

## Adephagous beetles (Insecta: Coleoptera: Adephaga) in the Western Rhodopes (Bulgaria and Greece)

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Guéorguiev B., J. M. Lobo. 2006. Adephagous beetles (Insecta: Coleoptera: Adephaga) in the Western Rhodopes (Bulgaria and Greece). - In: Beron P. (ed). Biodiversity of Bulgaria. 3. Biodiversity of Western Rhodopes (Bulgaria and Greece) I. Pensoft & Nat. Mus. Natur. Hist., Sofia, 283-346.

**Abstract.** The study reports 362 species from the Bulgarian and Greek parts of the Western Rhodopes. Three categories have been outlined with the aim to display the various levels of reliability with regard to the species occurrence in the region.

The first category counts 343 species reported with exact records. They are distributed in five families - Carabidae (297), Gyrinidae (4), Haliplidae (5), Noteridae (1) and Dytiscidae (36). Fifty-six (56) species are reported for the first time for the studied region, including two unknown for the science species. One of the two new taxa, e.g. *Duvalius (Paraduvalius) nedelkovi* sp. n. (type locality: Prikazna Cave near Dryanovo Village, Radyuva Planina Mt., Laki District, Bulgarian Western Rhodopes), is described here. Altogether, 337 species are cited from the Bulgarian section of the region, 51 of them reported for the first time and another 153 for which we include new faunistic data. Eleven carabid genera are also new for this mountainous region. *Asaphidion rossii* is confirmed for the fauna of Bulgaria. The occurrence of 16 taxa in Bulgaria, which were omitted for the country in the recent Catalogue of the Palaearctic Coleoptera, is confirmed. Other 4 species (*Carabus nemoralis*, *Bembidion glaciale*, *Harpalus luteicornis* and *Harpalus modestus*) which were also omitted for Bulgaria in the Catalogue still remain problematic and are included in the list with reservations. Twenty-one species from the Greek Western Rhodopes are cited, 18 of them are new for the area, and 5 species are reported from the Western Rhodopes for the first time. *Tapinopterus balcanicus* s. str. is recorded for the first time, whereas *Agonum viridicupreum* is confirmed for the fauna of Greece.

The second category includes 10 species cited for Bulgaria only in reference to the Rhodopes, so the occurrence of these taxa in the investigated area remains pending. Based on taxonomic or geographical misidentifications, the third category counts 9 species cited from the Bulgarian section in the past. Here their deletion from the regional list is discussed. *Tachyura sexstriata* is excluded also from the list of the Bulgarian fauna.

The examination of type or topotypical material of taxa populating the Western Rhodopes ascertained the next synonymy:

*Bembidion (Peryphus) subcostatum javurkovae* Fassati, 1944, **syn. n.** of *Bembidion (Peryphus) subcostatum vau* Netolitzky, 1913

*Bembidion (Peryphus) subcostatum spartanum* Fassati, 1944, **syn. n.** of *Bembidion (Peryphus) subcostatum vau* Netolitzky, 1913

*Tapinopterus (Tapinopterus) bartoni* Mařan, 1933, **syn. n.** of *Tapinopterus (Tapinopterus) balcanicus balcanicus* Ganglbauer, 1891

*Tapinopterus (Tapinopterus) kaufmanni kulti* Mařan, 1940, **syn. n.** of *Tapinopterus (Tapinopterus) balcanicus balcanicus* Ganglbauer, 1891

*Xenion ignitum laticolle* Mařan, 1930, **syn. n.** of *Xenion ignitum* (Kraatz, 1875)

Ultimately 33 species of conservation importance are established. Potential distributional maps of 22 non-hypogean carabid species are made.

**Key words:** Coleoptera, Adephaga, Western Rhodopes, Bulgaria, Greece, new data, new species, new synonymy.

## Introduction

Both the Bulgarian and the Greek sides of the Western Rhodopes have an area of around 11,000 square kilometres above the mean altitude of 450-500 meters. This mountainous region enables the coexistence of highly diverse habitats, e.g. forests, meadows, riverside, limestone, sandy, stony, gravel, etc. as well as various types of ecotones. Four main vegetation formations can be observed along an altitudinal gradient: i) xero-mesophillous broad-leaved woodlands and shrubs of Submediterranean type, ii/ mesophillous broad-leaved woodlands of Nemoral type, iii/ mesophillous coniferous forest of Boreal type, and iv/ open high-mountain mesophillous pastures of Alpine type.

Paying special attention to the Carabidae species and following the principal aim of the compiler/s of this volume, a commented catalogue on the species of the suborder Adephaga from the Western Rhodopes has been carried out, including both a list and maps of the species more needy of special conservation strategies.

## Material and methods

The data presented in this paper are based both on literature sources (published between the years of 1904 and 2005) and on new material, mostly came from the Bulgarian part of the region. Most part of the unpublished material, compiled as result of more or less purposive collecting trips accomplished in the last twenty years, concerns the carabid beetles. This material is preserved in the collections of the National Museum of Natural History, Sofia (cited further in the text without mentioning of this depository). The first author determined or revised all the material from this institution as well as some other interesting specimens, including type material, coming from the collections of four European museums (see material and methods) and the private collection of Mr David Wrase (Berlin). Both the Dutchman J. Muilwijk and the Italian E. Migliacchio collected a significant share of the new material, which is preserved in their private collections. If the specimens from the latter collection were identified of one of us (BVG), two eminent European specialists on Carabidae (C. Jeanne and D.W. Wrase) checked up those from the former collection, after personal information of J. Muilwijk. Not many data on Carabidae from the Greek part of the region are cited. The data for water beetles from the Bulgarian Western Rhodopes are taken from the literature, while new records for six dytiscid beetles from the Greek part were obtained thanks to the courtesy of Dr Hans Fery (Berlin). In the text the data on Greece come next to the Bulgarian localities. After the faunal data some comments follow.

All the available distributional information for the selected species was compiled and georeferenced using the Geographic Names Information System (GNIS; see <http://>

/geonames.usgs.gov/). With this presence data for each one of the species a Multi-Dimensional niche Envelope model was performed using the information of four climatic predictor variables: precipitation of April, precipitation of July, minimum mean temperature of January and maximum mean temperature of July. Thus, the general appropriate environmental conditions for the species are established according to the environment present in the observed presence points (see BUSBY, 1986). These analyses were carrying out by means of a Geographical Information System (IDRISI software; CLARK LABS 2003). Climatic variables have been taken of the WORLDCLIM database (version 1.3; see <http://biogeo.berkeley.edu/worldclim/worldclim.htm>).

Abbreviations used in the text: \*\* - taxon new for the science (and for the fauna of Bulgaria); \*\*GR: - taxon new for the fauna of Greece; \* - species new for fauna of the Western Rhodopes; § - species incorrectly cited for the region and consequently excluded from the list; ? - species referred with reservation for the list; [ ] - species cited only with locality "Rhodopes"; AS - A. Slivov leg.; BO - B. Guéorguiev leg.; BP - B. Petrov leg.; BU - Bulgarian part of the Western Rhodopes; BZ - B. Zacharieva leg.; DB - D. Bocharov leg.; DC - D. Chobanov leg.; DD - D. Delchev leg.; DI - D. Iltcheff leg.; DJ - D. Joakimov leg.; DR - D. Rajchev leg.; EM - E. Migliacchio leg.; f. - female/s; GP - G. Peshev leg.; GR - Greek part of the Western Rhodopes; HB - H. Bußler leg.; IB - I. Buresch leg.; IK - I. Krasteva leg.; IV - I. Vassilev leg.; IZ - I. Zonkow leg.; JG - J. Ganey leg.; JM - J. Muilwijk leg.; JO - J. Mařan leg.; JU - J. Milde leg.; LP - L. Penev leg.; m. - male/s; MA - E. Manasieva leg.; MJ - M. Josifov leg.; NR - N. Radev leg.; NS - N. Stojanow leg.; PB - P. Beron leg.; PD - P. Drenski leg.; PM - P. Mitov leg.; PS - P. Stoev leg.; RB - R. Bekchiev leg.; s. - specimen/s; SC - H. Schmalfluss leg.; TI - T. Ivanova leg.; UR - J. Urumow leg.; VG - V. Guéorguiev leg.; VI - V. Iliev leg.; VS - V. Sakalian leg.; cHF - private collection H. Fery leg.; cWR - private collection D.W. Wrase; DEI - Deutsches Entomologisches Institut, Deutschen Akademie der Landwirtschaftswissenschaften zu Berlin, Müncheberg; MNM - Magyar Termeszettudományi Múzeum Allattara (Hungarian Natural History Museum), Budapest; NMNHS - National Museum of Natural History, Sofia; NMW - collection Naturhistorisches Museum Wien; ZMHU - Museum für Naturkunde der Humboldt Universität zu Berlin, Bereich Zoologisches Museum, Berlin.

## Systematic part

### Carabidae

#### *Leistus (Leistus) ferrugineus* (Linnaeus, 1758)

BG: Rhodopes by Plovdiv (APFELBECK, 1904: 51); new data: Batashko Blato Marsh, 11.VIII.1925, 1 s., PD; Trigrad, VII.1997, JM.

#### \* *Leistus (Pogonophorus) magnicollis* Motschulsky, 1866

BG: Shiroka Laka, 27.VI.1924, 1 f., PD.

#### [*Leistus (Pogonophorus) parvicollis* Chaudoir, 1869]

BG: "Rhodopes" (APFELBECK, 1904: 50). Forest living species, which is known only with three records in Bulgaria. It is likely to populate the region.

***Leistus (Pogonophorus) rufomarginatus* (Duftschmid, 1812)**

BG: Bachkovo (GUÉORGUIEV, 1992: 62).

***Leistus (Pogonophorus) spinibarbis rufipes* Chaudoir, 1843**

BG: Bachkovski Monastery, V (JOAKIMOV, 1904: 6); Bachkovo (RAMBOUSEK, 1912: 67).

**§ *Nebria (Alpaeus) hybrida rhodopensis* Horvatovich, 1973**

BG: "Rhodope" (type locality of ssp. *rhodopensis*; HORVATOVICH, 1973: 280). In the past the eastern part of Rila Mt. was treated as part of the Rhodopes. HIEKE & WRASE (1998: 23, sub *N. germari hybrida* Rottenberg, 1874) reasonably suggested that the data on the Rhodopes pertains to Rila. GUÉORGUIEV & GUÉORGUIEV (1995a: 56-57) indicated the taxon as belonging to the Rhodopes without adequate consideration. Presently, based on the revised material (DEI; NMW), the first author concluded that the type series collected by M. Hilf in the locality "Rhodope", actually refers to Rila Mt.

**\* *Nebria (Alpaeus) rhilensis* J. Frivaldszky, 1879**

BG: "Bulgarien Rodopen Batak 3.VIII.87 leg. Arndt", 3 s. (ZMHU); "Bulgaria, Rodopi mts Černatica-Goljam Persenk: 1400-1900 m 1996-06-24 Libor Klíma lgt.", 4 s. (cWR); along a stream below Perelik Mount, 1950-2000 m, 23.V.2004, 2 m., 1 f., under stones in snow-drift, BG; along a stream below Perelik Mount, 1950-2000 m, 17.VII.2005, 3 f., BO. This high mountain species was known until now only from the subalpine and alpine belts of the massifs of Rila and Pirin. The recent species findings from the massifs of Batashki Snezhnik, Persenk and Perelik are a surprise, for its occurrence in the Syutka Massif is also presumed.

[***Nebria (Eunebria) jockischi jockischi* Sturm, 1815 [= *nigricornis* A. Villa & G.B. Villa, 1833]]**

BG: "Rhodopes" (HORION, 1941: 76; BÄNNINGER, 1949: 128, sub *N. nigricornis*). The exact locality of this glacial relict is obscure. Only the future collections will give answer to the question whether it lives in the Western Rhodopes.

***Nebria (Nebria) brevicollis* (Fabricius, 1792)**

BG: Rozhen; Ruen (HIEKE & WRASE, 1988: 22); new data: Bachkovo, 3 s., JO; Bachkovski Monastery, 30.V.1976, 1 s., JG.

**\* *Notiophilus aestuans* Dejean, 1826**

BG: near Chairski Ezera Lakes, 1400 m, 30.XI.1993, 1 s., BP.

***Notiophilus aquaticus* (Linnaeus, 1758)**

BG: Momchil Yunak Hut (HIEKE & WRASE, 1988: 24); new data: Jundola, 1850 m, 11.VIII.1939, 1 s., PD.

***Notiophilus biguttatus* (Fabricius, 1779)**

BG: Batak; Batashki Snezhnik Peak, 1800 m; Churen, 1800 m; Pamporovo, 1600 m (HIEKE & WRASE, 1988: 25); new data: Chatalka Peak, 2.X.1991, 2 s., DR; Rozhen,

14.VI.1992, 2 s., DR; Samurski Dol, 29.VI.1992, 2 s., DR; Izgrev Hut - Laki, 6.VIII.1996, JM; Bachkovo, VII.1997, JM.; Kanina River near Kovachevitsa, 940 m, 1.VIII.2001, 2 s., BG; Dospat Dam at Sarnitsa, 1200 m, 26.VI.2002, 11 s., EM; Arda, 31.V.2005, 1 s., shifting litter, RB; in front of Lednitsata cave near Gela, 1620 m, 19.IX.2005, 1 s., spruce litter-moss, BP.

*Notiophilus germinyi* Fauvel, 1863 [= *hypocrita* Putzeys, 1866 nec Curtis, 1829]

BG: Batak (HIEKE & WRASE, 1988: 24, sub *N. hypocrita* Putzeys); Chepelare, 1100 m, VIII (VASSILEV & NECHEVA, 1989: 50, sub *N. hypocrita* Putzeys).

*Notiophilus palustris* (Duftschmid, 1812)

BG: Pamporovo (HIEKE & WRASE, 1988: 24).

*Notiophilus rufipes* Curtis, 1829

BG: Alabak, VI (JOAKIMOV, 1904: 6); new data: Kanina River near Kovachevitsa, 940 m, 1.VIII.2001, 1 s., BG; along a stream below Perelik Mount, 1950-2000 m, 23.V.2004, 1 s., under stones in snowdrift, BG; Gorno Fatovo, 1123 m, 28.V.2005, 1 s., shifting litter, RB.

*Notiophilus substriatus* C.R. Waterhouse, 1833

BG: Rozhen (HIEKE & WRASE, 1988: 25).

*Loricera (Loricera) pilicornis pilicornis* (Fabricius, 1775)

BG: Devin, 700 m, VIII (VASSILEV, 1988a: 85).

*Calomera fischeri fischeri* (M.F. Adams, 1817)

BG: Batak, IV; Hrabrino (= Sotir) (GANEV, 1984: 124, sub *Cicindela fischeri*); new data: between Peshtera and Batak, 25.IV.1949, 1 s.

*Cicindela (Cicindela) campestris* Linnaeus, 1758 s. 1.

BG: Karlak (= Golyam Snezhnik) Peak, 2000 m (APFELBECK, 1904: 6); Syutka Peak; Dospat, VIII; Trigrad; Gjovren, VI; Batak; Velingrad, VI; Rhodopes - Belovo, IV; Peshtera; Bachkovo; Hvojna; Krichimska kurja, V; Rhodopes - Belovo, IV (KANTARDJIEVA, 1928: 106, sub *C. campestris* var. *palustris*); Chepelare; Zdravets; Bezovo Hut; Gonda Voda Hut; to 1300 m; IV-VIII (ANGELOV, 1965: 130); Rozhen; Zdravets Hut; Momchil Yunak Hut; Pamporovo (HIEKE & WRASE, 1988: 10); new data: Bachkovski Monastery, 9.VII.1965, 1 m., 1 f., DB; Persenk Peak, 2000 m, 10.V.1975, 3 s.; Ognyanovo, 28.IV.1987, 2 s., VS; Trigrad, VII.1997, JM; Pamporovo, 1500 m, 23.VII.2001, 2 s., EM. KRYZHANOVSKIJ et al. (1995: 26) stated that *C. campestris palustris* Motschulsky, 1840 is a synonym of *C. campestris pontica* Fischer von Waldheim, 1825, while PUCHKOV & MATALIN (2003) considered it valid subspecies, which does not live in Bulgaria. Here the species is regarded in a wider sense.

*Cicindela (Cicindela) hybrida hybrida* Linnaeus, 1758

BG: Hrabrino (= Sotir) (APFELBECK, 1904: 5); Hrabrino, VI (ANGELOV, 1964: 308); Smolyan; Asenovgrad (ANGELOV, 1965: 130); Rozhen; Bachkovski Monastery (HIEKE &

WRASE, 1988: 10); Bachkovo, VI-VII; Bachkovski Monastery, VII; Krichim; Asenovgrad, VII (GEBERT, 1995: 16, sub *C. sablbergi albanica*); new data: Dospat, 2.VII.1961, 1 s., GP; Persenk, 7.VIII.1974, 1 s. / 10.V.1975, 6 s. / 14.VII.1975, 1 s.; Orpheus Hut, 9-12.V.1979, 3 s., AS; Izgrev Hut - Laki, 6.VIII.1996, JM. GEBERT (op. cit.) recorded *C. monticola albanica* Apfelbeck, 1909 for Bulgaria and ignored the presence of *C. hybrida* in the country. Contrary, PUCHKOV & MATALIN (2003) expressed opposite opinion.

***Cicindela (Cicindela) sylvicola* Dejean, 1822**

BG: Rhodopes - Belovo (KANTARDJIEVA, 1928: 99); Pamporovo, 1750 m; Chepelare, 1200 m, VIII; Dorkovo, VII (GANEV, 1984: 124).

***Cicindela (Cicindela) transversalis transversalis* Dejean, 1822 [= *riparia* Dejean, 1822]**

BG: Velingrad; Batak, V; Bachkovski Monastery, V; Dospat, VIII (KANTARDJIEVA, 1928: 102, sub *C. hybrida* var. *riparia*).

***Cylindera (Cylindera) germanica germanica* (Linnaeus, 1758)**

BG: Batak (HIEKE & WRASE, 1988: 10, sub *Cicindela germanica*).

***Cylindera (Eugrapha) arenaria viennensis* (Schrank, 1781)**

BG: Bachkovski Monastery, V (JOAKIMOV, 1904: 5, sub *Cicindela litterata*). *Cylindera litterata* (Sulzer, 1776) is a synonym of *C. arenaria arenaria* Füssly, 1775, the latter being a subspecies with West European type of distribution.

***Calosoma (Acalosoma) inquisitor inquisitor* (Linnaeus, 1758)**

BG: Karlak, 2100 m (= Golyam Snezhnik) Peak (APFELBECK, 1904: 15); Asenovgrad, V (BURESCH & KANTARDJIEVA, 1928: 63); Hrabrino, V; Bryanovishtitsa Hut, 930 m, V (ANGELOV, 1965: 131); along Chepinska River and Alabak (JONKOVA, 1989: 27). A protected species in Bulgaria.

***Calosoma (Calosoma) sycophanta* (Linnaeus, 1758)**

BG: Asenovgrad (APFELBECK, 1904: 16); Krichimska Kuriya, V; Rhodopes - Belovo; Asenovgrad, IV (BURESCH & KANTARDJIEVA, 1928: 64); Bryanovishtitsa Hut, 930 m, V (ANGELOV, 1965: 131); Pamporovo (HIEKE & WRASE, 1988: 12); along Chepinska River and Alabak (JONKOVA, 1989: 27). This species is included in the lists of IUCN (until 2000), ESC, and CORINE and is also a protected species in Bulgaria.

***Carabus (Archicarabus) montivagus montivagus* Palliardi, 1825**

BG: Rhodopes - Belovo, IV (BURESCH & KANTARDJIEVA, 1928: 98); Chehljovo (KANTARDJIEVA - MINKOVA, 1934: 220); Zdravets Hut, V (ANGELOV, 1965: 132); Velingrad; Pamporovo, 1500 m (HIEKE & WRASE, 1988:18); new data: Devin, 10.VI.1976, 1 f., JG; Batak Dam, 11-16.VIII.1990, 1 s. in traps (ecotone forest / meadow habitat), MA.

**? *Carabus (Archicarabus) nemoralis nemoralis* O. F. Müller, 1764**

BG: Bachkovo, VII (GUÉORGUIEV, 1989: 82). BOUSQUET et al. (2003: 130) omitted this species for Bulgaria. However, we cannot accept such an elimination (see

also GUÉORGUIEV & GUÉORGUIEV, 1995a: 45) based on the fact that the funds of NMNHS preserve the material previously cited for Bulgaria.

***Carabus (Archicarabus) wiedemanni wiedemanni* Ménériés, 1836**

BG: Persenk Mine, VIII (GUÉORGUIEV, 1989: 83).

***Carabus (Chaetocarabus) intricatus intricatus* Linnaeus, 1761 [= *starensis* Born, 1918]**

BG: Rhodopes - Belovo station; Perushtitsa, VIII (BURESCH & KANTARDJIEVA, 1928: 85, sub *C. intricatus starensis*); Bratsigovo; Zdravets Hut, 1180 m; Bryanovishtitsa Hut, 930 m; Narechen; IV-V; VII (ANGELOV, 1965: 131, sub *C. intricatus starensis*); Bachkovo (HIEKE & WRASE, 1988: 16); new data: 4 km S of Batak, 1100-1300 m, 14.IV.2005, 1 m., 1 f., under stump in mixed *Fagus/Pinus* forest, PS. Species in the lists of IUCN, ESC and CORINE.

***Carabus (Megodontus) violaceus azureus* Dejean, 1826 [= *rilvensis* H. Kolbe, 1887; *balcanicus* Lapouge, 1901]**

BG: Karlak (= Golyam Snezhnik) Peak, 2000 m, VI (APFELBECK, 1904: 28, sub *C. violaceus rilvensis*; BURESCH & KANTARDJIEVA, 1928: 83, sub *C. violaceus balcanicus*); Alabak (JOAKIMOV, 1904: 6); Batak, 1400 m (BURESCH & KANTARDJIEVA, 1928: 83, sub *C. violaceus balcanicus*; HIEKE & WRASE, 1988: 15); Rhodopes - Belovo; Beglika, 1400 m, VI; Devin, VI; Bachkovo, VIII (BURESCH & KANTARDJIEVA, 1928: 83, sub *C. violaceus balcanicus*); Zdravets Hut, 1200 m, V; Erkyupriya Hut, 1400 m; Prespa Hut, 1800 m (ANGELOV, 1965: 131, sub *C. violaceus balcanicus*); Batashki Snezhnik Peak, 1800 m; Velingrad; Modar Hut; Pamporovo, 1500 m (HIEKE & WRASE, 1988: 15); Rozhen, IX (GUÉORGUIEV & MUIJWIJK, 2001: 112); new data: Dospat, 30.VIII.1980, 1 m., 2 f., IV; Orpheus Hut, 1200 m, 10.X.1981, 1 f., LP; Rhozen, 8-9.IX.1992, 3 s., BG; Izgrev Hut - Laki, 6.VIII.1996, JM; Bachkovo, VII.1997, JM; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM. Here *C. violaceus rilvensis* is regarded a variation of *C. violaceus azureus*, and not as distinct subspecies.

***Carabus (Oreocarabus) hortensis hortensis* Linnaeus, 1758 [= *rhodopensis* Apfelbeck, 1904]**

BG: Pepelasha River (APFELBECK, 1904: 41, sub *C. hortensis rhodopensis*); Alabak, VI (JOAKIMOV, 1904: 6); Chepelare, VI (NEDELKOV, 1909: 6; BURESCH & KANTARDJIEVA, 1928: 103, sub *C. hortensis rhodopensis*; BREUNING, 1928: 116; HIEKE & WRASE, 1988: 20); Rhodopes - Belovo; Byala Cherkva, VIII; Dospat, VIII (BURESCH & KANTARDJIEVA, 1928: 103, sub *C. hortensis rhodopensis*); Pepelasha River (BREUNING, 1828: 116); Pamporovo (HIEKE & WRASE, 1988: 20); new data: Dospat, 2.VII.1961, 2 s., JO; Pamporovo, VIII.1992, 1 s., DR; Sarnitsa, 24.VII.1997, JM; Dupcheto Cave near Velingrad, 9.VIII.1997, 1 s., BP.

***Carabus (Pachystus) cavernosus cavernosus* I. Frivaldszky von Frivald, 1838**

BG: Hvojna (RAMBOUSEK, 1912: 64).

***Carabus (Procerus) gigas gigas* Creutzer, 1799**

BG: Velingrad, VI-VII (ANGELOV, 1965: 131, sub *Procerus gigas*; BURESCH & KANTARDJIEVA, 1928: 66, sub *Procerus gigas*); Rhodopes - Belovo (BURESCH & KANTARDJIEVA, 1928: 66, sub *Procerus gigas*; BREUNING, 1928: 108); Alabak, VII; Peshtera, VI (BURESCH & KANTARDJIEVA, 1928: 66, sub *Procerus gigas*); Batak; Pamporovo (HIEKE & WRASE, 1988: 13); along Chepinska River and Alabak (JONKOVA, 1989: 27); new data: Panichkovo, VII.1997, JM. A protected species in Bulgaria.

***Carabus (Procerus) scabrosus bureschianus* Breuning, 1928**

BG: Alabak, VI (JOAKIMOV, 1904: 6, sub *Procerus scabrosus* Olivier); above Asenovgrad; Chepelare (NEDELKOV, 1909: 5, sub *Procerus scabrosus* Olivier); Bachkovski Monastery, V; Gjovren near Trigrad, VI; Krichim Gorge (BURESCH & KANTARDJIEVA, 1928: 66, sub *Procerus scabrosus* Olivier); Bachkovo (type locality of ssp. *bureschianus*); Chepelare; Devin (BREUNING, 1928: 109, sub *C. scabrosus* var. *bureschianus*); Ruen Hut, 1200 m; place Ravnishta, Chernatitsa Mt.; IV-V, VII-VIII (ANGELOV, 1965: 131, sub *Procerus scabrosus* Olivier); Bachkovo (HIEKE & WRASE, 1988: 13); along Chepinska River and Alabak (JONKOVA, 1989: 27); new data: Shamanitsa Bridge near Trigrad, 13.V.1966, V. Beshkov obs.; Devin, 10.VI.1976, 1 s., JG; Bachkovo, 300-350 m, 11.XI.2001, 1 s., DC. It is more reasonable to accept this taxon as a subspecies of *C. scabrosus* Olivier, 1790 (BOUSQUET et al., 2003: 185) rather than as a subspecies of the not well defined *C. sommeri* (the latter is currently treated as a subspecies of *C. scabrosus*). A protected species in Bulgaria.

