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New and Interesting Records of Longhorn Beetles (Coleoptera: Cerambycidae) in Some Bulgarian Mountains

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Abstract: Longhorn beetles (Coleoptera: Cerambycidae) in Bulgarian Mountains were studied during the period 2000-2004. As a result, many species were collected, twenty-eight records of which belonging to 24 genera and 4 subfamilies (Lepturinae, Spondylidinae, Cerambycinae, and Lamiinae) are most interesting. Twenty-three cerambycids are new records for the Strandzha Mts., the Vitosha Mts., the Pirin Mts., the Lyulin Mts., the Sakar Mts., the Slavianka Mts., the Rila Mts., and the Balkan Range. Eleven longhorn beetles are local and very rare in Bulgaria. Nine species were reared from host plants.

Key words: Cerambycidae, new localities, rare species, host plants, Bulgaria

Introduction

Bulgarian longhorn beetles (Coleoptera: Cerambycidae) are relatively well studied. It could be noted, however, that although many investigations on this taxonomic group have been conducted (Heyrovsky 1931, Kantardjiewa-Minkova 1932, 1934, Angelov 1967, 1995, Ganev 1984, 1985, 1986, Doychev, Georgiev 2004, Migliaccio *et al.* 2004, etc.), there is insufficient knowledge about the regional distribution of cerambycids in the country and especially in the mountains.

This note announces data about new and interesting records of cerambycid species found in some Mountains of Bulgaria.

Material and Methods

The studies were conducted during the period 2000-2004 in the Strandzha Mts., the Vitosha Mts., the Pirin Mts., the Rila Mts., the Lyulin Mts., the Slavyanka Mts., and the Balkan Range. Longhorh beetles were collected on ground, flowers, host plants, and at lamp light. In addition, some species were obtained from damaged host plants. Cuttings containing cerambycid larvae and pupae were collected from stems and branches of forest trees and were reared in photoeclectors at room temperature.

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In the Result section, only original materials are presented. Known localities of the most local and rare longhorn beetles are pointed by literature data in the Discussion section.

Biological material is kept in the entomological collection of the Forest Research Institute in Sofia.

Results

In this study many longhorn beetles were collected from different mountains in Bulgaria. Among them, the following twenty-eight records from four subfamilies were the most interesting:

Lepturinae

Anastrangalia sanguinolenta (Linnaeus, 1761)
Material examined: 1 ex., Pirin Mts., Orelyak Reserve above the Breznitsa vill., 1300 m, 19.08.2004.

Anoplodera rufipes (Schaller, 1783)
Material examined: 1 ex., Lyulin Mts., opposite to the Vladaya vill., 800 m, 26.05.2004.

Leptura quadrifasciata Linnaeus, 1758
Material examined: 1 ex., Strandzha Mts., Arapya horn near Tsarevo, 80 m, 24.06.2003.

Stictoleptura erythroptera (Hagenbach, 1822)
Material examined: 1 ex., Strandzha Mts., Silkosia Reserve near the Balgari vill., 150 m, 27.06.2003.

Akimerus schaefferi (Laicharting, 1784)
Material examined: 1 ex., Strandzha Mts., Kondolovo vill., 300 m, on *Verbascum* sp. in mixed oak stands (*Quercus petraea* Liebl., *Q. frainetto* Ten., and *Q. cerris* L.), 24.06.2004.

Grammoptera abdominalis (Stephens, 1831)
Material examined: 1 ex., Vitosha Mts., above Knyazhevo, 1000 m, 27.05.2004.

Xylosteus bartoni Obenberger et Mařan, 1933
Material examined: 1 ex., Vitosha Mts., Bistrishko branishte, 1650 m, under the bark of dead *Picea abies* L. (Karst.) tree, 08.06.2004.

Xylosteus spinolae spinolae Frivaldszky, 1838
Material examined: 2 ex., Vitosha Mts., between Kopitoto and Zlatnite mostove localities, 1250 m, found as pupae in dried stem of *Corylus avellana* L., sample collection – 15.09.2004, adult emergence - 20.09.2004.

Spondylidinae

Arhopalus rusticus (Linnaeus, 1758)
Material examined: 1 ex., Strandzha Mts., Tsarevo, 80 m, 25.06.2003; 1 ex., Slavyanka Mts., above the Goleshevo vill., 1400 m, at lamp light in *Pinus nigra* Arn. stand, 15.08.2004.

Cerambycinae

Aromia moschata (Linnaeus, 1758)
Material examined: 1 ex., West Balkan Range, 1300 m, reared from a stem of

Salix caprea L., samples collection - 06.03.2003, emergence - 12.05.2004.

