

# Review of the Fauna of the Beetle Families Scydmaenidae and Pselaphidae (Coleoptera, Staphylinoidea) of Chuvashia

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**Abstract**—A review of the coleopteran families Scydmaenidae (18 species) and Pselaphidae (23 species) of the Chuvash Republic is presented based on examination of the material collected in 1975–2011. 18 species and 7 genera of Scydmaenidae and 21 species of 13 genera of Pselaphidae are recorded from this territory for the first time. *Euplectus bescidicus* Reitt. (Pselaphidae) is for the first time recorded from Russia.

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Chuvashia is one of the republics situated in the temperate zone of the European part of Russia. Though being a part of the Volga-Vyatka Region according to the administrative system, this republic was historically included in the Middle Volga Region (within Kazan' and partly, Simbirsk gubernias) (*The Middle Volga Region*, 1998). Chuvashia borders upon the Republic of Mari El in the north, the Republic of Tatarstan in the east, Nizhniy Novgorod Province in the west, Ulyanovsk Province in the south, and the Republic of Mordovia in the southwest. The territory of Chuvashia is situated in the northeastern part of the Volga Upland, extending northwards from 54° to 56°N and eastwards from 45° to 48°E. The length of the territory is 190 km from north to south and 159 km from west to east (Dmitrieva, 1952). According to the scheme of physical-geographical regionalization of the Middle Volga Region (Milkov, 1953), the Trans-Volga Region of Chuvashia belongs to the area of the southern taiga of the Low Trans-Volga Region (taiga zone), and the other part of the republic is situated in the forest-steppe area of the Volga Upland (forest-steppe zone). Based on the structure and distribution of the vegetation, Chuvashia is traditionally divided into five areas: the Trans-Volga pine-tree forest area, the mountain oak forest area of the Volga River Region, the Prisurskii forest massif (mixed forests) area, and the southeastern and southwestern steppe areas (Pletneva-Sokolova, 1952; Guriev, 1970). In one of the latest variants of natural regionalization of the territory, the basin principle was used, and an additional more area was distinguished: the center of Chuvashia, characterized by the typical forest-steppe vegetation

(Papchenkov and Dimitriev, 1993). Only 30% of the territory has been covered with forests for the last hundred years, though at the beginning of the XIX century most of its part was afforested. Thus, Chuvashia is mainly situated in the forest-steppe landscape zone, but the taiga type of vegetation occurs in its northern part, and the areas of the meadow steppes have still partly remained in its southeastern and southwestern parts. The diversity of the natural conditions determines the pattern of the Chuvashia fauna.

This paper presents the first synopsis of the Chuvash Republic fauna of two families of Staphylinoidea: Scydmaenidae and Pselaphidae (Coleoptera). The study was performed within the framework of the investigation of the coleopteran biodiversity of Chuvashia and the federal protected areas: the “Prisurskii” State Nature Reserve [SNR] and the “Chuvash varmane” National Park (NP).

## MATERIALS AND METHODS

The material (408 specimens of beetles) was collected in the territory of the republic in 1975–2011. The specimens are deposited in L.V. Egorov's collection (Cheboksary) and, partly, in S.A. Kurbatov's collection (Moscow). Various methods of collecting were used: collection from under the bark of trees, sifting of the litter and wood dust, window and pitfall traps, catching at light and in the air in the evening, sweeping with an entomological net (Fasulati, 1971; Samkov and Chernyshev, 1983). The geographical coordinates of the collecting sites were determined using a “GARM receiver-navigator of atmospheric changes.”

The general characteristics of both families, the history of their study in the region, and an annotated list of the species are presented below; data on the mode of life for representatives of each genus and subgenus are provided. Data on the ecology and distribution in the republic and in the European part of Russia are given for each species. References to publications follow the name of a species only when the published data concern Chuvashia. The taxa recorded for the first time from Chuvashia are designated with an asterisk (\*); those recorded for the first time from Chuvashia and, presumably, from the Middle Volga Region, with two asterisks (\*\*), and those from Russia, with three asterisks (\*\*\*)).

The classification and nomenclature of Pselaphidae and Scydmaenidae used in the study follow those given in the *Catalogue of Palaearctic Coleoptera* (Löbl and Besuchet, 2004) and in the *World Catalog of the Genera of Scydmaenidae* (Newton and Franz, 1998), respectively. The rank of these groups downgraded to a subfamily of Staphylinidae (Newton and Thayer, 1995; Grebennikov and Newton, 2009) is resurrected here to a family.

#### Family **SCYDMAENIDAE** Leach, 1815

Scydmaenidae is a rather large, worldwide distributed family of beetles. In the World fauna, about 4900 species of 90 genera are described, but their number is actually much greater, as this group has been still poorly studied. In the territory of Russia, 78 species of Scydmaenidae are recorded. These are small beetles 1–2 mm long on average, though the largest Oriental representatives of the genus *Clidicus* Laporte reach 8.5 mm, and some Afrotropical *Microscydmus* Saulcy et Croiss., in contrast, do not exceed 0.4 mm. Scydmaenidae feed on small invertebrates; data on another food specialization are unknown to us. Most Scydmaenidae occur in the forest litter, rotten wood, and other decaying vegetation remnants; some species are associated with ants and termites. These beetles can be easily collected after sifting of the substrate through a soil sieve; they can also be caught with window traps, but rarely fly at light.

The fauna of some regions of the European part of Russia has been nonuniformly studied. The fauna of Moscow Province, presumably the best studied one, includes 21 species of Scydmaenidae (Lindeman, 1871; Jacobson, 1905–1916; Samkov and Belov, 1988; Nikitsky et al., 1996; 1998; Nikitsky and Semenov, 2001; Nikitsky, 2005, 2009). Thirteen species

are recorded for Yaroslavl Province (Yakovlev, 1902; Jacobson, 1905–1916; Gemmelman, 1927), 10, for Vladimir Prov. (Semenov, 2009, 2010), 5, for Kirov Prov. (Shernin, 1974; Yuferev, 2001), 5, for the Republic of Udmurtia (Dedyukhin et al., 2005), 10, for Lipetsk Prov. (Tsurikov, 2009), 4, for Saratov Prov. (Lindeman, 1871; Sakharov, 1903; Jacobson, 1905–1916), and 1 species, for Volgograd Prov. (Makarov et al., 2009). Data on the fauna of the Middle Volga Region are rather scanty. Thirteen species are recorded for Ulyanovsk Prov. (Isaev and Sysoenkov, 2002), 8, for the Republic of Tatarstan (Lebedev, 1906, 1913, 1925), and 10, for Samara Prov. (A.V. Burdaev's verbal comm.; data are published for only one species (Krasnobaev et al., 1992)). The faunas of the territories adjacent with Chuvashia: Nizhniy Novgorod Prov. (Anufriev et al., 1981), the Republics of Mari El, and the Republic of Mordovia (A.V. Ruchin's pers. comm.) remain almost not studied.

The Scydmaenidae fauna of Chuvashia had also been almost unstudied until we started our investigation. A number of publications only mentioned the fact of distribution of representatives of this family in the republic (Egorov, 1995a, 1995b, 1996a, 1996b, 1998, 2001a, 2001b, 2002b, 2004a, 2004b, 2006), but no data on the species found have been published.

#### *An Annotated List of the Species of Scydmaenidae* Leach, 1815

##### Subfamily **SCYDMAENINAE** Leach, 1815

##### Tribe **Cyrtoscydmini** L. W. Schaufuss, 1889

##### Genus **\*EUCONNUS** Thomson, 1859

##### Subgenus **Euconnus** Thomson, 1859

Representatives of this subgenus usually occur in the overwettered litter and in vegetation remnants along water bodies and in bogs.

##### **\*Euconnus hirticollis** (Illiger, 1798).

**Material.** Cheboksarskii District: the Trans-Volga Region opposite Cheboksary, 56°09'32"N, 47°21'01"E, sandy bank of the Volga River, in river sediments, under a shelter, 12.V.1996 (L.V. Egorov), 1 spm.; same locality, 2 km S of Lake Astrakhanka, bog, from a moss hummock, 6.V.1998 (L.V. Egorov), 1 spm. Yadrinskii District: 1 km SSE of Nikitino Vill., Lake Somovoe shore, flooding, 24.VII.2011 (L.V. Egorov), 1 spm. Alatyrskii Distr.: 4 km WSW of Atrat' Vill., SNR, area 51, pitfall trap

on the shore of Lake Shchuchie, 20–23.VII.2002 (L.V. Egorov), 1 spm.; same locality, 23–26.VII.2002 (L.V. Egorov), 7 spms.; 2 km S of Atrat' Vill., SNR, area 55, 54°58'50"N, 46°38'59"E, bog, pitfall trap, 1–16.V.2008 (D.Yu. Kurulenko), 1 spm.; 12.5 km NW of Atrat' Vill., near Berezovaya Polyana Vill. (protected area of SNR), Lake Zaton, pitfall trap near the shore, 25.VII.2010 (L.V. Egorov), 1 spm.

The species is known from Yaroslavl, Vladimir, and Kirov provinces, the Republic of Tatarstan, and Lipetsk and Saratov provinces.

\**Euconnus rutilipennis* (P.W.J. Müller et Kunze, 1822).

**Material.** Alatyrskii Distr.: 9 km NW of Atrat' Vill., the environs of Lake Chaga (protected area of SNR), the lake shore, in litter, 25.VII.2010 (L.V. Egorov), 1 spm.

The species is known from Vladimir and Ulyanovsk provinces.

#### Subgenus *Napochus* Thomson, 1859

Species of this subgenus are myrmecophilous, most frequently associated with ants of the genus *Lasius* F.

\**Euconnus claviger* (P.W.J. Müller et Kunze, 1822).