GR: Prasinada, VI-VII; Dipotama, VI-VII; Paranesti, VII (ETONTI, 1993: 117-118).

***Carabus (Procrustes) coriaceus cerisyi* Dejean, 1826 [= *hopffgarteni* (Kraatz, 1877)]**

BG: Karlak (= Golyam Snezhnik) Peak, 2100 m (APFELBECK, 1904: 22, sub *C. coriaceus hopffgarteni*); Rhodopes - Belovo; Bachkovo, V; Byala Cherkva, VIII; Batashki Snezhnik, VI; Shiroka Laka, VI; Devin, VI (BURESCH & KANTARDJIEVA, 1928: 72, sub *C. coriaceus hopffgarteni*); Chepelare, VI (BURESCH & KANTARDJIEVA, 1928: 72, sub *C. coriaceus hopffgarteni*; HIEKE & WRASE, 1988: 14); Zdravets Hut, 1180 m (ANGELOV, 1965: 131); Batak; Modar Hut; Pamporovo (HIEKE & WRASE, 1988: 14); new data: Dospat, 800 m, 14.VIII.1991, 1 f., BP; Izgrev Hut - Laki, 6.VIII.1996, JM; Sarnitsa, 24.VII.1997, JM; between Yakoruda and Velingrad, 20.VII.2001, 2 s., EM. Here *C. coriaceus hopffgarteni* is treated as a variation of *C. coriaceus cerisyi*, and not as a distinct subspecies.

***Carabus (Tachypus) cancellatus intermedius* Dejean, 1826 [= *balcanicus* Born, 1899; *drenskyi* Breuning, 1928**

BG: place Hasa Kurja, VI (type locality of var. *drenskyi*; BREUNING, 1928: 114, sub *C. cancellatus* var. *drenskyi*); Bryanovishtitsa Hut, 930 m, V (ANGELOV, 1965: 132, sub *C. cancellatus balcanicus*). Here *C. cancellatus balcanicus* is regarded as a variation of *C. cancellatus intermedius*, and not as a distinct subspecies.

***Carabus (Tomocarabus) convexus dilatatus* Dejean, 1826 [= *hornschuchi* Hoppe & Hornschuch, 1825]**



BG: Krichimska Kurja, IV; Rhodopes - Golyamo Belovo; Peshtera, VI; Chepelare, VI-VII; Shiroka Laka, VI; Chehljovo, VIII (BURESCH & KANTARDJIEVA, 1928: 86-87, sub *Tomocarabus convexus*); Devin, VI; Karlak (= Golyam Snezhnik) Peak (BURESCH & KANTARDJIEVA, 1928: 87, sub *T. convexus* Fabricius; BREUNING, 1928: 112); Rhodopes - Belovo (BREUNING, 1928: 112, sub *C. convexus* var. *hornschuchi*); Karlak (= Golyam Snezhnik) Peak, 2100 m (BREUNING, 1933: 870, sub *C. convexus* n. *gracilior* & *C. convexus dilatatus*); Zdravets Hut; Vassil Kolarov Dam; V-VI (ANGELOV, 1965: 132); Velingrad; Bachkovo; Churen Hut, 1550 m; Pamporovo, 1500 m (HIEKE & WRASE, 1988: 19); new data: Chepelare, 22.V.1994, 1 s., DR; Pamporovo, 18.V.1995, 1 s., DR; Izgrev Hut - Laki, 6.VIII.1996, JM. *Carabus (T.) convexus gracilior* Géhin, 1885 lives in the marginal areas of eastern Bulgaria, in places with low altitudes, so its mention in the local fauna concerns the subspecies *dilatatus*.

***Carabus (Trachycarabus) scabriusculus bulgarus* Lapouge, 1908**

BG: Asenovgrad (APFELBECK, 1904: 38); Ruen Hut, 1200 m, V; Yavorovo, V (ANGELOV, 1965: 132); Rhodopes - Belovo; Chehljovo, VIII; Velingrad, VII; Asenovgrad, V; Hvojna, VII; Batak, V (BURESCH & KANTARDJIEVA, 1928: 96). BOUSQUET et al. (2003: 199) omitted this subspecies from the list of the Palaearctic carabid beetles, probably by mistake. In fact this well differentiated race of *C. scabriusculus* Olivier, 1795 inhabits Bulgaria.

***Cybrus semigranosus balcanicus* Hopffgarten, 1881**

BG: Trigrad, VI; Chepelare (BURESCH & KANTARDJIEVA, 1928: 61); Zdravets Hut; Erkyupriya Hut; until 1500 m, V-VI (ANGELOV, 1965: 130, sub *C. balcanicus*); Bachkovo; Pamporovo (HIEKE & WRASE, 1988: 20); new data: "Čepelare, 750 m, Reiser V/VI.73 b,k", 2 s. (NMW); Ruen Hut, 1200 m, 25.IX.1993, 1 s., PS; around Sbirikova Peshtera Cave, 10.V.1994, 1 s., DR; Izgrev Hut - Laki, 6.VIII.1996, JM; Martsiganitsa Hut, entrance of Ivanova Voda Cave, 1323 m, 22.V.2005, 1 s., PS.

**\* *Elaphrus (Elaphroterus) aureus aureus* P.W.J. Müller, 1821**

BG: Chepinska River near Velingrad, 15.VI.1960, 3 s., DB; Batak Dam, 11-16.VIII.1990, 1 s., MA.

***Elaphrus (Elaphroterus) ullrichi* W. Redtenbacher, 1842**

BG: Sarnitsa, VII (GUÉORGUIEV & MUIIWIJK, 2000: 81); new data: Dospat, 20.VII.1997, 1 s., JM. A rare hygrophilous species which was recently found in Bulgaria, where it is known only from the Western Rhodopes. GOULET (2003: 206) omitted it for Bulgaria.

***Elaphrus (Elaphrus) riparius* (Linnaeus, 1758)**

BG: Batak (HIEKE & WRASE, 1988: 26); new data: Mugla, 26.VII.1997, JM; Sarnitsa, 24.VII.1997, JM.; Batak Dam, 1140 m, 2.V.2002, 6 s. / 28.VI.2002, 6 s., EM.

***Elaphrus (Neoelaphrus) uliginosus* Fabricius, 1792 [= *purkynei* Obenberger, 1917]**

BG: Chepelare (type locality of var. *purkynei*; OBENBERGER, 1917: 9, sub *E. uliginosus purkynei*); Bachkovo; Momchil Yunak Hut (HIEKE & WRASE, 1988: 26); new data: Perelik, 2000 m, 10.VII.1979, 2 s., MJ; Sarnitsa, 24.VII.1997, JM.

***Omopbron (Omopbron) limbatum (Fabricius, 1777)***

BG: Bachkovski Monastery; Pamporovo; Chepelare (HIEKE & WRASE, 1988: 23); new data: Izgrev Hut - Laki, 6.VIII.1996, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM.

***Paussus turcicus I. Frivaldszky von Frivald, 1835***

BG: Krichim (HIEKE & WRASE, 1988: 12).

**\* *Aptinus (Aptinus) bombardata (Illiger, 1800)***

BG: Gjovren, X.1993, 1 f., soil traps, DR.

***Brachinus (Brachinus) crepitans (Linnaeus, 1758)***

BG: Ruen Hut (HIEKE & WRASE, 1988: 164); new data: Panichkovo, VII.1997, JM.

**[*Brachinus (Brachinus) psophia Audinet-Serville, 1821*]**

BG: Rhodopi, V (NEDELKOV, 1909: 14). The species has still not been proved for the local fauna.

***Brachinus (Brachynidius) explodens Duftschmid, 1812***

BG: Bachkovo (HIEKE & WRASE, 1988: 166); new data: Panichkovo, VII.1997, JM.

***Clivina (Clivina) collaris (Herbst, 1784)***

BG: Chepelare; Pamporovo; Smolyan (HIEKE & WRASE, 1988: 28); new data: Chepelare, 22.V.1994, 6 s., DR; Sarnitsa, 24.VII.1997, JM.

***Clivina (Clivina) fossor fossor (Linnaeus, 1758)***

BG: Orpheus Hut (HIEKE & WRASE, 1988: 27); new data: Dospat, 2.VII.1961, 1 s., JO; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM.

**\* *Dyschirius (Dyschiriodes) agnatus Motschulsky, 1844***

BG: Izgrev Hut - Laki, 6.VIII.1996, JM; Trigrad, VII.1997, JM.

***Scarites (Parallelomorphus) terricola terricola Bonelli, 1813***

BG: Rhodopes - St. Petar Monastery (NEDELKOV, 1909: 7).

***Brosicus cephalotes (Linnaeus, 1758)***

BG: Batak; Batak Dam (HIEKE & WRASE, 1988: 34); new data: Vacha River near Nastan, 19.VII.2005, 1 s., BO.

**\* *Asaphidion caraboides balcanicus Netolitzky, 1918***

BG: Izgrev Hut - Laki, 6.VIII.1996, JM.

**\* *Asaphidion flavipes (Linnaeus, 1761)***

BG: Trigrad, VII.1997, JM. MARGGI et al. (2003: 242) omitted this species for Bulgaria, probably by mistake. HIEKE & WRASE (1988: 42) and GUÉORGUIEV &

GUÉORGUIEV (1995a: 91) mentioned some records from the country. One of the present authors also cited material of this species (GUÉORGUIEV, 1996: 31).

\* *Asaphidion rossii* (Schaum, 1857)

BG: Chepinska River near Velingrad, 15.VI.1960, 1 m., DB. According to JEANNEL (1941: 548, Fig. 206-f) the median lobe of the aedeagus of this species is similar, but of course not identical (see Fig. 1), with that of *Asaphidion caraboides* (Schrank, 1781) s. l. The species was cited only once for Bulgaria (GUÉORGUIEV, 1992: 64), so here it is confirmed for the fauna of the country.

*Bembidion (Bembidion) quadrimaculatum quadrimaculatum* (Linnaeus, 1761)

BG: Batak (HIEKE & WRASE, 1988: 60); new data: Batak Dam, 1140 m, 28.VI.2002, 4 s., EM.

\* *Bembidion (Bembidion) quadripustulatum quadripustulatum* Audinet-Serville, 1821

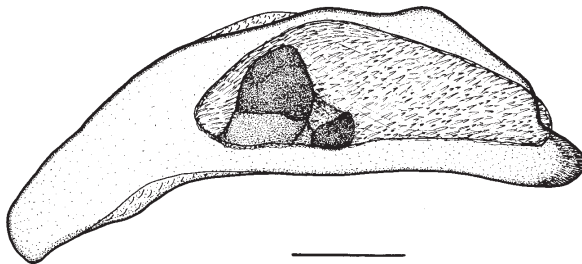
BG: Izgrev Hut - Laki, 6.VIII.1996, JM. MARGGI et al. (2003: 244) omitted this taxon for Bulgaria. However, GUÉORGUIEV & GUÉORGUIEV (1995a: 98) cited some records for the country. After this the first author also studied some additional material (unpublished data).

\* *Bembidion (Bembidionetolitzkya) concoeruleum* Netolitzky, 1943

BG: Dobrostan Mt., Mostovo, 20.X.1994, 4 m., BO. Besides the males just mentioned, the aedeagus of another male specimen labelled "Philipopol Netolitzky" (NMW) was examined and compared with the type of *Bembidion concoeruleum* (type locality: "Herkulesbad", NMW). There are slight differences in the external shapes of penisi, so the conspecificity of the two specimens is under question.

*Bembidion (Bembidionetolitzkya) geniculatum geniculatum* Heer, 1837

BG: Batak; Chepelare; Pamporovo (HIEKE & WRASE, 1988: 48); new data: Sarnitsa, 29.VII.1996, JM; Smolyan, 4.VIII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; along a river at Bujnovsko Gorge, 900-1000 m, 3.VIII.2001, 4 s., BG; river near Sokolovtsi, 1000 m, 16.VII.2005, 1 m., 1 f., BO.



**Figure 1.** *Asaphidion rossii* (Schaum), lateral aspect of median lobe of aedeagus. Scale line = 2 mm.

***Bembidion (Bembidionetolitzkya) tibiale* (Duftschmid, 1812)**

BG: Batak; Churen; Chepelare; Pamporovo (HIEKE & WRASE, 1988: 47); new data: Zabardo, 900 m, 19.X.1994, 1 m., 2 f.; Smolyan, 4.VIII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Kanina River near Kovachevitsa, 940 m, 1.VIII.2001, 1 f., BG; along a river at Bujnovsko Gorge, 900-1000 m, 3.VIII.2001, 2 m., 2 f., BG; river near Sokolovtsi, 1000 m, 16.VII.2005, 5 m., 4 f., BG; Vucha River near Nastan, 19.VII.2005, 2 m., 2 f., BO. This member of the subgenus appears to be the most common one in the region.

***Bembidion (Bembidionetolitzkya) varicolor varicolor* (Fabricius, 1803) [= *tricolor* (Fabricius, 1801)]**

BG: Chepinska River near Velingrad, 15.VI.1960, 1 f., DB; Izgrev Hut - Laki, 6.VIII.1996, JM; new data: Vucha River near Nastan / Devin, 19.VII.2005, 6 s., BO. RAMBOUSEK (1912: 71, sub *B. tricolor*) cited this species referring the data as "Rhodopes". MARGGI et al. (2003: 246) left it unmentioned for Bulgaria, but in fact GUÉORGUIEV & GUÉORGUIEV (1995a: 107) summarized all the data on the country known until then. After that, one of the present authors reported further data on this species (GUÉORGUIEV, 1999: 70).

***Bembidion (Bracteon) litorale* (Olivier, 1791)**

BG: Batak (HIEKE & WRASE, 1988: 43); new data: Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM.

***Bembidion (Emphanes) azurescens azurescens* Dalla Torre, 1877**

BG: Michalkovo (HIEKE & WRASE, 1988: 58); new data: 10 km west of Dospat, 28.VII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Panichkovo, VII.1997, JM.

**\* *Bembidion (Emphanes) normannum apfelbecki* Müller-Motzfeld, 1986**

BG: Izgrev Hut - Laki, 6.VIII.1996, JM.

***Bembidion (Euperyphus) testaceum testaceum* (Duftschmid, 1812)**

BG: Batak; Michalkovo (HIEKE & WRASE, 1988: 50); new data: Batak Dam, 1140 m, 28.VI.2002, 1 s., EM.

***Bembidion (Metallina) lampros* (Herbst, 1784)**

BG: Batak; Batashki Snezhnik, 1000 m; Dobra Voda Hut; place Kauka near Dospat; Bachkovski Monastery; Orpheus Hut; Pamporovo (HIEKE & WRASE, 1988: 44); new data: Rozhen - Observatoriyata, 8.IX.1992, 1 s., BG; place Mechkata between Chepelare and Pamporovo, 20.V.1994, 3 s., DR; Rozhen, III.1995, 1 s., DR; Chepelare, 19.V.1995, 3 s., DR; 10 km west of Dospat, 28.VII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Bachkovo, VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM; Dospat Dam, 1200 m, 22.VII.2001, 1 s., EM; Arda, 31.V.2005, 1 s., shifting litter, RB; near Modarskata Peshtera Cave near Smolyan, 1600-1630 m, 19.VI.2005, 1 s., under stones, PB & PS.

***Bembidion (Metallina) properans* (Stephens, 1828)**

BG Batak; Bachkovo (HIEKE & WRASE, 1988: 44); new data: Panichkovo, VII.1997, JM; Batak Dam, 1140 m, 2.V.2002, 18 s. / 28.VI.2002, 13 s., EM.

***Bembidion (Nepha) retipenne* J. Müller, 1918**

BG: 10 km west from Dospat (HIEKE & WRASE, 1988: 55); new data: Batak Dam, 1140 m, 28.VI.2002, 1 s., EM. This rare species is noted only in the Western Rhodopes in Bulgaria.

***Bembidion (Notaphus) varium* (Olivier, 1795)**

BG: Batak (HIEKE & WRASE, 1988: 46); new data: Batak Dam, 1140 m, 28.VI.2002, 1 s., EM.

***Bembidion (Ocydromus) decorum decorum* (Panzer, 1799)**

BG: Churen; Michalkovo (HIEKE & WRASE, 1988: 49); Chepelare; Pamporovo (MÜLLER-MOTZFELD, 1986: 154; HIEKE & WRASE, 1988: 49); new data: Chepinska River near Velingrad, 15.VI.1960, 2 s., DB; Sarnitsa, 29.VII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM; river at Bujnovsko Zhdrelo Gorge, 900-1000 m, 3.VIII.2001, 1 f., BG; Vucha River between Devin and Michalkovo, 3.VIII.2001, 1 f., BG; Belitsa near Laki, 650 m, 30.VIII.2001, 1 m., BP; Vucha River near Nastan, 19.VII.2005, 3 s., BO. According to MÜLLER-MOTZFELD (1986: 154) some specimens from Chepelare and Pamporovo show transitional features between the nominotypical form and the subspecies *B. decorum bodeneyeri* K. Daniel & J. Daniel, 1902.

***Bembidion (Ocyturanus) balcanicum balcanicum* Apfelbeck, 1899**

BG: Izgrev Hut - Laki, 6.VIII.1996, JM. So far the taxon has been known only by datum "Rhodopes" (GUÉORGUIEV & GUÉORGUIV, 1995a: 109). A Balkan subendemic species and subspecies.

***Bembidion (Odontium) striatum* (Fabricius, 1792)**

BG: Batak (HIEKE & WRASE, 1988: 42).

***Bembidion (Omoperypus) semibracatum* Netolitzky, 1911**

BG: Pamporovo (HIEKE & WRASE, 1988: 48); new data: Smolyan, 4.VIII.1996, JM; Mugla, 26.VII.1997, JM.

***Bembidion (Peryphanes) brunnicorne brunnicorne* Dejean, 1831**

BG: Bachkovo (HIEKE & WRASE, 1988: 54); new data: Izgrev Hut - Laki, 6.VIII.1996, JM; along a stream below Perelik Mount, 1950-2000 m, 23.V.2004, 1 f., under stones in snow-drift, BO.

***Bembidion (Peryphanes) castaneipenne* Jacquelin du Val, 1852**

BG: Bachkovo (HIEKE & WRASE, 1988: 54); new data: Pamporovo, 18.IV.1994, 1 s., DR; Izgrev Hut - Laki, 6.VIII.1996, JM; Panichkovo, VII.1997, JM.

***Bembidion (Peryphanes) dalmatinum dalmatinum* Dejean, 1831**

BG: Bachkovo; Modar; Pamporovo (HIEKE & WRASE, 1988: 53); new data: Rozhen, 14.VI.1992, 1 s., DR; Mostovo, 20.X.1994, 1 m., BG; Izgrev Hut - Laki, 6.VIII.1996, JM; Kanina River near Kovachevitsa, 940 m, 1.VIII.2001, 1 s., BO.

*Bembidion (Peryphanes) deletum deletum* Audinet-Serville, 1821 [= *nitidulum* (Marsham, 1802) nec Schrank, 1781]

BG: Batak; Batashki Snezhnik Peak; Pamporovo (HIEKE & WRASE, 1988: 53, sub *B. nitidulum* Marsham); new data: Devin, 2.VIII.1961, 1 s., VG; Shilesta Chuka, 8.10.1976, 2 s., DR; Rozhen, IX.1993, 1 s., DR; Pamporovo, 7.IV.1994, 1 f., DR; Trigrad, VII.1997, JM; Smolyan – Mugla, 1400-1700 m, 12.VII.1997, 1 f., BP; along a stream below Perelik Mount, 1950-2000 m, 17.VII.2005, 6 s., BO.

*Bembidion (Peryphanes) stephensi stephensi* Crotch, 1866

BG: Batak (WRASE, 1991: 6). MARGGI et al. (2003: 259) omitted this species for Bulgaria, but HIEKE & WRASE (1988: 54), WRASE (1991: 6) and GUÉORGUIEV & GUÉORGUIEV (1995a: 107) noted some exact localities and summarized the data known till then.

*Bembidion (Peryphiolus) monticola monticola* Sturm, 1825

BG: Kochan, VII (VASSILEV, 1988b: 88). MARGGI et al. (2003: 260) omitted this species for Bulgaria, but GUÉORGUIEV & GUÉORGUIEV (1995a: 107) cited it for the country. After that one of the present authors (BVG) examined a single specimen from the Osogovo Mt. (unpublished data).

\* *Bembidion (Peryphus) cruciatum albanicum* J. Müller, 1935

BG: Chepinska River near Velingrad, 15.VI.1960, 1 f., DB. A Balkan endemic subspecies. MARGGI et al. (2003: 260) left this subspecies unmentioned for Bulgaria. Actually, HIEKE & WRASE (1988: 51) and GUÉORGUIEV & GUÉORGUIEV (1995a: 107) cited it with exact localities. Here, the subspecies is confirmed for Bulgaria.

*Bembidion (Peryphus) cruciatum bualei* Jacquelin du Val, 1852

BG: Batak (HIEKE & WRASE, 1988: 51, sub *B. andreae bualei*); new data: 10 km west of Dospat, 28.VII.1996, JM; Sarnitsa, 29.VII.1996, JM; Mugla, 26.VII.1997, JM; Sarnitsa, 24.VII.1997, JM; Magareshki Dol River near Borino, 1180 m, 3.VIII.2001, 1 m., BO.

*Bembidion (Peryphus) femoratum femoratum* Sturm, 1825

BG: 10 km west of Dospat (HIEKE & WRASE, 1988: 51); Chepelare, 1100 m, VIII (VASSILEV & NECHEVA, 1989: 50, sub *B. femoratum caucasicola*); new data: Chepelare, 19.V.1995, 1 s., DR; 10 km west of Dospat, 28.VII.1996, JM; Sarnitsa, 29.VII.1996; Smolyan, 4.VIII.1996, JM; Izgrev Hut – Laki, 6.VIII.1996, JM; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM; Magareshki Dol River near Borino, 1180 m, 1 m., 3.VIII.2001, BO. *Bembidion femoratum caucasicola* Netolitzky, 1918 is a subspecies cited only from European Turkey in the Balkan Peninsula.

*Bembidion (Peryphus) subcostatum vau* Netolitzky, 1913 [= *javurkovae* Fassati, 1944, **syn. n.**; *spartanum* Fassati, 1944, **syn. n.**]

BG: 10 km west of Dospat; Batak; Rhodopes – St. Petka Monastery; Churen; Chepelare; Orpheus Hut; Michalkovo; Pamporovo; Smolyan (HIEKE & WRASE, 1988: 52, sub *Bembidion subcostatum javurkovae*); new data: Chepinska River near Velingrad,

15.VI.1960, 1 f., DB; Chepelare, 28.VIII.1987, 1 f. / 15.IV / 22.V.1994, 5 m., DR; Mostovo, 1000 m, 17-19.IV.1993, 5 s., PS; Rozhen, IX.1993, 1 s., DR; Batashki Snezhnik, 1700-1900 m, 14-15.VIII.1995, 1 m., spruce forest, BG; 10 km west Dospat, 28.VII.1996, JM; Sarnitsa, 29.VII.1996, JM; Smolyan, 4.VIII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Bachkovo, VII.1997, JM; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM; 2 km S Barutin 27.IV.1998, 1 m., BP; Dospat Dam at Sarnitsa, 1200 m, 22.VII.2001, 2 s. / 26.VI.2002, 1 s., EM; Beglica Dam, 1600 m, 2.VIII.2001, 1 f., BG; Vucha River between Devin and Michalkovo, 3.VIII.2001, 1 f., BO.

#### Type material examined.

BOSNIA HERZEGOVINA. Cotype of *B. subcostatum vau* Netolitzky, 1913 labelled "Brčko Bosnia" / "Type! Netolitzky" / "*ustulatus* det. Netolitzky ab. *vau* Netol." / "*brachypterus* rud. = 2/3 elytr." / "Type" / "*subcostatum* n. *vau* Net. immaturam" (NMW).

GREECE. Cotype of *B. ustulatum* var. *falaciosum* J.R. Sahlberg, 1813 labelled "Lesbos" / "J. Sahlb." (MNM).

CZECHIA (MORAVIA). Cotype of *B. subcostatum javurkovae* Fassati, 1944 labelled "Col. Javurková Uh. Hradište VII.43" / "Collectio M. Fassati" / "Cotypus" / "*subcostatum* ssp. *javurkovae* m. cotypus 3.44 det. M. Fassati" (NMW).

GREECE. Cotype of *B. subcostatum spartanum* Fassati, 1944 labelled "Sparta, Pelopones Mařan et Step. 1935 Coll. Barton" / "Collectio M. Fassati" / "coll. Paul Meyer" / "Cotypus" / "*subcostatum* ssp. *spartanum* m. 20.44 det. M. Fassati" (NMW).

#### Other material examined.

*Bembidion (Peryphus) subcostatum vau* Netolitzky, 1913. ALBANIA. "Alban. Exp.'18 Kula Ljums 26.VI-3.VII.", 4 s. (NMW); "Tirana Alb. dch. Winkler 42", 2 s. (NMW). BULGARIA. "Kazanlik, Bulg. Netolizky", 2 s. (NMW); "Sofia, Bulg.", 2 s. (NMW). MACEDONIA. "Skoplje Jugoslavien V.1937 Dr. R. Meyer", 2 s. (NMW). MONTENEGRO. Drin Orsk, Alb. Radavac 15.8.31 dch. Winkler 1942", 1 s. (NMW).

