Adephagous and some staphyliniform beetles (Insecta: Coleoptera) in the Eastern Rhodopes (Bulgaria and Greece)

Borislav GUÉORGUEV


Abstract. The study reports 199 beetle species from the families Carabidae, Haliplidae, Dytiscidae, Leiodidae, Silphidae, and Helophoridae. A total of 192 taxa is cited with exact localities, 182 from the Bulgarian (31 are new for the region, for other 27 species new localities are added), and 25 from the Greek part (for 19 of them are added new localities) of the Eastern Rhodopes. The species Dromius angustus Brullé, Anemadus graecus (Kraatz) and Bureschiana thracica Giachino are new for Bulgaria. Seven species, incorrectly published for the Bulgarian part or whose occurrence there seems impossible, are marked. Out of that, 4 beetles are determined to sp. or to species group, as two of them represent new taxa. A supplement to the description of Bureschiana thracica is done. On the basis of the ranges of carabid-species their chorotypes are fixed. The 31 species of conservation importance are determined.

Key words: Coleoptera, review, new data, Eastern Rhodopes, Bulgaria, Greece

Introduction

Both parts of the Eastern Rhodopes, the Bulgarian and the Greek, have not been subject to an overall review in respect to the beetle family-taxa considered here. The first concrete faunal data were published by JOAKIMOV (1904), NEDELKOV (1905, 1909), and RAMBOUSEK (1912). All their data refer to the north peripheral Bulgarian part of the area. So far, faunal records for the mountain could be found in at least 41 publications. The most part of these sources were published after 1960, as all data are more or less fragmentary and are not specially devoted to the mountain. Most faunal information for Carabidae can be found in HIEKE & WRASE (1988), for 49 species, in GUÉORGUEV & GUÉORGUEV (1995a), for 23, and in GUÉORGUEV & GUÉORGUEV (1995b), for 19, as in the latter two papers most data are repeated. Respectively, most faunal data for Hydradephaga (9 spp.) can be found in GUÉORGUEV (1964). It seems that papers on such interesting, but hidden living, small sized, and taxonomically complex beetles like Leiodidae appeared only in 1963. The presence of several beetles recently described from
the Eastern Rhodopes (*Bureschiana drensiki*, *Maroniella beroni*) or from some neighboring regions (*Bureschiana thracia*, *Ophonus gabrielleae*, *Ilybius jaechi*) shows the insufficient level of the studies on the local beetle fauna.

**Material and methods**

The research is based first of all on data from the literature on the adephagous (Carabidae, Haliplidae, Dytiscidae) and some staphyliniform (Leiodidae, Silphidae, Helophoridae) beetles from the Bulgarian part of the Eastern Rhodopes. Though not numerous, data on Carabidae, Dytiscidae, and Leiodidae from the Greek part are also cited. Although the author has not visited the region, his knowledge is included, based on identification of material of other collectors. This material includes carabid- and leiodid-specimens from the two (Bulgarian and Greek) parts of the mountain and it is preserved in the collections of the National Museum of Natural History, Sofia (NMNHS). Several Bulgarian zoologists visited more or less intensively the Bulgarian part of the Eastern Rhodopes during the last two decades of 20th century. Almost all of the material from the Greek territory was collected in the Evros (= Hévros) Province. A single species was caught in the Komotini Province. In the text the data on Greece come next to the Bulgarian localities. After the faunal data the type of species chorotype and short remarks follow. A few specimens are determined only in terms of species or species group. They will be part of future papers or later studies. The chorology is based on the recent ranges of the species and subspecies, as the different kinds of chorotypes are based on VIGNA TAGLIANTI et al. (1993), as well as on the author’s own view.

Abbreviations used in the text: ** - species new for Bulgaria; * - species new for the Bulgarian part of the Eastern Rhodopes; § - species incorrectly cited for the fauna of the region and excluded from the list; ! - species insufficiently studied and which requires further taxonomic work; BG – Bulgarian part of the Eastern Rhodopes; GR - Greek part of the Eastern Rhodopes; s. - specimen/s; obs. - observed; chorotypes (in alphabetical order): AG - Aegean; AMED - Afrotropical-Mediterranean; AT - Anatolian; B - Balkan endemic; BS - Balkan subendemic; BT - Balkan-Turanian; CB - Carpathian-Balkan; CE - Centraleuropean; E - European; EB - Eastbalkan endemic; EBNWA - Eastbalkan-Northwestanean subendemic; EBWA - Eastbalkan-Westanean; EBWT - Eastbalkan-Westturanian; ECA - European-Centralasian; EMED - Eastmediterranean; ENT - European-Northturanian; ES - European-Siberian; ET - European-Turanian; EUMED - European-Mediterranean; EWS - European-Westsiberian; EWT - European-Westturanian; H - Holarctic; HMED - Holomediterranean; IMED - Indian-Mediterranean; L - Local endemic; MEDIT - Mediterranean-Turanian; NMED - Northmediterranean; POR – Palaeartic-Oriental; R - Rhodopean; SBWT – Southbalkan-Westturanian; SE - Southeuropean; SEC - Southeasturopean-Caucasian; SEE - Southeasturopean; SET - Southeasturopean-Turanian; SEEWT - Southeasturopean-Westturanian; SEMO - Southeuropean Mountain; SET - Southeuropean-Turanian; SEWT - Southeuropean-Westturanian; TP - Transpalaearctic; WA - Westanean; WP - Westpalaearctic; WPNA - Westpalaearctic-Northafrotropical; WPO - Westpontian; WT - Westturanian.
List of taxa

CARABIDAE

* Leistus (Pogonophorus) rufomarginatus Duftschmid, 1812
BG: Strazhets - Gugutka, 23.4.1995, 1 s., B. Petrov & B. Barov leg. E.

Leistus (Pogonophorus) spinibarbis rufipes Chaudoir, 1843
BG: Ardino, 1200 m (HIEKE & WRASE, 1988: 21); Zlatograd, July (VASSILEV & NECHEVA, 1989: 50, sub L. spinibarbis Fabricius); new data: Meden Buk - Zhalti Chal, 25.4.1995, 1 s., B. Petrov & B. Barov leg. SEE.

Nebria (Nebria) brevicollis (Fabricius, 1792)

Notiophilus biguttatus (Fabricius, 1779)
GR: Evros Province, Dadya National Park, 4 s. E.

* Notiophilus rufipes Curtis, 1829
BG: Krumovgrad, 29.5.1990, 1 s., V. Sakalian leg., D. Wrase det.; Strazhets - Gugutka, 23.4.1995, 1 s., B. Petrov & B. Barov leg. E.

Calomera fischeri fischeri (M.F. Adams, 1817)
BG: Podkova, April (ANGELOV, 1965: 130, sub Cicindela f.). SBWT.

Cephalota (Cephalota) turcica (Schaum, 1859)
BG: Minzuhar (= Kalfalyar), July (KANTARDJIEVA, 1928: 108, sub Cicindela t.). AG. Rare beetle known from a single locality in Bulgaria. According to CASSOLA (1999: 256, sub Cicindela t.) it is “basically a peri-Aegean species that has apparently a restricted relict distribution”. Further, “the species’ occurrence in present-day Bulgaria still appears to be questionable and it needs to be confirmed, as turcica is known to occur in sandy, saline, coastal habitats only” (op. cit.). The group “Cephalota (Cephalota)”, except for the taxon here reported, includes two other localized species, e.g. hispanica Gory from the south of Iberian Peninsula and luctuosa Dejean from Morocco. Therefore, the three species seem to be older Eumediterranean relics. Thus, turcica could be classified as an actual preglacial relict in the regional fauna. I studied the only male specimen preserved in the collections of NMNHS and ascertained that it is genuine turcica, determined firstly by W. Horn (KANTARDJIEVA, 1928). Further material from the region is necessary to confirm the presence of a stable population in the country.

Cicindela (Cicindela) campestris palustris Motschulsky, 1840
BG: Stambolovo, May; Haskovo (KANTARDJIEVA, 1928:104, sub Cicindela campestris var. palustris); Belite Brezi Hut, Zlatograd, Momchilgrad and Podkova, April-August
(ANGELOV, 1965: 130). EBNWA. Probably the local population of this species belongs to the distinct subspecies palustris (cfr. CASSOLA, 1999: 236). Confirmation of this assertion is desirable.

*Cicindela (Cicindela) monticola albanica* Apfelbeck, 1909  
BG: Harmanli, April-August (ANGELOV, 1965: 130, sub *C. hybrida* Linnaeus); Krue-movgrad, Momchilgrad, and Podkova, April-July (ANGELOV, 1965:130, sub *C. hybrida riparia* Dejean, 1822). B.

*Calosoma (Calosoma) inquisitor inquisitor* (Linnaeus, 1758)  
BG: Haskovo, May (JOAKIMOV, 1904: 6); new data: Studen Kladenets Dam, S. Beshkov obs.; Odrintsi, 27.4.1995, 1 σ, 1 ♀, B. Petrov leg. E. Protected species in Bulgaria.

