

2019 ZooNotes

Supplement 8

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A check list and areography of longhorn beetles (Coleoptera: Cerambycidae) in Belasitsa Mountain, Bulgaria and North Macedonia

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Abstract. The complex of longhorn beetles in Bulgarian and North Macedonian parts of Belasitsa Mt. was studied by literature data and original biological materials. As a result, 110 taxa from six subfamilies were established, as follows: Prioninae (3 species), Lepturinae (33 species and subspecies), Necydalinae (1 species), Spondylidinae (1 subspecies), Cerambycinae (35 species and subspecies) and Lamiinae (37 species and subspecies). Eight taxa, *Anastrangalia dubia dubia*, *Grammoptera (Grammoptera) ruficornis ruficornis*, *Vadonia dojranensis mahri*, *Oxymirus cursor*, *Rhagium (Megarhagium) mordax*, *Molorchus (Molorchus) umbellatarum umbellatarum*, *Stenopterus flavicornis*, and *Phytoecia (Phytoecia) pustulata pustulata*, were first reported for Belasitsa Mt. The longhorn beetles belong to 21 zoogeographical categories and 7 complexes. The European complex occupies a dominant position (38.18%), followed by the Mediterranean (19.09%) and Eurosiberian (13.64) complexes. The European-Iranoturanian and Palaearctic taxa are almost equally presented in the total complex – 10.00% and 9.09%, respectively. The cerambycid endemics in Belasitsa Mt. (8.18%) have a highest share compared to endemics in other mountains in Bulgaria.

Key words: Cerambycidae, areography, Belasitsa Mt., Bulgaria, North Macedonia.

Introduction

Belasitsa Mt. is located on the border between Bulgaria, Greece and North Macedonia. In the mountain there is a large number of tree and shrub species clearly distributed in vegetation belts. In the lower part, the typical oak belt is removed by pure or mixed stands of *Castanea sativa* Mill. (less developed in Macedonian part of the mountain) and other deciduous species: *Fagus sylvatica* L., *Quercus* spp., *Carpinus betulus* L., *Ostrya carpinifolia* Scop., *Platanus orientalis* L., *Alnus glutinosa* (L.) Gaertn, etc. The beech belt is situated between 900-1000 and 1700 m a.s.l. A coniferous belt is completely absent in Belasitsa, but there is insignificant participation of *Abies alba* Mill., *Pinus sylvestris* L., *Picea abies* (L.) Karst., and *Pseudotsuga menziesii* (Mirb.) Franco plantations.

The longhorn beetles of Belasitsa Mt. are relatively well studied. Information on cerambycid findings is available in a number of literature sources in Bulgaria and North Macedonia (Heyrovský 1931; Kantardjiewa-Minkova 1932, 1934; Minkova 1957, 1961; Thurner 1957; Angelov 1967, 1995; Ganev 1984; Ćurčić *et al.* 2003; Doychev & Georgiev 2004; Ovcharov & Doychev 2004; Migliaccio *et al.* 2007; Ovcharov *et al.* 2007; Rapuzzi & Georgiev, 2007; Cvetkovska-Gjorgjievska 2015; Cvetkovska-Gjorgjievska *et al.* 2015; Plewa *et al.* 2015). In addition, a special faunistic investigation has been conducted in Bulgarian part of the mountain (Georgiev *et al.* 2013).

The aim of this study is to report data about new records of longhorn beetles in Belasitsa and to make zoogeographical analysis of cerambycid fauna in the mountain.

Material and Methods

The longhorn beetles of Belasitsa Mt. were studied by literature data and original materials. The biological material was collected by the following entomological methods: hand collection of cerambycids on flowers and host plants; collection of adults on grass, bushes and low parts of trees with entomological bag; collection of adults at light; rearing of adults from larvae and pupae in laboratory conditions. On Macedonian part of the mountain, the research was carried on the northern slopes of Belasitsa, in oak forests (ass. Querco-Carpinetum orientalis macedonicum Rudski apud Ht and ass. Orno-Quercetum petraeae Em) and beech forests (ass. Festuco heterophyllae-Fagetum and ass. Calamintho grandiflorae-Fagetum).

The longhorn beetles are listed in systematic order, by the system of Danilevsky (2019a), without indicated tribes. The new taxa for Belasitsa Mt. are marked with an asterisk (*).

The zoogeographical characterization of longhorn beetles was made on the basis of recent taxa distribution (Danilevsky 2019a). According to Georgiev & Hubenov (2006) and Sakalian & Langourov (2007) conceptions, the established taxa are arranged in 21 chorotypes (areographic categories).

The cerambycids are deposited in entomological collections mentioned with the following abbreviations: NMNHS – Entomological collection of National Museum of Natural History, Sofia, Bulgaria; BFUS – Zoological Collection of Sofia University “St. Kliment Ohridski”, Faculty of Biology, Sofia, Bulgaria; UF – Entomological collection of University of Forestry, Sofia, Bulgaria; VG – Entomological collection of Victor Gashtarov.

Results

The total number of cerambycid taxa in Belasitsa Mt. is 110 from six subfamilies: Prioninae (3 species), Lepturinae (33 species and subspecies), Necydalinae (1 species), Spondylidinae (1 subspecies), Cerambycinae (35 species and subspecies) and Lamiinae (37 species and subspecies), as follows:

PRIONINAE

Mesoprionus besikanus (Fairmaire, 1855)

Bulgaria: above Luda Mara River (Georgiev *et al.* 2013).

Chorotype: East Mediterranean.

Prionus coriarius (Linnaeus, 1758)

Bulgaria: Kamena vill., Samuilovo vill., Belasitsa hut (Georgiev *et al.* 2013) (**Fig. 1**).

North Macedonia: Belasitsa Mt., 41°22'57.0"N, 22°46'16.5"E, 240 m a.s.l., ass. Quercus – Carpinetum orientalis macedonicum Rudski apud Ht, 03.07-31.07.2010, pitfall traps; 41°21'56.1"N, 22°47'40.4"E, 847 m a.s.l., ass. Orno – Quercetum petraeae Em, 03.07-31.07.2010, pitfall traps (Cvetkovska-Gjorgjievska 2015).

Chorotype: West Palaearctic.

Rhaesus serricollis Motschulsky, 1838

Bulgaria: Petrich (Angelov 1995).

Chorotype: East European-Iranian.

LEPTURINAE

Alosterna tabacicolor tabacicolor (DeGeer, 1775)

Bulgaria: Petrich (Heyrovský 1931); above Petrich (Georgiev *et al.* 2013). **New data:** S of Klyuch vill., near Klyuchka River, 41°21'33.30"N, 23°00'59.10"E, 505 m a.s.l., deciduous riverine forest, 29.05.2016, 1 ♂, 1 ♀, on flowers of Apiacea, D. Gradinarov & Y. Petrova leg., D. Gradinarov det. (BFUS); S Yavornitsa Vill., on the road to the Yavornishki Vodopad Waterfall, 41°21'28.20"N, 23°03'01.02"E, 580 m a.s.l., grove of *Platanus orientalis* L., riverine meadows, 07.06.2019, 4 ♂♂, 1 ♀, on flowers of Apiaceae, D. Gradinarov leg. & det. (BFUS) (**Plate I, 1**); the same data, but 41°21'23.76"N, 23°02'59.34"E, 620 m a.s.l., 3 ♂♂, 1 ♀, D. Gradinarov leg. & det. (BFUS); S of Yavornitsa vill., 41°21'20.34"N, 23°02'39.60"E, 812 m a.s.l., along a dirt road, 08.06.2019, 2 ♂♂, 1 ♀, on flowers of *Rubus* sp., D. Gradinarov leg. & det. (BFUS); S of Yavornitsa vill., 41°20'44.34"N, 23°02'23.16"E, 1214 m a.s.l., along a dirt road, mixed forest, 08.06.2019, 1 ♀, hand collection, D. Gradinarov leg. & det. (BFUS); S of Yavornitsa vill., 41°21'07.86"N, 23°02'26.22"E, 915 m a.s.l., along a dirt road, mixed forest, 08.06.2019, 4 ♂♂, 1 ♀, on flowers of Apiaceae, D. Gradinarov leg. & det. (BFUS).

Chorotype: West Eurosiberian.

***Anastrangalia dubia dubia (Scopoli, 1763)**

Bulgaria, new data: Belasitsa Mt., 300 m S of Petrich, 41°23'12.9"N, 23°12'09.1"E, 320 m a.s.l., 11 ex. reared from pupae collected in semidecayed wood of dead staying tree of *Pinus rigida* Mill., sample collection – 03.04.2004, adult emergence – May 2004, D. Doychev leg. & det. (UF).

Chorotype: Euromediterranean.

Anoplodera (Anoplodera) rufipes rufipes (Schaller, 1783)

Bulgaria: Petrich (Heyrovský 1931).

Chorotype: European.



Fig. 1. *Prionus coriarius*, Belasitsa hut, 600 m a.s.l., 14.07.2010, male.

Anoplodera (Anoplodera) sexguttata (Fabricius, 1775)

Bulgaria: above Petrich (Doychev & Georgiev 2004; Georgiev *et al.* 2013). **New data:** S of Yavornitsa vill., on the road to the Yavornishki Vodopad Waterfall, 41°21'26.76"N, 23°03'16.74"E, 659 m a.s.l., along a dirt road, deciduous forest, 07.06.2019, 1 ♂, 1 ♀, on flowers of *Rubus* sp., D. Gradinarov leg. & det. (BFUS) (**Plate I, 4**); S of Yavornitsa vill., 41°21'22.80"N, 23°02'42.06"E, 782 m a.s.l., along a dirt road, mixed forest, 08.06.2019, 1 ♀, on flowers of *Rubus* sp., D. Gradinarov leg. & det. (BFUS); the same data, but 41°21'28.26"N, 23°02'43.44"E, 674 m a.s.l., 1 ♀, D. Gradinarov leg. & det. (BFUS).

Chorotype: Euromediterranean.

Grammoptera (Grammoptera) abdominalis (Stephens, 1831)

Bulgaria: above Petrich (Georgiev *et al.* 2013).

Chorotype: European-Iranian.