**Material.** Cheboksary, 56°07'44.3"N, 47°08'47.6"E, oak forest, window trap, 7–11.V.2010 (L.V. Egorov), 2 spms.; Cheboksary, 56°07'24.4"N, 47°08'52.6"E, a group of aspens in oak forest, window trap, 25–31.V.2011 (L.V. Egorov), 1 spm. Cheboksary Distr.: near Tokhmeevo Vill., glade at the edge of oak forest, flight at sunset, 30.V.2000 (L.V. Egorov), 1 spm.

The species is known from Moscow and Ulyanovsk provinces.

#### Subgenus *Psomophus* Casey, 1897

The beetles occur in various decaying plant substrates.

\*\**Euconnus wetterhallii* (Gyllenhal, 1813).

**Material.** Tsvil'skii Distr.: Pervoe Semenovno Vill., 55°52'N, 47°22'E, in dust of a rotten birch stub with ants, 23.V.1993 (L.V. Egorov), 1 spm.; 29 km SSE of Cheboksary, on a pine log with mold, 5.IX.1993

(L.V. Egorov), 1 spm.; Pervoe Semenovno Vill., 55°52'N, 47°22'E, in dust of a rotten birch stub, 25.IV.1999 (L.V. Egorov), 2 spms.; same locality, 55°52'N, 47°22'E, overwintering in a compost heap at the edge of a kitchen garden, 18.IV.2010 (L.V. Egorov), 1 spm. Alatyrskii Distr.: near Atrat' Vill., SNR, area 36, 54°59'N, 46°41'E, young pine forest, pitfall trap, 16–31.V.2008 (D.Yu. Kurulenko), 1 spm.; near Stemasy Vill., 54°48'30"N, 46°35'30"E, stepped slope, ravine, pitfall trap, 23.V–6.VI.2009 (D.Yu. Kurulenko), 4 spms.; same locality, 16–21.VI and 21–29.VI.2009 (D.Yu. Kurulenko), 2 spms. Yalchikskii Distr.: near Eshmikeevo Vill., Yalchikskii area of SNR, 55°01'30"N, 47°54'26"E, planting on a stepped slope, pitfall traps, 1–10.VI.2010 (G.F. Ganeeva), 2 spms.

The species is known from Lipetsk Prov.

#### Genus \**MICROSCYDMUS* Saulcy et Croissandeau, 1893

All the Palaearctic representatives of the genus are associated with rotten wood.

\**Microscydms nanus* (Schaum, 1844).

**Material.** Alatyrskii Distr.: 2 km E of Atrat' Vill., SNR, area 21, pine forest with spruce, birch, and aspen, window trap, 10–18.VIII, 3 spms., and 18–29.VIII.2002 (L.V. Egorov, S.G. Chanova), 1 spm.; 4 km ESE of Atrat' Vill., SNR, area 43, deciduous forest with spruce in a ravine, 25–28.VII.2002 (L.V. Egorov), 2 spms.; 2 km ESE of Atrat' Vill., SNR, area 40, spruce forest with deciduous trees, window trap, 25.VII–3.VIII.2003 (L.V. Egorov), 5 spms.

The species is known from Moscow and Ulyanovsk (?) provinces.

\*\**Microscydms minimus* (Chaudoir, 1845).

**Material.** Alatyrskii Distr.: 2 km S of Atrat' Vill., SNR, area 56, spruce forest with pines and deciduous trees, window trap, 16–18.VII.2000 (L.V. Egorov), 1 spm.; 4 km ESE of Atrat' Vill., SNR, area 43, deciduous forest with spruce in a ravine, 25–28.VII.2002 (L.V. Egorov), 1 spm.; 2 km E of Atrat' Vill., SNR, area 21, pine forest with spruce, aspen, and birch, window trap, 18–29.VIII.2002 (S.G. Chanova), 1 spm.

The species is known from Moscow and Lipetsk provinces.

Genus *\*NEURAPHES* Thomson, 1859

Subgenus *Neuraphes* Thomson, 1859

In Central Russia, these beetles usually occur in the forest litter, sometimes also in rotten wood.

*\*Neuraphes angulatus* (P.W.J. Müller et Kunze, 1822).

**Material.** Alatyrskii Distr.: 1.5 km ESE of Atrat' Vill., SNR, area 39, 55°00'10"N, 46°44'16"E, aspen forest, pitfall trap, 1–16.V.2008 (D.Yu. Kurulenko), 1 spm.; same locality, 31.05–15.VI.2008 (D.Yu. Kurulenko), 1 spm.; 2 km S of Yavlei Vill., floodplain oak forest ("Yavleiskaya Roshcha" Nature Reserve), pitfall trap, 10–22.VII.2011 (L.A. Zakharova, A.V. Frolov, I.V. Fedotov), 1 spm.

The species is known from Yaroslavl, Moscow, and Vladimir provinces, Udmurtia, Tatarstan, and Ulyanovsk, Lipetsk, and Saratov provinces.

*\*\*Neuraphes elongatulus* (P.W.J. Müller et Kunze, 1822).

**Material.** Cheboksary, 56°07'44"N, 47°08'48"E, oak forest, pitfall trap, 1–7.VI.2010 (L.V. Egorov), 1 spm. Alatyrskii Distr.: near Atrat' Vill., SNR, area 36, 54°59'N, 46°41'E, spruce forest near a stream, pitfall trap, 1–16.V.2008 (D.Yu. Kurulenko), 1 spm.

The species is known from Yaroslavl and Moscow provinces.

Genus *\*\*SCYDMORAPHES* Reitter, 1891

Beetles of this genus are most frequently associated with rotten wood.

*\*\*Scydmorephes minutus* (Chaudoir, 1845).

**Material.** Alatyrskii Distr.: 4 km ESE of Atrat' Vill., SNR, area 43, deciduous forest with spruce in a ravine, 22–25.VII.2002 (L.V. Egorov), 1 spm.; 2 km E of Atrat' Vill., SNR, area 21, pine forest with spruce, aspen, and birch, window trap on a fallen aspen near sphagnum + sedge bog, 1–3.VIII.2003 (L.V. Egorov), 1 spm.; near Atrat' Vill., SNR, area 1, old pine forest, window trap, 25–27.VII.2003 (L.V. Egorov), 1 spm.

The species is known from Yaroslavl, Moscow, and Kirov provinces.

Genus *\*STENICHNUS* Thomson, 1859

Subgenus *Stenichnus* Thomson, 1859

The beetles occur in various decaying plant substrates.

*\*\*Stenichnus bicolor* (Denny, 1825).

**Material.** Cheboksary, 56°07'44.3"N, 47°08'47.6"E, oak forest, window trap, 20.VI.2010 (L.V. Egorov), 1 spm. Tsvil'skii Distr.: 3 km N of Pervoe Semenovno Vill., oak forest, window trap, 16–30.V.2004 (L.V. Egorov), 3 spms.; same locality, 30.V–12.VI.2004 (L.V. Egorov), 3 spms.; same locality, 22–26.VII.2004 (L.V. Egorov), 1 spm. Poretskii Distr.: near Semenovskoe Vill., meadow steppe on a slope to the Menya River, in litter, 19.IX.2004 (L.V. Egorov), 1 spm. Alatyrskii Distr.: 4 km ESE of Atrat' Vill., SNR, area 43, deciduous forest with spruce in a ravine, 20–22.VII.2002 (L.V. Egorov), 1 spm.

The species is known from Yaroslavl, Moscow, Vladimir, and Lipetsk provinces.

*\*Stenichnus collaris* (P.W.J. Müller et Kunze, 1822).

**Material.** Cheboksary, 56°07'20"N, 47°08'28"E, a group of aspens in oak forest, overwintering in litter, 15.IV.2010 (I.V. Kazakova, L.V. Egorov), 1 spm. Alatyrskii Distr.: 2 km S of Atrat' Vill., SNR, area 56, 54°58'53"N, 46°40'24"E, alder forest, pitfall trap, 1–16.V.2008 (D.Yu. Kurulenko), 1 spm.; 2 km S of Yavlei Vill., floodplain oak forest ("Yavleiskaya Roshcha" Nature Reserve), pitfall trap, 10–22.VII.2011 (L.A. Zakharova, A.V. Frolov, I.V. Fedotov), 1 spm.

The species is known from Yaroslavl, Moscow, Vladimir, and Kirov provinces, the Republic of Tatarstan, and Ulyanovsk and Lipetsk provinces.

*\*Stenichnus godarti* (Latreille, 1806).

**Material.** Cheboksary, 56°07'24.4"N, 47°08'52.6"E, a group of aspens in oak forest, window trap, 15–27.VI.2011 (L.V. Egorov), 1 spm. Tsvil'skii Distr.: 2 km N of Pervoe Semenovno Vill., oak + maple forest, in litter, 21.IV.2002 (L.V. Egorov), 1 spm.; 3 km N of Pervoe Semenovno Vill., oak forest, window trap, 22–27.VI.2004 (L.V. Egorov), 1 spm. Shemurshinskii Distr.: near Bichurga-Baishevo Vill., NP, 54°46'N,

47°18'E, old pine forest with spruce, under the bark of a pine stub with an ant hill, 5.VIII.1996 (L.V. Egorov), 1 spm.

The species is known from Moscow, Ulyanovsk, and Lipetsk provinces.

*\*Stenichnus pusillus* (P.W.J. Müller et Kunze, 1822).

**Material.** Alatyrskii Distr.: near Stemasy Vill., 54°48'30"N, 46°35'30"E, steppified slope, ravine, pitfall trap, 9–23.V.2009 (D.Yu. Kurulenko), 1 spm.

The species is known from Moscow Prov., the Republic of Tatarstan, Udmurtia, and Ulyanovsk Prov.