*Calosoma (Calosoma) sycopebanta* (Linnaeus, 1758)  
BG: Haskovo, May (BURESCH & KANTARDJEVA, 1928: 64); new data: Haskovo area, 14.5.1938, 1 σ, I. Julius leg.; Harmanli, 23.6.1939, 1 ♀, P. Drenski leg. TP. Protected species in Bulgaria.

*Calosoma (Campalita) auropunctatum auropunctatum* (Herbst, 1784)  

*Carabus (Archicarabus) montivagus montivagus* Palliardi, 1825 (= *ponticus* Apfelbeck, 1904, nec Deyrolle, 1869; = *bulgaricus* Csiki, 1927)  
BG: Mandritsa, April; Odrintsi, 100 m, November; Shiroko Pole, March; Momina Skala Hut, April (GUÉORGUIEV & GUÉORGUIEV, 1995a: 45, sub *C. montivagus bulgaricus*; GUÉORGUIEV & GUÉORGUIEV, 1995b: 78, sub *C. montivagus bulgaricus*); new data: Haskovo area, 14.5.1938, 1 σ, I. Julius leg.; Odrintsi, 27.4.1995, 1 ♀, B. Petrov leg.; Momchilgrad, 300-400 m, 15-18.8.1995, 1 ♀, P. Stoev leg.; Momina Skala Hut, 13.5.1996, 1 ♀, B. Petrov leg.  
GR: Shilo Mount near Essimi, 800 m (BLUMENTHAL, 1976: 118, sub *C. montivagus bulgaricus*); new data: Evros Province, Dadya National Park, 5 s. SEE.

*Carabus (Archicarabus) nemoralis nemoralis* O. Müller, 1764  
BG: Haskovo, May (BURESCH & KANTARDJEVA, 1928: 99, note 1). E. This taxon requires further confirmation for the Bulgarian fauna.

*Carabus (Archicarabus) wiedemanni wiedemanni* Ménétríés, 1836 (= *burgassiensis* Apfelbeck, 1904)  
GR: Shilo Mount near Essimi, 800 m (BLUMENTHAL, 1976:118, sub *C. wiedemanni burgassiensis*). EBNWA.

*Carabus (Carabus) granulatus granulatus* Linnaeus, 1758 (= *rubipes* Géhin, 1876, nec Duftschild, 1812)  
BG: Haskovo, May (JOAKIMOV, 1904: 6, sub *C. granulatus var. rubipes*). E.
*Carabus (Chaetocarabus) intricatus intricatus* Linnaeus, 1761 (= subrhodopensis Blumenthal, 1976)

GR: Shilo Mount near Essimi, 800 m (loc. typ.) (BLUMENTHAL, 1976: 117, sub *C. intricatus subrhodopensis*). E.

*Carabus (Megodontus) violaceus azurescens* Dejean, 1826

BG: Byal Izvor, 450 m, 5.8.1999, 1 ♀, B. Pertov leg. B.

*Carabus (Pachystus) graecus morio* Mannerheim, 1830 (= cavernicola Kraatz, 1880)


GR: Evros Province, Dadya National Park, 5 s. EMED.

*Carabus (Procerus) scabrosus scabrosus* Olivier, 1790

BG: Haskovo (BURESCH & KANTARDJIEVA, 1928: 66; BREUNING, 1935: 1325); Chernyovtsi (= Kara Musalar) near Kardjali, June (BURESCH & KANTARDJIEVA, 1928: 66); Chamluka Reserve (CHRISTOVA & DIMITROVA, 1986: 9, 12); new data: Studen Kladenets Dam, S. Beshkov obs.; Potochnitsa, S. Beshkov obs.; Dyadovtsi, B. Petrov obs. EBNWA. Protected species in Bulgaria. Undoubtedly the announcement of *Carabus (Procerus) gigas* (Creutzer, 1799) s.l. for the area of Kardjali (VASSILEVA & GULUBOVA, 1994: 66, sub *Procerus gigas*) is wrong. *C. gigas* does not live east of the Mesta River, and hence the record of the last authors is referred to *C. scabrosus scabrosus*.

*Carabus (Procerus) scabrosus sommeri* Mannerheim, 1844

BG: Chernyovtsi (= Kara Musalar) near Kardjali, June (BURESCH & KANTARDJIEVA, 1928: 66, sub *P. scabrosus* Olivier). AT. Protected species in Bulgaria. The main part of the Balkan population of this taxon is concentrated in the Western Rhodopes. The issue of the zone of hybridization of this and the preceding subspecies, which pass across the studied territory, is interesting.

*Carabus (Procrustes) coriaceus cerisyi* Dejean, 1826 (= semipunctatus Géhin, 1885, nec Donovan, 1806; = storkani Mašan, 1952)


GR: Shilo Mount (BLUMENTHAL, 1976: 116, sub *C. coriaceus storkani*); new data: Evros Province, Essimi, 17.5.1987, 1 s., P. Beron leg.; Dadya National Park, 5 s. SEE.
Carabus (Tomocarabus) convexus gracilior Géhin, 1885

Carabus (Trachycarabus) scabriusculus bulgarus Lapouge, 1908

*Cycrus semigranosus balcanicus Hopfïgarten, 1881
BG: Gyumyurdzhinski Snezhnik Mount, Kirkovo Ditrict, near Kremen Village, 250 m, 23.10.2003, 1 ♂, P. Beron leg. EB.

Omophron (Omophron) limbatum (Fabricius, 1777)
BG: Spahievo (= Siïpetli), May (JOAKIMOV, 1904: 5). WP.

Aptinus (Aptinus) bombarda (Illiger, 1800)

Brachinus (Brachynus) crepitans (Linnaeus, 1758)
BG: Haskovo area, May (JOAKIMOV, 1904: 7). TP.

§ Brachinus (Brachynus) elegans Chaudoir, 1842 (= ganglbaueri Apfelbeck, 1904)
BG: Citing RAMBOUSEK (1912: 102, sub ganglbaueri Apfelbeck), GUÉORGUIEV & GUÉORGUIEV (1995a: 238, sub ganglbaueri Apfelbeck), reported this species from Rani List (former Ashiklari - a village often wrongly given as Ishiklar; cfr. MICHEV & KOLEDAROV, 1989: 229). However, this locality is situated in NE Bulgaria.

Brachinus (Brachynidius) explodens Duftschmid, 1812
BG: Knizhovnik, June (GUÉORGUIEV & GUÉORGUIEV, 1995a: 241); Momchilgrad, June (GUÉORGUIEV & GUÉORGUIEV, 1995a: 241; GUÉORGUIEV & GUÉORGUIEV, 1995b: 84); new data: between Madjarovo and Borislavtsi, 2.5.2003, 2 ♂, S. Beshkov, V. Gashtarov & B. Petov leg. TP.

§ Clivina (Clivina) fossor fossor (Linnaeus, 1758)
BG: GUÉORGUIEV & GUÉORGUIEV (1995a: 64), on the basis of the name “Ishiklar” from an old label, cited this species from Rani List (former Ashiklari, site often wrongly given as Ishiklar; cfr. MICHEV & KOLEDAROV, 1989: 229). Actually, Ishiklar is today’s vil. Samouil (Razgrad District).

Dyschirius (Dyschiriodes) agnatus Motschulsky, 1844

Apotomus rufus (P. Rossi, 1790)
Asaphidion caraboides balcanicus Netolitzky, 1918
BG: Momchilgrad, May (GUÉORGUIEV, 1992: 64). B.

Bembidion (Bembidionetolitzkya) concoeruleum Netolitzky, 1943

Bembidion (Emphanes) azurescens azurescens Dalla Torre, 1877

Bembidion (Euperyphus) testaceum testaceum (Duftschmid, 1812)
BG: Perperek (HIEKE & WRASE, 1988: 50). E.

* Bembidion (Notaphus) varium (Olivier, 1795)
BG: Harmanli, 23.6.1939, 1 ♂, P. Drenski leg. TP.

Bembidion (Ocydromus) decorum decorum (Panzer, 1799)

Bembidion (Ocydromus) siculum smyrnense Apfelbeck, 1904

Bembidion (Ocyturanes) praestum praestum Dejean, 1831
BG: Perperek (HIEKE & WRASE, 1988: 52). NMED.

Bembidion (Peryphanes) brunnicorne brunnicorne Dejean, 1831
BG: Perperek (HIEKE & WRASE, 1988: 54). E.

Bembidion (Peryphanes) castaneipenne Jacquelin du Val, 1852
BG: Perperek (HIEKE & WRASE, 1988: 54). EMED.

Bembidion (Peryphus) cruciatum bualei Jacquelin du Val, 1852

Bembidion (Peryphus) femoratum femoratum Sturm, 1825
BG: Haskovo, May (JOAKIMOV, 1904: 11, sub Bembidion andreae var. femoratum); Harmanli; Perperek (HIEKE & WRASE, 1988: 51). EWS.

Bembidion (Peryphus) subcostatum javurkovae Fassati, 1944
BG: Momchilgrad; Perperek (HIEKE & WRASE, 1988: 52). BS. This subspecies was recorded as a strict Balkan endemic (GUÉORGUIEV, 1993), but actually it is Balkan subendemic.

