	15c
61.	<i>Tychius brevisculus</i> DESBROCHERS DES LOGES, 1873	24.V.1998	1	19b
Ceutorhynchinae				
62.	<i>Amalus scortillum</i> (HERBST, 1795)	27.VII.1999	1	3d
63.	<i>Ceutorhynchus cochleariae</i> (GYLLENHAL, 1813)	3.VI.2000	1	5b
64.	<i>Ceutorhynchus chalybaeus</i> GERMAR, 1824	18.VIII.2001	1	7a
65.	<i>Ceutorhynchus contractus</i> (MARHAM, 1802)	1, 2.VI.2001	5	8b; 15b
		25.VI.1998	1	19c
		2, 3.VI.2000	5	3d; 5b
66.	<i>Ceutorhynchus erysimi</i> (FABRICIUS, 1787)	1.VI.2001	1	7a
		2, 3.VI.2000	5	3d; 5b
67.	<i>Ceutorhynchus floralis</i> (PAYKULL, 1792)	2, 3.VI.2000	25	5b
68.	<i>Ceutorhynchus pallidactylus</i> (MARSHAM, 1802)	1.VI.2001	2	7a; 10b
69.	<i>Ceutorhynchus pleurostigma</i> (MARRSHAM, 1805)	25.VI.1998	3	19e
70.	<i>Ceutorhynchus sulcicollis</i> (PAYKULL, 1800)	17.V.1997	1	7b
71.	<i>Datonychus melanostictus</i> (MARHAM, 1802)	24.V.1998	9	19a,d
		2.VI.1998	3	19d
		22.IX.1998	1	19d
		1.VI.2001	1	8b
72.	<i>Glocianus incisus</i> (SCHULTZE, 1899)	24.V.1998	1	19d
73.	<i>Mogulones pallidicornis</i> (H. BRISOUT DE BARNEVILLE, 1860)	17.V.1997	1	9a
74.	<i>Nedyus quadrimaculatus</i> (LINNÉ, 1758)	24.V.1998	9	19a,c
		1, 2.VI.1998	9	17a; 19a,c
		25.VI.1998	2	19a,c
		22.IX.1998	3	19a
		2.VI.2000	1	4a
		1, 2.VI.2001	44	7a,b; 14b
19.VIII.2001	1	14b		
75.	<i>Parethelcus pollinarius</i> (FORSTER, 1771)	25.VI.1998	1	19c

Nr. crt.	Families, subfamilies, species	Collected date	Nr. ind.	Code of locations and collecting points*
76.	<i>Prisistus (s. str.) obsoletus</i> (GERMAR, 1824)	24.V.1998	1	19d
		2.VI.1998	1	19d
77.	<i>Trichosirocalus troglodites</i> (FABRICIUS, 1787)	24.V.1998	1	19b
		2.VI.2001	1	15c
78.	<i>Zacladus (s. str.) geranii</i> (PAYKULL, 1800)	1.VI.2001	1	7a
79.	<i>Zacladus (Scythocladus) exiguus</i> (OLIVIER, 1807)	24.V.1998	1	19d
		2.VI.1998	2	19d
		25.VI.1998	1	19d
80.	<i>Rhynoncus inconspectus</i> (HERBST, 1795)	24.V.1998	1	19d
		2.VI.1998	1	19d
		25.VI.1998	1	19e
		3.VI.2000	1	5b
		1, 2.VI.2001	3	7b; 10a; 14b
81.	<i>Rhynoncus pericarpus</i> (LINNÉ, 1758)	2.VI.2001	2	14b
82.	<i>Rutidosoma (Scleropteridius) fallax</i> (OTTO, 1897)	1.VI.2001	1	7a
83.	<i>Scleropterus serratus</i> (GERMAR, 1824)	17.V.1997	10	7b; 9a
		24.V.1998	1	19b
		25.VI.1998	1	19a
		1, 2.VI.2001	88	7a,b,e; 8b; 14a,b; 10a; 15c
Entiminae				
84.	<i>Graptus trigutattus</i> (FABRICIUS, 1775)	1, 2.VI.2001	2	7c; 14b
		18.VIII.2001	1	8a
85.	<i>Strophosoma melanogrammum</i> (FORSTER, 1771)	24.V.1998	2	18a
		1.VI.1998	1	17a
		2.VI.2000	1	1a
		19.VIII.2001	1	14a
86.	<i>Barynotus obscurus</i> (FABRICIUS, 1775)	1.VI.2001	1	10a
		18.VIII.2001	1	10b
87.	<i>Rhinomias maxillosus</i> PETRI, 1891	7.VII.1999	3	1a
		18, 19.VIII.2001	146	7a; 14b; 15a
88.	<i>Otiorhynchus (Dodecastichus) geniculatus</i> (GERMAR, 1817)	17.V.1997	2	7c
		2.VI.2001	3	14b
89.	<i>Otiorhynchus (Dodecastichus) pulverulentus</i> (GERMAR, 1824)	17.V.1997	1	7d
90.	<i>Otiorhynchus (s. str.) antennatus</i> STIERLIN, 1861	7.VII.1999	6	2a; 4a
		2, 3.VI.2000	7	1a; 2a; 4a; 5a
		1, 2.VI.2001	7	7a,b; 14a
		18, 19.VIII.2001	54	7a; 14a,b
91.	<i>Otiorhynchus (s.str.) bisulcatus</i> FABRICIUS, 1796	23.IX.1998	3	19a
		7.VII.1999	1	2a
92.	<i>Otiorhynchus (s. str.) niger</i> (FEBRICIUS, 1775)	7.VII.1999	1	1a
93.	<i>Otiorhynchus (s. str.) perdix</i> (OLIVIER, 1807)	17.V.1997	1	10a
94.	<i>Otiorhynchus (s.str.) raucus</i> (FABRICIUS, 1776)	2.VI.1998	1	19d
		7.VII.1999	2	2a; 6a
95.	<i>Otiorhynchus (s. str.) remotegranulatus</i> STIERLIN, 1861	17.V.1997	1	9a
		2.VI.2000	3	3a
		1, 2.VI.2001	11	7a,e; 8b; 10a; 14a,b; 16a
		18, 19.VIII.2001	2	8a,b
96.	<i>Otiorhynchus (s. str.) scaber</i> LINNÉ, 1758	7.VII.1999	7	2a; 3b; 6a
		2.VI.2000	1	3d
		1.VI.2001	1	7a
		18, 19.VIII.2001	13	7a; 14a,b

