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A REVIEW OF THE SUBFAMILY MYCETOPORINAE THOMSON, 1859 (COLEOPTERA, STAPHYLINIDAE) IN EASTERN UKRAINE

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The paper summarizes all known information about the findings of the subfamily Mycetoporinae Thomson, 1859 in eastern Ukraine, based on the study of collections stored in the country, collected in the Donetsk, Luhansk, Kharkiv, and Sumy administrative regions of Ukraine. As a result of the study, it was found that the subfamily Mycetoporinae is represented in the fauna of the region (Bolitobius – 1 species; Carphacis – 1 species; Ischnosoma – 2 species; Lordithon – 6 species; Mycetoporus – 3 species). The data on ecological features and distribution of the identified species are presented. The obtained results can be used for solving a number of theoretical issues of faunistics, zoogeography and ecology, as well as for the preparation of the fauna cadastre of Ukraine, for comparative faunal studies, analysis of species distribution, biogeographical constructions, study of faunogenesis, environmental monitoring and prediction of the effects of human activity on natural ecosystems of the region.
Key words: *rove beetles, subfamily Mycetoporinae, fauna, Eastern Ukraine.*
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Огляд підродин Mycetoporinae Thomson, 1859 (Coleoptera, Staphylinidae) сходу України. Глотов С.[1,2,3]
У роботі узагальнено всі відомі відомості про знахідки підродини Mycetoporinae Thomson, 1859 на сході України на основі вивчення колекцій, що зберігаються на території держави, зібраних на території Донецької, Луганської, Харківської та Сумської адміністративних областей України. У результаті проведеного дослідження встановлено, що підродина Mycetoporinae у фауні регіону представлена (Bolitobius – 1 вид; Carphacis – 1 вид; Ischnosoma – 2 види; Lordithon – 6 видів; Mycetoporus – 3 види). Наведено дані про екологічні особливості та поширення виявлених видів. Отримані результати можуть бути використані для вирішення низки теоретичних питань фауністики, зоогеографії та екології, а також для підготовки кадастру фауни України, порівняльних фауністичних досліджень, аналізу поширення видів, біогеографічних побудов, вивчення фауногенезу, екологічного моніторингу та прогнозування наслідків діяльності людини на природні екосистеми регіону.
Ключові слова: *жуки-стафілініди, підродина Mycetoporinae, фауна, схід України.*
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Introduction

Rove beetes (Coleoptera: Staphylinidae) is one of the largest families of beetles; to date, the world fauna comprises more than 66,928 species belonging to 35 subfamilies and 4,038 genera (Newton 2022). More than 1,300 species are known in the fauna of Ukraine (Schülke, Smetana 2015). The representatives of the family are ubiquitous in all-natural zones of the planet, inhabit almost all terrestrial natural and anthropogenic biotopes, take an active part in the activities of natural and artificial biogeocenoses. Larvae and imagos of rove beetles actively inhabit forest cover, plant and animal remains, animal excrement, fungi. A number of progressive adaptive features have led to the emergence

of specialized forms which successfully coexist with other animals, living in caves, burrows of mammal, nests of birds and social insects (Thayer 2005).

Subfamily Mycetoporinae Thomson, 1859 currently includes a fairly large group of genera and has recently been distinguished based on the results of morphology-based phylogenetic analyses (Yamamoto 2021). Sixteen genera, 444 species, and 15 subspecies are known in the world fauna (Newton 2022). In the fauna of Ukraine, the subfamily Mycetoporinae is represented by the genera *Bolitobius* Leach, 1819, *Bryophacis* Reitter, 1909, *Bryoporus* Kraatz, 1857, *Carphacis* Gozis, 1886, *Ischnosoma* Stephens, 1829, *Lordithon* Thomson, 1859, *Mycetoporus* Mannerheim, 1830, *Parabolitobius* L.-Z. Li, M.-J. Zhao & Sakai, 2000. Representatives of the subfamily Mycetoporinae are collected in any biodiversity-related studies, but rarely used in such research. Neglecting this group is unfortunate for science and stems from practical hindrance such as lack of comprehensive identification manuals, up-to-date checklists or regional faunal reviews.

Information on finds of the subfamily Mycetoporinae in Eastern Ukraine is fragmentary and presented in scattered faunal reports for the Luhansk (Petrenko et al. 2003; Petrenko, Glotov 2008), Kharkiv (Krynicki 1832; Gontarenko 2005; Glotov, Drogvalenko 2022; Glotov, Terekhova 2022), and Sumy (Petrenko 2009; Petrenko, Sheshurak 2013; Glotov et al. 2022) regions. The purpose of this work is to begin faunal surveys of different subfamilies of the family Staphylinidae of the fauna of the eastern regions of Ukraine, as part of the preparation of a checklist of rove beetles of the fauna of Ukraine.

