

Scarabaeoid beetles (Coleoptera: Scarabaeoidea) from Vrachanska Planina Mountains and Vrachanski Balkan Nature Park

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Abstract. A list of species of Scarabaeoidea from the territory of Vrachanska Planina Mts. and Vrachanski Balkan Nature Park is presented. A total of 64 species were established, from which 45 are new records for the investigated area. At the Nature Park territory 49 species were established. The species *Aphodius brevis*, *Aphodius pusillus*, *Aphodius paracoenosus*, *Aphodius contaminatus*, *Aphodius arenarius*, *Omaloplia illyrica*, *Anisoplia dispar* and *Trichius sexualis* are reported for the first time for Stara Planina Mts. For the species *Aphodius brevis* it is the second record for Bulgaria. The presence of *Chaetonyx robustus* in Stara Planina Mts. was confirmed and data about its abundance in the soil of the habitat are presented.

Key words: Lucanidae, Trogidae, Geotrupidae, Scarabaeidae, Stara Planina Mountains, protected areas, list of species, Bulgaria.

Introduction

No special research of Scarabaeoidea fauna of Vrachanska Planina Mts. or Vrachanski Balkan Nature Park has been conducted until now. Data about Scarabaeoidea species for Vrachanska Planina Mts., Iskarski Prolom Gorge or the neighbouring regions of Stara Planina Mts. can be found in several publications (Joakimov 1904, Nedelkov 1905, 1909, Pittioni 1940, Goljan 1953, Kantardzhieva-Minkova 1953, Zacharieva-Stoilova 1969, Král & Malý 1993, Guéorguiev & Bunalski 2004 etc.). The most comprehensive data for the park territory were reported by Zacharieva-Stoilova in publication from 1969, in which the author included original and literature data about Western Stara Planina Mts. The purpose of the present study was to compile a list of Scarabaeoidea species for the territory of Vrachanska Planina Mts. and the Vrachanski Balkan Nature Park territory by combining existing and original data. New and notable observations on the biology of some of the established species are presented as well.

Materials and methods

Data included in the list are only those literature with locality designation within the investigated area (Goljan 1953, Zacharieva-Stoilova 1969, Guéorguiev & Bunalski 2004), as well as original data from newly collected material from the park and the mountain (denoted as "New data" in the list). Literature data in which the species localities are not precisely indicated (e.g. "Vratsa", "Mezdra", "Lakatnik") are not included in the list. New material

has been collected from April to October 2014 at the Beglichki Part of Vrachanska Planina Mts. and the Lakatnishki Skali Place (both in UTM FN97) mainly by manual collecting and by soil excavations. All specimens were collected by Denis Gradinarov. All new localities at Vrachanska Planina Mts. are within NATURA 2000 ecological network (site "Vrachanski Balkan", BG0002053). The classification of Scarabaeoidea is according to the Catalogue of Palaearctic Coleoptera (Löbl & Smetana 2006).

The material used in the study is deposited in the collection of Department of Zoology and Anthropology, Faculty of Biology, Sofia University "St. Kliment Ohridski".

The abbreviations used in the list of species are as follow: * - species new for the investigated region; VM - Vrachanska Planina Mountain; LS - Lakatnishki Skali Place; VBP - Vrachanski Balkan Nature Park.

List of species

Superfamily Scarabaeoidea Latreille, 1802

Family Lucanidae Latreille, 1804

Subfamily Dorcinae Parry, 1864

Genus *Dorcus* MacLeay, 1819

**Dorcus parallelipipedus* (Linnaeus, 1758)

New data: LS, VBP, 43°05.40'N; 23°22.92'E, 590 m, 25.06.2014, 1 ♀, on tourist trail.

Notes: LS, VBP. First record for Lakatnishki Skali Place.

Family Trogidae MacLeay, 1819

Genus *Trox* Fabricius, 1775

Trox niger P. Rossi, 1792

Literature data: VM, VBP, Okolchitsa Chalet, 1045 m (Guéorguiev & Bunalski 2004: 259 as *Trox hispidus* (Pontoppidan, 1763)).

Notes: VM, VBP.

Family Geotrupidae Latreille, 1802

Subfamily Geotrupinae Latreille, 1802

Tribe Geotrupini Latreille, 1802

Genus *Geotrupes* Latreille, 1797

Geotrupes (Geotrupes) spiniger (Marsham, 1802)

Literature data: VM, Parshevitsa Chalet (Zacharieva-Stoilova 1969: 18).

Notes: VM, VBP.

Geotrupes (Geotrupes) stercorarius (Linnaeus, 1758)

Literature data: VM, VBP, Parshevitsa Chalet (Zacharieva-Stoilova 1969: 18); VM, VBP, Uchitelski Kolonii Place (Zacharieva-Stoilova 1969: 18, locality is denoted as "Uchitelskata Stancia").

Notes: VM, VBP.

Genus *Thorectes* Mulsant, 1842***Thorectes punctulatus* (Jekel, 1866)**

Literature data: VM, VBP, Parshevitsa Chalet (Zacharieva-Stoilova 1969: 19 as *Geotrupes intermedius* after Guéorguiev & Bunalski 2004); VM, VBP, Okolchitsa Chalet, 850-900 m (Guéorguiev & Bunalski 2004: 259 as *Jekelius punctulatus*).

Notes: VM, VBP.

Genus *Trypocopris* Motschulsky, 1860****Trypocopris (Trypocopris) vernalis* (Linnaeus, 1758)**

New data: LS, VBP, 43°05.33'N; 23°22.95'E, 450 m, 23.04.2014, 1 ♀, in excr.; VM, VBP, above Milanovo Vill., 43°07.59'N; 23°23.49'E, 970 m, 11.05.2014, 2 ♂♂, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.63'N; 23°23.45'E, 980 m, 11.05.2014, 1 ♂, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.40'E, 990 m, 11.05.2014, 1 ♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.11'N; 23°23.50'E, 1000 m, 07.06.2014, 1 ♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.20'N; 23°23.92'E, 1030 m, 25.06.2014, 1 ♀, in sheep excr.; VM, VBP, above Lakatnik Railway Station, 43°05.48'N; 23°23.94'E, 470 m, 26.07.2014, 1 ♀, on the road.

Notes: VM, LS, VBP. First record for Vrachanska Planina Mts. and Lakatnishki Skali Place.

