

ON THE FAUNA OF MYCETOBIONTIC ROVE BEETLES (COLEOPTERA: STAPHYLINIDAE) OF NORTH-EASTERN UKRAINE

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Abstract

The fruit bodies of higher basidiomycetes represent a typical consortium of many groups of arthropods that are trophically closely connected with each other. Aspects of the study of the species composition, biotope and microstational distribution of mycetobiontic rove beetles in the Kharkiv region are considered in the paper. Issues of bionomy, trophic specialization and distribution of these species are discussed. Information on the findings of representatives of the family in the territory of the Kharkiv region is contained in few scientific publications and is fragmentary and contains information on the findings of 160 species.

Keywords: rove beetles, fauna, mycetobionts, trophic specialization, bionomics, Kharkiv region, Ukraine.

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INTRODUCTION

Rove beetles (Coleoptera: Staphylinidae) is one of the largest families of beetles; there are currently more than 63000 species in the world fauna, belonging to 32 subfamilies and 3672 genera (Klimaszewski et al. 2018). More than 1300 species are known in the fauna of Ukraine (Schülke & Smetana 2015).

Information on the findings of representatives of the family in the territory of the Kharkiv region is contained in few scientific publications and is fragmentary (Krynicky 1832, Czernay 1852,

Medvedev et al. 1980, Komaromi et al. 2018, Puchkov et al. 2020) and contains information on the findings of 160 species; the probability of detecting little-known and new species is high. In addition, it should be noted that mycetobiontic rove beetles have not been the subject of special ecological and faunal studies in the Kharkiv region. The study is a continuation of the attempts to inventory the fauna both in the eastern regions (Glotov 2021) and in the fauna of Ukraine as a whole (Glotov et al. 2011, Glotov 2012), and will further form the basis of an updated and supplemented generalized faunal summary for the fauna of the region.

Representatives of the family are present in all natural zones of the planet, inhabit almost all terrestrial natural and anthropogenic biotopes and take an active part in the activities of natural and artificial biogeocenoses. Larvae and imagoes of rove beetles actively inhabit forest cover, plant and animal remains, excrements and fungi. Several progressive adaptive features have led to the emergence of specialized forms, which successfully coexist with other animals living in caves, mammal burrows, bird nests and social insects. Most larvae and imagoes are non-specialized predators that feed on various invertebrates, acting as natural regulators of their numbers. Significantly, few of them are mycophages, which feed on parts of fruit bodies, hyphae and spores of fungi, or antophages, algophages and saprophages, which feed on various remains of plant and animal origin and are actively involved in soil-formation processes and the cycle of matter in nature. Many species of rove beetles are characterized by high numbers, clear allocation of existence in certain natural biotopes, as well as by the ability to respond sensitively to environmental changes. This allows use them as potential objects for bioindication of environmental pollution and environmental monitoring (Tikhomirova 1973).

The family Staphylinidae is a constant and numerous component of consortia of higher fungi. Mycetobiontic complexes of rove beetles in Central and Northern Europe, and North America have been studied to the full extent; however, both in some regions and in Ukraine as a whole, complexes of mycetobiontic rove beetles have never been the subject of special studies. The choice of the subject of our study is contingent on the large area of Ukraine and the diversity of natural and climatic conditions that are specific to each of the natural zones, as well as on the high level of species diversity of both rove beetles and fungi, and at the same time on the low level of prior studies in the region and Ukraine as a whole.

It is considered that most representatives of rove beetles do not have any preferences for certain species of fungi, but most of them mainly choose either agaric fungi (*Gyrophana* Mannerheim, 1830) or pore fungi (*Oxyporus* Fabricius, 1775)

(Scheerpeltz & Höfler 1948, Seevers 1951). Special attention should be paid to almost all representatives of *Bolitochara* Mannerheim, 1830, *Lordithon* Thomson, 1859, *Mycetoporus* Mannerheim, 1830 and some species of *Atheta* Thomson, 1858 and *Sepedophilus* Gistel, 1856, which form a complex of predacious mycetobionts and actively prey on other mycetobiontic arthropods both at the surface of the fruit body of the fungus and moving freely in the holes gnawed in the carpophore by various mycetophages (Kascheev et al. 1989).

At present, all mycetobiontic rove beetles are divided into two groups: obligate and facultative mycetobionts. In obligate species, the entire development cycle takes place on fungi and they almost do not occur in other microstations. In most cases, these are representatives of *Agaricochara* Kraatz, 1856 and *Gyrophana*, widespread in Ukraine, whose larvae and imagoes feed on fungal spores, being constantly at the surface of the fruit body. As well as species of *Oxyporus*, *Scaphidium* Olivier, 1790 and *Scaphisoma* Leach, 1815, whose larvae and imagoes feed on particles of basidioma, sometimes gnawing passages in them. The group of facultative mycetobionts includes species in which one of the stages of ontogenesis is connected with fungi, or which occur in fungi acting as predators (e.g. *Bolitochara*, *Lordithon*). The group of accidental mycetobionts consists of species which use fungi as shelter (Scheerpeltz & Höfler 1948, Kascheev et al. 1989).

MATERIAL AND METHODS

The present study is based on the results of observations and collections of O. M. Droghvalenko in permanent sample areas in Kharkiv region in 1992. The collected material is currently deposited in the reserve collections of the Museum of Nature of V. N. Karazin Kharkiv National University (KUMN). The systematics of fungi is given according to data of the Mycobank (Mycobank database 2022).

The material was collected by using a manual method during inspection of the fruit bodies of fungi, the beetles were collected with the help of an exhaustor. The determination of the beetles was performed using binocular magnifier MBS-10. If necessary, the mandibles, genitals and other parts of the beetles' body were dissected and fixed with thin dissecting needles. Occasionally, the material was clarified by boiling or steeping in 10% NaOH solution. After that, these body parts were placed in the fixing fluid for long-term storage; Canada balsam or Euparal was used as a fixing agent. In total, 3873 specimens of beetles were processed.

The study was conducted in various natural and anthropogenic ecosystems of Kharkiv region and covered the following points: 1) 7 km S Zmiiv, environs of v. Haidary, moist ravine forest (49.617500 N, 36.321811 E); 2) dry ravine forest (49.626014 N, 36.323308 E); 3) highland oak forest (49.618813 N, 36.309961 E); 4) floodplain forest (49.615095 N, 36.334874 E); 5) floodplain meadow (49.624005 N, 36.333785 E); 6) 3 km S Zmiiv, environs of v. Zadonetske, artificial pine forest (49.612117 N, 36.354228 E); 7) 9 km S Zmiiv, environs of Korobiv Khutir, highland oak forest (49.597546 N, 36.324917 E); 8) environs of c. Chuhuiv, forest belt (49.836497 N, 36.658855 E).

Moist ravine forest — deep and narrow ravine covered with old forest. Prevailing tree species: oak (*Quercus robur*), maple (*Acer platanoides*), ash (*Fraxinus excelsior*), birch (*Betula pendula*). A stream flows along the bottom of the ravine, willow (*Salix alba*) grows in some places. Many fallen trees.

Dry ravine forest — deep and wide ravine, one of the slopes of which is covered with old forest. Prevailing tree species: oak (*Quercus robur*), maple (*Acer platanoides*), linden (*Tilia cordata*), ash (*Fraxinus excelsior*). Due to the southern exposure, the slope warms up well and is quite dry. Many fallen trees.

Highland oak forest — deciduous forest on the valley side of Siverskyi Donets River. The forest

is middle-aged, in some places secondary, located on plain sites and on slopes. Prevailing tree species: oak (*Quercus robur*), maple (*Acer platanoides*), linden (*Tilia cordata*), ash (*Fraxinus excelsior*), elms (several species of the genus *Ulmus*), in some places pear tree (*Pyrus communis*) and apple tree (*Malus sylvestris*). Moderate humidity.

Floodplain forest — deciduous forest in the floodplain of Siverskyi Donets River with many small lakes and swampy areas. Prevailing tree species: oak (*Quercus robur*), maple (*Acer platanoides*), ash (*Fraxinus excelsior*), birch (*Betula pendula*), in some places alder (*Alnus glutinosa*). Many fallen trees. Very humid.

Floodplain meadow — floodplain meadow in the floodplain of Siverskyi Donets River situated between the bed of the river and Bile Lake. Grass meadow with single willow trees (*Salix alba*).

Artificial pine forest — old artificial pine forest planted more than 100 years ago. The prevailing tree species is pine (*Pinus sylvestris*), in lower areas (outliers), birch (*Betula pendula*) occurs. The forest has almost no windbreaks, it is dry, the humidity in outliers is higher.

Forest belt — artificial forest belt in environs of c. Chuhuiv. Prevailing tree species: oak (*Quercus robur*), maple (*Acer platanoides*), ash (*Fraxinus excelsior*), birch (*Betula pendula*), in some places apricot tree (*Prunus armeniaca*). There is a path that is regularly used by people and therefore the forest belt has a high anthropogenic impact and is dry.

RESULTS AND DISCUSSION

Annotated list of mycetobiontic rove beetles of Kharkiv region

Subfamily Omaliinae MacLeay, 1825

Anthobium atrocephalum (Gyllenhal, 1827)

Material. Kharkiv region: environs of Haidary, moist ravine forest, on old carpophores of *Fistu-*

lina hepatica, 29.V.1992, 5 spec.; ditto, moist ravine forest, on mature carpophores of *Trametes versicolor*, 29.V.1992, 3 spec.; ditto, on fallen trees of ash and elm, on old carpophores of *Fomes fomentarius*, 29.V.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Beetles inhabit forest litter, mosses and as accidental mycetobionts occurs in mature and rotten carpophores of fungi.

Distribution. Palaearctic Region (Schülke & Smetana 2015).