Bembidion (Princidium) punctulatum punctulatum Drapiez, 1820
BG: Spahištevo (= Siipetli), May (Joakimov, 1904: 10); Momchilgrad (HIEKE & WRASE, 1988: 45). EUMED.
Bembidion (*Testedium*) *bipunctatum nivale* Heer, 1837
BG: Momchilgrad (HIEKE & WRASE, 1988: 45). SEMO. Glacial relict, whose presence in the region is a surprise.

*Tachyurs* (*Tachyura*) *diabrachys* (Kolenati, 1845)

*Perileptus* (*Perileptus*) *areolatus areolatus* (Creutzer, 1799)
BG: Perperek (HIEKE & WRASE, 1988: 34). WP.

*Duvalius* (*Paraduvalius*) sp.

*Trechus* (*Trechus*) *austriacus* Dejean, 1831
BG: Dupkata Cave near Ivaylovgrad, 27.4.1995, 2 s., B. Petrov leg.; same cave, 23.4.1999, 2 ♀♂, B. Petrov leg.

*Trechus* (*Trechus*) *ireuis* Csiki, 1912
BG: between Nedelino and Izgrev, 850 m, beech litter, 13.12.2000, 1 ♂, 1 ♀, B. Petrov, S. Beshkov & M. Langourov leg. B.

*Trechus* (*Trechus*) *crucifer* Piochard de la Brûlérie, 1876
BG: Zandana Cave near Dolno Cherkovishite, 21.4.1996, 2 ♀♂, 3 ♀♀, B. Petrov & P. Stoev leg.; artificial gallery (55 m long) between Lozen and Cherna Mogila, 12.4.1998, 1 ♀, rotten log, B. Petrov & B. Barov leg.; same place, 4.11.1999, 1 ♀, B. Petrov, S. Beshkov & D. Vassilev leg.; place “Ilieva niva” near Glumovo, 600 m, oak litter, 6.11.1999, 2 ♀♂, B. Petrov, S. Beshkov & D. Vassilev leg.; Egrek, 500 m, oak litter, 7.11.1999, 1 ♂, 5 ♀♀, B. Petrov, S. Beshkov & D. Vassilev leg.; between Nedelino and Izgrev, 850 m, beech litter, 13.12.2000, 1 ♂, 2 ♀♀, B. Petrov, S. Beshkov & M. Langourov leg.; Madjarovo, stone quarry near Arda River, 180 m, oak litter, 19.6.2002, 1 ♀, B. Petrov leg. EMED. This is the most abundant species of the genus in the mountain. Usually it can be found in the region below the beech belt.

*Trechus* (*Trechus*) *quadristriatus* (Schrank, 1781)
BG: Karangil Cave near Shiroko Pole, April (BERON, 1994: 45); new data: north slopes of Sheynovets Hill above Mezek, 500 m, leaf litter of *Carpinus-Acer-Fagus*, 12.4.1998,

GR: Evros Province, near Essimi, 18.5.1987, 3 s., P. Beron leg., I. Gudenci det.; Evros Province, 11 km from Leptokaria, 920 m, 27.9.2000, 1 s., Pinetum, under log, B. Petrov, P. Stoev, S. Beshkov leg.; Evros Province, Leptokaria, beech litter, 740 m, 29.9.2000, 11 s., B. Petrov, P. Stoev, S. Beshkov leg.; Evros Province, Dadya National Park, 6 s. WP.

* Trechus (Trechus) subnotatus subnotatus Dejean, 1831

BG: Kran near Kukuryak, 700 m, disused mine gallery on the road to Makaza Pass, length ca. 6 m, 7.11.1999, under stone, B. Petrov, S. Beshkov & D. Vassilev leg. B.

**Chlaenius (Chlaeniellus) flavipes** Ménétriés, 1832

BG: Ardino (HIEKE & WRA, 1988:1 49). BT.

**Chlaenius (Chlaeniellus) vestitus** (Paykull, 1790)

BG: Momchilgrad, May-June (GUÉORGUIEV & GUÉORGUIEV, 1995a: 215; GUÉORGUIEV & GUÉORGUIEV, 1995b: 83); new data: between Madjarovo and Borislavtsi, 2.5.2003, 1 s., S. Beshkov, V. Gashtarov & B. Petrov leg.; Armira River near Ivaylovgrad, 4.5.2003, 5 s., S. Beshkov, V. Gashtarov & B. Petrov leg. WP.

**Chlaenius (Chlaenites) spoliatus spoliatus** (P. Rossi, 1792)

BG: Mineralni Bani, May; Spahievo (= Siipetli), May (JOAKIMOV, 1904: 7); new data: Armira River near Ivaylovgrad, 4.5.2003, 1 s., S. Beshkov, V. Gashtarov & B. Petrov leg. WP.

**Chlaenius (Chlaenius) festivus festivus** (Panzer, 1796)

BG: Spahievo (= Siipetli), May (JOAKIMOV, 1904: 7). ET.

**Chlaenius (Dinodes) decipiens** (L. Dufour, 1820) (= azureus Duftschmid, 1812 nec Fabricius, 1775)

BG: Spahievo (= Siipetli), May (JOAKIMOV, 1904: 7, C. azureus); Kardjali; Perperek (HIEKE & WRA, 1988: 148). HMED.

**Chlaenius (Trichocblaenius) aeneocephalus aeneocephalus** Dejean, 1826

BG: Harmanli; Momchilgrad, May; Arda Hut, June-July (GUÉORGUIEV & GUÉORGUIEV, 1995a: 212; GUÉORGUIEV & GUÉORGUIEV, 1995b: 83). SEET.

**Drypta (Drypta) dentata** (P. Rossi, 1790)


§ Dixus clypeatus (P. Rossi, 1790)

BG: GUÉORGUIEV & GUÉORGUIEV (1995a: 209), following RAMBOUSEK (1912: 81, sub Ditomus clypeatus), reported this beetle from Rani List (ex-Ashiklari - a village wrongly cited as Ishiklar, cfr. MICHEV & KOLEDAROV, 1989: 229). However,
RAMBOUSEK (op. cit.: 61) reported the location of this site to be in NE Bulgaria. Actually, Ishiklar is today’s Samouil (Razgrad Region).

**Dixus eremita** (Dejean, 1825)
BG: “Rhodopes” (HIEKE & WRASE, 1988: 146); new data: Harmanli, 23.6.1939, 1 s., P. Drenski leg.; Krumovgrad, 28.8.1995, 1 s., P. Stoev leg. SEET.

**Dixus obscurus** (Dejean, 1825)
BG: Mandritsa (HIEKE & WRASE, 1988: 145); new data: Harmanli, 23.6.1939, 1 s., P. Drenski leg. EMED.

§ **Dixus sphaerocephalus** (Olivier, 1795)
BG: Haskovo, May (JOAKIMOV, 1904: 7). This Westmediterranean species has already been excluded from the list of Bulgarian fauna (GUÉORGUIEV & GUÉORGUIEV, 1995a: 247).

**Acinopus** *(Acinopus)* *picipes* (Olivier, 1795)
BG: Haskovo, May (JOAKIMOV, 1904: 9); new data: Harmanli, 23.6.1939, 1♀, P. Drenski leg. SEWT.

**Acinopus** *(Acinopus)* *subquadratus* Brullé, 1832

**Acinopus** *(Osimus)* *ammophilus* Dejean, 1829
BG: Haskovo, May (JOAKIMOV, 1904: 9); new data: Momchilgrad, 24.6.1961, 1 s., G. Peschev leg. SEWT.

**Daptus vittatus** Fischer von Waldheim, 1823
BG: Zlatograd, 900 m, August (VASSILEV & NECHEVA, 1989: 51). MEDT.

**Harpalus** *(Cryptophonus)* *melancholicus melanchoicus* Dejean, 1829

* **Harpalus** *(Harpalus)* *affinis* (Schrank, 1781)
BG: Mlechino, 5-15.7.1976, 1♀, J. Ganev leg. TP.

**Harpalus** *(Harpalus)* *albanicus* Reitter, 1900
GR: Evros Province, Dadya National Park, 1 s. SE.

* **Harpalus** *(Harpalus)* *atratu* Latreille, 1804
BG: Ustrem, 500 m, 17.8.1995, 2♂♂, P. Stoev leg.
GR: Evros Province, 11 km from Leptokaria, 920 m, 27.9.2000, 1 s., *Pinus* sp. forest, under log, B. Petrov, P. Stoev, S. Beshkov leg. E.
* Harpalus (Harpalus) attenuatus Stephens, 1828
BG: Mlechino, 5-15.7.1976, 1 ♀, J. Ganev leg. EUMED.

Harpalus (Harpalus) autumnalis (Duftschmid, 1812)

Harpalus (Harpalus) caspius (Steven, 1806)
BG: “Rhodopes” (HIEKE & WRASE, 1988: 132); new data: Avren - Strazhata, 22.4.1995, 1 ♂, B. Petrov leg. SEE.