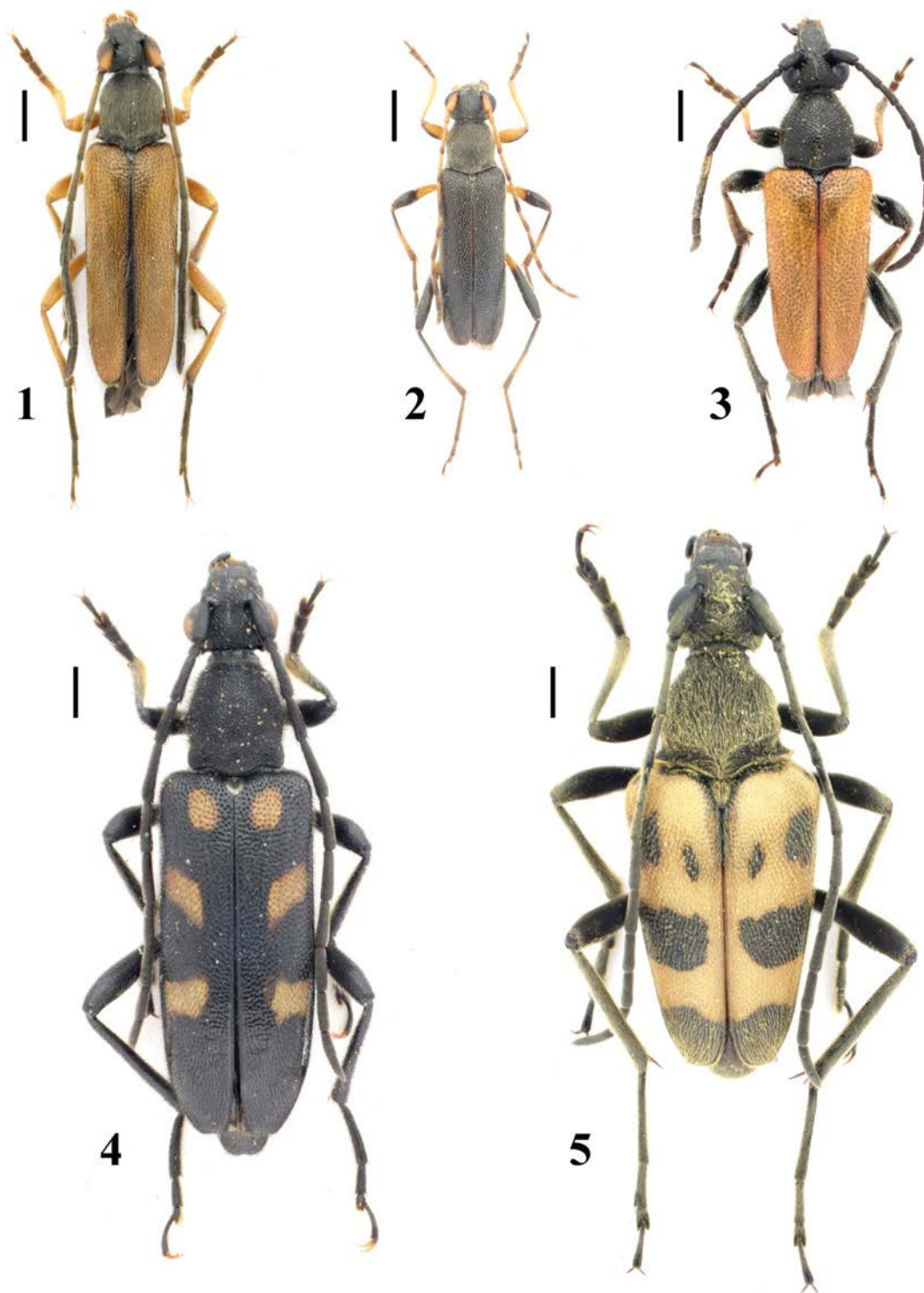


Plate I. 1 – *Alosterna tabacicolor tabacicolor*, S of Yavornitsa vill., 07.06.2019, male; 2 – *Grammoptera ruficornis ruficornis*, S of Yavornitsa vill., 07.06.2019, male; 3 – *Pseudovadonia livida setosa*, Yavornitsa vill., 07.06.2019, male; 4 – *Anoplodera sexguttata*, S of Yavornitsa vill., 07.06.2019, female; 5 – *Pachytodes cerambyciformis*, S of Yavornitsa vill., 07.06.2019, male. Scale bars: 1 mm.

***Grammoptera (Grammoptera) ruficornis ruficornis (Fabricius, 1781)**

Bulgaria, new data: S of Yavornitsa vill., on the road to the Yavornishki Vodopad Waterfall, 41°21'23.76"N, 23°02'59.34"E, 620 m a.s.l., grove of *Platanus orientalis* L., riverine meadows, 07.06.2019, 1 ♂, on flowers of Apiaceae, D. Gradinarov leg. & det. (BFUS) (**Plate I, 2**).

Chorotype: European-Anatolian.

Grammoptera (Grammoptera) ustulata ustulata (Schaller, 1783)

Bulgaria: above Petrich (Ovcharov & Doychev 2004; Doychev & Georgiev 2004; Georgiev *et al.* 2013).

Chorotype: European-Anatolian.

Leptura (Leptura) aurulenta Fabricius, 1793

Bulgaria: Belasitsa hut (Rapuzzi & Georgiev 2007). **New data:** S of Klyuch vill., 41°21'15.08"N, 23°01'08.23"E, 660 m a.s.l., deciduous forest with *Castanea sativa* Mill., 19.06.2013, 1 ♂, under bark, O. Sivilov & B. Zlatkov leg., D. Gradinarov det. (BFUS).

Chorotype: Euromediterranean.

Leptura (Leptura) quadrifasciata quadrifasciata Linnaeus, 1758

North Macedonia: Belasitsa Mt., 240-600 m a.s.l., ass. Querco – Carpinetum orientalis macedonicum Rudski apud Ht. (Cvetkovska-Gjorgjievska 2015).

Chorotype: Transpalaeartic.

Pachytodes cerambyciformis (Schrank, 1781)

Bulgaria: Belasitsa Mt. (without specified locality) (Georgiev *et al.* 2013). **New data:** S of Yavornitsa vill., on the road to the Yavornishki Vodopad Waterfall, 41°21'28.20"N, 23°03'01.02"E, 580 m a.s.l., grove of *Platanus orientalis* L., riverine meadows, 07.06.2019, 1 ♂, on flowers of Apiaceae, D. Gradinarov leg. & det. (BFUS) (**Plate I, 5**); S of Yavornitsa vill., 41°21'20.34"N, 23°02'39.60"E, 812 m a.s.l., along a dirt road, 08.06.2019, 10 ♂♂, 6 ♀♀, on flowers of *Rubus* sp., D. Gradinarov leg. & det. (BFUS); S of Yavornitsa vill., 41°21'07.86"N, 23°02'26.22"E, 915 m a.s.l., mixed forest, 08.06.2019, 2 ♂♂, 1 ♀, on flowers of Apiaceae, D. Gradinarov leg. & det. (BFUS).

Chorotype: European.

Pachytodes erraticus (Dalman, 1817)

Bulgaria: Petrich (Heyrovský 1931); above Petrich (Georgiev *et al.* 2013) (**Fig. 2**).

Chorotype: European-Iranian.

Pedostrangalia (Neosphenalia) verticalis (Germar, 1822)

Bulgaria: Petrich (Heyrovský 1931).

Chorotype: Balkan-Anatolian.

Pseudovadonia livida setosa Danilevsky, 2013

Bulgaria: E of Stroumeshnitsa vill. (Danilevsky 2013). **New data:** Yavornitsa vill., 41°21'40.08"N, 23°03'02.40"E, 542 m a.s.l., roadside verges, 07.06.2019, 1 ♀, hand collection, D. Gradinarov leg. & det. (BFUS); Yavornitsa vill., 41°22'01.98"N, 23°03'05.28"E, 450 m a.s.l., roadside meadows, 09.06.2019, 3 ♂♂, 1 ♀, on flowers, D. Gradinarov leg. & det. (BFUS) (**Plate I, 3**).

Chorotype: Pontomediterranean.

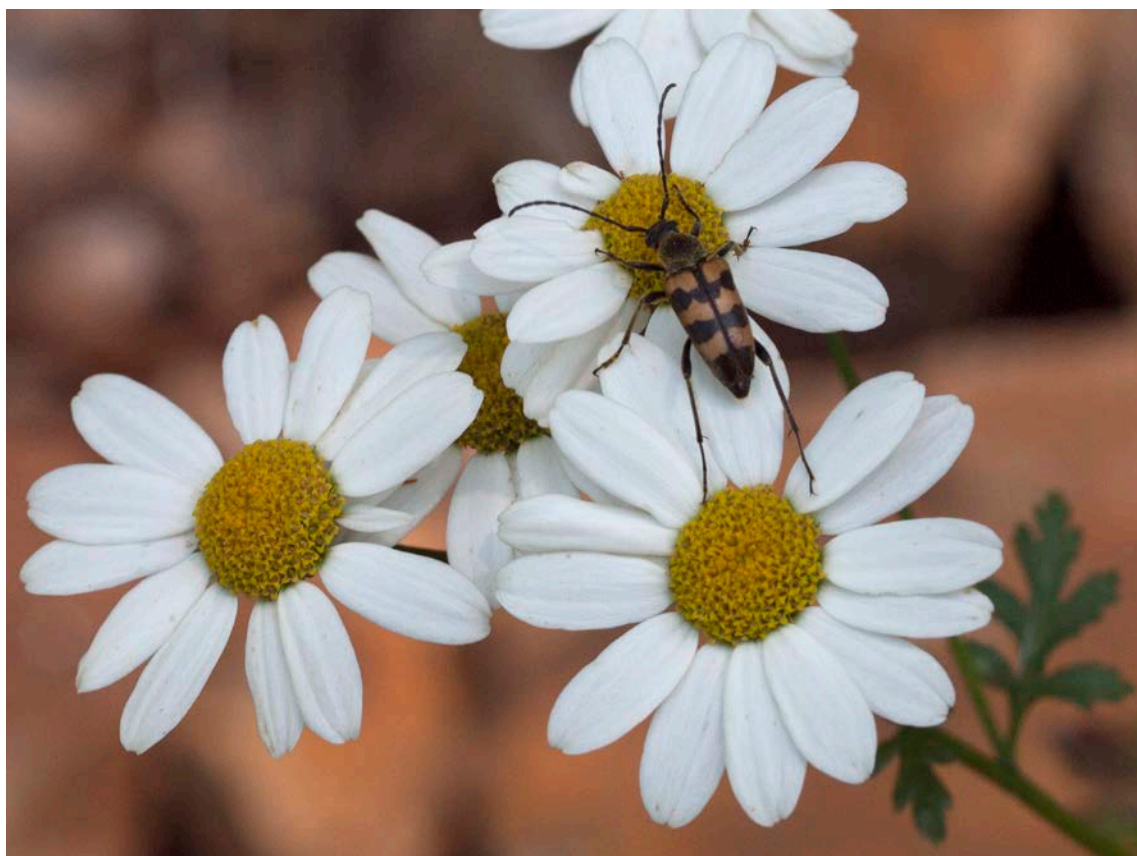


Fig. 2. *Pachytodes erraticus*, above town of Petrich, 750 m a.s.l., 14.07.2010, female.