Omalius rivulare (Paykull, 1789)

Material. Kharkiv region: environs of Haidary, moist ravine forest, on old carpophores of *Fistulina hepatica*, 29.V.1992, 20 spec.; ditto, moist ravine forest, on mature carpophores of *Trametes versicolor*, 29.V.1992, 2 spec.; ditto, moist ravine forest, on old carpophores of *Trametes versicolor*, 30.V.1992, 58 spec.; ditto, on carpophores of *Stereum hirsutum*, 31.V.1992, 1 spec.; ditto, highland oak forest, on soil on old carpophores of *Coprinus micaceus*, 8.VI.1992, 1 spec.; ditto, on soil in old and rotten carpophores of *Agaricus silvaticus*, 23.VI.1992, 1 spec.; ditto, moist ravine forest, on old and rotten carpophores of *Kuehneromyces mutabilis*, 23.VI.1992, 1 spec.; ditto, highland oak forest, on fallen trees, on old carpophores of *Artomyces pyxidatus*, 26.VI.1992, 1 spec.; environs of Chuhuv, forest belt, on soil on carpophores of *Lactarius insulsus*, 30.VIII.1992, 3 spec. (Supplement, Tab. 1).

Bionomics. Beetles inhabit natural and anthropogenic biotopes, where they live in forest cover, plant remains, under bark of trees, in rotten wood, in mosses, on flowing sap of trees and in nest chambers of small mammals. As facultative mycetobiont, they occur in old and rotten carpophores of fungi.

Distribution. Europe, Caucasus, Asia Minor, North America (Schülke & Smetana 2015).

Subfamily Oxytelinae Fleming, 1821

Anotylus tetracarinatus (Block, 1799)

Material. Kharkiv region: environs of Haidary, moist ravine forest, on old and rotten carpophores of *Laetiporus sulphureus* from fallen trees, 4.VII.1992, 4 spec. (Supplement, Tab. 1).

Bionomics. It occurs in plant remains, in cattle manure and, as accidental mycetobiont, it can be found in rotten carpophores of fungi.

Distribution. Europe, Asia Minor, Iran (Schülke & Smetana 2015).

Subfamily Oxyporinae Fleming, 1821

Oxyporus rufus (Linnaeus, 1758)

Material. Kharkiv region: environs of Haidary, highland oak forest, on soil in mature carpophores of *Coprinus micaceus*, 8.VI.1992, 1 spec.; ditto, on horse manure in carpophores of *Panaeolus fimiputris*, 11.VI.1992, 2 spec.; ditto, in old carpophores of *Coprinus micaceus*, 13.VI.1992, 1 spec.; ditto, in carpophores of *Lepista saeva*, 15.VI.1992, 5 spec.; ditto, in carpophores of *Marasmius oreades*, 15.VI.1992, 1 spec.; ditto, in old and rotten carpophores of *Agaricus silvaticus*, 23.VI.1992, 16 spec.; ditto, in carpophores of *Boletus badius*, 29.VI.1992, 19 spec.; ditto, floodplain forest, in rotten carpophores of *Coprinopsis atramentaria*, 2.VII.1992, 6 spec.; ditto, highland oak forest, in carpophores of *Psathyrella spadi-ceogrisea*, 6.VII.1992, 10 spec.; ditto, in carpophores of *Coprinus comatus*, 7.VII.1992, 1 spec.; ditto, in carpophores of *Amanita rubescens*, 7.VII.1992, 1 spec.; ditto, in rotten carpophores of *Boletus badius*, 9.VII.1992, 9 spec.; ditto, dry ravine forest, in carpophores of *Boletus badius*, 16.VII.1992, 1 spec.; ditto, in carpophores of *Leccinum scabrum*, 8.VIII.1992, 2 spec. (Supplement, Tab. 1).

Bionomics. Mycetophage and obligate mycetobiont, it occurs in young, old and rotten carpophores of fungi.

Distribution. Palearctic Region (excluding North Africa) (Schülke & Smetana 2015).

Subfamily Paederinae Fleming, 1821

Astenus immaculatus Stephens, 1833

Material. Kharkiv region: environs of Haidary, moist ravine forest, at oak trunk on mature carpophores of *Trametes versicolor*, 29.V.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Beetles live in natural and anthropogenic biotopes, along banks of rivers and reservoirs, on open steppe areas and meadows with different humidity level, in forest cover and in mosses. As accidental mycetobiont, they occur in mature carpophores of fungi.

Distribution. North Africa, Europe, Asia Minor (Schülke & Smetana 2015).

Rugilus rufipes (Germar, 1836)

Material. Kharkiv region: environs of Haidary, moist ravine forest, on old carpophores of *Coprinus micaceus*, 8.VI.1992, 1 spec.; at the same place, moist ravine forest, on apothecia of *Legalia badia*, 13.VI.1992, 1 spec.; at the same place, highland oak forest, on old and rotten carpophores of *Kuehneromyces mutabilis*, 23.VI.1992, 3 spec.; at the same place, floodplain forest, on rotten carpophores *Coprinopsis atramentaria*, 2.VII.1992, 1 spec.; at the same place, highland oak forest, on rotten carpophores of *Russula xerampelina*, 9.VII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator, which lives in natural and anthropogenic biotopes, along banks of rivers and reservoirs, on open steppe areas and meadows with different humidity level, in forest cover and in mosses. As accidental mycetobiont, it occurs in mature carpophores of fungi.

Distribution. Europe, Caucasus, Asia Minor, Near East, Western Siberia (Schülke & Smetana 2015).

Subfamily Staphylininae Latreille, 1802

Philonthus confinis Strand, 1941

Material. Kharkiv region: environs of Haidary, floodplain forest, on rotten carpophores of *Lentinus tigrinus*, 2.VII.1992, 2 spec.; ditto, highland oak forest, on carpophores of *Boletus badius*, 8.VIII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator; specimens inhabit forest ecosystems, and can be found along the banks of rivers and reservoirs, on open steppe areas, in forest litter, as accidental mycetobiont occurs in mature and rotten carpophores of fungi.

Distribution. Europe, Siberia, Mongolia (Schülke & Smetana 2015).

Philonthus punctus punctus (Gravenhorst, 1802)

Material. Kharkiv region: environs of Haidary, Haidary, highland oak forest, on old carpophores of *Boletus edulis*, 9.VIII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator that lives in natural and anthropogenic biotopes, along the banks of rivers and reservoirs, on open steppe areas and meadows with different humidity level, in forest cover and in mosses. As accidental mycetobiont, it occurs in old carpophores of fungi.

Distribution. Palearctic Region (Schülke & Smetana 2015).

Gabrius subnigrutilus Joy, 1913

Material. Kharkiv region: environs of Haidary, highland oak forest, on old carpophores of *Arctomyces pyxidatus*, 8.VIII.1992, 1 spec.; ditto, dry ravine forest, on sporophores of myxomycete *Fuligo septica*, 10.VIII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator that lives in forest ecosystems, along banks of rivers and reservoirs, under stones, in forest cover. As accidental myce-

tobiont, it occurs in mature and rotten carpophores of fungi.

Distribution. Central and Southern Europe, Balkans, Caucasus, Asia Minor, Iran, Kazakhstan (Schülke & Smetana 2015).

***Ontholestes murinus* (Linnaeus, 1758)**

Material. Kharkiv region: environs of Haidary, floodplain meadow, on carpophores of *Lentinus tigrinus* on a trunk lying on the ground, 28.07.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator that lives in natural and anthropogenic biotopes, along the banks of rivers and reservoirs, on open steppe areas and meadows with different humidity level, in forest cover, in cattle manure, as accidental mycetobiont can be found in mature carpophores of fungi.

Distribution. Holarctic Region (excluding Northern Africa) (Schülke & Smetana 2015).

***Ontholestes tessellatus* (Geoffroy, 1785)**

Material. Kharkiv region: environs of Haidary, highland oak forest, on old carpophores of *Suillus luridus*, 9.VIII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator that lives in natural and anthropogenic biotopes, on open steppe areas and meadows with different humidity levels, in forest cover, in cattle manure. As accidental mycetobiont, it can be found in mature carpophores of fungi.

Distribution. Palaearctic Region (excluding Northern Africa) (Schülke & Smetana 2015).

Subfamily Tachyporinae MacLeay, 1825

***Sepedophilus bipustulatus* (Gravenhorst, 1802)**

Material. Kharkiv region: environs of Haidary, moist ravine forest, on old carpophores of *Fistulina hepatica*, 29.V.1992, 1 spec.; ditto, in stub of fallen trees, on carpophores of *Fomes fomen-*

tarius, 1.VI.1992, 1 spec.; ditto, moist ravine forest, on carpophores of *Phellinus igniarius*, 16.VIII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs in young, old and rotten carpophores of fungi.

Distribution. Europe, Asia Minor, Iran, Western Siberia (Schülke & Smetana 2015).

***Sepedophilus immaculatus* (Stephens, 1832)**

Material. Kharkiv region: environs of Haidary, moist ravine forest, on carpophores of *Fomes fomentarius*, 17.VI.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator that lives in natural and anthropogenic biotopes, on open steppe areas and meadows with different humidity level, in forest cover, rotten wood, in mosses. As accidental mycetobiont, it occurs in old carpophores of fungi.

Distribution. North Africa, Europe, Caucasus, Asia Minor, Near East, Western Siberia (Schülke & Smetana 2015).

***Sepedophilus littoreus* (Linnaeus, 1758)**

Material. Kharkiv region: environs of Haidary, highland oak forest, on old carpophores of *Phellinus igniarius*, 4.IX.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator that lives in natural and anthropogenic biotopes, on open steppe areas and meadows with different humidity level, in forest cover, rotten wood, in mosses. As accidental mycetobiont, it occurs in old carpophores of fungi.

Distribution. Holarctic Region (Schülke & Smetana 2015).

