A checklist and areography of longhorn beetles (Coleoptera: Cerambycidae) in Rila Mountain

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Abstract

Background

The complex of longhorn beetles in Rila Mt. in Bulgaria was studied by literature data and original biological materials. As a result, 126 taxa from six subfamilies were established, as follows: Prioninae (four taxa), Lepturinae (43 taxa), Necydalinae (two taxa), Spondylidinae (seven taxa), Cerambycinae (31 taxa) and Lamiinae (39 taxa).

New information

In this study, two new records for Rila Mt. (Stenurella nigra nigra and Xylosteus spinolae) and new localities or additional information for 24 cerambycid taxa were reported. The longhorn beetles belong to 18 zoogeographical categories and seven complexes. The European complex occupies a dominant position (37.3%), followed by the Palaearctic (23.8%), Eurosiberian (13.5%), Mediterranean (11.1%), European-Iranoturanian (7.1%), Balkan endemic (4.0%) and Holarctic (3.2%) complexes.

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**Keywords**

Cerambycidae, Rila Mt., areography, Bulgaria

**Introduction**

Rila is the highest and one of the largest mountains in Bulgaria. The average altitude is 1487 m a.s.l. and the total area - 2629 km$^2$. The highest peak of the mountain, Musala (2925 m a.s.l.), is the highest on the Balkan Peninsula and in Eastern Europe (Ivanov 1966).

In Rila Mt., there is a large number of tree and shrub species clearly distributed in vegetation belts. The deciduous belt is formed mainly by hornbeam (*Carpinus betulus* L.), sessile oak (*Quercus petraea* (Matt.) Liebl.), common beech (*Fagus sylvatica* L.), aspen (*Populus tremula* L.) and birch (*Betula pendula* Roth) and coniferous one - by silver fir (*Abies alba* Mill.), Norway spruce (*Picea abies* (L.) Karst.), Scots pine (*Pinus sylvestris* L.), Balkan pine (*Pinus peuce* Griseb.) and dwarf mountain pine (*Pinus mugo* Turra) (Stoyanov 1966).

Information about findings of longhorn beetles of Rila is available in a number of literature sources (Heyrovský 1931, Kantardjiewa-Minkova 1932, Kantardjiewa-Minkova 1934, Minkova 1957, Minkova 1961, Angelov 1967, Angelov 1995, Ganev 1984, Ganev 1985, Ganev 1986, Doychev and Georgiev 2004, Migliaccio et al. 2007, Rapuzzi and Georgiev 2007 etc.). However, there is no check-list of cerambycid fauna of the mountain.

The aim of this study is to summarise data in entomological literature about longhorn beetles in Rila Mt., to report new records of longhorn beetles and to make zoogeographical analysis of cerambycid fauna in the mountain.

**Materials and methods**

The longhorn beetles of Rila Mt. were studied by literature data, original records and unpublished materials in entomological collections. The original material was collected on flowers and host plants.

In this study, classification and nomenclature of the longhorn beetles suggested by Sama 2002, Sama 2013, Téocchi 2003, Biscaccianti 2007, Lobl and Smetana 2010, Özdikmen 2011, Miroshnikov 2016 and Danilevsky 2021 are followed, without indication of tribes and subgenera. Some taxa reported from Rila Mt., but most likely misidentified, are not included in the list: *Agapanthia lais* Reiche & Saulcy, 1858 (Bringmann 1995) and *Phytoecia affinis nigropubescens* G. Müller, 1948 (reported as *Phytoecia nigripes nigropubescens* in Bringmann (1998)).

The zoogeographical characterisation of longhorn beetles was made on the basis of recent taxa distribution (Danilevsky 2021). According to Georgiev and Hubenov (2006) and
Sakalian and Langourov (2007) conceptions, the established taxa are arranged in 18 chorotypes (areographic categories).

The new cerambycid records are deposited in entomological collection of Georgi Georgiev (mentioned with the abbreviation [GG]).

Checklist

**Prionus coriarius** (Linnaeus, 1758)

**Material**

- country: Bulgaria; locality: Brashantsi vill.; eventDate: 13-08-81; sex: 2 males; recordedBy: V. Radkova leg. [GG]

**Distribution:** West Palaearctic species (Danilevsky 2021)

**Alosterna tabacicolor** subsp. *tabacicolor* (DeGeer, 1775)

**Material**

- country: Bulgaria; locality: Parangalitsa; verbatimElevation: 1300 m a.s.l.; eventDate: 07-20-04; sex: 1 female; recordedBy: G. Georgiev leg. [GG]

**Distribution:** West Eurosiberian subspecies (Danilevsky 2021)

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

**Materials**

- country: Bulgaria; locality: Parangalitsa; verbatimElevation: 1300 m a.s.l.; eventDate: 07-20-04; sex: 3 males, 2 females; recordedBy: G. Georgiev leg. [GG]
- country: Bulgaria; locality: Rila Monastery; verbatimElevation: 1400 m a.s.l.; eventDate: 07-07-04; sex: 1 male, 3 females; recordedBy: G. Georgiev leg. [GG]
- country: Bulgaria; locality: Treshtenik loc.; verbatimElevation: 1250 m a.s.l.; verbatimLatitude: 42.052222; verbatimLongitude: 23.668694; sex: 3 males, 1 female; recordedBy: G. Georgiev leg. [GG]

**Distribution:** Euromediterranean subspecies (Danilevsky 2021)

**Anastrangalia sanguinolenta** (Linnaeus, 1760)

**Materials**

- country: Bulgaria; locality: Parangalitsa; verbatimElevation: 1300 m a.s.l.; eventDate: 07-20-04; sex: 4 males; recordedBy: G. Georgiev leg. [GG]
- country: Bulgaria; locality: Treshtenik loc.; verbatimElevation: 1250 m a.s.l.; verbatimLatitude: 42.052222; verbatimLongitude: 23.668694; sex: 1 male, 1 female; recordedBy: G. Georgiev leg. [GG]
Distribution: West Eurosiberian species (Danilevsky 2021)

**Leptura quadrifasciata subsp. quadrifasciata** Linnaeus, 1758

**Material**

a. country: Bulgaria; locality: Parangalitsa; verbatimElevation: 1300 m a.s.l.; eventDate: 07-20-04; sex: 1 male; recordedBy: G. Georgiev leg. [GG]

Distribution: Transpalaearctic subspecies (Danilevsky 2021)