Family Scarabaeidae Latreille, 1802**Subfamily Aphodiinae Leach, 1815****Tribe Aphodiini Leach, 1815****Genus *Aphodius* Illiger, 1798******Aphodius (Acrossus) luridus* (Fabricius, 1775)**

New data: VM, Milanovo Vill., 43°06.80'N; 23°23.75'E, 815 m, 11.05.2014, 2 ♂♂, 2 ♀♀, in sheep excr.; VM, Milanovo Vill., 43°07.27'N; 23°23.74'E, 890 m, 11.05.2014, 1 ♂, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.51'N; 23°23.54'E, 960 m, 11.05.2014, 1 ♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.40'E, 990 m, 11.05.2014, 1 ♂, 1 ♀, in sheep excr.

Notes: VM, VBP. Common and widely distributed species. First record for Vrachanska Planina Mts.

***Aphodius (Acrossus) rufipes* (Linnaeus, 1758)**

Literature data: VM, VBP, Parshevitsa Chalet (Zacharieva-Stoilova 1969: 20).

Notes: VM, VBP.

***Aphodius (Agoliinus) satyrus* Reitter, 1892**

Literature data: VM, VBP, Parshevitsa Chalet (Zacharieva-Stoilova 1969: 22 as *Aph. (Agrilinus) constans* Duftschmidt (misidentified)).

Notes: VM, VBP. The species *Aph. (Agrilinus) constans* is noted for Bulgaria as a result of "wrong identification" and was excluded from the list for the country, as the data of Zaharieva-Stoilova (1969) concerns *Aph. satyrus* (Bunalski 2001b).

****Aphodius (Agrilinus) ater* (DeGeer, 1774)**

New data: VM, VBP, above Lakatnik Railway Station, 43°05.38'N; 23°24.15'E, 500 m, 25.07.2014, 1 ♀, in goat excr.

Notes: VM, VBP. The species was reported for the Middle and East Stara Planina Mts. (Zacharieva-Stoilova 1974: 132). However, it was not listed for Bulgaria in the Catalogue of Palaearctic Coleoptera (Löbl & Smetana 2006). First record for Vrachanska Planina Mts.

***Aphodius (Amidorus) obscurus* (Fabricius, 1792)**

Literature data: VM, VBP, Parshevitsa Chalet (Zacharieva-Stoilova 1969: 22).

Notes: VM, VBP. One of the mountain species in Bulgaria, common above the tree line of the mountains.

****Aphodius (Ammoecius) brevis* Erichson, 1848**

New data: VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 11.05.2014, 1 ♀, in cattle excr.

Notes: VM. Reported for Bulgaria by Král & Malý (1993) from Rodopi Mts. (Mostovo Vill.). First record for Stara Planina Mts. and second record for Bulgaria.

****Aphodius (Aphodius) fimetarius* (Linnaeus, 1758)**

New data: VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 23.04.2014, 1 ♂, in cattle excr.; the same locality, 11.05.2014, 1 ♂, 2 ♀♀, in cattle excr.; VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.44'E, 980 m, 07.06.2014, 3 ♀♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.11'N; 23°23.50'E, 1000 m, 07.06.2014, 1 ♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.09'N; 23°23.44'E, 1000 m, 25.06.2014, 1 ♂, in sheep excr.; VM, Milanovo Vill., below Mogilata Peak, 43°06.46'N; 23°23.91'E, 815 m, 19.10.2014, 1 ♂, 1 ♀, in sheep excr.; VM, Milanovo Vill., 43°06.24'N; 23°24.04'E, 800 m, 19.10.2014, 3 ♂♂, 2 ♀♀, in cattle excr.

Notes: VM, VBP. First record for Vrachanska Planina Mts.

****Aphodius (Colobopterus) erraticus* (Linnaeus, 1758)**

New data: VM, Milanovo Vill., 43°06.80'N; 23°23.75'E, 815 m, 11.05.2014, 1 ♂, 1 ♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.11'N; 23°23.50'E, 1000 m, 07.06.2014, 1 ♀, in sheep excr.; VM, Milanovo Vill., 43°06.83'N; 23°23.77'E, 810 m, 25.06.2014, 1 ♂, in cattle excr.; VM, VBP, above Milanovo Vill., 43°07.71'N; 23°23.31'E, 980 m, 25.06.2014, 1 ♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.95'N; 23°23.22'E, 990 m, 25.06.2014, 1 ♂, in sheep excr.; VM, VBP, above Lakatnik Railway Station, 43°05.38'N; 23°24.15'E, 500 m, 26.07.2014, 1 ♂, in goat excr.

Notes: VM, VBP. First record for Vrachanska Planina Mts.

****Aphodius (Esymus) pusillus pusillus* (Herbst, 1789)**

New data: VM, VBP, road between Lakatnik and Milanovo Vill., 43°06.00'N; 23°23.77'E, 650 m, 23.04.2014, 1 ♀, in donkey excr.; VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 23.04.2014, 1 ♂, in cattle excr.; VM, Milanovo Vill., 43°06.80'N; 23°23.75'E, 815 m, 11.05.2014, 4 ♂♂, 1 ♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.59'N; 23°23.49'E, 970 m, 11.05.2014, 1 ♂, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.44'E, 980 m, 07.06.2014, 1 ♂, 3 ♀♀, in sheep excr.; VM, VBP, above

Milanovo Vill., 43°08.11'N; 23°23.50'E, 1000 m, 07.06.2014, 4 ♂♂, 1 ♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.95'N; 23°23.22'E, 990 m, 25.06.2014, 1 ♂, in sheep excr.

Notes: VM, VBP. Bunalski (2001a) cited this species from Tsarevo Town as new for Bulgaria, but in fact it was reported previously by Mikšić (1953) and Genov & Bily (1980). However it is not listed in the Catalogue of Palaearctic Coleoptera (Löbl & Smetana 2006) for Bulgaria. The most recent citation of this species is from Western Rodopi Mts. (Guéorguiev et al. 2011: 245). First record for Stara Planina Mts.

****Aphodius (Euorodalus) paracoenosus* Balthasar & Hrubant, 1960**

New data: VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 23.04.2014, 2 ♂♂, in cattle excr.; VM, Milanovo Vill., 43°06.80'N; 23°23.75'E, 815 m, 11.05.2014, 1 ♂, 1 ♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.51'N; 23°23.54'E, 960 m, 11.05.2014, 1 ♂, in sheep excr.; VM, Milanovo Vill., 43°06.72'N; 23°23.75'E, 830 m, 25.06.2014, 2 ♂♂, 2 ♀♀, in goat excr.; VM, VBP, above Milanovo Vill., 43°07.71'N; 23°23.31'E, 980 m, 25.06.2014, 1 ♂, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.09'N; 23°23.44'E, 1000 m, 25.06.2014, 1 ♂, 3 ♀♀, in sheep excr.

