INTERESTING FINDINGS OF BEETLE (COLEOPTERA) SPECIES IN LITHUANIA IN 2012–2016

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Introduction

Coleoptera is one of the biggest and best studied orders of insects in Lithuania. The most comprehensive list of Lithuanian Coleoptera containing 3597 species of beetles was published by Tamutis *et al*. (2011). Every year, numbers of articles presenting new and rare species for Lithuanian Coleoptera fauna are presented (Ferenca *et al*., 2011; Tamutis, 2012; Monsevičius, 2013; Ivinskis *et al*., 2014, 2015, etc.). Despite all the work and publications by coleopterologists, knowledge about Coleoptera fauna in Lithuania is still incomplete.

The aim of this paper is to supplement information on Lithuanian Beetles fauna and present some data on rare and new Coleoptera species from different regions of Lithuania.

Material and Methods

The majority of material was collected and identified by the author. Some specimens were collected by Sigutis Obelevičius (S.O.), Kęstutis Obelevičius (K.O.) and Darius Sirvydis (D.S.). The specimens were observed during various field trips, caught using the sweep net, survey of ground surface, dead wood, under the bark of dead trees.

The species names and nomenclature used following the suggested in Fauna Europaea database (Bologna, 2013; Canepari, 2013; Constantin, 2013; Fattorini, 2013; Kolibac, 2013; Krell, 2013; Sama, 2013; Schmitt, 2013; Schuelke, 2013; Smetana, 2013; Vigna Taglianti, 2013; Zhantiev, 2013). Specimens were identified using identification guides presented in Freude *et al*. (1964-2004).

The material is deposited in the author‘s personal collection.

List of localities

Kylininkų pievos meadow	Vilkaviškis district	54.519583, 22.779444
Lake Rūžas	Ignalina district	55.494166, 26.479138
Lazdynai	Vilnius city	54.680055, 25.216500
Mančiagirė env., Dzūkija NP	Varėna district	54.128944, 24.467805
Panemunė	Kaunas city	54.865694, 23.990777
Pavilniai regional park	Vilnius city	54.689944, 25.355194
Šimonių giria forest	Anykščiai district	55.695666, 25.221555
Šveicarijos parkas forest	Vilnius city	54.711000, 25.326083
Traupis environment (1)	Anykščiai district	55.513888, 24.749583
Traupis environment (2)	Anykščiai district	55.521833, 24.760111
Žaliosios pievų Botanical-Zoological preserve	Anykščiai district	55.562861, 24.808472

List of species

CARABIDAE

***Carabus coriaceus* Linnaeus, 1758**

Panemunė, 02 10 2016, 2 spec. (1 dead), in a house basement. (K.O.).

***Stomis pumicatus* (Panzer, 1796)**

Traupis env. (1), 21 07 2015, 1 spec., under tree stump (S.O.).

STAPHYLINIDAE

****Sepedophilus wankowiczi* (Pandellé, 1869)**

Žaliosios pievų Botanical-Zoological pr., 21 08 2014, 1 spec., in forest, on mushroom (det. M. Schülke).

The information on record of *Sepedophilus bipustulatus* (Gravenhorst, 1802) previously published by Ž. Obelevičius (Obelevičius, 2015) was based on misidentification. The specimen was reexamined by Dr. Michael Schülke (Germany, Museum für Naturkunde Berlin, Leibniz Institute for Research on Evolution and Biodiversity at the Humboldt-University) and related to *Sepedophilus wankowiczi* (Pandellé, 1869), which is presented here as a new species for Lithuanian fauna.

***Emus hirtus* (Linnaeus, 1758)**

Kylininkų pievos meadow, 05 07 2015, in the dung of cow.

CETONIIDAE

***Protaetia lugubris* (Herbst, 1786)**

Traupis env. (1), 01 07 2015, 1 spec., on blooming plant (S.O.), 21 07 2015, 1 spec., on blooming plant.

DERMESTIDAE

***Trogoderma angustum* (Solier, 1849)**

Lazdynai, 05 05 2015, 1 spec., inside flat.