*Bembidion subcostatum javurkovae* Fassati, 1944. ALBANIA. "Bushek Juni" / "Berat Alban. mer." / "Albania leg. Bischoff. 1932", 2 s. (NMW); "Berat, Alb. Dch. Winkler", 1 s. (NMW); "Scutari Alb. Dr. J. Müller", 1 s. (NMW). MACEDONIA. "Velež Matzenauer", 1 s. (NMW); "Monastir Serbia", 5 s. (NMW).

*Bembidion subcostatum spartanum* Fassati, 1944. ALBANIA. "Bushek Juni" / "Berat Alban. mer." / "Albania leg. Bischoff. 1932", 2 s. (NMW); "Lumi i Bences Tepelene Alb. M.", 1 s. (NMW). MACEDONIA. "Uskub (Scopos) Babadjamtes", 1 s. (NMW).

The differentiation of the above three subspecies of *Bembidion subcostatum* (Motschulsky, 1850) s. l. is most often highly problematic, almost impossible, and for that reason it seems to be unnatural. The examination of the respective material and the reading of the original descriptions of the three taxa showed lack of any stable special features distinguishing them. The diagnostic characters used by FASSATI (1944), mostly the extent of development of the wings, to differentiate the separate races have too inconstant character or are in fact unimportant. In order to display the more natural intraspecific relationships of *Bembidion subcostatum* (Motschulsky, 1850) s. l. the following synonymy is

proposed: *Bembidion (Peryphus) subcostatum vau* Netolitzky, 1913 (type locality: “Ungarn, Balkan”, after CSIKI, 1928) = *Bembidion (Peryphus) subcostatum javurkova* Fassati, 1944 (type locality: “Okolí Uherského Hradišti, jižní Morava”), **syn. n.**; *Bembidion (Peryphus) subcostatum vau* Netolitzky, 1913 (type locality: “Ungarn, Balkan”, after CSIKI, 1928) = *Bembidion (Peryphus) subcostatum spartanum* Fassati, 1944 (type locality: “Sparta”), **syn. n.**

***Bembidion (Philochthus) guttula guttula* (Fabricius, 1792)**

BG: Batak (HIEKE & WRASE, 1988: 61).

***Bembidion (Philochthus) inoptatum* Schaum, 1857**

BG: Ognyanovo above Gotse Delchev, 750 m, VIII (VASSILEV & NECHEVA, 1989: 50).

***Bembidion (Philochthus) mannerheimi* C.R. Sahlberg, 1827 [= *unicolor* Chaudoir, 1850]**

BG: Pamporovo (HIEKE & WRASE, 1988: 61, sub *B. unicolor*); Devin, 700 m, VIII (VASSILEV, 1988a: 85, sub *B. unicolor*).

***Bembidion (Princidium) punctulatum punctulatum* Drapiez, 1820**

BG: Pamporovo; Michalkovo (HIEKE & WRASE, 1988: 45); new data: Sarnitsa, 29.VII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Vucha River near Nastan, 19.VII.2005, 1 s., BO. MARGGI et al. (2003: 266) omitted this subspecies for Bulgaria, but actually GUÉORGUIEV & GUÉORGUIEV (1995a: 95) recorded much data indicating its presence in the country. The first author here also studied additional material (unpublished data).

***Bembidion (Synechostictus) millerianum* Heyden, 1883**

BG: Churen; Chepelare; Pamporovo (HIEKE & WRASE, 1988: 56); new data: Zabardo, 19.X.1994, 1 s., DR; Mostovo, 20.X.1994, 1 s., BG; Sarnitsa, 29.VII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; along a stream at Bujnovsko Zhdrelo Gorge, 900-1000 m, 3.VIII.2001, 1 f., BG; Vucha River near Nastan, 19.VII.2005, 3 s., BO. MARGGI et al. (2003: 268) left this species unmentioned for Bulgaria, but GUÉORGUIEV & GUÉORGUIEV (1995a: 103) cited it for the country. One of the present authors as well studied and cited data on it (GUÉORGUIEV, 1999: 70).

***Bembidion (Synechostictus) stomoides stomoides* Dejean, 1831**

BG: Batak (HIEKE & WRASE, 1988: 56); new data: Smolyan, 4.VIII.1996, JM.

**? *Bembidion (Testediolum) glaciale* Heer, 1837**

BG: Devin, 700 m, VIII (VASSILEV, 1992: 26). Glacial relict with South European subalpine and alpine range. MARGGI et al. (2003: 268) omitted it for Bulgaria, but GUÉORGUIEV & GUÉORGUIEV (1995a: 114) had previously noted several references. In fact, the first author here has never studied specimens from Bulgaria. Two specimens cited by GUÉORGUIEV (1988: 75) and GUÉORGUIEV (1990: 135) were found in NMNHS, they were revised and referred to *B. (Nepha) caucasicum*. The presence of *B. glaciale* in Bulgaria remains doubtful.



***Bembidion (Testedium) bipunctatum nivale* Heer, 1837**

BG: Pamporovo; Batashki Snezhnik Peak (HIEKE & WRASE, 1988: 45); new data: Batashki Snezhnik Peak, 1950-2030 m, 14.-15.VIII.1995, 5 s., BG; along a stream below Perelik Mount, 1950-2000 m, 17.VII.2005, 3 s., BO. Glacial relict with South European subalpine and alpine distribution.

***Bembidion (Trepanes) articulatum* (Panzer, 1796)**

BG: Batak; Churen (HIEKE & WRASE, 1988: 60); new data: Sarnitsa, 29.VII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM.

***Bembidion (Trepanes) maculatum maculatum* Dejean, 1831**

BG: Pamporovo (HIEKE & WRASE, 1988: 60). A rare species, known only from two records in Bulgaria (op. cit.).

**\* *Tachyta (Tachyta) nana nana* (Gyllenhal, 1810)**

BG: near Sokolovtsi, 1000 m, 16.VII.2005, 1 f., under bark of coniferous tree, BO.

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

BG: Bachkovo (GUÉORGUIEV, 1992: 63, sub *Tachys sexstriatus*); Michalkovo (HIEKE & WRASE, 1988: 65, sub *Tachys diabrachys bisbimaculatus*); new data: Sarnitsa, 29.VII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Vucha River near Nastan, 19.VII.2005, 1 s., BO. *Tachyura bisbimaculata* (Chevrolat, 1860) is a North African species occurring only Sicily in Europe, so the data of HIEKE & WRASE (op. cit.) are referred to *T. diabrachys*.

**§ *Tachyura (Tachyura) sexstriata* (Duftschmid, 1812)**

BG: Bachkovo (GUÉORGUIEV, 1992: 63, sub *Tachys sexstriatus*). APFELBECK (1892; 1904) and RAMBOUSEK (1912) cited *T. sexstriata* for Bulgaria, as probably the latter author repeated the data of the former. However, Apfelbeck did not record *T. diabrachys* from the Balkan Peninsula and that gives us reason to believe that he has mixed both taxa. Recently, KOPECKÝ (2003: 279) listed *T. sexstriata* for Bulgaria. The first author revised the only specimen cited by GUÉORGUIEV (1992) and ascertained that it belongs to *T. diabrachys* (see preceding species). The check of material from ZMHU and NMW demonstrates that *T. sexstriata* has a Western European type of distribution. Based on the above considerations, this species is excluded from the list of the Bulgarian fauna.

***Partobus atrorufus* (Ström, 1768)**

BG: Chepelare, VI (GUÉORGUIEV, 1992: 65).

***Perileptus (Perileptus) areolatus areolatus* (Creutzer, 1799)**

BG: Chepelare; Pamporovo (HIEKE & WRASE, 1988: 34).

***Duvalius (Paraduvalius) bureschi* Jeannel, 1928**

BG: Lepenitsa Cave near Velingrad, V, VIII (type locality; JEANNEL, 1928: 444; GUÉORGUIEV, 1965b: 150; GUÉORGUIEV, 2004b: 97); Dupcheto Cave (GUÉORGUIEV, 2004b: 97); new data: Dupcheto Cave, 966 m, 18.VI.2005, 1 f., PB & PS. A local endemic species.

*Duvalius (Paraduvalius) karelburkai* Farkač, 1990

BG: Erkyupriya Cave near Mostovo, VII (type locality; FARKAČ, 1990: 352). A local endemic species.

\*\* *Duvalius (Paraduvalius) nedelkovi* B. V. Guéorguiev sp. n.

Type material. HT \$ labelled: "Bulgaria, Western Rhodopes, Radyuva Planina, Prikazna Cave (1 3688), NW from Dryanovo Village, 1120 m, 9.X.2005, B. Petrov leg." (NMNHS).

Other (not type) material. 1 # represented only by elytra (including meso-, metasternum and abdomen), labelled as HT (NMNHS).

Diagnosis. The new species is most closely related to *Duvalius (Paraduvalius) karelburkai* Farkač, 1990. It is distinct from the latter in the different shape of the copulatory piece, the smaller sizes of the body, antennae and aedeagus, as well as the traceable groove on the anterior third of the protibiae (see also Table 1).

## T a b l e 1.

**Comparisons of variations of selected measurements and character states within the type series of *Duvalius (Paraduvalius) nedelkovi* sp. n. and *Duvalius (Paraduvalius) karelburkai* Farkač**

Measurement / character	<i>D. nedelkovi</i> sp. n.	<i>D. karelburkai</i> Farkač
Body length (mm)	3.2	3.84 – 4.16
Antennae length (mm)	1.75	1.95 – 2.08
Protarsi length (mm)	0.38 – 0.39	0.42 – 0.45
Groove of protibia	Traceable in anterior third	Absent
Metatarsi length (mm)	0.67 – 0.68	0.69 – 0.71
Aedeagus length (mm)	0.55	0.85
Copulatory piece length (mm)	0.3	0.4

Description of HT. Total length of body, including mandibles – 3.2 mm, maximum width – 1.4 mm. Body with very fine and short pilosity, microsculpture of elytra not distinct, partially reduced; tegument more (head, pronotum, thorax) or less (elytra, abdomen) pigmented, color from yellowish to rusty red.

Head 1.32 times longer than wide and 1.67 times longer than pronotum, frontal furrows completed, deep in all extent; antennomeres IIIrd-XIth densely pubescent, last segments not exceeding anterior third of elytra; eyes fully reduced, without traces of spots; mandibles long and stout (left one almost as long as third part of head length), maxillary palpomeres very well developed, as long as or a little bit longer than mandibles, labrum uniformly concave anteriorly.

Pronotum 1.08 times wider than the head, 1.37 times wider than long and widest in anterior third; anterior border slightly concave with rounded angles; sides less convergent anteriorly than posteriorly, clearly concave before posterior angles, lateral groove developed, moderately broad; posterior border straight, angles acute and

prominent; disc subconvex, midline wide, markedly deep, not reaching both anterior and posterior borders.

Elytra widest after the middle, 1.57 longer than wide and 1.59 times wider than pronotum; shoulders obtusely angulated; lateral groove narrow, disappearing in last ninth of elytron, lateroapical border hardly sinuate before apex; three inner striae more or less clear, deepened in middle third, remaining striae more or less reduced; apex of each elytron separately round.

Legs moderately long and slender, tibiae nearly as long as corresponding femora; protibia in anterior third with trace of longitudinal groove along exterior side; tarsomeres I-II of protarsi dilated, first article a bit more than the second one.

Male genital armature: median lobe of aedeagus in lateral aspect (Fig. 2) curved, proximally with well-formed pear-shaped bulb and basal orifice not concave, distally

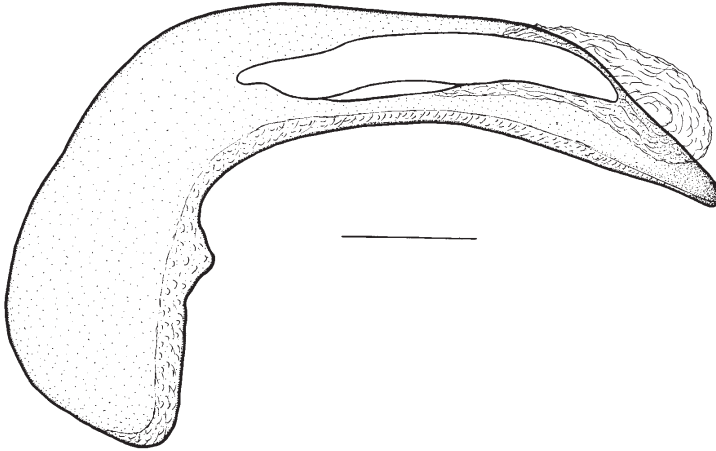


Fig. 2. *Duvalius (Paraduvalius) nedelkovi* sp. n., holotype, lateral aspect of median lobe of aedeagus. Scale line = 1 mm.

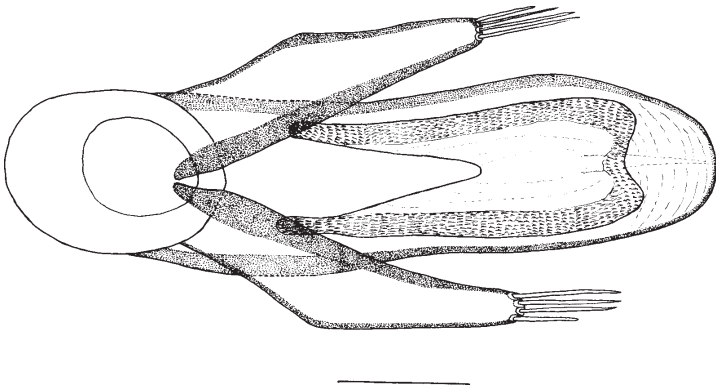
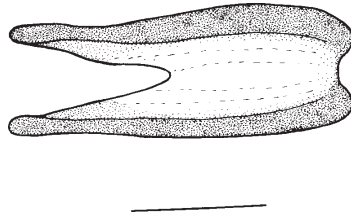


Fig. 3. *Duvalius (Paraduvalius) nedelkovi* sp. n., holotype, ventral aspect of median lobe of aedeagus. Scale line = 1 mm.

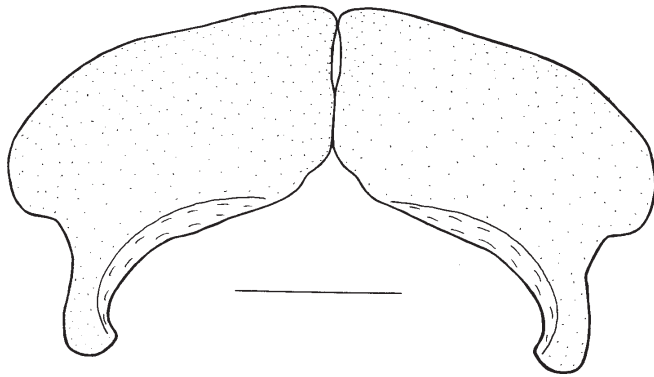
with apical part long and somewhat curved, internal sac situated in subapical part; distal part of medial lobe in ventral aspect (Fig. 3) relatively short, wide and straight with apex slightly round; copulatory piece (Fig. 4) long and thin, with sides subparallel (forward somewhat wider than backward), at the front concave in middle and bilobed in periphery, at back deeply excavated; parameres (Fig. 3) moderately long with basal lobes developed and apex bearing four subequal setae.

Chetotaxy: like other species of the subgenus (first dorsal elytral setiferous pore situated at the level between third and fourth humeral umbilicate setiferous pores).

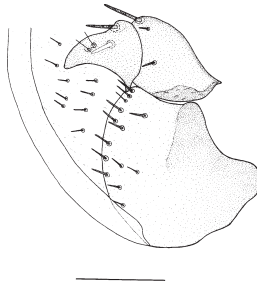
Description of female (PT). Length of elytra 1.8 mm. Female genital armature: sternum VIII (Fig. 5) more or less uniformly chitinized; stylus of ovipositor (Fig. 6)



**Fig. 4.** *Duvalius (Paraduvalius) nedelkovi* sp. n., holotype, dorsal aspect of copulatory piece. Scale line = 1 mm.



**Fig. 5.** *Duvalius (Paraduvalius) nedelkovi* sp. n., paratype female, ventral aspect of sternum VIII. Scale line = 2 mm.



**Fig. 6.** *Duvalius (Paraduvalius) nedelkovi* sp. n., paratype female, ventral aspect of left ovipositor (stylus + valvifer) and part of tergum X. Scale line = 1 mm.

somewhat smaller than valvifer, apical stylomere subtriangular, somewhat smaller than basal one, with one dorsomedial and one dorsolateral large setae, and two ventral ensiform fine setae, basal stylomere subrounded with sharp tooth proximally and one large dorsolateral seta distally, ventral surface of valvifer with distinct well chitinized proximal protuberance and less chitinized and setose distal part.

Etymology. The specific name of this taxon follows the family name of one of the first distinguished Bulgarian entomologists – Nikola Nedelkov who made important contributions to the native fauna of Coleoptera.

Notes. According to the structure of the median lobe of aedeagus and other special features, *Duvalius (Paraduvalius) nedelkovi* sp. n. is postulated to be adelphotaxon of *Duvalius (Paraduvalius) karelhurkai* Farkač. The two species are representatives of the “*balcanicus*” species group of the subgenus *Paraduvalius* Knirsch, 1924. This group is the only one within the subgenus that has a clear Thracian disjunction, as seven of its members populate both the Predbalkan Region and the Balkan (= Stara Planina) Range and another three – the northeastern strip of the Rhodopean Massif (GUÉORGUIEV, 2004b; present data). The third representative in the Rhodopean area, *Duvalius (Paraduvalius) petrovi* Guéorguiev, 2004, seems to be a sister species of the couple of *D. nedelkovi* sp. n. and *D. karelhurkai*. The last assertion is based on the presence of a clear autapomorphy in the first species – 4-6 long hairs situated one behind the other in two rows on each side of the midline on the pronotum and the lack of such in the other two *Duvalius*-species. The shape of copulatory pieces in the three species (see FARKAČ, 1990: 359, Fig. 5; GUÉORGUIEV, 2004b: 93, Fig. 4; present study, Fig. 4) is rather similar which suggests the monophyletic derivation of the triad.

The type series of the new species was collected while turning stones. The temperature taken at the place of collecting was 9°C.

***Duvalius (Paraduvalius) rajtchevi* (Genest & Juberthie, 1983)**

BG: Trigradsko Zhdrelo Gorge near Trigrad, 1100 m, IX (type locality; GENEST & JUBERTHIE, 1983: 313, sub *Paraduvalius rajtchevi*); new data: Jagodinski Karst, V.1985, 2 f., subterranean traps, DR; region of the Jagodinska Peshtera Cave, 21.X.1985, 1 f., DR; place Izvorsko Zhdrelo Gorge, 27.VII.1991, 2 m., 1 f., DR. A local endemic species.

**\* *Trechus (Trechus) austriacus* Dejean, 1831**

BG: Zlatarskata Peshtera Cave near Gospodintsi, 6.VI.1999, 2 m., BP; Dobrostan Mt., Gargina Dupka Cave near Mostovo, Mostovo, 21.II.1997, 1 m., TI.

***Trechus (Trechus) crucifer* Poichard de la Brûlerie, 1876**

BG: Bachkovo (PAWLOWSKI, 1973: 238); new data: Bostina, X.-XI.1993, 17 s., soil traps & forest litter, DR; Mogilitsa, 9.XI.1997, 1 s., BP; Gorno Fatovo, 1123 m, 28.V.2005, 2 m., shifting litter, RB; around Uhlovitsa Cave near Koshnitsa, 858 m, 28.V.2005, 1 f., shifting litter, RB; between Polkovnik Serafimovo and Rudozem, 940 m, 28.V.2005, 1 m., shifting litter, RB.

***Trechus (Trechus) irenis* Csiki, 1912 [= *balcanicus* Jeannel, 1927]**

BG: Batak; Bachkovo (HIEKE & WRASE, 1988: 36, sub *T. cardioderus balcanicus*); new data: Kanina River near Kovachevitsa, 940 m, 1.VIII.2001, 2 m., 2 f., BG; Vucha River between Devin and Michalkovo, 3.VIII.2001, 1 f., BG; between Polkovnik Serafimovo and Rudozem, 940 m, 28.V.2005, 1 m., shifting litter, RB. A Balkan subendemic species.

***Trechus (Trechus) matrismeeae* Pawlowski, 1972**

BG: Izgrev Hut, 1850-1900 m, VI (type locality; PAWLOWSKI, 1972b: 875); Golyam Persenk Peak (WRASE, 1991: 6). A local endemic species. Until now this species has been known only by two localities from the region. Probably, as PAWLOWSKI (1973: 262) supposed, it is strictly confined to the massif of Chernatitsa.

**\* *Trechus (Trechus) obtusus obtusus* Erichson, 1837**

BG: Mugla, 26.VII.1997, JM.

***Trechus (Trechus) quadristriatus* (Schrank, 1781)**

BG: Asenovgrad, X; Bachkovo (PAWLOWSKI, 1973: 225); Dobra Voda Hut (HIEKE & WRASE, 1988: 35); Gargina Dupka Cave, III (BERON, 1994: 45); new data: Panichkovo, VII.1997, JM; Bachkovo, VII.1997, JM; Mugla, 26.VII.1997, JM; Sarnitsa, 24.VII.1997, JM; Perushtitsa, 450 m, 30.V.1998, 2 m., 1 f., broad-leaved litter, BP.

***Trechus (Trechus) rhodopeius* Jeannel, 1921**

BG: Golyama Syutka Peak, 1900 m, VI; Vassil Kolarov Dam, 1400 m, VI; Batashka Planina Mt., 1900-2000 m, VI; Dospat, VIII; Mursalitsa - Eshkekulak Pass, 1600 m, VIII (PAWLOWSKI, 1973: 246); Pamporovo (HIEKE & WRASE, 1988: 37); new data: "Persenk, Rhodopegb. Breit", 1 s. (NMW); Izgrev Hut - Laki, 6.VIII.1996, JM; Trigrad, VII.1997, JM; Batashki Snezhnik Peak, 1950-2030 m, 14.VIII.1995, 4 m., 3 f., BG; below Perelik Hut, 1750 m, 23.V.2004, 2 s. / 2020 m, 6.X.2004, under stone along brook, 5 m., 4 f., BO; Perelik Hut, 1950 m, 11.V.2005, 3 s., under stones, BP. East Balkan endemic species. There is little suspicion that the mentioning of *T. priapus* K. Daniel, 1902 from the locality "Rhodopes" (RAMBOUSEK, 1912: 76) concerns this species. In reality *T. rhodopeius* is the closest species to *T. priapus* s. l. and the former was described after the work of Rambousek. For the time being it is cited only from Bulgaria, but certainly it lives in the Greek section of the massif.

***Trechus (Trechus) rubens* (Fabricius, 1792)**

BG: place Popovete near Progled, VI; Sarnitsa, VII; Trigrad, VII (GUÉORGUIEV & MUIILWIJK, 2001: 114). Glacial relict with boreal-mountain distribution. This species is very rare in the Balkan area of its range, being just recently noted from Bulgaria and only from the Western Rhodopes. MORAVEC et al. (2003: 340) omitted it for Bulgaria.

***Trechus (Trechus) subnotatus subnotatus* Dejean, 1831**

BG: Dyavolsko Garlo Cave near Trigrad, VI (BERON, 1972: 312); Bachkovo (HIEKE & WRASE, 1988: 36); new data: Dyavolsko Garlo Cave near Trigrad, 16.IV.2005, 2 m., 1 f., under stones and trees in main chamber, PS.

*Trechus (Trechus) szujeckii* Pawlowski, 1972

BG: Golyama Syutka Peak (type locality), 1900 m, VI; Beglika, 1650 m, VI; Vassil Kolarov Dam, VI; Batashka Planina Mt., 1950-2000 m, VI (PAWLOWSKI, 1972a: 309); Mursalitsa Massif - Eshkekulak Pass, 1500-1600 m, VIII; Izgrev Hut, 1800-1900 m, VI (PAWLOWSKI, 1973: 244); place Stojkite (PERRAULT, 1978: 249); Pamporovo, 1500 m (HIEKE & WRASE, 1988: 37); Golyam Persenk Peak (WRASE, 1991: 6); new data: Rozhen, III.1995, 2 m., 2 f., DR; Izgrev Hut - Laki, 6.VIII.1996, JM; around Sbirikova Peshtera Cave, XI.1996, 12 s., DR; Mugla, 26.VII.1997, JM; Manastirski Livadi near Elitsa Hut (above Smolyan), 1550 m, 30.VIII.2001, 2 m., 3 f., *Fagetum* litter, BP; Ardin Vruh Peak, 1680-1730 m, 11.VIII.2004, 5 m, 3 f., *Fagetum* litter, BP; Buynovsko Gorge between the Yagodinska Cave and Buynovo, 17.IV.2005, 1 m., 2 f., shifting litter in mixed forest, PS; Gela, 1513 m, 1 m., 1 f., shifting litter, RB; pass between Kojari and Vodni Pad, Devin District, 1550 m, 18.IX.2005, 3 m, 5 f., spruce litter-moss, BP. A local endemic species. Along with *T. rhodopeius*, it is the most abundant species from the genus around and over 1000 m altitude.

\*\* **Trechini** gen. & sp. indet.

BG: Snezhanka Cave near Peshtera Town, 17.VI.2005, 1 f., PB & PS. For the present the generic classification of the single specimen recently collected from the region is undefined. More material of this hypogean beetle is needed for its proper description and classification.

*Callistus lunatus lunatus* (Fabricius, 1775)

BG: Chepelare (NEDELKOV, 1909: 8).

\* *Cblaenius (Cblaeniellus) nitidulus* (Schrank, 1781)

BG: "Bulgaria Rhodopigebirge Dorf Kritchim", 1 s. (NMW); Sarnitsa, 29.VII.1996, JM.