Notes: VM, VBP. According to Král & Malý (1993) this species is common for Bulgaria during the spring, an observation confirmed by followed studies (Gueorguiev et al. 2011). All records for *Aph. coenosus* (Panzer, 1798) from Bulgaria probably concern this species (Král & Malý 1993), however both species are listed in the Catalogue of Palaearctic Coleoptera (Löbl & Smetana 2006) for Bulgaria. First record for Stara Planina Mts.

****Aphodius (Limarus) maculatus* Sturm, 1800**

New data: VM, VBP, above Milanovo Vill., 43°08.09'N; 23°23.44'E, 1000 m, 25.06.2014, 1 ♂, 1 ♀, in sheep excr.

Notes: VM, VBP. Known for Bulgaria by several sources (Král & Malý 1993: 23, Bunalski, 2000: 88, Guéorguiev et al. 2011: 245). The only record for Stara Planina Mts. is from Byala Vill., near Sliven Town (Bunalski 2000: 88). First record for Vrachanska Planina Mts.

****Aphodius (Melinopterus) consputus* Creutzer, 1799**

New data: VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 23.04.2014, 1 ♂, 1 ♀, in cattle excr.; VM, Milanovo Vill., below Mogilata Peak, 43°06.46'N; 23°23.91'E, 815 m, 19.10.2014, 1 ♂, 7 ♀♀, in goat and sheep excr.

Notes: VM. First record for Vrachanska Planina Mts.

****Aphodius (Melinopterus) prodromus* (Brahm, 1790)**

New data: VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 23.04.2014, 11 ♂♂, 2 ♀♀, in cattle excr.; the same locality and date, 11 ♂♂, 4 ♀♀, in donkey excr.; VM, Milanovo Vill., below Mogilata Peak, 43°06.46'N; 23°23.91'E, 815 m, 19.10.2014, 6 ♀♀, in sheep excr.

Notes: VM. First record for Vrachanska Planina Mts.

****Aphodius (Nialus) varians* Duftschmid, 1805**

New data: VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 23.04.2014, 1 ♂, in cattle excr.; VM, Milanovo Vill., 43°06.80'N; 23°23.75'E, 815 m, 11.05.2014, 2 ♂♂, 1 ♀, in sheep excr.; VM, Milanovo Vill., 43°06.83'N; 23°23.77'E, 810 m, 25.06.2014, 1 ♂, in cattle

excr.

Notes: VM. First record for Vrachanska Planina Mts.

****Aphodius (Nimbus) contaminatus* (Herbst, 1783)**

New data: VM, Milanovo Vill., below Mogilata Peak, 43°06.46'N; 23°23.91'E, 815 m, 28.09.2014, 1 ♂, in goat excr.; the same locality, 19.10.2014, 1 ♀, in goat and sheep excr.

Notes: VM. Known from Rila (Hubenov et al. 2000) without exact locality and Western Rodopi Mts. (Guéorguiev et al. 2011). First record for Stara Planina Mts.

****Aphodius (Nimbus) obliteratus* Sturm, 1823**

New data: VM, Milanovo Vill., below Mogilata Peak, 43°06.46'N; 23°23.91'E, 815 m, 19.10.2014, 9 ♂♂, 13 ♀♀, in goat and sheep excr.; the same locality and date, 11 ♂♂, 6 ♀♀, in sheep excr.

Notes: VM. First record for Vrachanska Planina Mts.

****Aphodius (Otophorus) haemorrhoidalis* (Linnaeus, 1758)**

New data: VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 11.05.2014, 1 ♀, in cattle excr.

Notes: VM. First record for Vrachanska Planina Mts.

****Aphodius (Phalacrothus) biguttatus* Germar, 1824**

New data: VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.40'E, 990 m, 11.05.2014, 1 ♂, in sheep excr.

Notes: VM, VBP. First record for Vrachanska Planina Mts.

****Aphodius (Plagiogonus) arenarius* (A. G. Olivier, 1789)**

New data: VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.44'E, 980 m, 07.06.2014, 3 ♂♂, 5 ♀♀, in sheep excr.; VM, VBP, above Lakatnik Railway Station, 43°05.36'N; 23°24.00'E, 440 m, 25.07.2014, 1 ♀, in goat excr.; the same locality, 26.07.2014, 1 ♀, in goat excr.

Notes: VM, VBP. Cited for the country by Angelov (1965) as *Aph. putridus* (Geoffroy), Král & Malý (1993) as *Aph. putridus* (Fourcroy) and Bunalski (2001a: 30). However, it was not listed for Bulgaria in the Catalogue of Palaearctic Coleoptera (Löbl & Smetana 2006). First record for Stara Planina Mts.

****Aphodius (Teuchestes) fossor* (Linnaeus, 1758)**

New data: VM, Milanovo Vill., 43°06.80'N; 23°23.75'E, 815 m, 11.05.2014, 1 ♂, in sheep excr.; VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 11.05.2014, 1 ♂, in cattle excr.

Notes: VM. Widely distributed, mainly in mountainous and forested areas in the country. First record for Vrachanska Planina Mts.

****Aphodius (Trichonotulus) scrofa* (Fabricius, 1787)**

New data: VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.40'E, 990 m, 11.05.2014, 1 ♂, 1 ♀, in sheep excr.

Notes: VM, VBP. First record for Vrachanska Planina Mts.

****Aphodius (Volinus) sticticus* (Panzer, 1798)**

New data: VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.44'E, 980 m, 07.06.2014, 12 ♂♂, 6 ♀♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.09'N; 23°23.44'E, 1000 m, 25.06.2014, 1 ♂, 2 ♀♀, in sheep excr.

Notes: VM, VBP. Common species for the mountain dung beetle fauna. First record for Vrachanska Planina Mts.

Genus *Oxyomus* Dejean, 1833****Oxyomus sylvestris* (Scopoli, 1763)**

New data: VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 23.04.2014, 2 ♂♂, 2 ♀♀, in cattle excr.; the same locality and date, 4 ♂♂, 3 ♀♀, in donkey excr.; VM, VBP, above Lakatnik Railway Station, 43°05.36'N; 23°24.00'E, 440 m, 25.07.2014, 1 ♂, 1 ♀, in goat excr.

Notes: VM, VBP. Common species for forest habitats. First record for Vrachanska Planina Mts.