Harpalus (Harpalus) dimidiatus (P. Rossi, 1790)
BG: Spahievo (= Siipetli), May (JOAKIMOV, 1904: 10); Kardjali; Momchilgrad (HIEKE & WRASE, 1988: 139); new data: Dolna Kula, 16.4.1998, 1 ♀, under stones in a rocky site, B. Petrov leg. EWT.

Harpalus (Harpalus) distinguendus distinguendus (Duftschmid, 1812)
BG: Kardjali, May (GUÉORGUIEV & GUÉORGUIEV, 1995a: 191); new data: Avren - Strazhata, 22.4.1995, 1 ♀, B. Petrov leg. TP.

Harpalus (Harpalus) froelichi Sturm, 1818

* Harpalus (Harpalus) honestus honestus (Duftschmid, 1812)
BG: Belite Brezi Hut, 7-13.7.1976, 1 ♀, J. Ganev leg. E.

Harpalus (Harpalus) hospes hospes Sturm, 1818
BG: Mineralni Bani, May (JOAKIMOV, 1904: 10). ENT.

Harpalus (Harpalus) luteicornis (Duftschmid, 1812)
BG: Zlatograd, 700 m, August (VASSILEV, 1988: 86). E.

Harpalus (Harpalus) pumilus Sturm, 1818
BG: Harmanli (GUÉORGUIEV & GUÉORGUIEV, 1995a: 201). ET.

Harpalus (Harpalus) pygmaeus Dejean, 1829
BG: Spahievo (= Siipetli), May (JOAKIMOV, 1904: 10). SE.

* Harpalus (Harpalus) rubripes (Duftschmid, 1812)
BG: Mlechino, 5-15.7.1976, 1 ♂, 1 ♀, J. Ganev leg. TP.

* Harpalus (Harpalus) rufipalpis rufipalpis Sturm, 1818
BG: 2 km NE from Madjarovo, 160 m, 1 ♂, Malaise trap, ecotone riverside vegetation - xetothermic forest, H. Eturska leg. EWT.
Harpalus (Harpalus) saxicola Dejean, 1829
GR: Evros Province, Dadya National Park, 1 s. SEE.

* Harpalus (Harpalus) serripes serripes (Quensel, 1806)
BG: Harmanli, 23.6.1939, 1 ♂, P. Drenski leg.
GR: Evros Province, Dadya National Park, 1 s. WP.

Harpalus (Harpalus) subcylindricus Dejean, 1829
BG: Momchilgrad, June; (GUÉORGUIEV & GUÉORGUIEV, 1995a: 199;
GUÉORGUIEV & GUÉORGUIEV, 1995b: 83). ENT.

Harpalus (Harpalus) sulphuripes sulphuripes Germar, 1824
BG: Spahievo (= Siipetli), V (JOAKIMOV, 1904:10); Perperek (HIEKE & WRASE, 1988: 139). EUMED.

* Harpalus (Harpalus) tardus (Panzer, 1796)
BG: Haskovo area, 14.5.1938, 1 ♂, I. Julius leg. EWT.

! Harpalus (Harpalus) sp. ex. gr. “distinguendus”
BG: Gyuurg-Dere Valley near Madjarovo, 9.2.1998, 1 ♂, 1 ♀, leaf litter, B. Petrov & G. Stoyanov leg. Both specimens appear to be closest to angulatus Putzeys, 1877 s.l., but at the same time, they possess several external characters, which differentiate them from it.

Harpalus (Pseudophonus) rusipes (De Geer, 1774) (= ruficornis Fabricius, 1775)
BG: Haskovo, May (JOAKIMOV, 1904: 10, sub Harpalus ruficornis). TP.

Ophonus (Hesperophonus) azureus (Fabricius, 1775)
BG: Haskovo area, May (JOAKIMOV, 1904: 9). ECA.

Ophonus (Hesperophonus) cribricollis (Dejean, 1829)
BG: Haskovo area, May (JOAKIMOV, 1904:9); Ardino, (HIEKE & WRASE, 1988: 126). EWT.

Ophonus (Hesperophonus) jailensis (Schauberger, 1926)
GR: 25 km NW of Alexandropolis (WRA SE, 1995: 346). WPO.

Ophonus (Hesperophonus) subquadrate (Dejean, 1829)

§ Ophonus (Metophonus) brevicollis (Audinet-Serville, 1821)
BG: Following RAMBOUSEK (1912: 82), GUÉORGUIEV & GUÉORGUIEV (1995a: 185, sub Ophonus rufibarbis Fabricius, 1792), reported this taxon from Rani List (formerly Ashiklari - a site often wrongly cited as Ishiklar; MICHEV & KOLEDAROV, 1989: 229). However, RAMBOUSEK (1912: 61) explained that the site was located in NE
Bulgaria. Actually, Ishiklar is today’s Samouil. Now, brevicollis is omitted from the list, moreover RAMBOUSEK (1912: 82) had united under this name two currently valid species (brevicollis and rufibarbis).

*Ophonus (Metophonus) gabrielea* Wrase, 1987

*Ophonus (Metophonus) melleti* (Heer, 1837)

*Ophonus (Metophonus) parallelus* (Dejean, 1829)

*Ophonus (Metophonus) puncticeps* Stephens, 1828
BG: Harmanli (HIEKE & WRASE, 1988: 123); new data: Ovchari near Krumovgrad, 28.8.1995, 1 ‡, P. Stoev leg. EWT.

*Ophonus (Metophonus) veluchianus* J. Müller, 1931
BG: new data: Ustrem, 500 m, 17.8.1995, 1 ‡, P. Stoev leg. WPO.

*Ophonus (Ophonus) sabulicola* (Panzer, 1796) (= columbinus Germar, 1817)
BG: Haskovo, May (JOAKIMOV, 1904: 9, sub Ophonus cribricollis var. columbia). EWT.

*Parophonus (Parophonus) dia* (Reitter, 1900)
BG: Harmanli, June (GUÉORGUIEV, 1992: 67; GUÉORGUIEV & GUÉORGUIEV, 1995a: 203). WT. Although B. Kataev (personal communication) has excluded this taxon from Bulgarian fauna, the present author applies that find to *P. dia*.

*Stenolophus (Stenolophus) discophorus* (Fischer von Waldheim, 1823)
BG: Perperek (HIEKE & WRASE, 1988: 114). ET.

*Stenolophus (Stenolophus) teutonus* (Schrank, 1781)
BG: 2 km N from Madjarovo near Arda River, 160 m, ecotone riverside vegetation, Malaise trap, 26.9.-14.10.2000, 1 ‡, H. Eturska leg. EUMED.

*Cymindis (Cymindis) axillaris axillaris* (Fabricius, 1794)
BG: Harmanli; Kardjali; Perperek (HIEKE & WRASE, 1988: 161); new data: Gyurgen-Dere Valley near Madjarovo, 9.2.1998, 1 s., leaf litter, B. Petrov & G. Stoyanov leg. WP.

*Cymindis (Cymindis) humeralis* (Geoffroy, 1785)
BG: Haskovo area, May (JOAKIMOV, 1904: 7). EUMED.

*Cymindis (Cymindis) lineata* (Quensel, 1806)
**Dromius (Dromius) angustus angustus Brullé, 1834**

BG: Gyumyurdzhinski Snezhnik Mount, Kirkovo District, near Kremen Village, 250 m, 23.10.2003, 1♀, P. Beron leg. D. angustus s.l., fifth representative of the genus Dromius Bonelli, 1810 in Bulgaria, consists of three subspecies (LÖBL & SMETANA, 2003: 420). According to the most up-to-date catalogue of the Palaearctic Carabidae (op. cit.: 420), the area of distribution of the nominotypical form covers Norway, Sweden, Great Britain, the Netherlands, Belgium, Germany, Denmark, Poland, Czech Republic, Estonia, France, Austria, Hungary, Spain, Italy, and Asian Turkey. Besides, the species has been cited for Switzerland (MARGGI, 1992: 397), the Ukrainian Carpathians and Transcarpathia (KRYZHANOVSKIJ et al., 1995: 163), Slovakia (HÚRKA, 1996) and Slovenia (DROVENIK & PEKS, 1999: 113, sub D. angustatus sic!). Externally, D. angustus could be distinguished from the other close related European species of the subgenus in its relatively long size (5.3-6.5 mm), in the presence of setiferous punctures only on the sixth elytral stria or interval, and in the absence of longitudinal grooves on frons. Of course, the shape of the median lobe (see JEANNEL, 1942: 1066, Fig. 354.d and FREUDE et al., 1976: 275, Aed. 79: 6) remain the surest diagnostic character. Probably the lack of finds of the species from the Balkan Peninsula dues to both more specific manner of life, e.g. beneath the bark of trees, and probable late autumn / winter activity in some southern areas of distribution. E.

_Microlestes negrita negrita_ (Wollaston, 1854)

BG: Perperek (HIEKE & WRASE, 1988: 159). HMED.

_Paradromius (Manodromius) linearis linearis_ (Olivier, 1795)

BG: Knizhovnik, June (GUÉORGUIEV & GUÉORGUIEV, 1995a: 227). EUMED.