*Cblaenius (Cblaeniellus) vestitus* (Paykull, 1790)

BG: Smolyan (HIEKE & WRASE, 1988: 148); new data: Asenovgrad, 19.V.1920, 1 s., IB; Devin, 10.VI.1976, 1 f., JG; Chepelare, 22.V.1994, 11 s., DR; Sarnitsa, 29.VII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM.

\* *Cblaenius (Cblaenites) spoliatus spoliatus* (P. Rossi, 1792)

BG: Orpheus Hut, 9-12.V.1979, 1 m., AS. This record is the highest-altitude species locality in Bulgaria.

\* *Cblaenius (Cblaenius) festivus festivus* (Panzer, 1796)

BG: Bachkovo, VII.1997, JM; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM.

\* *Cblaenius (Dinodes) decipiens* (L. Dufour, 1820)

BG: Chepelare, 1-3.VI.1902, 1 f., VI.

*Masoreus (Masoreus) wetterballii wetterballii* (Gyllenhal, 1813)

BG: Velingrad (HIEKE & WRASE, 1988: 152); Trigrad, 850 m, VIII (VASSILEV & NECHEVA, 1989: 51).

***Anisodactylus (Anisodactylus) binotatus (Fabricius, 1787)***

BG: Batak; Velingrad; Radilovo (HIEKE & WRASE, 1988: 112); Ruen Hut, 1200 m, 25.IX.1993, 1 m., PS; new data: Chepelare, 28.VIII.1987, 2 s. / 8.IV.1994, 1 s. / 22.V.1994, 5 s., DR; Batashki Snezhnik Peak, 1950 m, 14.-15.VIII.1995, 1 m., BG; Oryachovets, 28.VIII.1996, 2 m., PM; Panichkovo, VII.1997, JM; Bachkovo, VII.1997, JM; Sarnitsa, 24.VII.1997, JM.

***Anisodactylus (Anisodactylus) nemorivagus (Duftschmid, 1812)***

BG: Zdravets Hut (HIEKE & WRASE, 1988: 112); Chepelare (NOONAN, 1996: 105); new data: Trigrad, VII.1997, JM. ITO (2003: 361) omitted this species for Bulgaria, but HIEKE & WRASE (1988: 112) and GUÉORGUIEV & GUÉORGUIEV (1995a: 169) summarized some localities. One of the present authors too recorded data on it (GUÉORGUIEV, 1996: 33).

**\* *Anisodactylus (Pseudanisodactylus) signatus (Panzer, 1796)***

BG: Chepelarska River, 1140 m, 14.VI.1994, 1 m., 1 f., DR; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM. ITO (2003: 361) omitted this species for Bulgaria, but actually GUÉORGUIEV & GUÉORGUIEV (1995a: 169) noted some references and data. Recently the first author here examined specimens from the country (unpublished data).

***Diachromus germanus (Linnaeus, 1758)***

BG: Bachkovo; Peshtera (RAMBOUSEK, 1912: 88).

**§ *Ditomus tricuspидatus (Fabricius, 1792)***

BG: Bachkovo (GUÉORGUIEV & GUÉORGUIEV, 1995a: 208; GUÉORGUIEV & GUÉORGUIEV, 1995b: 83). WRASE (2003: 365) correctly omitted *D. tricuspидatus* for Bulgaria. In fact both records (Bachkovo and Burgas) known from Bulgaria concern misidentified specimens of *D. calydonius calydonius* (P. Rossi, 1790).

***Dixus clypeatus (P. Rossi, 1790)***

BG: Asenovgrad, VI (GUÉORGUIEV & GUÉORGUIEV, 1995a: 209).

**[*Dixus eremita (Dejean, 1825)*]**

BG: "Rhodopes" (HIEKE & WRASE, 1988: 146). This lowland xerothermic-like species is not properly recorded from the region. Recently it was cited for the Eastern Rhodopes (GUÉORGUIEV, 2004a: 388).

***Dixus obscurus (Dejean, 1825)***

BG: Asenovgrad, VIII (NEDELKOV, 1909: 96, sub *Aristus obscurus*); Bachkovo (GUÉORGUIEV & GUÉORGUIEV, 1995b: 83); new data: Panichkovo, VII.1997, JM.

**§ *Dixus sphaerocephalus (Olivier, 1795)***

BG: Asenovgrad, V (JOAKIMOV, 1904: 7). This West Mediterranean species has already been excluded from the list of our fauna (GUÉORGUIEV & GUÉORGUIEV, 1995a: 247; WRASE, 2003: 365). The record above refers to some of the other Bulgarian taxa of the genus.



*Acinopus (Acinopus) picipes* (Olivier, 1795)

BG: Ognyanovo near Gotse Delchev; Bachkovo (HIEKE & WRASE, 1988: 143); new data: Zhrebichko, 21.VI.1924, 1 s., PD.

*Acinopus (Osimus) ammophilus* Dejean, 1829

BG: Asenovgrad, V (JOAKIMOV, 1904: 9); Ognyanovo at Gotse Delchev; Bachkovo (HIEKE & WRASE, 1988: 143).

*Harpalus (Cryptophonus) tenebrosus* Dejean, 1829

BG: Bachkovski Monastery (HIEKE & WRASE, 1988: 138); new data: Narechenski Bani, 1100 m, 27.VIII.-9.X.2004, soil traps, 1 f., EM.

*Harpalus (Harpalus) affinis* (Schrank, 1781) [= *aeneus* (Fabricius, 1775)]

BG: Batak; Batashki Snezhnik, 1800 m; Velingrad; Bachkovo, 1000 m; Bojkovo; Ruen Hut; Chepelare; Gela; Momchil Yunak Hut; Studenets Hut; place Mezargidik; Michalkovo; Progled; Rozhen; Pamporovo, 1500-1600 m; Persenk; Smolyan (HIEKE & WRASE, 1988: 129, sub *H. aeneus*); new data: 10 km west of Dospat, 28.VII.1996, JM; Sarnitsa, 29.VII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Panichkovo, VII.1997, JM; Bachkovo, VII.1997, JM; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM.; Dospat Dam at Sarnitsa, 1200 m, 22.VII.2001, 4 s. / 26.VI.2002, 4 s., EM; Batak Dam, 1140 m, 28.VI.2002, 1 s., EM; Bachkovski Monastery, 29.VI.2002, 1 s., EM; Perelik Hut, 1950-2050 m, 25.V.2004, 1 s. / 6.X.2004, 1 s., BO.

*Harpalus (Harpalus) albanicus* Reitter, 1900

BG: Prespa Hut (HIEKE & WRASE, 1988: 134).

*Harpalus (Harpalus) anxius* (Duftschmid, 1812)

BG: Bachkovski Monastery (HIEKE & WRASE, 1988: 140); new data: Bachkovski Monastery, 28.VII.1931, 2 s., IZ; Devin, 10.VI.1976, 2 s., JG.

*Harpalus (Harpalus) atratus* Latreille, 1804

BG: Asenovgrad - Bachkovo (RAMBOUSEK, 1912: 85); Bachkovo (HIEKE & WRASE, 1988: 137); new data: Chepelare, 30.VI.1924, 1 f., PD; Velingrad, 30.VI.1927, 1 s., IB; Smolyan, 4.VIII.1996, JM; Panichkovo, VII.1997, JM; Bachkovo, VII.1997, JM; Mugla, 26.VII.1997, JM.

*Harpalus (Harpalus) attenuatus* Stephens, 1828

BG: Chepelare, 1100 m (VASSILEV & NECHEVA, 1989: 51); new data: Panichkovo, VII.1997, JM; Magareshki Dol River near Borino, 1180 m, 3.VIII.2001, 1 m., BG; Narechenski Bani, 1100 m, 10.V.-20.VI.2004, soil traps, 1 s., EM.

GR: Xanthi, 24-30.IV.1914, 17 s., IB & UR.

*Harpalus (Harpalus) autumnalis* (Duftschmid, 1812)

BG: Batak; Velingrad; Asenovgrad (HIEKE & WRASE, 1988: 136); new data: Trigrad, VI.1924, 1 f., DI; Belitsa near Laki, 650 m, 30.VIII.2001, 1 m., BP; Narechenski Bani, 1100 m, 10.V.-20.VI.2004, soil traps, 1 s., EM.

**[*Harpalus (Harpalus) caspius* (Steven, 1806)]**

BG: "Rhodopes" (HIEKE & WRASE, 1988: 132). Recently the species was cited for the Eastern Rhodopes (GUÉORGUIEV, 2004a: 389).

***Harpalus (Harpalus) cupreus fastuosus* Faldermann, 1836**

BG: Asenovgrad (RAMBOUSEK, 1912: 84); Batak (HIEKE & WRASE, 1988: 131).

***Harpalus (Harpalus) dimidiatus* (P. Rossi, 1790)**

BG: Asenova Krepost (HIEKE & WRASE, 1988: 132); new data: Mostovo, 17-19.IV.1993, 1 s., PS; Panichkovo, VII.1997, JM; Narechenski Bani, 1100 m, 28.VII.-27.VIII.2004, soil traps, 1 m., EM.

***Harpalus (Harpalus) distinguendus distinguendus* (Duftschmid, 1812)**

BG: Hrabrino (= Sotir) (RAMBOUSEK, 1912: 84); Velingrad; Asenovgrad; Bachkovo; Markovo; Pamporovo; Batak (HIEKE & WRASE, 1988: 131); new data: Belovo, 2 s., JU; Mostovo, 17-19.IV.1992, 2 s., PS / 20.X.1994, 3 s., BG; Chepelare, 22.V.1994, 2 s., DR; Izgrev Hut - Laki, 6.VIII.1996, JM; Panichkovo, VII.1997, JM; Sarnitsa, 24.VII.1997, JM.; Dospat Dam at Sarnitsa, 1200, 26.VI.2002, 2 s., EM.

GR: Xanthi, 24-30.IV.1914, 15 s., IB & UR.

**\* *Harpalus (Harpalus) flavicornis flavicornis* Dejean, 1829**

BG: Krichim, 3.IV.1935, 1 s., IB; place Mechkata between Chepelare and Pamporovo, 20.V.1994, 1 m., DR; Panichkovo, VII.1997, JM; road Jugovsko Hanche - Jugovo, 650 m, 9.V.-20.VI.2004, 1 s., EM.

***Harpalus (Harpalus) honestus honestus* (Duftschmid, 1812)**

BG: Byala Cherkva; Batak (APFELBECK, 1904:196); Peshtera (RAMBOUSEK, 1912: 85); Asenova Krepost; Bachkovski Monastery; Ruen Hut; Pamporovo (HIEKE & WRASE, 1988: 138); new data: Belovo, 29.V.1909, 1 s., DJ; Dorkovo, 21.V.1915, 1 s., DJ; Foten, 20.VI.1924, 1 s., PD; Djovlen, 23.VI.1924, 1 s., PD; Trigrad, 24.VI.1924, 1 s., DI; Devin, 10.VI.1976, 2 s., DG; Stojkite, 7.IX.1992, 1 s., BG; place Sveta Petka near Chepelare, 30.V.1994, 3 s., DR; Panichkovo, VII.1997, JM; Sarnitsa, 24.VII.1997, JM; Narechenski Bani, 1100 m, 10.V.-20.VI.2004, soil traps, 1 s., EM.

***Harpalus (Harpalus) hospes hospes* Sturm, 1818**

BG: Karlak Peak (= Golyam Snezhnik) Peak (RAMBOUSEK, 1912: 83, sub *Ophonus hospes*); Jundola, 13.VIII.1928, 1 f., PD.

***Harpalus (Harpalus) laevipes* Zetterstedt, 1828 [= *quadripunctatus* Dejean, 1829]**

BG: St. Petka Monastery; Gela; Pamporovo (HIEKE & WRASE, 1988: 133, sub *H. quadripunctatus*); new data Rozhen, 14.VI.1992, 1 f., DR.

***Harpalus (Harpalus) latus* (Linnaeus, 1758)**

BG: Vhuren, 800 m; Churen Hut, 1500 m; Gela; Momchil Yunak Hut; Pamporovo; Smolyan (HIEKE & WRASE, 1988: 134); new data: Sarnitsa, 29.VII.1996 / 24.VII.1997, JM; Ezerovo near Smolyan, 1307 m, 16-19.VII.2005, soil traps, 1 s., BO.

? *Harpalus (Harpalus) luteicornis* (Duftschmid, 1812)

BG: Ognyanovo above Gotse Deltsev (VASSILEV, 1988a: 86). NEDELKOV (1909), VASSILEV (1988a) and GUÉORGUIEV & GUÉORGUIEV (1995a) cited data for Bulgaria, but KATAEV et al. (2003: 378) omitted it for Bulgaria. We have never studied material from Bulgaria, but based on the known range of *H. luteicornis*, we cannot rule out its possible occurrence in the less explored areas of North Bulgaria.

? *Harpalus (Harpalus) modestus* Dejean, 1829

BG: Asenovgrad, V (JOAKIMOV, 1904: 10). KATAEV et al. (2003: 379) ruled out the species occurrence in Bulgaria. On the other hand, based on the known range of *H. luteicornis*, the first author here cannot delete it because its occurrence in the less explored regions of North Bulgaria is possible.

§ *Harpalus (Harpalus) neglectus neglectus* Audinet-Serville, 1821

BG: "Rhodopes" (GUÉORGUIEV & GUÉORGUIEV, 1995a: 198). One of us (BVG) remembered that the data for Bulgaria were taken after an original draft of Z. Mlynař, without revision of the corresponding material. We agree with KATAEV et al. (2003: 379) who omitted the species for Bulgaria.

\* *Harpalus (Harpalus) oblitus oblitus* Dejean, 1829

BG: Izgrev Hut - Laki, 6.VIII.1996, JM.

[*Harpalus (Harpalus) picipennis* (Duftschmid, 1812)]

BG: "Rhodopes" (HIEKE & WRASE, 1988: 141). This species inhabits open sites at low and middle altitudes and has not yet been proved for the regional fauna.

*Harpalus (Harpalus) pumilus* Sturm, 1818

BG: Ognyanovo above Gotse Delchev, VI; Bachkovo (GUÉORGUIEV & GUÉORGUIEV, 1995a: 201; GUÉORGUIEV & GUÉORGUIEV, 1995b: 83:).

GR: Xanthi, 24-30.IV.1914, 5 s., IB & UR.

\* *Harpalus (Harpalus) pygmaeus* Dejean, 1829

GR: Xanthi, 24-30.IV.1914, 1 m., IB.

*Harpalus (Harpalus) rubripes* (Duftschmid, 1812)

BG: Byala Cherkva (APFELBECK, 1904: 194); Batak; Velingrad; Bachkovski Monastery; Bojkovo; Ruen Hut; Zdravets Hut; Chepelare; Gela; Pamporovo (HIEKE & WRASE, 1988: 133); Ognyanovo above Gotse Delchev, VI (GUÉORGUIEV & GUÉORGUIEV, 1995a: 192); new data: Shiroka Laka, 27.VI.1924, 1 f., PD; Chepelare, 29.VI.1924, 1 s., PD / 15.IV.1994, 1 s., DR; Velingrad, 30.V.1924, 1 f., PD; Devin, 10.VI.1976, 2 s., JG; Mostovo, 17-19.IV.1992, 1 s., PS; Samurski Dol, 29.VI.1992, 2 s., DR; Stojkite, 7.IX.1992, 2 s., BG; around Sbirikova Peshtera Cave, 10.V.1994, 1 s., DR; Sarnitsa, 29.VII.1996, JM; Smolyan, 4.VIII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Sarnitsa, 24.VII.1997, JM; Magareshki Dol River near Borino, 1180 m, 3.VIII.2001, 1 m., BO.

*Harpalus (Harpalus) rufipalpis rufipalpis* Sturm, 1818 [= *rufitarsis* (Duftschmid, 1812) nec Illiger, 1802]

BG: Batak; Asenova Krepost; Studenets Hut; Pamporovo (HIEKE & WRASE, 1988: 138, sub *H. rufitarsis* Duftschmid); new data: Chepelare, 29.VI.1924, 1 s., PD; Byala Cherkva, 2.VI.1931; Chepelarska River, 1140 m, 14.VI.1994, 1 s., DR; Sarnitsa, 29.VII.1996, JM; Smolyan, 4.VIII.1996, JM; Panichkovo, VII.1997, JM; Bachkovo, VII.1997, JM; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM.

*Harpalus (Harpalus) saxicola* Dejean, 1829

BG: Ruen Hut (HIEKE & WRASE, 1988: 130); new data: Foten, 20.VI.1924, 1 m., PD; Krichim, 3.VI.1940, 1 m., IB; Asenovgrad, 10.VI.1961, 1 s., VG; Panichkovo, VII.1997, JM. GR: Xanthi, 24-30.IV.1914, 2 s., IB & UR.

*Harpalus (Harpalus) serripes serripes* (Quensel, 1806)

BG: Batak; Velingrad (APFELBECK, 1904: 197); Bachkovo; Prespa Hut; Pamporovo (HIEKE & WRASE, 1988: 135); new data: Krichimska Kuria, 29.V.1919, 1 s., IB; Velingrad, 1.VIII.1925, 2 s. / 30.VIII.1927, 7 s., PD; Chepelare, 15.IV.1994, 1 s., DR; Panichkovo, VII.1997, JM; Bachkovo, VII.1997, JM; Sarnitsa, 24.VII.1997, JM; Narechenski Bani, 1100 m, 10.V.-20.VI.2004, soil traps, 1 s., EM; near Modarskata Peshtera Cave near Smolyan, 1600-1630 m, 19.VI.2005, 2 s., under stones, PB & PS.

GR: Xanthi, 24-30.IV.1914, 1 s., IB.

*Harpalus (Harpalus) smaragdinus* (Duftschmid, 1812)

BG: Asenovgrad, V (APFELBECK, 1904: 193; JOAKIMOV, 1904: 10); Bachkovski Monastery; Michalkovo (HIEKE & WRASE, 1988: 132); new data: Velingrad, 30.VI.-1.VII.1927, 3 s., IB; 10 km west of Dospat, 28.VII.1996, JM; Sarnitsa, 29.VII.1996, JM; Mugla, 26.VII.1997, JM; Sarnitsa, 24.VII.1997, JM.

*Harpalus (Harpalus) subcylindricus* Dejean, 1829

BG: Devin, 700 m, VIII (VASSILEV, 1988a: 86); new data: 10 km west of Dospat, 28.VII.1996, JM; Smolyan, 4.VIII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM.

*Harpalus (Harpalus) sulphuripes sulphuripes* Germar, 1824

BG: Bachkovski Monastery (HIEKE & WRASE, 1988: 139).

*Harpalus (Harpalus) tardus* (Panzer, 1796)

BG: Bachkovski Monastery; Markovo; Pamporovo (HIEKE & WRASE, 1988: 135); new data: Ognyanovo, 17.VI.1988, 1 s., VS; Sarnitsa, 29.VII.1996, JM; Martsiganitsa Hut, Gargini Dupki Cave, 1367 m, 22.V.2005, 1 m., PS; Chepintsi, 940-980 m, 1.VI.2005, 3 s., RB.

\* *Harpalus (Harpalus) triseriatus triseriatus* A. Fleischer, 1897

GR: Xanthi, 24-30.IV.1914, 2 m., 1 f., IB & UR.

***Harpalus (Harpalus) xanthopus winkleri* Schauberger, 1923**

BG: Pamporovo, 1600 m (HIEKE & WRASE, 1988: 134); new data: Sarnitsa, 29.VII.1996, JM; Smolyan, 4.VIII.1996, JM.

***Harpalus (Pseudoophonus) calceatus* (Duftschmid, 1812)**

BG: Bojkovo (HIEKE & WRASE, 1988: 128).

***Harpalus (Pseudoophonus) griseus* (Panzer, 1796)**

BG: Alabak, VI (JOAKIMOV, 1904: 10); Batak; Batashki Snezhnik, 1800 m; Velingrad; Bachkovo; Dedovo; Persenk Peak (HIEKE & WRASE, 1988: 127, sub *Pseudophonus griseus*); new data: Velingrad, 2.VIII.1925, 1 s., PD; Krichim, 18.VI.1934, 5 s. / 9.V.1940, 1 s., IB.

***Harpalus (Pseudoophonus) rufipes* (DeGeer, 1774) [= *pubescens* (O.F. Müller, 1776)]**

BG: Karlak (= Golyam Snezhnik) Peak (APFELBECK, 1904: 187, sub *H. pubescens*); Batak; Batashki Snezhnik, 1800 m; Bachkovo; Dedovo; Ruen Hut; Zdravets Hut; Ravnishka Hut; Hvojna; Michalkovo; Pamporovo; Smolyan (HIEKE & WRASE, 1988: 127, sub *Pseudophonus rufipes*); new data: Trigrad, 24.VI.1924, 1 s., DI; Shiroka Laka, 27.VI.1924, 3 s., DP; place Sveta Petka near Chepelare, 30.V.1994, 3 s., DR; Sarnitsa, 29.VII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Panichkovo, VII.1997, JM; Bachkovo, VII.1997, JM; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM; Dospat Dam at Sarnitsa, 1200 m, 22.VII.2001, 6 s. / 26.VI.2002, 2 s., EM; Bachkovski Monastery, 29.VI.2002, 1 s., EM; near Modarskata Peshtera Cave near Smolyan, 1600-1630 m, 19.VI.2005, 1 s., under stones, PB & PS.

***Ophonus (Hesperophonus) azureus* (Fabricius, 1775)**

BG: Smolyan (HIEKE & WRASE, 1988: 125); new data: Devin, 10.VI.1976, 2 m., JG; Panichkovo, VII.1997, JM; Bachkovo, VII.1997, JM; Mugla, 26.VII.1997, JM.

***Ophonus (Hesperophonus) cribricollis* (Dejean, 1829)**

BG: Bachkovo; Hvojna (HIEKE & WRASE, 1988: 126); new data: Panichkovo, VII.1997, JM.

***Ophonus (Hesperophonus) similis* (Dejean, 1829)**

BG: Bachkovo (GUÉORGUIEV & GUÉORGUIEV, 1995a: 182; GUÉORGUIEV & GUÉORGUIEV, 1995b: 82); new data: Persenk Mine, 1000 m, 29.V.1976, 1 m., 1 f., JG.

***Ophonus (Hesperophonus) subquadratus* (Dejean, 1829)**

BG: Bachkovo (GUÉORGUIEV & GUÉORGUIEV, 1995a: 182; GUÉORGUIEV & GUÉORGUIEV, 1995b: 82); new data: Bachkovski Monastery, 28.VII.1931, 1 m., IZ; Devin, 10.VI.1976, 1 m., JG.

GR: Xanthi, 24-30.IV.1914, 2 m., 1 f., IB & UR.

**\* *Ophonus (Metophonus) gammeli* (Schauberger, 1932)**

BG: Persenk Mine, 1000 m, 29.V.1976, 1 m., 1 f., JG.

*Ophonus (Metoponus) laticollis* Mannerheim, 1825 [= *punctatulus* (Duftschmid, 1812) nec Fabricius, 1792; *nitidulus* Stephens, 1828]

BG: Batak; Pamporovo; Smolyan (HIEKE & WRASE, 1988: 122, sub *O. punctulatus* Duftschmid); new data: Perelik Massif, Ledenik Cave, 28.VI.1924, 1 f., PD; Chepelare, 28.VIII.1987, 1 m., DR; Samurski Dol, 29.VI.1992, 1 s., DR; Sarnitsa, 29.VII.1996 / 24.VII.1997, JM; near Smolyan, 4.VIII.1996, JM.

*Ophonus (Metoponus) puncticollis* (Paykull, 1798)

BG: Hrabrino (= Sotir) (RAMBOUSEK, 1912: 82).

*Ophonus (Metoponus) rufibarbis* (Fabricius, 1792)

BG: Batak (HIEKE & WRASE, 1988: 124).

*Ophonus (Metoponus) rupicola* (Sturm, 1818)

BG: Asenovgrad; Bachkovo (RAMBOUSEK, 1912: 82).

\* *Ophonus (Metoponus) schaubergerianus* (Puel, 1937)

BG: Chepelare, 28.VIII.1987, 1 m., 3 f. / 15.IV.1994, 1 m., 2 f., DR; place Sveta Petka near Chepelare, 30.V.1994, 1 m., DR; near Sokolovtsi, 1000 m, 16.VII.2005, 1 f., BO.

*Ophonus (Metoponus) veluchianus* (J. Müller, 1931) [= *cordicollis* (Dejean, 1829)]

BG: Batak (HIEKE & WRASE, 1988: 123, sub *O. cordicollis*).

*Ophonus (Ophonus) sabulicola* (Panzer, 1796) [= *ponticus* (Schauberger, 1926)]

BG: Bachkovski Monastery; Pamporovo (HIEKE & WRASE, 1988: 121, sub *O. sabulicola ponticus*); new data: Shiroka Laka, 27.VI.1924, 1 s., PD; Devin, 10.VI.1976, 1 m., JG.

\* *Paroponus (Paroponus) dejeani* (Csiki, 1932)

BG: Ablanitsa, 1.V.1994, 1 s., BP; Oryahovets, 800 m, 28.VIII.1996, 1 f., PM.

GR: Xanthi, 24-30.IV.1914, 1 f., IB. Ito (in KATAEV et al., 2003: 393) omitted Bulgaria as a country populated by this species, but in fact earlier GUÉORGUIEV & GUÉORGUIEV (1995a: 203) had cited some data. The new material here confirms the presence of *P. dejeani* in the country.

\* *Acupalpus (Acupalpus) flavicollis* (Sturm, 1825)

BG: Chepelare, 22.V.1994, 2 s., DR.

\* *Acupalpus (Acupalpus) luteatus* (Duftschmid, 1812)

BG: Izgrev Hut - Laki, 6.VIII.1996, JM.

*Anthracus longicornis* (Schaum, 1857)

BG: Devin, 700 m, VIII (VASSILEV, 1988a: 86).