TROGOSSITIDAE

***Peltis grossa* (Linnaeus, 1758)**

Dzūkija national park, 27 06 2016, 1 spec., under the bark of a dead spruce (*Picea abies*).

MALACHIIDAE

***Cordylepherus viridis* (Fabricius, 1787)**

Kylininkų pievos meadow., 05 07 2015, 1 spec., in a meadow, on a plant leaf.

COCCINELLIDAE

***Ceratomegilla notata* (Laicharting, 1781)**

Šveicarijos parkas f., 27 06 2012, 1 spec., in meadow by sweeping net.

TENEBRIONIDAE

***Neomida haemorrhoidalis* (Fabricius, 1787)**

Traupis env. (1), 15 07 2015, 1♀, found dead in a greenhouse.

***Cteniopus sulphureus* (Linnaeus, 1767)**

Pavilniai regional park, 19 07 2016, >50 spec., on blooming Apiaceae plants.

MELOIDAE

***Meloe brevicollis* Panzer, 1793**

Traupis env. (2), 29 06 2015, 1 spec., in a meadow.

CERAMBYCIDAE

***Prionus coriarius* (Linnaeus, 1758)**

Šimonių giria f., 26 07 2013, 1 spec., on a deciduous tree (D.S.).

***Obrium cantharinum* (Linnaeus, 1767)**

Traupis env. (1), 08 08 2015, 1 spec., inside house, attracted by light.

***Clytus arietis* (Linnaeus, 1758)**

Traupis env. (1), 22 07 2013, 2 spec., on a pile of logs, 19 06 2015, 1 spec., on pile of logs.

***Aegomorphus clavipes* (Schrank, 1781)**

Traupis env. (1), 19 06 2015, 1 spec., on a pile of logs, 09 08 2015, 1 spec., inside house, attracted by light.

***Saperda perforata* (Pallas, 1773)**

Traupis env. (1), 04 06 2013, 1 spec., found on a deciduous tree branch.

CHRYSOMELIDAE

***Donacia crassipes* Fabricius, 1775**

Lake Rūžas, 29 08 2015, 1 spec., on a leaf of yellow water-lily (*Nuphar lutea*).

Discussion

Data about 18 beetle species belonging to 11 families is presented. Majority of material was collected in Anykščiai district. Four species are included into the Red Book of Lithuania, all of them are related with an old forest (Rašomavičius, 2007). Forest with old trees is extremely important for *Prionus coriarius* and *Peltis grossa* because both species larvae are living in old rotting wood (Pileckis, Monsevičius, 1995, 1997). *Protaetia lugubris* develops in hollow trees, therefore, they can be found more often outside forest. According to Oleksa *et al*. (2006), forest might not be necessary at all and species can develop successfully even in agricultural landscape if there are enough of appropriate hollow trees, like avenues along road. Although another species, *Carabus coriaceus* is a carnivorous predator and does not develop in wood, it also usually occurs in a forest (Lindroth, 1992).

Carabus coriaceus is considered as a forest species (Lindroth, 1992) but current observation of this species was done in urban area. This can be explained with two factors – at approximately 1 km distance there is Panemunės šilas forest and at approximately 4 km distance – Jiesia landscape preserve, which is nearest known locality of this species (Vaivilavičius, 2008).

Sepedophilus wankowiczi – new species for Lithuanian fauna – is very often confused with *S. bipustulatus*, because these two species are very similar in both size and coloration, therefore all specimens' terminalia must be examined carefully (Yamamoto, 2013).

Trogoderma angustum for the first time was recorded in Lithuania in 1990, in Kaunas town quarantine station (Ferenca *et al*., 2006), more specimens were found in 1999-2000 in Ignalina city (Šablevičius, 2004). This species has spread in Lithuania because of developing of international tourism and trade (Tamutis *et al*., 2011). This is the first record of *T. angustum* in Vilnius city.