Material and methods

The study was based on the collections of the author, which have been sampled over many years and are currently deposited in the State Museum of Natural History of the National Academy of Sciences of Ukraine, Lviv (SMNH). Specimens stored in the collections of other institutions have also been studied: Museum of Nature of V.N. Karazin Kharkiv National University, Kharkiv, Ukraine (KUMN); Zoological Museum of Donetsk National University, Donetsk (ZMDONU); Zoological Museum at Gogol State University of Nizhyn (ZMNSU). In addition, specimens from the personal collections of fellow entomologists were processed: collection of V. Foroshchuk, Luhansk, Ukraine (cFr); collection of S. Glotov, Lviv, Ukraine (cGl, deposited in SMNH); collection of S. Konovalov, Severodonetsk (cKn); collection of I. Severov, Rubizhne, Ukraine (cSv).

Current taxonomic status, nomenclature and general distribution of the species follow M. Schülke and A. Smetana (Schülke, Smetana 2015), taking into account taxonomic changes based on the molecular phylogenetic analysis by S. Yamamoto (Yamamoto 2021).

Additional abbreviations used in the text (including province codes of Ukraine): DON – Donetsk, KHR – Kharkiv, LUG – Luhansk, SUM – Sumy, NNR – National Nature Reserve; RLP – Regional Landscape Park; c. – city; d. – district; ex. – exemplar or exemplars; l. – lake; r. – region; riv. – river; v. – village.

Study region

The territory of eastern Ukraine is currently one of the areas of Ukraine and Eastern Europe that have been insufficiently studied by entomologists. The presence of various biogeographical zones and their corresponding faunal communities allows us to assess the spatial dynamics of the fauna and conduct a number of modern comparative faunal and ecological studies. The high degree of anthropogenic pressure on the natural landscapes of this region and the extremely weak network of nature reserve areas make it important to describe and analyze the structure and dynamics of the entomofauna in order to ensure the protection of this group of animals and biodiversity in general. The proposed study is based on the analysis of original data and generalization of all the information accumulated so far on the findings of rove beetles of the subfamily Mycetoporinae in the territory of eastern Ukraine.

In administrative terms, the territory of eastern Ukraine includes the entire territories of the Sumy, Kharkiv, Luhansk, and Donetsk administrative regions (Fig. 1) of Ukraine.

The border of the Donetsk-Don and Donetsk-Pryazovia steppes in the northeast, east, and southeast is the state border of Ukraine with the Russian Federation. In the south, the natural border is the northeastern coast of the Azov Sea.

A characteristic feature of eastern Ukraine is that it covers two physical and geographical zones: Forest-Steppe (Sumy and northern Kharkiv regions) and Steppe (southern Kharkiv, all of Luhansk and Donetsk regions).

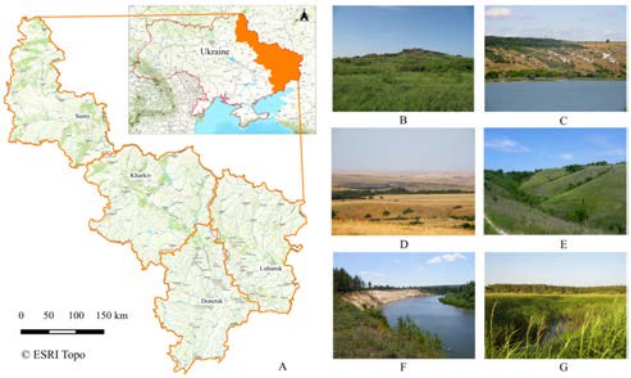

Fig. 1. Map of the study area and different types of biotopes of eastern Ukraine: A – Map of eastern Ukraine; B – Donetsk region, Kamiani Mohyly Nature Reserve (photo: S. Demyanenko); C – Luhansk region, Demyno-Oleksandrivske (photo: S. Demyanenko); D – Luhansk region, v. Provallia, Provalskyi Steppe Nature Reserve, Kalyniv area (photo: S. Demyanenko); E – Luhansk region, s. Luhansk, botanical natural monument gully Ploska (photo: S. Demyanenko); F – Luhansk region, Stanytsia Luhanska Nature Reserve (photo: S. Demyanenko); G – Sumy region, Desnyansko-Starogutsky National Natural Park, river Desyonka (photo: S. Galushenko)

Results

Subfamily Mycetoporinae Thomson, 1859

Genus *Bolitobius* Leach, 1819

The type species of the genus *Bolitobius* is *Megacronus castaneus* Stephens, 1832 (= *Bolitobius castaneus*). *Bolitobius* is a small genus with 21 species and 2 subspecies (Newton 2022) distributed mainly in the Holarctic Region, with some species of the genus found in the northern Oriental Region, mainly in the highlands (Schülke 1998; Schülke 1999; Schülke 2016). There are 2 known species in the fauna of Ukraine, one species occurs in Eastern Ukraine.