**Judolia cerambyciformis** (Schrank, 1781)

**Materials**

a. country: Bulgaria; locality: Rila Monastery; verbatimElevation: 1400 m a.s.l.; eventDate: 07-07-04; sex: 1 female; recordedBy: G. Georgiev leg. [GG]

b. country: Bulgaria; locality: Harsovo vill.; verbatimElevation: 800 m a.s.l.; eventDate: 07-20-04; sex: 1 female; recordedBy: G. Georgiev leg. [GG]

c. country: Bulgaria; locality: Parangalitsa; verbatimElevation: 1300 m a.s.l.; eventDate: 07-20-04; sex: 1 male; recordedBy: G. Georgiev leg. [GG]

d. country: Bulgaria; locality: Ovcharsti vill.; verbatimElevation: 900 m a.s.l.; eventDate: 07-21-04; sex: 1 male; recordedBy: G. Georgiev leg. [GG]

e. country: Bulgaria; locality: Treshtenik loc.; verbatimElevation: 1250 m a.s.l.; verbatimLatitude: 42.052222; verbatimLongitude: 23.668694; sex: 2 males, 1 female; recordedBy: G. Georgiev leg. [GG]

Distribution: European species (Danilevsky 2021)

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

**Materials**

a. country: Bulgaria; locality: Rila Monastery; verbatimElevation: 1400 m a.s.l.; eventDate: 07-07-04; sex: 1 female; recordedBy: G. Georgiev leg. [GG]

b. country: Bulgaria; locality: Ovcharsti vill.; verbatimElevation: 900 m a.s.l.; eventDate: 07-21-04; sex: 1 male, 1 female; recordedBy: G. Georgiev leg. [GG]

c. country: Bulgaria; locality: Treshtenik loc.; verbatimElevation: 1400 m a.s.l.; verbatimLatitude: 42.052222; verbatimLongitude: 23.668694; sex: 2 males; recordedBy: G. Georgiev leg. [GG]

Distribution: European-Anatolian subspecies (Danilevsky 2021)

**Stenurella nigra subsp. nigra** (Linnaeus, 1758)

**Material**

a. country: Bulgaria; locality: Ovcharsti vill.; verbatimElevation: 900 m a.s.l.; eventDate: 07-21-04; sex: 1 male; recordedBy: G. Georgiev leg. [GG]

Distribution: European-Anatolian subspecies (Danilevsky 2021)
**Stenurella bifasciata** subsp. *intermedia* Holzschuh, 2006

**Material**

a. country: Bulgaria; locality: Ovtchartsi vill.; verbatimElevation: 900 m a.s.l.; eventDate: 07-21-04; recordedBy: G. Georgiev leg. [GG]

**Distribution:** Balkan endemic species (Danilevsky 2021)

**Stenurella septempunctata subsp. septempunctata** (Fabricius, 1793)

**Materials**

a. country: Bulgaria; locality: Harsovo vill.; verbatimElevation: 800 m a.s.l.; eventDate: 07-20-04; sex: 8 males, 4 females; recordedBy: G. Georgiev leg. [GG]

b. country: Bulgaria; locality: Ovtchartsi vill.; verbatimElevation: 900 m a.s.l.; eventDate: 07-21-04; sex: 1 male, 1 female; recordedBy: G. Georgiev leg. [GG]

**Distribution:** European subspecies (Danilevsky 2021)

**Stenurella melanura** subsp. *melanura* (Linnaeus, 1758)

**Materials**

a. country: Bulgaria; locality: Rila Monastery; verbatimElevation: 1400 m a.s.l.; eventDate: 07-07-04; sex: 1 male; recordedBy: G. Georgiev leg. [GG]

b. country: Bulgaria; locality: Harsovo vill.; verbatimElevation: 800 m a.s.l.; eventDate: 07-20-04; sex: 1 male, 1 female; recordedBy: G. Georgiev leg. [GG]

c. country: Bulgaria; locality: Parangalitsa; verbatimElevation: 1300 m a.s.l.; eventDate: 07-20-04; sex: 1 female; recordedBy: G. Georgiev leg. [GG]

d. country: Bulgaria; locality: Treshtenik loc.; verbatimElevation: 1400 m a.s.l.; verbatimLatitude: 42.052222; verbatimLongitude: 23.668694; sex: 1 male; recordedBy: G. Georgiev leg. [GG]

**Distribution:** Transpalaearctic subspecies (Danilevsky 2021)

**Stictoleptura rubra** subsp. *rubra* (Linnaeus, 1758)

**Material**

a. country: Bulgaria; locality: Ovtchartsi vill.; verbatimElevation: 900 m a.s.l.; eventDate: 07-21-04; sex: 1 female; recordedBy: G. Georgiev leg. [GG]

**Distribution:** Eurosiberian subspecies (Danilevsky 2021)
**Paracorymbia maculicornis** (DeGeer, 1775)

Materials

a. country: Bulgaria; locality: Ravnite Mochuri loc. near Dobursko vill.; verbatimElevation: 1600 m a.s.l.; eventDate: 7/6-8/30/2003; sex: 1 male collected in tree traps on Pinus sylvestri; recordedBy: N. Simov leg. [GG]
b. country: Bulgaria; locality: Rila Monastery; verbatimElevation: 1400 m a.s.l.; eventDate: 07-07-04; sex: 2 males, 1 female; recordedBy: G. Georgiev leg. [GG]
c. country: Bulgaria; locality: Parangalitsa; verbatimElevation: 1300 m a.s.l.; eventDate: 07-20-04; sex: 3 males, 2 females; recordedBy: G. Georgiev leg. [GG]

Distribution: European species (Danilevsky 2021)

**Strangalia attenuata** (Linnaeus, 1758)

Materials

a. country: Bulgaria; locality: Harsovo vill.; verbatimElevation: 800 m a.s.l.; eventDate: 07-20-04; sex: 1 female; recordedBy: G. Georgiev leg. [GG]
b. country: Bulgaria; locality: Ovtchartsi vill.; verbatimElevation: 900 m a.s.l.; eventDate: 07-21-04; sex: 1 male; recordedBy: G. Georgiev leg. [GG]

Distribution: Transpalaeartic species (Danilevsky 2021)

**Carilia virginea** subsp. *virginea* (Linnaeus, 1758)

Materials

a. country: Bulgaria; locality: Parangalitsa; verbatimElevation: 1300 m a.s.l.; eventDate: 07-20-04; sex: 1 female; recordedBy: G. Georgiev leg. [GG]
b. country: Bulgaria; locality: Rila Monastery; verbatimElevation: 1400 m a.s.l.; eventDate: 07-07-04; sex: 1 male; recordedBy: G. Georgiev leg. [GG]