***Sepedophilus marshami* (Stephens, 1832)**

Material. Kharkiv region: environs of Haidary, highland oak forest, on carpophores of *Coprinus micaceus*, 3.VII.1992, 1 spec.; environs of Zado-

netske, artificial pine forest, on carpophores of *Crepidotus applanatus*, 28.VII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator that lives in natural and anthropogenic biotopes, on open steppe areas and meadows with different humidity levels, in forest cover, rotten wood, in mosses and in ant hill. As accidental mycetobiont, it occurs in old carpophores of fungi.

Distribution. Holarctic Region (excluding Northern Africa) (Schülke & Smetana 2015).

Sepedophilus obtusus (Luze, 1902)

Material. Kharkiv region: environs of Haidary, highland oak forest, on old carpophores of *Artomyces pyxidatus*, 8.VIII.1992, 3 spec. (Supplement, Tab. 1).

Bionomics. Active predator that lives in natural biotopes, in forest cover, rotten wood, in mosses. As accidental mycetobiont, it occurs in old carpophores of fungi.

Distribution. Europe, Asia Minor (Schülke & Smetana 2015).

Tachinus rufipes Linnaeus, 1758

Material. Kharkiv region: environs of Haidary, moist ravine forest, on old carpophores of *Trametes versicolor*, 29.V.1992, 1 spec.; ditto, moist ravine forest, on rotten carpophores of *Coprinus comatus*, 11.VI.1992, 1 spec.; ditto, moist ravine forest, on apothecia of *Legaliana badia*, 13.VI.1992, 1 spec.; ditto, moist ravine forest, on old and rotten carpophores of *Kuehneromyces mutabilis*, 23.VI.1992, 3 spec.; ditto, highland oak forest, on old carpophores of *Russula cyanoxantha*, 17.VIII.1992, 3 spec. (Supplement, Tab. 1).

Bionomics. Active predator that lives in natural and anthropogenic biotopes, along banks of rivers and reservoirs, on open steppe areas and meadows with high humidity level, in forest cover, under stones, on flowing sap of trees, in plant and animal

remains. As accidental mycetobiont, it occurs in old and rotten carpophores of fungi.

Distribution. Holarctic Region (Schülke & Smetana 2015).

Lordithon lunulatus (Linnaeus, 1760)

Material. Kharkiv region: environs of Haidary, moist ravine forest, on carpophores of *Laetiporus sulphureus*, 2.VI.1992, 7 spec.; ditto, moist ravine forest, on old carpophores of *Mycena* sp., 2.VI.1992, 5 spec.; ditto, moist ravine forest, on old carpophores of *Pluteus cervinus*, 9.VI.1992, 1 spec.; ditto, moist ravine forest, on old carpophores of *Gymnopus dryophilus*, 17.VI.1992, 1 spec.; ditto, highland oak forest, on rotten carpophores of *Russula delica*, 8.VIII.1992, 1 spec.; ditto, dry ravine forest, on carpophores of *Russula decolorans*, 8.VIII.1992, 2 spec.; ditto, on old carpophores of *Artomyces pyxidatus*, 8.VIII.1992, 1 spec.; ditto, highland oak forest, on old carpophores of *Suillellus luridus*, 9.VIII.1992, 1 spec.; ditto, moist ravine forest, on carpophores of *Kuehneromyces mutabilis*, 16.VIII.1992, 1 spec.; ditto, moist ravine forest, on carpophores of *Ganoderma applanatum*, 16.VIII.1992, 1 spec.; ditto, highland oak forest, on old carpophores of *Russula rosea*, 17.VIII.1992, 1 spec.; ditto, on old carpophores of *Russula cyanoxantha*, 17.VIII.1992, 1 spec.; ditto, on old carpophores of *Russula delica*, 22.VIII.1992, 9 spec.; ditto, on carpophores of *Oxyporus corticola*, 22.VIII.1992, 2 spec.; ditto, on carpophores of *Amanita phalloides*, 22.VIII.1992, 2 spec.; ditto, moist ravine forest, on carpophores of *Coprinus comatus*, 4.IX.1992, 2 spec.; environs of Zdonetske, artificial pine forest, on carpophores of *Russula virescens*, 28.VII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator and obligate mycetobiont that occurs in young, old and rotten carpophores of fungi.

Distribution. Europe, Caucasus, Siberia (Schülke & Smetana 2015).

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

Material. Kharkiv region: environs of Haidary, highland oak forest, on old and rotten carpophores of *Agaricus silvaticus*, 23.VI.1992, 2 spec.; ditto, dry ravine forest, on carpophores of *Trametes gibbosa*, 8.VIII.1992, 1 spec.; ditto, highland oak forest, on old carpophores of *Megacollybia platyphylla*, 10.VIII.1992, 2 spec.; ditto, moist ravine forest, on carpophores of *Fomes fomentarius*, 16.VIII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator and obligate mycetobiont that occurs in young, old and rotten carpophores of fungi.

Distribution. Palaearctic Region (Schülke & Smetana 2015).

Subfamily Aleocharinae Fleming, 1821

***Acrotona parvula* (Mannerheim, 1830)**

Material. Kharkiv region: environs of Haidary, moist ravine forest, on old carpophores of *Russula rosea*, 10.VIII.1992, 3 spec.; ditto, highland oak forest, on rotten carpophores of *Russula rosea*, 16.VIII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator, coprophyte that mainly occurs in cattle manure, sometimes in forest cover and in plant remains. As accidental mycetobiont, it occurs in old and rotten carpophores of fungi.

Distribution. North Africa, Europe, Asia Minor, Iran, Siberia, Central Asia (Schülke & Smetana 2015).

***Acrotona troglodytes* (Motschulsky, 1858)**

Material. Kharkiv region: environs of Haidary, highland oak forest, on old carpophores of *Boletus edulis*, 9.VIII.1992, 1 spec.; ditto, highland oak forest, on rotten carpophores of *Russula rosea*, 16.VIII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator, which inhabits forests, open steppe areas and meadows with different humidity level, where it lives in forest cover, plant remains and mosses. As accidental mycetobiont, it occurs in rotten and dry carpophores of fungi.

Distribution. Europe (Schülke & Smetana 2015).

***Atheta amicula* (Stephens, 1832)**

Material. Kharkiv region: environs of Chuhuiv, forest belt, on old carpophores of *Lactarius insulsus*, 15.VIII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator that inhabits forests, on open steppe areas and meadows with different humidity level, where it lives in forest cover, plant remains and mosses. As accidental mycetobiont, it occurs in rotten and dry carpophores of fungi.

Distribution. Palearctic Region, Northern and Southern Africa (Schülke & Smetana 2015).

***Atheta boletophila* (Thomson, 1856)**

Material. Kharkiv region: environs of Haidary, moist ravine forest, on old and rotten carpophores of *Kuehneromyces mutabilis*, 23.VI.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator and facultative mycetobiont occurs in old and rotten carpophores of fungi.

Distribution. Europe, Far East (Schülke & Smetana 2015).

***Atheta celata* (Erichson, 1837)**

Material. Kharkiv region: environs of Haidary, moist ravine forest, on old carpophores of *Coprinus micaceus*, 8.VI.1992, 3 spec. (Tab. 1).

Bionomics. Active predator that inhabits natural forests, open steppe areas and meadows with different humidity level, where it lives in plant and animal remains and on flowing sap of trees. As accidental mycetobiont, it occurs in carpophores of fungi.

Distribution. Holarctic Region (Schülke & Smetana 2015).

***Atheta crassicornis* (Fabricius, 1792)**

Material. Kharkiv region: environs of Haidary, moist ravine forest, on old carpophores of *Gymnopus dryophilus*, 17.VI.1992, 2 spec.; ditto, highland oak forest, on old and rotten carpophores of *Agaricus silvaticus*, 23.VI.1992, 1 spec.; ditto, moist ravine forest, on old and rotten carpophores of *Kuehneromyces mutabilis*, 23.VI.1992, 1 spec.; ditto, highland oak forest, on fallen trees, on carpophores of *Neolentinus schaefferi*, 26.VI.1992, 3 spec.; ditto, highland oak forest, on old carpophores of *Russula rosea*, 6.VII.1992, 3 spec.; ditto, on carpophores of *Marasmius oreades*, 9.VII.1992, 1 spec.; ditto, on rotten carpophores of *Boletus badius*, 9.VII.1992, 2 spec.; ditto, on carpophores of *Coprinus micaceus*, 24.VII.1992, 2 spec.; ditto, on carpophores of *Russula cyanoxantha*, 1.VIII.1992, 3 spec.; ditto, on carpophores of *Russula pseudointegra*, 1.VIII.1992, 1 spec.; ditto, on carpophores of *Agaricus silvaticus*, 1.VIII.1992, 2 spec.; ditto, dry ravine forest, on carpophores of *Russula decolorans*, 8.VIII.1992, 2 spec.; ditto, on carpophores of *Boletus badius*, 8.VIII.1992, 2 spec.; ditto, on carpophores of *Trametes gibbosa*, 8.VIII.1992, 5 spec.; ditto, on sporophores of myxomycete *Fuligo septica*, 8.VIII.1992, 3 spec.; ditto, on old carpophores of *Artomyces pyxidatus*, 8.VIII.1992, 2 spec.; ditto, moist ravine forest, on carpophores of *Kuehneromyces mutabilis*, 16.VIII.1992, 5 spec.; environs of Korobiv Khutir, highland oak forest, on fallen trees, on carpophores of *Pluteus cervinus*, 3.VIII.1992, 1 spec.; environs of Zadonetske, artificial pine forest, on carpophores of *Amanita fulva*, 30.VI.1992, 1 spec.; ditto, on carpophores of *Macrolepiota procera*, 28.VII.1992, 3 spec.; environs of Chuhuiv, forest belt, on old carpophores of *Lactarius insulsus*, 10.VIII.1992, 2 spec.; ditto, 15.VIII.1992, 2 spec.; ditto, 30.VIII.1992, 3 spec. (Supplement, Tab. 1).