*\*Stenichnus scutellaris* (P.W.J. Müller et Kunze, 1822).

**Material.** Tsivilskii Distr.: 3 km W of Tsivilsk, 55°52'02"N, 47°24'57"E, edge of oak forest with aspens, in litter, 9.IV.1995 (L.V. Egorov), 1 spm.; 3 km W of Tsivilsk, 55°52'02"N, 47°24'57"E, edge of oak forest with aspens, in litter, 12.IX.2010 (L.V. Egorov), 1 spm. Alatyrskii Distr.: 2 km ESE of Atrat' Vill., SNR, area 40, spruce forest with deciduous trees, window trap, 25–27.VII.2003 (L.V. Egorov), 1 spm.; near Atrat' Vill., SNR, area 1, 55°00'56"N, 46°39'55"E, old pine forest, pitfall trap, 1–16.V.2008 (D.Yu. Kurulenko), 1 spm.; same locality, area 36, 54°59'N, 46°41'E, birch forest, pitfall trap, 1–16.V.2008 (D.Yu. Kurulenko), 1 spm.

The species is known from Moscow, Vladimir, and Ulyanovsk provinces.

Tribe EUTHEINI Casey, 1897

Genus *\*EUTHEIA* Stephens, 1830

Beetles of this genus are most frequently associated with rotten wood; however, *Eu. scydmaenoides* is more common in the forest litter.

*\*Eutheia scydmaenoides* Stephens, 1830.

**Material.** Tsivilskii Distr.: Pervoe Semenov Vill., 55°52'10"N, 47°22'50"E, at flight in the evening, 5.VIII.1995 (L.V. Egorov), 1 spm.

The species is known from Yaroslavl, Moscow, and Vladimir provinces, Udmurtia, Tatarstan, and Lipetsk Prov.

Tribe SCYDMAENINI Leach, 1815

Genus *\*SCYDMAENUS* Latreille, 1802

Subgenus *Cholerus* Thomson, 1859

The beetles are myrmecophilous; *S. hellwigii* is more common in nests of the ants of the genus *Formica* L.

*\*Scydmaenus hellwigii* (Herbst, 1792).

**Material.** Cheboksary Distr.: 2 km W of Cheboksary, oak forest, under the bark of a drying out oak, 12.VI.1997 (L.V. Egorov), 1 spm. Shumerlinskii Distr.: near Bolshie Algashi Vill., edge of pine + spruce forest, sweeping of gramineans and milfoil, 12.VIII.1994 (L.V. Egorov), 1 spm. Alatyrskii Distr.: 2 km E of Atrat' Vill., SNR, area 21, pine forest with spruce and deciduous trees, window trap on an old aspen log, 23–26.VIII.2002 (L.V. Egorov), 1 spm.

The species is known from Yaroslavl, Moscow, and Vladimir provinces, Udmurtia, the Republic of Tatarstan, and Ulyanovsk Prov.

Subgenus *Parallomicrus* Franz, 1998

The beetles most frequently occur in rotten wood.

*\*Scydmaenus rufus* P.W.J. Müller et Kunze, 1822.

**Material.** Cheboksary, in a rotten linden stub, 19.V.2000 (L.V. Egorov), 1 spm. Cheboksary Distr.: environs of Cheboksary, Zaovrazhnyi Vill., area 11 of the Volga Forestry, oak forest, under the bark of an oak log ~ 1 m in diameter, 11.IX.2005 (L.V. Egorov), 1 spm. Tsivilskii Distr.: Pervoe Semenov Vill., an old willow stub with young growth, under the bark, 24.VI.1995 (L.V. Egorov), 1 spm.; same locality, 55°52'10"N, 47°22'50"E, in dust of a rotten birch stub with ants of *Lasius* sp., 10.VII.1997 (L.V. Egorov), 1 spm.; same locality, under the bark of an old willow, 25.IV.1999 (L.V. Egorov), 5 spms.; same locality, under the bark of a dead *Salix alba* L., 12.VI.2004 (L.V. Egorov), 1 spm.; 2 km E of Pervoe Semenov Vill., in dust of *Salix alba*, 25.IX.2011 (L.V. Egorov), 1 spm. Vurnarskii Distr.: near Charkli Vill., oak + linden forest, under the bark of a dead oak, 31.V.1999 (L.V. Egorov), 2 spms. Alatyrskii Distr.: 13.5 km NW of Atrat' Vill., near Berezovaya Polyana Vill. (protected area of SNR), area of the First Atratskoe Forestry, pine forest, window trap, 26.VII.2003 (R.V. Vladimirov), 1 spm.

The species is known from Yaroslavl, Moscow, and Kirov provinces, the Republic of Tatarstan, and Ulyanovsk, Lipetsk, Saratov, and Volgograd provinces.

Subgenus *Scydmaenus* Latreille, 1802

The beetles occur in various decaying substrates.

\**Scydmaenus tarsatus* P.W.J. Müller et Kunze, 1822.

**Material.** Cheboksary, 24.IV.1975 (L.V. Egorov), 1 spm. Tsvil'skii Distr.: Pervoe Semenovno Vill., kitchen garden, flight in the evening near a compost heap, 22.VI.2004 (L.V. Egorov), 3 spms. Alatyrskii Distr.: SNR, Atrat' Vill., flight at sunset, 21.VII.2002 (L.V. Egorov), 2 spms.; same locality, 23 and 27.VII.2002 (L.V. Egorov), 3 spms.; same locality, 19.VII.2004 (L.V. Egorov), 1 spm.

The species is known from Yaroslavl, Moscow, and Kirov provinces, Udmurtia, Tatarstan, and from Ulyanovsk, Lipetsk, and Saratov provinces.

Family **PSELAPHIDAE** Latreille, 1802

Pselaphidae is one of the largest families of Coleoptera. Over 9000 species of about 1100 genera have been described in this family; however, these values are far from being definitive. About 185 species are known from Russia. The body length in Pselaphidae is usually 1–2 mm, though the beetles can be much larger. In particular, the East African *Kistneriella termittobia* Leleup reaches 7.2 mm in length. Most Pselaphidae are predators of mites, nematodes, and other small invertebrates; however, many myrmecophilous insects have lost their ability to feed independently. Similarly to the representatives of the preceding family, the members of Pselaphidae are distributed worldwide, inhabiting the forest litter, rotten wood, moss, the upper layers of soil, etc. They prefer wet habitats; many species are associated with ants and termites. These beetles occur together with Scydmaenidae and can be collected using similar methods, but they more frequently fly at light, especially, those occurring near water bodies.

Knowledge of the Pselaphidae fauna varies between regions of the European part of Russia. The data on the Pselaphidae of Moscow Province apparently are most complete: 25 species are found there (Lindeman, 1871; Jacobson, 1905–1916; Samkov and Belov, 1988; Nikitsky et al., 1996; 1998; Nikitsky and Semenov, 2001; Nikitsky, 2005). Fifteen species have

been found in Yaroslavl Prov. (Yakovlev, 1902; Jacobson, 1905–1916; Gemmelman, 1927), 12, in Vladimir Prov. (Semenov, 2009, 2010), 5, in Kirov Prov. (Shernin, 1974; Yuferev, 2001), 10, in Udmurtia (Dedyukhin et al., 2005), 14, in Lipetsk Prov. (Tsurikov, 2009), 8, in Saratov Prov. (Lindeman, 1871; Jacobson, 1905–1916), and 9, in Volgograd Prov. (Grebennikov, 2002; Makarov et al., 2009). The following data are published for the Middle Volga Region: 1 species is known from the Republic of Mari El (Lebedev, 1925), 8, from the Republic of Tatarstan (Lebedev, 1906, 1913, 1925), ~ 20, from Ulyanovsk Prov. (Isaev, 1999; but the data were published only for 8 species (Buganin and Isaev, 1998; Isaev, 1998)), and 4 species are recorded from Samara Prov. (Krasnobaev et al., 1992; Burdaev, 1995; Goreslavets, 2003). The Pselaphidae fauna of the adjacent territories, Nizhniy Novgorod Province (Anufriev et al., 1981) and the Republic of Mordovia, remains unstudied.

The fauna of Chuvashia had been almost uninvestigated until the beginning of our study. Most publications only reported findings of representatives of Pselaphidae in the region (Egorov, 1995a, 1995b, 1996a, 1998, 2001b, 2002a, 2002b, 2004a, 2004b, 2006); label data were published only for 2 species (Lebedev, 1906; Egorov, 2009). Comments on record of one of the taxa of Pselaphidae from the territory of the Cheboksary Branch of the Main Botanical Garden of the Russian Academy of Sciences (Egorov, 2002a) are given below.

*An Annotated List of the Species of Pselaphidae*

Family **PSELAPHIDAE** Latreille, 1802

Subfamily **Euplectinae** Streubel, 1839

Tribe **EUPLECTINI** Streubel, 1839

Subtribe **Euplectina** Streubel, 1839

Genus \***EUPLECTUS** Leach, 1817

The majority of the Holarctic representatives of this genus, including all the species listed below, are associated with rotten wood.

\*\*\**Euplectus bescidicus* Reitter, 1882.

**Material.** Cheboksary, 56°07'44.3"N, 47°08'47.6"E, oak forest, window trap, 8–9.VI.2010 (L.V. Egorov), 1 spm.; same locality, 9–16.VI.2010 (L.V. Egorov), 1 spm.

This East European species is recorded from Russia for the first time.