Nr. crt.	Families, subfamilies, species	Collected date	Nr. ind.	Code of locations and collecting points*
97.	<i>Otiorhynchus (Dorymerus) austriacus</i> (FABRICIUS, 1781)	22.IX.1998	1	19a
		2.VI.2000	1	4c
		18.VIII.2001	1	7a
98.	<i>Otiorhynchus (Dorymerus) cymopahnnus</i> BOHEMAN, 1820	25.VI.1998	1	19c
		23.IX.1998	1	19a
		1.VI.2001	24	7a,b,e; 10a; 14b
		18.VIII.2001	2	7a; 14b
99.	<i>Otiorhynchus (Dorymerus) dives</i> GERMAR, 1838	22.IX.1998	1	19a
		1, 2.VI.2001	40	7a,b; 14b; 16a
		18.VIII.2001	1	7a
100.	<i>Otiorhynchus (Dorymerus) gemmatus</i> (SCOPOLI, 1763)	2.VI.2001	4	14b
		18.VIII.2001	1	7a
101.	<i>Otiorhynchus (Dorymerus) kollari</i> GYLLENHAL, 1834	1, 2.VI.2001	17	7a; 14b
		19.VIII.2001	2	14b
102.	<i>Otiorhynchus (Dorymerus) lepidopterus</i> (FABRICIUS, 1794)	2.VI.2001	1	14b
103.	<i>Otiorhynchus (Dorymerus) obtusus</i> BOHEMAN, 1843	17.V.1997	1	9a
104.	<i>Otyorhynchus (Dorymerus) opulentus</i> GERMAR, 1834	17.V.1997	9	7c,d; 9a
		24.V.1998	4	19a,c
		28.VII.2000	2	7e
105.	<i>Otiorhynchus (Dorymerus) rufomarginatus</i> STIERLIN, 1861	17.V.1997	3	9a
		1.VI.2001	5	7a,b
106.	<i>Otiorhynchus (Dorymerus) weberi</i> MERKL, 1896	2.VI.1998	1	19c
		27.VII.1999	1	3d
107.	<i>Otiorhynchus (Tournieria) coarctatus</i> STIERLIN, 1861	1.VI.1998	1	19a
108.	<i>Otiorhynchus (Tournieria) ovatus</i> (LINNÉ, 1758)	7.VII.1999	1	3b
		19.VIII.2001	1	14b
109.	<i>Otiorhynchus (Tournieria) pauxillus</i> ROSENHAUER, 1847	2, 3.VI.2000	2	3d; 11a
		19.VIII.2001	2	14a
110.	<i>Phyllobius (s. str.) pyri</i> (LINNÉ, 1758)	24.V.1998	2	18a
111.	<i>Phyllobius (Dieletus) argentatus</i> (LINNÉ, 1758)	17.V.1997	7	9a
		2.V.1998	1	19c
		24.V.1998	10	18a; 19a,c
		1, 2.VI.1998	2	19a,c
		25.VI.1998	3	19c
		2, 3.VI.2000	15	3a,d; 11a
		28.VII.2000	1	7e
		1, 2.VI.2001	7	7e; 10a; 14b; 15a
112.	<i>Phyllobius (Metaphyllobius) glaucus</i> (SCOPOLI, 1763)	19.VIII.2001	1	14a
		24.V.1998	2	19a,c
113.	<i>Phyllobius (Metaphyllobius) pomaceus</i> (GYLLENHAL, 1834)	25.VI.1998	1	19d
		24.V.1998	2	19d
114.	<i>Phyllobius (Nemoicus) oblongus</i> (LINNÉ, 1758)	17.V.1997	21	10a,b
		24.V.1998	27	18a,b; 19a,c,d
		1, 2.VI.1998	15	19c,d
		25.VI.1998	2	19c
		2, 3.VI.2000	3	3d; 12a
		26, 27.VII.2000	3	9a
		1.VI.2001	38	7a,b,c; 10a,b
115.	<i>Phyllobius (Parnemoicus) viridicollis</i> (FABRICIUS, 1792)	24.V.1998	5	18a
		2.VI.2000	2	3a,b
		1, 2.VI.2001	29	7a,b; 8b; 10a; 14b; 15a,b,c