Cerambyx scopolii Füsslins, 1775

Material examined: 1 ex., Strandzha Mts., Silkosia Reserve near Balgari vill., 150 m, 27.07.2003.

Xylotrechus rusticus (Linnaeus, 1758)

Material examined: 1 ex., Strandzha Mts., Tsarevo, 80 m, 24.06.2004.

Glaphyra marmottani (Brisout, 1863)

Material examined: 1 ex., Central Balkan Range, Chamdzha Reserve, 25 km north-east of Karlovo, 570 m, on *Pinus nigra* Arn., 23.06.2004.

Molorchus minor (Linnaeus, 1758)

Material examined: 1 ex., Pirin Mts., Bosovo Bardo above Bansko vill., 1150 m, 16.06.2004.

Obrium cantharinum (Linnaeus, 1767)

Material examined: 1 ex., Lyulin Mts., above Gorna Bania, 900 m, reared from stem bark of *Populus tremula* L., samples collection - 17.04.2004, dead adult in a photoeclector - 08.11.2004.

Obrium brunneum (Fabricius, 1792)

Material examined: 1 ex., Rila Mts., Rila Monastery, 1400 m, 07.07.2004.

Callimoxys gracilis (Brullé, 1832)

Material examined: 1 ex., Sakar Mts., Izvorovo vill., 400 m, on leaves of *Quercus* sp., 29.04.2004.

Lamiinae

Leiopus nebulosus (Linnaeus, 1758)

Material examined: 1 ex., West Balkan Range, Botevgrad, 900 m, reared from a stem of *Castanea sativa* Mill., samples collection - 05.02.2000, emergence - 24.03.2001.

Agapanthia osmanlis Reiche et Saulcy, 1858

Material examined: 1 ex., Strandzha Mts., Bozhura tourist complex near Sredets, 250 m, on *Tragopogon* sp., 02.06.2004.

Morinus asper funereus (Mulsant, 1863)

Material examined: 1 ex., West Balkan Range, Gorni Lom vill., 500 m, reared from stem of dead *Populus* x euramericana Dode (Guinier), samples collection - 06.04.2003, emergence - 18.07.2003; 1 ex., Strandzha Mts., Golyamo Krushovo vill., 150 m, 02.06.2004.

Monochamus sutor (Linnaeus, 1758)

Material examined: 1 ex., Vitosha Mts., Aleko Hut, 1840 m, 06.07.2004.

Oxylia duponcheli (Brullé, 1832)

Material examined: 1 ex., Strandzha Mts., Velika vill., 100 m, on *Echium italicum* L., 23.06.2004.

Phytoecia pustulata (Schrank, 1776)

Material examined: 1 ex., Strandzha Mts., Bistrets vill., 17 km south-west of Sredets, 150 m, 01.06.2004; Bozhura tourist complex near Sredets, 250 m, 02.06.2004.

Pilemia serriventris (Holzschuh, 1984)

Material examined: 1 ex., Strandzha Mts., Bistrets vill., 17 km south-west of

Sredets,150 m, on *Anchusa barrelieri* (Hll.) Vitm., 01.06.2004.

Pogonocherus hispidulus (Piller et Mitterpacher, 1783)

Material examined: 4 ex., West Balkan Range, Botevgrad, 900 m, reared from stem of *Castanea sativa* Mill., samples collection - 05.02.2000, emergence - 25.03.2001.

Pogonocherus hispidus (Linnaeus, 1758)

Material examined: 1 ex., Vitosha Mts., Boyanski vodopad, 1400 m, on *Taxus baccata* L., 24.09.2004.

Pogonocherus perroudi Mulsant, 1839

Material examined: 2 ex., Sakar Mts., between Cherepovo and Balgarska poliana vill., 550 m, reared from branches of *Pinus nigra* Arn., samples collection - 29.04.2004, emergence - 06.07-24.08.2004; 2 ex., between Svilengrad and Topolovgrad near the Pastrogor vill., 200 m, reared from *Pinus nigra* Arn. branches of 13-18 mm diameter, samples collection - 30.04.2004, emergence: 1 ex. - before 07.09.2004 (dead adult in a photoeclector), 1 ex. - 07-23.09.2004.

Saperda scalaris (Linnaeus, 1758)

Material examined: 1 ex., West Balkan Range, Gorni Lom vill., 600 m, reared from dead branch of *Populus tremula* L., samples collection - 12.07.2001, emergence - 04.08.2001.

