BIOLOGIJA. 2019. Vol. 65. No. 1. P. 1–11

New, insufficiently known, or rare for Lithuania species of beetles (Coleoptera) with some notes on ecology

Viktoras Pacevičius

Nature Research Centre,
Akademijos 2,
Vilnius 08412, Lithuania

The paper presents faunistic data on 120 rare or insufficiently known beetle (Coleoptera) species, as well as one new species, *Medon apicalis*, for the fauna of Lithuania. In Europe, *Agostenus costulatus*, *Anogcodes ferrugineus*, *Anogcodes rufiventris*, *Eubria palustris*, *Leiestes seminiger*, *Lissodema cursor*, *Mycetophagus ater*, *Orchesia undulata*, *Silvanoporus fagi* are rare and local species; *Anthobium unicolor*, *Drapetes mordelloides*, *Isoriphis melasoides*, *Oxyporus mannerheimi*, *Phyllotreta tetrastigma*, *Physoronia wajdelota*, *Plegaderus saucius*, *Nemozoma elongatum*, *Wanachia triguttata* are rare and insufficiently known species. Saproxylic beetles such as *Abdera flexuosa*, *Hallomenus axillaris*, *Hyleocoetus flabellicornis*, *Lissodema cursor*, *Orchesia undulata*, *Triphylus bicolor* and *Wanachia triguttata* were found to be xylomicetophagous living in decaying wood overgrown with fungi or in fruiting bodies of tree fungi. New facts on ecology of three species were established: in 1994, 1996, and 1998, *Calosoma auropunctatum* population was recorded deep in mature forest; a case of high-density population of *Hermaeophagus mercurialis* was registered (approx. 600,000 specimens in an area of about 3.5 ha); and *Boros schneideri* was detected living in dead barkless pine trees in the middle of raised bogs. The locality where *Medon apicalis* was recorded in Lithuania is the easternmost edge of the species distribution range in Europe.

Keywords: insect fauna, saproxylic species, xylomicetophagous insects, *Medon apicalis*, *Boros schneideri*

INTRODUCTION

The paper provides data on insufficiently known, rare, and new beetle species in the Lithuanian fauna that the author collected from 1972 to 2018. Unlike the species within dragonfly (Odonata) or butterfly and moth (Lepidoptera) orders, great majority of European species of which could be identified easily even during field survey, the identification of most beetle (Coleoptera) species is much more complicated and time-consuming, as well as tedious laboratory work. Despite this obstacle, it is important to know coleopteran species both for species diversity evaluations and for faunistic investigations of the country.

* Corresponding author. Email: bareikis.col@gmail.com

The paper describes 120 easily identifiable (except for representatives of *Altica*, *Carpophilus, Heterothops*, *Quedius*, and *Xylodromus* genera) beetle species, including one new species for the Lithuanian fauna.

MATERIALS AND METHODS

Investigations were carried out in Molėtai district and fragmentary observations were pursued all over the country. Field surveys were conducted using traditional beetle collection techniques. In addition, 18 standard funnel traps for *Ips typographus* control placed out in a mature coniferous forest compartment undergoing selective clearance were being inspected in 2016–2017. The tree-crown fauna was investigated by placing out plastic 3–5-section traps used for *Ips typographus* control, filled with beer- or wine-based baits. Such a method allowed collecting only a small number of species, with only one species (*Cryptarcha strigata*) published. From 2014 to 2018, saproxylic beetles were reared under laboratory conditions in hermetic boxes from deciduous wood of different state (hard, partly decomposed by rot fungi or microorganisms, completely decomposed, crushable between fingers); besides, xylomicetophagous beetles were reared from sponges and other fungi growing on trees as well as from parts of wood overgrown with fungi. Fully-fledged or crawling beetles were collected by vessels containing vinegar essence, by glue traps, or by making constant every 2–5 day inspections of boxes.

The material collected is stored at the author's private collection. The species that are new for the Lithuanian fauna will be passed to the Kaunas T. Ivanauskas Zoological Museum.

The species were identified according to beetle (Coleoptera) identification guides (Burakowski, 1976; Lompe, 2018; Assing et al., 2011; Freude et al., 1965–1989; Warchałowski, 1971). Systematics and taxonomy are according to Tamutis et al. (2011) and adjusted as per Fauna Europaea Database. Colour photos were taken by a Canon ES 80d camera, using an Olympus SZX 10 binocular.

The material was collected and identified by the author, except for: R. F. – det. Romas Ferenca; V. M. – det. Vidmantas Monsevičius; V. T. – det. Vytautas Tamutis; V. P., V. T. – det. Viktoras Pacevičius, Vytautas Tamutis.

New species in the Lithuanian fauna are marked with an asterisk (*), and the species assigned to Lithuania by different Palaearctic, European, and regional catalogues, without specifying the original source of information, are marked with a double asterisk (**). Many species were found in the environs of lakes, in which case the name of the lake is indicated as a locality where the species was recorded (e.g., Lake Baltis environs = Lake Baltis env.). The list of localities is given in the Table.