Distribution: Eurosiberian subspecies (Danilevsky 2021)

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

Material

a. country: Bulgaria; locality: Above Dobarsko vill.; eventDate: 06-02-03; sex: 1 male, 1 female; recordedBy: N. Simov leg. [GG]

Distribution: European-Anatolian subspecies (Danilevsky 2021)

**Pachyta quadrimaculata** (Linnaeus, 1758)

Materials

a. country: Bulgaria; locality: Parangalitsa; verbatimElevation: 1300 m a.s.l.; eventDate: 07-20-04; sex: 2 males, 1 female; recordedBy: G. Georgiev leg. [GG]
b. country: Bulgaria; locality: Treshtenik loc.; verbatimElevation: 1400 m a.s.l.; verbatimLatitude: 42.052222; verbatimLongitude: 23.668694; sex: 2 males, 1 female; recordedBy: G. Georgiev leg. [GG]

Distribution: Transpalaearctic species (Danilevsky 2021)

**Pidonia lurida** (Fabricius, 1793)

**Material**

a. country: Bulgaria; locality: Rila Monastery; verbatimElevation: 1400 m a.s.l.; eventDate: 07-07-04; sex: 1 female; recordedBy: G. Georgiev leg. [GG]

Distribution: European species (Danilevsky 2021)

**Rhagium bifasciatum** Fabricius, 1775

**Materials**

a. country: Bulgaria; locality: Maliovitsa, Chalat loc.; verbatimElevation: 2050 m a.s.l.; eventDate: 06-07-64; sex: 1 male, 1 female; recordedBy: P. Beron leg. [GG]

b. country: Bulgaria; locality: Maliovitsa; verbatimElevation: 2020 m a.s.l.; eventDate: 11-01-70; sex: 1 male; recordedBy: P. Beron leg. [GG]

c. country: Bulgaria; locality: Bistritsa vill.; verbatimElevation: 700 m a.s.l.; eventDate: 06-06-81; sex: 1 female; recordedBy: V. Radkova leg. [GG]

d. country: Bulgaria; locality: Blagoevgrad; verbatimElevation: 560 m a.s.l.; eventDate: 06-28-82; sex: 1 male; recordedBy: E. Andreeva leg. [GG]

Distribution: European-Iranoturanian species (Danilevsky 2021)

**Xylosteus spinolae** Frivaldszky von Frivald, 1837

**Material**

a. country: Bulgaria; locality: Govedartsi vill.; verbatimElevation: 1200 m a.s.l.; eventDate: 06-21-20; sex: 1 female; recordedBy: G. Georgiev leg. [GG]

Distribution: Northeast Mediterranean species (Danilevsky 2021)

**Cerambyx scopolii** subsp. *scopolii* Fuessly, 1775

**Material**

a. country: Bulgaria; locality: Brashantsii vill.; eventDate: 06-06-82; sex: 1 male, 1 female; recordedBy: V. Radkova leg. [GG]

Distribution: European-Anatolian subspecies (Danilevsky 2021)
**Clytus rhamni** subsp. *rhamni* Germar, 1817

**Material**

a. country: Bulgaria; locality: Harsovo vill.; verbatimElevation: 800 m a.s.l.; eventDate: 07-20-04; sex: 3 males, 4 females; recordedBy: G. Georgiev leg. [GG]

**Distribution:** Northeast Mediterranean subspecies (Danilevsky 2021)

**Molorchus minor** subsp. *minor* (Linnaeus, 1758)

**Material**

a. country: Bulgaria; locality: Rila Monastery; verbatimElevation: 1400 m a.s.l.; eventDate: 07-07-04; sex: 1 female; recordedBy: G. Georgiev leg. [GG]

**Distribution:** Transpalaearctic subspecies (Danilevsky 2021)

**Lamia textor** (Linnaeus, 1758)

**Materials**

a. country: Bulgaria; locality: Blagoevgrad; verbatimElevation: 560 m a.s.l.; eventDate: 05-14-90; sex: 1 female; recordedBy: G. Georgiev leg. [GG]

b. country: Bulgaria; locality: Harsovo vill.; verbatimElevation: 800 m a.s.l.; eventDate: 07-20-04; sex: 1 female; recordedBy: G. Georgiev leg. [GG]

**Distribution:** Transpalaearctic subspecies (Danilevsky 2021)

**Monochamus sutor** subsp. *sutor* (Linnaeus, 1758)

**Material**

a. country: Bulgaria; locality: Iliina River above Rila Monastery; eventDate: 06-22-13; sex: 1 male; recordedBy: P. Mirchev leg. [GG]

**Distribution:** West Eurosiberian subspecies Danilevsky 2021

**Pogonochoerus fasciculatus** subsp. *fasciculatus* DeGeer, 1775

**Material**

a. country: Bulgaria; locality: Above Dobarsko vill.; eventDate: 06-02-03; sex: 1 female; recordedBy: N. Simov leg. [GG]

**Distribution:** Transpalaearctic subspecies (Danilevsky 2021)
In this study, two new taxa (Stenurella nigra nigra and Xylosteus spinolae) were established for Rila Mt. New localities or additional information for 24 cerambycid taxa were also reported.

The total number of cerambycid taxa in Rila Mt. is 126 from six subfamilies: Prioninae (four taxa), Lepturinae (43 taxa), Necydalinae (two taxa), Spondylidinae (seven taxa), Cerambycinae (31 taxa) and Lamiinae (39 taxa) (Table 1).