Eleven cerambycids (*L. quadrifasciata*, *S. erythroptera*, *A. schaefferi*, *A. rusticus*, *C. scopolii*, *X. rusticus*, *A. osmanlis*, *M. asper funereus*, *O. duponcheli*, *P. pustulata*, and *P. serriventris*) were found as new for the Strandzha Mts. Three species (*G. abdominalis*, *X. bartoni*, and *M. sutor*) are new for the Vitosha Mts. *A. sanguinolenta* and *M. minor* are new for the Pirin Mts., *A. rufipes* and *O. cantharinum* - for the Lyulin Mts., *C. gracilis* and *P. perroudi* - for the Sakar Mts., and *A. moschata* and *G. marmottani* - for the Balkan Range. The remaining cerambycids (*A. rusticus* and *O. brunneum*) are new for the Slavyanka Mts. and the Rila Mts., respectively.

Some of the cerambycids found in this study are not well known in Bulgaria. The localities of the rarest species are pointed in Fig. 1.

Discussion

Eleven cerambycid species have been reported from a single or a few localities in Bulgaria (Table 1). Some of them are local and very rare and, therefore, their records in this study are interesting.

The European *A. schaefferi* occurs in old oak (*Quercus* spp.) stands. According to Sama (2002), it is connected with dead or dying roots or large stumps and everywhere is extremely rare with declining populations. In the check-list of Cerambycidae for some Balkan countries Heyrovský (1967) included *A. schaefferi* as present in Bulgaria. According to Angelov (1995), the species occurs in low parts of the country but no concrete localities were listed by the author. Bense (1995) pointed one locality of *A. schaefferi* at Black sea coast in Bulgaria. No other information about Bulgarian records of the species has been found in the entomological literature.

Xylosteus bartoni is distributed in South Bulgaria and Macedonia (Bense 1995). In Bulgaria it is reported from the Rila Mts. and the Rhodopes (Table 1). The present finding of *X. bartoni* in the Vitosha Mts. enlarges its area to the north. Another species of the genus, *X. spinolae spinolae* is reported from the Vitosha Mts. without information about the locality.

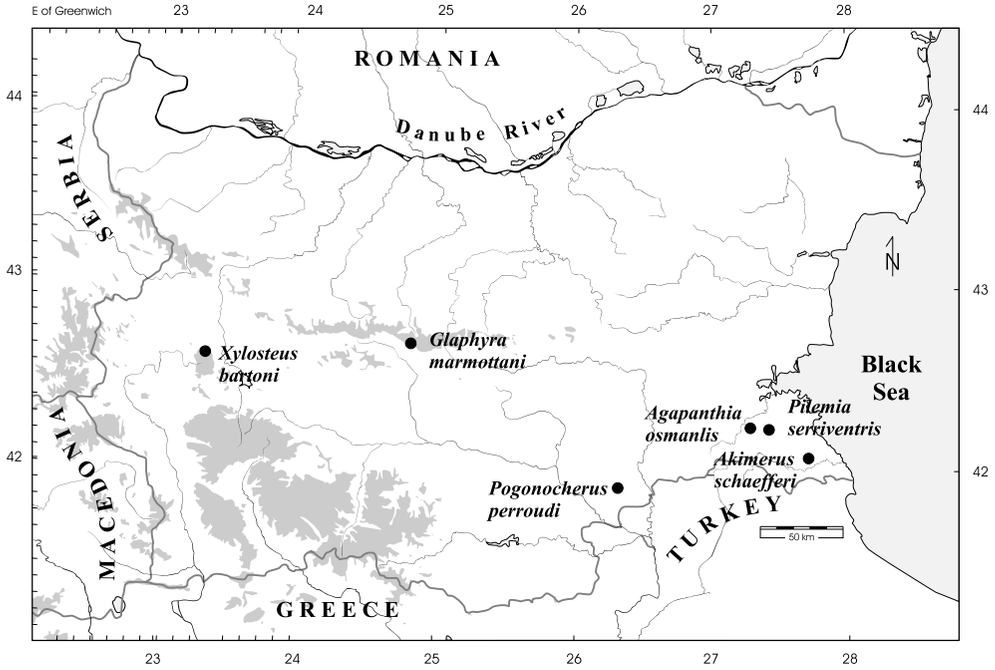

Fig. 1. New localities of the rarest species in Bulgaria.

Glaphyra marmottani develops in dry twigs and thin branches of *Pinus* spp. in Europe (BENSE 1995). In Bulgaria it is reported only once as reared from branches of *Pinus sylvestris* L. (DOYCHEV, GEORGIEV 2004).

Obrium cantharinum develops predominantly in aspen (SAMA 2002). In 2004, another specimen was reared from a branch of *Populus alba* L. in the region of Sofia (GEORGIEV, unpublished).

Agapanthia osmanlis occurs in Romania, Bulgaria, Hungary, Turkey and Syria (HOSKOVEC, REJZEK 2005). In Bulgaria it has been reported from the Black Sea coast

Table 1. Known localities of some cerambycids in Bulgaria.