Table. **List of localities**

Locality	Administrative district	Coordinates (latitude, longitude)
Aidiečiai	Molėtai	55.29580, 25.52069
Ažuolijos Miškas f.	Utena	55.44528, 25.55963
Lake Baltis env.	Molėtai	55.28862, 25.58082
Branišavos Miškas f.	Molėtai	55.35610, 25.49839
Degulių Miškas f.	Utena	55.44932, 25.54280
Lake Dubulis env.	Molėtai	55.30966, 25.57493
Lake Ešerinis env.	Molėtai	55.30313, 25.58973
Gyvatraisčio Pelkė bog	Molėtai	55.35407, 25.64747
Kamšos Miškas f.	Kaunas	54.90239, 23.81587
Kapiniškės	Varėna	54.02662, 24.29521

Table. **(Continued)**

Locality	Administrative district	Coordinates (latitude, longitude)
Kašeikiai env.	Molėtai	55.32831, 25.59991
Kavarskas	Anykščiai	55.43085, 24.93434
Kazokų Miškas f.	Molėtai	55.12990, 25.38446
Kiauneliškis	Švenčionys	55.29836, 25.87095
Kulautuvos Miškas f.	Kaunas	54.94836, 23.66652
Kulionys env.	Molėtai	55.19221, 25.68736
Labanoras	Švenčionys	55.27141, 25.77297
Lyduvėnai env.	Raseiniai	55.49593, 23.08258
Lake Liūnelis env.	Molėtai	55.32079, 25.58418
Merkinė	Varėna	54.16446, 24.16777
Milioniškės	Varėna	54.19004, 24.37780
Lake Obelija env.	Lazdijai	54.28660, 23.82244
Padaugupis	Kaunas	55.01807, 23.87264
Rašia	Molėtai	55.19221, 25.68796
Seredžius	Jurbarkas	55.08116, 23.40689
Suginčiai	Molėtai	55.33796, 25.52439
Šimonių Giria f.	Kupiškis	55.72220, 25.17536
Tetervinio Pelkė bog	Zarasai	55.69992, 26.21369
Uosa 1	Prienai	54.55800, 23.91583
Veliuona	Jurbarkas	55.07741, 23.28347
Verkiai Park	Vilnius	54.75069, 25.30694
Vilemai	Kaunas	54.90797, 23.67533
Vilnius	Vilnius	54.68242, 25.26617
Zervynos	Varėna	54.10712, 24.48756
Lake Želva env. (1)	Molėtai	55.22387, 25.57762
Lake Želva env. (2)	Molėtai	55.32517, 25.55592

LIST OF SPECIES

CARABIDAE

***Cylindera germanica* (Linnaeus, 1758)**

Seredžius, 31.07.1990, 1 spec.; Uosa 1, 24–25.07.2000, 3 spec.; Veliuona, 08.07.1987, 2 spec., attracted to light.

***Calosoma auropunctatum* (Herbst, 1784)**

Suginčiai, 25.06–31.07.1972, about 5 spec., in the orchard; Lake Želva env. (2), 16.07.1994, 2 spec., 11.07.1996, 3 spec., 28.06.1998, 1 spec., attracted to light.

Note. In the environs of Lake Želva, the species was found in a sandy locality in the depth of a mixed forest, on a compartment line.

***Carabus clathratus* Linnaeus, 1761**

Merkinė, 16.06.1979, 1 spec.

***Carabus convexus* Fabricius, 1775**

Rašia, 02–10.07.1977, about 7 spec.; Lake Želva env. (1), 30.04.2006, 1 spec., 18.04.2007, 2 spec.

***Carabus nitens* Linnaeus, 1758**

Kavarskas, 1976, 1 spec.

***Carabus coriaceus* Linnaeus, 1758**

Kamšos Miškas f., 22.07.2007, 1 spec.; Verkiai Park, 30.04.1991, 1 spec.

Note. The specimen found in Verkiai Park is the first record of the species in Vilnius environs.

***Miscodera arctica* (Paykull, 1758)**

Kašeikės env., 2004, 1 spec.

***Laemostenus terricola* (Herbst, 1784)**

Suginčiai, 01–31.09.2007, 1 spec., 25.07.2011, 1 spec., in cellars.

***Synuchus vivalis* (Illiger, 1798)**

Lake Želva env. (1), 01–10.08.2008, 1 spec.

Agonum ericeti (Panzer, 1809)

Suginčiai, 1976, 1 spec.; Tetervinio Pelkė bog 20–30.05.2002, 2 spec., in raised bogs.

***Pterostichus aterrimus* (Herbst, 1784)**

Branišavos Miškas f., 05.05.2017, 2 spec.; Lake Ešerinis env., 15.08.2008, 1 spec.; Lake Liūnelis env. 01–10.05.2001, 1 spec., 19.05.2003, 3 spec., 24.04.2007, 1 spec., 08.08.2008, 1 spec. On the banks of water bodies, in moist areas.

***Pterostchus macer* (Marsham, 1802)**

Kašeikiai, 2004, 1 spec.

***Dolichus halensis* (Schaller, 1783)**

Kulautuvos Miškas f., 22.07.2003, 1 spec., attracted to light; Suginčiai, 11.07.2001, in an orchard.

***Agostenus costulatus* (Motschulsky, 1859)**

Labanoras, 12–14.06.2003, 1 spec., in a gravel pit.

***Cymindis angularis* Gyllenhall, 1810**

Suginčiai, September 2014, 1 spec.

SPHAERITIDAE

***Sphaerites glabratus* (Fabricius, 1792)**

Lake Baltis env., 22.05.2017, 1 spec.; Lake Liūnelis env., 27.04.2007, 2 spec.; Suginčiai, 21.05.2007, 1 spec.; Lake Želva env. (2), 28.04.2007, 2 spec.

HISTERIDAE

***Plegaderus caesus* (Herbst, 1792)**

Branišavos Miškas f., 25.05.2015, 1 spec.; 21.07.2015, 5 spec., – in the hollow of *Fraxinus excelsior*; Lake Želva env. (2), 29.07.2017, 1 spec., pheromone trap for *Ips typographus* control.

***Plegaderus saucius* Erichson, 1834**

Suginčiai, 17.05.2015, 1 spec.

***Plegaderus vulneratus* (Panzer, 1797)**

Suginčiai, May 2006, 1 spec.; Kulionys, 17.07.2017, 1 spec., pheromone trap for *Ips typographus* control.