***Bolitobius cingulatus* Mannerheim, 1830**

Records. Sumy region (Petrenko 2009).

Material. Literature data only.

Bionomics. A eurytopic hygrophilous forest species, found mainly in moist deciduous and mixed forests, in river floodplains and along lake shores, in litter layer and under wet leaves and in mosses (Koch 1989; Schülke 2012).

Distribution. Widely distributed Holarctic species (Herman 2001; Schülke, Smetana 2015). In eastern Ukraine recorded only from the Sumy region.

Genus *Carphacis* Gozis, 1886

The type species of the genus *Carphacis* is *Staphylinus striatus* Olivier, 1795 (= *Carphacis striatus*). *Carphacis* is a small genus which has more than 16 species in the world fauna (Newton 2022). There are 13 known species in the fauna of Palearctic region (Schülke, Smetana 2015; Schülke 2016), in the fauna of Ukraine 1 species.

***Carphacis striatus* Olivier, 1795**

Material. Luhansk region**:** v. Provallia, Provalskyi Steppe Nature Reserve, Kalyniv area, 11.07.2000, 1 ex., A. Petrenko (SIZK).

Bionomics. A eurytopic mesophilic forest species, found in river floodplains, in deep moist gullies covered with forest, in deciduous and mixed forests. Mycetobiont, the beetles live and develop in the fruiting bodies of young and mature terrestrial and xylotrophic fungi, often found on *Laetiporus sulphureus* and *Pleurotus pulmonarius*, in wood affected by fungi, sometimes in the litter layer and under fungi, on the leaking sap of *Betula* and *Quercus*. Adults occur in VI–X (Horion 1967; Schülke 2016).

Distribution. Distributed in Europe and known from Japan, but not recorded from East Siberia and the Far East (Schülke, Smetana 2015; Schülke 2012). In eastern Ukraine recorded only from the Luhansk region.

Genus *Ischnosoma* Stephens, 1829

The type species of the genus *Ischnosoma* is *Tachinus splendidus* Gravenhorst, 1806 (= *Ischnosoma splendidum*). *Ischnosoma* is a large genus, which has more than 97 species and 3 subspecies in the world fauna (Newton 2022). There are 56 known species in the fauna of Palearctic Region (Schülke, Smetana 2015), four of which are represented in the fauna of Ukraine, two species occur in eastern Ukraine.

***Ischnosoma longicorne* (Mäklin, 1847)**

Records. Kharkiv region (Gontarenko 2005).

Material. Literature data only.

Bionomics. A eurytopic hygrophilous species, occurs in dry meadows, deciduous and pine forests, in moist litter layer, in mosses, in river sediments and along the banks of water bodies, in nests and passages of *Talpa* (Horion 1967; Kocian 1997). Adults occur in III–IX (Kocian 1997).

Distribution. Holarctic, known from Europe, the Caucasus, Siberia to Russian Far East, Japan and North America (Schülke, Smetana 2015). In eastern Ukraine recorded only from the Kharkiv region.

***Ischnosoma splendidum* (Gravenhorst, 1806)**

Records. Sumy region (Petrenko 2009; Petrenko, Sheshurak 2013).

Material. Literature data only.

Bionomics. A eurytopic hygrophilous species, the most widespread species of the genus, occurs in open meadow and steppe areas and forested territories, in deciduous and mixed forests (*Querqus*, *Fagus*, *Betula*), on wetlands, in places of moisture accumulation,

along river and lake banks, on rocky and sandy river banks and in coastal sediments, in moist litter layer, in meadow turf and in mosses (Horion 1967; Schülke 2012; Zanetti 2015), in winter it can be found together with *Formica rufa* (Kocian 1997). Adults occur in III–V and IX–XI (Horion 1967; Kocian 1997).

Distribution. Widespread in Holarctic and Oriental regions (Herman 2001; Schülke, Smetana 2015). In eastern Ukraine recorded only from the Sumy region.