Subfamily Scarabaeinae Latreille, 1802**Tribe Coprini Leach, 1815****Genus *Copris* Geoffroy, 1762******Copris (Copris) lunaris* (Linnaeus, 1758)**

New data: VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.40'E, 990 m, 11.05.2014, 1 ♂, 1 ♀, under sheep excr.; VM, VBP, above Milanovo Vill., 43°07.59'N; 23°23.49'E, 970 m, 11.05.2014, 1 ♂, under sheep excr.; VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.44'E, 980 m, 07.06.2014, 2 ♂♂, under sheep excr.; VM, VBP, above Milanovo Vill., 43°07.95'N; 23°23.22'E, 990 m, 25.06.2014, 1 ♂, under sheep excr.

Notes: VM, VBP. First record for Vrachanska Planina Mts.

Tribe Gymnopleurini Lacordaire, 1856**Genus *Gymnopleurus* Illiger, 1803*****Gymnopleurus geoffroyi geoffroyi* (Fuessly, 1775)**

Literature data: VM, VBP, Parshevitsa Chalet (Zacharieva-Stoilova 1969: 8 as *Gymnopleurus* (s. str.) *geoffroyi*).

Notes: VM, VBP.

***Gymnopleurus mopsus mopsus* (Pallas, 1781)**

Literature data: VM, VBP, Parshevitsa Chalet, 1100 m (Zacharieva-Stoilova 1969: 7 as *Gymnopleurus* (s. str.) *mopsus*).

Notes: VM, VBP.

Tribe Oniticellini H. J. Kolbe, 1905**Genus *Euoniticellus* A. Janssens, 1953******Euoniticellus fulvus* (Goeze, 1777)**

New data: VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.40'E, 990 m, 11.05.2014, 1 ♂, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.71'N; 23°23.31'E, 980 m, 25.06.2014, 2 ♂♂, 1 ♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.95'N; 23°23.22'E, 990 m, 25.06.2014, 1 ♀, in sheep excr.; VM, VBP, above Lakatnik Railway Station, 43°05.36'N; 23°24.00'E, 440 m, 25.07.2014, 1 ♂, in goat excr.

Notes: VM, VBP. Common for the country species. First record for Vrachanska Planina Mts.

Tribe Onthophagini Burmeister, 1846**Genus *Euonthophagus* Balthasar, 1959*****Euonthophagus gibbosus* (Scriba, 1790)**

Literature data: VM, VBP, Parshevitsa Chalet (Zacharieva-Stoilova 1969: 12 as *Onthophagus gibbosus*).

Notes: VM, VBP.

Genus *Onthophagus* Latreille, 1802****Onthophagus (Furconthophagus) furcatus* (Fabricius, 1781)**

New data: VM, Milanovo Vill., 43°06.72'N; 23°23.75'E, 830 m, 07.06.2014, 3 ♂♂, 1 ♀, in goat excr.; the same locality, 25.06.2014, 2 ♂♂, 1 ♀, in goat excr.; VM, VBP, above Milanovo Vill., 43°08.20'N; 23°23.92'E, 1030 m, 25.06.2014, 1 ♀, in sheep excr.

Notes: VM, VBP. Common for the country species. First record for Vrachanska Planina Mts.

****Onthophagus (Onthophagus) illyricus* (Scopoli, 1763)**

New data: VM, Milanovo Vill., 43°06.80'N; 23°23.75'E, 815 m, 11.05.2014, 2 ♂♂, 4 ♀♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.59'N; 23°23.49'E, 970 m, 11.05.2014, 1 ♂, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.11'N; 23°23.50'E, 1000 m, 07.06.2014, 1 ♀, in sheep excr.; VM, Milanovo Vill., 43°06.83'N; 23°23.77'E, 810 m, 25.06.2014, 1 ♀, in cattle excr.; VM, Milanovo Vill., 43°06.72'N; 23°23.75'E, 830 m, 25.06.2014, 1 ♂, 1 ♀, in goat excr.; VM, VBP, above Milanovo Vill., 43°07.71'N; 23°23.31'E, 980 m, 25.06.2014, 3 ♂♂, 1 ♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.95'N; 23°23.22'E, 990 m, 25.06.2014, 1 ♂, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.20'N; 23°23.92'E, 1030 m, 25.06.2014, 1 ♂, 1 ♀, in sheep excr.; VM, VBP, above Lakatnik Railway Station, 43°05.36'N; 23°24.00'E, 440 m, 26.07.2014, 1 ♀, in goat excr.; VM, Milanovo Vill., below Mogilata Peak, 43°06.38'N; 23°24.08'E, 800 m, 28.09.2014, 1 ♂, 1 ♀, in sheep excr.; VM, Milanovo Vill., below Mogilata Peak, 43°06.27'N; 23°24.24'E, 810 m, 28.09.2014, 1 ♂, 1 ♀, in sheep excr.; VM, Milanovo Vill., below Mogilata Peak, 43°06.46'N; 23°23.91'E, 815 m, 28.09.2014, 1 ♂, 2 ♀♀, in goat excr.; the same locality and date, 4 ♂♂, 4 ♀♀, in sheep excr.; the same locality, 19.10.2014, 2 ♂♂, in sheep excr.

Notes: VM, VBP. First record for Vrachanska Planina Mts.

Onthophagus (Onthophagus) taurus (Schreber, 1759)

Literature data: VM, VBP, Parshevitsa Chalet (Zacharieva-Stoilova 1969: 12, Zacharieva-Stoilova 1969: 13 as *Onthophagus taurus* ab. *fuscipennis*, *Onthophagus taurus* ab. *alternatus*).

New data: VM, near Milanovo Vill., 43°06.83'N; 23°23.77'E, 810 m, 25.06.2014, 1 ♂, 2 ♀♀, in cattle excr.; VM, VBP, above Milanovo Vill., 43°07.95'N; 23°23.22'E, 990 m, 25.06.2014, 1 ♂, in sheep excr.

Notes: VM, VBP.

****Onthophagus (Palaeonthophagus) coenobita (Herbst, 1783)***

New data: VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 23.04.2014, 3 ♂♂, 5 ♀♀, in cattle excr.; VM, Milanovo Vill., 43°06.80'N; 23°23.75'E, 815 m, 11.05.2014, 1 ♂, 1 ♀, in sheep excr.;

Notes: VM. Common species in forested areas. First record for Vrachanska Planina Mts.