***Carcinops pumilio* (Erichson, 1834)**

Suginčiai, 03.07.2015, 13.08.2015, 01.06.2016, 03.07.2016, 25.07.2016, 04.08.2016, 06.08.2016, 30.07.2018, – 11 spec. Indoors and in the nests of hollow-nesting birds.

***Margarinotus bipustulatus* (Schrank, 1781)**

Lake Želva env. (1), 18.04.2007, 27.04.2007, –2 spec. On a sandy road.

***Margarinotus obscurus* (Kugellan, 1792)**

Ažuolijos Miškas f., 23.05.2006, 1 spec.; Suginčiai, May 2006, 1 spec.

***Hololepta plana* (Schulzer, 1776)**

Degulių Miškas f., 22.05.2014, 1 spec., on *Picea abies* trunk; Suginčiai, 16.03.2007, 1 spec., 20.04.2017, 2 spec., under the bark of *Populus tremula*.

STAPHYLINIDAE

***Acrulia inflata* (Gyll, 1813)**

Lake Baltis env., 25.09.2017, 1 spec., in *Hypholoma* spp. mycelium. One report earlier (Monsevičius, 2013).

***Xylodromus brunnipennis* (Stephens, 1832)**

Suginčiai 16.05.2017, 1 spec., in a nest (det. V. M.).

****Xylodromus depressus* (Gravenhorst, 1802) (Fig. 1)**

Suginčiai, 31.08.2015, 2 spec., 19.09.2016, 1 spec. (det. V. M.).

***Anthobium unicolor* (Marasham, 1802)**

Suginčiai, 02.04.2015, 1 spec., 28.05.2016, 1 spec., 06.07.2018, 1 spec.

***Anthophagus angusticollis* (Mannerheim, 1830)**

Lyduvėnai, 26.05.2018, 6 spec.; Verkiai Park, 28.05.2015, 1 spec.

Fig. 1. *Xylodromus depressus*

***Tachinus marginatus* (Fabricius, 1793)**

Branišavos Miškas f., 21.09.2017, 1 spec.; Suginčiai, 25.04.2015, 1 spec., 28.04.2015, 1 spec., 15.04.2016, 1 spec., 01.05.2016, 1 spec. Near tree sap and under deciduous tree bark.

***Trichophyia pilicornis* (Gyllenhall, 1810)**

Suginčiai, 01.05.2007, 1 spec.; Lake Želva env. (1), 29.05.2017, 1 spec.

***Lomechusa emarginata* (Paykull, 1789)**

Kulionys env., 16.04.2007, 1 spec., on *Formica* spp. anthill.

***Anomognathus cuspidatus* (Erichson, 1839)**

Branišavos Miškas f., 30.05.2016, about 10 spec., under the bark of *Populus tremula*.

***Oxyporus mannerheimi* (Gyllenhal, 1827)**

Lake Dubulis env., 27.07.2017, 1 spec., 25.09.2017, 1 spec., 24.08.2018, 1 spec.; Lake Ešerinis env., 05.09.2004, 1 spec.; Lake Liūnelis env., 09.06.2003, 1 spec.; Kašeikiai env., 03.06.2003, 2 spec.; Lake Želva env. (2), 08.08.2013, 1 spec. In fungi *Boletus* spp., *Leccinium* spp.

***Dianous coerulescens* (Gyllenhal, 1810)**

Suginčiai, 2006, 1 spec.

***Rugilus angustatus* (Geoffroy, 1785)**

Branišavos Miškas f., 28.05.2016, 1 spec.; Suginčiai 09.06.2017, 1 spec.

***Medon apicalis* (Kraatz, 1857) (Fig. 2)**

Suginčiai, 29.05.2016, 1 spec., 01.06.2016, 2 spec., 29.05.2017, 1 spec. (det. V. M.). Flying in the daytime, of which one near *Lasius* spp. anthill.

Diagnosis: Resembles *Medon ripicola* (Kr., 1854) and *M. brunneus* (Er., 1839). Size: 3.5–4.7 mm. The main external morphological traits: foreback smaller than head, narrower than elytra at shoulder level; upper part brown, only head and occasionally elytron tips blackish; posterior edge of 5th sternite curved in the middle, covered with long black hairs. (Lompe A., after Lohse G. E.)

***Medon castaneus* (Gravenhorst, 1802)**

Suginčiai, 13.05.2017, 1 spec.

***Ocypus ophthalmicus* (Scopoli, 1763)**

Kazokų Miškas f., 05.07.2017, 1 spec.

****Heterothops dissimilis* (Gravenhorst, 1802) (Fig. 3)**

Suginčiai, June 2004, 1 spec., 01.06.2016, 1 spec. (det. V. M.).

***Velleius dilatatus* (Fabricius, 1787)**

Suginčiai, July 1986, 1 spec., 19.07.2007, 1 spec., 09.07.2016, 1 spec.

***Quedius brevicornis* (Thomson, 1860)**

Suginčiai, 20.04.2016, 1 spec., 15.06.2017, 1 spec. In the nests of hollow-nesting birds.

***Quedius lucidulus* Erichson, 1869**

Branišavos Miškas f., 16.04.2016, 1 spec., 07.04.2017, 1 spec. (det. V. M.).

***Quedius scitus* (Gravenhorst, 1806)**

Suginčiai, 23.09.2014, 1 spec., 17.08.2015, 1 spec., 01.05–10.07.2016, 1 spec.

***Quedius vexans* Eppelsheim, 1881**

Suginčiai, 15.07.2007, 1 spec., 26.07.2014, 1 spec., 01.05.2016, 1 spec. In bird nests.

***Acylophorus wagenschieberi* Kiesenwetter, 1850**

Ažuolijos Miškas f., 21.05.2007, 1 spec., attracted to light.

PSEPHENIDAE

***Eubria palustris* Germar, 1818**

Lake Baltis env., 21.07.2017, 1 spec., 27.07.2017, 10 spec. On a floodplain of a forest stream. One report (Ferenca, 1988).