Meloe brevicollis is one of four *Meloe* species that occur in Lithuania. Whole *Meloe* genus was selected by Lithuanian Entomological Society as "The insect of the Year 2009" to obtain more data on these species. Twenty-two individuals of *M. brevicollis* were observed combining data from both Pileckis & Monsevičius (1997) and the ones obtained during the campaign, yet none was recorded in Anykščiai district (Liekis, 2009). Hence, this is the first record of *M. brevicollis* in Anykščiai district.

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References

Bologna M.A. 2013. Fauna Europaea: Meloidae. In Audisio P. (ed.) (2013) Fauna Europaea: Coleoptera. *Fauna Europaea version 2.6*, http://www.fauna-eu.org/. (Accessed October 24, 2016).

Canepari C. 2013. Fauna Europaea: Coccinellidae. In Audisio P. (ed.) (2013) Fauna Europaea: Coleoptera. *Fauna Europaea version 2.6*, http://www.fauna-eu.org/. (Accessed October 24, 2016).

Constantin R. 2013. Fauna Europaea: Malachiidae. In Audisio P. (ed.) (2013) Fauna Europaea: Coleoptera. *Fauna Europaea version 2.6*, http://www.fauna-eu.org/. (Accessed October 24, 2016).

Fattorini S. 2013. Fauna Europaea: Tenebrionidae. In Audisio P. (ed.) (2013) Fauna Europaea: Coleoptera. *Fauna Europaea version 2.6*, http://www.fauna-eu.org/. (Accessed October 24, 2016).

Ferenca R., Ivinskis P., Tamutis V. 2006. New and rare for Lithuania species of beetles (Coleoptera). *New and Rare for Lithuania Insect Species. Records and Description* 17: 11–21.

Ferenca R., Ivinskis P., Meržijevskis A., Rimšaitė J., Karalius S. 2011. Twenty Betle (Insecta: Coleoptera) species new for the Lithuanian Fauna. *New and Rare for Lithuania Insect Species* 23: 15–29.

Freude H., Harde K.W., Lohse G.A. (eds). 1964–2004. *Die Käfer Mitteleuropas.* Bds: 2, 4, 6–9. Krefeld: Goecke & Evers.

Ivinskis P., Meržijevskij A., Rimšaitė J. 2014. Data about new beetle (Coleoptera) species found in Lithuania. *New and Rare for Lithuania Insect Species* 26: 31–36.

Ivinskis P., Rimšaitė J., Meržijevskij A. 2015. New species and new records of rare species of beetles (Coleoptera) from Lithuania. *New and Rare for Lithuania Insect Species* 27: 24–34.

Kolibac J. 2013. Fauna Europaea: Trogositidae. In Audisio P. (ed.) (2013) Fauna Europaea: Coleoptera. *Fauna Europaea version 2.6*, http://www.fauna-eu.org/. (Accessed October 24, 2016).

Krell F.-T. 2013. Fauna Europaea: Cetoniidae. In Alonso-Zarazaga M.A. (ed.) (2013) Fauna Europaea: Coleoptera. *Fauna Europaea version 2.6*, http://www.fauna-eu.org/. (Accessed October 24, 2016).

Liekis D.A. 2009. Gegužvabaliai. *Lietuvos Entomologų Draugijos pažintinis leidinys*. Vilnius, 10 pp.

Lindroth C.H. 1992. *Ground Beetles (Carabidae) of Fennoscandia. A Zoogeographic Study. Part I. Specific knowledge regarding the species.* Washington: Smithsonian Institute Library, 630 pp.

Monsevičius V. 2013. New and little known for the Lithuanian fauna species of beetles (Coleoptera), found in 2002, 2011-2012. *New and Rare for Lithuania Insect Species*