Species	Localities	Author
G. abdominalis	Sredna gora Mts., Rila Mts., Sliven (Eastern Balkan Range)	KANTARDJIEWA-MINKOVA (1932); ANGELOV (1995)
A. schaefferi	Black sea coast	BENSE (1995)
X. bartoni	Borovets, Parangalitsa (Rila Mts.), Zdravets hut (Western Rhodopes)	ANGELOV (1995)
X. spinolae	Tracian lowland, Vitosha Mts., Osogovo Mts.	ANGELOV (1995)
G. marmottani	Bachkovo vill. (Western Rhodopes)	DOYCHEV, GEORGIEV (2004)
A. osmanlis	Rezovo, Ahtopol	BRINGMANN (1995), SIMANDL (2002)
M. sutor	Rila Mt., Selishte (Western Rhodopes), Yundola	HEYROVSKÝ (1967), ANGELOV (1967), SAMUELIAN (1998)
O. duponcheli	Straldzhalsko blato, Petrich, Asenovgrad, Kresna gorge	KANTARDJIEWA-MINKOVA (1934), ANGELOV (1967), BRINGMANN, DÖRING (2001)
P. serriventris	Harmanli, Lyubimets (Eastern Rhodopes)	HOLZSCHUH (1984), HOSKOVEC, REJZEK (2005)
P. hispidus	Vitosha Mts., Klisura (Central Balkan Range)	KANTARDJIEWA-MINKOVA (1934)
P. perroudi	Rozhen Monastery (Pirin Mts.)	BRINGMANN, DÖRING (2001)

only (BRINGMANN 1995, SIMANDL 2002). *A. osmanlis* is connected with Compositae family, but *Tragopogon* sp. has not been known among its host plants.

Monochamus sutor is connected most probably with spruce in the Vitosha Mts. It is known that it develops in Central Europe predominantly in *Picea*, and in Scandinavia – also often in *Pinus* (BENSE 1995). Recently another species of the genus, *M. sartor* (F.), has been recorded in the Bistrishko branishte biosphere reserve in the Vitosha Mts. (MIGLIACCIO *et al.* 2004).

Oxylia duponcheli is an endemic species in the South Balkan Peninsula where the larvae develop in roots of *Echium italicum* (HOSKOVEC, REJZEK 2005). According to these authors, it is quite common in Albania, Bulgaria and Greece. As Bulgaria is concerned, however, only four localities of the species pointed in three publications have been known until the present studies (Table 1).

The Bulgarian endemic species *Pilemia serriventris* has been known only from two localities in the Eastern Rhodopes (Table 1). The present record in the Strandzha Mts. indicates that it could be distributed in North Turkey as well.

Pogonocherus hispidus is distributed in Europe, the Caucasus, Russia, the Near East and North Africa (HOSKOVEC, REJZEK 2005). It is connected with extremely wide range of broadleaf trees and shrubs (BENSE 1995). In this study the species was found most probably accidentally on *Taxus baccata*.

The Mediterranean *P. perroudi* develops in dying or dead pine (*Pinus* spp.) branches and twigs (BENSE 1995). The larvae feed under bark and pupate in the wood. Adults overwinter in pupal cells and emerge in May-August. In Bulgaria *P. perroudi* has been reared from *Pinus nigra* branches of 35-50 mm diameter (BRINGMANN, DÖRING 2001). Another species of the genus, *P. hispidulus*, has never been found previously in connection with *C. sativa* in Bulgaria.

The polyphagous *L. nebulosus* is widely distributed in Bulgaria from the Black Sea coast to 2000-2200 m altitude (HEYROVSKY 1931, KANTARDJIEWA-MINKOVA 1934, ANGELOV 1967, GANEV 1984, 1985, 1986). In Bulgaria it was established for the first time to develop in *C. sativa*. In 1997 the species was reared from branches of hybrid poplar, *Populus* x euramericana (DODE) Guinier in Sofia (GEORGIEV, unpublished).

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Нови и интересни находки на церамбициди (Coleoptera: Cerambycidae) в някои планини на България

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(Резюме)

През периода 2000-2004 г. са проведени проучвания върху церамбицидната фауна (Coleoptera: Cerambycidae) в някои планини на България. Събран е обилен материал, сред който най-голям интерес представляват 28 вида, принадлежащи към 24 рода и 4 подсемейства (Lepturinae, Spondylidinae, Cerambycinae и Lamiinae). Двадесет и три вида са нови за Странджа, Витоша, Пирин, Люлин, Сакар, Славянка, Рила и Стара планина. Единадесет вида церамбициди са много редки в България. Девет вида са изведени от стъбла и клони на хранителни растения.