

GRAMMOPTERA ABDOMINALIS (STEPHENS, 1831) (COLEOPTERA: CERAMBYCIDAE) - LONGHORN BEETLE SPECIES NEW FOR LITHUANIAN FAUNA

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Introduction

Grammoptera Dejean, 1835 is a relatively small Holarctic genus of longhorn beetles (*Cerambycidae*), which is traditionally included to the tribe *Lepturini* within the subfamily *Lepturinae* (Danilevsky & Smetana, 2010; Danilvsky, 2019; Bezark, 2019). The genus is comprised of six Nearctic and 23 Palearctic species and only four occur in Europe (Bezark, 2019; Danilevsky, 2019). Till now only a single species – *Grammoptera ruficornis* (Fabricius, 1781) has been known in Lithuania and two species were noted as expected (Tamutis *et al.*, 2011).

We present information about the second species of the genus found in Lithuania, *Grammoptera abdominalis* (Stephens, 1831) = *variegata* (Germar, 1824).

Specifics of Lithuanian finding of *Grammoptera abdominalis*

One specimen (female) of *Grammoptera abdominalis* was accidentally collected in the course of excursion, in mixed coniferous and deciduous forest (Kleboniškių miškas f.), in vicinity of Kaunas town: 54.940656 N, 23.922569 E. The specimen was observed at the day time, having crawled on the herbal vegetation on 12 May, 2019, by K. Martinaitis and identified by V. Tamutis. The area of this discovery is covered by old (more than 100 years) pines (*Pinus sylvestris*) with an admixture of old *Quercus robur*, undergrown by *Corylus avellana*, *Alnus incana*, *Padus avium*, *Picea abies*, *Acer platanoides*, *Lonicera xylosteum*.

The specimen was identified according the keys proposed by Harde (1966), Bily and Mehl (1989), and it is deposited in the entomological collections of Kaunas Tadas Ivanauskas Museum of Zoology in Lithuania.

Information about the species and discussion

Grammoptera abdominalis is quite similar to *G. ruficornis*, especially to its melanistic aberration, however slightly differs by coloration of legs and antennae, also by the length of the second antennal segment and larger body size (Harde, 1966; Bily & Mehl, 1989). *G. abdominalis* has an uncoloured black antennae with a distinctly shorter (only as long as wide) second antennal segment compared to that of *G. ruficornis* (Bily & Mehl, 1989; Danilevsky 2014). The body length of our collected specimen is about 9 mm; the body is black, with exception of red coloured basal parts of femurs of all pairs

of legs and last abdominal segments (Fig. 1).



Fig. 1. The specimen (female) of *Grammoptera abdominalis* (Stephens, 1831) observed in Kleboniškio miškas, vicinity of Kaunas (photo in nature by K. Martinaitis (a) and R. Ferenc (b))

Grammoptera abdominalis is regarded as rare and insufficiently known species in Europe, especially in northern part (Bily & Mehl, 1989; Burakowski *et al.*, 1990; Vitali, 2018); it is included in the European red list of saproxylic beetles (Cálix *et al.*, 2018). However this species has comparatively wide distribution in Western Europe. The distribution range extends from south-western Iberia, Great Britain, Ireland in the west, to Krasnodar region (Russia) in the East; its northern border goes throughout Denmark, Poland, Kaliningrad region (Russia), Belarus and Ukraine (Bily & Mehl, 1989; Burakowski *et al.*, 1990; Aleksandrowicz & Tsinkewich, 2006; Alekseev, 2007; Danilevsky, 2014, 2019). This species also occurs in Caucasus region, Iran and Turkey (Danilevsky, 2014, 2019). Our record is the northernmost currently known record of this species.

The life cycle of this species is not completely known. According to Demelt (1966), the larvae of this species develop in dead thin branches with a diameter of 2–5 cm, infected by white rot fungus. Švacha (1987) specified that dead branches of deciduous trees infested by *Vuilleminia comedens* are most appropriate for development of larvae of this species. *Quercus*, *Aesculus*, *Corylus*, rarely other deciduous trees are noted as

host plants of this species (Švacha, 1989; Ehnström & Axelsson, 2002; Danilevsky, 2014; Vitali, 2018). The larvae hibernate in prepupal stage; pupate in spring under the bark or in the wood (Švacha, 1989; Sláma, 1998). The life cycle lasts two (Švacha, 1989; Sláma, 1998) or one year (Burakowski *et al.*, 1990). Young adults emerge in late spring or early summer; they have diurnal activity, are anthophagous, especially on *Crataegus*, *Sorbus*, *Cornus* (Sláma, 1998; Burakowski *et al.*, 1990). Potentially this species is distributed in Lithuania much more widely, but due its cryptic, acrodendric life style the observation of this species is difficult.