Genus *Lordithon* Thomson, 1859

The type species of the genus *Lordithon* is *Oxyporus pygmaeus* Fabricius, 1777 = *Oxyporus thoracicus* Fabricius, 1777 (= *Lordithon thoracicus*). *Lordithon* is a large genus of the subfamily Mycetoporinae, which has more than 97 species and 3 subspecies in the world fauna (Newton 2022). There are 67 known species in the fauna of Palearctic Region, 8 of which are represented in the fauna of Ukraine (Schülke, Smetana 2015), six of which are found in the eastern regions of Ukraine. Larvae are mycophagous, adults are active predators, feeding on larvae of dipterans that develop in fungi (Newton 1984). Different representatives of the genus *Lordithon* are found in agaric, tubular, and aphyllophore annual and plurannual xylotrophic fungi (Glotov, Drogvalenko 2022). On plurannual tinder fungi with a hard fruiting body, it occurs mainly during the sporulation period, not only on the surface of the fungus but also in the litter layer, where spores fall, and can be found under bark and in rotten wood near the tinder fungus (Scheerpeltz, Höfler 1947; Horion 1967).

***Lordithon exoletus* (Erichson, 1839)**

Records. Luhansk region (Petrenko, Glotov 2008).

Material. Donetsk region: Donetsk, Leninskyi Komsomol Park, in litter layer, 28.07–4.08.2001, 60 ex., V. Martynov (ZMDONU). Luhansk region: Novopskovsk d., Teviashovo, 20.05.2004, 1 ex., S. Glotov (cGl).

Bionomics. A eurytopic mycetophilous species, found mainly in forest landscapes, in floodplain and ravine forests as well as in upland oak forests, in forest belts and in forest park plantations, mainly on xylotrophic fungi growing on dead tree trunks, as well as on various terrestrial agaric and tubular fungi, in litter layer and in rotten wood (Scheerpeltz, Höfler 1947; Horion 1967; Newton 1984). Adults occur in VI–IX (Horion 1967).

Distribution. Widespread through Europe, found in Turkey and North Africa (Schülke, Smetana 2015). In eastern Ukraine recorded only from the Donetsk and Luhansk regions.

***Lordithon lunulatus* (Linnaeus, 1760)**

Records. Kharkiv region: (Krynicki 1832; Glotov, Drogvalenko 2022; Glotov, Terekhova 2022); Luhansk region: (Petrenko et al. 2003; Petrenko, Glotov 2008); Sumy region: (Petrenko, Sheshurak 2013; Glotov et al. 2022).

Material. Donetsk Region: Bakhmut d., Dronivka, in fungi, 27.08.2002, 1 ex.; Donetsk, Shcherbakova Park, litter layer, 19–26.08.2004, 2 ex., V. Martynov; gully Rakovka, litter layer, 29.07–5.08.2001, 1 ex., V. Martynov (all – ZMDONU); Makiivka, Kalmius River floodplain, 24.08.1999, 1 ex., T. Trikhlieb (SIZK); Novoazovsk d., Sedove, 20.05.2010, 1 ex. (ZMDONU); Kostiantynivka d., Kleban-Byk Regional Landscape Park, 12 ex. (ZMLG); Sloviansk d., Bohorodychne, 2 ex., S. Glotov (all – cGl); Kramatorsk, 1 ex., I. Severov (cSv); Sloviansk, 4.07.2010, 1 ex., S. Glotov (all – cGl); Sviatohirsk, 2004, 1 ex., S. Glotov (all – cGl); Volodarsk d., Kamiani Mohyly Nature Reserve, 2004, 8 ex. (ZMLG); Starobesheve d., Starobesheve, in fungi, 13.04.2002, 1 ex., V. Martynov; d. Volnovakha, Pyshchevyk, Kalmius River, 22.09.2007, 3 ex., V. Martynov (all – ZMDONU); Chystiakove (Torez), forest belt, litter layer, 6.05.1999, 4 ex., S. Konovalov; same locality but, 10–20.05.2000, 1 ex., S. Konovalov (all – cKn); Yasynuvata d., Yasynuvata, 25.07.1999, 11 ex., V. Martynov (ZMDONU). Kharkiv Region: Zmiiv d., Haidary, 10–11.07.2011, 1 ex., V. Terekhova (cGl); same locality but, 12–13.07.2011, 1 ex., V. Terekhova (cGl); Topalske, 18.08.1998, 1 ex., O. Drohvalenko; Kharkiv, deciduous forest, litter layer, 14.04.2005, 2 ex., O. Drohvalenko; same locality but, Pavlove Pole, in *Pleurotus culiptatus,* 19.05.1997, 2 ex., O. Drohvalenko; Chuhuiv d., Dachi, 9.06.1998, 2 ex., O. Drohvalenko (all – KUMN). Luhansk Region: Alchevsk d., Alchevsk, 1 ex., I. Severov (cSv); Brianka, 1 ex., I. Severov (cSv); Antratsyt d., Antratsyt, 10.05.2001, 1 ex., S. Konovalov; Djakovo, 19.05.2007, 2 ex., S. Konovalov; same locality but, 19.05.2000, 1 ex., S. Konovalov; same locality but, 22.05.2000, 2 ex., S. Konovalov; same locality but, 4–16.05.2000, 2 ex., S. Konovalov; same locality but, 13–23.05.2000, 6 ex., S. Konovalov; same locality but, 11.02.2002, in fungi, 2 ex., S. Konovalov (all – cKn); Ivanivka, 29–30.04.2012, 4 ex., S. Glotov (cGl); same locality but, 17.04.–05.05.2011, 4 ex., V. Landyk; Rovenky, Dubova Balka, ravine forest, in fungi, 15–20.06.2010, 1 ex., S. Glotov (cGl); Bilokurakine d., Bilokurakine, 1 ex., I. Severov (cSv); Rozdolne, Rozdolanski Prudy Nature Reserve, in fungi, 5.06.2005, in fungi, 1 ex., S. Glotov; Bilovodsk d., Bilovodsk, 1 ex., I. Severov (cSv); Bilovodsk, in fungi, 16.07.2009, 1 ex., S. Glotov (cGl); Horodyshche, Kostiantyn Yunytskyi