**\*\**Euplectus decipiens* Raffray, 1910.**

**Material.** Cheboksary, 56°07'24.4"N, 47°08'52.6"E, a group of aspens in oak forest, window trap, 25–31.VIII.2011 (L.V. Egorov), 1 spm. Alatyrskii Distr.: 4 km ESE of Atrat' Vill., SNR, area 43, deciduous forest with spruce in a ravine, 25–28.VII.2002 (L.V. Egorov), 1 spm.; 2 km ESE of Atrat' Vill., SNR, area 40, spruce forest with deciduous trees, window trap, 1–3.VIII.2003 (L.V. Egorov), 1 spm.

The species is known from Moscow Province.

**\*\**Euplectus karstenii* (Reichenbach, 1816).**

**Material.** Cheboksary, the Cheboksary Branch of the Main Botanical Garden of the Russian Academy of Sciences, oak forest, an oak stub, white rot, 30.IV.1996 (L.V. Egorov), 2 spms.; Cheboksary, 56°07'44.3"N, 47°08'47.6"E, oak forest, window trap, 25.V.2010 (L.V. Egorov), 1 spm.; same locality, 2.VI.2010 (L.V. Egorov), 2 spms.; same locality, 4.VI.2010 (L.V. Egorov), 1 spm.; same locality, 7.VI.2010, 1 spm.; same locality, 16–17.VI.2010 (L.V. Egorov), 2 spms.; same locality, 21.VI.2010 (L.V. Egorov), 1 spm. Tsvil'skii Distr.: 3 km N of Pervoe Semenovno Vill., oak forest, window trap, 28.VII–10.VIII.2004 (L.V. Egorov), 1 spm.; 2 km E of Pervoe Semenovno Vill., in dust of *Salix alba*, 25.IX.2011 (L.V. Egorov), 1 spm. Vurnarskii Distr.: near Charkli Vill., 31.V.1999 (L.V. Egorov), oak + linden forest, under the bark of a dead oak, 2 spms. Alatyrskii Distr.: 2 km S of Atrat' Vill., SNR, area 56, spruce forest with pine and deciduous trees, window trap, 13–14.VII.2000 (L.V. Egorov), 2 spms.; same locality, 14–16.VII.2000 (L.V. Egorov), 3 spms.; same locality, 16–18.VII.2000 (L.V. Egorov), 5 spms.; same locality, 18–21.VII.2000 (L.V. Egorov), 1 spm.; same locality, alder forest with birch, window trap, 13–14.VII.2000 (L.V. Egorov), 3 spms.; same locality, 16–18.VII.2000 (L.V. Egorov), 4 spms.; same locality, 18–21.VII.2000 (L.V. Egorov), 1 spm.; same locality, 21–23.VII.2000 (L.V. Egorov), 1 spm.; 5 km E of Atrat' Vill., SNR, area 26, broadleaf forest, window trap on a linden log, 20–22.VII.2002 (L.V. Egorov), 1 spm.; same locality, 25–28.VII.2002 (L.V. Egorov), 3 spms.; 4 km WSW of Atrat' Vill., SNR, area 51, floodplain oak forest, window trap, 20–23.VII.2002 (L.V. Egorov), 1 spm.; 2 km E of Atrat' Vill., SNR, area 21, pine forest with spruce and deciduous trees,

window trap on an old aspen log, 23–26.VII.2002 (L.V. Egorov), 3 spms.; 4 km ESE of Atrat' Vill., SNR, area 43, deciduous forest with spruce in a ravine, 22–25.VII.2002 (L.V. Egorov), 3 spms.; same locality, 25–28.VII.2002 (L.V. Egorov), 4 spms.; 2 km E of Atrat' Vill., SNR, area 21, pine forest with spruce, aspen, and birch, window trap, 10–18.VIII.2002 (L.V. Egorov), 1 spm.; same locality, 18–29.VIII.2002 (S.G. Chanova), 2 spms.; same locality, 29.VIII–9.IX.2002 (S.G. Chanova), 1 spm.; same locality, 9–19.IX.2002 (S.G. Chanova), 2 spms.; same locality, pine forest with spruce, aspen, and birch, window trap on a fallen aspen near sphagnum + sedge bog, 27–29.VII.2003 (L.V. Egorov), 4 spms.; same locality, 1–3.VIII.2003 (L.V. Egorov), 1 spm.; 2 km ESE of Atrat' Vill., SNR, area 40, spruce forest with deciduous trees, window trap, 27–29.VII.2003 (L.V. Egorov), 4 spms.; 13.5 km NW of Atrat' Vill., near Berezovaya Polyana Vill. (conservation zone of SNR), area of the First Atratskoe Forestry, oak forest, window trap, 30.VII.2003 (R.V. Vladimirov), 1 spm.; Atrat' Vill., SNR, window trap near a pile of logs, 25.VII–3.VIII.2003 (L.V. Egorov), 6 spms.; same locality, window trap near coniferous firewood, 17–21.VII.2004 (L.V. Egorov), 1 spm.

Record of *Plectophloeus* sp. from Chuvashia (Egorov, 2002a) should be attributed to *Eu. karstenii*. The species is known from Yaroslavl and Moscow provinces, Udmurtia, and Lipetsk Province.

**\*\**Euplectus kirbii* Denny, 1825.**

**Material.** Cheboksary: in a rotten linden stub, 19.V.2000 (L.V. Egorov), 2 spms.; 56°07'44.3"N, 47°08'47.6"E, oak forest, window trap, 14.V.2010 (L.V. Egorov), 1 spm.; same locality, 31.V.2010 (L.V. Egorov), 1 spm.; same locality, 9–16.VI.2010 (L.V. Egorov), 1 spm.; same locality, 20.VIII.2010 (L.V. Egorov), 1 spm.; 56°07'24.4"N, 47°08'52.6"E, a group of aspens in oak forest, window trap, 27.VI–7.VII.2011 (L.V. Egorov), 1 spm. Tsvil'skii Distr.: Pervoe Semenovno Vill., 55°52'10"N, 47°22'50"E, in dust of a rotten birch stub, 29.VIII.1993 (L.V. Egorov), 7 spms.; 3 km N of Pervoe Semenovno Vill., oak forest, window trap, 30.V–12.VI.2004 (L.V. Egorov), 1 spm.; same locality, 13–14.VII.2004 (L.V. Egorov), 1 spm.; same locality, 15–24.VII.2004 (L.V. Egorov), 1 spm.; 2 km E of Pervoe Semenovno Vill., in dust of *Salix alba*, 25.IX.2011 (L.V. Egorov), 3 spms. Alatyrskii Distr.: 2 km S of Atrat' Vill., SNR, area 56, spruce forest with pine and deciduous trees, window trap, 13–

14.VII.2000 (L.V. Egorov), 1 spm.; same locality, 14–16.VII.2000 (L.V. Egorov), 2 spms.; same locality, 16–18.VII.2000 (L.V. Egorov), 2 spms.; same locality, 18–21.VII.2000 (L.V. Egorov), 1 spm.; same locality, 21–23.VII.2000 (L.V. Egorov), 1 spm.; same locality, alder forest with birch, window trap, 14–16.VII.2000 (L.V. Egorov), 3 spms.; same locality, 18–21.VII.2000 (L.V. Egorov), 1 spm.; same locality, 21–23.VII.2000, 1 spm.; 5 km E of Atrat' Vill., SNR, area 26, broadleaf forest, window trap on a linden log, 20–22.VII.2002 (L.V. Egorov), 3 spms.; same locality, 25–28.VII.2002 (L.V. Egorov), 1 spm.; 2 km E of Atrat' Vill., SNR, area 21, pine forest with spruce, aspen, and birch, window trap, 23–26.VII.2002 (L.V. Egorov), 1 spm.; 4 km ESE of Atrat' Vill., SNR, area 43, deciduous forest with spruce in a ravine, 22–25.VII.2002 (L.V. Egorov), 2 spms.; 4 km WSW of Atrat' Vill., SNR, area 51, floodplain oak forest, window trap, 26–28.VII.2002 (L.V. Egorov), 1 spm.; 2 km E of Atrat' Vill., SNR, area 21, pine forest with spruce, aspen, and birch, window trap on a fallen aspen near sphagnum + sedge bog, 25–27.VII.2003 (L.V. Egorov), 1 spm.; 4 km ESE of Atrat' Vill., SNR, area 43, deciduous forest with spruce in a ravine, 25–28.VII.2002 (L.V. Egorov), 1 spm. Shemurshinskii Distr.: 7 km W of Baskaki Vill., the environs of Kirillstan, NP, 54°50'51"N, 47°11'05"E, under the bark of pine-tree, 21.VIII.2010 (L.V. Egorov), 1 spm.

The species is known from Moscow and Vladimir provinces.

**\*\**Euplectus mutator*** Fauvel, 1895.

**Material.** Yalchikskii Distr.: near Yamanchurino Vill., pine forest, window trap, 21.VI.2002 (L.V. Egorov), 1 spm.

The species is known from Moscow and Vladimir provinces.

**\*\**Euplectus piceus*** Motschulsky, 1835.

**Material.** Cheboksary, 56°07'44.3"N, 47°08'47.6"E, oak forest, window trap, 15–16.V.2010 (L.V. Egorov), 2 spms. Alatyrskii Distr.: 13.5 km NW of Atrat' Vill., near Berezovaya Polyana Vill. (conservation zone of SNR), area of the First Atratskoe Forestry, pine forest, window trap, 8.VIII.2003 (R.V. Vladimirov), 1 spm.

The species is known from Moscow and Lipetsk provinces.