References

- Aleksandrowicz O., Tsinkewich V. 2006. Aktualny stan poznania chrząszczy (Insecta: Coleoptera) białoruskiej części Puszczy Białowieskiej [Present state of studies of the beetle's fauna (Insecta: Coleoptera) in the Belorussian part of Białowieża Primeval Forest]. *Nauka – Przyroda – Człowiek. Konferencja Jubileuszowa z okazji 85-lecia Białowieskiego Parku Narodowego. Białowieża 9-10 czerwca 2006* [Science-Nature-Man, Białowieża National Park's 85 Anniversary Celebration Conference, 9–10 July, 2006]: 83–103.
- Alekseev V. 2007. Longhorn beetles of Kaliningrad Region. *Acta Biologica Iniversitatis Daugavpilensis* 7(1): 37–62.
- Bezark L. G. 2019. *Check list of Oxypeltidae, Vesperidae, Disteniidae and Cerambycidae, (Coleoptera) of the Western Hemisphere*. 2019 Edition (updated through 31 December 2018). Available at: <http://bezbycids.com/byciddb/checklists/WestHemiCerambycidae2019.pdf> (accessed 06.10.2019)
- Bíly B., Mehl O. 1989. *Longhorn Beetles (Coleoptera, Cerambycidae) of Fennoscandia and Denmark*. (*Fauna Entomologica Scandinavica* 22) E.J. Brill/Scandinavian Science Press Ltd., Leiden, New York, København, Köln. 203 p.
- Burakowski B., Mroczkowski M., Stefanska J. 1990. *Chrząszcze – Coleoptera. Cerambycidae i Bruchidae. Katalog Fauny Polski, Volume: XXIII, Issue: 15*. [Catalogue of Polish fauna, 23 Vol. 15: Beetles – Coleoptera. Cerambycidae and Bruchidae]. Państwowe Wydawnictwo Naukowe, Warszawa. 312 p.
- Cálix M., Alexander K. N. A., Nieto A., Dodelin B., Soldati F., Telnov D., Vazquez-Albalade X., Aleksandrowicz O., Audisio P., Istrate P., Jansson N., Legakis A., Liberto A., Makris C., Merkl O., Mugerwa Pettersson R., Schlaghamersky J., Bologna M. A., Brustel H., Buse J., Novák V., Purchart L. 2018. *European Red List of Saproxylic Beetles*. Brussels, Belgium: IUCN.
- Danilevsky M. L., Smetana A. 2010. Subfamilies Lepturinae to Lamiinae (without Apatophyseinae and Dorcadionini). In: Löbl I., Smetana A. (ed.), *Catalogue of Palaearctic Coleoptera, Vol. 6*. Apollo Books, Senstrup, pp. 95–137.
- [Danilevsky M.L.] Данилевский М.Л. 2014. *Жуки – усачи (Coleoptera, Cerambycoidea) России и соседних стран. Часть 1* [Longhorn beetles (Coleoptera, Cerambycidae) of Russia and neighbour countries. Part I]. Москва, ВИИК. 522с.
- Danilevsky M. L. 2019. *Catalogue of Palaearctic Cerambycoidea*. (Updated 09.04.2019). Available at: <http://www.cerambycidae.net/catalog.pdf> (accessed 21.10.2019)

- Demelt C. 1966. *Die Tierwelt Deutschlands. II. Bockkäfer oder Cerambycidae.* [Fauna of Germany. II. Longhorn beetles or Cerambycidae]. VEB Fischer, Jena. 116 pp.
- Ehnström B., Axelsson R. 2002. *Insekts gnag I bark och ved* [Insects gnaw bark and wood]. SLU, ArtDatabanken, Uppsala. 512 p.
- Harde K.W. . 1966. 87. Familie: Cerambycidae, Bockkäfer. In: Freude, H. Harde, K.W. & Lohse G.A. (Eds.), *Die Käfer Mitteleuropas Band 9* [The beetles of Middle Europe, Vol. 9]. Goecke & Evers, Krefeld, Germany, pp. 7–94.
- Sláma M.E.F. 1998. *Tesaříkovití – Cerambycidae České republiky a Slovenské republiky (Brouci – Coleoptera)* [Longhorn beetles – Cerambycidae of Czech and Slovakia]. Milan Sláma, Khranice. 383 p.
- Švacha P. 1989. In Švacha P. & Danilevsky M.L. Cerambycoid larvae of Europe and Soviet Union (Coleoptera, Ceamrambycoidea). Part III. *Acta Universitatis Carolinae – Biologica* 32 [1988] (1-2): 1–205.
- Tamutis V., Tamutė B. & Ferenca R. 2011. A Catalogue of Lithuanian beetles (Insecta: Coleoptera). *ZooKeys* 121: 1–494.
- Vitali F. 2018. *Atlas of the Insects of the Grand –Duchy of Luxembourg: Coleoptera, Cerambycidae.* Ferrantia 79. Musée d'histoire naturelle, Luxenbourg. 208 p.

***Grammoptera abdominalis* (Stephens, 1831) (Coleoptera: Cerambycidae) – nauja Lietuvos faunos ūsuočių rūšis**

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Santrauka

Publikacijoje pateikiami duomenys apie naują Lietuvos faunos ūsuočių rūšį – ažuolinį karnadirį (*Grammoptera abdominalis*), rastą Kaune, Klebonišchio miške. Tai pat straipsnyje apžvelgiami šios rūšies morfologijos, paplitimo ir biologijos ypatumai.

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