Botanical Reserve, 10–11.06.2009, 2 ex., S. Glotov; same locality but, 13.06.2009, 1 ex., S. Glotov; Horodyshche, Natural Landmark Svynarska Balka, 7.06.2005, 1 ex., S. Glotov; Stepove, 5.06.2005, 1 ex., S. Glotov; Yevsuh-Stepove Nature Reserve, 5.06.2005, 2 ex., S. Glotov (cGl); Kreminna d., Kreminna, 2005, 12 ex., I. Severov; Novokrasnianka, 7 spec., I. Severov; Stara Krasnianka, 11 ex., I. Severov; Lysychansk, 05.2005, 1 ex., I. Severov; same locality but, 1 ex., I. Severov (all – cSv); Luhansk, Hostra Mohyla Park, in *Polyporus squamosus*, 20.05.2005, 5 ex., S. Glotov (cGl); same locality but, 28.05.2005, 5 ex., S. Glotov (cGl); same locality but, *Polyporus squamosus*, 13.06.2008, 12 ex., S. Glotov (all – cGl); Moloda Hwardiia Square, wood, in fungi, 10.05.2002, 6 ex., S. Glotov (ZMLG); same locality but, 8–23.05.2012, 1 ex., V. Landyk (cGl); same locality but, gully Kalmytskyi Yar, 10.05.2003, 2 ex., S. Glotov (cGl); same locality but, 20.05.2004, 1 ex., S. Glotov (cGl); gully Mashchynskyi Yar, 10.05.2003, 2 ex., S. Glotov (cGl); same locality but, botanical natural monument gully Ploska, in fungi, 10.05.2003, 11 ex., S. Glotov (cGl); 20.05.2004, 3 ex., S. Glotov (cGl); floodplain of Luhan River, in fungi, 2000, 1 ex. (ZMLG); Lutuhine d., Lutuhine, 1 spec. (ZMLG); same locality but, 1 ex., I. Severov (cSv); Novosvitlovka-Novoannivka, 1 ex., I. Severov (cSv); Piatyhorivka, 17.06.2009, 1 ex., S. Glotov (cGl); Rozkishne, 05.2004, 1 ex., S. Glotov; Markivka d., Heraskivka Nature Reserve, 3–4.06.2005, 1 ex., S. Glotov; Prosiane, in fungi, 3–4.06.2005, 1 ex., S. Glotov; Lymarivka, in fungi, 3–4.06.2005, 1 ex., S. Glotov; Lypove, in fungi, 3–4.06.2005, 1 ex., S. Glotov (all – cGl); Novoaidar d., Aidar-Mykolaivka, Geological natural monument of Ukraine Baraniachi Loby, 1 ex., A. Verbin (ZMLG); Borovske, 1 ex., I. Severov; Kapitanove, 1 ex., I. Severov; Muratovo, 1 ex., I. Severov; Novookhtyrka, 1 ex., I. Severov; Spivakivka, 1 ex., I. Severov (all – cSv); Novopskov d., Bilolutsk, Bilolutsk Nature Reserve, 21.05.2004, 1 ex., S. Glotov; Natural Landmark Novobila, 20.05.2004, 1 ex., S. Glotov; Kuban, 22.05.2004, 1 ex., S. Glotov; Novopskov, 29.05.2004, 1 ex., S. Glotov; Osynove, Osynove Nature Reserve, bank of r. Aidar, in fungi, 21.05.2004, 2 ex., S. Glotov; Teviasheve, 21.05.2004, 2 ex., S. Glotov (all – cGl); Protected tract Zuiev Lis, 2003–2005, 1 ex. (ZMLG); Perevalsk d., Perevalsk 1 ex., (ZMLG); same locality but, 2 ex., (cSv); Svatove d., Nyzhnia Duvanka, 05–07.2002, 1 ex., I. Severov (cSv); Sverdlovsk d., Provalskyi Steppe Nature Reserve, in fungi, 14.06.2010, 9 ex., S. Glotov (cGl); Severodonetsk d., Borovenky, 1 ex., I. Severov; Severodonetsk, 2002, 4 ex., I. Severov; Rubizhne, 2008, 2 ex., I. Severov; 2008, 9 ex., I. Severov; same locality but, 06.2008, 1 ex., I. Severov; Smolianinove, 34 ex., I. Severov (all – cSv); Stanytsia Luhanska d., Derkul Ichthyological Natur Reserve, bank of the river Derkul, in fungi, 10.07.2010, 4 ex., S. Glotov; same locality but, 11.07.2010, 1 ex., S. Glotov; Stanytsia Luhanska, 2.05.2013, in fungi, 1 ex., S. Glotov; Kindrashivka Nature Reserve, in fungi, 2.06.2013, 1 ex., S. Glotov; Stanytsia Luhanska Nature Reserve, 10.06.2007, 3 ex., S. Glotov; 22.06.2010, 4 ex., S. Glotov; in fungi, 8.07.2008, 1 ex., S. Glotov (all – cGl); Starobilsk, 2003, 1 ex., I. Severov; Svatove d., Svatove, 05–06.2002, 1 ex., I. Severov; Troitske, 05–06.2002, 1 ex., I. Severov (all – cSv); Demyno-Oleksandrivske, 28.07.2009, in fungi, 7 spec., S. Glotov (all – cGl).