**\*\**Euplectus punctatus*** Mulsant et Rey, 1861.

**Material.** Cheboksary, in a rotten linden stub, 19.V.2000 (L.V. Egorov), 4 spms. Tsvil'skii Distr.: 3 km N of Pervoe Semenovno Vill., oak forest, window trap, 22–26.VI.2004 (L.V. Egorov), 1 spm.; Pervoe Semenovno Vill., under the bark of a willow stub near a river, 12.IX.2010 (L.V. Egorov), 1 spm. Ibresinskii Distr.: 1 km NNW of Lipovka Vill., area 97 of the Buinskoe Forestry (the Nature Sanctuary of the Republican Significance "Culture of the Pine of 1940"), 55°06'N, 47°05'E, pine forest, under the bark of a pine log, 11.V.2008 (L.V. Egorov), 1 spm. Alatyrskii Distr.: 4 km WSW of Atrat' Vill., SNR, area 51, floodplain oak forest, window trap, 20–23.VII.2002 (L.V. Egorov), 1 spm.; near Berezovaya Polyana Vill. (conservation zone of SNR), area of the First Atratskoe Forestry, pine forest, window trap, 29.VII.2003 (R.V. Vladimirov), 1 spm.

The species is known from Yaroslavl, Moscow, Vladimir, and Lipetsk provinces.

Tribe TRICHONYCHINI Reitter, 1882

Subtribe Bibloporina Park, 1951

Genus **\**BIBLOPORUS*** C.G. Thomson, 1859

The beetles are mainly associated with the wet rotten wood of deciduous trees.

The label data are listed only for the males, since the females cannot be reliably identified.

**\*\**Bibloporus bicolor*** (Denny, 1825).

**Material.** Cheboksary, 56°07'24.4"N, 47°08'52.6"E, a group of aspens in oak forest, window trap, 16–19.V.2011 (L.V. Egorov), 3 spms.; same locality, 3–10.VIII.2011 (L.V. Egorov), 3 spms.; same locality, 25–31.VIII.2011 (L.V. Egorov), 13 spms.; same locality, 31.VIII–9.IX.2011 (L.V. Egorov), 1 spm. Alatyrskii Distr.: 4 km ESE of Atrat' Vill., SNR, area 43, deciduous forest with spruce in a ravine, 20–22.VII.2002 (L.V. Egorov), 1 spm.; same locality, 22–25.VII.2002 (L.V. Egorov), 1 spm.; same locality, 25–28.VII.2002 (L.V. Egorov), 3 spms.

The species is known from Yaroslavl and Moscow provinces.

**\*\**Bibloporus minutus*** Raffray, 1914.

**Material.** Cheboksary, 56°07'44.3"N, 47°08'47.6"E, oak forest, window trap, 28.VII.2010 (L.V. Egorov),



1 spm. Tsvil'skii Distr.: 3 km N of Pervoe Semenovno Vill., oak forest, window trap, 30.V–12.VI.2004 (L.V. Egorov), 2 spms.; same locality, 18–26.V.2004 (L.V. Egorov), 4 spms.; same locality, 28.VII–10.VIII.2004 (L.V. Egorov), 1 spm.; same locality, 17–28.VIII.2004 (L.V. Egorov), 1 spm.; same locality, 28.VIII–12.IX.2004 (L.V. Egorov), 4 spms.; same locality, 12–26.IX.2004 (L.V. Egorov), 1 spm. Vurnarskii Distr.: near Charkli Vill., oak + linden forest, under the bark of a dead oak, 31.V.1999 (L.V. Egorov), 1 spm. Alatyrskii Distr.: 5 km E of Atrat' Vill., SNR, area 26, broadleaf forest, window trap on a linden log, 25–28.VII.2002 (L.V. Egorov), 2 spms.; 4 km WSW of Atrat' Vill., SNR, area 51, floodplain oak forest, window trap, 20–23.VII.2002 (L.V. Egorov), 1 spm.; 2 km E of Atrat' Vill., SNR, area 21, pine forest with spruce, aspen, and birch, window trap on a fallen aspen near the sphagnum + sedge bog, 10–18.VIII.2003 (L.V. Egorov), 1 spm.

The species is known from Moscow and Vladimir provinces and Udmurtia.

Subtribe Panaphantina Jeannel, 1950

Genus \***BIBLOPECTUS** Reitter, 1882

The beetles occur in plant debris along the shores of various water bodies.

\***Biblopectus ambiguus** (Reichenbach, 1816).

**Material.** Alatyrskii Distr.: 1.5 km NE of Atrat' Vill., SNR, area 6, on a leaf of sundew, VI.2000 (N.V. Nalimova), 1 spm.; 2 km S of Atrat' Vill., SNR, area 56, alder forest with birch, window trap, 14–16.VII.2000 (L.V. Egorov), 3 spms.; same locality, 16–18.VII.2000, 1 spm.; same locality, 29.VII–1.VIII.2000 (L.V. Egorov), 2 spms.; 2 km E of Atrat' Vill., SNR, area 21, bog, pitfall trap, 25.VI.2002 (S.G. Chanova), 1 spm.; same locality, pine forest with spruce, aspen, and birch, window trap on a fallen aspen near sphagnum + sedge bog, 27–29.VII.2003 (L.V. Egorov), 1 spm. Shemurshinskii Distr.: 7 km W of Baskaki Vill., the environs of Kirillstan, NP, linden grove with *Aegopodium*, window trap, 29.VI.2008 (R.V. Vladimirov), 1 spm.

The species is known from Yaroslavl, Moscow, and Vladimir provinces and Tatarstan.

Subtribe Trichonychina Reitter, 1882

Genus \***TRICHONYX** Chaudoir, 1845

The beetles occur in rotten wood, sometimes together with ants.

\***Trichonyx sulcicollis** (Reichenbach, 1816).

**Material.** Cheboksary, in a rotten linden stub, 19.V.2000 (L.V. Egorov), 1 spm.; Tsvil'skii Distr.: Pervoe Semenovno Vill., at flight near a bath-house in the evening, 15.VI.2006 (L.V. Egorov), 1 spm.

The species is known from Yaroslavl, Moscow, Samara, and Lipetsk provinces.

Subtribe Trimiina Bowman, 1934

Genus \***TRIMIUM** Aubé, 1833

Beetles of this genus usually inhabit the forest litter, less frequently occur in rotten wood.

\***Trimum brevicorne** (Reichenbach, 1816).

**Material.** Cheboksary Distr.: the environs of Cheboksary, Zaovrazhnyi Vill., edge of oak forest, in dust of a linden log, 20.VI.1993 (L.V. Egorov), 1 spm. Batyrevskii Distr.: near Batyrevno Vill., nursery of fruit plants, glue pheromone trap, 5.VIII.2004 (R.F. Aseinov), 1 spm. Alatyrskii Distr.: 2 km N of Atrat' Vill., SNR, area 56, alder forest with birch, window trap, 13–14.VII.2000 (L.V. Egorov), 1 spm.; 4 km ESE of Atrat' Vill., SNR, area 43, deciduous forest with spruce in a ravine, 25–28.VII.2002 (L.V. Egorov), 1 spm.; near Atrat' Vill., SNR, area 1, old pine forest, window trap, 1–3.VIII.2003 (L.V. Egorov), 1 spm.; 13.5 km NW of Atrat' Vill., near Berezovaya Polyana Vill. (conservation zone of SNR), area of the First Atratskoe Forestry, oak forest, window trap, 4.VIII.2003 (R.V. Vladimirov), 1 spm.

The species is known from Yaroslavl, Moscow, Vladimir, and Kirov provinces, Udmurtia, and Lipetsk and Ulyanovsk provinces.

Subfamily **Batrisinae** Reitter, 1882

Tribe BATRISINI Reitter, 1882

Subtribe Batrisina Reitter, 1882

Genus \***BATRISODES** Reitter, 1882

Subgenus *Batrisodes* Reitter, 1882

The beetles most frequently occur in rotten wood and in hollows of trees; many species are associated with ants mostly of the genus *Lasius*.

\*\***Batrisodes hubenthalii** Reitter, 1913.

**Material.** Cheboksary Distr.: the Trans-Volga Region, near Severnyi Vill. on the Shumka River, spruce

forest with pine, window trap on a fallen pine, 20.VII.2002 (N.V. Skvortsov), 1 spm. Alatyrskii Distr.: 2 km S of Atrat' Vill., SNR, area 56, spruce forest with pine and deciduous trees, window trap, 13–14.VII.2000 (L.V. Egorov), 1 spm.; 5 km E of Atrat' Vill., SNR, area 26, broadleaf forest, window trap on a linden log, 20–22.VII.2002 (L.V. Egorov), 1 spm.; 4 km ESE of Atrat' Vill., SNR, area 43, deciduous forest with spruce in a ravine, window trap, 22–25.VII.2002 (L.V. Egorov), 1 spm.

The species is known from Moscow Prov.

Subfamily Goniacerinae Reitter, 1882

Tribe BRACHYGLUTINI Raffray, 1904

Genus *\*BRACHYGLUTA* C.G. Thomson, 1859

The overwhelming majority of the representatives of this genus are associated with wetlands along water bodies; however, both the species found in Chuvashia may also occur in the forest litter and even in rotten wood.

*\*Brachygluta fossulata* (Reichenbach, 1816).

**Material.** Alatyrskii Distr.: 4 km WSW of Atrat' Vill., SNR, area 51, pitfall trap on the shore of Lake Shchuchie, 23–26.VII.2002 (L.V. Egorov), 1 spm.; near Atrat' Vill., SNR, area 36, 54°59'N, 46°41'E, birch forest, pitfall trap, 13.IV–1.V.2008 (D.Yu. Kurulenko), 1 spm.; 2 km S of Atrat' Vill., SNR, area 56, 54°58'53"N, 46°40'24"E, alder forest, pitfall trap, 1–16.V.2008 (D.Yu. Kurulenko), 1 spm.; SNR, area 55, 54°58'50"N, 46°38'59"E, bog, pitfall trap, 1–16.V.2008 (D.Yu. Kurulenko), 2 spms.; same locality, 16–31.V.2008 (D.Yu. Kurulenko), 1 spm.; 3 km WSW of Atrat' Vill., conservation zone of SNR, near area 51, 54°59'12"N, 46°37'09"E, floodplain meadow, pitfall trap, 15–26.VI.2008 (D.Yu. Kurulenko), 1 spm.; same locality, 18.VII–1.VIII.2008, 1 spm. Yalchikskii Distr.: near Eshmikeevo Vill., Yalchikskii area of SNR, 55°01'30"N, 47°54'26"E, planting on a stepped slope, pitfall traps, 1–10.VI.2010 (G.F. Ganeeva), 2 spms.

