

## New data on longhorn beetles for the territories of Serbia and Montenegro (Coleoptera, Cerambycidae) with the detailed description of *Callimoxys gracilis* (Brullé 1832)

Ivan Gnjatović, Vladimir Žikić

University of Niš, Faculty of Sciences and Mathematics, Department of Biology and Ecology, Višegradaska 33, 18000 Niš, Serbia

\* E-mail: ivangnjatovic81@gmail.com

### Abstract:

Gnjatović, I., Žikić, V.: New data on longhorn beetles for the territories of Serbia and Montenegro (Coleoptera, Cerambycidae) with the detailed description of *Callimoxys gracilis* (Brullé 1832), *Biologica Nyssana*, 2 (2), December 2011: 35-38.

Investigated sample of longhorn beetles discovers 24 species from 20 genera of 11 tribes from three subfamilies. The species *Vadonia moesiaca* Daniel 1891 appears to be a Balkan endemic. Also, very rare species *Callimoxys gracilis* (Brullé 1832) is recorded for the second time for the Serbian fauna. The examined material was collected during the period of 2010-2011 on the territories of Serbia and Montenegro.

**Key words:** Cerambycidae, *Callimoxys gracilis*, Sićevo gorge, *Torilis ucranica*

## Introduction

The fauna of Cerambycidae is more or less well investigated on the territory of Serbia, starting from Bobić (1891) over the detailed monograph of the Yugoslav cerambycids in three volumes by Mikšić et al. (1971, 1973, 1985) to the last publication of Ilić (2005). The data from the recent studies shows that there are 259 species of longhorn beetles in Serbia (Pil & Stojanović, 2009) and 142 species for the territory of Montenegro (Čurčić et al., 2003). The genus *Callimoxys* belongs to the subfamily: Cerambycinae and the tribe: Stenopterini comprising only two species: the blood-necked longhorn beetle, *C. sanguinicollis* (Olivier, 1795) inhabiting North America and *C. gracilis* (Brullé, 1832) which occurs in Europe.

## Materials and methods

All specimens were collected during 2010-2011 on the territories of Serbia and Montenegro. The sampling of longhorn beetles has been performed mostly by using an entomological net by sweeping over plants or picking the specimens from the ground or plants by hand. The total number of collected and examined specimens is 56. The specimens of the species *Callimoxys gracilis* (Brullé, 1832), one female and three males, were found on the plant *Torilis ucranica* Spreng 1820, Apiales: Apiaceae. This species had been recorded previously only once for the fauna of Serbia. There has been no data for the territory of Montenegro yet. Identification of the sampled specimens was performed using adequate determination keys: Mikšić & Georgijević (1973), and Bense (1995). Additional confirmation was performed by checking the data of the fauna of longhorn beetles

for the territory of Serbia and Montenegro, and also by comparing with the literature data of Althoff & Danilevsky (1997), Ilić (2005) and Gnjatović & Žikić (2010).

## Results

### The list of collected specimens:

#### Subfamily Cerambycinae

##### Tribe Clytini

*Chlorophorus hungaricus* Seidlitz 1791 - 2♂, Serbia: Fruška Gora mt., 01.06.2011, Leg. P. Jakšić.

##### Tribe Stenopterini

*Callimus angulatus* (Schrank 1789) - 2♂, Montenegro: Bečići, 23.04.2011, Leg. V. Žikić.

*Callimoxys gracilis* (Brullé, 1832) - 1♀, 3♂, Serbia, Niš, Sićevo gorge, 15.05.2011., Leg. V. Žikić.

##### Tribe Purpuricenini

*Purpuricenus budensis* (Goeze 1783) - 1♀, Serbia: Niš, Sićevačka gorge, 19.07.2011, Leg. V. Žikić.

#### Subfamily Lamiinae

##### Tribe Acanthocinini

*Exocentrus punctipennis* Mulsant & Guillebeau 1856, - 1♂, Serbia: Niš, 15.07.2011, Leg. V. Žikić.

##### Tribe Agapanthiini

*Calamobius filum* (Rossi 1790) - 2♀, 2♂, Serbia: Bovan lake, 13.06.2011, Leg. V. Žikić.

*Agapanthia kirby* (Gyllenhal 1817) - 1♀, Serbia: Miljkovačka gorge, 08.06.2011, Leg. I. Simonović; 2♂, Montenegro: Budva, 25.05.2011, Leg. V. Žikić.

*Agapanthia intermedia* Ganglbauer 1884 - 1♂, Montenegro: Budva, 25.05.2011, Leg. V. Žikić.

*Agapanthia dahli* (Richter 1821) - 1♂, Montenegro: Bečići, 18.05.2011, Leg. V. Žikić.