Bionomics. An eurytopic mycetophilous species, the most common species of the genus, massive and ubiquitous, found in natural and artificial deciduous and mixed forests, in moist gully forests, in river floodplains and along the banks of water bodies, in forest belts, in meadow and steppe areas, mainly in agaric, tubular, and aphyllophore annual xylotrophic fungi. On *Laetiporus sulphureus*, it can form massive clusters, especially in the late stages of their decomposition. On plurannual tinder fungi with a hard fruiting body, it occurs mainly during the sporulation period, not only on the surface of the fungus but also on the litter layer, where spores fall, can be found under bark and in rotten wood near the tinder fungus, and there are isolated findings on animal corpses (Scheerpeltz, Höfler 1947; Newton 1984; Horion 1967). Adults occur in VI–X (Horion 1967).

Distribution. Widespread from Europe to Siberia (Schülke, Smetana 2015); in eastern Ukraine from the Donetsk, Kharkiv, Luhansk, and Sumy regions.

***Lordithon pulchellus* Mannerheim, 1830**

Records. Kharkiv region (Jakobson 1905–1913; Glotov, Terekhova 2022).

Material. Kharkiv region: Zmiiv d., Haidary, 2.07.2011, 1 spec., V. Terekhova (KUMN). Luhansk Region: Kreminna, in fungi, 1 spec., I. Severov (cSv); Stara Krasnianka, 1 spec., I. Severov (cSv).

Notes. In the recent faunal summary for the Kharkiv region (Glotov, Terekhova 2022), the species *Lordithon pulchellus* Mannerheim, 1830 was mistakenly listed as *Lordithon speciosus* (Erichson, 1939), to date we are not aware of any records of *Lordithon speciosus* in eastern Ukraine, and the listing of this species from the region should be attributed to *Lordithon pulchellus*.

Bionomics. A stenotopic forest mycetophilous species found in deciduous forests, in river floodplains on various tree fungi (Koch 1989; Schülke 2012). Mycophagous larva, adult active predator, feeds on

dipteran larvae developing in fungi, overwinters both in pupal and adult stages (Scheerpeltz, Höfler 1947; Horion 1967).