***Rutpela maculata maculata* (Poda von Neuhaus, 1761)**

Bulgaria: Petrich (Angelov 1967); Belasitsa Mt. (without specified locality) (Ovcharov & Doychev 2004; Rapuzzi & Georgiev 2007); Belasitsa hut; above Samuilovo vill; above Petrich (Georgiev *et al.* 2013). **New data:** S of Yavornitsa vill., 41°21'20.34"N, 23°02'39.60"E, 812 m a.s.l., along a dirt road, 08.06.2019, 1 ♂, 1 ♀, on flowers of *Rubus* sp., D. Gradinarov leg. & det. (BFUS).

Chorotype: European-Anatolian.

***Stenurella (Nigrostenurella) nigra nigra* (Linnaeus, 1758)**

Bulgaria: Petrich (Heyrovský, 1931).

Chorotype: European-Anatolian.

***Stenurella (Priscostenurella) bifasciata intermedia* Holzschuh, 2006**

Bulgaria, new data: S Klyuch Vill., 01.07.2007, 1 ♂, hand collection, Y. Petrova leg., D. Gradinarov det. (BFUS).

Chorotype: Balkan endemic.

***Stenurella (Priscostenurella) septempunctata septempunctata* (Fabricius, 1793)**

Bulgaria: Petrich (Heyrovský 1931; Angelov 1967); above Petrich (Georgiev *et al.* 2013). **North Macedonia:** Star Dojran vill. (Plewa *et al.* 2015). **New data:** S of Yavornitsa vill., 41°21'20.34"N, 23°02'39.60"E, 812 m a.s.l., along a dirt road, 08.06.2019, 2 ♂♂, 1 ♀, on flowers of *Rubus* sp., D. Gradinarov leg. & det. (BFUS) (**Plate II, 10**).

Chorotype: European.

Stenurella (Stenurella) melanura melanura (Linnaeus, 1758)

Bulgaria: Belasitsa Mt. (without specified locality); above Kongur Reserve; Belasitsa hut; above Petrich (Georgiev *et al.* 2013). **New data:** S of Klyuch vill., 01.07.2007, 1 ♂, 2 ♀♀, hand collection, Y. Petrova leg., D. Gradinarov det. (BFUS). **North Macedonia:** Belasitsa Mt., 41°20'48.2"N, 22°47'32.3"E, 1385 m a.s.l., ass. *Calamintho grandiflorae* – Fagetum, 03.07-31.07.2010, pitfall traps (Cvetkovska-Gjorgjievska 2015).

Chorotype: Eurosiberian.

Stictoleptura (Maculileptura) pallens (Brullé, 1832)

Bulgaria: Petrich (Heyrovský 1931; Doychev & Georgiev 2004). **North Macedonia:** Dojran vill. (Thurner 1957).

Chorotype: Balkan-Anatolian.

Stictoleptura (Melanoleptura) scutellata scutellata (Fabricius, 1781)

Bulgaria: Belasitsa Mt. (without specified locality); above Petrich (Georgiev *et al.* 2013).

Chorotype: European.

Stictoleptura (Paracorymbia) fulva (DeGeer, 1775)

North Macedonia: Belasitsa Mt., 240-600 m a.s.l., ass. *Querco* – *Carpinetum orientalis macedonicum* Rudski apud Ht (Cvetkovska-Gjorgjievska 2015); Star Dojran vill. (Plewa *et al.* 2015).

Chorotype: European-Anatolian.

Stictoleptura (Stictoleptura) cordigera cordigera (Füsslins, 1775)

Bulgaria: Petrich (Heyrovský 1931); Belasitsa Mt. (without specified locality) (Rapuzzi & Georgiev 2007). **North Macedonia:** Belasitsa Mt., 1000 m a.s.l., ass. *Orno* – *Quercetum petraeae* Em (Cvetkovska-Gjorgjievska 2015).

Chorotype: European-Iranian.

Stictoleptura (Stictoleptura) rufa rufa (Brullé, 1832)

Bulgaria: Petrich (Angelov 1995).

Chorotype: Northeast Mediterranean.

Strangalia attenuata (Linnaeus, 1758)

Bulgaria: Petrich (Heyrovský 1931).

Chorotype: Transpalaeartic.

****Vadonia dojranensis mahri Holzschuh, 1986***

Bulgaria, new data: Petrich, 20.05.1917, 1 ♂, D. Ilchev [leg.], L. Heyrovský det. as *Leptura moesiaca*, D. Gradinarov rev. (NMNHS); Petrich, 21.05.1955, 1 ♂, A. Prostov [leg.], Heyrovský det. as *Leptura moesiaca* Dan., D. Gradinarov rev. (NMNHS) (**Plate II, 6-9**); Petrich, 21.05.1955, 2 ♂♂, A. Prostov [leg.], D. Gradinarov det. (NMNHS).

Notes: Heyrovský (1931) reported *Vadonia moesiaca* (K. Daniel & J. Daniel, 1891) from Petrich most likely by the single specimen, collected by D. Ilchev and identified as *Vadonia dojranensis mahri* in the present study. The record of *Vadonia grandicollis grandicollis* Mulsant & Rey, 1863, reported as *Leptura (Vadonia) bisignata* Brulle from Petrich is based on seven *Vadonia* specimens (Minkova 1957), four of which, still presented in Coleoptera collection of NHMS, are revised in the present study and identified as *Vadonia dojranensis mahri*. In Bulgaria, *Vadonia dojranensis* Holzschuh, 1984 is reported by Althoff & Danilevsky (1997) without specified locality and by Migliaccio *et al.* (2007) from Kalimantsi

vill., Pirin Mts. According to Danilevsky (2019), in Bulgaria *Vadonia dojranensis* is represented by the subspecies *dojranensis mahri*.

Chorotype: Balkan endemic.

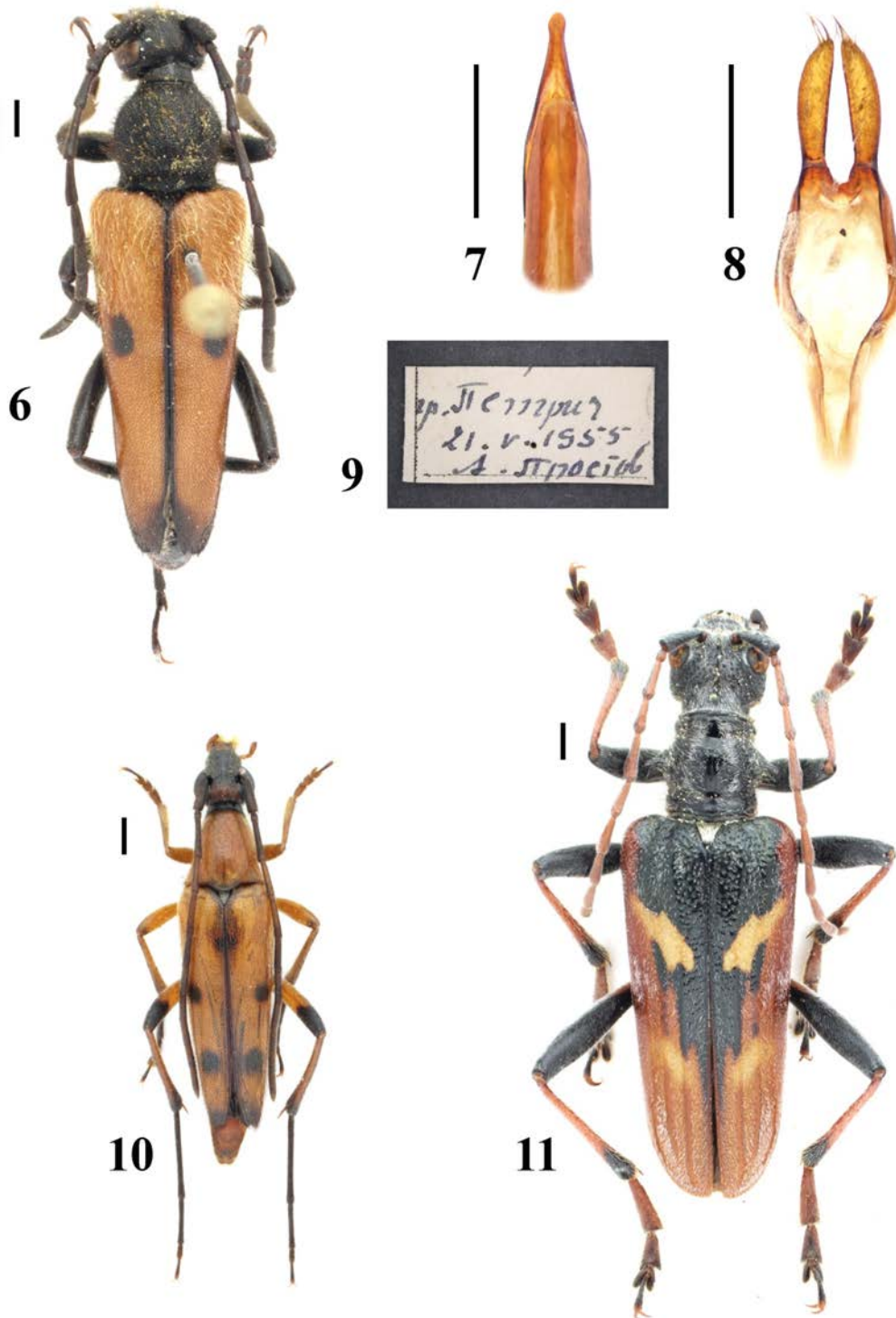


Plate II. 6 – *Vadonia dojranensis mahri*, town of Petrich, 21.05.1955, male; 7 – the same specimen, penis apex; 8 – the same specimen, parameres; 9 – the same specimen, original label; 10 – *Stenurella septempunctata septempunctata*, S of Yavornitsa vill., 08.06.2019, male; 11 – *Rhagium bifasciatum*, S of Yavornitsa vill., 08.06.2019, male. Scale bars: 1 mm.