##### Tribe Lamiini

*Leiopus nebulosus* (Linnaeus 1758) - 1♂, Serbia: Niš, Popovac, 22.05.2011, Leg. V. Žikić.

*Lamia textor* (Linnaeus 1758) - 1♀, Serbia: Boljevac, Progor, 06.07.2011, Leg. P. Jakšić.

##### Tribe Obereini

*Oberea (Amaurostoma) erythrocephala* (Schrank 1776) - 1♀, Montenegro: Budva, 25.05.2011, Leg. V. Žikić.

##### Tribe Phytoeciini

*Musaria affinis* (Harrer 1784) - 1♀, Serbia: Niš, 02.07.2011, Leg. I. Gnjatović.

*Phytoecia caerulea* (Scopoli 1772) - 1♀, Montenegro: Bečići, 25.05.2011, Leg. V. Žikić.

#### Tribe Saperdini

*Saperda scalaris* (Linnaeus 1758) - 1♀, 1♂, Serbia: Niš, Sićevačka gorge, 31.05.2011, Leg. V. Žikić.

#### Subfamily Lepturinae

##### Tribe Lepturini

*Alosterna tabacicolor* (De Geer 1775) - 1♀, 1♂, Serbia: Niš, Gornji Matejevac, Sv. Jovan, 03.06.2010. Leg. I. Gnjatović.

*Paracorymbia pallens* (Brulle 1832) - 1♀, 3♂, Serbia: Niš, Gornji Matejevac, Sv. Jovan, 03.06.2010. Leg. I. Gnjatović.

*Stictopleura scutellata* (Fabricius 1781) - 1♀, Serbia: Kopaonik mt., 25.08.2010, Leg. V. Žikić.

*Stenurella melanura* (Linnaeus 1758) - 2♀, 2♂, Serbia: Bosilegrad, Dukat mt., 07.08.2010, Leg. V. Žikić.

*Stenurella nigra* (Linnaeus 1758) - 5♀, 4♂, Serbia: Niš, Gornji Matejevac, Sv. Jovan, 03.06.2010. Leg. I. Gnjatović.

*Stenurella septempunctata* (Fabricius 1792) - 1♀, Serbia: Miljkovačka gorge, 08.06.2011. Leg. I. Simonović.

*Vadonia moesiaca* Daniel 1891 - 1♀, Serbia: Niš, Sićevačka gorge, 31.05.2010, Leg. V. Žikić.

#### Tribe Rhagiini

*Gaurotes (Carilia) virginea* (Linnaeus 1758) - 3♀, 4♂, Serbia: Kopaonik mt., 27.08.2010. Leg. V. Žikić.

*Pachyta quadrimaculata* (Linnaeus 1758) - 1♀, Serbia: Kopaonik mt., Metode, 20.07.2010, Leg. S. Stanković.

## Discussion

Identified taxa of the specimens which are listed here belong to the three subfamilies out of seven known from the fauna of Serbia and Montenegro, and out of eight from the fauna of Europe: Cerambycinae, Lepturinae and Lamiinae. Comparing the taxonomical results for each noted subfamily, according to available data from the representative literature (Mikšić & Georgijević, 1973; Ilić, 2005), the

Faunaeuropea database (Audisio, 2005) and our results, we give here the total number of the recorded species: 65 from the subfamily Cerambycinae, 55 from Lepturinae and 77 from Lamiinae.

We have chosen the species *Callimoxys gracilis* here to describe in details because of the suspicion on a new species. We were not able to find the original description of this species to compare with our specimens, therefore in this work we are not declaring this particular taxa as a new species for science.

The first record of *Callimoxys gracilis* (Brullé, 1832) for Serbia was mentioned in the check-list of longhorn beetles by Althoff & Danilevsky (1997) which encompass the whole territory of Europe. There was no detailed information about habitat of this species or any other relevant data. In Sićevo gorge, Niš, Serbia, we have found the adults of this particular longhorn species on the blossoms of *Torilis ucranica* feeding on it. This piece of information is new about its biology.

**Description:**

***Callimoxys gracilis* (Brullé, 1832) (Fig. 1)**

Original name: *Stenopterus gracilis* Brullé, 1832

Material examined: 1♀, 3♂, Niš, Sićevo gorge, 15.05.2011. Leg. I. Gnjatović.

The body is black, slightly greenish or bluish with metallic shine. Length is about 7 (males) to 13 mm (female). Head: semi-prognate. Antennae: do not reach the elytra apex, quite longer in males. Eyes: large, with small and fine ommatidia (diurnal). Pronotum is greenish to bluish in males, in female red, with black frontal and posterior margins (Fig. 1). Elytra are broad at the base, fine rasp punctuated, slightly narrow at the apex. Hind wings: partly exposed reaching the apex of abdomen. Lateral and ventral parts of both, thorax and abdomen, covered with tiny hairs. Legs: all femora are slightly swollen. Outer edges of hind tibia serrate (the most important taxonomic characteristic of the genus *Callimoxys*).