EUCNEMIDAE

***Isoriphis melasoides* Castelnau, 1825**

Branišavos Miškas f., 03–19.07.2015, 2 spec., reared from trunks of deciduous trees. One report (Ferenca & Tamutis, 2009).

Fig. 2. *Medon apicalis*

Fig. 3. *Heterothops dissimilis*

***Melasis buprestoides* (Linnaeus, 1761)**

Branišavos Miškas f., 01.06–12.07.2015, about 10 spec., reared from *Alnus* spp., *Betula* spp., *Quercus* robur; Lake Baltis env., 05–17.05.2018, 4 spec., reared from *Betula* spp.

***Otho spondyloides* (Germar, 1818)**

Lake Baltis env., 23–30.07.2018, 1 spec., reared from *Betula* spp. One report (Pacevičius, 2017).

DASCILLIDAE

***Dascillus cervinus* (Linnaeus, 1758)**

Suginčiai, June 2004, 3 spec.; Lake Želva env. (2), 10.07.2017, 2 spec.

ELATERIDAE

***Drapetes mordelloides* (Holst, 1789)**

Suginčiai, 17.07.2007, 1 spec., 20.06.2008, 1 spec., 21–22.06.2014, 2 spec. In decaying oak logs.

LYMEXYLIDAE

***Hyleocoetus flabellicornis* (Schneider, 1791)**

Lake Želva env., 24.04.2014, 1 spec., flying near a decaying fir tree log.

TROGOSSITIDAE

***Nemozoma elongatum* (Linnaeus, 1761)**

Branišavos Miškas f., 28.04–03.06.2015, 7 spec., reared from *Alnus* spp., *Betula* spp., 04.06.2017, 1 spec., on *Populus tremula* log.

SILVANIDAE

***Ahasverus advena* (Waltl, 1864)**

Suginčiai, 27.01.2017, 1 dead spec., in a barn.

***Oryzaephilus surinamensis* (Linnaeus, 1758)**

Suginčiai, 03.07.2000, 1 spec.

***Dendrophagus crenatus* (Paykull, 1799)**

Kulionys, 08.08.2008, 1 spec., 31.08.2015, 1 spec., 01.04.2016, 1 spec.; Lake Liūnelis 26.11.2012, 4 spec.; Suginčiai 25.05.2006, 1 spec., September 2007, 1 spec., 10.06.2017, 1 spec. Under the bark of *Pinus sylvestris*, *Picea abies*, *Populus tremula*, *Salix caprea.*

***Silvanus bidentatus* (Fabricius, 1792)**

Suginčiai, 19.04.2015, 4 spec., 20.05.2017, 2 spec., 20.06.2017, 1 spec., under the bark of *Populus tremula*, 23.05.2017, 2 spec., reared from *Populus tremula*.

***Silvanus unidentatus* (Olivier, 1790)**

Branišavos Miškas f., 29.07.2016, 1 spec., 29.05.2017, 1 spec., reared from deciduous trees; Suginčiai, 13.07.2015, 1 spec., on *Quercus robur*, 20.05–12.06.2017, 6 spec., reared from *Quercus robur*, *Populus tremula*, *Picea abies*(?).

***Silvanoporus fagi* (Guerin-Meneville, 1844)**

Suginčiai, 20.05.2017, 2 spec., in a stack of logs.

LAEMOPHLOEIDAE

***Cryptolestes pusillus* (Schonherr, 1817)**

Branišavos Miškas f., 28–31.07.2018, 2 spec., reared from *Quercus robur.* One report (Monsevičius, 2013).

NITIDULIDAE

***Carpophilus marginellus* (Motschulsky, 1898)**

Suginčiai, 17.07.2007, 1 spec., 27.07.2014, 1 spec. Near oak sap.

***Amphotis marginata* (Fabricius, 1781)**

Suginčiai, 28.06.2014, 1 spec.; Suginčiai, 21.06.2016, 1 spec.

***Ipidia binotata* (Reitter, 1875)**

Suginčiai, 06.09.2014, 1 spec.; 08.04.2018, 1 spec., 16.04.2018, 4 spec. Under the bark of *Picea abies.*

***Physoronia wajdelota* (Wankovicz, 1869)**

Suginčiai, 18.08.2014, 1 spec., in a gilled mushroom on *Alnus* spp.

***Thalycra fervida* (Olivier, 1790)**

Lake Dubulis env., 10.08.2017, 1 spec., in a pheromone trap for *Ips typographus* control; Kašeikiai env., 14.07.2014, 3 spec., caught by a sweep net in a mesophytic meadow with shrubs; Kulionys env., 2012, 1 spec.; Suginčiai, 16.06.2016, 1 spec., 22.06.2014, 1 spec., 03.07.2014, 3 spec., 23.07.2014, 3 spec., in mesophytic meadows and at dusk near shrubs; Lake Želva env. (2), 28.05.2016, 1 spec.

***Cryptarcha strigata* (Fabricius, 1787)**

Branišavos Miškas f., 13.07.2015, 2 spec., 16.07.2015, 2 spec. In tree crown traps.

***Glischrochilus quadrisignatus* (Say, 1835)**

Branišavos Miškas f., 29.06.2015, 13.07.2015, 06.08.2015, 14–25.08.2018, 8 spec., reared from deciduous stumps overgrown with fungi;

Suginčiai, 09.06.2006, 15.07.2007, 20.07.2011, 01–10.07.2014, 07.06.2015, 25–30.06.2015, about 17 spec., mostly under the bark of *Populus tremula*, *Quercus robur* and near oak sap; Vilnius, July 2011, 1 spec., on a sponge on *Salix* spp.