****Oxymirus cursor* (Linnaeus, 1758)**

Bulgaria, new data: above Belasitsa shelter, 11-12.06.1998, 1 male found death on the ground, V. Gashtarov leg. (VG).

Chorotype: West Eurosiberian.

***Cortodera humeralis humeralis* (Schaller, 1783)**

Bulgaria: Belasitsa Mt. (without specified locality) (Ganev 1984). **New data:** 2 km S of Petrich, near Luda Mara R., 41°21'59.69"N, 23°12'39.20"E, 460 m a.s.l., April-May 2012, 1 ♂, pitfall traps, O. Sivilov & B. Zlatkov leg., D. Gradinarov det. (BFUS).

Chorotype: European-Anatolian.

***Dinoptera collaris* (Linnaeus, 1758)**

Bulgaria: Petrich (Heyrovský 1931).

Chorotype: Eurosiberian.

***Evodinellus (Brachytodes) clathratus* (Fabricius, 1793)**

Bulgaria: Belasitsa Mt. (without specified locality) (Heyrovský 1931).

Chorotype: European.

***Rhagium (Hagrium) bifasciatum* Fabricius, 1775**

Bulgaria: Belasitsa Mt. (without specified locality) (Heyrovský 1931); between Belasitsa hut and Kongra Reserve (Georgiev *et al.* 2013). **New data:** S of Yavornitsa vill., 41°20'44.34"N, 23°02'23.16"E, 1214 m a.s.l., along a dirt road, mixed forest, 08.06.2019, 1 ♂, on fallen trunk of *Pinus* sp., D. Gradinarov leg. & det. (BFUS) (**Plate II, 11**).

Chorotype: European-Iranian.

****Rhagium (Megarhagium) mordax* (DeGeer, 1775)**

Bulgaria, new data: above Kongora hut, 01.06.2011, 3 males collected on fallen *Castanea sativa* tree, V. Gashtarov leg. (VG).

Chorotype: Eurosiberian.

***Rhagium (Megarhagium) sycophanta* (Schrank, 1781)**

Bulgaria: above Petrich (Ovcharov & Doychev 2004; Doychev & Georgiev 2004).

Chorotype: West Eurosiberian.

***Xylosteus spinolae* Frivaldszky, 1838**

Bulgaria: Kongur Reserve (Georgiev *et al.* 2013).

Chorotype: Northeast Mediterranean.

NECYDALINAE

***Necydalis (Necydalis) ulmi* Chevrolat, 1838**

Bulgaria: Belasitsa Mt. (without specified locality) (Georgiev *et al.* 2013).

Chorotype: European-Anatolian.

SPONDYLIDINAE

***Saphanus piceus ganglbaueri* Brancsik, 1886**

Bulgaria: Belasitsa hut (Rapuzzi & Georgiev 2007); Samuilovo vill., Belasitsa shelter, Kongur Reserve (Georgiev *et al.* 2013). **New data:** Belasitsa shelter, 11-12.06.1998, 1 male collected on white light, V. Gashtarov leg. (VG); S of Klyuch vill., 30.06.2007, 1 ♂, at light, D. Gradinarov & Y. Petrova leg., D. Gradinarov det. (BFUS); 2 km S of Petrich,

41°21'59.69"N, 23°12'39.20"E, 460 m a.s.l., June-July 2012, 1 ♀, pitfall traps, O. Sivilov & B. Zlatkov leg., D. Gradinarov det. (BFUS); S of Samuilovo vill., 41°22'04.20"N, 23°05'28.80"E, 380 m a.s.l., 04.06.2016, 1 ♂, at light, Y. Petrova leg., D. Gradinarov det. (BFUS) (**Plate III, 12**).

Chorotype: European.

CERAMBYCINAE

***Icosium tomentosum atticum* Ganglbauer, 1882**

Bulgaria: above Petrich (Doychev *et al.* 2006).

Chorotype: Northeast Mediterranean.

***Aromia moschata moschata* (Linnaeus, 1758)**

Bulgaria: Petrich (Heyrovský 1931).

Chorotype: Eurosiberian.

***Leioderes kollari kollari* L. Redtenbacher, 1849**

Bulgaria: Petrich (Heyrovský 1931).

Chorotype: European.

***Phymatodes (Phymatoderus) lividus* (Rossi, 1794)**

Bulgaria: above Petrich (Georgiev *et al.* 2013).

Chorotype: Euromediterranean.

***Phymatodes (Phymatoderus) pusillus pusillus* (Fabricius, 1787)**

Bulgaria: Petrich (Angelov 1995).

Chorotype: European-Anatolian.

***Phymatodes (Phymatodes) testaceus* (Linnaeus, 1758)**

Bulgaria: above Petrich (Georgiev *et al.* 2013). **New data:** above Samuilovo vill., 41°22'02.65"N, 23°05'30.12"E, 385 m a.s.l., 19.06.2013, 1 ♂ at light, O. Sivilov & B. Zlatkov leg., D. Gradinarov det. (BFUS); 3 km SW of Petrich town, Belasitsa Chalet, 41°22'12.30"N, 23°11'12.66"E, 700 m a.s.l., 29.04.2018, 1 ♂, hand collection, D. Gradinarov leg. & det. (BFUS).

Chorotype: Transholarctic.

***Phymatodes (Poecilium) alni alni* (Linnaeus, 1767)**

Bulgaria: above Petrich (Georgiev *et al.* 2013).

Chorotype: European-Anatolian.

***Ropalopus (Ropalopus) clavipes* (Fabricius, 1775)**

Bulgaria: Petrich (Heyrovský 1931); Belasitsa vill., Belasitsa hut (Ovcharov *et al.* 2007). **New data:** Yavornitsa vill., 41°21'41.64"N, 23°02'55.56"E, 525 m a.s.l., 24.06.2019, 1 ♂, hand collection, S. Georgieva leg., D. Gradinarov det. (BFUS).

Chorotype: European-Iranian.

***Cerambyx (Cerambyx) cerdo cerdo* Linnaeus, 1758**

Bulgaria: Belasitsa Mt. (Ovcharov *et al.* 2007); above Petrich (Georgiev *et al.* 2013).

Chorotype: Euromediterranean.

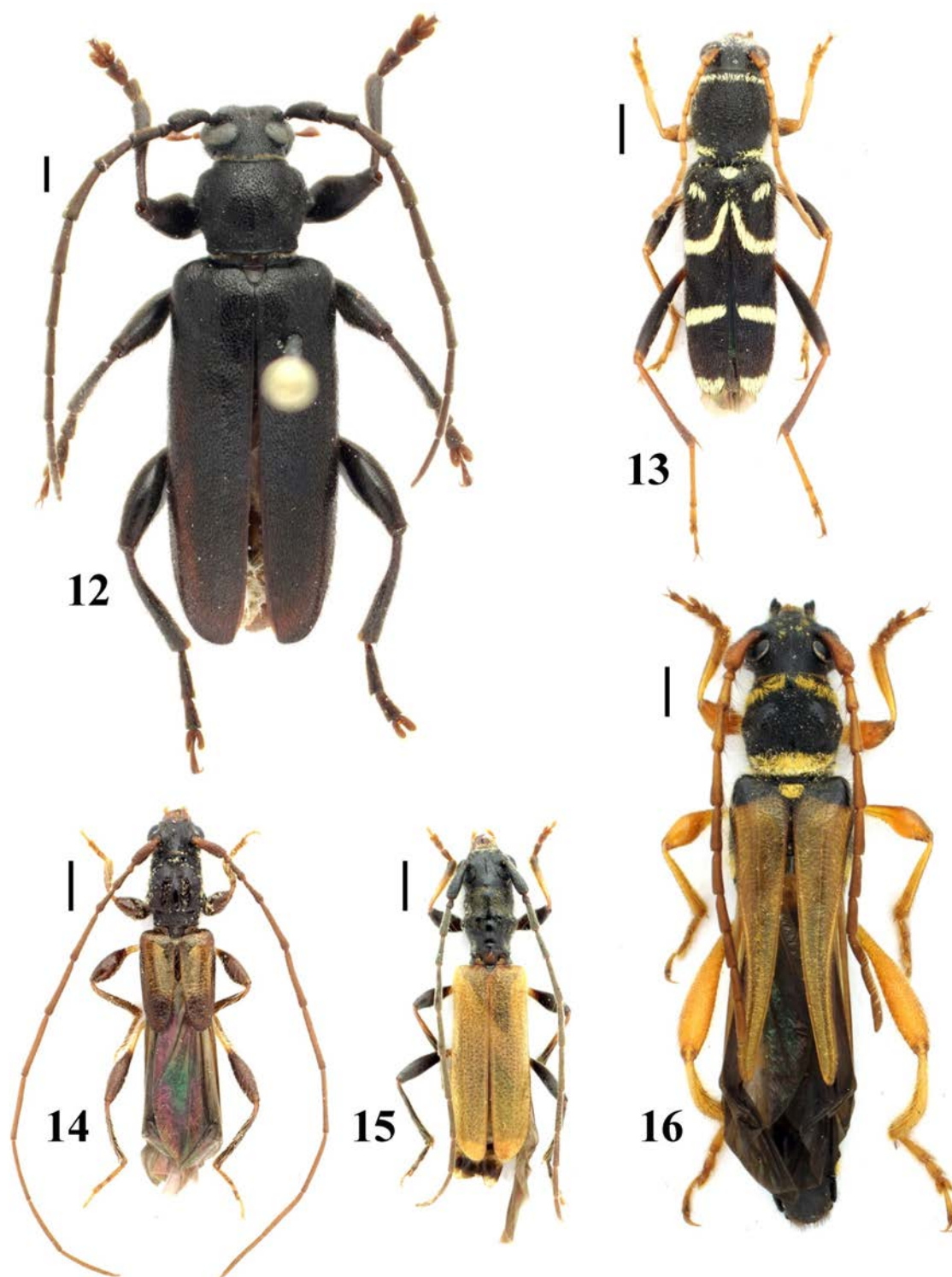


Plate III. 12 – *Saphanus piceus ganglbaueri*, S of Samuilovo vill., 04.06.2016, male; 13 – *Clytus rhamni rhamni*, Yavornitsa vill., 09.06.2019, male; 14 – *Molorchus umbellatarum umbellatarum*, S of Yavornitsa vill., 08.06.2019, male; 15 – *Stenomalus bicolor bicolor*, S of Yavornitsa vill., 07.06.2019, male; 16 – *Stenopterus flavicornis*, Yavornitsa vill., 09.06.2019, , male. Scale bars: 1 mm.