*Philorhizus notatus* (Stephens, 1827)

BG: 2 km NE from Madjarovo, 160 m, 1 s., ecotone riverside vegetation - xetothermic wood, Malaise trap, H. Eturska leg. ET.

_Lebia (Lebia) humeralis_ Dejean, 1825

BG: Haskovo area, May (JOAKIMOV, 1904: 7). SEEWT.

_Apristus subaeneus_ Chaudoir, 1846


_Lionychus quadrillum_ (Duftschild, 1812)


_Syntomus obscuroguttatus_ (Duftschild, 1812)

GR: Evros Province, Dadya Monastery, 28.9.2000, oak forest, under stones, B. Petrov, P. Stoev & S. Beshkov leg. WP.
**Licinus (Licinus) cassideus** (Fabricius, 1792)

**Licinus (Licinus) silphoides** (P. Rossi, 1790)

*Agonum (Agonum) gisellae* Csiki, 1931
BG: Kremenska Peshtera Cave near Kremen, 20.7.1996, 1 ♂, T. Ivanova & T. Trowniski leg. EMED.

§*Agonum (Agonum) lugens* (Duftschmid, 1812)
BG: GUÉORGUIEV & GUÉORGUIEV (1995a: 144), on the basis of the name “Ishiklar” from an old label, reported the species from Rani list (former Ashiklari, locality often wrongly given as Ishiklar, MICHEV & KOLEDAROV, 1989: 229). Actually, Ishiklar is today’s Samouil (NE Bulgaria).

Agonum (Agonum) marginatum (Linnaeus, 1758)
BG: Zlatograd, 700 m, August (VASSILEV, 1988: 86). EUMED.

*Agonum (Agonum) sordidum sordidum* Dejean, 1828
BG: Chukovo near Momchilgrad, 16.8.1995, 8 s., under stones, P. Stoev leg. EMED.

Agonum (Agonum) viduum (Panzer, 1796)

*Agonum (Europhilus) antennarium* (Duftschmid, 1812)
BG: Chukovo near Momchilgrad, 16.8.1995, 2 ♀♀, under stones, P. Stoev leg. SE.

**Platynus (Batenus) scrobiculatus purkynei** Obenberger, 1917
BG: Kran near Kirkovo; between Nedelino and Izgrev (GUÉORGUIEV & MUILWIJK, 2001: 116). EBNWA. A rare subspecies, on the Balkans it lives only in the Rhodopes.

**Myas (Myas) chalybaeus** (Palliardi, 1825)

**Pedius inquinatus** (Sturm, 1824)
BG: Dolna Kula near Krumovgrad, May (GUÉORGUIEV, 1992: 66, sub *Pterostichus i*). SEE.

**Poecilus (Poecilus) cursoriae cursoriae** (Dejean, 1828)
Pterostichus (Adelosia) macer macer (Marsham, 1802)

Pterostichus (Argutor) cursor (Dejean, 1828)

! Pterostichus (Parabaptoderus) sp.
GR: Evros District, Essimi, 18.5.1987, 1 σ, P. Beron leg. This specimen belongs to a new, probably specifically localized, species of the complex Parabaptoderus Jeanne, 1969.

* Pterostichus (Platysma) niger niger (Schaller, 1783)
BG: Kardjali, 20.5.1911, 1 σ, ex-coll. D. Joakimov. WP.

* Pterostichus (Pseudomaseus) nigrita (Paykull, 1790)
BG: Kremenska Peshtera Cave near Kremen, 20.7.1996, 1 ♀, T. Ivanova & T. Troanski leg. ES.

Tapinopterus (Tapinopterus) balcanicus balcanicus Ganglbauer, 1891
BG: Momchilgrad, 900 m, May (ARNDT & HŮRKA, 1990: 204; GUÉORGUIEV & GUÉORGUIEV, 1995b: 80); new data: Ustrem, 500 m, 17.8.1995, 1 σ, P. Stoev leg. EB.

Calathus (Calathus) fusipes (Goeze, 1777) s.l.
GR: Shilo Mount near Esimi; road Alexandropolis-Turkish border (BATTONI & VERESCHAGINA, 1984: 153); new data: Evros Province, Dadya National Park, 20 s. EUMED.

Calathus (Calathus) longicollis Motschulsky, 1865
WT. GR: 20 km W from Alexandropolis (BATTONI & VERESCHAGINA, 1984: 148). This is the westernmost known occurrence of the species.

Calathus (Neocalathus) ambiguus ambiguus (Paykull, 1790) (= fuscus Fabricius, 1792)
BG: Haskovo area, May (JOAKIMOV, 1904: 8, sub C. fuscus); Kardjali; Most; Perperik (HIEKE & WRASE, 1988: 90). ET.

Calathus (Neocalathus) cinctus Motschulsky, 1850
GR: Evros Province, Dadya National Park, 5 s. WP.

Calathus (Neocalathus) melanocephalus melanocephalus (Linnaeus, 1758)
BG: Momchilgrad, June; (GUÉORGUIEV & GUÉORGUIEV, 1995a: 150; GUÉORGUIEV & GUÉORGUIEV, 1995b: 81); new data: Dolna Kula, 16.4.1998, 1 σ, under stones in rocky areas, B. Petrov leg. TP.
Laemostenus (Actenipus) plasoni plasoni (Reitter, 1885)

Laemostenus (Pristonychus) cimmerius (Fischer von Waldheim, 1823) s.l.
GR: Evros Province, Shilo Mount near Essimi, 800-1000 m, (CASALE, 1988: 809); new data: Evros Province, Koufovono Cave near Koufovono, 29.9.2000, 4 s., under stones in guano, B. Petrov, P. Stoev, S. Beshkov leg.; Evros Province, Dadya National Park, 5 s. (sub Laemostenus cimmerius weiratheri G. Müller, 1931). BS. The published material was revised. All specimens belong to L. cimmerius s.l.

Synuchus (Synuchus) vivalis vivalis (Illiger, 1798)
BG: Zlatograd, 900 m, August (VASSILEV & NECHEVA, 1989: 50, sub S. nivalis Panzer). ES.

Amara (Amara) aenea (De Geer, 1774)
BG: Harmanli; Knizhovnik; Kardjali; Perperek (HIEKE & WRASE, 1988: 100). TP.

Amara (Amara) curta Dejean, 1828

Amara (Amara) lucida (Duftschmid, 1812)

Amara (Amara) saphyrea Dejean, 1828
BG: Mineralni Bani (HIEKE & WRASE, 1988: 96). SEE.

Amara (Amara) similata (Gyllenhal, 1810)
BG: Harmanli (HIEKE & WRASE, 1988: 95). TP.
Amara (Bradytus) apricaria (Paykull, 1790)
BG: Zlatograd (HIEKE & WRAE, 1988: 107); new data: Momchilgrad, 300-400 m, 15-18.8.1995, 1 ♂, P. Stoev leg. TP.

Amara (Celia) municipalis bischoffi Jedlička, 1946
BG: Spahievo (= Siipetli), May (JOAKIMOV, 1904: 9). SEC.

Amara (Zezea) reflexicollis reflexicollis Motschulsky, 1844
BG: Harmanli; Knizhovnik (HIEKE & WRAE, 1988: 95). SEC.

Zabrus (Pelor) balcanicus balcanicus Heyden, 1883
BG: Harmanli (DRENSKI et al., 1951: 284); Chemichevo (HIEKE & WRAE, 1988: 111). EB.

Zabrus (Pelor) balcanicus rhodopensis Apfelbeck, 1904
BG: Kardjali (HIEKE & WRAE, 1988: 111). B.

Zabrus (Pelor) orientalis Apfelbeck, 1904
GR: Evros Province, 10 km E from Maronia, 27.9.2000, 1 ♀, Olea forest mixed with Quercus coccifera, B. Petrov, P. Stoev, S. Beshkov leg. WA. Probably orientalis is a distinct species (CASALE & VIGNA TAGLIANTI, 1999: 383).

Zabrus (Pelor) spinipes spinipes (Fabricius, 1798)
BG: Haskovo, May (JOAKIMOV, 1904: 9, sub Pelor blaptoides Creutzer). SEE.

Zabrus (Zabrus) tenebrioides longulus Reiche & Saulcy, 1855
BG: “Rhodopes” (HIEKE & WRAE, 1988: 110); new data: Harmanli, 23.6.1939, 1 ♂, P. Drenski leg. SEE.

Zuphium (Zuphium) olens olens (P. Rossi, 1790)
BG: Mineralni Bani, May (JOAKIMOV, 1904: 7). IMED.

HALIPLIDAE
Haliplus (Neohaliplus) lineaticollis (Marsham, 1802)

DYTISCIDAE
Agabus (Gaulodytes) biguttatus (Olivier, 1795) (= melas Aubé, 1837)
BG: Spahievo (= Siipetli), May (JOAKIMOV, 1904: 11, sub Agabus melas); well 8 km from Ardino, May (GUÉORGUIEV, 1965: 109). WP.