Biology: adults appear from April to June. Development is inadequately known. Larvae have been found in dry branches of broadleaf trees: *Paliurus*, *Prunus*, *Quercus* (Švacha & Danilevsky, 1987).

Locality: Sićevo gorge, 15 km eastern of Niš, Serbia. Territory under protection by the Serbian Government acts as a natural resource of great importance (Trajković & Branković, 2007). Substrate is limestone, important refuge of the Arcto – Tertiary flora during the last Ice Age.

Distribution: Croatia (Slavonia), northern Bosnia and Herzegovina, and Montenegro (Mikšić & Georgijević, 1973), as well in Macedonia and Romania, (Ilić, 2005) and Bulgaria, (Georgiev et al., 2005; Ilić, 2005).



**Figure 1.** *Callimoxys gracilis* (Brullé 1832), female (left) and male (right)

## Conclusion

Twenty four species of longhorn beetles, belonging to the three subfamilies were listed: Cerambycinae (4), Lepturinae (9) and Lamiinae (11). The number of identified species in Serbia is 18 and for the territory of Montenegro it is six species. By analyzing the available literature, we deliver five species marked as rare: *Chlorophorus hungaricus* Seidlitz 1791, *Exocentrus punctipennis* Mulsant & Guillebeau 1856, *Lamia textor* (Linnaeus, 1758), *Paracorymbia pallens* (Brullé, 1832) (Ilić, 2005) and *Callimoxys gracilis* (Brullé, 1832) where we gave detailed description. The species *Vadonia moesiaca* Daniel 1891 belongs to the endemics of The Balkan Peninsula.

**Acknowledgements.** The authors wish to express their sincere thankfulness to Saša Stanković, Ivan Simonović and dr Predrag Jakšić for the loan of specimens. For the present work the authors were supported by the Ministry of Education and Science of the Republic of Serbia (Grant No. 43001).

## References

- Audisio, P. 2005: Fauna Europaea: Cerambycidae. u: Sama G. (ur.) Fauna Europaea: Coleoptera 2. Fauna Europaea, version 1.2, <http://www.faunaeur.org>
- Althoff, J., Danilevsky, M., 1997: A check-list of longicorn beetles (Coleoptera, Cerambycidae) of Europe. Slovensko entomološko društvo Štefana Michielija, Ljubljana, 64 p.
- Bense, U., 1995: Longhorn Beetles. Illustrated Key to the Cerambycidae and Vesperidae of Europe. Margraf Verlag, Weikersheim, 512 p.
- Ćurčić, S. B., Brajković, M. M., Tomić, V. T., Mihajlova, B., 2003: Contribution to the knowledge of longicorn beetles (Cerambycidae, Coleoptera) from Serbia, Montenegro, the Republic of Macedonia and Greece. Arch. Biol. Sci., Belgrade, 55(1-2): 33-38.
- Georgiev, G., Simov, N., Stojadinova, A., Doychev, D., 2005: New and Interesting Records of Longhorn Beetles (Coleoptera, Cerambycidae) in Some Bulgarian Mountains. Acta Zoologica Bulgarica, 57(2): 131-138.
- Gnjatović, I., Žikić, V., 2010: Cerambycids of Southeast Serbia (Coleoptera, Cerambycidae). Biologica Nyssana, Niš, 1(1-2): 111-115.
- Ilić, N., 2005: Stržibube Srbije (Coleoptera, Cerambycidae) – Faunistički pregled. Autorsko izdanje, Beograd, 179 p.
- Mikšić, R., Georgijević, E., 1973: Cerambycidae Jugoslavije, 2. deo. Akademija nauka i umjetnosti Bosne i Hercegovine, Sarajevo, 153 p.
- Pil, N., Stojanović, D., 2009: *Teophilea subcylindricollis* Hladil, 1988 A New Longhorn Beetle (Coleoptera, Cerambycidae) For Serbian Fauna, Acta Entomologica Serbica, 14(1): 125-128.
- Švácha, P., Danilevsky, M., 1987: Cerambycoid Larvae of Europe and Soviet Union (Coleoptera, Cerambycoidea). Part II. Acta Universitatis Carolinae – Biologica 31, Univerzita Karlova, (3-4): 121-284.
- Trajković, S., Branković, S., 2007: Sićevo and Jelašnica Gorges Environment Status Monitoring. Institute for Nature Conservation of Serbia, Faculty of Civil Engineering and Architecture, Niš, 191 p.