Cerambyx (Cerambyx) dux (Faldermann, 1837)

North Macedonia: Dojran vill. (Thurner 1957).

Chorotype: East European-Iranian.

Cerambyx (Cerambyx) miles Bonelli, 1823

Bulgaria: Petrich (Minkova 1957).

Chorotype: European-Anatolian.

Cerambyx (Microcerambyx) scopolii scopolii Fuessly, 1775

Bulgaria: Petrich (Heyrovský 1931); Belasitsa Mt. (Ovcharov *et al.* 2007); Lopovo place above Samuilovo vill. (Georgiev *et al.* 2013). **New data:** S of Klyuch vill., 41°21'26.40"N, 23°01'04.92"E, 566 m a.s.l., forest glades, deciduous forest with *Castanea sativa* Mill., 29.05.2016, 1 ♂, hand collection, Y. Petrova & D. Gradinarov leg., D. Gradinarov det. (BFUS); S of Yavornitsa vill., 41°20'42.72"N, 23°02'21.24"E, 1246 m a.s.l., along a dirt road, mixed forest, 08.06.2019, 1 ♀, at flight, D. Gradinarov leg. & det. (BFUS). **North Macedonia:** Belasitsa Mt., 1000 m a.s.l., ass. Orno – Quercetum petraeae Em (Cvetkovska-Gjorgjievska 2015); Koleshino vill. (Plewa *et al.* 2015).

Chorotype: European-Anatolian.

Chlorophorus (Humeromaculatus) figuratus (Scopoli, 1763)

Bulgaria: Petrich (Heyrovský 1931); Belasitsa hut (Ovcharov *et al.* 2007); Belasitsa Mt. (Rapuzzi & Georgiev 2007). **North Macedonia:** Dojran vill. (Thurner 1957).

Chorotype: West Eurosiberian.

Chlorophorus (Immaculatus) varius varius (O. F. Müller, 1766)

Bulgaria: Petrich (Heyrovský 1931). **New data:** NW of Topolnitsa River, 41°24'46.80"N, 23°19'03.97"E, 90 m a.s.l., riverine meadows, 04.07.2016, 1 ♀, hand collection, Y. Petrova leg., D. Gradinarov det. (BFUS). **North Macedonia:** Star Dojran vill. (Plewa *et al.* 2015).

Chorotype: West Eurosiberian.

Chlorophorus (Perderomaculatus) sartor (Müller, 1766)

Bulgaria: Petrich (Heyrovský 1931).

Chorotype: West Palaearctic.

Clytus (Clytus) arietis arietis (Linnaeus, 1758)

Bulgaria: Petrich (Heyrovský 1931); Belasitsa vill. (Ovcharov *et al.* 2007).

Chorotype: European-Anatolian.

Clytus (Clytus) rhamni rhamni Germar, 1817

Bulgaria: Petrich (Heyrovský 1931); Belasitsa Mt. (Ovcharov & Doychev, 2004); Kamena vill. (Georgiev *et al.* 2013). **New data:** Yavornitsa vill., 41°22'01.98"N, 23°03'05.28"E, 450 m a.s.l., roadside meadows, 09.06.2019, 1 ♂, 1 ♀, on flowers, D. Gradinarov leg. & det. (BFUS) (**Plate III, 13**).

Chorotype: Northeast Mediterranean.

Echinocerus floralis (Pallas, 1773)

Bulgaria: Petrich (Heyrovský 1931; Kantardjiewa-Minkova 1932); Belasitsa hut (Georgiev *et al.* 2013). **New data:** Yavornitsa vill., 41°22'01.98"N, 23°03'05.28"E, 450 m a.s.l., roadside meadows, 09.06.2019, 1 ♀, on flowers, D. Gradinarov leg. & det. (BFUS).

Chorotype: Transpalaeartic.

***Plagionotus arcuatus arcuatus* (Linnaeus, 1758)**

Bulgaria: Petrich (Heyrovský 1931).

Chorotype: Euromediterranean.

***Xylotrechus (Xylotrechus) antilope antilope* (Schoenherr, 1817)**

Bulgaria: above Petrich (Georgiev *et al.* 2013).

Chorotype: European-Anatolian.

***Xylotrechus (Xylotrechus) arvicola arvicola* (Olivier, 1795)**

Bulgaria: above Petrich (Georgiev *et al.* 2013).

Chorotype: Euromediterranean.

***Rosalia alpina* (Linnaeus, 1758)**

Bulgaria: Belasitsa hut (Georgiev *et al.* 2013) (**Fig. 3**). **New data:** Belasitsa chelter, 18.07.1994, 1 ♂ found on on *Fagus sylvatica* L. stump, V. Gashtarov leg. (VG). **North Macedonia:** Belasitsa Mt., 41°20'32.3"N, 22°47'54.7"E, 1442 m a.s.l., ass. *Calamintho grandiflorae* – Fagetum, 31.07.2010, found in a clear-cut of beech forest, hand collection (Cvetkovska-Gjorgjievska 2015; Cvetkovska-Gjorgjievska *et al.* 2015).

Chorotype: European-Anatolian.



Fig. 3. *Rosalia alpina*, Belasitsa hut, 750 m a.s.l., 14.07.2010, female.

***Deilus fugax* (Olivier, 1790)**

Bulgaria: Petrich (Angelov 1995). **New data:** Kongur hut, 09.06.2009, 1284 m a.s.l., 1 ♂ on white flowers, V. Gashtarov leg. (VG).

Chorotype: Euromediterranean.

***Axinopalpis gracilis gracilis* (Krynicky, 1832)**

Bulgaria: Belasitsa Mt. (without specified locality); above Petrich (Georgiev *et al.* 2013). **New data:** S of Klyuch vill., m a.s.l., 30.06.2007, 1 ♂, at light, D. Gradinarov & Y. Petrova leg., D. Gradinarov det. (BFUS).

Chorotype: European-Iranian.



Fig. 4. *Axinopalpis gracilis gracilis*, above town of Petrich, 850 m a.s.l., 17.06.2010, reared from branches of *Castanea sativa* Mill., male.

***Stromatium auratum* (Böber, 1793)**

Bulgaria: Belasitsa hut (syn. *Stromatium unicolor* Olivier, 1795) (Georgiev *et al.* 2013).

Chorotype: Transmediterranean.

***Trichoferus pallidus* (Olivier, 1790)**

Bulgaria: Belasitsa Mt. (Ovcharov *et al.* 2007); Belasitsa hut (Rapuzzi & Georgiev 2007); above Petrich (Georgiev *et al.* 2013). **New data:** 3 km SW of Petrich town, Belasitsa Chalet, 41°22'12.21"N, 23°11'20.94"E, 655 m a.s.l., deciduous forest with *Castanea sativa* Mill., 08.08.2012, 1 ♂, at light, O. Sivilov & B. Zlatkov leg., D. Gradinarov det. (BFUS).

Chorotype: European.

****Molorchus (Molorchus) umbellatarum umbellatarum* (Schreber, 1759)**

Bulgaria, new data: S of Klyuch vill., near Klyuchka River, 41°21'33.30"N, 23°00'59.10"E, 505 m a.s.l., deciduous riverine forest, 29.05.2016, 1 ♂, 1 ♀, on flowers of Apiaceae, D. Gradinarov & Y. Petrova leg., D. Gradinarov det. (BFUS); S of Yavornitsa vill., 41°21'07.86"N, 23°02'26.22"E, 915 m a.s.l., along a dirt road, mixed forest, 08.06.2019, 1 ♂, 1 ♀, on flowers of Apiaceae, D. Gradinarov leg. & det. (BFUS) (**Plate III, 14**).

Chorotype: European-Iranoturanian.

***Nathrius brevipennis* (Mulsant, 1839)**

Bulgaria: above Petrich (Georgiev *et al.* 2013).

Chorotype: West Palaearctic.

***Stenhomalus bicolor bicolor* (Kraatz, 1862)**

Bulgaria: Petrich (Heyrovský 1931); Kamena vill. (Georgiev *et al.* 2013). **New data:** near Gabrene vill., May 2007, hundreds adults copulating on blossoming *Crataegus monogina* Jacq., V. Gashtarov leg. (VG); above Klyuch vill., 41°21'28.33"N, 23°00'58.07"E, 565 m a.s.l., 20.04.2007, 1 ♂, at light, O. Sivilov & B. Zlatkov leg., D. Gradinarov det. (BFUS); S of Yavornitsa vill., on the road to the Yavornishki Vodopad Waterfall, 41°21'28.20"N, 23°03'01.02"E, 580 m a.s.l., grove of *Platanus orientalis* L., riverine meadows, 07.06.2019, 1 ♂, on flowers of Apiaceae, D. Gradinarov leg. & det. (BFUS) (**Plate III, 15**).

Chorotype: Northeast Mediterranean.

***Purpuricenus budensis* (Götz, 1783)**

Bulgaria: Petrich (Heyrovský 1931; Kantardjiewa-Minkova 1932); Belasitsa hut (Georgiev *et al.* 2013). **North Macedonia:** Dojran vill. (Thurner, 1957).

Chorotype: West Palaearctic.

***Purpuricenus dalmatinus* Sturm, 1843**

Bulgaria: Belasitsa Mt. (Heyrovský 1931).

Chorotype: Northeast Mediterranean.

***Purpuricenus kaehlerii rossicus* Danilevsky, 2019**

Bulgaria: Lopovo place above Samuilovo vill.; above Petrich (as *Purpuricenus kaehlerii* Linnaeus, 1758) (Georgiev *et al.* 2013).

Note: *Purpuricenus kaehlerii rossicus* was recently described from European Russia (Danilevsky, 2019b). According to Danilevsky (2019a), it is distributed in Central and partly South Europe, including Bulgaria.

Chorotype: East European.

***Callimus (Callimus) angulatus angulatus* (Schrank, 1789)**

Bulgaria: Petrich (Heyrovský 1931).

Chorotype: Euromediterranean.