****Onthophagus (Palaeonthophagus) fracticornis (Preyssler, 1790)***

New data: VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 23.04.2014, 3 ♂♂, 4 ♀♀, in cattle excr.; the same locality and date, 2 ♂♂, 2 ♀♀, in donkey excr.; VM, Milanovo Vill., 43°06.80'N; 23°23.75'E, 815 m, 11.05.2014, 3 ♂♂, 2 ♀♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.44'E, 980 m, 07.06.2014, 1 ♂, in sheep excr.; VM, VBP, above Lakatnik Railway Station, 43°05.38'N; 23°24.15'E, 500 m, 25.07.2014, 1 ♂, in goat excr.; VM, Milanovo Vill., below Mogilata Peak, 43°06.38'N; 23°24.08'E, 800 m, 28.09.2014, 3 ♂♂, 3 ♀♀, in sheep excr.; VM, Milanovo Vill., below Mogilata Peak, 43°06.27'N; 23°24.24'E, 810 m, 28.09.2014, 9 ♂♂, 2 ♀♀, in sheep excr.; VM, Milanovo Vill., below Mogilata Peak, 43°06.46'N; 23°23.91'E, 815 m, 28.09.2014, 4 ♂♂, 4 ♀♀, in goat excr.; the same locality and date, 4 ♂♂, 6 ♀♀, in sheep excr.; the same locality, 19.10.2014, 3 ♂♂, 2 ♀♀, in goat and sheep excr.; the same locality and date, 6 ♂♂, 3 ♀♀, in sheep excr.

Notes: VM, VBP. First record for Vrachanska Planina Mts.

Onthophagus (Palaeonthophagus) joannae Goljan, 1953

Literature data: VM, VBP, Parshevitsa Chalet (Zacharieva-Stoilova 1969: 14).

Notes: VM, VBP.

Onthophagus (Palaeonthophagus) lemur (Fabricius, 1781)

Literature data: VM, VBP, Parshevitsa Chalet (Zacharieva-Stoilova, 1969: 17).

New data: VM, VBP, road between Lakatnik and Milanovo Vill., 43°06.00'N; 23°23.77'E, 650 m, 23.04.2014, 2 ♂♂, 1 ♀, in donkey excr.; VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 23.04.2014, 2 ♂♂, in cattle excr.; VM, Milanovo Vill., 43°06.80'N; 23°23.75'E, 815 m, 11.05.2014, 2 ♂♂, 4 ♀♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.59'N; 23°23.49'E, 970 m, 11.05.2014, 1 ♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.40'E, 990 m, 11.05.2014, 1 ♂, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.44'E, 980 m, 07.06.2014, 1 ♂, 2 ♀♀, in sheep excr.; VM, Milanovo Vill., 43°06.83'N; 23°23.77'E, 810 m, 25.06.2014, 1 ♂, in cattle excr.; VM, Milanovo Vill., 43°06.72'N; 23°23.75'E, 830 m, 25.06.2014, 2 ♀♀, in goat excr.; VM, VBP, above Milanovo Vill., 43°07.71'N; 23°23.31'E, 980 m, 25.06.2014, 1 ♀, in sheep excr.; above

Lakatnik Railway Station, 43°05.36'N; 23°24.00'E, 440 m, 26.07.2014, 1 ♀, in goat excr.

Notes: VM, VBP.

Onthophagus (Palaeonthophagus) marginalis (Gebler, 1817)

Literature data: VM, VBP, Uchitelski Kolonii Place (Zacharieva-Stoilova 1969: 16, locality is denoted as Uchitelskata Stancia).

Notes: VM, VBP.

Onthophagus (Palaeonthophagus) ruficapillus Brullé, 1832

Literature data: VM, VBP, Zgorigrad Vill., Ledenika Cave vicinity (Goljan 1953: 64); VM, VBP, Parshevitsa Chalet (Zacharieva-Stoilova 1969: 14 as *Onthophagus* (s. str.) *ruficapillus*).

New data: VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 23.04.2014, 1 ♂, in cattle excr.; VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.40'E, 990 m, 11.05.2014, 2 ♂♂, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.11'N; 23°23.50'E, 1000 m, 07.06.2014, 1 ♂, 3 ♀♀, in sheep excr.; VM, Milanovo Vill., 43°06.72'N; 23°23.75'E, 830 m, 25.06.2014, 3 ♂♂, 1 ♀, in goat excr.; VM, VBP, above Milanovo Vill., 43°07.71'N; 23°23.31'E, 980 m, 25.06.2014, 1 ♂, 3 ♀♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.95'N; 23°23.22'E, 990 m, 25.06.2014, 2 ♂♂, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.20'N; 23°23.92'E, 1030 m, 25.06.2014, 1 ♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.20'N; 23°23.98'E, 1035 m, 25.06.2014, 1 ♀, in sheep excr.; VM, Milanovo Vill., below Mogilata Peak, 43°06.46'N; 23°23.91'E, 815 m, 28.09.2014, 1 ♀, in goat excr.

Notes: VM, VBP.

Onthophagus (Palaeonthophagus) similis (Scriba, 1790)

Literature data: VM, VBP, Parshevitsa Chalet (Zacharieva-Stoilova 1969: 16 as *Onthophagus* (s. str.) *similis*).

New data: VM, Milanovo Vill., 43°06.80'N; 23°23.75'E, 815 m, 11.05.2014, 1 ♂, in sheep excr.

Notes: VM, VBP.

****Onthophagus (Palaeonthophagus) vacca (Linnaeus, 1767)***

New data: VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 23.04.2014, 1 ♂, 1 ♀, in cattle excr.; VM, VBP, above Milanovo Vill., 43°07.95'N; 23°23.22'E, 990 m, 25.06.2014, 1 ♂, in sheep excr.; VM, Milanovo Vill., below Mogilata Peak, 43°06.46'N; 23°23.91'E, 815 m, 28.09.2014, 1 ♂, in sheep excr.

Notes: VM, VBP. First record for Vrachanska Planina Mts.