\* *Bradycellus (Bradycellus) caucasicus* (Chaudoir, 1846)

BG: Rozhen, 2.III.1995, 1 m., DR; Bujnovsko Gorge between the Yagodinska Cave and Bujново, 17.IV.2005, 1 f., shifting litter in mixed forest, PS. It is a typical

mountain species which lives in Bulgaria at the interval of 1200–2210 m altitude (GUÉORGUIEV & GUÉORGUIEV, 1995a: 178).

***Stenolophus (Stenolophus) abdominalis persicus* Mannerheim, 1844**

BG: Skobelevo (HIEKE & WRASE, 1988: 115, sub *S. abdominalis* Gené, 1836).

\* ***Stenolophus (Stenolophus) discophorus* (Fischer von Waldheim, 1823)**

BG: Belovo, 1 m., JU.

\* ***Stenolophus (Stenolophus) mixtus* (Herbst, 1784)**

BG: Panichkovo, VII.1997, JM.

***Stenolophus (Stenolophus) teutonius* (Schrank, 1781)**

BG: Batak; Pamporovo (HIEKE & WRASE, 1988: 115); new data: Tsrancha, 21.V.1963, 1 s., BZ; Chepelare, 22.V.1994, 1 s., DR.

***Cymindis (Cymindis) axillaris axillaris* (Fabricius, 1794)** [= *homagrlica* (Duftschmid, 1812); *palliata* Fischer von Waldheim, 1823]

BG: Velingrad, VI (JOAKIMOV, 1904: 7, sub *C. homagrlica*); Pamporovo (HIEKE & WRASE, 1988: 161); new data: Sarnitsa, 29.VII.1996, JM; Panichkovo, VII.1997, JM; Mugla, 26.VII.1997, JM. The French specialist C. Jeanne identified the specimens from Panichkovo as *C. axillaris axillaris* and *C. axillaris palliata* (J. Muilwijk, personal communication). However, one of the present authors (BVG) failed to find stable characters differentiating both forms.

***Cymindis (Cymindis) humeralis* (Geoffroy, 1785)**

BG: Orpheus Hut; Pamporovo (HIEKE & WRASE, 1988: 161); new data: Chepelare, 29.VI.1924, 2 s., PD; Rozhen, 14.VI.1992, 2 s., DR; Pamporovo, 18.IV.1994, 1 s., DR; Batashki Snezhnik Peak, 1700-1900 m, 14.-15.VIII.1995, 2 s., BG; Smolyan, 4.VIII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Bachkovo, VII.1997, JM; Mugla, 26.VII.1997, JM.

\* ***Cymindis (Cymindis) lineata* (Quensel, 1806)**

BG: Panichkovo, VII.1997, JM.

***Cymindis (Menas) miliaris* (Fabricius, 1801)** [= *variolosa* (Fabricius, 1794) nec Fabricius, 1787]

BG: Karlak (= Golyam Snezhnik) Peak, VI (GUÉORGUIEV & GUÉORGUIEV, 1995a: 235, sub *C. variolosa*).

***Cymindis (Tarulus) vaporariorum* (Linnaeus, 1758)**

BG: Karlak (= Golyam Snezhnik) Peak (APFELBECK, 1904: 344).

***Demetrius (Demetrius) monostigma* Samouelle, 1819**

BG: Rhodopes - Belovo (GUÉORGUIEV & GUÉORGUIEV, 1995a: 225). This rare species is cited only from the localities of Belovo and Sandanski in Bulgaria.

\* *Calodromius spilotus* (Illiger, 1798)

BG: Dospat Dam near Sarnitsa, 1200 m, 22.VII.2001, 1 s., EM.

*Dromius (Dromius) agilis* (Fabricius, 1787)

BG: Rhodopes near Plovdiv (APFELBECK, 1904: 336); Asenovgrad; Peshtera (RAMBOUSEK, 1912: 100).

*Microlestes fissuralis* (Reitter, 1901)

BG: Pamporovo (HIEKE & WRASE, 1988: 159).

\* *Microlestes fulvibasis* (Reitter, 1901)

BG: near Smolyan, 4.VIII.1996, JM.

*Microlestes maurus maurus* (Sturm, 1827)

BG: Pamporovo (HIEKE & WRASE, 1988: 159).

*Microlestes minutulus* (Goeze, 1777)

BG: Chepelare (HIEKE & WRASE, 1988: 158); Kochan, VII (VASSILEV, 1988b: 89); new data: Mugla, 26.VII.1997, JM.

*Paradromius (Manodromius) linearis linearis* (Olivier, 1795)

BG: Asenovgrad, VIII (GUÉORGUIEV & GUÉORGUIEV, 1995a: 227).

\* *Philorbizus notatus* (Stephens, 1827)

BG: Belovo, 1 s., JU.

*Lebia (Lamprias) cyanocephala cyanocephala* (Linnaeus, 1758)

BG: Asenovgrad, V (JOAKIMOV, 1904: 7).

*Lebia (Lebia) cruxminor cruxminor* (Linnaeus, 1758)

BG: Dospat (HIEKE & WRASE, 1988: 153); new data: Belovo, 1 s., JU.

*Lebia (Lebia) humeralis* Dejean, 1825

BG: Bachkovo, VI (GUÉORGUIEV & GUÉORGUIEV, 1995a: 222; GUÉORGUIEV & GUÉORGUIEV, 1995b: 84).

*Lebia (Lebia) marginata* (Geoffroy, 1785)

BG: Rhodopes - Belovo (GUÉORGUIEV & GUÉORGUIEV, 1995a: 223). KABAK (2003: 429) left Bulgaria unmentioned among the regions with species occurrence. However, earlier, GUÉORGUIEV & GUÉORGUIEV (1995a: 223) had cited data for it.

*Lebia (Lebia) scapularis scapularis* (Geoffroy, 1785)

BG: Rhodopes near Plovdiv (APFELBECK, 1904: 324).



*Lionychus quadrillum* (Duftschmid, 1812)

BG: Dospat, 1100 m, VII (GUÉORGUIEV & GUÉORGUIEV, 1995a: 228; GUÉORGUIEV & GUÉORGUIEV, 1995b: 84); new data: Izgrev Hut - Laki, 6.VIII.1996, JM; 2 kn S Barutin, 27.IV.1998, 1 s., BP.

*Syntomus pallipes* (Dejean, 1825)

BG: Trigrad, 850 m, VIII (VASSILEV & NECHEVA, 1989: 51); new data: Oryachovets, 800 m, 28.VIII.1996, 2 s., PM; Panichkovo, VII.1997, JM.

*Syntomus truncatellus* (Linnaeus, 1761)

BG: Orpheus Hut; Pamporovo (HIEKE & WRASE, 1988: 158); new data: Pamporovo, 7-13.IV.1994, 4 s., DR; Rozhen, 2.III.1995, 1 s., DR; Batashki Snezhnik, 1700-1900 m, 14-15.VIII.1995, 1 s., spruce forest, BG; Smolyan, 4.VIII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM.

*Licinus (Licinus) cassideus cassideus* (Fabricius, 1792)

BG: Byala Cherkva, 1500 m, VII (GUÉORGUIEV & GUÉORGUIEV, 1995a: 219; GUÉORGUIEV & GUÉORGUIEV, 1995b: 84).

*Licinus (Licinus) depressus* (Paykull, 1790)

BG: Place Stojkite, 1050 m, VI (VASSILEV, 1988a: 86).

*Oodes (Oodes) gracilis* A. Villa & G.B. Villa, 1833

BG: Devin, 600 m (VASSILEV, 1992: 27).

*Panagaeus (Panagaeus) cruxmajor* (Linnaeus, 1758)

BG: Alabak (= Golem Belovski Balkan) (NEDELKOV, 1909: 8).

\* *Agonum (Agonum) afrum* (Duftschmid, 1812)

BG: Magareshki Dol River near Borino, 1180 m, 3.VIII.2001, 1 f., BO.

\* *Agonum (Agonum) gisellae* Csiki, 1931

BG: "1982.V.28. Lake V. Kolarov" / "Mts. Rodope leg. Rozner I.", 1 s. (MNM).  
Chepelarska River, 1140 m, 14.VI.1994, 1 f., DR; Beglika Dam, 1600 m, 2.VIII.2001, 1 m., BO.

*Agonum (Agonum) marginatum* (Linnaeus, 1758)

BG: Batak; Pamporovo (HIEKE & WRASE, 1988: 85); Dospat Dam at Sarnitsa, 1200 m, 22.VII.2001, 1 s., EM; Batak Dam, 1140 m, 11-16.VIII.1000, 1 s. / 28.VI.2002, 16 s., EM.

*Agonum (Agonum) monachum* (Duftschmid, 1812) [= *atratum* (Duftschmid, 1812)]

BG: Bachkovo (RAMBOUSEK, 1912: 159, sub *A. atratum*).

*Agonum (Agonum) muelleri* (Herbst, 1784)

BG: Chepelare; Pamporovo (HIEKE & WRASE, 1988: 85); Beglika, 21.VII.1926, 1 s., IB; Chepelarska River, 1140 m, 15.IV.1994 / 22.V.1994 / 14.VI.1994, 7 s., DR; between Borino and Chala, 1300 m, 3.VIII.1997, 1 s., BP.

*Agonum (Agonum) nigrum* Dejean, 1828

BG: Mugla, VII (GUÉORGUIEV & MUIIWIJK, 2000: 82). This rare species has been cited for Bulgaria only from the vicinity of Mugla. BOUSQUET (2003a: 451) omitted it for Bulgaria.

*Agonum (Agonum) sexpunctatum* (Linnaeus, 1758)

BG: Karlak (= Golyam Snezhnik) Peak (APFELBECK, 1904: 290, sub *Platynus sexpunctatus*); Velingrad (JOAKIMOV, 1904: 8, sub *Anchomenus sexpunctatus*); Batak; Dospat; Orpheus Hut; Pamporovo; Persenk Peak (HIEKE & WRASE, 1988: 84); new data: Shilesta Chuka, 8.X.1976, 1 s., DR; Mostovo, 17-19.IV.1993, 1 s., PS; Chepelare, 15.IV.1994 / 22.V.1994, 8 s., DR; Sarnitsa, 29.VII.1996 / 24.VII.1997, JM; Batak Dam, 1140 m, 2.V.2002, 2 s. / 28.VI.2002, 1 s., EM.

*Agonum (Agonum) viduum* (Panzer, 1796)

BG: Pamporovo (HIEKE & WRASE, 1988: 86); new data: place Popovete near Progled, 27.VI.1994, 1 f., DR; Izgrev Hut - Laki, 6.VIII.1996, JM; Mugla, 26.VII.1997, JM; Sarnitsa, 24.VII.1997, JM; Beglika Dam, 1600 m, 2.VIII.2001, 1 m., BG; river near Sokolovtsi, 1000 m, 16.VII.2005, 1 s., BO.

*Agonum (Agonum) viridicupreum viridicupreum* (Goeze, 1777)

BG: Batak (APFELBECK, 1904: 290, sub *Platynus viridicupreus*; HIEKE & WRASE, 1988: 85); new data: Sarnitsa, 29.VII.1996 / 24.VII.1997, JM; Batak Dam, 1140 m, 28.VI.2002, 2 s., EM.

GR: Xanthi (= Sketscha), 24-30.IV.1914, 1 s., IB. BOUSQUET (2003a: 452) omitted the species for Greece, but long before that OERTZEN (1886: 212) and APFELBECK (1904: 290, sub *Platynus v.*) had cited it from there. The new data here confirms its presence in Greece.

*Agonum (Euophilus) antennarium* (Duftschmid, 1812)

BG: 10 km west of Dospat; Chepelare; Pamporovo (HIEKE & WRASE, 1988: 87); new data: "1982.V.28. Dospat, Bulg." / "Mts. Rodope leg. Rozner I.", 1 s. (MNM); Pamporovo, 7.IV.1994, 1 s., DR; Rajkovski Livadi near Chepelare, 2-26.II.1995, 4 s., DR; Sarnitsa, 29.VII.1996 / 24.VII.1997, JM; Trigrad, VII.1997, JM; Magareshki Dol River near Borino, 1180 m, 3.VIII.2001, 8 s., BG; near Modarskata Peshtera Cave near Smolyan, 1600-1630 m, 19.VI.2005, 1 s., under stones, PB & PS.

\* *Agonum (Euophilus) gracile* Sturm, 1824

BG: Rozhen, 14.VI.1992, 1 m., DR.

***Agonum (Europhilus) piceum* (Linnaeus, 1758)**

BG: Pamporovo (HIEKE & WRASE, 1988: 87). This rare species is known in Bulgaria only from the locality of Pamporovo.

***Anchomenus dorsalis* (Pontoppidan, 1763)**

BG: Markovo; Smolyan (HIEKE & WRASE, 1988: 83, sub *Platynus dorsalis*); new data: around Sbirkova Peshtera Cave, 10.V.1994, 1 s., DR; Sarnitsa, 29.VII.1996, JM; Smolyan, 4.VIII.1996, JM; Bachkovo, VII.1997, JM; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM.

**\* *Olisthopus sturmii* (Duftschmid, 1812)**

BG: Sarnitsa, 29.VII.1996 / 24.VII.1997, JM.

***Oxypselaphus obscurum* (Herbst, 1784)**

BG: Velingrad, VI (JOAKIMOV, 1904: 8, sub *Anchomenus obscurus*).

***Paranchus albipes* (Fabricius, 1796)**

BG: Ognyanovo above Gotse Delchev, 650 m, VIII (VASSILEV, 1988b: 88); new data: Smolyan, 4.VIII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Trigrad, VII.1997, JM; Kanina River near Kovachevitsa, 940 m, 1.VIII.2001, 2 s., BG; Vucha River between Devin and Michalkovo, 3.VIII.2001, 6 s., BG; Vucha River near Nastan, 19.VII.2005, 1 s., BO.

***Platynus (Batenus) scrobiculatus purkynei* Obenberger, 1917**

BG: Rhodopes near Plovdiv (APFELBECK, 1904: 288, sub *P. scrobiculatus*); Smolyan (type locality of ssp. *purkynei*; OBENBERGER, 1917: 10); Bachkovo; Zdravets Hut; Ruen Hut; Pamporovo, 1500 m (HIEKE & WRASE, 1988: 83, sub *P. scrobiculatus*); Momchilovtsi, IV; Mogilitsa, XI; Yagodinsko Zhdrelo Gorge, IX; Kanina River, Kovachevitsa, 940 m, VII-VIII (GUÉORGUIEV & MUIILWIJK, 2001: 116); new data: reserve Momchilov Dol near Bostina, old black pine forest (*Pinus nigra* Arnold), 9.VI.1995, 1 s., PM; Izgrev Hut - Laki, 6.VIII.1996, JM; below Golyam Perelik Peak, 1950-2000 m, 23.V.2004, 1 m., 1 f. / 6.X.2004, 1 m., 1 f., BG; Bujново Gorge near Teshel water power station, 17.IV.2005, 2 m., rock niche, PS; Goloboitsa 1 Cave near Koshnitsa, Smolyan District, 19.VII.2005, 2 s., TI. This East Balkan subendemic subspecies occurs also in the north area of the Anatolian Peninsula. A taxonomic revision of the races throughout the species range, and especially to clarify the status of *P. scrobiculatus serbicus* Csiki, 1904 and *P. scrobiculatus turcicus* Apfelbeck, 1904, is needed.

***Platynus (Platynus) assimilis* (Paykull, 1790)**

BG: Bachkovo (RAMBOUSEK, 1912: 97, sub *Agonum assimilis*); Batak; St. Petka Monastery; Bachkovo; Ruen Hut (HIEKE & WRASE, 1988: 84); new data: Teshel, 18.IV.1994, 1 s., DR; Sarnitsa, 29.VII.1996, JM; Smolyan, 4.VIII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Batak Dam, 1140 m, 28.VI.2002, 1 s., EM.

**\* *Abax (Abacopercus) carinatus carinatus* (Duftschmid, 1812)**

BG: Persenk Mine, 1000 m, 29.V.1976, 1 s., JG; Smolyan, 4.VIII.1996, JM; 2 km S of Barutin, 27.IV.1998, 1 s., BP.

***Abax (Abax) ovalis* (Duftschmid, 1812)**

BG: St. Petka Monastery (HIEKE & WRASE, 1988: 79); new data: Yagodinski Karst near Yagodinska Peshtera Cave, 16.IX.1992, 5 s., DR.

***Abax (Abax) parallelus parallelus* (Duftschmid, 1812)**

BG: Bachkovo (HIEKE & WRASE, 1988: 79); new data: Mugla, 26.VII.1997, JM.

***Molops alpestris rhilensis* Apfelbeck, 1904**

BG: Karlak (= Golyam Snezhnik) Peak (APFELBECK, 1904: 225); Smolyanski Ezera Lakes, 1300 m (MLYNAR, 1977: 78); Zdravets Hut; Pamporovo, 1500-1600 m (HIEKE & WRASE, 1988: 81); new data: Persenk Mine, 29.V.1976, 1 s., JG; Devin, 10.VI.1976, 1 s., JG; Smolyan, 17.V.1986, 1 s., VS; Pamporovo, 7-18.IV.1994, 19 s. / 9-18.V.1995, 5 s., DR; Hadzhi Salinovo near Chepelare, 28.IV.1994, 8 s., DR; place Karakole, 28.IV.1994, 3 s., DR; around Sbirkova Peshtera Cave, 10.V.1994, 4 s., DR; place Mechkata between Chepelare and Pamporovo, 20.V.1994, 1 s., DR; Chepelare, 22.V.1994, 1 s., DR; place Sveta Petka near Chepelare, 30.V.1994, 2 s., DR. East Balkan endemic subspecies of a Balkan endemic species. In Bulgaria the former populates the mountains Rila and the Western Rhodopes.

***Molops dilatatus dilatatus* Chaudoir, 1868**

BG: Alabak, VI (JOAKIMOV, 1904: 9); Jundola; Asenovgrad; Perelik Peak; Dospat; Bachkovo (MLYNAR, 1977: 68); Batashki Snezhnik, 1800 m; Bachkovo, 1000 m; Churen, 1400 m; Ruen Hut; Zdravets Hut; Modar, 1700 m; Chepelare; Momchil Yunak Hut; Prespa Hut; Pamporovo, 1500-1600 m (HIEKE & WRASE, 1988: 80); Persenk Peak (GUÉORGUIEV, 1989: 83); new data: Byala Cherkva, 15.V.1939, 2 s., IB; Smolyan, 17.V.1986, 1 s., VS; between Murgavets (= Karamandzha) Peak and Kartala Col, 24.IV.1994, 1 s., DR; Hadzhi Salinovo near Chepelare, 28.IV.1994, 3 s., DR; place Karukole, 28.IV.1994, 2 s., DR; Chepelare, 8-22.V.1994, 8 s., DR; Pamporovo, 13-18.IV.1994, 20 s. / 9.V.1995, 5 s., DR; around Sbirkova Peshtera Cave, 10.V.1994, 1 s., DR; place Studenets near Pamporovo, 19.V.1994, 2 s., DR; place Mechkata between Chepelare and Pamporovo, 20.V.1994, 3 s., DR; place Sveta Petka near Chepelare, 30.V.1994, 2 s., DR; Narechenski Bani near camping, 1200 m, 10.V.-20.VI.2004, soil traps, 3 m., 1 f., EM; Perelik Hut, 1950-2050 m, 25.V.2004, 2 s. / 6.X.2004, 1 s., BG; Martsiganitsa Hut, Ahmetyova Dupka Cave, 1348 m, 21.V.2005, 1 s., PS; Perelik Hut, 2000 m, 17.VII.2005, 1 s., BO; Perelik Hut, 1950 m, 11.V.2005, 1 s., under stones, BP. East Balkan endemic species and subspecies. Along with *M. alpestris rhilensis* and *Tapinopterus balcanicus*, this is one of the most common forest inhabiting carabid beetles in the region.

***Molops piceus bulgaricus* Maøan, 1938**

BG: Ruen Hut (HIEKE & WRASE, 1988: 82); material revised: "Bulgarien Rodopi-Gebirge VIII.1964", 1 m. (ZMHU); "Bulgarien Rodopi-Gebirge Dorf Ruen VIII.1964", 1 m. (ZMHU). East Balkan endemic subspecies. The revised material above confirms the species presence in the Rhodopes.

***Molops rhodopensis rhodopensis* Apfelbeck, 1904**

BG: Batashki Snezhnik, 1800 m; Pamporovo (HIEKE & WRASE, 1988: 81); new data: between Murgavets (= Karamandzha) Peak and Kartala Col, 24.IV.1994, 1 f., DR;

place Studenets near Pamporovo, 19.V.1994, 1 f., DR; place Mechkata between Chepelare and Pamporovo, 20.V.1994, 1 m., DR; Izgrev Hut - Laki, 6.VIII.1996, JM. East Balkan endemic species and subspecies. This fairly rare Bulgarian species is known only from Rila Mt. and the Bulgarian part of the Western Rhodopes. It lives sympatrically together with *M. alpestris* and *M. dilatatus* (see locality Mechkata under each of three *Molops*-species). There is little doubt that it lives in the Greek section of the massif too.

***Myas (Myas) chalybeus (Palliardi, 1825)***

BG: Alabak, VI (JOAKIMOV, 1904: 9); Ruen Hut (HIEKE & WRASE, 1988: 69). Balkan subendemic species and Tertiary relict.

***Poecilus (Poecilus) cupreus cupreus (Linnaeus, 1758)***

BG: Batak (APFELBECK, 1904: 253, sub *Pterostichus cupreus*); Chepelare; Michalkovo (HIEKE & WRASE, 1988: 70); new data: Trigrad, 24.V.1924, 1 s., PD; Sarnitsa, 24.VII.1997, JM.

***Poecilus (Poecilus) lepidus lepidus (Leske, 1785)***

BG: Byala Cherkva, 1600 m (APFELBECK, 1904: 253, sub *Pterostichus lepidus*; HIEKE & WRASE, 1988: 70); place Kauka near Dospat; St. Petka Monastery; Bachkovski Monastery; Bojkovo; Churen; Ruen Hut; Gela; Michalkovo; Pamporovo (HIEKE & WRASE, 1988: 70); new data: Chechljovo, 4-7.VIII.1925, 1 s., PD; Samurski Dol near Sv. Petar, 29.VI.1992, 1 m., 1 f., DR; Teshel, 18.IV.1994, 1 s., DR; place Sveta Petka near Chepelare, 30.V.1994, 2 s., DR; Orpheus Hut, 22.V.1995, 2 s., DR; Sarnitsa, 29.VII.1996, JM; Smolyan, 4.VIII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM.; between Borino and Chala, 1300 m, 3.VIII.1997, 2 sp., BP; between Velingrad and Sarnitsa, 1500 m, 21.VII.2001, 1 s., EM.; Pamporovo, 1500 m, 23.VII.2001, 1 s., EM; Magareshki Dol River, 1180 m, 3.VIII.2001, 1 s., BG; Bujnovsko Gorge between Yagodinska Cave and Bujново, 17.IV.2005, 1 s., shifting litter in mixed forest, PS; Perelik Hut, 2000 m, 17.VII.2005, 1 s., BO.

***Poecilus (Poecilus) versicolor (Sturm, 1824) [= coeruleus (Linnaeus, 1758)]***

BG: Batak (APFELBECK, 1904: 255, sub *Pterostichus coeruleus*); Batashki Snezhnik, 1800 m; Bachkovo; Bojkovo; Dedovo; Ruen Hut; Studenets Hut; Zdravets Hut; Ravnishta Hut; Chepelare; Pamporovo; Progled (HIEKE & WRASE, 1988: 70); new data: Persenk Mine, 1000 m, 29.V.1976, 1 s., JG; Ognyanovo, 17.VI.1988, 1 s., VS; Pamporovo, VIII.1992, 2 m., DR / 13.IV.1994, 2 s., DR; Chepelare, 22.V.1994, 3 s., DR; Izgrev Hut - Laki, 6.VIII.1996, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM; Magareshki Dol River, 1180 m, 3.VIII.2001, 2 s., BO.

***[Pterostichus (Argutor) leonisi Apfelbeck, 1904]***

BG: "Rhodopes" (HIEKE & WRASE, 1988: 73). The occurrence of this lowland species in the region is doubtful.

***Pterostichus (Argutor) vernalis (Panzer, 1796)***

BG: Batak (HIEKE & WRASE, 1988: 73); new data: Chepelarska River, 1140 m, 14.VI.1994, 1 s., DR; Sarnitsa, 29.VII.1996, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM.

\* *Pterostichus (Bothriopterus) quadrifoveolatus* Letzner, 1852

BG: Byala Cherkva, 15.V.1939, 1 m., IB. This is the third record for this species from Bulgaria.

*Pterostichus (Bothriopterus) oblongopunctatus oblongopunctatus* (Fabricius, 1787)

BG: Batashki Snezhnik; Velingrad; Zdravets Hut; Modar (HIEKE & WRASE, 1988: 74); new data: Persenk Mine, 1000 m, 29.V.1976, 1 s., JG; Pamporovo, VIII.1992, 1 m., soil traps, DR; Kutela, 9.IV.1994, 3 s., DR; Chepelare, 15.IV.1994, 4 s. / 22.V.1994, 1 s., DR; Smolyan, 4.VIII.1996, JM; Mugla, 26.VII.1997, JM; Sarnitsa, 24.VII.1997, JM; Kanina River at Kovachevitsa, 940 m, 1.VIII.2001, 2 s., BG; Belitsa, 650 m, 30.VIII.2001, 1 s., BP.

\* *Pterostichus (Feronidius) melas depressus* (Dejean, 1828)

BG: Sarnitsa, 24.VII.1997, JM. Balkan endemic subspecies.

\* *Pterostichus (Morphnosoma) melanarius bulgaricus* (Lutshnik, 1915)

BG: Batashki Snezhnik Peak, 1950-2030 m, 14.-15.VIII.1995, 2 f., BO. Balkan subendemic subspecies. In Bulgaria *Pterostichus melanarius* forms two subspecies distinguishable in terms of corporal size. For the time being the subspecies *bulgaricus* is known only from the subalpine regions of the massifs of Central Stara Planina, Vitosha and the Western Rhodopes. It lives also in Austria (NMW), but its occurrence in the mountains of the Western Balkans has not been proved.