****Stenopterus flavicornis* Küster, 1846**

Bulgaria, new data: Yavornitsa vill., 41°22'01.98"N, 23°03'05.28"E, 450 m a.s.l., roadside meadows, 09.06.2019, 1 ♂, on flowers, D. Gradinarov leg. & det. (BFUS) (**Plate III, 16**).

Chorotype: Northeast Mediterranean.

***Stenopterus rufus rufus* (Linnaeus, 1767)**

Bulgaria: Petrich (Heyrovský 1931); Kamena vill. (Georgiev *et al.* 2013).

Chorotype: European.

LAMIINAE

***Acanthocinus (Acanthocinus) griseus* (Fabricius, 1792)**

Bulgaria: Belasitsa Mt. (Kantardjiewa-Minkova 1934).

Chorotype: Transpalaeartic.

***Leiopus (Leiopus) linnei* Wallin, Nylander & Kvamme, 2009**

New data: 3 km SW of Petrich town, Belasitsa Chalet, 41°22'12.21"N, 23°11'20.94"E, 655 m a.s.l., deciduous forest with *Castanea sativa* Mill., 08.08.2012, 2 ♀♀, at light, O. Sivilov & B. Zlatkov leg., D. Gradinarov det. (BFUS).

Notes: Recently, *Leiopus linnei* Wallin, Nylander & Kvamme, 2009 was described and separated from specimens of *Leiopus nebulosus* (Linnaeus, 1758) in Europe, including Bulgaria (Wallin *et al.* 2009). *L. nebulosus* was previously reported in the region of town of Petrich and Belsitsa Mt. (Heyrovský 1931; Rapuzzi & Georgiev, 2007; Georgiev *et al.* 2013). Danilevsky (2019) mentioned that according to characters described in the article of Wallin *et al.* (2009), in his collection all materials of *L. nebulosus* from Russia and adjacent countries, including Bulgaria, belong to *L. linnei* (**Fig. 5**).

Chorotype: European.

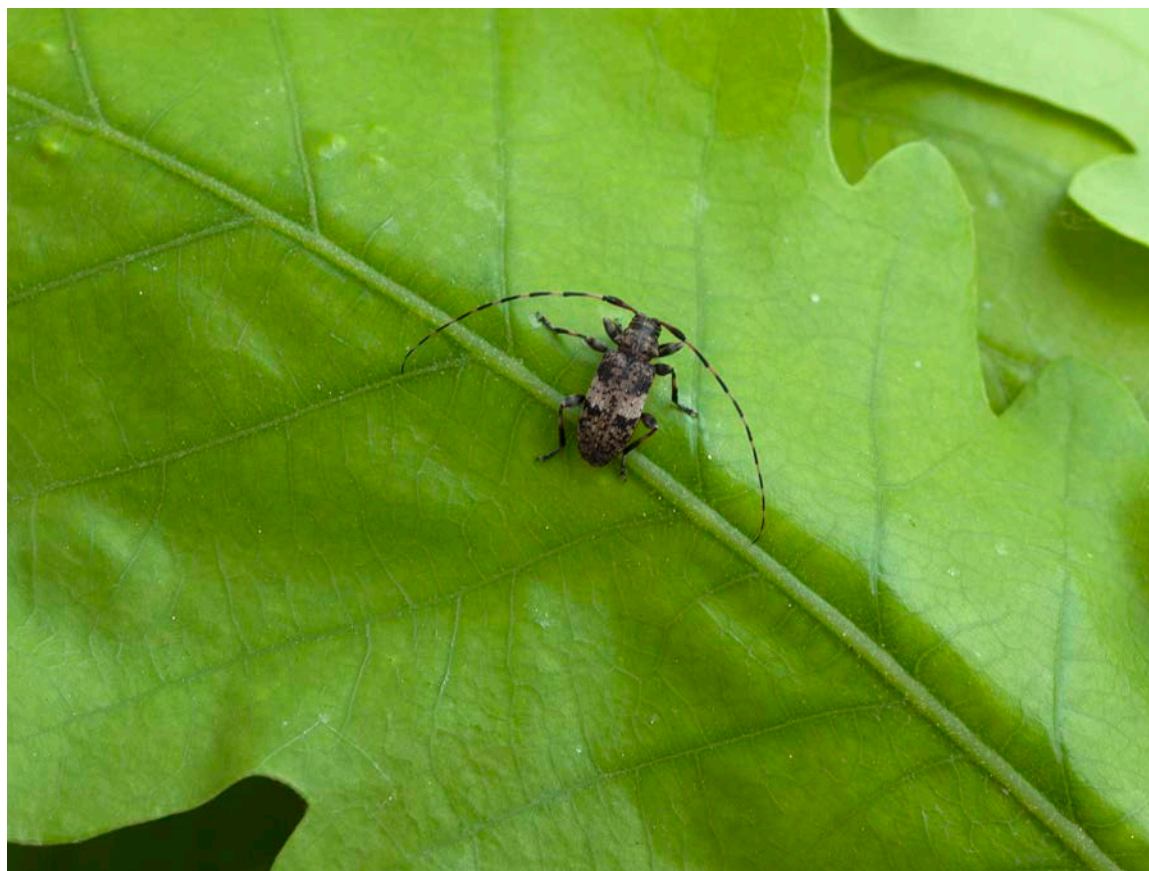


Fig. 5. *Leiopus linnei*, above town of Petrich, 550 m a.s.l., 05.05.2010, reared from stem of *Castanea sativa*, male.

Aegomorphus clavipes* (Schrank, 1781)*Bulgaria:** Belasitsa Mt. (without specified locality) (Georgiev *et al.* 2013).**Chorotype:** Transpalaeartic.***Agapanthia (Epoetes) cynarae cynarae* (Germar, 1817)****Bulgaria:** Petrich (Heyrovský 1931; Kantardjiewa-Minkova 1934); Belasitsa Mt. (Rapuzzi & Georgiev, 2007). **North Macedonia:** Dojran vill. (Thurner 1957).**Chorotype:** North Mediterranean.***Agapanthia (Epoetes) schurmanni* Sama, 1979****Bulgaria:** Klych vill. (Georgiev *et al.* 2013).**Chorotype:** Balkan endemic.***Agapanthia (Epoetes) villosoviridescens* (De Geer, 1775)****Bulgaria:** Petrich (Heyrovský 1931); Belasitsa Mt. (Georgiev *et al.* 2013). **New data:** S of Yavornitsa vill., on the road to the Yavornishki Vodopad Waterfall, 41°21'31.44"N, 23°03'03.42"E, 594 m a.s.l., grove of *Platanus orientalis* L., riverine meadows, 07.06.2019, 1 ♀, on *Urtica dioica* L., D. Gradinarov leg. & det. (BFUS); the same data, but 41°21'26.76"N, 23°03'16.74"E, 659 m a.s.l., deciduous forest, 07.06.2019, 1 ♀, on *Urtica dioica* L., D. Gradinarov leg. & det. (BFUS).**Chorotype:** Eurosiberian.***Agapanthia (Smaragdula) violacea* (Fabricius, 1775)****Bulgaria:** Petrich (Heyrovský 1931); Belasitsa Mt. (without specified locality) (Georgiev *et al.* 2013). **New data:** 1 km NW of Gabrene vill., 41°22'41.76"N, 22°58'02.76"E, 280 m a.s.l., roadside meadows, 30.04.2018, 1 ♂, 2 ♀♀, hand collection and net sweeping, D. Gradinarov & Y. Petrova leg., D. Gradinarov det. (BFUS) (**Plate IV, 22**). **North Macedonia:** Dojran vill. (Thurner 1957).**Chorotype:** European-Anatolian.***Agapanthia (Synthapsia) kirbyi kirbyi* (Gyllenhal, 1817)****Bulgaria:** Petrich (Heyrovský 1931); Kongur hut (Georgiev *et al.* 2013). **New data:** S of Klyuch vill., 41°21'26.40"N, 23°01'04.92"E, 566 m a.s.l., forest glades, deciduous forest with *Castanea sativa* Mill., 29.05.2016, 1 ♀, hand collection, D. Gradinarov & Y. Petrova leg., D. Gradinarov det. (BFUS). **North Macedonia:** Dojran vill. (Thurner 1957).**Chorotype:** Northmediterranean-Iranoturanian.***Agapanthiola leucaspis* (Steven, 1817)****Bulgaria:** Petrich (Heyrovský 1931). **New data:** near Gabrene vill., May 2007, V. Gashtarov leg. (VG).**Chorotype:** Eurosiberian.***Anaesthetis testacea testacea* (Fabricius, 1781)****Bulgaria:** Belasitsa vill. (Ovcharov *et al.* 2007); Belasitsa hut (Rapuzzi & Georgiev 2007).**Chorotype:** European-Anatolian.***Deroplia genei genei* (Aragona, 1830)****Bulgaria:** Belasitsa Mt. (Ganev 1984).**Chorotype:** North Mediterranean.

***Dorcadion (Carinatodorcadion) aethiops strumense* Danilevsky, 2014**

Bulgaria: Petrich, Drangovo vill. (Danilevsky 2014).

Note: In the region of Petrich, *Dorcadion aethiops* (Scopoli, 1763) was reported (Heyrovský 1931), but this record most probably concerns *Dorcadion (C.) aethiops strumense*. In Belasitsa Mt., another representative of the sugenus, *Dorcadion (Cribridorcadion) gallipolitanum* J. Thomson, 1867 was also reported (Heyrovský 1931; Kantardjiewa-Minkova 1934), due probably to wrong identification.

Chorotype: Bulgarian endemic.

***Dorcadion (Carinatodorcadion) fulvum erythropterum* Fischer von Waldheim, 1823**

Bulgaria: Petrich (Minkova 1961).

Chorotype: East European.

***Dorcadion (Cribridorcadion) ljubetense borisi* Heyrovský, 1931**

Bulgaria: Belasitsa Mt. (Heyrovský 1931; Kantardjiewa-Minkova 1934; Migliaccio *et al.* 2007).

Chorotype: Balkan endemic.

***Dorcadion (Cribridorcadion) lineatocolle* Kraatz, 1873**

Bulgaria: Petrich (Heyrovský 1931).

Chorotype: Balkan endemic.

***Dorcadion (Cribridorcadion) lugubre minkovae* Heyrovský, 1962)**

Bulgaria: Petrich (Minkova 1961; Althoff, Danilevsky 1997, Danilevsky 2014).

Chorotype: Bulgarian endemic.