Bionomics. Active predator that inhabits natural and artificial forests, on open steppe areas and meadows with different humidity level, where it lives in forest cover and plant remains and in

mosses. As accidental mycetobiont, it occurs in rotten and dry carpophores of fungi.

Distribution. North Africa, Europe, Asia Minor (Schülke & Smetana 2015).

***Atheta gagatina* (Baudi di Selve, 1848)**

Material. Kharkiv region: environs of Haidary, highland oak forest, on carpophores of *Russula decolorans*, 6.VII.1992, 1 spec.; ditto, dry ravine forest, on rotten carpophores *Russula delica*, 8.VIII.1992, 2 spec.; ditto, on carpophores of *Fomes fomentarius*, 16.VIII.1992, 2 spec.; ditto, highland oak forest, on rotten carpophores of *Russula rosea*, 16.VIII.1992, 1 spec.; ditto, on rotten carpophores of *Fistulina hepatica*, 18.VIII.1992, 1 spec.; ditto, on old carpophores of *Russula rosea*, 3.IX.1992, 1 spec.; environs of Chuhuiv, forest belt, on old carpophores of *Lactarius insulsus*, 15.VIII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator that lives in natural and artificial forests, on open steppe areas and meadows with different humidity level, rarely occurs in forest cover, plant remains, in mosses, in cattle manure. As facultative mycetobiont, it often occurs in rotten and dry carpophores of fungi.

Distribution. North Africa, Europe, Caucasus, Asia Minor, Eastern Siberia, Central Asia (Schülke & Smetana 2015).

***Atheta laticeps* (Thomson, 1856)**

Material. Kharkiv region: environs of Haidary, dry ravine forest, on fallen trees, on carpophores of *Lepista saeva*, 15.06.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator that lives in natural and artificial forests, on open steppe areas and meadows with different humidity level, where it lives along the banks of rivers and reservoirs, in forest cover and plant remains, in mosses, as accidental mycetobiont occurs in carpophores of fungi.

Distribution. Europe, Western Siberia (Schülke & Smetana 2015).

Atheta laticollis (Stephens, 1832)

Material. Kharkiv region: environs of Haidary, highland oak forest, on old carpophores of *Boletus edulis*, 9.VIII.1992, 1 spec.; ditto, highland oak forest, on old carpophores of *Suillellus luridus*, 9.VIII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator that inhabits natural and artificial forests, open steppe areas and meadows with different humidity level, where it lives along banks of rivers and reservoirs, forest cover, mainly in plant and animal remains, on flowing sap of trees, new-mown grass, and sometimes in cavity of stalk of umbelliferous plants. As accidental mycetobiont, it occurs in carpophores of fungi.

Distribution. Palaearctic Region (excluding Far East) (Schülke & Smetana 2015).

Atheta liliputana (Brisout de Barneville, 1860)

Material. Kharkiv region: highland oak forest, on fallen trees, on carpophores of *Phellinus robustus*, 3.VIII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator that lives in plant remains; as accidental mycetobiont, it occurs in carpophores of fungi.

Distribution. Europe and North Africa (Schülke & Smetana 2015).

Atheta liturata (Stephens, 1832)

Material. Kharkiv region: environs of Haidary, moist ravine forest, on fallen trees of ash and elm (*Fraxinus* and *Ulmus*) on old carpophores of *Fomes fomentarius*, 29.V.1992, 1 spec.; ditto, moist ravine forest, on carpophores of *Laetiporus sulphureus*, 2.VI.1992, 2 spec.; ditto, on fallen trees, in young carpophores of *Ganoderma applanatum*, 2.VI.1992, 5 spec.; ditto, on old and mature carpophores of *Pluteus cervinus*, 9.VI.1992, 2 spec.; ditto, on old and rotten carpophores

of *Laetiporus sulphureus*, 11.VI.1992, 9 spec.; ditto, on a fallen tree, on basidioma of *Serpula lacrimans*, 13.VI.1992, 6 spec.; ditto, highland oak forest, on old and rotten carpophores of *Agaricus silvaticus*, 23.VI.1992, 1 spec.; ditto, moist ravine forest, on fallen trees, on carpophores of *Kuehneromyces mutabilis*, 4.VII.1992, 1 spec.; ditto, on carpophores of *Laetiporus sulphureus*, 4.VII.1992, 29 spec.; ditto, highland oak forest, on soil on carpophores of *Agaricus hydrophilus*, 4.VII.1992, 1 spec.; ditto, on old carpophores of *Russula rosea*, 6.VII.1992, 3 spec.; ditto, moist ravine forest, on old carpophores of *Lycoperdon pyriforme*, 10.VIII.1992, 4 spec. ditto, highland oak forest, on rotten carpophores *Russula rosea*, 16.VIII.1992, 1 spec.; ditto, moist ravine forest, on carpophores of *Coprinus comatus*, 4.IX.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator and obligate mycetobiont, it occurs in young, old and rotten carpophores of fungi.

Distribution. Europe, Caucasus (Schülke & Smetana 2015).

Atheta oblita (Erichson, 1839)

Material. Kharkiv region: environs of Chuhuiv, forest belt, on carpophores of *Lactarius insulsus*, 30.VIII.1992, 2 spec. (Supplement, Tab. 1).

Bionomics. Active predator that lives in forest cover and in plant remains; as facultative mycetobiont, it occurs in carpophores of fungi.

Distribution. Europe (Schülke & Smetana 2015).

Atheta sodalis (Erichson, 1837)

Material. Kharkiv region: environs of Haidary, dry ravine forest, on carpophores of *Neolentinus schaefferi*, 8.VIII.1992, 2 spec. (Supplement, Tab. 1).

Bionomics. Active predator that lives mainly in plant and animal remains, on flowing sap of trees, and in many species of fungi. As facultative mycetobiont, it occurs in carpophores of fungi.

Distribution. Europe, Caucasus, Asia Minor, Western Siberia (Schülke & Smetana 2015).

***Dinaraea aequata* (Erichson, 1837)**

Material. Kharkiv region: environs of Haidary, moist ravine forest, on fallen trees of ash and elm on old carpophores of *Fomes fomentarius*, 29.V.1992, 1 spec.; ditto, moist ravine forest, on carpophores of *Laetiporus sulphureus*, 2.VI.1992, 2 spec.; ditto, highland oak forest, on fallen trees, on carpophores of *Daedalea quercina*, 6.VII.1992, 1 spec.; ditto, on old carpophores of *Russula rosea*, 17.VIII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator, it occurs mainly under bark of trees and in rotten wood. As accidental mycetobiont, it occurs in carpophores of fungi.

Distribution. Palaearctic Region (excluding North Africa) (Schülke & Smetana 2015).

***Mocyta fungi fungi* (Gravenhorst, 1806)**

Material. Kharkiv region: environs of Haidary, moist ravine forest, on fallen trees, on carpophores of *Ganoderma applanatum*, 11.VI.1992, 1 spec.; ditto, dry ravine forest, on carpophores of *Boletus badius*, 16.VII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator that inhabits natural and artificial forests, open steppe areas and meadows with different humidity levels, where it lives along banks of rivers and reservoirs, in forest cover and plant remains and in mosses. As accidental mycetobiont, it occurs in carpophores of fungi.

Distribution. Holarctic Region (Schülke & Smetana 2015).

***Myrmecopora sulcata* Kiesenwetter, 1850**

Material. Kharkiv region: environs of Haidary, dry ravine forest, on fallen trees, on dry carpophores of *Trametes gibbosa*, 8.VI.1992, 2 spec. (Supplement, Tab. 1).

Bionomics. Active predator that inhabits natural and artificial forests, open steppe areas and meadows with different humidity levels, along banks of rivers and reservoirs, where it lives in forest cover and plant remains and in mosses. As accidental mycetobiont, it occurs in carpophores of fungi.

Distribution. Europe, Asia Minor and Syria (Schülke & Smetana 2015).

***Falagrioma thoracica* (Stephens, 1832)**

Material. Kharkiv region: environs of Haidary, dry ravine forest, on carpophores of *Russula decolorans*, 8.VIII.1992, 2 spec.; ditto, dry ravine forest, on sporophores of *Fuligo septica*, 8.VIII.1992, 2 spec.; ditto, highland oak forest, on sporophores of *Fuligo septica*, 10.VIII.1992, 2 spec. (Supplement, Tab. 1).

Bionomics. Active predator that inhabits natural and artificial forests and open steppe areas, where it lives in forest cover and plant remains and in mosses. As accidental mycetobiont, it occurs in carpophores of fungi and on sporophores of myxomycetes.

Distribution. Holarctic Region (Schülke & Smetana 2015).