ENDOMYCHIDAE

***Leiestes seminiger* (Gyllenhall, 1808)**

Branišavos Miškas f., 07.07.2015, 23.08.2015, 05.05.2016, 3 spec., reared from deciduous trees; Suginčiai, 20.05.2017, 25.05.2017, 04.05.2018, 4 spec., on fir and asp logs; Lake Želva env. (2), 10.08.2017, 1 spec., in a pheromone trap for *Ips typographus* control.

***Mycetina cruciata* (Schaller, 1783)**

Suginčiai, 01–15.09.2018, 5 spec., in a heap of decaying oak logs.

COCCINELLIDAE

***Scymnus ferrugatus* (Moll, 1785)**

Kulionys env, 16.07.2015, 1 spec. (det. V. M.).

***Hyperaspis pseudopustulata* Mulsant, 1853**

Aidiečiai, 12.05.2016, 1 spec., in a mesophytic meadow.

***Sospita vigintiguttata* (Linnaeus, 1758)**

Branišavos Miškas f., 21.07.2015, 2 spec., 22.06.2016, 1 spec.; Kulionys env., 26.06.2016, 27.09.2016, 2 spec.; Suginčiai, 02.04.2017, 1 spec.; Lake Želva env. (1), 06.07.2014, 1 spec., 18.07.2014, 1 spec. In crowns of shrubs and trees.

***Vibidia duodecimguttata* (Poda, 1761)**

Branišavos Miškas f., 16.05.2017, 1 spec.; Suginčiai, 16.05.2016, 1 spec. In tree crowns.

MYCETOPHAGIDAE

***Triphyllus bicolor* (Fabricius, 1777)**

Branišavos Miškas f., 11.10.2014, 2 spec., in a pitfall (Barber) trap. One report (Ferenca et al., 2002).

***Mycetophagus ater* (Reitter, 1879)**

Branišavos Miškas f., 11.05.2016, 1 spec., reared from a *Fomes fomentarius* berry bush; Lake Želva env. (2), 1 spec., in a pheromone trap for *Ips typographus* control.

***Mycetophagus populi* (Fabricius, 1798)**

Lake Dubulis env., 02.07.2017, 1 spec., 03–11.08.2017, 2 spec., in a pheromone trap for longhorn beetle (*Cerambycidae)* control; Suginčiai, 05.05.2017, 1 spec., 09.07.2017, 1 spec., reared from a *Gonoderma lucidum* berry bush.

TETRATOMIDAE

***Hallomenus axillaris* (Illiger, 1807)**

Suginčiai, 25.07.2018, 1 spec., 18–20.08.2018, 2 spec., reared from *Betula* spp., *Quercus robour*, Lake Želva env. (1, 2), 15.06.2015, 21.07.2015, 27.07.2015, 06.08.2015, 5 spec., reared from *Alnus* spp., *Betula* spp., 03.06.2017, 1 spec., in a pheromone trap for *Ips typographus* control.

MELANDRYIDAE

***Orchesia minor* Walker, 1836**

Branišavos Miškas f., 13.06.2018, 1 spec., reared from *Alnus* spp.

***Orchesia undulata* Kraatz, 1853**

Branišavos Miškas f., 13.10.2014, 1 spec., in a hollow in *Populus tremula*; Lake Želva env. (2), 21.07.2017, 1 spec., in a pheromone trap for *Ips typographus* control, 01–19.09.2018, 1 spec., reared from *Alnuss* spp.

****Abdera flexuosa* (Paykull, 1799) (Fig. 4)**

Lake Želva env. (1, 2), May–June 2007, 2 spec., 25.05.2015, 1 spec., 03.06.2015, 1 spec., 21.06.2018, 1 spec., under the bark of *Betula* spp. and reared from decaying *Alnus* spp., *Betula* spp. (det. V. P., V. T.).

Morphological traits: foreback blackish, wide upper and lower edges light; antennae blackish in the middle, posterior and 2–3 base segments light; elytra with two black broken transverse bands (Duff, 2012).

***Wanachia triguttata* (Gyllenhall, 1810)**

Kulionys env., 16.06.2014, 1 spec., in a sweep net (det. R. F.). One record (Ferenca et al., 2002).

Fig. 4. *Abdera flexuosa*

***Zilora obscura* (Fabricius, 1794)**
Šimonių Giria f., 28.05.2013, 1 spec.

RHIPIPHORIDAE
***Metoecus paradoxus* (Linnaeus, 1761)**
Kulautuvos Miškas f., 23.07.2003, 1 spec., attracted to light; Suginčiai, 24–27.07.2018, 1 spec., 06–09.08.2018, 1 spec., in a hollow in *Salix fragilis*.

ZOPHERIDAE
***Colydium filiforme* Fabricius, 1792**
Ažuolijos Miškas f., 01–31.05.2007, 1 spec., on a decaying *Quercus robur* stump; Suginčiai, 23.05.2006, 1 spec., under the bark of *Qercus robur*.

TENEBRIONIDAE
***Blaps mortisaga* (Linnaeus, 1758)**
Suginčiai, 1982, 1 spec.; Milioniškės, 22.09.2001, 1 spec. In cellars.
***Mycetochara axillaris* (Paykull, 1799)**
Suginčiai, 20.06.2016, 1 spec.
***Mycetochara humeralis* (Fabricius, 1787)**
Suginčiai, 21.05–30.06.2007, 1 spec.
***Hypophloeus bicolor* (Olivier, 1790)**
Branišavos Miškas f., 24.05.2015, 2 spec., reared from *Betula* spp.; Suginčiai, 05.06.2006, 5 spec., under the bark of deciduous trees.
***Scaphidema metallicum* (Fabricius, 1793)**
Suginčiai, 12.06.2016, 1 spec., in *Picea abies* crown (det. V. T.).