Distribution. Widespread from Europe to the Russian Far East (Schülke, Smetana 2015); in eastern Ukraine from the Kharkiv and Luhansk regions.

***Lordithon thoracicus thoracicus* (Fabricius, 1777)**

Records. Kharkiv region (Medvedev et al. 1980; Glotov, Drogvalenko 2022; Glotov, Terekhova 2022); Sumy region (Petrenko 2009).

Material. Donetsk Region: Donetsk, Park of Leninskyi Komsomol, litter layer, 29.07.2000, 1 ex., V. Martynov; same locality but, 2.07.–4.08.2001, 1 ex., V. Martynov; same locality but, 2.10.1999, 7 ex., V. Martynov; same locality but, 28.07.2001, 1 ex., V. Martynov; Shcherbakova Park, litter layer, 28.07.2000, 1 ex., V. Martynov; same locality but, 19–26.08.2004, 5 ex., V. Martynov; gully Rakovka, litter layer, 23–30.05.1999, 1 ex., V. Martynov; same locality but, 14–21.06.2001, 1 ex., V. Martynov; 20–27.07.2004, 2 ex., V. Martynov; 29.07.2001, 2 ex., V. Martynov; same locality but, 29.07–5.08.2001, 29 ex., V. Martynov; same locality but, 23–30.08.2000, 1 ex., V. Martynov; Yasynuvata d., Yasynuvata, ravine forest, litter layer, 20–27.07.2004, 4 ex., V. Martynov (all – ZMDONU). Kharkiv Region: Zmiiv d., Haidary, 8–9.07.2011, 1 ex., V. Terekhova; same locality but, 9–20.07.2011, 1 ex., V. Terekhova; same locality but, 10–11.07.2011, 1 ex., V. Terekhova; same locality but, 12–13.07.2011, 1 ex., V. Terekhova (all – KUMN).

Bionomics. A eurytopic forest mycetophilous species, is one of the most widespread species of the genus, occurs on plains, in river valleys, in foothills up to the upper forest belt, in deciduous and mixed forests, in terrestrial and annual xylotrophic fungi, in general, findings on more than 70 species of fungi are known, adults are more often found in fungi in the early and middle stages of caprophore decomposition. Mycophagous larvae are often found in moist wood together with pupae, adults are active predators, feeding on fly larvae that develop in fungi (Horion 1967; Newton 1984; Schülke 2012). Adults occur in VI–X (Horion 1967).

Distribution. Widespread in the Palaearctic, from Europe to the Far East (Schülke, Smetana 2015). In eastern Ukraine recorded from the Donetsk, Kharkiv, and Sumy regions.

***Lordithon trimaculatus* (Fabricius, 1792)**

Records. Luhansk region **(**Petrenko, Glotov 2008).

Material. Luhansk region: Severodonetsk, 2002, 1 ex., I. Severov; Rubizhne, 2008, 6 ex., I. Severov; same locality but, 2008, 1 ex., I. Severov; Stanytsia Luhanska Nature Reserve, 6–12.05.2007, 2 ex., S. Glotov; same locality but, 12–19.05.2007, 1 ex., S. Glotov (cGl).

Bionomics. A eurytopic forest, mycetophilous species, adults are found mainly on xylotrophic fungi (*Fomes fomentarius*, *Laetiporus sulphureus*, *Pleurotus pulmonarius*, *Polyporus squamosus*), in addition, they are often found on the trunks of old oaks and beeches, sometimes under bark and in dead wood. Mycophagous larvae are often found in moist wood together with pupae, adults are active predators, feeding on fly larvae that develop in fungi (Horion 1967; Newton 1984; Schülke 2012). Adults occur in VI–IX.

Distribution. Transpalaearctic, known from Europe to the Far East (Schülke 2012; Schülke, Smetana 2015).