***Bolitochara pulchra* (Gravenhorst, 1806)**

Material. Kharkiv region: environs of Haidary, moist ravine forest, at the trunk of a fallen tree, on young carpophores of *Laetiporus sulphureus*, 29.V.1992, 2 spec.; ditto, moist ravine forest, on fallen trees of ash (*Fraxinus*) and elm (*Ulmus*) on old carpophores of *Fomes fomentarius*, 29.V.1992, 1 spec.; ditto, moist ravine forest, on old carpophores of *Fistulina hepatica*, 29.V.1992, 1 spec.; ditto, moist ravine forest, on fallen trees, on young carpophores of *Ganoderma applanatum*, 2.VI.1992, 1 spec.; ditto, highland oak forest, on fallen trees, on old carpophores of *Daedalea quercina*, 8.VI.1992, 1 spec.; ditto, moist ravine forest, on carpophores of *Stereum hirsutum*, 9.VI.1992, 1 spec.; ditto, on mature carpophores of *Trametes versicolor*, 9.VI.1992, 1

spec.; ditto, on old carpophores of *Pluteus cervinus*, 9.VI.1992, 4 spec.; ditto, on carpophores of *Inocybe* sp., 11.VI.1992, 1 spec.; ditto, on old and rotten carpophores of *Laetiporus sulphureus*, 11.VI.1992, 1 spec.; ditto, on old carpophores of *Tricholoma populinum*, 13.VI.1992, 5 spec.; ditto, highland oak forest, on fallen trees, on old carpophores of *Artomyces pyxidatus*, 26.VI.1992, 2 spec.; ditto, on fallen trees, on carpophores of *Neolentinus schaefferi*, 26.VI.1992, 4 spec.; ditto, on fallen trees, on carpophores of *Daedalea quercina*, 6.VII.1992, 2 spec.; ditto, dry ravine forest, on old carpophores of *Ganoderma applanatum*, 16.VII.1992, 1 spec.; ditto, highland oak forest, on carpophores of *Russula cyanoxantha*, 01.VIII.1992, 1 spec.; ditto, dry ravine forest, on carpophores of *Neolentinus schaefferi*, 8.VIII.1992, 1 spec.; ditto, moist ravine forest, on old carpophores of *Hypholoma fasciculare*, 10.VIII.1992, 2 spec.; ditto, on carpophores of *Fomes fomentarius*, 16.VIII.1992, 1 spec.; ditto, highland oak forest, on carpophores of *Phellinus igniarius*, 22.VIII.1992, 1 spec.; ditto, on carpophores of *Amanita phalloides*, 22.VIII.1992, 1 spec.; ditto, floodplain forest, on carpophores of *Trametes gibbosa*, 23.VIII.1992, 1 spec.; environs of Chuhuiv, forest belt, on old carpophores of *Lactarius insulsus*, 10.VIII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Active predator and obligate mycetobiont, it occurs in young, old and rotten carpophores of fungi.

Distribution. Europe, Caucasus, Siberia (Schülke & Smetana 2015).

Gyrophaena affinis Mannerheim, 1830

Material. Kharkiv region: environs of Haidary, moist ravine forest, on old carpophores of *Fistulina hepatica*, 29.V.1992, 10 spec.; ditto, on fallen trees of ash and elm, on old carpophores of *Fomes fomentarius*, 29.V.1992, 1 spec.; ditto, highland oak forest, on carpophores of *Stereum hirsutum*, 31.V.1992, 3 spec.; ditto, moist ravine forest, fallen tree, on carpophores of *Stereum hirsutum*, 1.VI.1992, 1 spec.; ditto, on old carpophores of *Kuehneromyces mutabilis*, 2.VI.1992, 7 spec.; ditto,

on old carpophores of *Mycena* sp., 2.VI.1992, 10 spec.; ditto, highland oak forest, on fallen trees, on old carpophores of *Daedalea quercina*, 8.VI.1992, 8 spec.; ditto, highland oak forest, on soil, on young and old carpophores of *Coprinus micaceus*, 8.VI.1992, 20 spec.; ditto, moist ravine forest, on old carpophores of *Pluteus cervinus*, 9.VI.1992, 1 spec.; ditto, on carpophores of *Marasmius oreades*, 9.VI.1992, 1 spec.; ditto, in carpophores of *Tricholoma populinum*, 11.VI.1992, 3 spec.; ditto, on carpophores of *Inocybe* sp., 11.VI.1992, 25 spec.; ditto, dry ravine forest, on carpophores of *Marasmius oreades*, 15.VI.1992, 10 spec.; ditto, moist ravine forest, on carpophores of *Tricholoma populinum*, 17.VI.1992, 30 spec.; ditto, on old carpophores of *Crepidotus applanatus*, 17.VI.1992, 1 spec.; ditto, moist ravine forest, on old carpophores of *Gymnopus dryophilus*, 17.VI.1992, 50 spec.; ditto, on sporophores of *Fuligo septica*, 17.VI.1992, 2 spec.; ditto, on old and rotten carpophores of *Kuehneromyces mutabilis*, 23.VI.1992, 7 spec.; ditto, highland oak forest, on fallen trees, on carpophores of *Neolentinus schaefferi*, 26.VI.1992, 3 spec.; ditto, moist ravine forest, on fallen trees, on carpophores of *Pluteus cervinus*, 4.VII.1992, 3 spec.; ditto, highland oak forest, on carpophores of *Agaricus hydrophilus*, 4.VII.1992, 31 spec.; ditto, on carpophores of *Russula decolorans*, 6.VII.1992, 4 spec.; ditto, on carpophores of *Megacollybia platyphylla*, 7.VII.1992, 7 spec.; ditto, on carpophores of *Marasmius oreades*, 9.VII.1992, 7 spec.; ditto, on carpophores of *Gymnopus dryophilus*, 9.VII.1992, 5 spec.; ditto, dry ravine forest, on carpophores of *Amanita rubescens*, 16.VII.1992, 2 spec.; ditto, highland oak forest, on carpophores of *Marasmius oreades*, 24.VII.1992, 33 spec.; ditto, on carpophores of *Lepista flaccida*, 24.VII.1992, 35 spec.; ditto, artificial pine forest, on carpophores of *Macrolepiota procera*, 28.VII.1992, 3 spec.; ditto, moist ravine forest, on rotten wood on old carpophores of *Pluteus cervinus*, 1.VIII.1992, 30 spec.; ditto, highland oak forest, on old carpophores of *Tricholoma terreum*, 1.VIII.1992, 5 spec.; ditto, on carpophores of *Russula cyanoxantha*, 1.VIII.1992, 20 spec.; ditto, moist ravine forest, on carpophores of *Oxyporus corticola*, 22.VIII.1992, 10 spec.; ditto, dry ravine forest, on carpophores of *Russula*

virescens, 8.VIII.1992, 3 spec.; ditto, on carpophores of *Neolentinus schaefferi*, 8.VIII.1992, 2 spec.; ditto, on carpophores of *Amanita phalloides*, 8.VIII.1992, 13 spec.; ditto, highland oak forest, on old carpophores of *Pleurotus cornucopiae*, 9.VIII.1992, 4 spec.; ditto, moist ravine forest, on carpophores of *Ganoderma applanatum*, 16.VIII.1992, 6 spec.; ditto, highland oak forest, on carpophores of *Amanita phalloides*, 22.VIII.1992, 1 spec.; ditto, on carpophores of *Phellinus igniarius*, 22.VIII.1992, 1 spec.; ditto, on carpophores of *Trametes suaveolens*, 24.VIII.1992, 2 spec.; environs of Zdonetske, artificial pine forest, on soil on old carpophores of *Gymnopus dryophilus*, 30.VI.1992, 19 spec.; ditto, on carpophores of *Lepista flaccida*, 28.VII.1992, 4 spec.; ditto, on carpophores of *Tapinella pannoides*, 23.VIII.1992, 2 spec.; environs of Korobiv Khutir, highland oak forest, on fallen trees, on carpophores of *Trametes versicolor*, 3.VIII.1992, 2 spec.; ditto, on fallen trees, on carpophores of *Phellinus robustus*, 3.VIII.1992, 2 spec.; ditto, on fallen trees, on carpophores of *Pluteus cervinus*, 3.VIII.1992, 6 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs in carpophores of fungi, usually in large clusters. Larvae and imagoes feed on mature fungal spores.

Distribution. Holarctic Region (Schülke & Smetana 2015).

Gyrophana bihamata Thomson, 1867

Material. Kharkiv region: environs of Haidary, highland oak forest, on carpophores of *Gymnopus dryophilus*, 9.VII.1992, 1 spec.; ditto, moist ravine forest, on carpophores of *Leucocybe connata*, 4.IX.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs in carpophores of fungi, usually in large clusters. Larvae and imagoes feed on mature fungal spores.

Distribution. Palaearctic Region (Schülke & Smetana 2015).

Gyrophana fasciata (Marsham, 1802)

Material. Kharkiv region: environs of Haidary, moist ravine forest, on carpophores of *Laetiporus sulphureus*, 2.VI.1992, 2 spec.; ditto, on fallen trees, on young carpophores of *Ganoderma applanatum*, 2.VI.1992, 1 spec.; ditto, on old carpophores of *Kuehneromyces mutabilis*, 2.VI.1992, 70 spec.; ditto, on old carpophores of *Mycena* sp., 2.VI.1992, 350 spec.; ditto, on carpophores of *Kuehneromyces mutabilis*, 11.VI.1992, 6 spec.; ditto, 13.VI.1992, 36 spec.; ditto, 17.VI.1992, 35 spec.; ditto, highland oak forest, on old and rotten carpophores of *Agaricus silvaticus*, 23.VI.1992, 20 spec.; ditto, moist ravine forest, on old carpophores of *Pluteus cervinus*, 17.VII.1992, 30 spec.; ditto, highland oak forest, on old carpophores of *Pluteus cervinus*, 1.VIII.1992, 50 spec.; ditto, highland oak forest, on old carpophores of *Tricholoma terreum*, 1.VIII.1992, 5 spec.; ditto, moist ravine forest, on carpophores of *Oxyporus corticola*, 22.VIII.1992, 4 spec.; ditto, highland oak forest, on old carpophores of *Russula delica*, 22.VIII.1992, 1 spec.; ditto, moist ravine forest, on carpophores of *Pluteus cervinus*, 4.IX.1992, 9 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs in carpophores of fungi, usually in large clusters. Larvae and imagoes feed on mature fungal spores.

Distribution. Europe, Caucasus, Eastern Siberia (Schülke & Smetana 2015).