### Table 1.

| N  | Taxon                                      | Locality                                      | References                                                                 | Chorotype                  |
|----|--------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------|-----------------------------|
| 1  | *Tragosa depsarium* (Linnaeus, 1767)       | Blagoevgrad                                   | Kantardjiewa-Minkova 1932                                                 | Eurosiberian                |
| 2  | *Mesoprionus besikanus* (Fairmaire, 1855)  | Rila Mt.                                      | Kantardjiewa-Minkova 1932, Angelov 1995                                   | East Mediterranean          |
| 3  | *Prionus coriarius* (Linnaeus, 1758)       | Yundola Borovets, Kostenets Rila Mt. Bistritsa Brashantsi vill. | Kantardjiewa-Minkova 1932, Samuelian 1998, Kantardjiewa-Minkova 1932, Angelov 1995, Georgiev 2020, **New record** | West Palaearctic           |
| 4  | *Ergates faber* (Linnaeus, 1760)           | Rila Monastery Rila Mt.                       | Kantardjiewa-Minkova 1932, Angelov 1995                                   | West Palaearctic           |
| 5  | *Alosterna tabacicolor tabacicolor* (DeGeer, 1775) | Rila Mt. Parangalitsa | Kantardjiewa-Minkova 1932, **New record**                                  | West Eurosiberian          |
| 6  | *Anastrangalia dubia dubia* (Scopoli, 1763) | Rila Monastery Borovets Rila Mt. Parangalitsa, Treshtenik | Kantardjiewa-Minkova 1932, Minkova 1957, Minkova 1957, Ganev 1985, Gradinarov et al. 2020, Angelov 1995, **New records** | Euromediterranean          |
| 7  | *Anastrangalia sanguinolenta* (Linnaeus, 1760) | Kostenets Rila Mt. Gorno Osenovo Borovets Parangalitsa, Treshtenik | Heyrovský 1931, Kantardjiewa-Minkova 1932, Angelov 1995, Georgiev 2020, Gradinarov et al. 2020, **New records** | West Eurosiberian          |
| 8  | *Anoplodera rufipes rufipes* (Schaller, 1783) | Rila Mt.                                      | Heyrovský 1931, Angelov 1995                                               | European                    |
| 9  | *Anoplodera sexguttata* (Fabricius, 1775)  | Rila Mt.                                      | Angelov 1995                                                               | Euromediterranean          |
| N  | Taxon                                           | Locality       | References                                                                 | Chorotype          |
|----|------------------------------------------------|----------------|---------------------------------------------------------------------------|--------------------|
| 10 | Grammoptera abdominalis (Stephens, 1831)       | Rila Mt.       | Heyrovský 1931, Kantardjiewa-Minkova 1932, Angelov 1995                  | European-Iranian   |
| 11 | Grammoptera ustulata *ustulata* (Schaller, 1783) | Rila Mt.       | Heyrovský 1931, Kantardjiewa-Minkova 1932, Angelov 1995                  | European-Anatolian |
| 12 | *Leptura aurulenta* Fabricius, 1793            | Yundola        | Ganev 1986                                                                | Euromediterranean  |
| 13 | *Leptura quadrifasciata quadrifasciata* Linnaeus, 1758 | Raduil, Rila Mt. Belmeken Yundola Parangalitsa | Heyrovský 1931, Kantardjiewa-Minkova 1932, Minkova 1957, Samuelian 1998, New records | Transpalaearctic   |
| 14 | *Lepturobosca virens* (Linnaeus, 1758)         | Rila Mt.       | Angelov 1995                                                              | Transpalaearctic   |
| 15 | *Judolia cerambyciformis* (Schrank, 1781)      | Rila Mt. Borovets Yundola, Musala hut Kostenets Rila Monastery Harsovo, Parangalitsa, Ovchartsi, Treshtenik | Heyrovský 1931, Kantardjiewa-Minkova 1932, Minkova 1957, Georgiev 2020, Angelov 1967, Minkova 1957, Ganev 1985, Ganev 1985, Gradinarov et al. 2020, New records | European           |
| 16 | *Judolia erraticus* (Dalman, 1817)             | Kostenets Yundola, Samokov Blagoevgrad Rila Monastery | Heyrovský 1931, Minkova 1957, Angelov 1967, Georgiev 2020, Gradinarov et al. 2020 | European-Iranian   |
| 17 | *Pseudovadonia livida livida* (Fabricius, 1777) | Borovets       | Kantardjiewa-Minkova 1932                                                  | European           |
| 18 | *Rutpela maculata maculata* (Poda von Neuhaus, 1761) | Borovets, Kostenets Belmeken Harsovo Govedartsi Rila Monastery Ovchartsi, Treshtenik | Kantardjiewa-Minkova 1932, Minkova 1957, Rapuzzi and Georgiev 2007, Georgiev 2020, Gradinarov and Petrova 2019, New records | European-Anatolian |
| 19 | *Stenurella nigra nigra* (Linnaeus, 1758)      | Ovchartsi      | New record                                                                | European-Anatolian |
| 20 | *Stenurella bifasciata intermedia* Holzschuh, 2006 | Blagoevgrad Borovets Ovchartsi | Georgiev 2020, Gradinarov et al. 2020, New record | Balkan endemic     |
| 21 | *Stenurella septempunctata septempunctata* (Fabricius, 1793) | Borovets Rila Monastery Harsovo, Ovchartsi | Kantardjiewa-Minkova 1932, Gradinarov et al. 2020, New records | European           |
| 22 | *Stenurella melanura melanura* (Linnaeus, 1758) | Borovets Rila Monastery Blagoevgrad, Predela Harsovo, Parangalitsa, Treshtenik | Heyrovský 1931, Angelov 1967, Georgiev 2020, New records | Transpalaearctic   |
| N  | Taxon                              | Locality                          | References                                                                 | Chorotype          |
|----|-----------------------------------|-----------------------------------|---------------------------------------------------------------------------|--------------------|
| 23 | *Stictoleptura rubra rubra* (Linnaeus, 1758) | Borovets Raduil, Samokov, Kostenets Rila Monastery Yundola Yakoruda Ovtchartsi | Heyrovský 1931, Kantardjiewa-Minkova 1932, Gradinarov et al. 2020, Kantardjiewa-Minkova 1932, Angelov 1967, Samuelian 1998, Georgiev 2020, **New record** | Eurosiberian       |
| 24 | *Paracorymbia maculicornis* (DeGeer, 1775) | Borovets Rila Mt. Dobarsko, Rila Monastery, Parangalitsa | Kantardjiewa-Minkova 1932, Gradinarov et al. 2020, Angelov 1995, **New records** | European           |
| 25 | *Stictoleptura scutellata scutellata* (Fabricius, 1781) | Belmeken | Minkova 1957 | European |
| 26 | *Paracorymbia fulva* (DeGeer, 1775) | Kostenets Rila Monastery Harsovo, Ovtchartsi | Heyrovský 1931, Kantardjiewa-Minkova 1932, Kantardjiewa-Minkova 1932, Rapuzzi and Georgiev 2007 | European-Anatolian |
| 27 | *Stictoleptura erythroptera* (Hagenbach, 1822) | Borovets | Heyrovský 1931, Kantardjiewa-Minkova 1932 | European-Iranian |
| 28 | *Strangalia attenuata* (Linnaeus, 1758) | Rila Mt. Belmeken Borovets Harsovo, Ovtchartsi | Kantardjiewa-Minkova 1932, Minkova 1957, Ganev 1985, **New records** | Transpalaearctic |
| 29 | *Vadonia unipunctata unipunctata* (Fabricius, 1787) | Rila Monastery | Kantardjiewa-Minkova 1932 | European-Anatolian |
| 30 | *Oxymirus cursor* (Linnaeus, 1758) | Rila Mt. Borovets Rila Monastery, Kostenets | Heyrovský 1931, Angelov 1995, Kantardjiewa-Minkova 1932, Minkova 1957, Ganev 1985, Kantardjiewa-Minkova 1932 | West Eurosiberian |
| 31 | *Carilia virginea virginea* (Linnaeus, 1758) | Borovets Soleno Dere Rila Monastery Yundola Elesnitsa River Parangalitsa | Kantardjiewa-Minkova 1932, Minkova 1957, Kantardjiewa-Minkova 1934, Angelov 1967, Samuelian 1998, Georgiev 2020, **New record** | West Eurosiberian |
| 32 | *Cortodera humeralis humeralis* (Schaller, 1783) | Kostenets, Rila Monastery Dobarsko | Kantardjiewa-Minkova 1932, Minkova 1957, **New record** | European-Anatolian |
| 33 | *Cortodera flavimana flavimana* (Walti, 1838) | Yundola | Samuelian 1998 | European-Anatolian |
| 34 | *Dinoptera collaris* (Linnaeus, 1758) | Rila Mt. Rila Monastery | Kantardjiewa-Minkova 1932, Gradinarov et al. 2020 | Eurosiberian |
| N  | Taxon                              | Locality                     | References                                      | Chorotype                     |
|----|------------------------------------|------------------------------|------------------------------------------------|------------------------------|
| 35 | *Acmaeops septentrionis* (C. G. Thomson, 1866) | Parangalitsa, Borovets, Dupnitsa | Kantardjiewa-Minkova 1932, Minkova 1957, Angelov 1995, Angelov 1995 | Transpalaearctic             |
| 36 | *Evodinellus clathratus* (Fabricius, 1793) | Rila Mt.                     | Angelov 1995                                   | European                     |
| 37 | *Acmaeops pratensis* (Laicharting, 1784) | Borovets, Rila Mt.            | Kantardjiewa-Minkova 1932, Angelov 1995         | Transholarctic               |
| 38 | *Pachyta lamed* (Linnaeus, 1758)    | Borovets                     | Kantardjiewa-Minkova 1932, Angelov 1995         | Transpalaearctic             |
| 39 | *Pachyta quadrimaculata* (Linnaeus, 1758) | Borovets, Kostenets, Belmeken Rila Mt. Parangalitsa, Treshtenik | Kantardjiewa-Minkova 1932, Ganev 1985, Gradinarov et al. 2020, Kantardjiewa-Minkova 1932, Angelov 1995, New records | Transpalaearctic             |
| 40 | *Pidonia lurida* (Fabricius, 1793)  | Samokov, Borovets, Rila Monastery | Heyrovský 1931, Kantardjiewa-Minkova 1932, New record | European                     |
| 41 | *Rhagium bifasciatum* Fabricius, 1775 | Rila Mt. Borovets, Sitnyakovo Kostenets, Rila Monastery Yundola Malyovitsa Bistritsa, Blagoevgrad | Heyrovský 1931, Kantardjiewa-Minkova 1932, Angelov 1967, Kantardjiewa-Minkova 1932, Kantardjiewa-Minkova 1932, Minkova 1957, Ganev 1984, Ganev 1985, Samuelian 1998, Georgiev 2020, New records | European-Iranian             |
| 42 | *Rhagium mordax* (DeGeer, 1775)     | Rila Mt. Borovets, Dolna Banya Kostenets, Parangalitsa | Heyrovský 1931, Kantardjiewa-Minkova 1932, Kantardjiewa-Minkova 1932, Ganev 1986, Doychev et al. 2017 | Eurosiberian                 |
| 43 | *Rhagium sycophanta* (Schrank, 1781) | Yundola                      | Samuelian 1998                                 | West Eurosiberian            |
| 44 | *Rhagium inquisitor inquisitor* (Linnaeus, 1758) | Parangalitsa, Kostenets, Borovets, Samokov Yundola, Bodrost Chalet | Drenski 1933, Kantardjiewa-Minkova 1932, Ganev 1984, Kantardjiewa-Minkova 1932, Samuelian 1998, Doychev et al. 2017, Gradinarov et al. 2020 | Eurosiberian                 |
| 45 | *Stenocorus meridianus* (Linnaeus, 1758) | Borovets, Rila Mt.           | Ganev 1985, Angelov 1995                       | Eurosiberian                 |
| 46 | *Xylosteus bartoni* Obenberger & Mañan, 1933 | Borovets, Parangalitsa       | Minkova 1957, Angelov 1995, Georgiev and Simov 2006 | Balkan endemic               |
| N  | Taxon                                      | Locality      | References                  | Chorotype                        |
|----|-------------------------------------------|---------------|-----------------------------|----------------------------------|
| 47 | *Xylosteus spinolae* Frivaldszky von Frivald, 1837 | Govedartsi    | New record                  | Northeast Mediterranean           |
| 48 | *Necybalis major* Linnaeus, 1758           | Borovets      | Kantardjiewa-Minkova 1932   | Transpalaearctic                 |
| 49 | *Necybalis ulmi* Chevrolat, 1838           | Borovets      | Angelov 1995                | European-Anatolian               |