****Onthophagus (Palaeonthophagus) verticicornis (Laicharting, 1781)***

New data: VM, VBP, road between Lakatnik and Milanovo Vill., 43°06.00'N; 23°23.77'E, 650 m, 23.04.2014, 1 ♂, 1 ♀, in donkey excr.; VM, Milanovo Vill., 43°07.17'N; 23°23.80'E, 860 m, 23.04.2014, 45 ♂♂, 39 ♀♀, in cattle excr.; the same locality and date, 2 ♂♂, in donkey excr.; VM, Milanovo Vill., 43°06.80'N; 23°23.75'E, 815 m, 11.05.2014, 3 ♂♂, 1 ♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.51'N; 23°23.54'E, 960 m, 11.05.2014, 1 ♂, 1 ♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.59'N; 23°23.49'E, 970 m, 11.05.2014, 6 ♂♂, 9 ♀♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.40'E, 990

m, 11.05.2014, 11 ♂♂, 10 ♀♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.64'N; 23°23.44'E, 980 m, 07.06.2014, 7 ♂♂, 5 ♀♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.11'N; 23°23.50'E, 1000 m, 07.06.2014, 3 ♀♀, in sheep excr.; VM, Milanovo Vill., 43°06.72'N; 23°23.75'E, 830 m, 25.06.2014, 1 ♂, 1 ♀, in goat excr.; VM, VBP, above Milanovo Vill., 43°07.71'N; 23°23.31'E, 980 m, 25.06.2014, 1 ♂, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.09'N; 23°23.44'E, 1000 m, 25.06.2014, 1 ♂, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.20'N; 23°23.92'E, 1030 m, 25.06.2014, 4 ♂♂, 11 ♀♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°08.20'N; 23°23.98'E, 1035 m, 25.06.2014, 1 ♂, 7 ♀♀, in sheep excr.; VM, VBP, above Lakatnik Railway Station, 43°05.38'N; 23°24.15'E, 500 m, 26.07.2014, 1 ♀, in goat excr.

Notes: VM, VBP. First record for Vrachanska Planina Mts.

Tribe Sisyphini Mulsant, 1842

Genus *Sisyphus* Latreille, 1807

****Sisyphus schaefferi schaefferi* (Linnaeus, 1758)**

New data: VM, VBP, above Milanovo Vill., 43°07.33'N; 23°23.71'E, 910 m, 11.05.2014, 3 ♂♂, 2 ♀♀, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.51'N; 23°23.54'E, 960 m, 11.05.2014, 1 ♂, 1 ♀, in sheep excr.; VM, above Milanovo Vill., 43°07.59'N; 23°23.49'E, 970 m, 11.05.2014, 2 ♂♂, in sheep excr.; VM, VBP, above Milanovo Vill., 43°07.55'N; 23°23.42'E, 950 m, 07.06.2014, 1 ♂, 1 ♀, rolling behavior obs.; VM, Milanovo Vill., 43°06.72'N; 23°23.75'E, 830 m, 25.06.2014, 1 ♀, in goat excr.; VM, VBP, above Milanovo Vill., 43°08.20'N; 23°23.98'E, 1035 m, 25.06.2014, 2 ♀♀, in sheep excr.; VM, VBP, above Lakatnik Railway Station, 43°05.38'N; 23°24.15'E, 500 m, 26.07.2014, 1 ♂, in goat excr.; VM, VBP, above Lakatnik Railway Station, 43°05.36'N; 23°24.00'E, 440 m, 26.07.2014, 1 ♂, in goat excr.

Notes: VM, VBP. First record for Vrachanska Planina Mts.

Subfamily Orphninae Erichson, 1847

Tribe Orphnini Erichson, 1847

Genus *Chaetonyx* Schaum, 1862

****Chaetonyx robustus* Schaum, 1862**

New data: VM, VBP, above Lakatnik Railway Station, coordinates in Table 1, 480 – 500 m, xerothermic oak-hornbeam forest, 25.07.2014, 19 ♂♂, 14 ♀♀, one pupa, one prepupa, eggs, larvae from all the three instars, in soil and between soil and litter; the same locality, 43°05.35'N; 23°24.15'E, 19.10.2014, 8 ♂♂, 8 ♀♀, larvae, in soil, sample 70 x 30 cm, 10 cm depth.

The locality is situated on a slope on Vrachanska Planina Mts., at ca. 200 m by the Iskar River. The soil is brown forest, with medium to high stone content, almost without grass cover. Six random soil samples (30 x 30 and 10 cm depth) were taken by an area of 200 m², with minimum distance of 2 m between samples (Table 1). Thus the results of the samples give at least rough example for the abundance of the local population of the species in this locality.

Notes: VM, VBP. The species was recorded from Stara Planina Mts. by Joakimov (1904) as *Chaetonyx* [sic] *robustus*, Nedelkov (1905) as *H. robustus* [sic] and Zacharieva-

Stoilova (1974) as *Chaetonix* [sic!] *robustus*. Kral & Maly (1993) doubt the previous citations for this species for Bulgaria. The recent findings confirm the presence of this species in Stara Planina Mts.

Table 1. Abundance of *Chaetonix robustus* in six soil samples from oak-hornbeam forest above Lakatnik Railway Station, Vrachanska Planina Mts., 25.07.2014.

Sample №	Coordinates	Males	Females	Total adults	Larvae	Pupae	Eggs
1	43°05.351'N; 23°24.158'E	1	1	2	+	1	-
2	43°05.351'N; 23°24.154'E	10	8	18	+	-	+
3	43°05.350'N; 23°24.154'E	0	3	3	+	-	+
4	43°05.355'N; 23°24.153'E	-	-	-	-	-	-
5	43°05.357'N; 23°24.144'E	7	0	7	+	-	-
6	43°05.359'N; 23°24.137'E	1	2	3	+	-	+

Subfamily Melolonthinae Samouelle, 1819

Tribe Hopliini Latreille, 1829

Genus *Hoplia* Illiger, 1803

***Hoplia (Hoplia) argentea* (Poda von Neuhaus, 1761)**

Literature data: VM, VBP, Parshevitsa Chalet (Zacharieva-Stoilova 1969: 26 as *Hoplia farinosa*).

New data: VM, VBP, road between Lakatnik Railway Station and Milanovo Vill., 43°05.38'N; 23°24.08'E, 480 m, 23.04.2014, 2 ♂♂, 1 ♀, on *Crataegus monogina* Jacq., copulation obs.; VM, VBP, above Milanovo Vill., 43°07.67'N; 23°23.38'E, 990 m, 11.05.2014, 5 ♂♂, on *Crataegus monogina* Jacq.; VM, VBP, above Milanovo Vill., 43°08.18'N; 23°23.55'E, 1010 m, meadow near beech forest, 07.06.2014, 1 ♀, at flight.

Notes: VM, VBP.

Tribe Rhizotrogini Burmeister, 1855

Genus *Amphimallon* Latreille, 1825

***Amphimallon assimile* (Herbst, 1790)**

Literature data: VM, VBP, Uchitelski Kolonii Place (Zacharieva-Stoilova 1969: 24 as *Amphimallon assimilis*, locality is denoted as Uchitelskata Stancia).