Gyrophana joyi Wendeler, 1924

Material. Kharkiv region: environs of Haidary, moist ravine forest, on old carpophores of *Pluteus cervinus*, 9.VI.1992, 40 spec.; ditto, moist ravine forest, on carpophores of *Tricholoma populinum*, 11.VI.1992, 2 spec.; ditto, moist ravine forest, on carpophores of *Inocybe* sp., 11.VI.1992, 1 spec.; ditto, moist ravine forest, on old carpophores of *Coprinus micaceus*, 13.VI.1992, 1 spec.; ditto, moist ravine forest, on fallen trees, on carpophores of *Crepidotus applanatus*, 13.VI.1992, 15 spec.; ditto, dry ravine forest, on carpophores of *Marasmius oreades*, 15.VI.1992, 3 spec.; ditto, moist ravine forest, on carpophores of *Kuehneromyces*

mutabilis, 17.VI.1992, 10 spec.; ditto, highland oak forest, on carpophores of *Tricholoma populinum*, 17.VI.1992, 10 spec.; ditto, highland oak forest, on old carpophores of *Crepidotus applanatus*, 17.VI.1992, 15 spec.; ditto, highland oak forest, on fallen trees, on carpophores of *Crepidotus applanatus*, 26.VI.1992, 2 spec.; ditto, moist ravine forest, on fallen trees, on carpophores of *Hypholoma fasciculare*, 4.VII.1992, 3 spec.; ditto, moist ravine forest, on fallen trees, on carpophores of *Kuehneromyces mutabilis*, 4.VII.1992, 13 spec.; ditto, highland oak forest, on soil on carpophores of *Agaricus hydrophilus*, 04.VII.1992, 8 spec.; ditto, highland oak forest, on soil on carpophores of *Psathyrella spadiceogrisea*, 6.VII.1992, 4 spec.; ditto, highland oak forest, on soil on carpophores of *Coprinus comatus*, 7.VII.1992, 2 spec.; ditto, highland oak forest, on soil on carpophores of *Russula xerampelina*, 7.VII.1992, 2 spec.; ditto, highland oak forest, on soil on rotten carpophores *Russula xerampelina*, 9.VII.1992, 1 spec.; ditto, highland oak forest, on soil on old carpophores of *Suillellus luridus*, 9.VIII.1992, 1 spec.; ditto, highland oak forest, on young carpophores of *Aurantiporus fissilis*, 10.VIII.1992, 1 spec.; ditto, moist ravine forest, on carpophores of *Kuehneromyces mutabilis*, 10.VIII.1992, 3 spec.; ditto, highland oak forest, on carpophores of *Tricholoma terreum*, 10.VIII.1992, 6 spec.; ditto, moist ravine forest, on carpophores of *Phellinus igniarius*, 16.VIII.1992, 35 spec.; ditto, moist ravine forest, on carpophores of *Fomes fomentarius*, 16.VIII.1992, 32 spec.; ditto, moist ravine forest, on carpophores of *Kuehneromyces mutabilis*, 16.VIII.1992, 8 spec.; ditto, highland oak forest, on old carpophores of *Russula rosea*, 17.VIII.1992, 3 spec.; ditto, highland oak forest, on old carpophores of *Russula cyanoxantha*, 17.VIII.1992, 5 spec.; ditto, highland oak forest, on rotten carpophores *Fistulina hepatica*, 18.VIII.1992, 1 spec.; ditto, highland oak forest, in carpophores of *Phellinus igniarius*, 22.VIII.1992, 4 spec.; ditto, highland oak forest, on old carpophores of *Russula delica*, 22.VIII.1992, 1 spec.; ditto, dry ravine forest, on carpophores of *Trametes gibbosa*, 23.VIII.1992, 20 spec.; ditto, highland oak forest, in carpophores of *Trametes suaveolens*, 24.VIII.1992, 7 spec.; environs of Zadonetske, artificial pine forest, on carpophores of *Tapinella*

panuoides, 23.VIII.1992, 4 spec.; environs of Korobiv Khutir, highland oak forest, on fallen trees, on carpophores of *Pluteus cervinus*, 3.VIII.1992, 22 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs in carpophores of fungi, sometimes in large clusters. Larvae and imagos feed on mature fungal spores.

Distribution. Europe, Caucasus, Asia Minor, Iran, Siberia (Schülke & Smetana 2015).

Gyrophana joyioides Wusthoff, 1937

Material. Kharkiv region: environs of Haidary, moist ravine forest, on old carpophores of *Fistulina hepatica*, 29.V.1992, 30 spec.; ditto, moist ravine forest, on mature carpophores of *Trametes versicolor*, 29.V.1992, 1 spec.; ditto, moist ravine forest, at the trunk of a fallen linden on mature carpophores of *Agaricus chioneus*, 29.V.1992, 5 spec.; ditto, moist ravine forest, on carpophores of *Stereum hirsutum*, 31.V.1992, 13 spec.; ditto, fallen tree, on carpophores of *Stereum hirsutum*, 1.VI.1992, 7 spec.; ditto, on old carpophores of *Kuehneromyces mutabilis*, 2.VI.1992, 2 spec.; ditto, on old carpophores of *Mycena* sp., 2.VI.1992, 50 spec.; ditto, on mature carpophores of *Coprinus* sp., 9.VI.1992, 9 spec.; ditto, on mature and old carpophores of *Pluteus cervinus*, 9.VI.1992, 259 spec.; ditto, on carpophores of *Tricholoma populinum*, 11.VI.1992, 3 spec.; ditto, on old carpophores of *Tricholoma populinum*, 13.VI.1992, 30 spec.; ditto, on a fallen tree, on carpophores of *Crepidotus applanatus*, 13.VI.1992, 23 spec.; ditto, on fallen trees, on carpophores of *Pluteus cervinus*, 4.VII.1992, 68 spec.; ditto, on old carpophores of *Pluteus cervinus*, 17.VII.1992, 500 spec.; ditto, on carpophores of *Kuehneromyces mutabilis*, 17.VII.1992, 100 spec.; ditto, highland oak forest, on carpophores of *Crepidotus applanatus*, 24.VII.1992, 70 spec.; ditto, on carpophores of *Psathyrella spadicea-grisea*, 27.VII.1992, 17 spec.; ditto, on carpophores of *Megacollybia platyphylla*, 27.VII.1992, 5 spec.; ditto, highland oak forest, on old carpophores of *Tricholoma terreum*, 1.VIII.1992, 30 spec.; ditto, on old carpophores of *Pluteus cervinus*, 1.VIII.1992, 100 spec.; ditto, dry ravine forest, on carpophores of

Russula virescens, 8.VIII.1992, 9 spec.; ditto, on sporophores of *Fuligo septica*, 8.VIII.1992, 1 spec.; ditto, on carpophores of *Amanita phalloides*, 8.VIII.1992, 7 spec.; ditto, on old carpophores of *Artomyces pyxidatus*, 8.VIII.1992, 2 spec.; ditto, highland oak forest, on old carpophores of *Suillellus luridus*, 9.VIII.1992, 1 spec.; ditto, moist ravine forest, on carpophores of *Kuehneromyces mutabilis*, 10.VIII.1992, 2 spec.; ditto, highland oak forest, in carpophores of *Amanita phalloides*, 22.VIII.1992, 6 spec.; ditto, moist ravine forest, on carpophores of *Pluteus cervinus*, 04.IX.1992, 4 spec.; environs of Zadonetske, artificial pine forest, on carpophores of *Macrolepiota procera*, 28.VII.1992, 39 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs in carpophores of fungi, often in large clusters. Larvae and imagoes feed on mature fungal spores.

Distribution. Europe, Caucasus, Asia Minor, Western Siberia (Schülke & Smetana 2015).

***Gyrophaga lucidula* Erichson, 1837**

Material. Kharkiv region: environs of Haidary, moist ravine forest, on carpophores of *Kuehneromyces mutabilis*, 11.VI.1992, 46 spec.; ditto, moist ravine forest, on a fallen tree, on carpophores of *Crepidotus applanatus*, 13.VI.1992, 5 spec.; ditto, floodplain forest, on a fallen tree on carpophores of *Lentinus tigrinus*, 2.VII.1992, 33 spec.; ditto, moist ravine forest, on fallen trees, on carpophores of *Hypholoma fasciculare*, 4.VII.1992, 3 spec.; ditto, floodplain meadow, at a trunk lying on the ground, on carpophores of *Lentinus tigrinus*, 28.VII.1992, 8 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs in carpophores of fungi, sometimes in large clusters. Larvae and imagoes feed on mature fungal spores.

Distribution. North Africa Europe, Caucasus and Asia Minor (Schülke & Smetana 2015).

***Gyrophaga manca* Erichson, 1839**

Material. Kharkiv region: environs of Haidary, moist ravine forest, on mature carpophores of *Trametes versicolor*, 29.V.1992, 2 spec.; ditto, on mature carpophores of *Trametes versicolor*, 29.V.1992, 3 spec.; ditto, at the trunk of a fallen linden on mature carpophores of *Agaricus chioneus*, 29.V.1992, 3 spec.; ditto, at the trunk of a fallen tree on young carpophores of *Laetiporus sulphureus*, 29.V.1992, 1 spec.; ditto, on fallen trees of ash and elm, on old carpophores of *Fomes fomentarius*, 29.V.1992, 9 spec.; ditto, on old and rotten carpophores of *Laetiporus sulphureus*, 11.VI.1992, 1 spec.; ditto, on carpophores of *Kuehneromyces mutabilis*, 17.VI.1992, 5 spec.; ditto, highland oak forest, on fallen trees, on carpophores of *Neolentinus schaefferi*, 26.VI.1992, 22 spec.; ditto, dry ravine forest, on carpophores of *Phellinus igniarius*, 16.VII.1992, 1 spec.; ditto, on young carpophores of *Daedalea quercina*, 16.VII.1992, 7 spec.; ditto, highland oak forest, on old carpophores of *Tricholoma terreum*, 1.VIII.1992, 1 spec.; ditto, dry ravine forest, on carpophores of *Trametes gibbosa*, 8.VIII.1992, 2 spec.; ditto, on carpophores of *Neolentinus schaefferi*, 8.VIII.1992, 3 spec.; ditto, on old carpophores of *Artomyces pyxidatus*, 8.VIII.1992, 1 spec.; ditto, moist ravine forest, on carpophores of *Phellinus igniarius*, 16.VIII.1992, 4 spec.; ditto, highland oak forest, on carpophores of *Amanita phalloides*, 22.VIII.1992, 1 spec.; ditto, on carpophores of *Oxyporus corticola*, 22.VIII.1992, 2 spec.; ditto, moist ravine forest, on carpophores of *Leucocybe connata*, 4.IX.1992, 1 spec.; environs of v. Zadonetske, artificial pine forest, on old carpophores of *Gymnopus dryophilus*, 30.VI.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs in carpophores of fungi, sometimes in large clusters. Larvae and imagoes feed on mature fungal spores.