***Dorcadion (Cribridorcadion) pedestre pedestre* (Poda von Neuhaus, 1761)**

Bulgaria: Petrich (Minkova 1961).

Chorotype: Northeast Mediterranean.

***Neodorcadion bilineatum* (Germar, 1824)**

Bulgaria: Petrich (Heyrovský 1931).

Chorotype: Northeast Mediterranean.

***Exocentrus adpersus* Mulsant, 1846**

Bulgaria: Belasitsa vill. (Ovcharov *et al.* 2007); Belasitsa hut (Rapuzzi & Georgiev 2007); above Petrich (Georgiev *et al.*, 2013). **New data:** above Samuilovo vill., 41°22'02.65"N, 23°05'30.12"E, 385 m a.s.l., 19.06.2013, 2 ♂♂, 1 ♀, at light, O. Sivilov & B. Zlatkov leg., D. Gradinarov det. (BFUS) (**Plate IV, 17**); 3 km SW of Petrich town, Belasitsa Chalet, 41°22'12.30"N, 23°11'12.66"E, 700 m a.s.l., 28.05.2016, 1 ♀, at light, D. Gradinarov & Y. Petrova leg., D. Gradinarov det. (BFUS).

Chorotype: European-Anatolian.

***Exocentrus lusitanus* (Linnaeus, 1767)**

Bulgaria: above Petrich (Georgiev *et al.* 2013). **New data:** 3 km SW of Petrich town, Belasitsa Chalet, 41°22'12.30"N, 23°11'12.66"E, 700 m a.s.l., 28.08.2010, 1 ♀, S. Beshkov leg., D. Gradinarov det. (BFUS).

Chorotype: West Eurosiberian.

***Herophila tristis tristis* (Linnaeus, 1767)**

Bulgaria: Petrich (Heyrovský 1931); Belasitsa Mt. (Doychev & Balevski 2006). **North Macedonia:** Belasitsa Mt., 41°22'02.9"N, 22°47'38.1"E, 767 m a.s.l., ass. Orno – Quercetum petraeae Em, 28.05.-31.07.2010, pitfall traps; 41°22'05.5"N, 22°48'02.7"E, 693 m a.s.l., ass. Orno – Quercetum petraeae Em, 24.04.-28.05.2010, 03.07-31.07.2010, pitfall traps (Cvetkovska-Gjorgjievska 2015).

Chorotype: North Mediterranean.

***Morimus asper funereus* Mulsant, 1862**

Bulgaria: Petrich (Heyrovský 1931); Belasitsa Mt. (Ovcharov & Doychev, 2004). **New data:** S of Yavornitsa vill., 41°21'06.36"N, 23°02'21.72"E, 947 m a.s.l., along a dirt road, on *Salix* sp. trunk, 08.06.2019, 1 ♂, on trunk of *Salix* sp., D. Gradinarov leg. & det. (BFUS). **North Macedonia:** Belasitsa Mt., 41°21'27.0"N, 22°47'29.0"E, 1100 m a.s.l., ass. Festuco heterophyllae – Fagetum, 24.04.-28.05.2010, pitfall traps; 41°20'48.2"N, 22°47'32.3"E, 1385 m a.s.l., ass. Calamintho grandiflorae – Fagetum, 28.05.-03.07.2010, pitfall traps (Cvetkovska-Gjorgjievska 2015; Cvetkovska-Gjorgjievska *et al.* 2015).

Chorotype: Northeast Mediterranean.

***Morimus orientalis* (Reitter, 1894)**

Bulgaria: Kongur Reserve (Georgiev *et al.* 2013).

Chorotype: Balkan-Anatolian.

***Mesosa (Aplocnemia) nebulosa* (Fabricius, 1781)**

Bulgaria: Belasitsa hut, above Petrich (Georgiev *et al.* 2013).

Chorotype: European-Anatolian.

***Mesosa (Mesosa) curculionoides* (Linnaeus, 1760)**

Bulgaria: Belasitsa Mt. (Ovcharov & Doychev 2004; Doychev & Georgiev, 2004); Kamena vill. (Georgiev *et al.* 2013).

Chorotype: European-Iranian.

***Oberea erythrocephala erythrocephala* (Schrank, 1776)**

Bulgaria: Petrich (Heyrovský 1931). **North Macedonia:** Dojran vill. (Turner 1957).

Chorotype: West Eurosiberian.

***Oxylia duponcheli* (Brullé, 1832)**

Bulgaria: Petrich (Heyrovský 1931). **North Macedonia:** Dojran vill. (Turner 1957).

Chorotype: Balkan endemic.

***Phytoecia (Opsilia) coerulescens coerulescens* (Scopoli, 1763)**

Bulgaria: Petrich (Heyrovský 1931). **New data:** S of Yavornitsa vill., on the road to the Yavornishki Vodopad Waterfall, 41°21'28.80"N, 23°03'01.50"E, 587 m a.s.l., riverine meadows, 07.06.2019, 1 ♂, 2 ♀♀, on Boraginaceae, D. Gradinarov leg. & det. (BFUS) (**Plate IV, 21**). **North Macedonia:** Bansko vill. (Ćurčić *et al.* 2003).

Chorotype: West Palaearctic.

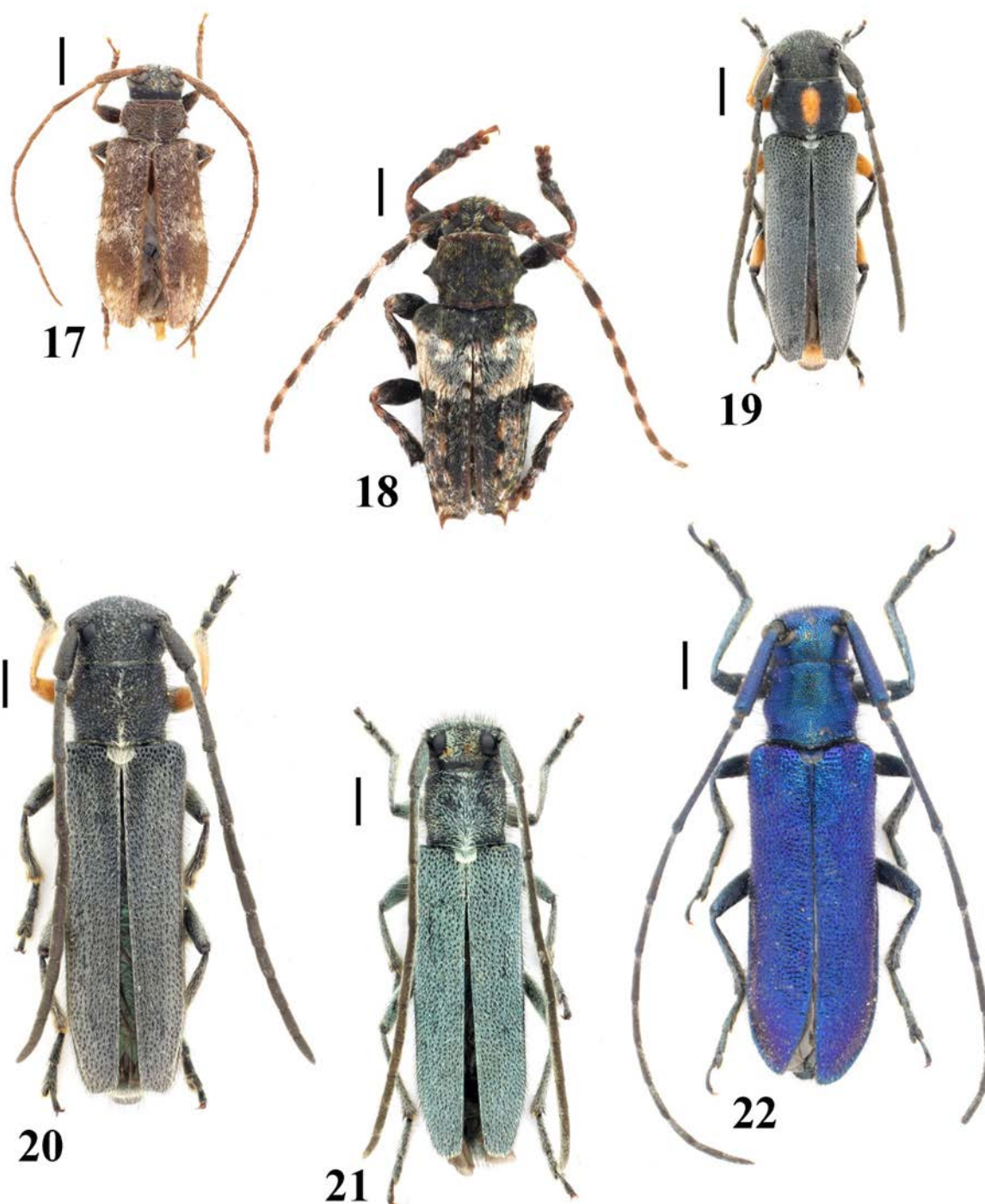


Plate IV. 17 – *Exocentrus adpersus*, above Samuilovo vill., 19.06.2013, female; 18 – *Pogonocherus hispidulus*, Belasitsa Chalet, 05.06.2016, male; 19 – *Phytoecia pustulata pustulata*, S of Yavornitsa vill., 07.06.2019, female; 20 – *Phytoecia cylindrica*, S of Yavornitsa vill., 07.06.2019, female; 21 – *Phytoecia coerulescens coerulescens*, S of Yavornitsa vill., 07.06.2019, female; 22 – *Agapanthia violacea*, NW of Gabrene vill., 30.04.2018, female. Scale bars: 1 mm.

Phytoecia (Phytoecia) cylindrica (Linnaeus, 1758)

Bulgaria: Klyuch vill. (Georgiev *et al.* 2013). **New data:** near Klyuch vill., 41°21'28.33"N, 23°00'58.07"E, m a.s.l., 05.05.2013, 1 ♂, 1 ♀, net sweeping, I. Gjonov leg., D. Gradinarov det. (BFUS); S of Klyuch vill., near Klyuchka River, 41°21'33.30"N, 23°00'59.10"E, 505 m a.s.l., deciduous riverine forest, 29.05.2016, 1 ♂, 1 ♀, hand collection, D. Gradinarov & Y. Petrova leg., D. Gradinarov det. (BFUS); S of Yavornitsa vill., on the road to the Yavornishki Vodopad Waterfall, 41°21'31.44"N, 23°03'03.42"E, 594 m a.s.l., riverine meadows, 07.06.2019, 1 ♀, on Asteraceae, D. Gradinarov leg. & det. (BFUS) (**Plate IV, 20**).