Agabus (Gaulodytes) dilatatus (Brullé, 1832)
Agabus (Gaurodytes) nebulosus (Forster, 1771) (= bipunctatus Fabricius, 1787)
BG: Spahiëvo (= Siipetli), May (JOAKIMOV, 1904: 11, sub Agabus bipunctatus). WP.

Ilybius chalconatus (Panzar, 1796)
BG: Harmanli, Uzundjovska Reka River, April (GUEORGUIEV, 1964: 301, sub Agabus chalconotus sic!). TP.

Ilybius jaechi (Fery & Nilsson, 1993)
GR: Echinos, April, streamlet (FERY & NILSSON, 1993: 94, sub Agabus jaechi). EB. This species was recently described from East Thrace (European Turkey) and later it was found on the other side of Maritsa (= Evros) River - Echinos. Therefore, its occurrence in Bulgaria has not to be surprise.

Copelatus haemorrhoidalis (Fabricius, 1787) (= agilis Fabricius, 1792)
BG: Mineralni Bani, May (JOAKIMOV, 1904: 11, sub Agabus agilis; GUEORGUIEV, 1962: 10). TP.

Cybister (Scaphinectes) lateralimarginalis lateralimarginalis (De Geer, 1774)

Dytiscus (Macrodytes) circumcinctus Ahrens, 1811

Dytiscus (Macrodytes) dimidiatus Bergstrasser, 1778
BG: Biser (GUEORGUIEV, 1960: 448). EWT.

Hydaticus (Guignotites) grammicus (Germar, 1827)
BG: Harmanli, Uzundjovska Reka River, April (GUEORGUIEV, 1964: 302). TP.

Hydaticus (Hydaticus) transversalis transversalis (Pontoppidian, 1763)
BG: Mineralni Bani, May (JOAKIMOV, 1904: 11); Biser, September (GUEORGUIEV, 1964: 302). TP.

Bidessus minutissimus (Germar, 1824)

Hydroglyphus geminus (Fabricius, 1792) (= pusillus Fabricius, 1781)
BG: The species is included in this list because it is one of the most common water beetles in Bulgaria (GUEORGUIEV, 1987, sub Guignotus pusillus). GUEORGUIEV (1964, sub Guignotus pusillus) reported it from “all places visited by me” in the Thracian Lowland and the northern border of the Eastern Rhodopes omitting their enumeration. POR.
Graptodytes flavipes (Olivier, 1795) (= concinnus Stephens, 1835)
BG: Haskovo (GUÉORGUŒV, 1965: 103, sub Graptodytes concinnus). WP. The species is recorded as already cited in the literature for Haskovo. Although the author did not find such records in the earlier papers, the beetle is included in the present list.

Graptodytes sedilloti phrygius Guignot, 1942
GR: Micro Derion, August (FERY, 1994: 397). EBWT. This taxon has never been cited for Bulgaria. Having in mind the immediate proximity of Micro Derion to the Bulgarian border, its discovery in this land is a matter of time.

Hydroporus pubescens Gyllenhal, 1808 (= babelmanni Wehncke, 1876)
BG: Harmanli, Uzundjovska Reka River, April; Biser, April (GUÉORGUŒV, 1964: 298); Podkova, October (GUÉORGUŒV, 1980: 82, sub H. p. babelmanni). EUMED.

Hydroporus tessellatus (Drapiez, 1819)

Nebrioporus (Nebrioporus) suavis (Sharp, 1882)
BG: Nadezhden, July (GUÉORGUŒV, 1964: 300, sub Potamonectes s.); river near Madan, July; Varbitsa River near Momchilgrad, July (GUÉORGUŒV, 1965: 105, sub Potamonectes s.). EMED.

Scarodytes halensis halensis (Fabricius, 1787)
BG: Haskovo, marsh, September; Harmanli, brook at Ulu-Dere Valley, April; Nadezhden, July (GUÉORGUŒV, 1964: 300); Varbitsa River near Momchilgrad, July (GUÉORGUŒV, 1980: 83). WP.

Hygrotus (Hygrotus) inaequalis (Fabricius, 1777)
BG: Biser, April (GUÉORGUŒV, 1964: 299). TP.

Laccophilus hyalinus hyalinus (DeGeer, 1774)
BG: Harmanli, Uzundjovska Reka River, April (GUÉORGUŒV, 1964: 300). TP.

LEIODIDAE
Agathidium (Agathidium) leonhardianum Roubal, 1915

** Anemadus graecus (Kraatz, 1870)
BG: Maarata Cave, 10.10.1995, 1 σ (genitalia examined), B. Petrov & P. Stoev leg., P. M. Giachino det.; Samarskata Peshtera Cave near Ribino, 11.10.1995, P. Stoev & B. Petrov leg., 1 σ (genitalia examined: Fig. 1); the bridge near Meden Buk, 230 m, 6.11.1999, 1 ♀ in Carpinus / Quercus spp. litter, B. Petrov, S. Beshkov & D. Vassilev leg.; place “Ilieva Niva” near Glumovo, 600 m, 6.11.1999, 2 ♂♂ in oak litter, B. Petrov, S. Beshkov & D. Vassilev leg. The species is collected also from the Western Rhodopes: Banyan Cave near Pletena (Satovcha area), 7.6.1999, 1 s., B. Barov & B. Petrov leg., under stone, P. M.
Giachino det.; Hladilnata Peshtera Cave near Lyubino, 500 m, 2.8.1999, B. Petrov & V. Beshkov leg., 5 ♀♂ (one ♂ genitalia examined), 10 ♀♀.

GR: Evros Province, Koufovouno Cave near Koufovouno, 29.9.2000, 2 ♂♂ (genitalia examined), B. Petrov, P. Stoev, S. Beshkov leg. B. Hladilnata Peshtera Cave is the northernmost known locality within the range of the species (cfr. GIACHINO & VAILATI, 1993). This beetle inhabits the endogean and superficial subterranean environment and it is frequently found in caves (op. cit.).

*Catopsimorphus* (*Catopsimorphus*) *orientalis* (Aubé, 1850)

BG: Samarskata Peshtera Cave near Ribino, 11.10.1995, 1 ♂, B. Petrov & P. Stoev leg. SEEWT.

*Nargus* (*Demorchus*) *wilkini* (Spence, 1815)

GR: Evros Province, Leptokaria, beech litter, 740 m, 29.9.2000, 2 ♂♂, B. Petrov, P. Stoev, S. Beshkov leg. SEE.

* Nargus* (*Nargus*) *badius* (Sturm, 1839) s.l.


GR: Evros Province, Leptokaria, beech litter, 740 m, 29.9.2000, 1 ♂, B. Petrov, P. Stoev, S. Beshkov leg. SEEWT. The Bulgarian populations of the species show characters...
of the subspecies *rotundus* Karaman, 1954, a form described from Macedonia and still not recognized by most Cholevinae-taxonomists as a distinct taxon.

**Bureschiana drenskii** V. Guéorguiev, 1963


! **Bureschiana cf. drenskii** V. Guéorguiev, 1963

BG: Zandana Cave near Dolno Cherkovishte, 21.4.1996, 3 ♂♀, B. Petrov & P. Stoev leg.; 8.2.1998, 1 ♀, B. Petrov leg. Now it is difficult to determine, mostly for the lack of male specimens, whether the population from this cave belongs to this species or represents a different form.

**Bureschiana thracica** Giachino, 1989

BG: Vodnata Peshtera Cave near Nedelino, 700 m, 31.7.1999, 21 s. (genitalia of 3 ♀♂ examined), B. Petrov & V. Beshkov leg.; 12.12.2000, 49 s., B. Petrov, S. Beshkov & M. Langourov leg. L. I studied the structure of the median lobe and the shape of the parameres in the male specimens (Figs. 2-3), as well as the keel of the mesosternum (Fig. 4). It can be concluded that the population from the Vodnata Peshtera is not specifically distinct from that of the typical *B. thracica* (cfr. GIACHINO, 1989, Figs. 14-15, 18). Actually, there are small differences in the structure of the internal sac but these are only individual or population variations within the limits of a single species. The type locality of the species is Gerakas, north of Xanthi. As an addition to the description of *thracica*, here are illustrated several characters (Figs. 5-7). The ratios of the separate antennomeres are 2.3 : 2.89 : 0.98 : 0.81 : 1.09 : 1.05 : 1.9 : 1 : 1.48 : 1.4 : 3.85 (Fig. 5). The middle part at the top of female sternum VIII is somewhat sparsely pubescent compared to the sides standing apart from the midline (Fig. 7). According to Dr. P. - M. Giachino (pers. comm.) the population around Nedelino could belong to a separate subspecies, but this will be confirmed by future studies.

**Maroniella beroni** Casale & Giachino, 1985

GR: Evros Province: Maronia Cave near Maronia (CASALE & GIACHINO, 1985: 228); new data: same cave, 26.9.2000, 8 s., B. Petrov, P. Stoev, S. Beshkov leg. L.

**SILPHIDAE**

*Ablattaria laevigata* (Fabricius, 1775) (*= laevigata gibba* Brullé, 1832)

BG: Ivaylovgrad, April (ANGELOV, 1965: 133 sub *Ablattaria laevigata gibba*). SEEWT.