OEDEMERIDAE
***Anogcodes ferrugineus* (Schrank, 1776)**
Lake Dubulis env., 14–23.06.2017, 3 spec., in a moist meadow on a lakeshore.
***Anogcodes melanurus* (Fabricius, 1787)**
Vilnius, June 2000, 1 spec.
***Anogcodes rufiventris* (Scopoli, 1763)**
Zervynos, 18.06.1985, 1 spec.
***Oedemera femorata* (Scopoli, 1763)**
Padaugupis, 21.07.2007, 1 spec., attracted to light.

BORIDAE
***Boros schneideri* (*Panzer, 1795*)**
Gyvatraisčio Pelkė bog, 21–31.06.2017, 2 spec.; Kiauneliškis, 26.10.2013, 3 spec.; Suginčiai, 11.08.2017, 1 spec.

Note. The findings from Gyvatraisčio Pelkė bog and Suginčiai were reared in laboratory conditions from dead, barkless pine trees from an open area of the bog.

SALPINGIDAE
***Lissodema cursor* (Gyllenhall, 1813)**
Branišavos Miškas f., 09.07.2016, 12.07.2016, 2 spec., reared from a dead *Quercus robour*. One report (Tamutis et al., 2008).
***Sphaeriestes bimaculatus* (Gyllenhall, 1810)**
Lake Baltis env., 14.05.2017, 1 spec., flying in a clearing of a fir sapling forest, near a marsh.
***Colposis mutilatus* (Beck, 1817)**
Kulionys, 16.04.2007, 1 spec., under the bark of *Quercus robur*; Suginčiai, 02.05.2017, 2 spec., on the wings; Lake Želva env. (2), 21.07.2017, 27.07.2017. 2 spec., in a pheromone trap for *Ips typographus* control.
***Rabdocerus foveolatus* (Ljungh, 1823)**
Branišavos Miškas f., 1 spec. on *Fomes fomentarius* on *Alnus* spp.
***Rabdocerus gabrieli* (Gerhardt, 1901)**
Suginčiai, 29.09.2014, 1 spec., sweeping by net in a wet meadow.

CHRYSOMELIDAE
***Bruchidius marginalis* (Fabricius, 1771)**
Branišavos Miškas f., 30.05.2016, 1 spec., 08.09.2016, 20 spec., 12.09.2016, 4 spec., 31.07.2018, 2 spec., sweeping by net in mesophytic meadows; Suginčiai, 1978, 1 spec., 18.08.2014, 8 spec., 02.09.2014, 6 spec., 06.09.2014, 11 spec., 11.10.2014, 1 spec., most on Euphorbia cyparissias, also in mesophytic meadows.
***Donacia antiqua* Kunze, 1818**
Lake Želva env. (2), 2006, 1 spec.
***Hypocassida subferruginea* (Schrank, 1776)**
Suginčiai, 04–20.05.2007, 1 spec.
***Chrysolina aurichalcea* (Gebler, 1825)**
Vilemai, 20.07.2007, 1 spec. (det. V. T.)
***Chrysolina graminis* (Linnaeus, 1758)**
Kapiniškės, 08.07.1995, 1 spec.
***Chrysolina herbacea* (Duftschmid, 1825)**
Suginčiai, 06.07.2014, 2 spec, in a vegetable garden in *Mentha arvensis* overgrowth. Later, from end-May to mid-October, 2015–2018, 20–60 adults and larvae were constantly recorded.

***Colaphus sophiae* (Schaller, 1783)**

Suginčiai, 08.05.2016, 1 spec., in a garden (det. R. F., V. T.).

***Sermylassa halensis* (Linnaeus, 1767)**

Branišavos Miškas f., 29.09.2015, 3 spec., 29.08.2018, 1 spec.; Kašeikiai, 13.08.2014, near 10 spec., 08.09.2014, 6 spec,, 30.09.2014, near 20 spec.; Suginčiai, 31.07–05.09.2014, about 50 spec., 06.08–26.09.2015, about 20 spec.; Lake Želva env. (1), 05.09.2014, 1 spec. On *Euphorbia cyparissias*, thin on *Convolvulus arvensis* or other plants in mesophytic meadows.

***Galeruca interrupta* (Illiger, 1802)**

Lake Obelija env., 06.06.1996, 2 spec. (det. V. T.).

***Prasocuris junci* (Brahm, 1790)**

Kapiniškės, 21.07.2018, 2 spec., on *Veronica beccabunga*. One report (Tamutis, 2003).

***Hermaeophaga mercurialis* (Fabricius, 1792)**

Kulionys env., 16.06.2015, 1 spec.; Suginčiai, June 2007, 1 spec.; Verkiai Park, 18.05.2015, about 600,000 spec., in *Mercurialis perennis* habitats in an area of about 3.5 ha.

Note. Species abundance in Verkiai Park, Vilnius environs, was estimated using the technique of sampling plots, with adults being counted in 1 m^2 (10 plots) in different places. The species is rare in Lithuania, with the first record made in 1991 (Pileckis, 1997). The case of exponential growth of the population of this rare species was registered, which is particularly rare in natural conditions. In 1991, the exponential growth of the species probably reached the maximums of population density and abundance. A repeated survey was carried out in the same locality in 2017; however, not a single specimen of the species was detected.

***Phyllotreta tetrastigma* (Comoli, 1837)**

Suginčiai, 18.05.2015, 1 spec.; Lake Želva env. (1), 19.05.2015, about 50 spec., on *Cruciferae* on the lakeshore.

***Altica brevicollis* Foudras, 1860**

Branišavos Miškas f., 25.09.2016, 5 spec.; Lake Želva env. (2), 08.05.2016, 6 spec., 06.06.2017, 3 spec., on *Corylus avellana*.