Notes: VM, VBP.

Genus *Holochelus* Reitter, 1889

****Holochelus (Miltotrogus) vernus* (Germar, 1823)**

New data: VM, on road in Milanovo Vill., 43°07.25'N; 23°23.53'E, 860 m, 07.06.2014, 1 ♀, found dead.

Notes: VM. The species was reported for the Western Stara Planina Mts. (Zacharieva-

Stoilova 1969: 23 as *Rhizotrogus vernus vernus*) and for the Middle and Eastern Stara Planina Mts. (Zacharieva-Stoilova 1974: 134 as *Rhisotrogus* [sic!] *vernus vernus*). First record for Vrachanska Planina Mts.

Genus *Rhizotrogus* Latreille, 1825

**Rhizotrogus aestivus* (A. G. Olivier, 1789)

New data: VM, on road below Milanovo Vill., 43°06.53'N; 23°23.46'E, 780 m, 11.05.2014, 1 ♀, found dead.

Notes: VM. The species was reported for the Western Stara Planina Mts. (Zacharieva-Stoilova 1969: 23) and for the Middle and Eastern Stara Planina Mts. (Zacharieva-Stoilova 1974: 134 as *Rhisotrogus* [sic!] *aestivus*). First record for Vrachanska Planina Mts.

Subfamily Sericinae Kirby, 1837

Tribe Sericini Kirby, 1837

Genus *Omaloplia* Schönherr, 1817

**Omaloplia (Omaloplia) illyrica* (Baraud, 1965)

New data: LS, VBP, 43°05.44'N; 23°22.88'E, 580 m, 25.06.2014, 1 ♂, on flowers; VM, Milanovo Vill., 43°06.71'N; 23°23.73'E, 830 m, meadow, 07.06.2014, 2 ♂♂, 3 ♀♀, on flowers.

Notes: VM, LS, VBP. The species was reported from Maleshevska Planina Mts. (Guéorguiev & Ljubomirov 2009: 246). First record for Stara Planina Mts.

Omaloplia (Omaloplia) ruricola (Fabricius, 1775)

Literature data: VM, VBP, Uchitelski Kolonii Place (Zacharieva-Stoilova, 1969: 23 as *Homaloplia ruricola*, locality is denoted as Uchitelskata Stancia).

Notes: VM, VBP.

Subfamily Rutelinae MacLeay, 1819

Tribe Anomalini Mulsant, 1842

Genus *Anisoplia* Fischer von Waldheim, 1824

**Anisoplia (Anisoplia) dispar* Erichson, 1847

New data: VM, Milanovo Vill., 43°06.71'N; 23°23.73'E, 830 m, meadow, 25.06.2014, 2 ♂♂, on grasses.

Notes: VM. Previously known for Bulgaria only from the Black Sea Coast (Král & Malý 1993: 26). First record for Stara Planina Mts.

Genus *Chaetopteropia* S. I. Medvedev, 1949

**Chaetopteropia segetum balcanicola* (Machatschke, 1961)

New data: VM, Milanovo Vill., 43°06.71'N; 23°23.73'E, 830 m, meadow, 25.06.2014, 1 ♀, on grasses.

Notes: VM. The species was reported for the Western Stara Planina Mts. (Zacharieva-Stoilova 1969: 25 as *Anisoplia segetum balcanicola*) and for the Middle and Eastern Stara Planina Mts. (Zacharieva-Stoilova 1974: 136 as *Anisoplia segetum balcanicola*). First record

for Vrachanska Planina Mts.

Genus *Blitopertha* Reitter, 1903

**Blitopertha lineolata* (Fischer von Waldheim, 1824)

New data: VM, near Milanovo Vill., 43°06.71'N; 23°23.73'E, 830 m, meadow, 07.06.2014, 5 ♂♂, 1 ♀, on flowers of *Potentilla* sp.; the same locality, 25.06.2014, 2 ♀♀, on flowers.

Notes: VM. The species was reported for the Western Stara Planina Mts. (Zacharieva-Stoilova 1969: 25 as *Phylopertha* [sic!] (*Blitopertha*) *lineolata*) and for the Middle and Eastern Stara Planina Mts. (Zacharieva-Stoilova 1974: 135 as *Phyllopertha lineolata*). First record for Vrachanska Planina Mts.

Subfamily Cetoniinae Leach, 1815

Tribe Cetoniini Leach, 1815

Genus *Cetonia* Fabricius, 1775

**Cetonia (Cetonia) aurata aurata* (Linnaeus, 1761)

New data: LS, VBP, 43°05.26'N; 23°22.73'E, 500 m, 23.04.2014, 4 ♂♂, on flowers of *Syringa vulgaris* L.; VM, VBP, road between Lakatnik and Milanovo Vill., 43°05.77'N; 23°23.97'E, 590 m, 23.04.2014, 2 ♂♂, on flowers of *Syringa vulgaris* L.; VM, VBP, above Milanovo Vill., 43°07.37'N; 23°23.69'E, 930 m, 11.05.2014, 1 ♂; VM, above Milanovo Vill., 43°07.42'N; 23°23.49'E, 890 m, meadow, 07.06.2014, 1 ♂, on flowers of *Filipendula vulgaris* Moench.

Notes: VM, LS, VBP. Common for the country species. First record for Vrachanska Planina Mts. and Lakatnishki Skali Place.

Genus *Protaetia* Burmeister, 1842

**Protaetia (Potosia) cuprea obscura* (Andersch, 1797)

New data: LS, VBP, 43°05.22'N; 23°22.71'E, 500 m, 07.06.2014, 1 ♂, resting on grasses; VM, VBP, above Milanovo Vill., 43°07.37'N; 23°23.69'E, 930 m, 11.05.2014, 2 ♂♂, on trunks of *Crataegus monogina* Jacq.; VM, VBP, above Milanovo Vill., 43°07.61'N; 23°23.41'E, 980 m, 25.06.2014, 2 ♂♂, on flowers of *Rosa* sp.

Notes: VM, LS, VBP. First record for Vrachanska Planina Mts. and Lakatnishki Skali Place.