Nr. crt.	Families, subfamilies, species	Collected date	Nr. ind.	Code of locations and collecting points*
116.	<i>Phyllobius (Pterygorrhynchus) maculicornis</i> (GERMAR, 1824)	24.V.1998	9	18a,b
		2.V.1998	1	19c
		2.VI.2001	6	15b
117.	<i>Polydrusus (s.str.) fulvicornis</i> (FABRICIUS, 1792)	2.VI.2001	36	15a,b,c
118.	<i>Polydrusus (s. str.) picus</i> (FABRICIUS, 1792)	3.VI.2000	4	12a
		1.VI.2001	1	7e
119.	<i>Polydrusus (s. str.) tereticollis</i> (DE GEER, 1775)	23, 25.IV.1998	3	19c
		2.V.1998	1	19c
		24.V.1998	10	18a; 19c
		25.VI.1998	2	19a,c
		23.IX.1998	1	19a
		2, 3.VI.2000	2	3a; 5a
120.	<i>Polydrusus (Eudipnus) mollis</i> (STROEM, 1768)	24.V.1998	3	18a
		1.VI.2001	2	10a
121.	<i>Polydrusus (Eurodrusus) confluens</i> STEPHENS, 1831	2.VI.2001	6	15c
122.	<i>Polydrusus (Eustolus) pterygomalis</i> BOHEMAN, 1840	17.V.1997	1	10a
		3.VI.2000	1	11a
		26.VII.2000	1	10a
		1.VI.2001	1	7e
123.	<i>Polydrusus (Neoestolus) pilosus</i> GREDLER, 1865	1.VI.1998	1	17a
		1.VI.2001	7	7a,b; 8b
124.	<i>Liophloeus (Liophloeodes) lentus</i> GERMAR, 1824	1.VI.2001	1	10a
125.	<i>Liophloeus (Liophloeodes) liptoviensis</i> J. WEISE, 1894	17.V.1997	2	7d; 9a
		23, 24.V.1998	2	19d
		1, 2.VI.1998	4	19c,d
		22.IX.1998	1	19d
		7.VII.1999	1	3b
		1.VI.2001	5	7a,b
126.	<i>Eusomus ovulum</i> GERMAR, 1834	24.V.1998	1	19a
127.	<i>Sciaphilus asperatus</i> (BONNSDORFF, 1785)	25.VI.1998	2	19b,f
		1, 2.VI.1998	3	19a,c
		24.V.1998	1	19c
		1, 2.VI.2001	5	7a; 14a,b
128.	<i>Sitona (s. str.) cylindricollis</i> (FAHRAEUS, 1840)	5.X.1999	1	1a
		26.VII.2000	3	10b
129.	<i>Sitona (s. str.) lepidus</i> GYLLENHAL, 1833	1, 2.VI.1998	1	17a
		25.VI.1998	2	19d,e
		6.X.1999	1	6b
		3.VI.2000	2	2a; 5b
		1.VI.2001	1	7b
130.	<i>Sitona (s. str.) lineatus</i> (LINNÉ, 1758)	27.VII.1999	1	3c
		2.VI.2000	1	2a
		1, 2.VI.2001	10	10a; 15c
131.	<i>Sitona (s.str.) macularius</i> (MARSHAM, 1802)	24.V.1998	1	19b
132.	<i>Sitona (s.str.) striatellus</i> GYLLENHAL, 1834	3.VI.2000	4	5b
133.	<i>Sitona (s. str.) sulcifrons</i> (THUNBERG, 1789)	24.V.1998	2	19b
		2.VI.1998	1	19d
		25.VI.1998	2	19e,f
		2.VI.2000	1	5b
		2.VI.2001	3	15b
		19.VIII.2001	1	14b