**Dendroxena quadrimaculata** (Scopoli, 1772)

**Necrodes littoralis** (Linnaeus, 1758)
BG: Belite Brezi Hut, May (GUÈORGUEV & RŮŽIČKA, 2002: 95). TP.

**Silpha carinata** Herbst, 1783
BG: Mineralni Bani, May (JOAKIMOV, 1904: 13). WP.

**Silpha obscura orientalis** Brullé, 1832
BG: Haskovo, May (JOAKIMOV, 1904: 13 sub *S. obscura* L.); Madan; Harmanli (ANGELOV, 1965: 133 sub *S. obscura* L.); Haskovo; Harmanli, May (GUÈORGUEV & RŮŽIČKA, 2002: 99). SEEWT.

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**Fig. 2-7. Bureschiana thracia** Giachino, Vodnata Peshtera Cave near Nedelino. Figure 2: median lobe, dorsal aspect. Figure 3: median lobe, lateral aspect. Figure 4: keel of mesosternum, $\sigma'$. Figure 5: right antennomere, $\varphi$. Figure 6: pronotum, $\sigma'$. Figure 7: sternum VIII, $\varphi$. Scale line = 0.2 mm (Figs. 2-3, 5, 7); = 0.3 mm (Fig. 4); = 0.5 mm (Fig. 6).
**Thanatophilus rugosus** (Linnaeus, 1758)
BG: Mineralni Bani (JOAKIMOV, 1904:13); Harmanliyska Reka (Ulu-Dere) Valley near Harmanli, May (PAPAZOV, 1934: 191); Ivaylovgrad, April (ANGELOV, 1965: 132); Perperek, June (GUÉORGUIEV & RŮŽIČKA, 2002: 102). TP.

**Nicrophorus interruptus** Stephens, 1830 (=fossor Erichson, 1837)
BG: Haskovo, July (NEDELKOV, 1905: 437 sub Nicrophorus fossor). WP.

**Nicrophorus vestigator** Herschel, 1807
BG: Mineralni Bani, May (JOAKIMOV, 1904: 12); Leshnikovo, June; Biser, June; Harmanli, June (GUÉORGUIEV & RŮŽIČKA, 2002: 107). WP.

**HELOPHORIDAE**

*Helophorus (Meghelophorus) aquaticus* (Linnaeus, 1758) (=grandis Illiger, 1798)
BG: Spahievo (= Siipetli), May (JOAKIMOV, 1904: 12); Haskovo area, May (JOAKIMOV, 1904: 12 sub Helophorus grandis).

*Helophorus (Helophorus) granularis* (Linnaeus, 1761)
BG: Haskovo area, May (JOAKIMOV, 1904: 12).

§ *Helophorus (Helophorus) obscurus* Mulsant, 1844
BG: Haskovo, May (JOAKIMOV, 1904: 12). According to Lohse (In: FREUDE et al., 1971) the determination of *obscurus* is impossible without studying the male genitalia. So the record of Joakimov remains doubtful.

**Faunal results**

The list includes 199 species and subspecies from six families (Carabidae, Haliplidae, Dytiscidae, Leiodidae, Silphidae, and Helophoridae) ascertained for the Eastern Rhodopes. Out of this number, four beetles are determined to species or to species group. They will be subject to future papers or later studies, as two of them undoubtedly represent new species. So far 192 beetles altogether, 182 from Bulgaria and 25 from Greece, are known with exact localities, most of them already published. The genera *Cychrus, Duvalius, Stenolophus, Dromius, Philorhizus, Anemadus, Catopsimorphus, Nargus, Necrodes*, and 31 species and subspecies are new to the Bulgarian part of the mountain. *Dromius angustus, Anemadus graecus* and *Bureschiana thracica* are new species to the fauna of Bulgaria. New localities for another 27 yet cited for the Eastern Rhodopes species are added. Another 7 beetles published incorrectly or whose occurrence in the region seems impossible, are properly marked in the list. For the Greek part 25 species are listed, 11 cited previously, and 19 with new localities.

The 174 adephagous taxa from the Bulgarian Eastern Rhodopes represent more than 19 percent of these known from the country. This figure is lower in respect to the dimensions of the region and the habitat diversity, which it suggests. The approximate number of species of the suborder within this territory amounts to about 1/3 of those known from Bulgaria.
Chorotypes of carabids beetles from the Eastern Rhodopes

The zoogeographical conclusions are made on the basis of the chorotypes of 152 ground beetles. Most numerous, over half of the regional fauna, are the species more or less widely distributed in the Western Palaearctic Region. Usually they do not cross over the line Johanson (Yenisei River - Angara River - Baikal Lake). These species are divided into two main complexes (Table 1) - Westcentralpalaearctic (28.95 % from all taxa) and European (25.66%). Most of the species from the first complex are distributed in the western part of the Circumboreal Region, part of the Turanian Superprovince (section of the Saharian-Gobian Subregion) and the proper Mediterranean Subregion (the last two subregions being shares of the Ancient Mediterranean Region, sensu KRYZHANOVSkiJ, 1983). The ground beetles from the European complex live chiefly in the western part of the Circumboreal Region. There are no representatives of this complex, which inhabits the Turanian Superprovince, but some of these species are distributed in the Mediterranean Subregion. Examples of the typical European species are *Nebria brevicollis*, *Notiophilus rufipes*, *Carabus granulatus*, and *C. intricatus*. Typical Southesturopean examples are *Carabus montivagus montivagus* and *Amara saphyrea*. Both the Mediterranean and the Balkan complexes include 17.76 % and 13.82 % of the local fauna, respectively. In the first group two thirds are the species with European-Mediterranean (*Elaphropus diabrachys*, *Harpalus attenuatus*, *Cymindis humeralis*) and Eastmediterranean (*Trechus crucifer*, *Bembidion astaneipenne*, *Dixus obscurus*) ranges. In the second group the most numerous chorotype is the Balkan endemic (*Carabus violaceus azurescens*, *Trechus irenis*, *Zabrus balcanicus rhodopensis*) and subendemics (*Carabus scabriusculus bulgarus*, *Laemostenus cimmerius*, *Myas chalybaeus*). Presumably the species from the Balkan complex are autochthonous in relation to the territory of the Peninsula. The ground beetles with Balkan, and those with Westpontian, Eastmediterranean, Southeasteuropean, Southeasteuropean-Westturanian, Westanatolian, and Anatolian ranges, could be gathered in a common group. The thing in common between them is the postglacial dispersal from the Pontian-Mediterranean glacial refuge (BĂNĂRESCU & BOȘCAIU, 1978) to the territories, which they inhabit today. Probably few other species out of the enumerated above categories, with a wider distribution (for example European-Mediterranean one), could also be included in this group. The carabids distributed more widely in the Palaearctic or predominantly occurring in its northern parts e.g. the species from the Palaearctic (*Calosoma sycophanta*, *Amara aenea*, *Harpalus affinis*) and European-Siberian (*Agonum viduum*, *Pterostichus nigrita*) complexes, are scanty in the Eastern Rhodopes. All of them amount to 12.5 percent of the species there. I think that the cool-steady and xerophilous species of the Westcentralpalaearctic complex replace to a great extend those with Transpalaearctic and European-Siberian ranges (contrary to the situation within the close but more elevated Western Rhodopes comprising higher share of species from both latters groups). Such a structure of chorological elements seems is characteristic for a low elevated region situated in the transitional area between the Boreal and Mediterranean climatic zones (GRUEV & KUZMANOV, 1994). The Palaearctic-Palaeotropical complex includes species from tribes Dryptini and Zuphiini not represented in the other complexes. Those species are plastic tropical forms (*Drypta dentata*, *Zuphium olens*) conquered part of the Palaearctic territory.
Table 1
Zoogeographical structure of the Eastern Rhodopean ground beetles in respect to their recent ranges