The species is known from Moscow and Vladimir provinces, Udmurtia, Tatarstan, and Lipetsk, Saratov, and Volgograd provinces.

*Brachygluta haematica* (Reichenbach, 1816).

The species was recorded for Chuvashia from the environs of Kadik-Kasy (= Kadikasy) Vill. of Koz-

modemianskii Uezd (now Morgaushskii Distr. of the Republic of Chuvashia), 14.VI.1899, on the Volga River bank (Lebedev, 1906).

**Material.** Cheboksary Distr.: the Trans-Volga Region, area 21 of Akshkyulskoe Forestry, ~ 10 km N of town of Novocheboksarsk, pine forest with birch, aspen, and spruce, at light of a mercury lamp, 20.VI.1998 (L.V. Egorov), 1 spm. Tsivilskii Distr.: 2 km W of Tsivilsk, 55°52'03"N, 47°25'03"E, stepped edge of young pine forest, sweeping of grass at 8 p.m., 10.VII.1995 (L.V. Egorov), 1 spm.; near Pervoe Semenov Vill., 55°51'38"N, 47°22'42"E, the Unga River bank, 29.VI.1997 (L.V. Egorov), 1 spm. Shumerlinskii Distr.: 13 km W of town of Shumerl, floodplain meadow near the Sura River, net-sweeping, 1.VI.2011 (D.Yu. Kurulenko), 1 spm. Shemurshinskii Distr.: near Baideryakovo Vill., floodland of the Karla River, at light of a mercury lamp, 11.VI.1998 (L.V. Egorov), 1 spm. Kozlovskii Distr.: near Karamyshevo Vill., the Anish River bank, at light of a mercury lamp, 15.VII.2000 (A.A. Lastukhin), 7 spms. Yalchikskii Distr.: Lashch-Tayaba Vill., 55°01'13"N, 47°59'43"E, at light of a mercury lamp, 24.VII.2009 (L.V. Egorov), 1 spm.

The species is known from Moscow, Kirov, and Lipetsk provinces.

Genus *\*FAGNIEZIA* Jeannel, 1950

The beetles occur in bogs and along the shores of water bodies.

*\*Fagniezia impressa* (Panzer, 1805).

**Material.** Cheboksary Distr.: the Trans-Volga Region, 2 km S of Lake Astrakhanka, bog, from a moss hummock, 6.V.1998 (L.V. Egorov), 3 spms.; area 21 of Akshkyulskoe Forestry, ~ 10 km N of Novocheboksarsk, pine forest with birch, aspen, and spruce, at light of a mercury lamp, 19.V.2008 (L.V. Egorov), 1 spm.; 14 km NW of Cheboksary, shore of Lake Svetloe, in litter, 4.VII.2010 (L.V. Egorov), 1 spm. Kozlovskii Distr.: near Karamyshevo Vill., the Anish River bank, at light of a mercury lamp, 15.VII.2000 (A.A. Lastukhin), 1 spm. Krasnochetaiskii Distr.: 1.5 km W of Krasnyi Yar Vill., shore of Lake Gasim, flooding, 9.VII.2011 (L.V. Egorov), 1 spm. Poretskii Distr.: Kudeikha Vill., at light of a mercury lamp near fishponds, 17.VI.1999 (L.V. Egorov), 8 spms. Yalchikskii Distr.: near Yamanchurino Vill., a glade in mixed forest, at light of a mercury lamp, 20.VI.2002

(L.V. Egorov), 2 spms. Alatyrskii Distr.: 6 km SE of Atrat' Vill., SNR, area 103, bog, pitfall trap, 19.VI.2002 (S.G. Chanova), 1 spm.; 2 km SE of Atrat' Vill., SNR, area 21, bog, sweeping of grass, 29.VIII.2002, 1 spm. Shemurshinskii Distr.: near Baideryakovo Vill., floodland of the Karla River, at light of a mercury lamp, 11.VI.1998 (L.V. Egorov), 5 spms.; 5 km NW of Trekhbaltaevo Vill., bog, from a moss hummock, 1.V.1999 (L.V. Egorov), 2 spms.; near Bichurga-Baishevo Vill., NP, 54°46'N, 47°18'E, area 118, edge of pine forest, 10.VII.2010 (L.V. Egorov), 1 spm.

The species is known from Vladimir Province and Tatarstan.

Genus *\*RYBAXIS* Sauley, 1876

Similarly to the representatives of the two preceding genera, the species of *Rybaxis* are associated with wetlands near water bodies.

*\*Rybaxis longicornis* (Leach, 1817).

**Material.** Cheboksary, 56°07'24.4"N, 47°08'52.6"E, a group of aspens in oak forest, window trap, 16–19.V.2011 (L.V. Egorov), 1 spm. Cheboksary Distr.: the Trans-Volga Region opposite Cheboksary, 56°09'32"N, 47°21'01"E, sandy bank of the Volga River, in river sediments, under a shelter, 11.VI.1994 (L.V. Egorov), 1 spm. Alatyrskii Distr.: 2 km SE of Atrat' Vill., SNR, area 21, bog, sweeping of grass, 29.VIII.2002 (S.G. Chanova), 1 spm.; near Atrat' Vill., SNR, area 36, 55°00'N, 46°41'E, spruce forest, pitfall trap, 13.IV–1.V.2008 (D.Yu. Kurulenko), 1 spm.; 2 km S of Atrat' Vill., SNR, area 56, 54°58'53"N, 46°40'24"E, alder forest, pitfall trap, 13.IV–1.V.2008 (D.Yu. Kurulenko), 1 spm.; same locality, pitfall trap, 1–16.V.2008 (D.Yu. Kurulenko), 1 spm.; SNR, area 39, 55°00'10"N, 46°44'16"E, aspen forest, pitfall trap, 13.IV–1.V.2008 (D.Yu. Kurulenko), 1 spm.; near Atrat' Vill., SNR, area 36, 54°59'N, 46°41'E, birch forest, pitfall trap, 13.IV–1.V.2008 (D.Yu. Kurulenko), 1 spm.; same locality, pitfall trap, 1–16.V.2008 (D.Yu. Kurulenko), 1 spm. Shemurshinskii Distr.: near Baideryakovo Vill., floodland of the Karla River, at light of a mercury lamp, 11.VI.1998 (L.V. Egorov), 1 spm.

The species is known from Yaroslavl, Moscow, Vladimir, and Kirov provinces, Udmurtia, Tatarstan, and Samara, Lipetsk, and Saratov provinces.

Tribe BYTHININI Raffray, 1890

Genus *\*BRYAXIS* Kugelann, 1794

Nearly all the representatives of this vast Palaearctic genus are inhabitants of litter, though the most widely distributed species of the genus, *B. bulbifer*, is also common in bogs.

*\*Bryaxis bulbifer* (Reichenbach, 1816).

**Material.** Alatyrskii Distr.: 4 km WSW of Atrat' Vill., SNR, area 51, floodplain oak forest, window trap, 20–23.VII.2002 (L.V. Egorov), 1 spm.; 2 km S of Atrat' Vill., SNR, area 55, 54°58'50"N, 46°38'59"E, bog, pitfall trap, 20.IV–1.V.2008 (D.Yu. Kurulenko), 1 spm.

The species is known from Yaroslavl, Moscow, and Vladimir provinces, Tatarstan, and Lipetsk and Saratov provinces.

*\*\*Bryaxis puncticollis* (Denny, 1825).

**Material.** Alatyrskii Distr.: 2 km S of Atrat' Vill., SNR, area 55, 54°58'50"N, 46°38'59"E, bog, pitfall trap, 15–26.VI.2008 (D.Yu. Kurulenko), 1 spm.; near Atrat' Vill., SNR, area 36, 54°59'N, 46°41'E, spruce forest near a stream, pitfall trap, 16–31.V.2008 (D.Yu. Kurulenko), 1 spm.; same locality, 54°59'N, 46°41'E, young pine forest, pitfall trap, 16–31.V.2008 (D.Yu. Kurulenko), 1 spm.

The species is known from Moscow and Vladimir provinces.

Genus *\*\*BYTHINUS* Leach, 1817

The beetles most frequently occur in bogs and in plant debris along the shores of various water bodies.

*\*\*Bythinus macropalpus* Aubé, 1833.

**Material.** Tsivilskii Distr.: Pervoe Semenovno Vill., 55°52'10"N, 47°22'50"E, at flight, 6.V.2007 (L.V. Egorov), 1 spm. Alatyrskii Distr.: 2 km S of Atrat' Vill., SNR, area 56, alder forest with birch, window trap, 18–21.VII.2000 (L.V. Egorov), 1 spm.; 4 km ESE of Atrat' Vill., SNR, area 43, deciduous forest with spruce in a ravine, 22–25.VII.2002 (L.V. Egorov), 1 spm.

The species is known from Yaroslavl, Moscow, and Lipetsk provinces.

Subfamily **PSELAPHINAE** Latreille, 1802

## Tribe PSELAPHINI Latreille, 1802

Genus **PSELAPHUS** Herbst, 1792

The beetles occur in various decaying plant debris, sometimes also under stones.