25: 24–31.
Obelevičius Ž. 2015. Rare species of beetles (Coleoptera) found in Žaliosios pievų botanical-zoological preserve. *New and Rare for Lithuania Insect Species* 27: 39–46.
Oleksa A., Ulrich W., Gawronski R. 2006. Occurrence of the marbled rose-chafer (Protaetia lugubris Herbst, Coleoptera, Cetoniidae) in rural avenues in northern Poland. *Journal of Insect Conservation* 10: 241–247.
Pileckis S., Monsevičius V. 1995. *Lietuvos fauna. Vabalai.* T. 1. Vilnius.
Pileckis S., Monsevičius V. 1997. *Lietuvos fauna. Vabalai.* T. 2. Vilnius.
Rašomavičius V. (ed.) 2007. Lietuvos raudonoji knyga [*Red Data Book of Lithuania*]. Kaunas: Lututė.
Sama G. 2013. Fauna Europaea: Cerambycidae. In Audisio P. (ed.) (2013) Fauna Europaea: Coleoptera. *Fauna Europaea version 2.6*, http://www.fauna-eu.org/. (Accessed October 24, 2016).
Schmitt M. 2013. Fauna Europaea: Chrysomelidae. In Audisio P. (ed.) (2013) Fauna Europaea: Coleoptera. *Fauna Europaea version 2.6*, http://www.fauna-eu.org/. (Accessed October 24, 2016).
Schuelke M. 2013. Fauna Europaea: Staphylinidae: Tachyporinae. In Alonso-Zarazaga M.A. (ed.) (2013) Fauna Europaea: Coleoptera. *Fauna Europaea version 2.6*, http://www.fauna-eu.org/. (Accessed October 24, 2016).
Smetana A. 2013. Fauna Europaea: Staphylinidae: Staphylininae. In Alonso-Zarazaga M.A. (ed.) (2013) Fauna Europaea: Coleoptera. *Fauna Europaea version 2.6*, http://www.fauna-eu.org/. (Accessed October 24, 2016).
Šablevičius B. 2004. New and rare for Lithuania beetle (Coleoptera) species collected in 1988–2004. *New and Rare for Lithuania Insect Species. Records and Description* 16: 27–31.
Tamutis V., Tamutė B., Ferenca R. 2011. A catalogue of Lithuanian beetles (Insecta, Coleoptera). *ZooKeys* 121: 1–494.
Tamutis V. 2012. New and rare (insufficiently known) beetle species found in the litter of coniferous and mixed forests in Lithuania. *New and Rare for Lithuania Insect Species* 24: 6–18.
Vaivilavičius G. (ed.) 2008. Vabzdžiai ir moliuskai Kauno ir Kaišiadorių rajonų saugomose teritorijose [*The insects and molluscs in protected territories of Kaunas and Kaišiadorys districts*]. Kaunas, Lithuania, 96 pp.
Vigna Taglianti A. 2013. Fauna Europaea: Carabidae. In Audisio P. (ed.) (2013) Fauna Europaea: Coleoptera. *Fauna Europaea version 2.6*, http://www.fauna-eu.org/. (Accessed October 24, 2016).
Yamamoto S. 2013. Taxonomic study on Sepedophilus wankowiczi (Pandellé, 1869) from Japan, with a note on its scientific name in the previous records (Coleoptera: Staphylinidae: Tachyporinae). *Japanese Journal of Systematic Entomology* 19 (1): 57–63.
Zhantiev R.D. 2013. Fauna Europaea: Dermestidae. In Audisio P. (ed.) (2013) Fauna Europaea: Coleoptera. *Fauna Europaea version 2.6*, http://www.fauna-eu.org/. (Accessed October 24, 2016).

Įdomūs vabalų (Coleoptera) rūšių radiniai Lietuvoje 2012-2016 metais

Ž. OBELEVIČIUS

Santrauka

Straipsnyje yra pateikiami duomenys apie 17 vabalų rūšių. Jų tarpe keturios yra įrašytos į Lietuvos Raudonąją knygą: *Carabus coriaceus*, *Protaetia lugubris*, *Peltis grossa* ir *Prionus coriarius*; viena – *Sepedophilus wankowiczi* Lietuvoje aptikta pirmą kartą. Vabalai aptikti Anykščių, Ignalinos, Kauno, Varėnos, Vilkaviškio ir Vilniaus rajonuose 2012–2016 metais. Surinkti individai yra saugomi privačioje autoriaus kolekcijoje.

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