Nr. crt.	Families, subfamilies, species	Collected date	Nr. ind.	Code of locations and collecting points*
134.	<i>Chlorophanus viridis viridis</i> (LINNÉ, 1758)	2.VI.1998	2	19d
		25.VI.1998	1	19e
135.	<i>Trachyphloeus inermis</i> BOHEMAN, 1843	1.VI.1998	1	19a
136.	<i>Trachyphloeus bifoveolatus</i> (BECK, 1817)	7.VII.1999	1	3b
137.	<i>Tropiphorus elevatus</i> (HERBST, 1795)	1.VI.2001	2	8b; 10a
138.	<i>Tropiphorus micans</i> (BOHEMAN, 1842)	23.IX.1998	1	19a
Hyperinae				
139.	<i>Donus comatus</i> BOHEMAN, 1842	17.V.1997	1	9a
		1, 2.VI.2001	88	7a,b,e; 8b; 10a;
				14a,b
		19.VIII.2001	3	14b
140.	<i>Donus oxalidis</i> (HERBST, 1795)	2.VI.2001	1	16a
141.	<i>Donus rubi</i> (KRAUSS, 1900)	1, 2.VI.2001	11	7a,b; 10a; 14b; 16a
		19.VIII.2001	1	14a
142.	<i>Donus velutinus</i> (BOHEMAN, 1842)	1, 2.VI.2001	24	7a,b,e; 10a,b; 14b
		18, 19.VIII.2001	5	8b; 14b
143.	<i>Hypera fornicata</i> (PENECKE, 1928)	1.VI.2001	1	8b
144.	<i>Hypera nigrirostris</i> (FABRICIUS, 1775)	3.VI.2000	1	5b
		19.VIII.2001	1	14b
Lixinae				
145.	<i>Larinus (Larinodontus) jaceae</i> (FABRICIUS, 1775)	23, 24.V.1998	2	18b; 19b
		2.VI.1998	1	19d
		27.VII.1999	1	3c
		2, 3.VI.2000	51	3d; 4b; 5b; 13a
		1, 2.VI.2001	45	7e; 8b; 10a; 15b,c
146.	<i>Larinus (Larinodontus) planus</i> (FABRICIUS, 1792)	2.VI.2000	1	3d
147.	<i>Larinus (Larinomesius) obtusus</i> GYLLENHAL, 1836	2.VI.2001	1	15c
Molytinae				
148.	<i>Liparus glabrirostris</i> (KUSTER, 1849)	1, 2.VI.2001	1	14b
149.	<i>Leiosoma bosnicum</i> K. DANIEL, 1906	1.VI.2001	4	7a,c
150.	<i>Leiosoma oblongulum</i> (BOHEMAN, 1842)	24.V.1998	1	19c
		1.VI.1998	3	17a
151.	<i>Plinthus illigeri</i> GERMAR, 1824	19.VIII.2001	3	14a,b
152.	<i>Plinthus squalidus</i> GYLLENHAL, 1834	18.VIII.2001	3	10b
153.	<i>Plinthus sturmii</i> (GERMAR, 1824)	2.V.1998	14	19a
		2.VI.1998	18	19a
		22, 23.IX.1998	10	19a,c
154.	<i>Plinthus tischeri</i> GERMAR, 1824	2.VI.2001	2	14b
		18, 19.VIII.2001	31	8a; 14a,b
155.	<i>Trachodes hispidus</i> (LINNÉ, 1758)	23.IV.1998	2	19a
		23.IX.1998	1	19a
156.	<i>Hylobius (Callirus) abietis</i> (LINNE, 1758)	7.VII.1999	1	3d
		1.VI.2001	1	10a
		18.VIII.2001	1	7a