*Pterostichus (Morphnosoma) melanarius melanarius* (Illiger, 1798)

BG: Batak (HIEKE & WRASE, 1988: 75); new data: Chepelare, 13.VI.1902., 1 m., 1 f., VI. The data of HIEKE & WRASE (op. cit) is referred to this subspecies provisionally. BOUSQUET (2003b: 499) omitted it for Bulgaria, but in fact it occurs in places of low and middle altitudes.

\* *Pterostichus (Parahaptoderus) vecors* (Tschitschérine, 1897)

BG: Boukova Planina Mt., Momchilov Dol reserve near Bostina, old black pine forest (*Pinus nigra* Arnold), 9.VI.1995, 1 m., PM; road Jugovsko Hanche - Jugovo, 650 m, 28.VII.-27.VIII.2004, 6 s., EM; Polkovnik Serafimovo, 900 m, 30.V.2005, 1 m., shifting litter, RB. East Balkan endemic species, whose range is localized primarily in Bulgaria; marginal occurrence in Eastern Macedonia and Northern Greece is also possible. BOUSQUET (2003b: 506) mentioned it for the Asian part of Turkey without exact localities.

*Pterostichus (Phonias) diligens* (Sturm, 1824)

BG: Gela (HIEKE & WRASE, 1988: 72); Chepelare, 1100 m, VII; Trigrad, 850 m, VIII (VASSILEV & NECHEVA, 1989: 51).

*Pterostichus (Phonias) strenuus* (Panzer, 1796)

BG: St. Petka Monastery; Orpheus Hut; Chepelare; Pamporovo (HIEKE & WRASE, 1988: 72); new data: Chepelarska River, 1140 m, 14.VI.1994, 3 s., DR; Pamporovo, 18.IV.1995, 8 s., DR; Rajkovski Livadi Place near Chepelare, 2-26.II.1995, 6 s., DR;

Sarnitsa, 29.VII.1996, JM; Smolyan, 4.VIII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM.

*Pterostichus (Platysma) niger niger* (Schaller, 1783) [= *bulgaricus* Obenberger, 1917; *bulgarus* Csiki, 1930]

BG: Chepelare (type locality of var. *bulgaricus*; OBENBERGER, 1917: 10, sub *P. niger bulgaricus*; SCHATZMAYR, 1943: 86, sub *P. niger bulgarus*); Batak; Churen, 800 m; Ruen Hut; Zdravets Hut; Pamporovo; Smolyan (HIEKE & WRASE, 1988: 75); new data: Pamporovo, 9.IX.1992, 3 s., BG / 18.IV.1994, 1 m., DR; Kutela, 9.IV.1994, 1 m., DR; around Sbirikova Peshtera Cave, 10.V.1994, 3 s., DR; Izgrev Hut - Laki, 6.VIII.1996, JM; Bachkovo, VII.1997, JM; Mugla, 26.VII.1997, JM; Dospat Dam at Sarnitsa, 1200 m, 22.VII.2001, 1 s., EM; Arda, 31.V.2005, 1 s., shifting litter, RB.

*Pterostichus (Pseudomaseus) minor minor* (Gyllenhal, 1827)

BG: Smolyan (HIEKE & WRASE, 1988: 74).

*Pterostichus (Pseudomaseus) nigrita* (Paykull, 1790)

BG: Orpheus Hut; Chepelare; Pamporovo (HIEKE & WRASE, 1988: 73); new data: Beglika, 21.VI.1926, 1 f., IB; Chepelare, 22.V.1994, 4 s., DR; Batashki Snezhnik Peak, 1950-2030 m, 14.-15.VIII.1995, 1 s., BG; Sarnitsa, 29.VII.1996 / 24.VII.1997, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM; Kanina River near Kovachevitsa, 940 m, 1.VIII.2001, 2 s., BG; coast of Beglika Dam, 1600 m, 2.VIII.2001, 1 s., BG; river near Sokolovtsi, 1000 m, 16.VII.2005, 1 m., BO.

[*Pterostichus (Pterostichus) brucki* Schaum, 1859]

BG: "Rhodopes" (RAMBOUSEK, 1912: 95). The absence of this Balkan endemic species in the region is surprising.

*Pterostichus (Pterostichus) rbilensis rbilensis* Rottenberg, 1874

BG: Batak (HIEKE & WRASE, 1988: 77); material examined: "Bulgarien Rodopen Batak 2.VIII.87 leg. Arndt", 1 s. (ZMHU). This Bulgarian endemic species and subspecies has been cited only once for the Western Rhodopes, so its occurrence there should be proved again. It is most likely that it occurs only in the massif of Syutka.

*Stomis (Stomis) pumicatus pumicatus* (Panzer, 1796)

BG: Pamporovo (HIEKE & WRASE, 1988: 69); new data: Yagodinski Karst, IX-X.1993, soil traps, 1 f., DR; Gorno Fatovo, 1123 m, 28.V.2005, 1 m., shifting litter, RB; Chepintsi, 940-980 m, 1.VI.2005, 2 m., 1 f., RB.

*Tapinopterus (Tapinopterus) balcanicus balcanicus* Ganglbauer, 1891 [= *bartoni* Mařan, 1933 **syn. n.**; *kaufmanni kulti* Mařan, 1940 **syn. n.**]

BG: Batak; Karlak (= Golyam Snezhnik) Peak (APFELBECK, 1904: 243, sub *Pterostichus kaufmanni*); Alabak, VI (JOAKIMOV, 1904: 9); Smolyan (MAŘAN, 1940: 56, sub *T. bartoni*); Batashki Snezhnik, 1800 m; Velingrad; Bachkovo, 1000 m; Churen, 800 m; Orpheus Hut; Ruen Hut; Zdravets Hut; plave Mezargidik; Pamporovo, 1500 m;

Persenk Peak (HIEKE & WRASE, 1988: 78); new data: Shiroka Laka, 27.VI.1924, 4 s., PD; Karlak (= Golyam Snezhnik) Peak, 2187 m, 27.VI.1924, 9 s., PD / NR; Perelik Massif, Ledenik Cave, 28.VI.1924, 3 s., PD; Chepelare, 29.VI.1924, 4 s., PD / 22.V.1994, 4 s., DR; Batashko Blato Marsh, 11.VIII.1925, 1 s., PD; Ruen Hut, 1200 m, 25.IX.1993, 7 s., PS; Rozhen, IX.1993, 1 s., DR; Yagodinski Karst, IX-X.1993, 1 f., DR; around Sbirikova Peshtera Cave, 27.XII.1993, 1 s. / 10.V.1994, 4 s., DR; Pamporovo, 13-18.IV.1994, 20 s., DR / 9.V.1995, 4 s., DR / 1600 m, 30.VI.2000, 4 s., BG; Hadzhi Salinovo near Chepelare, 28.IV.1994, 16 s., DR; Orpheus Hut, 8.V.1994, 3 s., IK; place Mechkata between Chepelare and Pamporovo, 20.V.1994, 10 s., DR; Momchilov Dol reserve near Bostina, 9.VI.1995, 1 s. in old *Pinus nigra* Arnold - forest, PM; Smolyan, 4.VIII.1996, JM; Mugla, 26.VII.1997, JM; around Belitsa Village, 750 m, 30.VIII.2001, 1 s., BP; around Perelik Hut, 1950-2050 m, 25.V.2004, 2 m., 1 f. / 6.X.2004, 3 s., BO; Perelik Hut, 1950 m, 11.V.2005, 2 s., under stones, BP.

\*\*GR: "Gr. Prov. Drama 70 km N of Drama Rhodope Mt. 1200 m, l. Cate", 1 f. (NMW); "Griechenland Region Makedonien Provinz Drama n. Skaloti 1500 m Kendriki-Rodopi 5.6.1986 leg. I. Wolf", 2 s. (preliminarily identified as *T. monastirensis* Reitter, 1913; NMW); Elatia Peak, 1500 m, 15 km N Skaloti, 9.V.1990, 1 f., *Picea* forest, SC (cWR); N Paranesti, 9.V.1990, 1 m., *Picea* / *Fagus* forest, SC (cWR). This East Balkan endemic species and subspecies is one of the dominant carabid beetles in the primary forest ecosystems found at middle and high altitudes.

One of the authors (BVG) examined and compared around 200 specimens of *Tapinopterus* Schaum, 1858, which come from the mountains of Vitosha, Rila, Pirin and Rhodopes, including topotypical specimens. The descriptions of *T. balcanicus balcanicus*, *T. bartoni* and *T. kaufmanni kulti* and the reference data for the country were also taken into account. Each of the last two taxa has been recorded only from Rila Mt. and the Bulgarian part of the Western Rhodopes (GUÉORGUIEV & GUÉORGUIEV, 1995a: 119). Besides, *T. bartoni* was mentioned only twice - firstly in the original description from Rila Mt. (MAŘAN, 1933: 91) and a bit later from the vicinity of Smolyan, the Western Rhodopes (MAŘAN, 1940: 56). The characteristics used for the differentiation of *T. balcanicus* from the other two taxa are two - 1/ width / length ratio of pronotum; and 2/ presence / absence of border on prosternal process. Regarding the first characteristics, there are more or less variations in it, but in reality no specimens with pronotum longer rather than wide were found. The character presence / absence of border on prosternal process is fluctuating (inconstant) and it cannot be of specific or subspecific differentiation. In the Balkans, morphological fluctuations which are not dependent on the geographical distribution can be observed also in the genera *Carabus* Linnaeus, 1758 and *Molops* Bonelli, 1810. A possible explanation of this phenomenon is the Pleistocene isolation of populations in the mountainous areas of South Europe, whereas in many cases such isolations have not been enough to form distinct subspecies. The shape of the median lobe of aedeagus is invariable in the specimens from South Bulgaria. Because of the lack of stable morphological differences between *T. balcanicus balcanicus*, *T. bartoni*, *T. kaufmanni kulti*, we propose the last two taxa to be treated as junior synonyms of the first one:

*Tapinopterus (Tapinopterus) balcanicus balcanicus* Ganglbauer, 1891 (type locality: "Rhilo-Dagh" = Rila Mt.) = *Tapinopterus (Tapinopterus) bartoni* Mařan, 1933 ((type locality: "Montes Rila. - Sub monte Mussalla prope Čam-Kurija (alt. circa 1600 m)" = Rila Mt., Borovets)), **syn. n.**



*Tapinopterus (Tapinopterus) balcanicus balcanicus* Ganglbauer, 1891 (type locality: "Rhilo-Dagh" = Rila Mt.) = *Tapinopterus (Tapinopterus) kaufmanni kulti* Mařan, 1940 ((type locality: "Rila planina (Ėamkurija sub monte Mussala)" = Rila Mt., Borovets)), **syn. n.**

*Xenion ignitum* (Kraatz, 1875) [= *laticolle* Mařan, 1930, **syn. n.**]

BG: Velingrad; Bachkovo, 1000 m; Byala Cherkva, 1600 m; Zdravets Hut; Chepelare, 1200-1700 m; Pamporovo, 1600 m (HIEKE & WRASE, 1988: 69); Ognyanovo by Gotse Delchev, VI (GUĖORGUIEV & GUĖORGUIEV, 1995a: 119); new data: Smolyan, 17.V.1986, 1 s., VS; Batak Dam, 11-16.VIII.1990, 2 s. in traps (ecotone forest/meadow habitat), MA; Pamporovo, VIII.1992, 1 m., soil traps, DR / 18.V.1995, 1 s., DR / 1500-1600 m, 25.V.2004, 1 s., BG; Gjovren, IX-X.1993, 1 f., soil traps, DR; Orpheus Hut, 8.V.1994, 3 s., IK; Izgrev Hut - Laki, 6.VIII.1996, JM; Bachkovo, VII.1997, JM. EB.

GR: Prasinada (CASALE et. al., 1990: 575). East Balkan endemic species with traceable Tertiary origin (Tertiary relict).

MAŘAN (1930: 118) proposed the subspecies *laticolle* for the populations from the Slavyanka Mt. According to him this race differs from the nominotypical form in the wider and flatter structure of the body, larger head, longer antennae, etc., as well as somewhat differing pronotum and aedeagus. The holotype, labeled "Ali Botuř Exp. Maced. Mařan et Táborský lgt." / "Typus" (red label) / "*Xenion ign. ssp. laticolle* m. Dr. Mařan det. Typus!", is available in NMNHS. However, the aedeagus of this male one is missing, probably it was unstuck and fell. Another topotypical male specimen, labeled "Bulgaria, Slavyanka Mt. Hambardere, 1100-1500 m 22.V.1996, B. Gueorguiev", was also found in the same depository and consequently studied as its aedeagus was extracted, examined and glued on additional cardboard. The diagnostic features of both males from Slavyanka Mt. were compared with those of other thirty-five specimens of the genus *Xenion* Tschitschérine, 1902 found in the massifs of Western Stara Planina, Central Stara Planina, Sashtinska Sredna Gora, Vitosha, Osogovo, Maleshevska, Rila, Western Rhodopes and Pirin. As a result of this action it was found that the external differences mentioned in the description of the subspecies *laticolle* reflect individual or population variations. On the other hand, the shape of the aedeagus is identical with that of topotypical specimens from Rila Mt.; in fact it is invariable in all populations of the species. The bigger size of pronotum in the specimens from Slavyanka Mt. is most likely a population fluctuation because it corresponds with that of the specimens from Sashtinska Sredna Gora Mt., while the specimens from the regions (Rila Mt., Pirin Mt.) situated between the two above mountains have a relatively smaller pronotum. In connection with this examination the next synonymy is proposed: *Xenion ignitum* (Kraatz, 1875) (type locality: "Rhilo-Dagh") = *Xenion ignitum laticolle* Mařan, 1930 (type locality: "Alibotuř-gebirge" = Slavyanka Mt.), **syn. n.**

Except for Bulgaria and the eastern part of Macedonia, the species also inhabits northeastern Greece (CASALE et. al., 1990: 575). BOUSQUET (2003: 521) mentioned it for Romania and European Turkey without exact localities.

\* *Calathus (Calathus) distinguendus* Chaudoir, 1846

BG: Byala Cherkva, 15.V.1939, 2 m., IB; place Sveta Petka near Chepelare, 30.V.1994, 2 s., DR; Sarnitsa, 29.VII.1996 / 24.VII.1997, JM; Mugla, 26.VII.1997, JM; Mogilitsa,

9.XI.1997, 1 s., BP; Pamporovo, 1600 m, 30.VI.2000, 1 s., old coniferous forest, BG; Dospat Dam at Sarnitsa, 1200 m, 22.VII.2001, 1 s., EM.

*Calathus (Calathus) fuscipes (Goeze, 1777) s. l.*

BG: Batak; Bachkovo; Bojkovo; Hvojna; Pamporovo (HIEKE & WRASE, 1988: 89); new data: Devin, 23.VI.1924, 1 s., PD / 10.VI.1976, 2 s., JG; Trigrad, 24.VI.1924, 2 s., PD; Shiroka Laka, 27.VI.1924, 5 s., PD; Krichim, 1.VII.1940, 1 s., IB; Asenova Krepost, 10.VI.1961, 1 s., GP; Mostovo, 17-19.IV.1993, 3 s., PS; Smolyan, 4.VIII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM; Dospat Dam at Sarnitsa, 1200 m, 26.VI.2002, 4 s., EM; Narechenski Bani, 1100 m, 10.V-20.VI.2004, soil traps, 5 s., EM; road Jugovsko Hanche - Jugovo, 650 m, 28.VII-27.VIII.2004, 1 s., EM.

GR: Xanthi Gorge, 28.IV.1914, 1 f., DI.

*Calathus (Neocalathus) ambiguus ambiguus (Paykull, 1790)*

BG: Asenovgrad (APFELBECK, 1904: 285); Bachkovo; Smolyan (HIEKE & WRASE, 1988: 90); new data: Devin, 10.VI.1976, 1 s., JG; Sarnitsa, 29.VII.1996 / 24.VII.1997, JM; Panichkovo, VII.1997, JM; Bachkovo, VII.1997, JM; Mugla, 26.VII.1997, JM.

*Calathus (Neocalathus) erratus erratus (C.R. Sahlberg, 1827)*

BG: Bachkovo; Churen, 800 m; Studenets Hut; Momchil Yunak Hut; Pamporovo (HIEKE & WRASE, 1988: 90); new data: Chepelare, 29.VI.1924, 2 s., PD; Bachkovski Monastery, 20.IV.1928, 1 s., NS; Byala Cherkva, 15.V.1939, 1 m., IB; Jundola, 1850 m, 11.VIII.1939, 1 s., PD; place Sveta Petka near Chepelare, 30.V.1994, 4 s., DR; Orpheus Hut, 22.V.1995, 1 s., DR; Sarnitsa, 29.VII.1996 / 24.VII.1997, JM; Mugla, 26.VII.1997, JM; Dospat Dam at Sarnitsa, 1200 m, 26.VI.2002, 2 s., EM; Perelik Hut, 1950-2000 m, 6.X.2004, 2 s. along brook, BO.

*Calathus (Neocalathus) melanocephalus melanocephalus (Linnaeus, 1758)*

BG: Batak (APFELBECK, 1904: 286; HIEKE & WRASE, 1988: 92); Batashki Snezhnik Peak, 1800 m; St. Petka Monastery; Bachkovo; Churen, 800 m; Zdravets Hut; Chepelare; Churnite Mostove Hut; Mezargidik; Pamporovo; Smolyan (HIEKE & WRASE, 1988: 91); new data: Karlak (= Golyam Snezhnik) Peak, VI.1924, 1 s., NR; Byala Cherkva, 15.V.1939, 1 f., IB; Jundola, 1850 m, 11.VIII.1939, 2 s., PD; Ablanitsa, 1.V.1994, 1 s., BP; around Sbirikova Peshtera Cave, 10.V.1994, 1 s., DR; Batashki Snezhnik Peak, 1950-2030 m, 14-15.VIII.1995, 2 s., BG; Izgrev Hut - Laki, 6.VIII.1996, JM; Panichkovo, VII.1997, JM; Bachkovo, VII.1997, JM; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM; Mogilitsa, 9.XI.1997, 1 s., BP; around Perelik Hut, 2000-2050 m, 25.V.2004, 1 f., BO. This eurytopic species lives at various altitudes as it prefers ecotone and open habitats.

*Calathus (Neocalathus) metallicus aeneus Putzeys, 1873*

BG: Karlak (= Golyam Snezhnik) Peak (APFELBECK, 1904: 285, sub *C. metallicus* Dejean, 1828); Batashki Snezhnik, 1800 m; Bachkovo, 1000 m; Churen; Modar; Gela; Prespa Hut; Persenk; Mezargidik; Pamporovo, 1500-1600 m; Smolyan (HIEKE & WRASE, 1988: 91, sub *C. metallicus* Dejean, 1828); new data: Karlak (= Golyam Snezhnik) Peak,

VI.1924, 12 s., NR; Pamporovo, 18.IV.1994, 4 s., DR; between Murgavets (= Karamandzha) Peak and Kartala Col, 24.IV.1994, 4 s., DR; Hadzhi Salinovo near Chepelare, 28.IV.1994, 8 s., DR; Chepelarska River, 1140 m, 14.VI.1994, 2 s., DR; around Sbirkova Peshtera Cave, 10.V.1994, 2 s., DR; Modarska Peshtera Cave, 1600 m, 26.IX.1994, 1 s., BP; Batashki Snezhnik Peak, 1700-2030 m, 14.-15.VIII.1995, 1 s., BG; Izgrev Hut - Laki, 6.VIII.1996, JM; Dospat Dam at Sarnitsa, 1200 m, 22.VII.2001, 1 s., EM; around Perelik Hut, 1950-2050 m, 23-25.V.2004, 2 m., BO; Perelik Hut, 1950 m, 11.V.2005, 2 s., under stones, BP. East Balkan endemic subspecies which lives in ecotone and open habitats above 1200 m and is the dominant carabid species in habitats over 1800-1900 m altitude.

*Calathus (Neocalathus) mollis mollis* (Marsham, 1802)

BG: Bachkovo (RAMBOUSEK, 1912: 97).

\* *Dolichbus balensis* (Schaller, 1783)

BG: Sarnitsa, 24.VII.1997, JM. HOVORKA & SCI AKY (2003: 530) omitted this species for Bulgaria, but actually HIEKE & WRASE (1988: 92) recorded some exact localities, and GUÉORGUIEV & GUÉORGUIEV (1995a: 91) summarized all the data known until then.

*Laemostenus (Actenipus) plasoni plasoni* (Reitter, 1885)

BG: Pamporovo (HIEKE & WRASE, 1988: 93); Chepelare, 1050-1400 m (CASALE, 1988: 548); material revised: Novata Peshtera Cave near Peshtera, 2 s. (ATANASOV, 1934: 206, sub *Sphodrus leucophthalmus*); new data: Topchika Cave, 9.IV.1973, 2 s., VG; Svredelka Cave, 9.IV.1974, 2 s., PB; Yubileina Cave in Kupena reserve, 9.IV.1974, 6 s., PB / 28.VI.2000, 2 s. / 10.V.2002, 1 s., BP / 17.VI.2005, PB & PS; Yagodinska Peshtera Cave, V.1974, 3 s., VG; Gargina Dupka Cave near Mostovo, 806 m, 14.III.1993, 2 s., BP / 23.V.2005, 1 s., PS; Zmijn Bunar Cave near Mostovo, 18.IV.1993, 1 s., BP; Dupcheto Cave near Velingrad, 25.XI.1993, 1 s., PS / 9.VIII.1997, 1 m., BP; Ablanitsa Cave near Gotse Delchev, 1.V.1994, 2 s., BP; Salievata Peshtera Cave near Gotse Delchev, 2.XI.1994, 1 s., BP; Zlatarska Cave near Gospodintsi, 2.XI.1994, 1 s., BP; Krajputnata Peshtera Cave near Smilyan, 9.XI.1997, 1 m. / 6.VIII.1999, 1 s., BP; Boevskata Peshtera Cave near Boevo, 30.VIII.1999, 1 m., BP; Suchodolska 2 near Suchia Dol and Trigrad, 1350 m, 3.VI.2000, 1 s., BP; Martsiganitsa Hut, Druzhba Precipice, 1357 m, 21.V.2005, 1 s., DD; Martsiganitsa Hut, Topchika Cave, 987 m, 22.V.2005, 2 s., PS & DD; Druzhba Precipice, 1357 m, 21.V.2005, 1 s., DD; around Uhlovitsa Cave near Koshnitsa, 858 m, 28.V.2005, 1 s., shifting litter, RB; Goloboitsa 2 Cave near Koshnitsa, Smolyan District, 19.VII.2005, 3 s., TI; cave Prikazna († 3688) near Dryanovo, 1120 m, 9.X.2005, 1 s., under stones, BP.

GR: Prasinada (CASALE et. al., 1990: 575); new data: Drama District, Peristerones Cave near Potami, 21.IX.2000, 7 s., under stones in guano, BP & PS; Xanthi District, Dupkata Cave near Xanthi, 680 m, 25.IX.2000, 6 s., under stones in guano, BP & PS. East Balkan endemic species and subspecies which is the most frequent representative of the family in the caves of the Western Rhodopes.

*Laemostenus (Pristonychus) cimmerius* (Fischer von Waldheim, 1823) s. l.

BG: Batak (WRASE, 1991: 11); new data: Zmijn Bunar Cave near Mostovo, 18.IV.1993, 1 s., BP; Izgrev Hut - Laki, 6.VIII.1996, JM; Bachkovo, VII.1997, JM; Sarnitsa,

24.VII.1997, JM; near Modarskata Peshtera Cave near Smolyan, 1600-1630 m, 19.VI.2005, 1 f., under stones, PB & PS. Balkan subendemic species.

***Laemostenus (Pristonychus) terricola punctatus (Dejean, 1828)***

BG: Byala Cherkva, 1600 m (APFELBECK, 1904: 276, sub *L. punctatus*; CASALE, 1988: 787, sub *L. terricola punctatus*; HIEKE & WRASE, 1988: 93); Yamata Cave in the Dobrostan Mt., VIII; precipice Chavkina Dupka by Asenovgrad, IV; (BERON, 1972: 313, sub *Pristonychus punctatus*); Batak; Bachkovski Monastery, 100 m; Ruen Hut; Zdravets Hut (HIEKE & WRASE, 1988: 93).

**§ *Sphodrus leucophthalmus (Linnaeus, 1758)***

BG: Novata Peshtera Cave near Peshtera (ATANASOV, 1934: 206). Two of the specimens published in this paper were revised and referred to *Laemostenus plasoni plasoni* (see above). Despite this misidentification the occurrence of *S. leucophthalmus* in the region is possible.

***Synuchus (Synuchus) vivalis vivalis (Illiger, 1798) [= nivalis (Panzer, 1796) nec Paykull, 1790]***

BG: Pamporovo (HIEKE & WRASE, 1988: 88, sub *S. nivalis*); new data: Hvojna, 1.VII.1924, 1 s., DI; Byala Cherkva, 2.VII.1931, 1 s., IZ; Chepelarska River, 1140 m, 14.VI.1994, 1 s., DR; Sarnitsa, 29.VII.1996 / 24.VII.1997, JM; Smolyan, 4.VIII.1996, JM; Izgrev Hut - Laki, 6.VIII.1996, JM; Mugla, 26.VII.1997, JM; Trigrad, VII.1997, JM; Kanina River near Kovachevitsa, 940 m, 1.VIII.2001, 1 s., BG; Magareshki Dol River near Borino, 1180 m, 1 s., 3.VIII.2001, BO.