Distribution. Europe, Caucasus, Siberia (Schülke & Smetana 2015).

***Gyrophaena minima* Erichson, 1837**

Material. Kharkiv region: environs of Haidary, moist ravine forest, on carpophores of *Hypholoma fasciculare*, 11.VI.1992, 15 spec.; ditto, on carpophores of *Kuehneromyces mutabilis*, 11.VI.1992, 31 spec.; ditto, on a fallen tree, on carpophores of *Crepidotus applanatus*, 13.VI.1992, 3 spec.; ditto, floodplain forest, on carpophores of *Lentinus tigrinus*, 2.VII.1992, 1 spec.; ditto, moist ravine forest, on fallen trees, on carpophores of *Hypholoma fasciculare*, 4.VII.1992, 17 spec.; ditto, on fallen trees, on carpophores of *Kuehneromyces mutabilis*, 4.VII.1992, 25 spec.; ditto, on carpophores of *Hypholoma fasciculare*, 17.VII.1992, 30 spec.; ditto, highland oak forest, on old carpophores of *Pluteus cervinus*, 1.VIII.1992, 10 spec.; ditto, on old carpophores of *Hypholoma fasciculare*, 5.VIII.1992, 15 spec.; ditto, moist ravine forest, on old carpophores of *Hypholoma fasciculare*, 10.VIII.1992, 25 spec.; ditto, on carpophores of *Pluteus cervinus*, 4.IX.1992, 3 spec.; environs of Korobiv Khutir, highland oak forest, on fallen trees, on carpophores of *Phellinus robustus*, 3.VIII.1992, 2 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs in carpophores of fungi, sometimes in large clusters. Larvae and imagoes feed on mature fungal spores.

Distribution. Europe, Asia Minor, Eastern Siberia (Schülke & Smetana 2015).

***Gyrophaena strictula* Erichson, 1839**

Material. Kharkiv region: environs of Haidary, moist ravine forest, on old carpophores of *Fistulina hepatica*, 29.V.1992, 110 spec.; ditto, at the trunk of a fallen linden on mature carpophores of *Agaricus chioneus*, 29.V.1992, 1 spec.; ditto, on fallen tree, on carpophores of *Stereum hirsutum*, 1.VI.1992, 7 spec.; ditto, highland oak forest, on fallen trees, on old carpophores of *Daedalea quercina*, 8.VI.1992, 16 spec.; ditto, moist ravine forest, on carpophores of *Fomes fomentarius*, 17.VI.1992, 3 spec.; ditto, highland oak forest, on fallen trees, on carpophores of *Daedalea quercina*, 6.VII.1992, 17 spec.; ditto, dry ravine forest,

on young carpophores of *Daedalea quercina*, 16.VII.1992, 2 spec.; ditto, on old carpophores of *Ganoderma applanatum*, 16.VII.1992, 1 spec.; ditto, floodplain forest, at the trunk of a willow on carpophores of *Trametes gibbosa*, 23.VIII.1992, 27 spec.; ditto, highland oak forest, on carpophores of *Trametes suaveolens*, 24.VIII.1992, 2 spec.; ditto, on old carpophores of *Phellinus igniarius*, 4.IX.1992, 2 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs in carpophores of fungi, often in large clusters. Larvae and imagoes feed on mature fungal spores.

Distribution. Europe, Caucasus, Iran, Siberia (Schülke & Smetana 2015).

Subfamily Scaphidiinae Latreille, 1806***Scaphidium quadrimaculatum* Olivier, 1790**

Material. Kharkiv region: environs of Zado-netske, artificial pine forest, on rotten carpophore of *Macrolepiota procera*, 28.VII.1992, 1 spec.; ditto, on old carpophore of *Lepista flaccida*, 28.VII.1992, 1 spec.; environs of Haidary, highland oak forest, on carpophore of *Neolentinus schaefferi* on a fallen tree, 26.VI.1992, 1 spec.; ditto, on carpophore of *Oxyporus corticola* on a fallen tree, 16.VII.1992, 1 spec.; ditto, on old carpophore of *Russula rosea*, 3.IX.1992, 1 spec.; ditto, moist ravine forest, on dry carpophores of *Hapalopilus rutilans* on a fallen birch, 2.VI.1995, 2 spec. (Supplement, Tab. 1).

Bionomics. Facultative mycetobiont, it occurs on carpophores of fungi (not infrequently of resupinate type), on rotten wood and in forest cover. Larvae and imagoes feed on portions of fruit body of fungi.

Distribution. Europe, Near East, Asia Minor, Western Siberia (Schülke & Smetana 2015).

***Scaphisoma agaricinum* (Linnaeus, 1758)**

Material. Kharkiv region: environs of Haidary, moist ravine forest, on carpophore of *Agaricus*

chioneus from a fallen linden near a stream, 29.V.1992, 1 spec.; ditto, on carpophore of *Trametes versicolor* from a fallen tree, 30.V.1992, 1 spec.; ditto, on carpophore of *Fomes fomentarius* from a fallen tree, 1.VI.1992, 1 spec.; ditto, highland oak forest, on sporophores of *Tubifera ferruginosa* from a rotten stub, 8.VI.1992, 1 spec.; ditto, moist ravine forest, near a stream, on carpophore of *Serpula lacrymans* on a fallen tree, 13.VI.1992, 1 spec.; ditto, highland oak forest, on carpophore of *Kuehneromyces mutabilis* on a dead tree, 23.VI.1992, 1 spec.; ditto, on carpophore of *Neolentinus schaefferi* on a fallen tree, 26.VI.1992, 1 spec.; ditto, floodplain forest, on carpophore of *Spongipellis spumeus* on rotten tree branches lying on soil, 2.VII.1992, 1 spec.; ditto, highland oak forest, on carpophores of *Coprinopsis atramentaria*, 4.VII.1992, 2 spec.; at ditto, on carpophore of *Ganoderma applanatum* on a fallen tree, 4.VII.1992, 1 spec.; ditto, on carpophore of *Phellinus igniarius* on a tree, 9.VII.1992, 1 spec.; ditto, dry ravine forest, on carpophore of *Phellinus igniarius* on a fallen tree, 16.VII.1992, 2 spec.; ditto, highland oak forest, on carpophore of *Ganoderma applanatum* on a fallen tree, 1.VIII.1992, 2 spec.; ditto, on dry carpophore of *Fistulina hepatica* on a live oak, 18.VIII.1992, 1 spec.; ditto, on carpophore of *Phellinus igniarius* on a living tree, 22.VIII.1992, 4 spec.; ditto, moist ravine forest, on carpophore of *Ramariopsis kunzei* on a trunk, 6.VI.1994, 1 spec.; ditto, on carpophore of *Hypholoma fasciculare* on stub, 5.V.1995, 1 spec.; ditto, highland oak forest, on carpophore of *Coniophora* sp. on the bark of a fallen oak, 2.VI.1995, 1 spec.; ditto, moist ravine forest, on carpophore of *Laetiporus sulphureus* on a broken willow, 2.VI.1995, 1 spec.; ditto, on sporogenous carpophore of *Fomes fomentarius* on a fallen sedge, 1 spec.; ditto, on carpophores of *Junghuhnia nitida* on the bark of a fallen oak, 25.VI.1995, 3 spec.; ditto, on carpophores of *Abortiporus biennis* on a fallen oak, 25.VI.1995, 3 spec.; environs of Chuhuiv, forest belt, on carpophore of *Lentinus tigrinus*, 20.V.1991, 1 spec.; ditto, on carpophore of *Fomes fomentarius*, 17.04.1994, 2 spec.; ditto, forest belt, on dry carpophores of *Lenzites betulina* on a birch stub, 1.VI.1995, 1 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs on carpophores of fungi, sometimes in large clusters. Larvae and imagoes feed on portions of fruit body of fungi.

Distribution. Europe, Siberia, Far East (Schülke & Smetana 2015).

Scaphisoma assimile Erichson, 1845

Material. Kharkiv region: environs of Haidary, moist ravine forest, on carpophore of *Kuehneromyces mutabilis* on old planks of a bridge, 2.VI.1992, 1 spec.; ditto, highland oak forest, on carpophore of *Boletus edulis*, 6.VII.1992, 1 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs on carpophores of fungi. Larvae and imagoes feed on portions of fruit body of fungi. A quite rare species.

Distribution. Europe, Central Asia, Asia Minor, Iran, Mongolia (Schülke & Smetana 2015).

Scaphisoma balcanicum Tamanini, 1954

Material. Kharkiv region: environs of Haidary, highland oak forest, on carpophore of *Phellinus igniarius* from the trunk of a tree, 9.VII.1992, 1 spec.; ditto, dry ravine forest, on carpophores of *Ganoderma applanatum* on the trunk of a tree lying on the ground, 16.VII.1992, 4 spec.; ditto, on carpophore of *Daedalea quercina* on a fallen oak, 16.VII.1992, 1 spec.; ditto, highland oak forest, on overmature carpophore of *Russula rosea*, 17.VIII.1992, 1 spec.; ditto, highland oak forest, on carpophore of *Phellinus igniarius* on a dead tree, 22.VIII.1992, 3 spec.; ditto, highland oak forest, on carpophore of *Phellinus robustus* on a living oak, 24.VIII.1992, 2 spec.; ditto, on old carpophore of *Trametes hirsuta* on a fallen oak, 4.VI.1999, 1 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs on carpophores of fungi. Larvae and imagoes feed on portions of fruit body of fungi.