Subfamily Necybalinae Latreille, 1825

| N  | Taxon                                      | Locality      | References                  | Chorotype                        |
|----|-------------------------------------------|---------------|-----------------------------|----------------------------------|
| 50 | *Alocerus moesiacus* (Frivaldszky von Frivald, 1837) | Yundola       | Samuelian 1998              | Transsiberian-Mediterranean       |
| 51 | *Archopalus rusticus rusticus* (Linnaeus, 1758) | Borovets, Blagoevgrad Predela | Kantardjiewa-Minkova 1932, Georgiev 2020 | Transpalaearctic                 |
| 52 | *Asemum striatum* (Linnaeus, 1758)         | Kostenets     | Minkova 1957                | Transholarctic                   |
| 53 | *Tetropium castaneum* (Linnaeus, 1758)     | Parangalitsa  | Drenski 1933, Kantardjiewa-Minkova 1932, Samuelian 1998, Gradinarov et al. 2020 | Transpalaearctic                 |
| 54 | *Tetropium fuscom fuscom* (Fabricius, 1787) | Rila Mt. Yundola Parangalitsa | Kantardjiewa-Minkova 1932, Angelov 1995, Ganev 1986, Samuelian 1998, Angelov 1995 | Transholarctic                   |
| 55 | *Saphanus piceus ganglbaueri* Brancsik, 1886 | Borovets      | Heyrovský 1931, Kantardjiewa-Minkova 1932, Angelov 1995 | European                        |
| 56 | *Spondylis buprestoides* (Linnaeus, 1758)  | Rila Mt. Panichishte Govedartsi Yundola | Kantardjiewa-Minkova 1932, Ganev 1984, Ganev 1986, Samuelian 1998 | Transpalaearctic                 |