The highest number of snout-beetle species was signaled in point 14b-coppice in Arieșul Mic spring area (37 species), followed by: *Carpino-Fagetum* association from Cărpiniș location, points 19c (34 species) and 19a (33 species); point 7a-*Piceo-Fagetum* in Casa de Piatră location (33 species); point 19d-hygrofilous hayfield in Cărpiniș location (30 species); point 10a- *Piceo-Fagetum* in Gârda Seacă location (23 species) and point 7b-pasture in Casa de Piatră location (22 species).

Concerning the number of species, the most represented families were: Curculionidae (118 species) and Apionidae (29 species) (fig. 2, tab. 1), and the most represented subfamilies were: Entiminae (55 species), Apioninae (29 species), Curculioninae (23 species) and Ceutorhynchinae (22 species). The poorly

represented subfamilies were: Anthribinae, Apoderinae, Nanophyinae and Eirrhinae, each with one species (fig. 3, tab. 1).

The best represented genus was *Otiorhynchus* (22 species). The species of this genus were favoured by the specific conditions of this mountain area studied by us. Also the better represented genera were: *Ceutorhynchus* (8 species), *Protapion* (6 species) and *Sitona* (6 species), because their species were favoured by the studied area's hayfields conditions, and genera *Phyllobius* (7 species) and *Polydrusus* (7 species) which were dominant in the crowne of the trees and buches from the forests and coppices of reserched area (tab.1).

Concerning the number of individuals, the predominat species were: *Rhinomias maxillosus* PETRI, *Phyllobius (Nemoicus) oblongus* (L.), *Larinus (Larinodontus) jaceae* (FABRICIUS), *Scleropterus serratus* (GERM.), *Donus comatus* BOH., *Otiorhynchus (s. str.) antennatus* STIERL., *Deporaus (s. str.) betulae* (L.) and *Nedys quadrimaculatus* (L.) (tab.1).

Otiorhynchus (Dorymerus) weberi MERKL mentioned by ENDRÖDI in 1960, at Arieşeni and Cucurbăta Mare, was refound by us in 1998 at Cărpiniş and in 1999 at Arieşeni. *Otiorhynchus (s. str.) fuscipes* OLIVIER, mentioned by ENDRÖDI in 1960 at Arieşeni, was not refound by us in none of those 19 locations studied by us in the upper Arieş River basin.

In the upper Arieş River basin the highest number of snout-beetle species was found in hayfields (65 species), followed by coppices (58 species), mixed deciduous trees forests (55 species), mixed forests

of coniferous and deciduous trees (47 species) and pastures (46 species). In the spurce forests we found only 24 snout-beetle species, and the lowest number of species was found in deforested areas (8 species) and in forage cultures, only 6 species (fig. 4).

The highest number of snout-beetle species from hayfields and pastures is the result of the great

vegetation diversity from these natural grasslands and the result of their aspect. These natural grasslands are situated on the sunny slope, with favourable conditions for the xerophilous and mezoxerophilous snout-beetle species, or on the shady slope, nearby rivers or brook's sides, with favourable conditions for the hygrophilous and mezohygrophilous species.