Distribution. Central and Southern Europe, Asia Minor, Central Asia (Schülke & Smetana 2015).

***Scaphisoma boleti* (Panzer, 1793)**

Material. Kharkiv region: environs of Haidary, moist ravine forest, on carpophore of *Fomes fomentarius* on a fallen elm, 29.V.1992, 2 spec.; ditto, on carpophores of *Fomes fomentarius* on fallen trees, 1.VI.1992, 14 spec.; ditto, on carpophores of *Ganoderma applanatum* on a fallen tree, 11.VI.1992, 1 spec.; ditto, on sporophore of *Tubifera ferruginosa* on a fallen tree, 11.VI.1992, 1 spec.; ditto, on carpophores of *Ganoderma applanatum* from stub, 23.VI.1992, 6 spec.; ditto, highland oak forest, on carpophores of *Ramariopsis kunzei* on a rotten fallen tree, 26.VI.1992, 3 spec.; ditto, moist ravine forest, on carpophores of *Ramariopsis kunzei* on a trunk, 4.VII.1992, 5 spec.; ditto, dry ravine forest, on carpophores of *Ramariopsis kunzei* on a fallen tree, 8.VIII.1992, 8 spec.; ditto, highland oak forest, on carpophore of *Fomes fomentarius* on a trunk, 10.VIII.1992, 1 spec.; ditto, moist ravine forest, on carpophore of *Fomes fomentarius* on a dead tree, 16.VIII.1992, 1 spec.; ditto, on carpophores of *Ramariopsis kunzei* on a trunk, 6.VI.1994, 3 spec.; ditto, on carpophore of *Phellinus robustus* on oak, 30.X.1994, 5 spec.; ditto, on carpophore of *Hypholoma fasciculare* on stub, 5.V.1995, 1 spec.; ditto, on old carpophores of *Fomes fomentarius* on a fallen ash, 5.V.1995, 3 spec.; ditto, on spores *Fomes fomentarius* on a fallen sedge, 2.VI.1995, 1 spec.; ditto, on carpophore of *Polyporus arcularius* on a trunk, 4.VI.1999, 9 spec.; ditto, under the bark of a fallen oak with white moist dote and young sporangia of *Ceratiomyxa fruticulosa* and *Trichia* sp., 24.V.2001, 1 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs on carpophores of fungi forming small clusters. Larvae and imagos feed on portions of fruit body of fungi.

Distribution. Europe, Caucasus, Asia Minor and Siberia (Schülke & Smetana 2015).

***Scaphisoma boreale* Lundblad, 1952**

Material. Kharkiv region: environs of highland oak forest, on carpophores of fungi *Neolentinus schaefferi*, 26.VI.1992, 3 spec.; ditto, highland oak forest, on carpophores of *Agaricus hydrophilus*, 4.VII.1992, 1 spec.; ditto, dry ravine forest, on carpophore of *Phellinus igniarius*, 16.VII.1992, 1 spec.; ditto, moist ravine forest, on carpophore of *Fomes fomentarius*, 16.VIII.1992, 1 spec.; ditto, on carpophore of *Trametes* sp., 6.VI.1994, 1 spec.; ditto, moist ravine forest, on carpophores of *Abortiporus biennis*, 25.VI.1995, 1 spec.; ditto, highland oak forest, under the bark of a fallen oak with white moist dote and young sporangia of *Ceratiomyxa fruticulosa* and *Trichia* sp., 24.V.2001, 5 spec.; ditto, highland oak forest, on sporogenous carpophore of *Inonotus obliquus* under the bark of a fallen oak, 23.V.2003, 2 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs on carpophores of fungi. Larvae and imagos feed on portions of fruit body of fungi.

Distribution. Europe, Siberia, Iran (Schülke & Smetana 2015).

***Scaphisoma inopinatum* Löbl, 1967**

Material. Kharkiv region: environs of Haidary, dry ravine forest, on carpophores of *Phellinus igniarius*, 16.VII.1992, 1 spec.; ditto, highland oak forest, on carpophore of *Fomes fomentarius*, 5.VIII.1994, 4 spec.; environs of Zadonetske, artificial pine forest, on a dried up *Macrolepiota procera*, 28.VII.1992, 2 spec.; ditto, on a stub on poured out spores of *Neolentinus lepideus*, 12.VI.1995, 1 spec. (Supplement, Tab. 1).

Bionomics. Obligate mycetobiont, it occurs on carpophores of fungi. Larvae and imagos feed on portions of fruit body of fungi.

Distribution. Europe, Siberia, Far East (Schülke & Smetana 2015).

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SUPPLEMENT

Table 1. Ecological and faunal characteristics of mycetobiontic rove beetles of Kharkiv region. Abbreviations: OM — obligate mycetobionts; FM — facultative mycetobionts; AM — accidental mycetobionts; +++ — dominant species; ++ — common species; + — rare species.

Species	Connection with fungi	Trophic specialization	Number
<i>Anthobium atrocephalum</i> (Gyllenhal, 1827)	AM	predator	++
<i>Omalius rivulare</i> (Paykull, 1789)	FM	predator	+++
<i>Anotylus tetracarlinatus</i> (Block, 1799)	AM	saprophage	+
<i>Oxyporus rufus</i> (Linnaeus, 1758)	OM	mycetophage	+++
<i>Astenus immaculatus</i> Stephens, 1833	AM	predator	+
<i>Rugilus rufipes</i> (Germar, 1836)	AM	predator	++
<i>Philonthus confinis</i> Strand, 1941	AM	predator	+
<i>Ph. punctus</i> (Gravenhorst, 1802)	AM	predator	+
<i>Gabrius subnigritulus</i> Joy, 1913	AM	predator	+
<i>Ontholestes murinus</i> (Linnaeus, 1758)	AM	predator	+
<i>O. tessellatus</i> (Geoffroy, 1785)	AM	predator	+
<i>Sepedophilus bipustulatus</i> (Gravenhorst, 1802)	OM	predator	+
<i>S. immaculatus</i> (Stephens, 1832)	AM	predator	+
<i>S. littoreus</i> (Linnaeus, 1758)	AM	predator	+
<i>S. marshami</i> (Stephens, 1832)	AM	predator	+
<i>S. obtusus</i> (Luze, 1902)	AM	predator	+
<i>Tachinus rufipes</i> Linnaeus, 1758	AM	predator	++
<i>Lordithon lunulatus</i> (Linnaeus, 1760)	OM	predator	+++
<i>L. thoracicus</i> (Fabricius, 1777)	OM	predator	++
<i>Acrotona parvula</i> (Mannerheim, 1830)	AM	predator	+
<i>A. troglodytes</i> (Motschulsky, 1858)	AM	predator	+
<i>Atheta amicola</i> (Stephens, 1832)	AM	predator	+
<i>A. boletophila</i> (Thomson, 1856)	FM	predator	+
<i>A. celata</i> (Erichson, 1837)	AM	predator	+
<i>A. crassicornis</i> (Fabricius, 1792)	AM	predator	+++
<i>A. gatatina</i> (Baudi di Selve, 1848)	FM	predator	++
<i>A. laticeps</i> (Thomson, 1856)	AM	predator	+
<i>A. laticollis</i> (Stephens, 1832)	AM	predator	+
<i>A. liliputana</i> (Brisout de Barneville, 1860)	AM	predator	+
<i>A. liturata</i> (Stephens, 1832)	OM	predator	+++
<i>A. oblita</i> (Erichson, 1839)	FM	predator	+
<i>A. sodalis</i> (Erichson, 1837)	FM	predator	+
<i>Dinaraea aequata</i> (Erichson, 1837)	AM	predator	+
<i>Mocyta fungi</i> (Gravenhorst, 1806)	AM	predator	+
<i>Myrmecopora sulcata</i> Kiesenwetter, 1850	AM	predator	+
<i>Falagrioma thoracica</i> (Stephens, 1832)	AM	predator	+
<i>Bolitochara pulchra</i> (Gravenhorst, 1806)	OM	predator	+++
<i>Gyrophæna affinis</i> Mannerheim, 1830	OM	mycetophage	+++
<i>G. bihamata</i> Thomson, 1867	OM	mycetophage	+
<i>G. fasciata</i> (Marsham, 1802)	OM	mycetophage	+++
<i>G. joiyi</i> Wendeler, 1924	OM	mycetophage	+++

Species	Connection with fungi	Trophic specialization	Number
<i>G. joyioides</i> Wusthoff, 1937	OM	mycetophage	+++
<i>G. lucidula</i> Erichson, 1837	OM	mycetophage	+++
<i>G. manca</i> Erichson, 1839	OM	mycetophage	+++
<i>G. minima</i> Erichson, 1837	OM	mycetophage	+++
<i>G. strictula</i> Erichson, 1839	OM	mycetophage	+++
<i>Scaphidium quadrimaculatum</i> Olivier, 1790	FM	mycetophage	++
<i>Scaphisoma agaricinum</i> (Linnaeus, 1758)	OM	mycetophage	+++
<i>S. assimile</i> Erichson, 1845	OM	mycetophage	+
<i>S. balcanicum</i> Tamanini, 1954	OM	mycetophage	++
<i>S. boleti</i> (Panzer, 1793)	OM	mycetophage	++
<i>S. boreale</i> Lundblad, 1952	OM	mycetophage	++
<i>S. inopinatum</i> Löbl, 1967	OM	mycetophage	++