***Labidistomis tridentata* (Linnaeus, 1758)**

Branišavos Miškas f., 14.06.2015, 1 spec.; Suginčiai, 15.06.2015, 12–21.06.2016, 17.06.2017, 20 spec., on *Betula* spp., *Quercus robur*, *Salix* spp.

***Cryptocephalus coryli* (Linnaeus, 1758)**

Ažuolijos Miškas f., 23.05.2006, 1 spec., on *Sorbus aucuparia* blossoms.

***Cryptocephalus pini* (Linnaeus, 1758)**

Lake Želva env. (2), 22.08.2017, 1 spec., by a pheromone trap for *Ips typographus* control.

***Cryptocephalus nitidus* (Linnaeus, 1758)**

Lake Želva env. (1), 18.04.2014, 1 spec., 21.06.2016, 1 spec.

ANTHRIBIDAE

***Gonotropis dorsalis* (Thunberg, 1796)**

Lake Želva env. (2), 11.08.2017, 1 spec., by a pheromone trap for *Ips typographus* control.

***Rhaphitropis marchicus* (Herbst, 1797)**

Branišavos Miškas f., 10.06.2015, 1 spec., reared from *Alnus* spp. One report (Tamutis, 2003).

***Platyrhinus resinosus* (Scopoli, 1763)**

Suginčiai, 21.05.2017, 1 spec., 16.06.2017, 4 spec., 13.06.2018, 2 spec.; Kulionys env., 07.06.2015, 1 spec., on *Alnus* spp., *Betula* spp.

DISCUSSION

As many as eleven genus *Medon* (*Hypomedon*, *Sunius*, *Luzea*) species are widely distributed in Middle and Northern Europe; however, they are encountered sporadically with only solitary specimens recorded, their "ecology is nearly unknown, at least some (hopefully, all) live in underground nests of mouse-like rodents or moles" (Lompe A., after Lohse G. A.). In Europe, *Medon apicalis* was registered in Austria, the Czech Republic, Greece, Croatia, Macedonia, all Scandinavian countries, and Germany. Quite recently, one specimen of the species has been recorded in England and several specimens in western Poland (Assing et al., 2011; Burakowski et al., 1979; Fauna Europaea Database; Lompe, 2018). The locality where *Medon apicali* was recorded in Lithuania is the easternmost edge of the species distribution range in Europe.

Xylodromus depressus and *Heterothops dissimilis* are widely distributed in Europe. They have been found in nearly all Middle and Northern European countries (Fauna Europaea Database). Both species are predators that hunt under the bark of dead deciduous trees (Assing et al., 2011).

Abdera flexuosa, a xylomicetopagous beetle, lives in soft wood partly decomposed by rot fungi (Kaszab in: Freude et al., 1969; Duff, 2012). The author found it only in birch trees (*Betula* spp.) growing in areas surrounding swamps, or in damp forests.

The representatives of Histeridae, Eucnemidae, Elateridae, Lymexylidae, Trogossitidae, Silvanidae (except *Ahasverus advena*), Endomychidae, Mycetophagidae, Tetratomidae, Melandryidae, Zopheridae, Tenebrionidae (except *Blaps mortisaga*), Oedemeridae, Boridae, Salpingidae, and Anthribidae families described in the list of species are xylobionts (saproxyls in broad sense), with many species included into the EU lists of protected species (Nieto et al., 2010). However, more comprehensive studies, in particular the maintaining larvae and rearing adult beetles in laboratory, showed that some published ("rare") species such as: *Abdera affinis*, *Aspidiphorus orbicularis*, *Cyllodes ater*, *Dendrophilus punctatus*, *Dorcatoma dresdensis*, *Epuraea boreella*, *Grynocharis oblonga*, *Hallomenus binotatus*, *Hylleocoetus dermestoides*, *Leiopus linnei*, *Glischrochilus quadriguttatus*, *Megatoma undata*, *Mordellistena abdominalis*, *Mycetochara flavipes*, *Mycetophagus piceus*, *M. quadriguttatus*, *M. multipunctatus*, *Nitidula bipunctata* (by tree sap), *Oplocephala haemorrhoidalis* (north-eastern Lithuania), *Orchesia micans*, *Peltis grossa*, *Pocadius adustus*, *Salpingus ruficollis*, *Soronia grisea*, *Synchita humeralis*, and *Tetropium fuscum* are widespread and can be met nearly everywhere in their suitable habitats or microhabitats. Saproxylic beetles constitute an ecological group of beetles (*Coleoptera*) that are insufficiently investigated in Lithuania, and so far no publication has emerged on laboratory studies of this abundant group of the species.

Long-term investigations disclosed interesting facts about the ecology of some species, namely: the records of *Calosoma auropunctatum* in the depth of the forest for several years (in European literature this species is described as living in open areas); exponential growth of *Hermaeophagus mercurialis* population; records of *Boros schneideri* deep in raised bogs, in open areas with solitary pine trees.

According to different European literature, *Agostenus costulatus*, *Eubria palustris*, *Silvanoporus fagi*, *Leiestes seminiger*, *Mycetophagus ater*, *Orchesia undulata*, *Anogcodes ferrugineus*, *Anogcodes rufiventris*, and *Lissodema cursor* are regarded as rare and local (fragmentary records, isolated populations) in Europe, while *Anthobium unicolor*, *Oxyporus mannerheimi*, *Isoriphis melasoides*, *Drapetes mordelloides*, *Nemozoma elongatum*, *Physoronia wajdelota*, *Plegaderus saucius*, *Wanachia triguttata*, and *Phyllotreta tetrastigma* are reported as rare and insufficiently known (with scanty data on their distribution, abundance, and other aspects of species life).