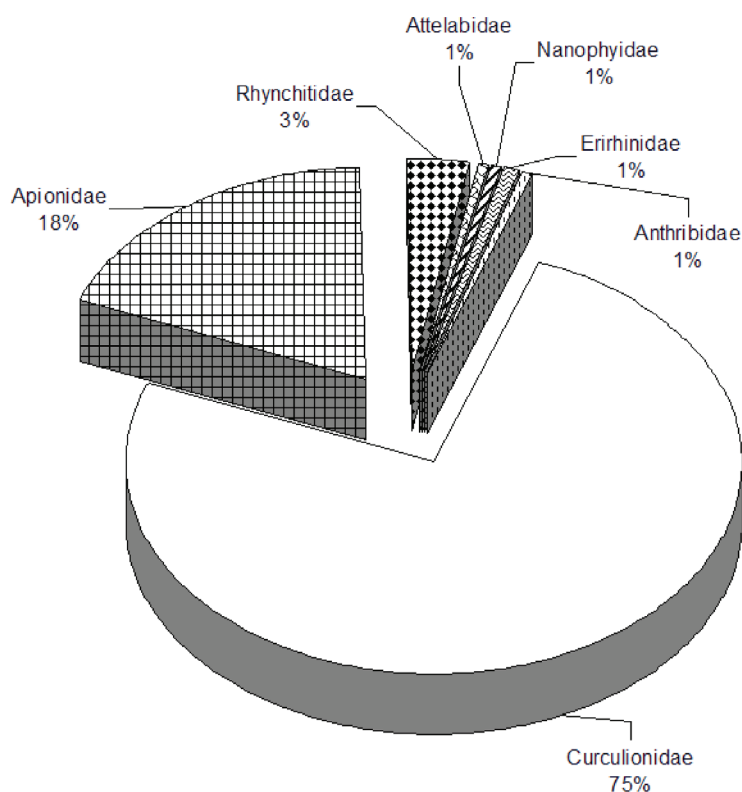


Fig. 2 Range of upper Arieş River basin Curculionoidea families according to the number of species.

The number of snout-beetle species from pastures (46) was only a little bit short in comparison to the hayfields (65), because pastured created favourable conditions for the snout-beetle species which feed with nitrophilous palants. In fact, the snout-beetle fauna from these pastures is quite different from that of hayfields.

In coppices, in mixed deciduous tree forests and in mixed forests of coniferous and deciduous trees, the number of snout-beetle species was also high, because in upper Arieş River basin, these ecosystems are very luxuriant and multifarious herbous vegetations.

Snout-beetle species that are new for the Romanian fauna

Glocianus incisus (SCHULTZE, 1899)

Studied material:

- 1♂, 24.V.1998 – hayfield on the left bank of the Abrud River, Cărpiniş, upper basin of the Arieş River;
- 2♂♂, 1♀, 16.VI.1997 hayfield with north-eastern aspect, Poşaga- Belioara Valley, middle basin of the Arieş River;
- 1♂, 23.V.1998 – *Alnus* forest in Brăzeşti-

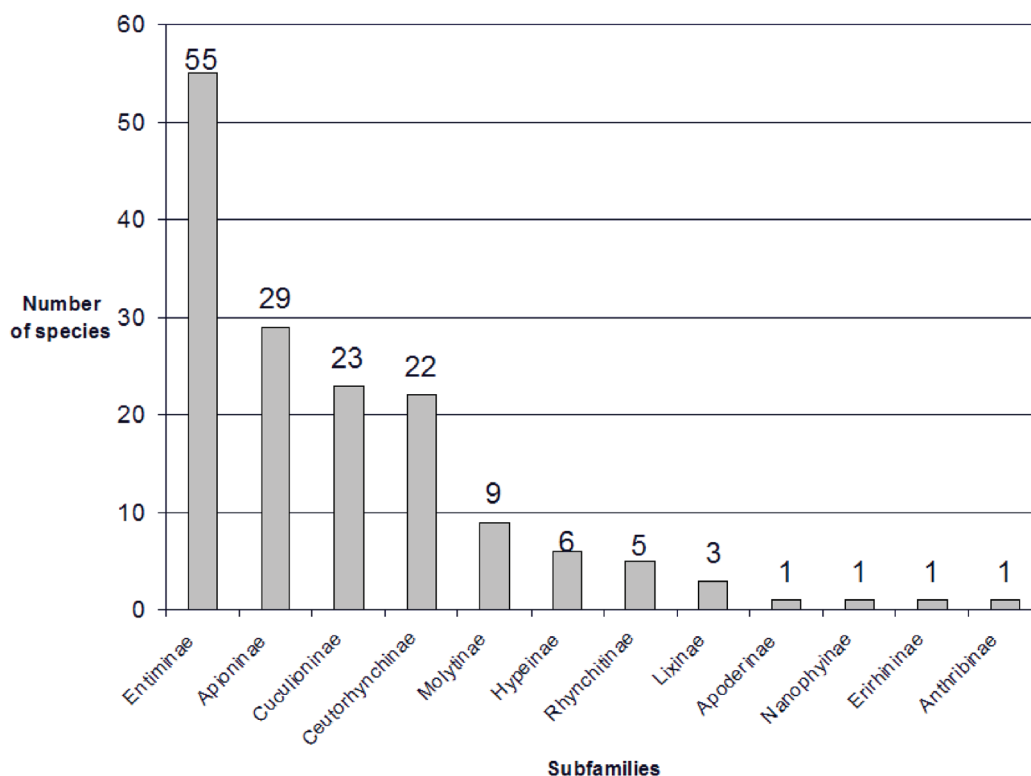


Fig. 3 Range of upper Arieş River basin Curculionoidea subfamilies according to the number of species.