Subfamily Cerambycinae Latreille, 1802

| N  | Taxon                                      | Locality      | References                  | Chorotype                        |
|----|-------------------------------------------|---------------|-----------------------------|----------------------------------|
| 57 | *Anaglyptus mysticus* (Linnaeus, 1758)     | Rila Monastery | Gradinarov et al. 2020     | European-Anatolian               |
| 58 | *Aromia moschata moschata* (Linnaeus, 1758) | Borovo       | Kantardjiewa-Minkova 1932   | Eurosiberian                     |
| 59 | *Callidium violaceum* (Linnaeus, 1758)    | Borovets      | Kantardjiewa-Minkova 1932   | Transpalaearctic                 |
| 60 | *Callidium aeneum aeneum* (De Deer, 1775)  | Rila Monastery | Kantardjiewa-Minkova 1932, Doychev et al. 2017 | Transpalaearctic                 |
| 61 | *Callidium coriaeum* Paykull, 1800         | Yundola       | Doychev and Bencheva 2008   | Transpalaearctic                 |
| 62 | *Loderina linearts* (Hampe, 1871)          | Blagoevgrad   | Ganev 1984                  | Northeast Mediterranean           |
| N  | Taxon                                      | Locality         | References                                      | Chorotype           |
|----|-------------------------------------------|-------------------|------------------------------------------------|---------------------|
| 63 | *Pyrrhidium sanguineum* (Linnaeus, 1758)  | Yundola           | Samuelian 1998                                  | Euromediterranean   |
| 64 | *Ropalopus clavipes* (Fabricius, 1775)    | Rila Monastery    | Kantardjiewa-Minkova 1932, Samuelian 1998       | European-Iranian    |
| 65 | *Ropalopus ungaricus insubricus* (Germar, 1823) | Rila Monastery | Ganev 1986                                      | European            |
| 66 | *Cerambyx miles* Bonelli, 1812             | Kostenets         | Kantardjiewa-Minkova 1932                       | European-Anatolian  |
| 67 | *Cerambyx nodulosus nodulosus* Germar, 1817 | Rila Monastery    | Ganev 1985                                      | Pontomediterranean  |
| 68 | *Cerambyx scopolii scopolii* Fuessly, 1775 | Rila Mt. Brashantsii | Heyrovský 1931, New record                       | European-Anatolian  |
| 69 | *Chlorophorus herbstii* (Brahm, 1790)     | Rila Mt. Kostenets | Kantardjiewa-Minkova 1932, Ganev 1986           | Eurosiberian        |
| 70 | *Clytus arietis arietis* (Linnaeus, 1758) | Kostenets         | Heyrovský 1931, Kantardjiewa-Minkova 1932       | European-Anatolian  |
| 71 | *Clytus lama* Mulsant, 1847               | Kostenets         | Kantardjiewa-Minkova 1932                       | European            |
| 72 | *Clytus rhamni rhamni* Germar, 1817       | Kostenets Harsovo | Kantardjiewa-Minkova 1932, New record           | Northeast Mediterranean |
| 73 | *Plagionotus arcuatus arcuatus* (Linnaeus, 1758) | Rila Mt. Yundola Razlog | Heyrovský 1931, Samuelian 1998, Georgiev 2020 | Euromediterranean   |
| 74 | *Plagionotus detritus detritus* (Linnaeus, 1758) | Kostenets Borovets | Kantardjiewa-Minkova 1932, Kantardjiewa-Minkova 1934, Kantardjiewa-Minkova 1932 | European-Anatolian |
| 75 | *Xylotrechus rusticus* (Linnaeus, 1758)   | Rila Mt.          | Kantardjiewa-Minkova 1932                       | Transpalaearctic    |
| 76 | *Xylotrechus arvicola arvicola* (Olivier, 1795) | Predela       | Georgiev 2020                                   | Euromediterranean   |
| 77 | *Rosalia alpina* (Linnaeus, 1758)         | Borovets, Kostenets | Kantardjiewa-Minkova 1932                       | European-Anatolian  |
| 78 | *Stromatium auratum* (Böber, 1793)        | Blagoevgrad       | Georgiev 2020                                   | Transmediterranean  |
| 79 | *Molorchus minor minor* (Linnaeus, 1758)  | Parangalitsa Borovets | Drenski 1933, Kantardjiewa-Minkova 1932, Angelov 1995, New record | Transpalaearctic    |
| 80 | *Molorchus umbellatarum umbellatarum* (Schreber, 1759) | Rila Mt. | Heyrovský 1931, Kantardjiewa-Minkova 1932, Angelov 1995 | European-Iranoturanian |
| 81 | *Obrium brunneum* (Fabricius, 1793)       | Rila Monastery    | Georgiev et al. 2005                            | European-Anatolian  |
| 82 | *Purpuricenus budensis* (Götz, 1783)      | Yundola           | Samuelian 1998                                  | West Palaearctic    |
| N  | Taxon                                      | Locality     | References                                      | Chorotype                  |
|----|--------------------------------------------|--------------|-----------------------------------------------|----------------------------|
| 83 | *Purpuricenus kaehleri rossicus* Danilevsky, 2019 | Raduil Rila  | Kantardjiewa-Minkova 1932, Ganev 1985         | East European              |
| 84 | *Callimus angulatus angulatus* (Schrank, 1789) | Rila Mt.     | Heyrovský 1931, Kantardjiewa-Minkova 1932    | Euromediterranean          |
| 85 | *Callimus femoratus* (Gemar, 1824)          | Yundola      | Samuelian 1998                                | East European-Iranian      |
| 86 | *Stenopterus flavicornis* Küster, 1846      | Kostenets    | Kantardjiewa-Minkova 1932                    | Northeast Mediterranean    |
| 87 | *Stenopterus rufus rufus* (Linnaeus, 1767)  | Harsovo, Parangalitsa | Rapuzzi and Georgiev 2007 | European                  |