***Lordithon trinotatus* (Erichson, 1839)**

Material. Donetsk Region: Debaltseve, ravine forest, litter layer, 1–2.05.2012, 1 ex., S. Glotov (cGl); Donetsk, Park of Leninskyi Komsomol, litter layer, 24.07.1999, 1 ex., V. Martynov; same locality but, 28.07.2001, 13 ex., V. Martynov; same locality but, 28.07–4.08.2001, 4 ex., V. Martynov; Shcherbakova Park, litter layer, 19–26.08.2004, 2 ex., V. Martynov; gully Rakovka, litter layer, 28.05.2000, 1 ex., V. Martynov; same locality but, 14–21.06.2001, 1 ex., V. Martynov; same locality but, 29.07.2001, 43 ex., V. Martynov; same locality but, 29.07–5.08.2001, 580 ex., V. Martynov; same locality but, 2.10.2004, 5 ex., V. Martynov; same locality but, 5.10.2003, 1 ex., V. Martynov (all – ZMDONU). Luhansk Region: Antratsyt d., Diakovo, 19.05.2007, 2 ex., S. Konovalov (cKn); Ivanivka, 29–30.04.2012, 1 ex., S. Glotov; Luhansk, Hostra Mohyla Park, in *Polyporus squamosus*, 28.05.2005, 12 ex., S. Glotov; same locality but, in *Polyporus squamosus*, 13.06.2008, 25 ex., S. Glotov; Sverdlovsk d., Nyzhnia Derevechka, 27.05.2010, 1 ex., S. Glotov; Provallia, in *Polyporus squamosus*, 28.05.2010, 1 ex., S. Glotov; same locality but, 31.05.2010, 1 ex., S. Glotov; Korolivski Skeli Geological Natural Monument, in *Polyporus squamosus*, 26–30.05.2010, 1 ex., S. Glotov; Provalskyi Steppe Nature Reserve, in *Polyporus squamosus*, 13.07.2008, S. Glotov; same locality but, 10.06.2008, 2 ex., S. Glotov (all – cGl).

Bionomics. Occurs in river valleys, foothills, in mountains up to the subalpine zone, in deciduous and mixed forests, in terrestrial and xylotrophic fungi, in rotten wood, under bark, and is known to be found in nests of *Myodes glareolus*. Mycophagous larvae are often found in moist wood with pupae, adults are active predators, feeding on fly larvae developing in

fungi (Schülke 2012; Newton 1984). Adults occur in VI–IX (Horion 1967).

Distribution. Widespread across the Palaearctic region (Schülke, Smetana 2015). In eastern Ukraine recorded only from the Donetsk and Luhansk regions.

Genus *Mycetoporus* Mannerheim, 1830

The type species of the genus *Mycetoporus* is *Tachinus punctus* Gravenhorst, 1806 (= *Mycetoporus punctus*). *Mycetoporus* is a large genus, which has more than 88 species and 2 subspecies in the world fauna (Newton 2022). There are 77 known species in the fauna of Palearctic Region (Schülke, Smetana 2015), more than 20 of which are represented in the fauna of Ukraine, of which only 3 species are known from the eastern regions of Ukraine (Gontarenko 2005). Larvae and adults are active zoophagous species feeding on eggs of mycetophilous dipterans (Majzlan, Fedor 2009). The species composition and distribution of the genus, both in the eastern regions and in Ukraine as a whole, should be the subject of a separate, deeper and more detailed study.

***Mycetoporus clavicornis* (Stephens, 1832)**

Records. Kharkiv region (Gontarenko, 2005).

Material. Literature data only.

Bionomics. A eurytopic hygrophilous species, occurs in deciduous, mixed, and coniferous forests, on open meadow and steppe areas, prefers humid and swampy microhabitats on moist and marshy soils, along river and water body banks, in bank sediments, in moist litter layer and in meadow turf (Schülke 2012).

Distribution. Widespread in Europe, the Caucasus and in North Africa (Schülke, Smetana 2015). In eastern Ukraine recorded only from the Kharkiv region.

***Mycetoporus forticornis* Fauvel, 1875**

Records. Kharkiv region (Gontarenko 2005)

Material. Literature data only.

Bionomics. A eurytopic hygrophilous species, which occur in deciduous and mixed forests, found mainly in leaf litter, but also in other ground-based debris, in coastal sediments and in mosses (Schülke 2012).

Distribution. Known from Central and Southern Europe; easternmost records come from Turkey and European part of Russia (Schülke, Smetana 2015). In eastern Ukraine recorded only from the Kharkiv region.

***Mycetoporus glaber glaber* (Sperk, 1835)**

Records. Kharkiv region (Gontarenko 2005).

Material. Literature data only.

Bionomics. A eurytopic hygrophilous forest species, found in deciduous, mixed, and coniferous forests, on moist and swampy soils, found in leaf litter, occurs mainly in lowlands, but is also recorded from higher elevations. Adults occur in VI–IX (Schülke, Kocian 2000).

Distribution. Distributed from Europe to West Siberia, more common in Central Europe (Schülke 2012; Schülke, Smetana 2015). In eastern Ukraine recorded only from the Kharkiv region.

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