The smallest number of snout-beetle species from spruce forests is the result of excessive humidity and acidity from these forests, that caused the low diversity of herbous vegetation.

The number of snout-beetle species from deforested areas and from forage cultures, reserched by us, is reduced because these ecosystems occupy the less areas and the forage cultures had a low diversity of flora.

The snout-beetle species with the widest distribution were: *Otiorhynchus remotegranulatus* (STIERL.), *Larinus jaceae* (FABRICIUS), *Phyllobius argentatus* (L.), *P. oblongus* (L.), *P. chloropus* (L.), *Scleropterus serratus* (GERM.) and *Protapion fulvipes* (FOURCROY).

Faunistic main data

Sălcia location, middle basin of the Arieş River;

- 1♀, 31.V.2002 – *Trifolium* culture, 1♂, 31.V.2002 – hayfield, Rimetea, middle basin of the Arieş River.

Glocianus incisus (SCHLTZ.) have similar body morphology with *Glocianus punctiger* (GYLLENHAL, 1837), but are different aedeagus morphology (fig. 5).

General distribution: - North-mediterranean species, spread in South-western Asia, Southern and Central Europe. Among neighboring countries of Romania, found only in Bulgaria, Poland and Hungary. (ANGELOV 1979; FREUDE, HARDE and LOHSE 1983).

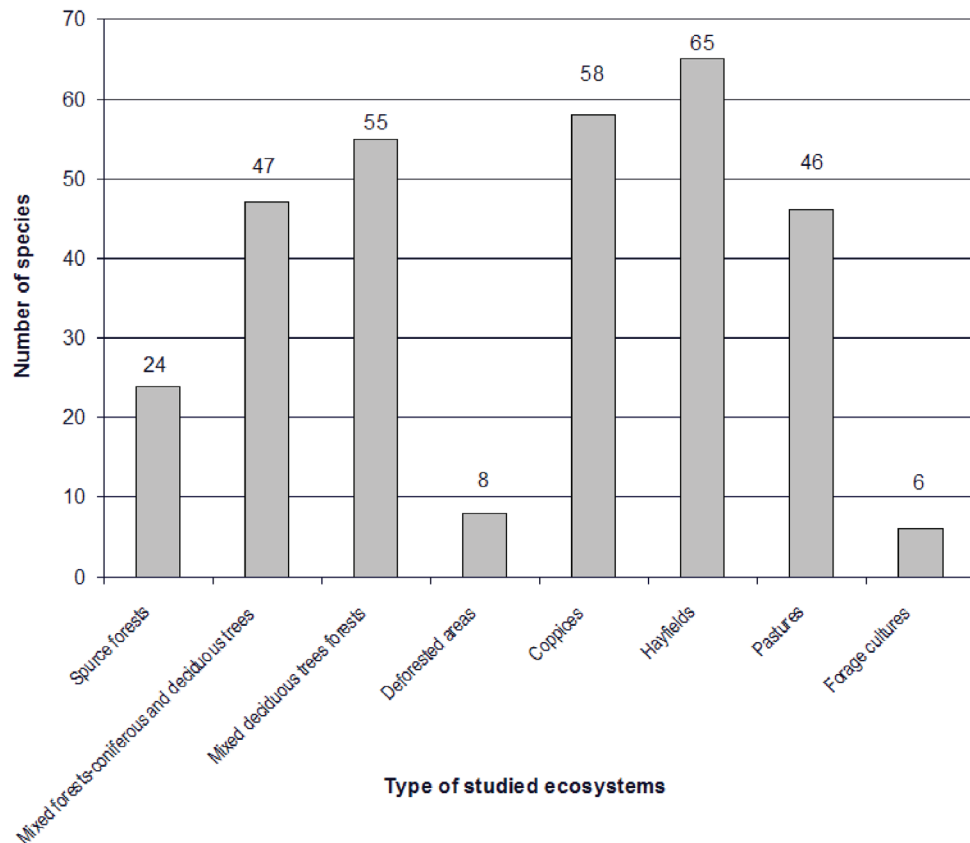


Fig. 4 The presence and numerical spread of Curculionoidea species in different type of studied ecosystems in the upper Arieș River basin.

Biology and ecology: - Monovoltine species, adults being more frequent in May and June. Mesophylous and monophagous on *Taraxacum officinale* (FREUDE, HARDE and LOHSE 1983).