**Subfamily Lamiinae Latreille, 1825**

| N  | Taxon                                      | Locality     | References                                      | Chorotype                  |
|----|--------------------------------------------|--------------|-----------------------------------------------|----------------------------|
| 88 | *Acanthocinus aedilis* (Linnaeus, 1758)    | Borovets Samokov | Kantardjiewa-Minkova 1934, Ganev 1985         | Transpalaearctic           |
| 89 | *Acanthocinus griseus* (Fabricius, 1793)   | Samokov      | Hubenov et al. 2001, Doychev et al. 2017      | Transpalaearctic           |
| 90 | *Leiopus linnei* Wallin, Nylander & Kvamme, 2009 | Rila Mt. Belmeken | Heyrovský 1931, Kantardjiewa-Minkova 1934    | European                   |
| 91 | *Agapanthia cynarae cynarae* (Germar, 1817) | Dupnitsa Borovets | Kantardjiewa-Minkova 1934, Ganev 1985        | North Mediterranean         |
| 92 | *Agapanthia dahlia dahlia* (C. F. W. Richter, 1820) | Borovets | Kantardjiewa-Minkova 1934, Ganev 1985        | European                   |
| 93 | *Agapanthia villosoviridescens* (De Geer, 1775) | Rila Mt. Rila Monastery Borovets | Heyrovský 1931, Kantardjiewa-Minkova 1934, Angelov 1967, Ganev 1985 | Eurosiberian               |
| 94 | *Agapanthia violacea* (Fabricius, 1775)    | Rila Mt. Blagoevgrad, Bistritsa, Rila Monastery | Heyrovský 1931, Georgiev 2020 | European-Anatolian         |
| 95 | *Agapanthia kirbyi kirbyi* (Gyllenhaal, 1817) | Borovets Parangalitsa | Heyrovský 1931, Kantardjiewa-Minkova 1934, Georgiev 2020 | European-Iranian           |
| 96 | *Anaesthetis testacea testacea* (Fabricius, 1781) | Predela | Georgiev 2020                                | European-Anatolian         |
| 97 | *Stenidea genei genei* (Aragona, 1830)     | Kostenets    | Angelov 1967                                  | North Mediterranean        |
| 98 | *Dorcadion aethiops aethiops* (Scopoli, 1763) | Rila Mt. Borovets Samokov | Kantardjiewa-Minkova 1934, Minkova 1961, Ganev 1986 | Northeast Mediterranean    |
| 99 | *Dorcadion fulvum erythropterum* Fischer von Waldheim, 1823 | Blagoevgrad Yundola | Ganev 1985, Samuelian 1998 | East European              |
| 100| *Dorcadion axillare* Küster, 1847          | Rila Mt.     | Kantardjiewa-Minkova 1934, Minkova 1961       | Balkan endemic             |
| N  | Taxon                                               | Locality                          | References                          | Chorotype              |
|----|-----------------------------------------------------|-----------------------------------|-------------------------------------|------------------------|
| 101| *Dorcadion sturmii* Frivaldszky von Frivald, 1837   | Kostenets                         | Minkova 1961                         | Balkan endemic         |
| 102| *Dorcadion tauricum tauricum* Walti, 1838           | Rila Mt.                          | Heyrovský 1931                       | East European          |
| 103| *Dorcadion pedestre pedestre* (Poda von Neuhaus, 1761) | Yundola                           | Samuelian 1998                       | Northeast Mediterranean |
| 104| *Neodorcadion bilineatum* (Gerimar, 1823)           | Kostenets                         | Heyrovský 1931                       | Northeast Mediterranean |
| 105| *Lamia textor* (Linnaeus, 1758)                     | Kostenets, Blagoevgrad, Harsovo    | Kantardjiewa-Minkova 1934, New records | Transpalaearctic       |
| 106| *Morimus asper funereus* Mulsant, 1862              | Rila Mt. Yundola                  | Heyrovský 1931, Samuelian 1998       | Northeast Mediterranean |
| 107| *Mesosa curculionoides* (Linnaeus, 1760)            | Rila Mt. Blagoevgrad               | Heyrovský 1931, Kantardjiewa-Minkova 1934, Rapuzzi and Georgiev 2007 | European-Iranian |
| 108| *Monochamus galloprovincialis pistor* (Gerimar, 1818) | Parangalitsa                      | Doychev et al. 2017                  | West Eurosiberian      |
| 109| *Monochamus sartor* (Fabricius, 1787)               | Parangalitsa, Kostenets            | Drenski 1933, Ganev 1985             | European               |
| 110| *Monochamus sutor sutor* (Linnaeus, 1758)           | Rila Mt. Yundola, Rila Monastery, Borovets, Ilina River | Heyrovský 1931, Samuelian 1998, Gradinarov et al. 2020, New record | West Eurosiberian      |
| 111| *Oberea erythrocephala erythrocephala* (Schrank, 1776) | Rila Monastery, Borovets           | Gradinarov et al. 2020               | West Palaearctic       |
| 112| *Phytoecia affinis affinis* (Harrer, 1784)          | Rila Mt. Rila Monastery            | Heyrovský 1931, Kantardjiewa-Minkova 1934, Bringmann 1998, Gradinarov et al. 2020 | European-Anatolian     |
| 113| *Phytoecia coerulescens coerulescens* (Scopoli, 1763) | Rila Mt.                          | Heyrovský 1931                       | West Palaearctic       |
| 114| *Phytoecia cylindrica* (Linnaeus, 1758)             | Rila Mt. Kostenets                 | Heyrovský 1931, Kantardjiewa-Minkova 1934 | Transpalaearctic      |
| 115| *Phytoecia geniculata orientalis* Kraatz, 1871      | Borovets                          | Migliaccio et al. 2007               | Balkan endemic         |
| 116| *Phytoecia icteria* (Schaller, 1783)                | Samokov                           | Heyrovský 1931, Kantardjiewa-Minkova 1934 | West Palaearctic       |
| 117| *Phytoecia nigricornis* (Fabricius, 1782)           | Rila Mt.                           | Heyrovský 1931, Kantardjiewa-Minkova 1934 | Eurosiberian           |
Three taxa were previously reported under synonymous names: before revision of Danilevsky (2021), *Stenurella bifasciata intermedia* was reported as *Stenurella bifasciata*; recently described *Purpuricenus kaehleri rossicus* is distributed in Central and partly South Europe, including Bulgaria (Danilevsky 2021). Danilevsky (2019) mentioned that, in his collection, all materials of *Leiopus nebulosus* from Russia and adjacent countries, including Bulgaria, belong to recently described *Leiopus linnei* (Wallin et al. 2009).