***Amara (Amara) aenea (DeGeer, 1774)***

BG: Batak; Peshtera; Radilovo; Velingrad; Asenovgrad; Bachkovo; Ruen Hut; Krichim; Markovo; Chepelare; Devin; Gela; Persenk Mine; Pamporovo; Smolyan; Smolyanski Ezera Lakes, 1300-1400 m; Trigrad (HIEKE & WRASE, 1988: 100); new data: Asenovgrad, 10.VI.1961, 1 s., VG; Ognyanovo, 17.VI.1988, 1 s., VS; Mostovo, 17-19.IV.1993, 1 s., PS / 20.X.1994, 1 s., BG; Chepelare, 22.V.1994, 3 s., DR; Sarnitsa, 29.VII.1996 / 24.VII.1997, JM; Panichkovo, VII.1997, JM; Trigrad, VII.1997, JM; between Velingrad and Sarnitsa, 1500 m, 21.VII.2001, 1 s., EM; Dospat Dam at Sarnitsa, 1200 m, 22.VII.2001, 1 s. / 26.VI.2002, 3 s., EM; Batak Dam, 1140 m, 2.V.2002, 2 s. / 28.VI.2002, 2 s., EM; Narechenski Bani, 1100 m, 10.V.-20.VI.2004, soil traps, 2 s., EM. This is one of the most common and eurytopic species of the genus.

***Amara (Amara) anthobia A. Villa & G.B. Villa, 1833***

BG: Rhodopes near Plovdiv (APFELBECK, 1904: 301); Asenovgrad (HIEKE & WRASE, 1988: 102).

***Amara (Amara) communis (Panzer, 1797)***

BG: Orpheus Hut; Izgrev Hut; Trigrad (HIEKE & WRASE, 1988: 97); new data: Sarnitsa, 29.VII.1996, JM.

*Amara (Amara) convexior* Stephens, 1828

BG: St. Petka Monastery; Markovo; Chepelare (HIEKE & WRASE, 1988: 97); new data: Chepintsi, 940-980 m, 1.VI.2005, 8 s., RB.

*Amara (Amara) curta* Dejean, 1828

BG: St. Petka Monastery; Bachkovo, 1000 m; Asenovgrad (= Gorni Voden); Studenets Hut, 1700 m; Chepelare; Devin; Persenk Mine; Pamporovo, 1600 m (HIEKE & WRASE, 1988: 98); new data: Samurski Dol, 29.VI.1992, 1 s., DR; Stojkite, 7.IX.1992, 1 s., BG; Mostovo, 17-19.IV.1993, 1 s., PS; Izgrev Hut - Laki, 6.VIII.1996, JM; coast of Beglika Dam, 1600 m, 2.VIII.2001, 1 m., BO.

*Amara (Amara) eurynota* (Panzer, 1796)

BG: Orpheus Hut; Studenets Hut; Smolyan, 1200 m (HIEKE & WRASE, 1988: 101); Ognyanovo by Gotse Delchev (GUÉORGUIEV & GUÉORGUIEV, 1995a: 159); new data: Panichkovo, VII.1997, JM; Sarnitsa, 24.VII.1997, JM; Batak Dam, 1140 m, 2.V.2002, 1 s., EM.

*Amara (Amara) familiaris* (Duftschmid, 1812)

BG: Bachkovo; Chepelare; Dospat, 1100 m; Orpheus Hut; Pamporovo; Smolyan, 1200 m; Trigrad (HIEKE & WRASE, 1988: 101); new data: Rozhen, 14.VI.1992, 1 s., DR.

\* *Amara (Amara) littorea* C.G. Thomson, 1857

BG: Sarnitsa, 29.VII.1996, JM.

*Amara (Amara) lucida* (Duftschmid, 1812)

BG: Asenovgrad; Bachkovski Monastery; Ruen Hut; Yavorovo; Modar; Skobeleva; Chepelare; Dospat, 1100 m; Pamporovo; Ravnishta Hut; Persenk (HIEKE & WRASE, 1988: 102).

*Amara (Amara) lunicollis* Schiødte, 1837

BG: Karlak (= Golaym Snezhnik) Peak (APFELBECK, 1904: 299); Pamporovo (HIEKE & WRASE, 1988: 99).

*Amara (Amara) montivaga* Sturm, 1825

BG: Pamporovo (HIEKE, 1976: 325; HIEKE & WRASE, 1988: 96); Chepelare, 1100 m (HIEKE & WRASE, 1988: 96); new data: Rozhen, 14.VI.1992, 2 s., DR; Smolyan, 4.VIII.1996, JM; Panichkovo, VII.1997, JM.

\* *Amara (Amara) nigricornis* C.G. Thomson, 1857

BG: near Perelik Hut, 2000-2050 m, 25.V.2004, 1 f., BO. Glacial relict.

*Amara (Amara) nitida* Sturm, 1825

BG: Batak; Chepelare; Pamporovo, 1000-1600 m; Trigrad, 1000 m (HIEKE & WRASE, 1988: 97); new data: Pamporovo, 13.IV.1994, 1 s., DR; Chepelare, 15.IV.1994, 1 s., DR; place Sveta Petka near Chepelare, 30.V.1994, 1 s., DR; near Perelik Hut, 2050 m, 17.VII.2005, 1 f., BO.

*Amara (Amara) ovata* (Fabricius, 1792)

BG: Bachkovo; Pamporovo; Studenets Hut (HIEKE & WRASE, 1988: 96); new data: Martsiganitsa Hut, Druzhba Precipice, 1357 m, 21.V.2005, 1 s., DD.

*Amara (Amara) proxima* Putzeys, 1866

BG: Hrabrino (= Sotir) (APFELBECK, 1904: 300); Bachkovo; Narechenski Bani; Persenk Peak, 2000 m (HIEKE & WRASE, 1988: 98).

*Amara (Amara) saphyrea* Dejean, 1828

BG: Batak; Asenova Krepost; Asenovgrad; Bachkovo; Krichim (HIEKE & WRASE, 1988: 96).

*Amara (Amara) similata* (Gyllenhal, 1810)

BG: Bachkovo; Krichim; Skobeleva; Chepelare; Pamporovo (HIEKE & WRASE, 1988: 95); new data: near Smolyan, 4.VIII.1996, JM; Mugla, 26.VII.1997, JM; Sarnitsa, 24.VII.1997, JM.

*Amara (Amara) tibialis* (Paykull, 1798)

BG: Batak; Studenets Hut, 1700 m; Chepelare; Persenk (HIEKE & WRASE, 1988: 103); new data: Panichkovo, VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM.

*Amara (Bradytus) apricaria* (Paykull, 1790)

BG: Velingrad (JOAKIMOV, 1904: 9); Batak; Chepelare; Gela; Pamporovo (HIEKE & WRASE, 1988: 107); new data: Chepelare, 28.VIII.1987, 1 s., DR; place Sveta Petka near Chepelare, 30.V.1994, 5 s., DR; Progleg, 27.VI.1994, 1 s., DR; Mostovo, 20.X.1994, 2 s., BG; Panichkovo, VII.1997, JM; Bachkovo, VII.1997, JM; Trigrad, VII.1997, JM; Sarnitsa, 24.VII.1997, JM; between Borino and Chala, 1300 m, 3.VIII.1997, 1 s., BP; Dospat Dam at Sarnitsa, 1200 m, 22.VII.2001, 3 s. / 26.VI.2002, 11 s., EM; Arda, 31.V.2005, 1 s., shifting litter, RB.

*Amara (Bradytus) consularis* (Duftschmid, 1812)

BG: Alabak, VI (JOAKIMOV, 1904: 9); new data: Narechenski Bani, 1100 m, 10.V.-20.VI.2004, soil traps, 1 s., EM; Dyavolsko Garlo Cave near Trigrad, 16.IV.2005, 2 s., under stones and trees in main chamber, PS.

[*Amara (Bradytus) crenata* Dejean, 1828]

BG: "Rhodopes" (HIEKE & WRASE, 1988: 107). The presence of this lowland inhabiting species in the region needs confirmation.

*Amara (Bradytus) fulva* (O. F. Müller, 1776)

BG: Velingrad, VI (JOAKIMOV, 1904: 9); Batak; Studenets Hut; Krichim; Chepelare; Michalkovo; Trigrad (HIEKE & WRASE, 1988: 108); new data: Dospat Dam at Sarnitsa, 1200 m, 26.VI.2002, 20 s., EM; Batak Dam, 1140 m, 28.VI.2002, 2 s., EM.

*Amara (Celia) bifrons* (Gyllenhal, 1810)

BG: Tamrashka River; Pamporovo; Smolyan (HIEKE & WRASE, 1988: 105); new data: Mugla, 26.VII.1997, JM; near Perelik Hut, 2050 m, 17.VII.2005, 1 m., BO.

*Amara (Celia) erratica* (Duftschmid, 1812)

BG: Karlak (= Golyam Snezhnik) Peak (APFELBECK, 1904: 302; HIEKE & WRASE, 1988: 103); Pamporovo; Smolyan (HIEKE & WRASE, 1988: 103). Glacial relict with Arcto-Alpine type of distribution.

*Amara (Celia) fusca* Dejean, 1828

BG: Bachkovo (HIEKE & WRASE, 1988: 104).

\* *Amara (Celia) ingenua* (Duftschmid, 1812)

BG: Sarnitsa, 24.VII.1997, JM.

\* *Amara (Celia) messae* Baliani, 1924

BG: "Bulgaria, Rhodopen Lichtung a. Gol. Persenk 28.VIII.1989, leg. Hartmann", 1 s. (ZMHU); around Perelik Hut, 2000-2050 m, 25.V.2004, 2 s. / 6.X.2004, 1 s. along brook, BO. Glacial relict with South European (Alpine) type of distribution.

\* *Amara (Celia) municipalis biscoffi* Jedlička, 1946

BG: Mugla, 26.VII.1997, JM.

*Amara (Curtonotus) aulica* (Panzer, 1796)

BG: Batak; Bachkovo; Studenets Hut; Pamporovo (HIEKE & WRASE, 1988: 109); new data: Perelik Massif, Ledenik Cave, 28.VI.1924, 1 m., PD; Pamporovo, 18.IV.1994, 1 s., Zabardo, 900 m, 19.X.1994, 1 f., DR; DR; Izgrev Hut - Laki, 6.VIII.1996, JM; Mugla, 26.VII.1997, JM; Sarnitsa, 24.VII.1997, JM.

*Amara (Paracelia) serdicana* Apfelbeck, 1904

BG: Bachkovo (HIEKE & WRASE, 1988: 106).

*Amara (Percosia) equestris equestris* (Duftschmid, 1812)

BG: Pamporovo (HIEKE, 1978: 257; HIEKE & WRASE, 1988: 108); Chepelare (HIEKE & WRASE, 1988: 108); new data: Chepelare, 29.VI.1924, 1 s., PD; Sarnitsa, 29.VII.1996 / 24.VII.1997, JM; Trigrad, VII.1997, JM.

*Amara (Zezea) chadoiri incognita* Fassati, 1946

BG: Batak; Ruen Hut (HIEKE & WRASE, 1988: 94-95).

*Amara (Zezea) fulvipes* (Audinet-Serville, 1821)

BG: Pamporovo (HIEKE, 1970: 157; HIEKE & WRASE, 1988: 94); Radilovo; Ravnishta Hut; Chepelare; Pamporovo (HIEKE & WRASE, 1988: 94); new data: Djovlen (now Devin), 23.VI.1924, 1 f., PD; Batak Dam, 1140 m, 28.VI.2002, 1 s., EM.

***Amara (Zezea) plebeja* (Gyllenhal, 1810)**

BG: Batak; Chepelare (HIEKE & WRASE, 1988: 93); new data: Chepelare, 22.V.1994, 2 s., DR; Izgrev Hut – Laki, 6.VIII.1996, JM; Mugla, 26.VII.1997, JM; Dospat Dam at Sarnitsa, 1200 m, 26.VI.2002, 1 s., EM; Batak Dam, 1140 m, 28.VI.2002, 4 s., EM. Rare species cited only from the Western Rhodopes in Bulgaria.

***Amara (Zezea) tricuspadata* Dejean, 1831**

BG: Pamporovo (HIEKE, 1970: 196; HIEKE & WRASE, 1988: 94); Chepelare (HIEKE & WRASE, 1988: 94).

***Zabrus (Pelor) balcanicus balcanicus* Heyden, 1883**

BG: Alabak, VI; Velingrad, VI (JOAKIMOV, 1904: 9); Chepelare; Devin (DRENSKY et al., 1951: 284); Batak (DRENSKY et al., 1951: 284; HIEKE & WRASE, 1988: 111); Ruen Hut; Zdravets Hut; Pamporovo (HIEKE & WRASE, 1988: 111); new data: Mugla, 26.VII.1997, JM. East Balkan endemic species and subspecies.

***Zabrus (Pelor) balcanicus rhodopensis* Apfelbeck, 1904 [= *jureckovae* Mařan, 1943]**

BG: Bachkovo, VI (type locality of var. *jureckovae*; MAŘAN, 1943: 8, sub *Z. jureckovae*); place Kauka near Dospat; Velingrad (HIEKE & WRASE, 1988: 111); new data: Belovo, 1 f., JM; Smolyan, 1 m.; Chepelare, 14.VI.1976, 1 m., JG; Ognyanovo, 17.VI.1988, 1 m., VS; around Perelik Hut, 1950-2050 m, 25.V.2004, 2 s. / 6.X.2004, 1 s. along brook, BO. Balkan endemic subspecies. The revision of a single male paratype of *Z. jureckovae* confirms the established synonymy.

***Zabrus (Pelor) spinipes spinipes* (Fabricius, 1798) [= *blaptoides* Creutzer, 1799]**

BG: Velingrad, VI (JOAKIMOV, 1904: 9, sub *Pelor blaptoides*!; HIEKE & WRASE, 1988: 110, sub *Z. blaptoides*!); Bachkovo, 1000 m; Ruen Hut; Zdravets Hut; Pamporovo, 1700 m (HIEKE & WRASE, 1988: 110, sub *Z. blaptoides*!); Chepelare; Shiroko Laka; Rozhen (FREUDE, 1989: 147); new data: Asenovgrad, 19.V.1920, 1 f., IB; Pamporovo, VIII.1992, 1 s., DR; Rozhen – Observatory, 8.IX.1992, 7 s., BG; Pamporovo, 1500 m, 13-18.IV.1994, 6 s., DR / 1500 m, 23.VII.2001, 1 s., EM / 1500-1600 m, 25.V.2004, 1 m., BG; near Modarskata Peshtera Cave near Smolyan, 1600-1630 m, 19.VI.2005, 4 s., under stones, PB & PS; Martsiganitsa Hut, Gargini Dupki Cave, 1367 m, 22.V.2005, 1 m., PS.

**§ *Zabrus (Zabrus) ignavus* Csiki, 1907 [= *piger* Dejean, 1828 nec Fourcroy, 1785]**

BG: Bachkovski Monastery, V (JOAKIMOV, 1904: 9, sub *Z. piger* Dejean). This Western Mediterranean species has been cited for Bulgaria only regarding above data. Most probably this record concerns misidentified material of another congener as we agree with SERRANO & ANDÚJAR (2003) who ignored *Z. ignavus* for Bulgaria.

**[*Zabrus (Zabrus) tenebrioides longulus* Reiche & Saulcy, 1855]**

BG: “Rhodopes” (HIEKE & WRASE, 1988: 110 sub *Z. tenebrioides* Goeze). The occurrence of this pest in the region is possible. Recently it was cited for the Eastern Rhodopes (GUÉORGUIEV, 2004a: 396).



**Gyrinidae***Aulonogyrus (Aulonogyrus) concinnus* (Klug, 1834)

BG: Peshtera, VII (GUÉORGUIEV, 1961: 357).

*Gyrinus (Gyrinus) distinctus* Aubé, 1838

BG: Batak, VI; Rhodopes - Belovo (GUÉORGUIEV, 1961: 360).

*Gyrinus (Gyrinus) substriatus* Stephens, 1828

BG: Ustina, IX; place Forty Springs near Asenovgrad, VIII; Peshtera, VII (GUÉORGUIEV, 1961: 360); Trigradka River near Trigrad, IV; Batak Dam, VII (RUSSEV & JANEVA, 1975: 27).

*Orectochilus (Orectochilus) villosus villosus* (O. F. Müller, 1776)

BG: Arda River near Smilyan, IX (RUSSEV, 1964: 22).

**Haliplidae***Haliplus (Haliplus) fulvicollis* Erichson, 1837

BG: Asenovgrad (RAMBOUSEK, 1912: 103). Rare species, in Bulgaria cited only from the above locality and Plovdiv (GUÉORGUIEV, 1971: 181).

*Haliplus (Haliplus) ruficollis* (DeGeer, 1774)

BG: place Forty Springs near Asenovgrad, V (GUÉORGUIEV, 1964: 298).

*Haliplus (Haliplus) webnckei* Gerhardt, 1877

BG: Batashko Blato Marsh, X (GUÉORGUIEV, 1971: 180).

*Haliplus (Liapplus) laminatus* (Schaller, 1783)

BG: place Forty Springs near Asenovgrad, IV (GUÉORGUIEV, 1964: 298).

*Haliplus (Neobalipus) lineaticollis* (Marsham, 1802)

BG: place Forty Springs near Asenovgrad, IV (GUÉORGUIEV, 1962: 6).

**Noteridae***Noterus clavicornis* (DeGeer, 1774)

BG: place Forty Springs near Asenovgrad, V (GUÉORGUIEV, 1965a: 107).

**Dytiscidae**§ *Agabus (Acatodes) congener* (Thunberg, 1794)

BG: "Rhodopes" (GUÉORGUIEV, 1965a: 112). In fact the cited data refers to Rila Mt.

*Agabus (Acatodes) sturmi* (Gyllenhal, 1808)

BG: Smolyanski Ezera Lakes, VIII (GUÉORGUIEV, 1962: 10). Rare species known only from the Western Rhodopes in Bulgaria (GUÉORGUIEV, 1987: 109; GUÉORGUIEV et al., 1993: 291).

*Agabus (Gaurodytes) biguttatus* (Olivier, 1795) [= *nitidus* (Fabricius, 1801)]

BG: Asenovgrad (RAMBOUSEK, 1912: 106; HLISNIKOVSKÝ, 1954: 98); Bachkovski Monastery, IV (GUÉORGUIEV, 1964: 301, sub *A. nitidus*); tributary of Dospat River, east of Dospat, V; Shirokolashka River by Shiroka Laka, VI; Samodivsko (= Matno) Smolyansko Ezero Lake, V (RUSSEV & JANEVA, 1975: 26).

*Agabus (Gaurodytes) bipustulatus* (Linnaeus, 1767)

BG: Devinska River by Devin, VIII; Samodivsko (= Matno) Smolyansko Ezero Lake, V-VI (RUSSEV & JANEVA, 1975: 27); Chepelare (GUÉORGUIEV, 1977: 314).

*Agabus (Gaurodytes) conspersus* (Marsham, 1802)

BG: Smolyanski Ezera Lakes (1-st lake), V (GUÉORGUIEV, 1965a: 113).

*Agabus (Agabinectes) didymus* (Olivier, 1795)

BG: Bachkovo, VI (GUÉORGUIEV, 1962: 10); tributary of Stara River near Peshtera, VII (GUÉORGUIEV, 1965a: 114; RUSSEV & JANEVA, 1975: 27). Rare species known only from the Western Rhodopes in Bulgaria (GUÉORGUIEV, 1987: 113; GUÉORGUIEV et al., 1993: 291).

\* *Agabus (Gaurodytes) dilatatus* (Brullé, 1832)

GR: Xanthi District, brook near Echinós, 06.04.1985, cHF.

*Agabus (Gaurodytes) guttatus guttatus* (Paykull, 1798)

BG: Alabak (JOAKIMOV, 1904: 11); resort St. Konstantin near Peshtera, IX; near Ledenik Cave near Shiroka Laka (GUÉORGUIEV, 1965a: 110); Oslenska River (left tributary of Shirokolashka River) near Shiroka Laka, VI; Zabardovska River at ramification of Erkyupriya River, V (RUSSEV & JANEVA, 1975: 27).

*Agabus (Gaurodytes) melanarius* Aubé, 1837

BG: Smolyanski Ezera Lakes, VIII (GUÉORGUIEV, 1962: 10).

*Agabus (Gaurodytes) nebulosus* (Forster, 1771)

BG: Devinska River near Devin, VIII (RUSSEV & JANEVA, 1975: 27).

*Ilybius fuliginosus fuliginosus* (Fabricius, 1792)

BG: Smolyanski Ezera Lakes, VIII (GUÉORGUIEV, 1962: 11).

\* *Ilybius jaechi* (Fery & Nilsson, 1993)

GR: Xanthi District, brook near Echinós, 06.04.1985, cHF.

*Platambus maculatus* (Linnaeus, 1758)

BG: stream east of Dospat, V; stream near Velingrad, VII (GUÉORGUIEV, 1965a: 109); stream above Toshkov Chark Dam, VI; Vucha River near Nastan, V; Shirokolashka River near Shiroka Laka, VI (RUSSEV & JANEVA, 1975: 26).

*Colymbetes fuscus* (Linnaeus, 1758)

BG: Rhodopes - Belovo (GUÉORGUIEV, 1965a: 117).

*Rhantus (Rhantus) suturalis* (W.S. MacLeay, 1825) [= *punctatus* (Geoffroy, 1785)]

BG: Rhodopes - St. Petar Monastery (NEDELKOV, 1909: 15, sub *R. punctatus*).

*Rhantus (Rhantus) suturellus* (Harris, 1828)

BG: Batak Dam, VII (RUSSEV & JANEVA, 1975: 27). Rare species cited only from the above find in Bulgaria (GUÉORGUIEV, 1987: 123; GUÉORGUIEV et al., 1993: 291).

*Acilius (Acilius) sulcatus* (Linnaeus, 1758)

BG: puddle near Smolyanski Ezera Lakes, X (GUÉORGUIEV, 1965a: 119).

*Dytiscus marginalis marginalis* Linnaeus, 1758

BG: Smolyanski Ezera Lakes (1-st lake), V (GUÉORGUIEV, 1965a: 120).

*Hydaticus (Hydaticus) transversalis transversalis* (Pontoppidan, 1763)

BG: Asenovgrad (RAMBOUSEK, 1912: 108; HLISNIKOVSKÝ, 1954: 99).

*Bidessus unistriatus* (Goeze, 1777)

BG: Asenovgrad (RAMBOUSEK, 1912: 104; HLISNIKOVSKÝ, 1954: 95).

*Deronectes latus* (Stephens, 1829)

BG: stream east of Dospat, V; Smolyanski Ezera Lakes (4-th lake), V (GUÉORGUIEV, 1965a: 104). Rare species found only in Vitosha Mt. and the Western Rhodopes in Bulgaria (GUÉORGUIEV, 1987: 84).

*Deronectes platynotus platynotus* (Germar, 1836)

BG: stream below Golyam Perelik Peak, VII (GUÉORGUIEV, 1965a: 104). Rare species recorded only in the mountains of Vitosha, Rila and Western Rhodopes in Bulgaria (GUÉORGUIEV, 1987: 85).

*Graptodytes flavipes* (Olivier, 1795) [= *concinus* (Stephens, 1835)]

BG: Bachkovo; Asenovgrad (RAMBOUSEK, 1912: 105; HLISNIKOVSKÝ, 1954: 97).

*Graptodytes granulatus* (Linnaeus, 1767)

BG: Batashko Blato Marsh, X; Batashka River, X (GUÉORGUIEV, 1965a: 102). Rare species cited only from Oryahovo, Lozenska Planina Mt. and the Western Rhodopes in Bulgaria (GUÉORGUIEV, 1987: 78).

\* *Graptodytes sedilloti pbrygius* Guignot, 1942

GR: Drama District, Paranestion - Dipotama, 05.05.1989, HB.

*Hydroporus angustatus* Sturm, 1835

BG: Hvojna, VIII (GUÉORGUIEV, 1965a: 99).

*Hydroporus erythrocephalus* (Linnaeus, 1758)

BG: Chepinska River (GUÉORGUIEV, 1965a: 99). Rare species found only in the above locality and the region of Pirdop in Bulgaria (GUÉORGUIEV, 1987: 67).

§ *Hydroporus nigrita* (Fabricius, 1792)

BG: "Demir Kapú im W.-Rhodope" (APFELBECK, 1904: 377; GUÉORGUIEV, 1965a: 100; 1987: 68). Actually the above data on this glacial relict has to be referred to Rila Mt. (formerly regarded as part of the Rhodopes).

*Hydroporus pubescens* (Gyllenhal, 1808) [= *babelmanni* Wehncke, 1876]

BG: Zabardo, VII; stream below Golyam Persenk Peak, VII (GUÉORGUIEV, 1980: 82, sub *H. pubescens babelmanni*).

GR: Xanthi District, brook near Stavrupolis, 06.04.1985, cHF.

*Hydroporus tessellatus* Drapiez, 1819

BG: Bachkovo, VI (GUÉORGUIEV, 1962: 6).

GR: Xanthi District, brook near Stavrupolis, 06.04.1985, cHF.

*Nebrioporus (Nebrioporus) suavis* (Sharp, 1882)

BG: river near Bachkovo, VI; Osikovo near Gotse Deltsev, V; stream near Smolyan (= Rajkovo), V (GUÉORGUIEV, 1965a: 105, sub *Potamonectes suavis*); Devinska River, 4 km above Batak Dam, VII-VIII; Trigradska River at junction for Chaira locality, VII; Shirokolashka River near Shiroka Laka, VIII; Oslenska River (left tributary of Shirokolashka River) near Shiroka Laka, VIII; Erkyuprijska River, VI; Erkyuprijska River near the ramification for Zabardo (before fusion with Zabardovska River), VII (RUSSEV & JANEVA, 1975: 26, sub *Potamonectes suavis*).

GR: Xanthi District, brook near Echinós, 06.04.1985, HF; Xanthi District, brook near Stavrupolis, 06.04.1985, HF; Xanthi District: brook near Xanthis, cHF.