***Pselaphus heisei*** Herbst, 1792.

The species was recorded from Alatyrskii Distr. (Egorov, 2009): 9 km ESE of Atrat' Vill., SNR, area 90, cotton-grass + sphagnum raised bog, 13.VI.2002, 1 spm., same locality, 26.VI.2002, 2 spms., same locality, 26.VII.2002 (S.G. Chanova), 1 spm.

**Material.** Cheboksary Distr.: the Trans-Volga Region, 2 km S of Lake Astrakhanka, sedge bog with willows, 26.IV.1997 (L.V. Egorov), 1 spm. Alatyrskii Distr.: 1.5 km ESE of Atrat' Vill., SNR, area 39, 55°00'10"N, 46°44'16"E, aspen forest, pitfall trap, 31.V–15.VI.2008 (D.Yu. Kurulenko), 1 spm.; near Stemasy Vill., stepped slope, ravine, pitfall trap, 25.IV–9.V.2009, 1 spm.; same locality, 9–23.V.2009 (D.Yu. Kurulenko), 2 spms.; same locality, 23.V–6.VI.2009 (D.Yu. Kurulenko), 2 spms.; same locality, 11–28.VII.2009 (D.Yu. Kurulenko), 1 spm. Yalchikskii Distr.: near Eshmikeevo Vill., Yalchikskii area of SNR, 55°01'30"N, 47°54'26"E, planting on a stepped slope, pitfall traps, 1–10.VI.2010 (G.F. Ganeeva), 8 spms.

The species is known from Yaroslavl and Moscow provinces, Udmurtia, and Samara, Lipetsk, and Saratov provinces. We also collected it in the Republic of Mari El: 5 km NE of Novocheboksarsk, spruce forest with pine, under the bark of a spruce stub, 7.VI.2005 (L.V. Egorov), 1 spm.

## Tribe TYRINI Reitter, 1882

## Subtribe Tyrina Reitter, 1882

Genus **\*\*TYRUS** Aubé, 1833

The beetles most frequently occur under the bark of dead trees.

**\*\**Tyrus mucronatus*** (Panzer, 1805).

**Material.** Cheboksary, 56°08'10"N, 47°10'40"E, oak forest, 10.VI.1976 (L.V. Egorov), 1 spm. Cheboksary Distr.: the Trans-Volga Region, 4.5 km N of Sosnovka Vill., pine + spruce forest with deciduous trees (linden, birch, aspen), under the bark of a rotten linden log, 4.V.1996 (L.V. Egorov), 1 spm.; near Ok-

tyabr'skii Vill., pine forest, under the bark of a pine log, 8.VI.2004 (L.V. Egorov), 1 spm.; 2 km N of Sosnovka Vill., pine forest, under the bark of a pine log, 18.V.2004 (L.V. Egorov), 1 spm. Alatyrskii Distr.: 2 km S of Atrat' Vill., SNR, area 56, spruce forest with pine and deciduous trees, window trap, 18–21.VII.2000 (L.V. Egorov), 1 spm.

The species is known from Yaroslavl, Moscow, and Kirov provinces, Udmurtia, and the Republic of Mari El. It was found in Saratov Prov. (A.S. Sazhnev's pers. comm.).

Subfamily **Clavigerinae** Leach, 1815

## Tribe CLAVIGERINI Leach, 1815

## Subtribe Clavigerina Leach, 1815

Genus **\*CLAVIGER** Preyssler, 1790

The representatives of this genus are obligate myrmecophilous insects.

**\**Claviger testaceus*** Preyssler, 1790.

**Material.** Tsivilskii Distr.: 2 km W of Tsivilsk, 55°52'03"N, 47°25'03"E, stepped edge of young pine forest, sweeping of grass, 28.VIII.2002 (L.V. Egorov), 3 spms.

The species is known from Udmurtia and Ulyanovsk Prov.

Thus, in the territory of Chuvashia, 18 species of 7 genera of the family Scydmaenidae and 23 species of 14 genera of the family Pselaphidae have been found. For Chuvashia, 18 species and 7 genera of Scydmaenidae and 21 species and 13 genera of Pselaphidae are recorded for the first time; for the Middle Volga Region, presumably 5 species and 1 genus of Scydmaenidae and 13 species and 2 genera of Pselaphidae; and for the Republic of Mari El, 1 species and 1 genus of Pselaphidae. One species of Pselaphidae is recorded for Russia for the first time. Thirty-two species of Pselaphidae and Scydmaenidae are found in the territory of the "Prisurskii" State Nature Reserve and its conservation zone (among these, 31 species have been found there for the first time), 4 species have been recorded for the first time from the territory of the "Chavash varmane" National Park.

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#### REFERENCES

- Anufriev, G.A., Volovik, M.G., and Sharygin, T.A., "The Main Results of the Faunal, Applied, and Biogeocenotic Studies of the Coleoptera of Gorkii Province (Insecta, Coleoptera)," in *Land and Water Ecosystems* (Gorkii, 1981), Issue 4, pp. 79–94 [in Russian].
- Buganin, S.I. and Isaev, A.Yu., "The Myrmecophilous Coleoptera and Ants-Symphiles of the Volga River Region," in *Proceedings of the X All-Russia Myrmecological Symposium "Ants and Forest Protection" (Peshki, August 24–28, 1998)* (Moscow, 1998), pp. 105–106.
- Burdaev, A.V., "The Formation of an Association of Xylophilous Coleoptera on the Pine under the Conditions of Samara Province," *Samar. Luka. Byull.* No. 6, 201–212 (1995).
- Gemmelman, S.S., "A List of the Beetles (Coleoptera) of Pereslavl'skii Uezd of Vlad.[imirskaya] Gub.[ernia]," in *Proceedings of the Pereslavl-Zalesskii Museum of Local Lore and History* (Pereslavl, 1927), Vol. 4, pp. 43–87 [in Russian].
- Goreslavets, I.N., "Contributions to the Knowledge of the Mirmecobiont Complex of Staphylinidae (Coleoptera) of Samara Province," in *Investigations and Teaching Methods in Biology. Interacademic Proceedings* (Samara State Pedagog. Univ., Samara, 2003), Issue 3 (1), pp. 255–261 [in Russian].
- Grebennikov, K.A., "The Fauna and Ecological Characters of the Rove Beetles (Coleoptera, Staphylinidae) of the Lower Volga River Region," in *Biodiversity of the Insects of the Southeastern European Part of Russia. Proceedings* ("Nissa-Region," Volgograd, 2002), pp. 42–82 [in Russian].
- Guriev, D.G., *The Forests and Forestry of the Chuvash ASSR* (Chuvash. Publ., Cheboksary, 1970) [in Russian].
- Dedyukhin, S.V., Nikitsky, N.B., and Semenov, V.B., "A Taxonomic List of the Coleoptera (Insecta) of Udmurtia," *Evrasiat. Entomol. Zh.* 4 (4), 293–315 (2005).
- Dmitriev, F.D., "The Relief of the Chuvash ASSR," in *The Chuvash ASSR: Essays on Nature*, Ed. by Afanasiev, I.A. (State Publ. of the Chuvash ASSR, Cheboksary, 1952), pp. 6–18 [in Russian].
- Egorov, L.V., "On the Cadastre of the Coleoptera of Chuvashia," *Ekol. Vestnik Chuvashii*, No. 6, 66–70 (1995a).
- Egorov, L.V., "On the Coleopteran Fauna of Chuvashia," in *Regional Ecological and Faunistic Studies as the Scientific Grounds for Faunal Monitoring. Abstracts of Papers of the Scientific-Practical Conference* (Ulyanovsk State Pedagog. Univ., Ulyanovsk, 1995b), pp. 51–52.
- Egorov, L.V., "The Beetles (Insecta, Coleoptera) of Chuvashia. Bibliography," in *Problems of Education and Training of Youth in the National School. Collection of Papers of Post-graduate Students and Teachers* (I.Ya. Yakovlev Chuvash. State Pedagog. Inst., Cheboksary, 1996a), pp. 41–49 [in Russian].
- Egorov, L.V., "On the Inventory of the Coleopterous Fauna of Chuvashia," *Ekol. Byull. Chuvashii*, No. 15, 61–62 (1996b).
- Egorov, L.V., "The Beetles (Insecta, Coleoptera) of the Chuvash Republic: a Level of the Knowledge and Prospect of the Investigations," in *Entomological Studies in Chuvashia. Proceedings of the I Republic Entomol. Conference* (Klio, Cheboksary, 1998), pp. 25–29.
- Egorov, L.V., "The Level of the Knowledge of the Chuvash Republic Coleopterous Fauna at the Turn of the Century," *Vestnik ChGPU im. I.Yu. Yakovleva*, No. 1 (20), 47–59 (2001a).
- Egorov, L.V., "The Common Beetle Species (Insecta: Coleoptera) in the Environs of Cheboksary," *Ekol. Byull. Chuvash. Respub.*, No. 23, 112–119 (2001b).
- Egorov, L.V., *The Beetles of the Oak Forests of Chuvashia* ("Chuvashia," Cheboksary, 2002a) [in Russian] [*Ekol. Byull. Chuvash. Respub.*, No. 30, Ser. "The Nature and Natural Resources of the Chuvash Republic." The Oak Forests of Chuvashia. Part 2].
- Egorov, L.V., "The Beetle Species (Insecta, Coleoptera) New and Rare for the Fauna of Chuvashia," *Vestnik Chuvash. Gos. Pedagog. Univ. im. I.Ya. Yakovleva*, No. 8 (32), 34–42 (2002b).
- Egorov, L.V., "Biodiversity of the Coleoptera (Insecta) of Chuvashia," in *The Municipal and Regional Aspects of Ecological Security as the Grounds for the Sustainable Development. Proceedings of the Republic Scientific-Practical Conference (Novocheboksarsk, December 10, 2003)* (Klio, Cheboksary, 2004a), pp. 106–117.
- Egorov, L.V., "The Beetle Species (Insecta, Coleoptera) New and Rare for the Fauna of Chuvashia. 2," *Vestnik Chuvash. Gos. Pedagog. Univ. im. I.Ya. Yakovleva*, No. 4 (42), 162–175 (2004b).
- Egorov, L.V., "The "Prisurskii" Nature Reserve. Subject: "Annals of Nature." Section: Inventory of the Fauna and Flora of the Nature Reserve and Its Steppe Areas. The Coleopterous Fauna, 1998–2005," in *The Scientific Researches in the Nature Reserves and Na-*