Chorotype: Eurosiberian.

****Phytoecia (Phytoecia) pustulata pustulata (Schrank, 1776)***

Bulgaria, new data: 1 km NW of Gabrene vill., 41°22'41.76"N, 22°58'02.76"E, 280 m a.s.l., roadside meadows, 30.04.2018, 2 ♀♀, hand collection and net sweeping, D. Gradinarov & Y. Petrova leg., D. Gradinarov det. (BFUS); S of Yavornitsa vill., on the road to the Yavornishki Vodopad Waterfall, 41°21'28.80"N, 23°03'01.50"E, 587 m a.s.l., grove of *Platanus orientalis* L., riverine meadows, 07.06.2019, 1 ♂, 1 ♀, on flowers of *Achillea millefolium* L., D. Gradinarov leg. & det. (BFUS) (**Plate IV, 19**).

Chorotype: European-Iranoturanian.

Phytoecia (Phytoecia) vulneris vulneris Aurivillius, 1923

North Macedonia: Dojran vill. (Turner 1957).

Chorotype: North Mediterranean.

Phytoecia (Pseudopilemia) hirsutula hirsutula (G. F. Frölich, 1793)

Bulgaria: Petrich (Heyrovský 1931).

Chorotype: West Eurosiberian.

Pogonocherus (Pogonocherus) hispidulus (Piller & Mitterpacher, 1783)

Bulgaria: Petrich (Heyrovský 1931); Belasitsa vill., Belasitsa hut (Ovcharov *et al.* 2007); above Petrich (Georgiev *et al.* 2013). **New data:** 3 km SW of Petrich town, Belasitsa Chalet, 41°22'12.30"N, 23°11'12.66"E, 700 m a.s.l., 05.06.2016, 1 ♂, at light, Y. Petrova leg., D. Gradinarov det. (BFUS) (**Plate IV, 18**).

Chorotype: Euromediterranean.

Saperda (Compsidia) populnea (Linnaeus, 1758)

Bulgaria: Belasitsa Mt. (Rapuzzi & Georgiev 2007).

Chorotype: Transholarctic.

Saperda (Lopezcolonia) octopunctata (Scopoli, 1772)

Bulgaria: Belasitsa Mt. (Ganev 1984); Belasitsa hut (Rapuzzi & Georgiev 2007; Georgiev *et al.* 2013).

Chorotype: European-Anatolian.

Saperda (Lopezcolonia) punctata (Linnaeus, 1767)

Bulgaria: Petrich (Heyrovský 1931). **North Macedonia:** Dojran vill. (Turner 1957).

Chorotype: Euromediterranean.

Saperda (Lopezcolonia) scalaris scalaris (Linnaeus, 1758)

Bulgaria: Petrich (Heyrovský 1931); Belasitsa Mt. (Rapuzzi & Georgiev 2007).

Chorotype: Euromediterranean.

In this study, eight taxa were first reported for Belasitsa Mt.: *Anastrangalia dubia dubia*, *Grammoptera (Grammoptera) ruficornis ruficornis*, *Vadonia dojranensis mahri*, *Oxymirus cursor*, *Rhagium (Megarhagium) mordax*, *Molorchus (Molorchus) umbellatarum umbellatarum*, *Stenopterus flavicornis*, and *Phytoecia (Phytoecia) pustulata pustulata*.

The established cerambycid taxa belong to 21 areogeographical categories separated in 7 complexes (Table 1).

Table 1. Areogeographic characterization of cerambycids in Belasitsa Mt.

Areogeographic categories and complexes	Number	Percentage
Holarctic complex	2	1.82
Transholarctic	2	1.82
Palaeartic complex	10	9.09
Transpalaeartic	5	4.55
West Palaeartic	5	4.55
Eurosiberian complex	15	13.64
Eurosiberian	7	6.36
West Eurosiberian	8	7.27
European-Iranoturanian complex	11	10.00
European-Iranoturanian	2	1.82
European-Iranian	7	6.36
East European-Iranian	2	1.82
European complex	42	38.18
Euromediterranean	11	10.00
European-Anatolian	20	18.18
European	9	8.18
East European	2	1.82
Mediterranean complex	21	19.09
Transmediterranean	1	0.90
North Mediterranean-Iranoturanian	1	0.90
North Mediterranean	4	3.64
East Mediterranean	1	0.90
Northeast Mediterranean	10	9.09
Pontomediterranean	1	0.90
Balkan-Anatolian	3	2.73
Balkan endemic complex	9	8.18
Balkan endemics	7	6.36
Bulgarian endemics	2	1.82
Total	110	100.0

The taxa from European complex are dominant in Belasitsa Mt. (38.18%) followed by those from Mediterranean (19.09%) and Eurosiberian (13.64%) complexes (Fig.6).

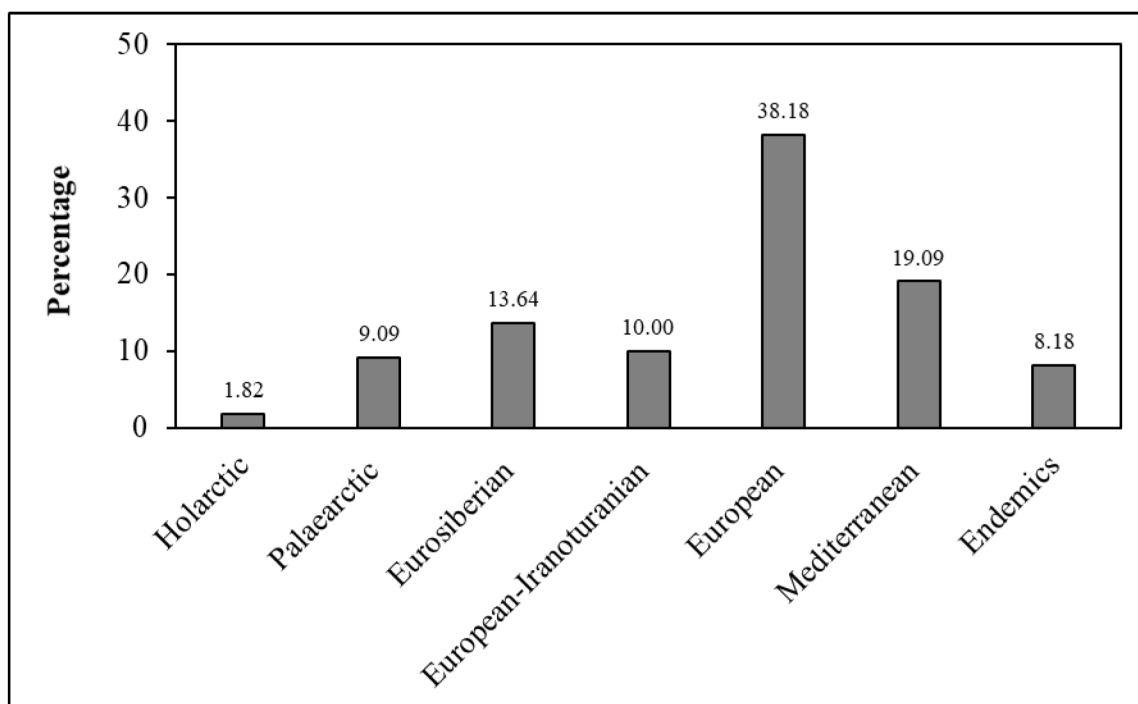


Fig. 6. Arealographic complexes of cerambycides in Belasitsa Mt.

The European-Iranoturanian and Palaearctic taxa are almost equally presented in the total complex – 10.00% and 9.09%, respectively.

Discussion

The number of cerambycid taxa found in Belasitsa (110 species and subspecies) is comparable to other studied mountains in Bulgaria: West Balkan Range (107 taxa) (Georgiev 2011; Gradinarov & Petrova 2019), Vitosha (122 taxa) (Topalov 2018), Strandzha (154 taxa) (Georgiev *et al.* 2018), and Western Rhodopes (161 taxa) (Georgiev *et al.* 2006).

The domination of deciduous forest stands in northern part of Belasitsa Mt. allows domination of European cerambycid complex (38.18%) in studied region. The domination of nemoral forests as well as in Vitosha and Strandzha mountains allows highest percentage of the taxa of European complex in these areas – 36.4% and 33.56%, respectively (Georgiev *et al.* 2018; Topalov 2018).

The location of Belasitsa in southwestern part of Bulgaria is cause to well presentation of Mediterranean species (19.09%). The northern slopes of the mountain (our study area) which determine relatively high level of humidity and low level of temperature allows well presentation of Eurosiberian and less degree of distribution of Mediterranean species and subspecies than in Strandzha Mt. (Georgiev *et al.* 2018). The significantly different picture is established for Vitosha Mt. (Topalov 2018). This mountain is higher and colder than the other two with well developed coniferous belt. That is why the second and third position there takes eurybiont taxa from Palaearctic and Eurosiberian (better represented than in Belasitsa Mt.) complexes. Some of these taxa are also trophically connected with coniferous trees. As is possible to expect the Mediterranean taxa takes fourth position in Vitosha Mt. (Topalov 2018).

The cerambycids from European - Iranoturanian complex are better represented in Strandzha Mt. – 12.6% (Georgiev *et al.* 2018) if compare with those in Belasitsa (fourth place, or 10.0%) and Vitosha Mt. (fifth place, or 10.8%) (Topalov 2018). The reason of this fact is the position of Strandzha Mt. as one of the main roads of Euro – West Asia taxa migration.

The specific climate conditions and existing of characteristic for the region plant species (as *Castanea sativa*) in Belasitsa represented the refugial character of the mountain and explain the highest level of endemics (9 taxa, or 8.18%). For comparison, the percentage of such taxa in Strandzha is 5 (3.50%) (Georgiev *et al.* 2018) and in Vitosha Mt. – 2 (1.70%) (Topalov 2018). These data mirror very interesting unique and refugial character of cerambycid fauna of Belasitsa Mt.

In conclusion it should be noted, that new records increase the strength of cerambycid fauna in Belasitsa Mt. The finding of 110 taxa (approximately 42% of longhorn beetles in Bulgaria) indicates that this taxonomic group is not yet well studied and 40-50 species are expected to be found in future investigations in the mountain.

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