ACKNOWLEDGEMENTS

The author appreciates the help of the Laboratory of Entomology of the Nature Research Centre in preparing this paper and expresses his thanks to Pavelas Starkevičius and Radvilė Markevičiūtė for photos of beetles, and to Dr. Romas Ferenca, Vidmantas Monsevičius, and Assoc. Prof. Vytautas Tamutis for assistance in identifying some beetle species. The author is grateful to Prof. Vincas Būda for his suggestions in preparing this paper.

Received 18 March 2019
Accepted 25 March 2019

References

1. Assing V, Schulke M. Die Kafer Mitteleuropas. Band 4: Staphylinidae. Heidelberg. 2011. German.
2. Burakowski B. Klucze do oznaczania owadow Polski. XIX (88–90). *Pythidae*, *Lagriidae, Alleculidae*. Warszawa. 1976. Polish.
3. Burakowski B, Mroczkowski M, Stefanska J. Katalog fauny Polski, T. 7: Chraszcze – Coleoptera. Kuskowate – Staphylinidae. Warszawa. 1979. Polish.
4. Duff AG, editor. (after Hackston M.) 2014. Checklist of beetles of British Isles, Melan-

dryidae.Available from http://www.coleoptera.org.uk/sites/www.coleoptera.org.uk/files/imce/coleoptera/checklist2012.pdf.

5. Ferenca R. 9 new for Lithuania species of beetles, found in 1981–1985. In Jonaitis V. (ed.). New and Rare for Lithuania Insect Species. Records and Descriptions of 1987. Vilnius: 1988; 22–26.
6. Ferenca R, Ivinskis P, Meržijevskis A. New and rare Coleoptera species in Lithuania. Ekologija. 2002; 3: 25–31.
7. Ferenca R, Ivinskis P, Meržijevskis A, Rimšaitė J, Tamutis V. New data on Lithuanian beetle (Coleoptera) fauna. New and Rare for Lithuania Insect Species. 2008; 20: 29–38.
8. Ferenca R, Tamutis V. 17 New for Lithuanian fauna species of beetles (Coleoptera). New and Rare for Lithuania Insect Species. 2009. 21: 32–9.
9. Feude H, Harde KW, Lohse GA. Die Kafer Mitteleuropas. Bds. 2–16. Krefeld, Germany: Goecke and Evers. 1965–1989.
10. Lompe A. (after Lohse G. A.). 2018. Kafer Europas, Medon, Coleoptera-Staphylinidae-Paederinae. Available from http.//www. coleonet.de/coleo/medon/coleoptera.htm. [cited 2018 Oct).
11. Monsevičius V. New and little known for the Lithuanian fauna species of beetles (Coleoptera), found in 2002, 2011–2012. New and Rare for Lithuania Insect Species. 2013; 25: 24–31.
12. Nieto A, Alexander K. European Red List of Saproxylic Beetles. Publication Office of the European Union. Luxenbourg. 2010; 46.
13. Pacevičius V. New for Lithuanian fauna species of beetles (Coleoptera) found in Molėtai district. Bulletin of the Lithuanian Entomological Society. 2017; 1(29): 27–9.
14. Pileckis S, Monsevičius V. Lietuvos fauna. Vabalai 2. Vilnius, Mokslas. 1997. Lithuanian.
15. Tamutis V. Eighty-two new for Lithuania beetle (Coleoptera) species. New and Rare for Lithuania Insect Species. 2003; 15: 54–62.
16. Tamutis V, Tamutė B, Ferenca R. A Catalogue of Lithuanian beetles (Insecta, Coleoptera). Zookeys. 2011; 121: 1–464. Sofia.
17. Warchałowski A. Klucze do oznaczania owadow Polski. XIX (94 a). Stankowate – Chrysomelidae. Warszawa, 1971. Polish.

Viktoras Pacevičius

MAŽAI ŽINOMOS ARBA LIETUVOJE RETOS NAUJOS VABALŲ (COLEOPTERA) RŪŠYS IR KAI KURIE JŲ EKOLOGIJOS BRUOŽAI

Santrauka

Pateikiami duomenys apie 120 retų arba mažai žinomų vabalų (Coleoptera) rūšių, iš kurių viena, *Medon apicalis*, yra nauja Lietuvoje. *Agostenus costulatus*, *Anogcodes ferrugineus*, *Anogcodes rufiventris*, *Eubria palustris*, *Leiestes seminiger*, *Lissodema ursor*, *Mycetophagus ater*, *Orchesia undulata*, *Sivanoporus fagi* Europoje yra retos ir lokalios, *Anthobium unicolor*, *Drapetes mordelloides*, *Isoriphis melasoides*, *Oxyporus mannerheimi*, *Phyllotreta tetrastigma*, *Physoronia wajdelota*, *Plegaderus saucius*, *Nemozoma elongatum*, *Wanachia triguttata* – retos bei mažai žinomos. Nustatyta, jog saproksilinės rūšys *Abdera flexuosa*, *Hallomenus axillaris*, *Hyleocoetus flabellicornis*, *Lissodema cursor*, *Orchesia undulata*, *Triphyllus bicolor*, *Wanachia triguttata* yra ksilomicetofagai, gyvenantys trūnijančiuose, grybais apaugusiuose medžiuose arba medžių grybų vaisiakūniuose. Išaiškėjo nauji trijų rūšių ekologijos faktai: *Calosoma auropunctatum* populiacija rasta 1994, 1996 ir 1998 metais brandaus mišraus miško gilumoje; registruota gausi *Hermaeophagus mercurialis* populiacija (apie 600 000 individų maždaug 3,5 ha plote); *Boros schneideri* gyvena žuvusiose be žievės pušaitėse aukštapelkių gilumoje. Pirma Lietuvoje *Medon apicalis* radimvietė yra labiausiai į rytus nutolęs rūšies radimo taškas Europoje.

Raktažodžiai: vabzdžiai, saproksilinės rūšys, ksilomicetofagai, *Medon apicalis*, *Boros schneideri*