The established cerambycid taxa belong to 18 areographical categories separated in seven complexes (Table 2).

| No. | Taxon                                      | Locality        | References                                                                 | Chorotype               |
|-----|-------------------------------------------|-----------------|----------------------------------------------------------------------------|-------------------------|
| 118 | *Phytoecia virgula virgula* (Charpentier, 1825) | Rila Mt.        | Heyrovský 1931, Kantardjiewa-Minkova 1934                                 | Transpalaearctic        |
| 119 | *Pogonochoerus fasciculatus fasciculatus* (DeGeer, 1775) | Rila Mt. Borovets Yundola, Belmeken Dobarsko | Tschorbadjew 1927, Kantardjiewa-Minkova 1934, Doychev et al. 2017, **New record** | Transpalaearctic        |
| 120 | *Pogonochoerus hispidulus* (Piller & Mitterpacher, 1783) | Rila Mt. Yakoruda | Heyrovský 1931, Kantardjiewa-Minkova 1934, Bringmann and Dring 2001       | Euromediterranean       |
| 121 | *Saperda populnea* (Linnaeus, 1758)        | Rila Mt. Kostenets Samokov | Heyrovský 1931, Kantardjiewa-Minkova 1934, Georgiev et al. 2004           | Transholarctic          |
| 122 | *Saperda octopunctata* (Scopoli, 1772)     | Kostenets       | Kantardjiewa-Minkova 1934, Ganev 1986                                     | European-Anatolian      |
| 123 | *Saperda scalaris scalaris* (Linnaeus, 1758) | Rila Mt. Kostenets | Heyrovský 1931, Kantardjiewa-Minkova 1934, Ganev 1986                     | Euromediterranean       |
| 124 | *Saperda carcharias* (Linnaeus, 1758)      | Kostenets       | Ganev 1985                                                                 | Transpalaearctic        |
| 125 | *Stenostola ferrea ferrea* (Schrank, 1776)  | Kostenets       | Kantardjiewa-Minkova 1934                                                  | European-Anatolian      |
| 126 | *Tetrops praeustus praeustus* (Linnaeus, 1758) | Rila Mt.        | Heyrovský 1931                                                             | Transpalaearctic        |

Table 2.

Areogeographic characterisation of cerambycids in Rila Mt.

| Areogeographic categories and complexes | Number | Percentage |
|----------------------------------------|--------|------------|
| Holarctic complex                      | 4      | 3.2        |
| Transholarctic                         | 4      | 3.2        |
| Palaearctic complex                    | 30     | 23.8       |
| Transpalaearctic                       | 24     | 19.0       |
| West Palaearctic                       | 6      | 4.8        |
| Eurosiberian complex                   | 17     | 13.5       |
| Areographic categories and complexes | Number | Percentage |
|-------------------------------------|--------|------------|
| Eurosiberian                        | 10     | 7.9        |
| West Eurosiberian                   | 7      | 5.6        |
| **European-Iranoturanian complex**  | 9      | 7.1        |
| European-Iranoturanian              | 1      | 0.8        |
| European-Iranian                    | 7      | 5.5        |
| East European-Iranian               | 1      | 0.8        |
| **European complex**                | 47     | 37.3       |
| Euromediterranean                   | 9      | 7.1        |
| European-Anatolian                  | 20     | 15.9       |
| European                             | 15     | 11.9       |
| East European                        | 3      | 2.4        |
| **Mediterranean complex**           | 14     | 11.1       |
| Transmediterranean                   | 2      | 1.6        |
| North Mediterranean                  | 2      | 1.6        |
| East Mediterranean                   | 1      | 0.8        |
| Northeast Mediterranean              | 8      | 6.3        |
| Pontomediterranean                   | 1      | 0.8        |
| **Balkan endemic complex**           | 5      | 4.0        |
| Balkan endemics                      | 5      | 4.0        |
| **Total**                            | 126    | 100.0      |

The taxa from the European complex are dominant in Rila Mt. (37.3%), followed by those from Palaearctic (23.8%), Eurosiberian (13.5%) and Mediterranean (11.1%) complexes (Fig. 1).

**Discussion**

The number of cerambycid taxa found in Rila Mt. (126 species and subspecies) is closest to that of Vitosha Mt. (122 taxa) (Topalov 2018). It is comparable to the number of cerambicides in other studied mountains in Bulgaria: Western Rhodopes (161 taxa) (Georgiev et al. 2006), West Balkan Range (107 taxa) (Georgiev 2011, Gradinarov and Petrova 2019) and Strandzha (154 taxa) (Georgiev et al. 2018).

In this study, the taxa of the European complex occupy a dominant position. They are connected with deciduous forests, which cover most of the mountainous territory of Rila. The second place is taken by the species and subspecies belonging to Palaearctic complex. These more euribiont taxa with broad areas of distribution normally are better presented in the high mountains, because of the harsh climatic conditions there. The third and fourth positions take taxa belonging to Eurosiberian and Mediterranean complexes. The high territories, mostly covered by coniferous trees and shrubs, are favourable for
distribution of the Eurosiberian taxa. In the lower parts and along the rivers, conditions in Rila Mt. allow penetration of Mediterranean taxa. The refugial character of the region is underlined by the presence of five (4%) Balkan endemic cerambycids.

Similar aerographic characteristics of cerambycid fauna were established in Vitosha Mt. where European taxa (36.4%) take first place, followed by Palaeartic (20.6%), Eurosiberian (14.0%) and Mediterranean (12.4%) taxa (Topalov 2018). Vitosha with its elevation, oreographic patterns and vegetation is comparable to Rila Mt. Concerning the other two studied Mountains in Bulgaria - Strandzha (Georgiev et al. 2018) and Belasitsa (Georgiev et al. 2019), domination of European cerambycids was also established (33.1% and 38.2%, respectively), but the Mediterranean taxa take a greater share in both mountains (27.3% and 19.1%, respectively). In addition, European-Iranoturanian taxa are mostly represented in Strandzha Mt. (13.6%) compared to other mountains (7.2-11.1%). The level of Balkan and Bulgarian endemics is higher in Belasitsa Mt. – nine taxa (8.2%), followed by Rila Mt. – five taxa (4.0%), Strandzha Mt. – five taxa (3.3%) and Vitosha Mt. – two taxa (1.7%). Evidently, the conditions in Belasitsa Mt. and, especially, the distribution of relict forests of Castanea sativa, are the most suitable for occurrence of endemics there.

In conclusion, it should be noted that the finding of 126 taxa (approximately 45% of longhorn beetles in Bulgaria) indicates that this taxonomic group is not yet well-studied and about 50 species and subspecies are expected to be found in future investigations in Rila Mt.

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