<table>
<thead>
<tr>
<th>Complexes</th>
<th>Categories</th>
<th>Number of species</th>
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<tr>
<td>I. Palaearctic-Palaeotropical</td>
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</tr>
<tr>
<td>II. Transpalaearctic</td>
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<tr>
<td>III. Northpalaearctic</td>
<td>European-Siberian</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>IV. Westcentralpalaearctic</td>
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<td>44</td>
</tr>
<tr>
<td></td>
<td>European-Centralasian</td>
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<td>Westanatolian</td>
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</tr>
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<td>V. European</td>
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<td>Westpontian</td>
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</tr>
<tr>
<td></td>
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<td>VII. Balkan</td>
<td>Balkan subendemic</td>
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<td></td>
<td>Aegean endemic</td>
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<td></td>
<td>Eastbalkan-Northwestanatolian subendemic</td>
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<td></td>
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<td></td>
<td>Eastbalkan endemic</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Eastbalkan endemis</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Rhodopean</td>
<td>1</td>
</tr>
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</table>
The endemic carabids, strictly attached to the territory of the Balkan Peninsula, are 7.24% of all species, or around two times lower than the respective number for Bulgaria. It can be explained as with the insufficient level of study of the group in the Eastern Rhodopes thus with the actual situation. The proportion of the endemic carabids is likely to increase little during further research, but could not reach one tenth of all species there. This situation is probably due to the fact that the territory of the Eastern Rhodopes represent not so powerful center of recent speciation like the Central Balkan Range, the massifs of Rila and Pirin, as well as the adjacent Western Rhodopes. Undoubtedly, however, during the Pleistocene lowering of the temperatures the region was a refuge appropriate for the survival of many warm-adapted species, presently distributed mainly in southern Palaearctics. Nowadays, some of the last species (Cephalota turcica, Calomera fischeri, Carabus scabrosus s.l., Apotomus rufus, Trechus crucifer, Agonum sordidum, Zabrus orientalis, Parophonus dia, Ophonus gabeliae, O. veluchianus, and several endemic taxa) cannot realize expansion of their ranges north of the Balkan Range (= Stara Planina). Evident preglacial relicts are five species, belonging to phyllogenetically (respectively geographically) isolated supraspecific groups. These species are Cephalota turcica (see the comments in the species’ list), Myas chalybaeus, Bureschiana drenskii, B. thracica, and Maroniella beroni. The second taxon is a remnant of the ancient Arctotertiary warm temperate forest-dwelling fauna and belongs to a genus, which is presumably from Euramerican origin (NOONAN, 1986) and whose was probably more widely distributed, at least in Europe, during the Tertiary. At present, another three species from the genus inhabit the southeastern parts of North America. Bearing in mind the relatively large inhabited territory of the genus and the sufficient populations of Myas chalybaeus, the degree of extinction of this relict seems to be the least in comparison to the other four ones. Bureschiana drenskii, B. thracica and Maroniella beroni are local endemic, descendent of the ancient local Mediterranean, e.g. Aegean, fauna. In contrast to the Myas chalybaeus, these originate from a more warm-adapted (subtropical) forest-dwelling phyletic lineage. The three species are more dependent on warmth and humidity than Myas chalybaeus. Proof of that is their present occurrence in underground limestone habitats. Bembidion bipunctatum nivale is the only glacial relict in the local fauna having a boreomountain type of distribution. It could be classified as an evident boreal (taiga) element. The spot near Momchilgrad is its lowest known locality in Bulgaria and is a surprise for the author. Probably the stenotopy of this taxon in respect of the typical boreal conditions is lesser than in other Bulgarian glacial relicts (like Nebia rufescens rufescens Sturm, 1768). Laemostenus plasoni plasoni and Zabrus balcanicus balcanicus are Bulgarian endemics; the former species is also endemic for the Rilo-Rhodopean Massif.

Beetles of conservation importance

The conservation importance of the separate species is various. A species, which requires a higher than a national degree of protection is Carabus scabrosus scabrosus. The species is protected by the rather outdated national “Law on Nature Protection”, but its populations are gradually decreasing all around Bulgaria. Calosoma sycophanta is included in both conventions - ESC (Red list of vulnerable animals and plants in Europe) and
CORINE (List of the protected invertebrates under the Project for protection of the habitats). The species, included in the lists of IUCN, are absent. All species listed in Table 2 represent beetles of conservation importance. As species of a world or at least European conservation importance could be noted *Cephalota turcica*, *Platynus scrobiculatus purkynei*, *Bureschiana drenskii*, and *B. thracica*. The populations of all of those species are sparse or of limited location. Significant parts of the European population of the second and the entire populations of latter two beetles are concentrated in the Eastern Rhodopes. *Platynus scrobiculatus purkynei* is subendemic with a disjunctive range, as its greatest known population is in the Rhodopes. The populations of *Apotomus rufus*, *Poecilus cursorius cursorius* and four water beetles are inadequately studied in Bulgaria so they are classified as rare species (Table 2). In relation to *Cephalota turcica* and *Apotomus rufus*, the region is a border territory in terms of their ranges. Also, the northernmost known population of *Zabrus orientalis* and

**Table 2**

**Beetles of conservation importance in the Eastern Rhodopes**

<table>
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<tr>
<th>Taxa</th>
<th>Cor</th>
<th>Esc</th>
<th>Pro</th>
<th>Loc</th>
<th>Eba</th>
<th>Bal</th>
<th>Rel</th>
<th>Rar</th>
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<td>Cicindela monticola albanica</td>
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<td>Calosoma inquisitor inquisitor</td>
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<td>Carabus scabrosus scabrosus</td>
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</table>

**Abbreviations:** Cor - CORINE; Esc - ESC; Pro - Protected in Bulgaria; Loc - Local endemic; Eba - Eastbalkan endemic; Bal - Balkan endemic; Rel - Relict species; Rar - Rare species in Bulgaria
one of the northernmost colonies of *Acinopus subquadratus* (if this lives actually in Bulgaria) are also settled in the mountain.

In view of the lack of a purposeful field research on Coleoptera in the Eastern Rhodopes, for the time being it is speculative to fix the places of conservation importance.

**Conclusion**

As a whole, the known faunistic information from the Eastern Rhodopes is of casual character. Regarding the species composition of some family-group taxa in Bulgaria, as well as the two parts of the Bulgarian Rhodopes (Table 3), the beetles in the studied region could be classified as poorly investigated. More explored are the territories along the line Spahiëvo - Haskovo - Harmanli (e.g. the Haskovska River Valley), along the Arda River Valley from Kardjali to Ivaylovgrad, and the region around Momchilgrad. The necessity of comprehensive faunistic investigations and monitoring of some species of conservation importance are recommended.

**Table 3**

**Species and subspecies number (in brackets supposed number) of the adephagous and some staphyliniform family-group taxa in Bulgaria and in the Bulgarian part of the Western and Eastern Rhodopes**

<table>
<thead>
<tr>
<th>Families and subfamilies</th>
<th>Bulgaria</th>
<th>Western Rhodopes</th>
<th>Eastern Rhodopes</th>
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</thead>
<tbody>
<tr>
<td>Carabidae</td>
<td>766 (778-784)</td>
<td>247 (ca. 290)</td>
<td>152 (ca. 250)</td>
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<td>Haliplidae</td>
<td>14 (20-21)</td>
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<td>1 (9-10)</td>
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<td>Hygrobiidae</td>
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<td>Noteridae</td>
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<td>Dytiscidae</td>
<td>114 (128-131)</td>
<td>34 (56-59)</td>
<td>21 (46-48)</td>
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<td>Gyrinidae</td>
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<td>4 (5-6)</td>
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<td>Agrytidae</td>
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<td>0 (1)</td>
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<td>Leiodidae</td>
<td>88 (174-182)</td>
<td>11 (68-73)</td>
<td>8 (58-64)</td>
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<td>Hydraenidae</td>
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<td>0 (21-23)</td>
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<td>Scaphidiinae (Staphylinidae)</td>
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<td>8 (12-13)</td>
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<tr>
<td>Spercheidae</td>
<td>1 (1)</td>
<td>0 (1)</td>
<td>0 (1)</td>
</tr>
<tr>
<td>Hydrochidae</td>
<td>4 (5-6)</td>
<td>0 (3-4)</td>
<td>0 (3-4)</td>
</tr>
<tr>
<td>Helophoridae</td>
<td>15 (ca. 30)</td>
<td>1 (13-15)</td>
<td>2 (12-13)</td>
</tr>
<tr>
<td>Hydrophilidae</td>
<td>54 (ca. 70)</td>
<td>2 (30-32)</td>
<td>0 (27-29)</td>
</tr>
<tr>
<td>Georissidae</td>
<td>2 (3-4)</td>
<td>0 (2-3)</td>
<td>0 (2-3)</td>
</tr>
</tbody>
</table>

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Адефагни и някои стафилиниформни бръмбари (Insecta: Coleoptera) в Източните Родопи (България и Гърция)

Борислав ГЕОРГИЕВ

(Рецензия)

В изследването се разглеждат 199 вида и подвида бръмбари от семейства Carabidae, Haliplidae, Dytiscidae, Leiodidae, Silphidae и Helophoridae. Общо 192 вида, 182 от българската и 25 от гръцката част на планината са познати с конкретни находки. Родовете Cychrus, Duvalius, Stenolophus, Dromius, Philorhizus, Anemadus, Catopsimorphus, Nargus, Necrodes и 31 таксон от видовата група са нови за българската част на Източните Родопи. Нови за фауната на България са видовете Dromius angustus.
(Carabidae), Anemadus graeus и Bureschiana thracica (Leiodidae). Нови находки са добавени за други 27 вида и подвида вече познати от Източните Родопи. Седем таксона, публикувани неправилно за района, са изключени от регионалната фауна. За гръцката част на планината са съобщени 25 вида и подвида, като 11 от тях са идентифицирани по литературни данни, а 19 - с нови находки. Освен това 4 бръмbara са определени до sp. или до група видове, като 2 от тях несъмнено представляват нови видове за науката. Допълнено е морфологичното описание на Bureschiana thracica. Въз основа на съвременните ареални данни от Carabidae е разгледано разпределението на основните хороскопи в местната фауна. Определени са 31 вида твърдокрилни насекоми, представляващи интерес в консервационно отношение.