- tional Parks of the Russian Federation for 1998–2005* (All-Russia Sci.-Res. Inst. of Nature, Moscow, 2006), Issue 3, Part 1, pp. 332–333 [in Russian].
22. Egorov, L.V., “The Coleoptera (Insecta) of the “Prisurskii” State Nature Reserve and Its Conservation Zone: the Current Level of the Knowledge,” in *Proceedings of the “Prisurskii” State Nature Reserve* (Klio, Cheboksary–Atrat’, 2009), Vol. 22, pp. 12–33 [in Russian].
  23. Fasulati, K.K., *Field Study of Terrestrial Invertebrates* (Vysshaya Shkola, Moscow, 1971) [in Russian].
  24. Grebennikov, V.V. and Newton, A.F., “Good-bye Scydmaenidae, or why Ant-like Stone Beetles should Become Megadiverse Staphylinidae sensu latissimo (Coleoptera),” *Europ. J. Entomol.* **106**, 275–301 (2009).
  25. Isaev, A.Yu., “On the Fauna of the Myrmecophilous Coleoptera of the Middle Volga River Region,” in *Problems of Entomology in Russia* (St. Petersburg, 1998), Vol. 1 [in Russian].
  26. Isaev, A.Yu., “The Results and Prospects of the Study of the Arthropods of Ulyanovsk Province,” in *The Natural-Scientific Researches in Simbirsk-Ulyanovsk Territory at the Turn of the Century* (Ulyanovsk, 1999), pp. 60–75 [in Russian].
  27. Isaev, A.Yu. and Sysoenkov, D.A., “Scydmaenidae (Coleoptera). Contributions to the Knowledge of the Cryptophilic Beetles of the Forest-steppe Area of the Middle Volga River Region (Comm. 3),” in *Nature of the Simbirsk Volga Region. Proceedings* (Ulyanovsk, 2002), Issue. 3, pp. 100–101 [in Russian].
  28. Jacobson, G.G., *The Beetles of Russia, Western Europe, and Adjacent Countries* (St. Petersburg, 1905–1916) [in Russian].
  29. Krasnobaev, Yu.P., Isaev, A.Yu., Lyubvina, I.V., Gussarov, V.I., and Tilli, A.S., “The Invertebrate Fauna of Zhiguli. III. Suborder Polyphaga (Insecta, Coleoptera): Hydrophilidae–Cantharidae,” *Samar. Luka. Byull.*, No. 3, 113–135 (1992).
  30. Lebedev, A.G., “Contributions to the Beetle Fauna of Kazan Gubernia. Part I,” *Trudy REO* **37** (3–4), 352–438 (1906).
  31. Lebedev, A.G., “Contributions to the Beetle Fauna of Kazan Gubernia. Part II,” *Russ. Entomol. Obozr.* **12** (2), 336–348 (1913 (1912)).
  32. Lebedev, A.G., “Contributions to the Beetle Fauna of the Republic of Tatarstan: III,” *Russ. Entomol. Obozr.* **19**, 133–138 (1925).
  33. Lindeman, K.E., “A Review of the Geographical Distribution of Beetles in the Russian Empire,” *Trudy REO* **6** (3–4), 41–366 (1871).
  34. Löbl, I. and Besuchet, C., “Pselaphinae,” in *Catalogue of Palaearctic Coleoptera. Vol. 2*, Ed. by Löbl, I. and Smetana, A. (Apollo Books, Stenstrup, 2004), pp. 272–329.
  35. Makarov, K.V., Matalin, A.V., and Komarov, E.V., “The Coleopterous Fauna of Lake Elton,” in *The Animals of the Loamy Semi-desert of the Trans-Volga Region (Synopsis of the Faunas and Ecological Characteristics)* (KMK, Moscow, 2009), pp. 95–134 [in Russian].
  36. Milkov, F.N., *The Middle Volga River Region: Physical and Geographical Description* (Moscow, 1953) [in Russian].
  37. Newton, A.F. and Franz, H., “World Catalog of the Genera of Scydmaenidae (Coleoptera),” *Kol. Rundschau* **68**, 137–165 (1998).
  38. Newton, A.F. and Thayer, M.K., “Protopselaphinae New Subfamily for *Protopselaphus* New Genus from Malaysia, with a Phylogenetic Analysis and Review of the Omaliine Group of Staphylinidae Including Pselaphidae (Coleoptera),” in *Biology, Phylogeny, and Classification of Coleoptera: Papers Celebrating the 80th Birthday of Roy A. Crowson. Vol. 1*, Ed. by Pakaluk, J. and Ślipiński, S.A. (Muz. i Inst. Zool. PAN, Warszawa, 1995), pp. 219–320.
  39. Nikitsky, N.B., “A Supplement to the Coleopterous Fauna of Moscow Province (with Notes on Some New Records of Beetles in the Territory of the Former USSR and the Caucasus),” *Byull. Mosk. O-va Ispytat. Prirody. Otd. Biol.* **110** (1), 21–27 (2005).
  40. Nikitsky, N.B., “New and Interesting Findings of Xylophilous and Some Other Coleopterans in Moscow Province and Moscow,” *Byull. Mosk. O-va Ispytat. Prirody. Otd. Biol.* **114** (5), pp. 50–58 (2009).
  41. Nikitsky, N.B., Osipov, I.N., Chemeris, M.V., et al., *The Beetles of the Prioksko-Terrasny Biosphere Reserve—Xylobionts, Mycetobionts, and Scarabaeidae (with a Review of the Moscow Province Fauna of these Groups)* (Moscow State Univ., Moscow, 1996) [in Russian].
  42. Nikitsky, N.B., and Semenov, V.B., “Contributions to the Knowledge of the Coleoptera of Moscow Province,” *Byull. Mosk. O-va Ispytat. Prirody. Otd. Biol.* **106** (4), 38–49 (2001).
  43. Nikitsky, N.B., Semenov, V.B., and Dolgin, M.M., *The Beetles of the Prioksko-Terrasny Biosphere Reserve—Xylobionts, Mycetobionts, and Scarabaeidae (with a Review of the Moscow Province Fauna of these Groups). Supplement 1 (with Notes on the Nomenclature and Systematics of Some Melandryidae of the World Fauna)* (Moscow State Univ., Moscow, 1998) [in Russian].
  44. Papchenkov, V.G. and Dimitriev, A.V., “On the Natural Regionalization of the Chuvash Republic,” *Ekol. Vestnik Chuvashii*, No. 2, 75–82 (1993).
  45. Pletneva-Sokolova, A.D., “The Growth of the Chuvash ASSR,” in *The Chuvash ASSR: Essays on Nature*, Ed. by Afanasiev, I.A. (State Publ. of the Chuvash ASSR, Cheboksary, 1952), pp. 74–112 [in Russian].
  46. Sakharov, N.A., “The Beetles of the Environs of the Mariinskoe Land Locality and Other Areas of Saratov

- Gubernia,” *Trudy Saratov. O-va Estestvoispyt. Lyubit. Prirody* **4** (2) (1903 (1905)).
47. Samkov, M.N. and Belov, V.V., “The Beetles (Insecta, Coleoptera) of the Zvenigorod Biological Research Station of Moscow State University, Collected with Window Traps,” in *The Insects of Moscow Province. Problems of Cadastre and Protection* (Nauka, Moscow, 1988), pp. 55–72 [in Russian].
  48. Samkov, M.N. and Chernyshev, V.B., “Window Traps and Their Potentials in Entomology,” *Zool. Zh.* **62** (10), 1571–1574 (1983).
  49. Semenov, V.B., *An Annotated List of the Beetles (Insecta, Coleoptera) of Central Meshchera* (KMK, Moscow, 2009) [in Russian].
  50. Semenov, V.B., “An Annotated List of the Beetles (Insecta, Coleoptera) of Central Meshchera. Supplement 1,” *Eversmanniya. Entomol. Issled. Ross. Sosed. Reg.*, Nos. 23–24, 26–39 (2010).
  51. Shernin, A.I., “The Orders Coleoptera and Strepsiptera,” in *The Animal World of Kirov Province* (Kirov, 1974), Issue 2, pp. 111–227 [in Russian].
  52. “The Middle and Lower Volga River Regions and the Trans-Volga Region,” in *Russia. A Complete Geographical Description of Our Homeland. Reprint edition*, Ed. by Semenov, V.P. (“Dom pechati,” Ulyanovsk, 1998) [in Russian].
  53. Tsurikov, M.N., *The Beetles of Lipetsk Province* (Voronezh State Univ., Voronezh, 2009) [in Russian].
  54. Yakovlev, A.I., “A List of the Beetles (Coleoptera) of Yaroslavl Gubernia,” in *Proceedings of the Yaroslavl Natural-Historical Society* (Yaroslavl, 1902), Vol. 1, pp. 88–186 [in Russian].
  55. Yuferev, G.I., “The Order Coleoptera,” in *The Animal World of Kirov Province (Invertebrates). Supplement: Collection of Papers* (VGPU, Kirov, 2001), Vol. 5, pp. 120–180 [in Russian].