This species is mentioned for the first time for the fauna of Transylvania:

Omphalapion dispar (GERMAR, 1817) (= *brisouti* (BEDEL, 1887); = *corcyreum* (SCHILSKY, 1906))

Studied material:

- 1 ♀, 17.V.1997 –deforested area, Casa de Piatră, in the upper Arieș River basin;
- 1 ♀, 16.VI.1997 –hayfield with bushes, Poșag-Valea Belioara, in the middle Arieș River basin.

Rare species, which in Romania was mentioned till now only in: Muntenia (WAGNER 1910), Moldavia (MARCUS 1951) and Banat (PĂLĂGEȘIU 1974, 1986).

General distribution: Europe and Western Asia (DIECKMANN 1977; FREUDE, HARDE and LOHSE 1981).

Trachyphloeus inermis Boheman, 1843

Studied material: - 1 ♂, 1.VI.1998 –Carpino-Fagetum, Cărpiniș, Abrud Valley

In Romania was mentioned till now only in: Muntenia (MONTANDON 1908), Dobrogea (MONTANDON 1908; NEGRU and ROȘCA 1967) and Banat (ENDRÖDI 1959).

General distribution: the South-Eastern and Middle Europe (DIECKMANN 1980; FREUDE, HARDE and LOHSE 1981).

Very rare snout beetle species: *Cyanapion (Bothyorrhynchapion) gyllenhalii* (KIRBY) and *Parethelcus pollinarius* (FORST.).

Rare snout beetle species: *Neocoenorhinus pauxillus* (GERM.), *Omphalapion dispar* (GERM.), *Kalcapion pallipes* (KIRBY), *Protapion ononidis* (GYLL.), *Oxystoma ochropus* (GERM.), *Notaris (Erycus) aterrimus* (HAMPE), *Amalus scortillum*

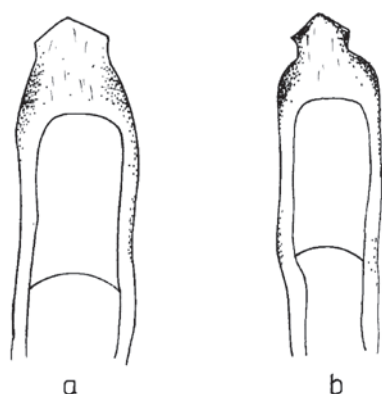


Fig. 5 a - *Glocianus incisus* (SCHULTZE), dorsal view of the aedeagus; **b** - *Glocianus punctiger* (GYLLENHAL), dorsal view of the aedeagus (original).

(HERBST.), *Ceutorhynchus sulcicollis* (PAYK.), *Mogulones pallidicornis* (BRIS.), *Zacladus (Scythocladus) exiguus* (OLIV.), *Zacladus (s. str.) geranii* (PAYK.), *Rutidosoma (Scleropteridius) fallax* (OTTO), *Otiorhynchus (s. str.) perdix* (OLIV.), *Otiorhynchus (Tournieria) coarctatus* STIERLIN, *Polydrusus (Eurodrusus) confluens* STEPHENS and *Leiosoma oblongulum* (BOH.).

Romanian endemic species: *Otiorhynchus (Dorymerus) rufomarginatus* STIERLIN., *Otiorhynchus (s. str.) remotegranulatus* STIERLIN and *Otiorhynchus (s. str.) antennatus* STIERL., the first two are rare too.

Carpathian endemic species: *Rhinomias maxillosus* PETRI, *Otiorhynchus (Dorymerus) cymophanus* BOH., *Otiorhynchus (Dorymerus) opulentus* GERM. *Otiorhynchus (Dorymerus) obtusus* BOH. and *Leiosoma bosnicum* DAN., the last two are rare too.

Conclusions

The highest number of snout-beetle species identified here and the significant number of rare and endemic species, stand out the importance of the studied area from Curculionoidea fauna point of view.

The high biodiversity and the presence of endemic and rare species in this area, justified the protection necessity of the ecosystems in which these snout-beetle species live. We can protect these ecosystems keeping the traditional activities at the actual level and not cutting irrationally the wood.

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Lucian Alexandru TEODOR, Alexandru CRIȘAN
Univ. "Babeș-Bolyai", Facultatea de Biologie și Geologie,
Catedra de Taxonomie și Ecologie, Str. Clinicilor 5-7,
RO-3400, Cluj-Napoca
lteodor@hasdeu.ubbcluj.ro
acrisan@hasdeu.ubbcluj.ro

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