*Oreodytes sanmarkii sanmarkii* (C.R. Sahlberg, 1826) [= *rivalis* Gyllenhal, 1827]

BG: stream above Smolyan, VII; Smolyanski Ezera Lakes, VII (GUÉORGUIEV, 1965a: 106, sub *O. rivalis sanmarkii*); Chairska River before fusion in Trigradska River, VII; Shirokolashka River near Shiroka Laka, VIII; stream near Smolyanski Ezera Hut, V (RUSSEV & JANEVA, 1975: 26, sub *O. rivalis sanmarkii*); Erkyuprijska River, V; Mesinski Gjol Pool, VIII (GUÉORGUIEV, 1980: 83, sub *O. rivalis sanmarkii*).

*Scarodytes balensis balensis* (Fabricius, 1787)

BG: Erkyuprijska River near the bridges, V (RUSSEV & JANEVA, 1975: 26); Devinska River, VII; puddle near Gorno Smolyansko Ezero Lake, 1600 m, X (GUÉORGUIEV, 1980: 83).

*Hygrotus (Coelambus) impressopunctatus impressopunctatus* (Schaller, 1783)  
BG: Chepinska River (GUÉORGUIEV, 1965a: 94, sub *Coelambus impressopunctatus*).

*Hygrotus (Hygrotus) inaequalis inaequalis* (Fabricius, 1777)  
BG: Batashka River, X (GUÉORGUIEV, 1965a: 97).

*Laccophilus hyalinus hyalinus* (DeGeer, 1774)  
BG: stream above Toshkov Chark Dam, VI; Devinska River, 4 km above Batak Dam, VII-VIII; Oslenska River (left tributary of Shirokolashka River) near Shiroka Laka, VIII; Zabardovska River at fusion with Erkyuprija, V (RUSSEV & JANEVA, 1975: 26).

*Laccophilus minutus* (Linnaeus, 1758)  
BG: Erkyuprijska River at the bridges, VI; Cherna River above Smolyam, V; Batak Dam, VII (RUSSEV & JANEVA, 1975: 26).

*Laccophilus poecilus* Klug, 1834 [= *variegatus* (Germar & Kaulfuss, 1816)]  
BG: Asenovgrad (RAMBOUSEK, 1912: 106, sub *L. variegatus*; HLISNIKOVSÝ, 1954: 94, sub *L. variegatus*).

#### Faunistic and taxonomic results

The study reports 362 species from the Bulgarian and Greek parts of the Western Rhodopes grouped in three categories with the aim to display the levels of reliability in the regional occurrence of species.

The first category contains 343 species reported with exact records. They are distributed in five families - Carabidae (297), Gyrinidae (4), Haliplidae (5), Noteridae (1) and Dytiscidae (36). Fifty-six (56) species are reported for the first time in the studied region, including two species unknown for the science. One of these new taxa, e.g. *Duvalius (Paraduvalius) nedelkovi* sp. n. is described here. Three species, e.g. *Bembidion cruciatum*, *Pterostichus melanarius* and *Zabrus balcanicus*, are represented by two distinct subspecies.

Altogether 337 species have been cited from the Bulgarian area of the region, 51 of them are reported for the first time while the geographical distribution of another 153 ones was updated with new faunistic data. *Asaphidion rossii* is confirmed for the fauna of Bulgaria. The genera *Aptinus*, *Dyschirius*, *Asaphidion*, *Tachyta*, *Parophonus*, *Acupalpus*, *Bradycellus*, *Calodromius*, *Philorhizus*, *Olisthopus*, and *Dolichus* are also reported for the first time from the Western Rhodopes. The occurrence of 16 taxa previously omitted for Bulgaria in the recent Catalogue of the Palaearctic Coleoptera is confirmed. Other 4 species (*Carabus nemoralis*, *Bembidion glaciale*, *Harpalus luteicornis* and *Harpalus modestus*) which were also omitted for Bulgaria in the last catalogue remain problematic and they are included in the list with reservations. The 337 adephagous taxa from the Bulgarian Western Rhodopes represent more than 38.5 % of the species recorded for the country. This is a relevant figure taking into account both the area of the analysed region and their habitat diversity. Probably, the real number of species inhabiting this region is higher, but actually there is no other geographical region in Bulgaria with such a high number of known species.

Twenty-one species from the Greek part of the region are cited, 18 of them being new for the region, and 5 species are reported for the first time from the Western Rhodopes. *Tapinopterus balcanicus* is reported for Greece for the first time, and *Agonum viridicupreum* is confirmed for the fauna of this country. Two carabid species – *Harpalus pygmaeus* and *H. triseriatus* are reported only from the Greek part of the region.

The second category includes 10 species cited for Bulgaria only in reference to “Rhodopes” data, so their presence remains dubious in the investigated area. Based on misidentifications or erroneous assignments of collection localities, the third category counts 9 species cited from the Bulgarian Rhodope area in the past. Here their deletion from the regional list is discussed. *Tachyura sexstriata* is excluded also from the list of the Bulgarian fauna. The omissions of *Ditomus tricuspoidatus*, *Dixus sphaerocephalus*, *Harpalus neglectus* and *Zabrus ignavus* for Bulgaria in the recent Catalogue of the Palaearctic Coleoptera are confirmed. The data on *Sphodrus leucophthalmus* is based on misidentified material of another species, whereas, the records of *Nebria hybrida rhodopensis*, *Agabus congener* and *Hydroporus nigrita* should probably be assigned to Rila Mt.

The examination of type or topotypical material of some taxa that inhabit the Western Rhodopes allows us to propose the following synonymies:

*Bembidion (Peryphus) subcostatum javurkova* Fassati, 1944, **syn. n.** of *Bembidion (Peryphus) subcostatum vau* Netolitzky, 1913

*Bembidion (Peryphus) subcostatum spartanum* Fassati, 1944, **syn. n.** of *Bembidion (Peryphus) subcostatum vau* Netolitzky, 1913

*Tapinopterus (Tapinopterus) bartoni* Mařan, 1933, **syn. n.** of *Tapinopterus (Tapinopterus) balcanicus balcanicus* Ganglbauer, 1891

*Tapinopterus (Tapinopterus) kaufmanni kulti* Mařan, 1940, **syn. n.** of *Tapinopterus (Tapinopterus) balcanicus balcanicus* Ganglbauer, 1891

*Xenion ignitum laticolle* Mařan, 1930, **syn. n.** of *Xenion ignitum* (Kraatz, 1875)

### Beetles of conservation importance

Table 1 lists the thirty-three species that could be considered in future conservation surveys of the regional diversity. The main criterion for their classification is the low frequency with which we can find them (rarity), or the limited distributional range of the taxon. The populations of all or most of these species are probably either sparse or represented by a low number of individuals. Finally, these are species with low ecological valency. Eighteen of the taxa of conservation importance are classified as rare and at the same time thirteen of them are put in another category. There are also eight local endemic, as seven of them belong to the tribe Trechini of the family Carabidae, and five of them are eyeless hypogean species.

Potential distributional maps of 22 non hypogean carabid species inhabiting the Western Rhodopes are observed and made (Appendix 1). Two kind of symbols used there represent the localities in which each species has been collected and the potential localities with similar climatic conditions (see part Material and methods). The maps can be especially important from a conservation point of view.

Table 1.

## Beetles from suborder Adephaga of conservation importance in the Western Rhodopes

Taxa	Cor	Esc	Pro	Loc	Eba	Bal	Rel	Rar
<i>Leistus magnicollis</i>						+		+
<i>Nebria rhilensis</i>					+			
<i>Calosoma inquisitor inquisitor</i>			+					
<i>Calosoma sycophanta</i>	+	+	+					
<i>Carabus cavernosus cavernosus</i>						+		
<i>Carabus gigas gigas</i>			+					
<i>Carabus scabrosus bureschianus</i>			+	+				+
<i>Cychrus semigranosus balcanicus</i>					+			
<i>Pausus turcicus</i>								+
Trechini gen. & sp. indet.				+				+
<i>Bembidion bipunctatum nivale</i>							+	
<i>Patrobus atrofus</i>								+
<i>Duvalius bureschi</i>				+				+
<i>Duvalius karelhurkai</i>				+				+
<i>Duvalius nedelkovi</i> sp. n.				+				+
<i>Duvalius rajtchevi</i>				+				+
<i>Trechus matrismeeae</i>				+				+
<i>Trechus rhodopeus</i>					+			
<i>Trechus rubens</i>							+	+
<i>Trechus szujeckii</i>				+				
<i>Molops rhodopensis rhodopensis</i>					+			+
<i>Myas chalybaeus</i>							+	
<i>Pterostichus quadrifoveolatus</i>								+
<i>Pterostichus vecors</i>					+			+
<i>Xenion ignitum</i>							+	
<i>Laemostenus plasoni plasoni</i>					+			
<i>Amara nigricornis</i>							+	+
<i>Amara erratica</i>							+	
<i>Amara messae</i>							+	+
<i>Zabrus balcanicus balcanicus</i>					+			
<i>Zabrus balcanicus rhodopensis</i>						+		
<i>Agabus sturmi</i>								+
<i>Agabus didymus</i>								+
All	1	1	4	8	7	3	7	18

## Conclusion

Based mainly on more or less regular field surveys accomplished during a period of one century, the Bulgarian Rhodopes faunistic information for the species of the suborder Adephaga has been compiled. Regarding the composition of the different families (Table 2), the level of knowledge on the species diversity in the region is high. To increase the regional Adephaga catalogue it is necessary to investigate the hypogean and riparian Carabidae as well as to accomplish more comprehensive faunistic studies

Table 2.

**Species number (subspecies not included) of the families of Adephaga in Bulgaria and the Bulgarian part of the Western and Eastern Rhodopes (in brackets supposed number)**

Families	Bulgaria	Western Rhodopes	Eastern Rhodopes
Rhysodidae	2 (2)	0 (1)	0 (1)
Carabidae	735 (739-746)	295 (315-320)	150 (260-270)
Haliplidae	14 (20-21)	5 (11-12)	1 (9-10)
Hygrobiidae	1 (1)	0 (1)	0 (1)
Noteridae	2 (2)	1 (2)	0 (2)
Dytiscidae	113 (127-129)	33 (55-58)	21 (46-48)
Gyrinidae	10 (12-13)	4 (5-6)	0 (4-5)
all	877 (903-914)	338 (390-400)	172 (323-337)

on the Hydradephaga. On the other hand, the data for the Greek part of the region, besides its quite smaller territory (compared to the Bulgarian one), is scanty. Considering that the Western Rhodopes is one of the better preserved European regions, we specifically recommend carrying out further faunistic investigations and working out standardized survey protocols to monitor the species of conservation importance.

### Acknowledgements

The European Union-funded Integrated Infrastructure Initiative “Synthesys” supported the work of the first author at DEI, MNM, NMW and ZMHU (Applications AT-TAF-758, DE-TAF-725, HU-TAF-817). In this way, Dr. M. Uglih (ZMHU), Mr. B. Jaeger (ZMHU), Dr. A. Popov (NMNHS), Dr. H. Schönmann (NMW) and Gy. Szel (MNM) kindly allowed the work with the collections under their care. Appreciation is due to Dr. H. Fery (Berlin, Germany) and Mr. D. W. Wrase (Berlin, Germany) who entrusted him with their unpublished data. We thank all the people who gave us their collected material, and particularly Mr. B. Petrov, Dr. P. Beron, Dr. P. Stoev, the late Mr. D. Rajchev. This work was made possible partly thanks to a collaborative project between the CSIC (Spain) and BAS (Bulgaria).

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## Адефазни бръмбари (Insecta: Coleoptera: Aderhaga) в Западните Родопи (България и Гърция)

Борислав В. ГЕОРГИЕВ, Хорхе Мигел ЛОБО

(Р е з ю м е)

Настоящото изследване съобщава 362 вида от българската и гръцка част на Западните Родопи. Те са групирани в три категории с цел да се разграничат сигурните за района видове от съмнително съобщените в миналото.

Първата категория наброява 343 вида от пет семейства, Carabidae (297), Gyttinidae (4), Halipridae (5), Noteridae (1) и Dytiscidae (36), съобщени с точни находки. Петдесет и пет (56) вида се съобщават за първи път в литературата за района, включително два непознати за науката таксона. Един от последните, *Divalius (Paradivalius) nedelkovi* sp. n. (типолово находище: пещера “Приказна” до с. Дряново, Радлова планина) е описан и сравнен с най-близкия до него вид. От българската част на района са цитирани 337 вида, като 51 от тях се споменават за първи път за Западните Родопи, а за други 153 вида са представени нови фаунистични данни. Видът *Asaphidion rossii* се съобщава за втори път за фауната на страната. Единадесет рога от Carabidae са нови за района. Потвърдено е присъствието на 16 вида в България, които не са споменати за страната в наскоро публикувания каталог на палеарктичните представители на Aderhaga. Други 4 вида (*Carabus nemoralis*, *Bembidion glaciale*, *Harpalus luteicornis* and *Harpalus modestus*) остават проблематични за българската фауна и са включени с резервация в списъка. От гръцката част на Западните Родопи се съобщават 21 вида, като 18 от тях са нови за нея, а 5 вида са нови за планината. Видът *Tapinopterus balcanicus* е нов за фауната на Гърция, а *Agonum viridicupreum* се потвърждава за фауната на тази страна.

Втората категория включва 10 вида съобщени в литературата от българската част на района с находка от типа “Родопи”, поради което присъствието им в района остава под въпрос. Третата категория обединява 9 вида посочени в миналото отново за българския сектор на Западните Родопи. Поради грешни определения или остаряла географска интерпретация тези видове са изключени от регионалния списък на видовете. Един от видовете на тази група (*Tachyura sexstriata*) е изключен също от списъка на българската фауна.

Наличието на типусни и топотипусни екземпляри от западнородопски видове със съмнителен или спорен таксономичен статус предостави възможността да бъде изследвана и преосмислена тяхната валидност. В резултат на това се предлагат следните таксономични промени:

*Bembidion (Peryphus) subcostatum javurkovae* Fassati, 1944, **syn. n.** of *Bembidion (Peryphus) subcostatum vau* Netolitzky, 1913

*Bembidion (Peryphus) subcostatum spartanum* Fassati, 1944, **syn. n.** of *Bembidion (Peryphus) subcostatum vau* Netolitzky, 1913

*Tapinopterus (Tapinopterus) bartoni* Mařan, 1933, **syn. n.** of *Tapinopterus (Tapinopterus) balcanicus balcanicus* Ganglbauer, 1891

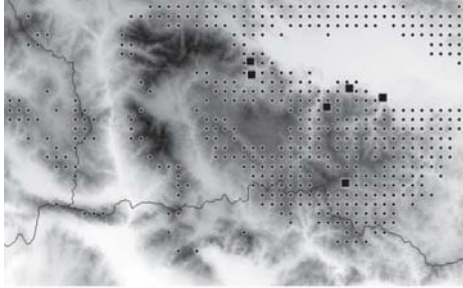
*Tapinopterus (Tapinopterus) kaufmanni kulti* Mařan, 1940, **syn. n.** of *Tapinopterus (Tapinopterus) balcanicus balcanicus* Ganglbauer, 1891

*Xenion ignitum laticolle* Mařan, 1930, **syn. n.** of *Xenion ignitum* (Kraatz, 1875)

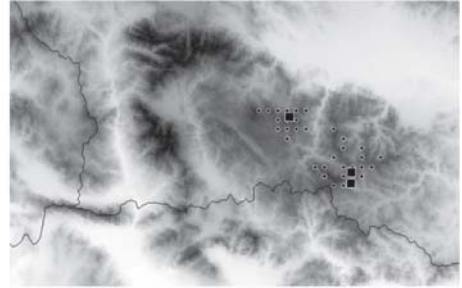
Определени са 33 вида от подразред Aderhaga с консервационна значимост. Осемнадесет от тях са редки видове, а 8 – локални ендемити. Изготвени са карти на 22 вида, като са показани установените и потенциални (предполагаеми) райони на разпространение на всеки от тях. Картите биха могли да бъдат от значение при евентуален мониторинг на консервационно значимите таксони.

Appendix 1.

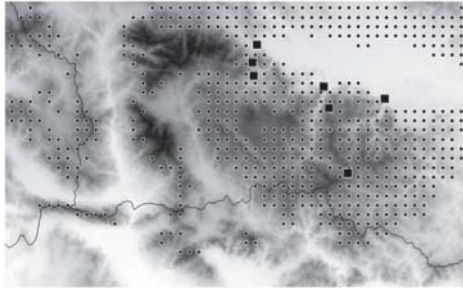
Observed and potential distributional maps of the 29 non hypogean Carabid species inhabiting the Western Rhodopes. Big squares represent the localities in which each species has been collected, while little black points represent the localities with similar climatic conditions.



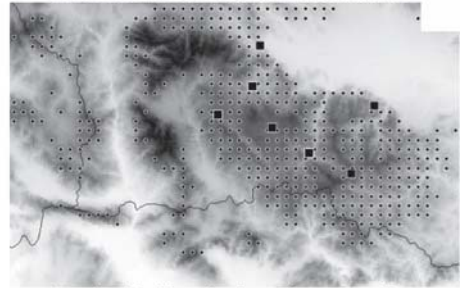
*Calosoma (Acalosoma) inquisitor inquisitor*



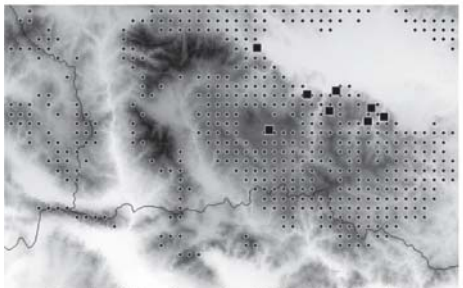
*Bembidion (Testedium) bipunctatum nivale*



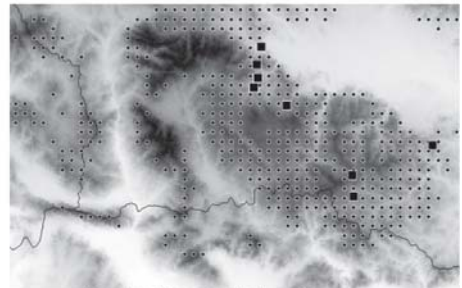
*Calosoma (Calosoma) svcofhanta*



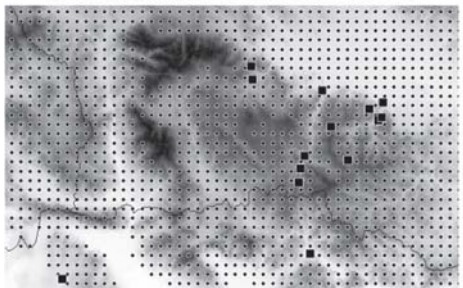
*Carabus (Archicarabus) montivagus montivagus*



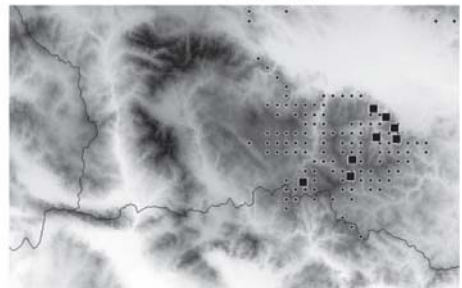
*Carabus (Chaetocarabus) intricatus intricatus*



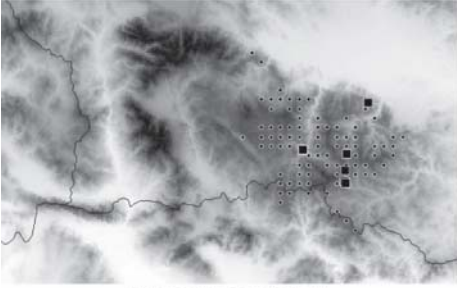
*Carabus (Procerus) gigas gigas*



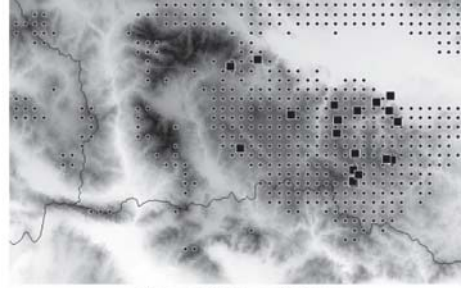
*Carabus (Procerus) scabrosus bureschianus*



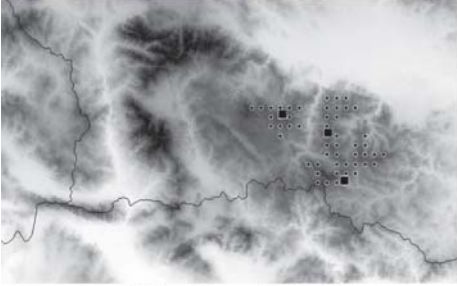
*Cychnus semigranosus balcanicus*



*Molops alpestris rhilensis*



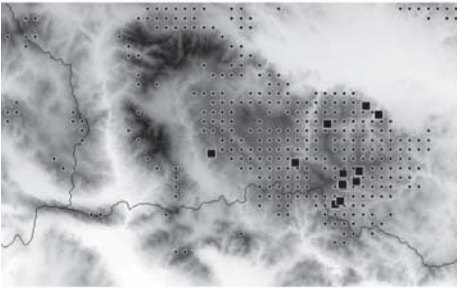
*Molops dilatatus dilatatus*



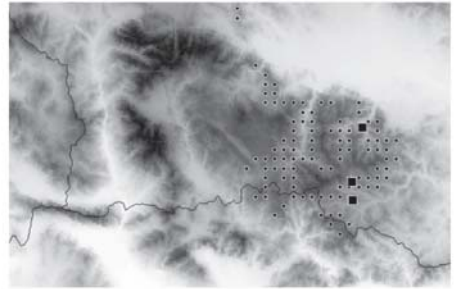
*Nebria (Alpaeus) rhilensis*



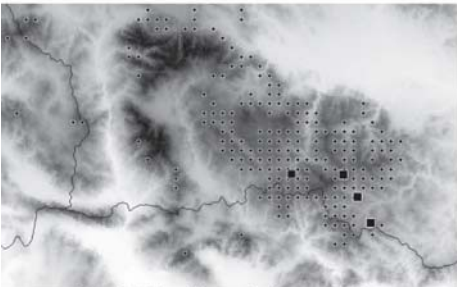
*Molops rhodopensis rhodopensis*



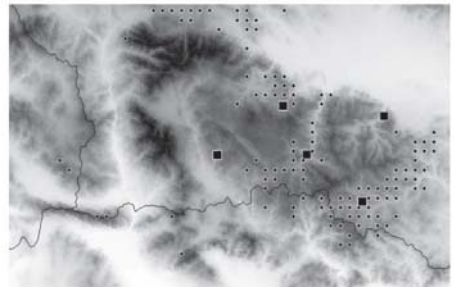
*Platynus (Batenus) scrobiculatus purkynei*



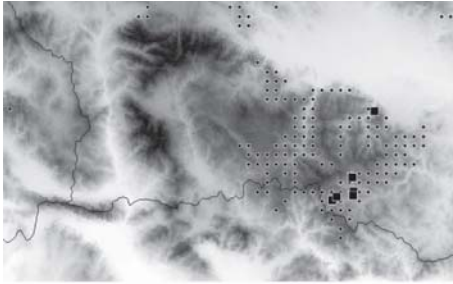
*Pterostichus (Parahaptoderus) vecors*



*Stomis (Stomis) pumicatus pumicatus*



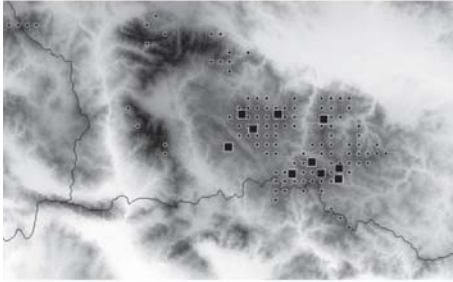
*Trechus (Trechus) irenis*



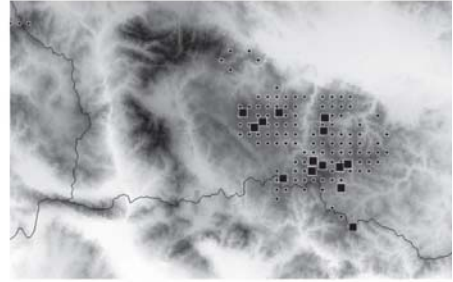
*Trechus (Trechus) crucifer*



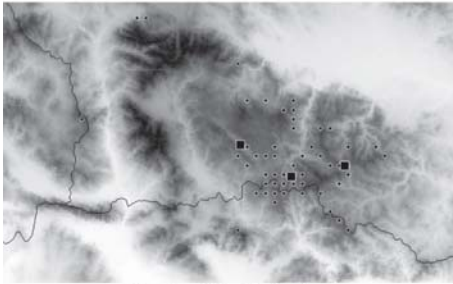
*Trechus (Trechus) matrismeae*



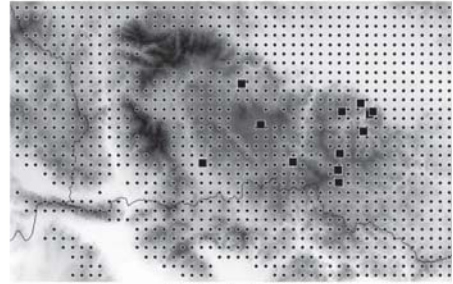
*Trechus (Trechus) rhodopeus*



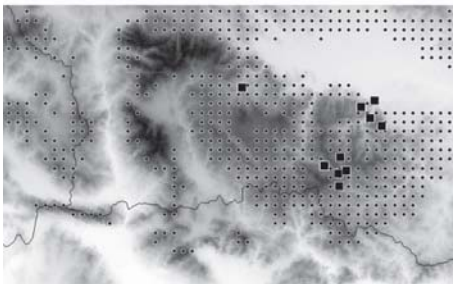
*Trechus (Trechus) szujekii*



*Trechus (Trechus) rubens*



*Xenion ignitum*



*Zabrus (Petor) spinipes spinipes*