Genus *Tropinota* Mulsant, 1842

**Tropinota (Epicometis) hirta hirta* (Poda von Neuhaus, 1761)

New data: LS, VBP, 43°05.31'N; 23°22.90'E, 460 m, 23.04.2014, 1 ♂, 1 ♀, on flowers of *Silybum marianum* (L.); LS, VBP, 43°05.26'N; 23°22.73'E, 500 m, 23.04.2014, 1 ♀, on flowers of *Syringa vulgaris* L.; VM, below Milanovo Vill., 43°06.75'N; 23°23.67'E, 800 m, meadow, 23.04.2014, 1 ♂, 2 ♀♀, on flowers of *Taraxacum officinale* Web.; VM, Milanovo Vill., 43°06.71'N; 23°23.73'E, 830 m, meadow, 07.06.2014, 2 ♂♂, 1 ♀, on flowers; VM, Milanovo Vill., 43°07.11'N; 23°23.42'E, 840 m, meadow, 07.06.2014, 1 ♀, on flowers of *Hieracium* sp.; VM, Milanovo Vill., 43°06.71'N; 23°23.73'E, 830 m, meadow, 25.06.2014, 1 ♀, on flowers;

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VM, VBP, above Milanovo Vill., 43°08.15'N; 23°23.98'E, 1050 m, meadow, 25.06.2014, 1 ♂, 1 ♀, on flowers of *Hieracium* sp.

Notes: VM, LS, VBP. Common for the country species. First record for Vrachanska Planina Mts. and Lakatnishki Skali Place.

Genus *Oxythyrea* Mulsant, 1842

**Oxythyrea funesta* (Poda von Neuhaus, 1761)

New data: LS, VBP, 43°05.31'N; 23°22.90'E, 460 m, 23.04.2014, 1 ♂, on flowers of *Silybum marianum* (L.); VM, Milanovo Vill., 43°06.88'N; 23°23.71'E, 810 m, 11.05.2014, 1 ♀, on flowers of *Spiraea* sp.; VM, above Milanovo Vill., 43°07.42'N; 23°23.49'E, 890 m, meadow, 07.06.2014, 2 ♂♂, 1 ♀, on flowers of Fabaceae; VM, above Milanovo Vill., 43°07.41'N; 23°23.50'E, 890 m, meadow, 25.06.2014, 1 ♀, on flowers; VM, Milanovo Vill., 43°06.71'N; 23°23.73'E, 830 m, meadow, 25.06.2014, 1 ♂, 1 ♀, on flowers.

Notes: VM, LS, VBP. Common for the country species. First record for Vrachanska Planina Mts. and Lakatnishki Skali Place.

Tribe Trichiini Fleming, 1821

Genus *Gnorimus* Lepeletier & Audinet-Serville, 1828

**Gnorimus nobilis nobilis* (Linnaeus, 1758)

New data: VM, VBP, above Milanovo Vill., 43°07.57'N; 23°23.39'E, 960 m, 25.06.2014, 1 ♂, 1 ♀, on flowers of *Rosa* sp.

Notes: VM, VBP. First record for Vrachanska Planina Mts.

Genus *Trichius* Fabricius, 1775

**Trichius sexualis* Bedel, 1906

New data: LS, VBP, 43°05.44'N; 23°22.88'E, 580 m, 25.06.2014, 1 ♀, on flowers of Apiaceae.

Notes: LS, VBP. First record for Stara Planina Mts.

Tribe Valgini Mulsant, 1842

Genus *Valgus* Scriba, 1790

**Valgus hemipterus* (Linnaeus, 1758)

New data: VM, Milanovo Vill., 43°06.88'N; 23°23.71'E, 810 m, 23.04.2014, 1 ♂, on the road.

Notes: VM. Common for the country species. First record for Vrachanska Planina Mts.

Discussion

A total of 64 species of Scarabaeoidea were established for the investigated area. From these, 50 species have been found in materials collected in 2014, the remaining 14 are quoted from the available literature data. Newly established for the territory of Vrachanska Planina Mts. and the Nature Park territory are 45 species. Eight of these species (*Aphodius*

brevis, *Aphodius pusillus*, *Aphodius paracoenosus*, *Aphodius contaminatus*, *Aphodius arenarius*, *Omaloplia illyrica*, *Anisoplia dispar* and *Trichius sexualis*) are reported for the first time for Stara Planina Mts., and the report of the species *Aphodius brevis* is the second for Bulgaria. Within the investigated area, 62 species of Scarabaeoidea have been found at the territory of Vrachanska Planina Mts. and eight at Lakatnishki Skali Place. The localities of 49 of all recorded species are situated within the territory of Vrachanski Balkan Nature Park.

In the Catalogue of Palaearctic Coleoptera (Löbl & Smetana 2006) 238 species and subspecies of Scarabaeoidea are listed for Bulgaria. However it is not a completed list, as species, previously reported for Bulgaria, part of which in some recent papers and checklists (Král & Malý 1993, Rössner 1997, Bunalski 2001b, Guéorguiev & Bunalski 2004 etc.) have obviously been omitted, and since the release of the Catalogue new reports have been published (Chehlarov 2009, Guéorguiev et al. 2011, Minkina et al. 2014, Ziani et al. 2015). Altogether, the available sources report about 300 species of Scarabaeoidea for Bulgaria. At the same time, it is very likely that a significant number of old records are a result of misidentification of species (Bunalski 2001b, Guéorguiev & Bunalski 2004). Therefore it is difficult to give a precise estimation of the number of Scarabaeoidea species in Bulgaria. The list herein presented is far from being exhaustive for the territory of Vrachanska Planina Mts. and Vrachanski Balkan Nature Park. However the number and characteristics of the species included suggest the richness of Scarabaeoidea fauna at the investigated area. Additional field research, especially at Vratsa Karst Reserve, from the territory of which there are no current data, should allow an actual faunistic assessment.

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Скарабеоидни бръмбари (Coleoptera: Scarabaeoidea) от Врачанската планина и Природен парк Врачански Балкан

ЯНА ПЕТРОВА, ЕВГЕНИ ЧЕХЛАРОВ, ДЕНИС ГРАДИНАРОВ

(Резюме)

Изготвен е списък на видовете от надсемейство Scarabaeoidea за района на Врачанска Планина и територията на Природен парк Врачански Балкан. Установени са общо 64 вида от надсемейството, като 45 вида се съобщават за първи път от изследвания район. На територията на Природния парк са установени 49 вида. Видовете *Aphodius brevis*, *Aphodius pusillus*, *Aphodius paracoenosus*, *Aphodius contaminatus*, *Aphodius arenarius*, *Omaloplia illyrica*, *Anisoplia dispar* и *Trichius sexualis* се съобщават за първи път от Стара Планина. Видът *Aphodius brevis* се съобщава за втори път за България. Потвърдено е присъствието на *Chaetonyx robustus* в Стара Планина и са представени данни за числеността на вида в почвата на местообитанието.