

REVIEW OF LEAF-BEETLES SUBFAMILY GALERUCINAE (COLEOPTERA: CHRYSOMELIDAE) OF THE LATVIAN FAUNA

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New faunal data on 19 species of the subfamily Galerucinae Latreille, 1802 are presented. In total 1796 specimens were reviewed. The bibliographical information on this leaf-beetles subfamily in Latvia are summarized for the first time. Two species, *Galeruca dahlii* (Joannis, 1866) and *Luperus luperus* (Sulzer, 1776), are deleted from the list of Latvian Coleoptera. An annotated list of Latvian Galerucinae is given, including 21 species and 10 genera.

Key words: Coleoptera, Chrysomelidae, Galerucinae, Latvia, fauna, bibliography.

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INTRODUCTION

The subfamily Galerucinae Latreille, 1802 comprises six tribes and approximately 5800 species (Wilcox 1971-1975) distributed throughout the world but predominantly in the tropics. Of them, 43 species and 14 genera are reported for eastern Europe (Bieńkowski 2004) and 28 species and 11 genera are known in northern Europe (Silfverberg 2004).

Hitherto, in the second edition of check-list of Latvian beetles (Telnov 2004) were reported 23 species and 10 genera of subfamily Galerucinae Latreille, 1802. In adjacent areas the number of recorded species of this subfamily slightly varies: in Belarus – 27 species and 11 genera (Lopatin, Nesterova 2005), in Estonia – 18 species and 8 genera, in Lithuania – 23 species and 10 genera (Silfverberg 2004), in St.-Petersburg and Leningrad region (western Russia) – 22 species and 8 genera (Romantsov 2007).

The first information on species of Galerucinae in Latvia was published at the end of the 18th century in a monograph on natural history of Livland (Fischer 1784, 1791). Subsequently, more than 50 other works were published where fragmentary information on this subfamily can be found.

Latvian Galerucinae have been irregularly investigated until now. In 1993, A. Barševskis published his monograph “The Beetles of Eastern Latvia” containing data on 16 species of this subfamily, mostly from eastern and southeastern parts of the country. Scarce faunistic data can be found in the following other articles (Mikutowicz 1905; Lackschewitz 1927, 1942; Brammanis 1930; Lackschewitz, Mikutowicz 1939; Pūtele 1974, 1981a; Stiprais 1977; Rūtenberga 1992; Barševskis 1993, 2001; Telnov *et al.* 2006; Bukejs, Telnov 2007). Some papers are dedicated to study of biology and ecology of selected leaf-beetles species: Ozols

1929 [*Galerucella tenella* (L.)], Rupais 1962 [*Pyrrhalta viburni* (Pk.)], Pūtele 1976 [*Lochmaea caprea* (L.)], Pūtele 1977 [*Agelastica alni* (L.)].

Imago of Galerucinae feed on foliage of herbaceous plants (mostly on *Lythrum*, *Artemisia*, *Rumex*, *Polygonum*, *Filipendula*, *Fragaria*, *Cirsium*, *Nymphaea*, *Nuphar*, *Comarum*, *Calluna*, *Galium*, *Thalictrum*, *Scutellaria* and other) and deciduous trees and shrubs (mostly on *Salix*, *Alnus*, *Populus*, *Betula*, *Ulmus*, *Viburnum*, *Crataegus* and other), rarely on coniferous tree (*Pinus*) (Bieńkowski 2004; Lopatin, Nesterova 2005).

Some species of the subgenus Galerucinae are pests of cultivated plants (Kryzhanovskij 1974). In Latvia *Galerucella tenella* (Linnaeus, 1761) and *Galeruca tanacetii* (Linnaeus, 1758) are reported as the pests of strawberry (Čakstiņa 1962; Priedītis 1971a; Dūks 1976; Petrova *et al.* 2000, 2006); *Pyrrhalta viburni* (Paykull, 1799) – as pest of viburnum (Rupais 1959).

The aim of the current work is to summarize information on subfamily Galerucinae Latreille, 1802 in Latvia. The bibliographical information on this leaf-beetles subfamily in Latvia are summarized for the first time. New faunal data on nineteen species are presented. Two species, *Galeruca dahlii* (Joannis, 1866) and *Luperus luperus* (Sulzer, 1776), are deleted from the list of Latvian Coleoptera. In the article also the annotated list of Latvian species is presented. Altogether, 21 species of 10 genera of Galerucinae Latreille, 1802 are reported in Latvia.

MATERIAL AND METHODS

In total 1796 specimens of leaf-beetles were processed during the current investigation, representing 9 genera and 19 species of Galerucinae. Material studied is stored in the collection of Daugavpils University Institute of Systematic Biology (DUBC), the entomological collection of the Latvian University Institute of Biology (Salaspils), private collection of author

(Daugavpils), and collection of V. Pūtele (Institute of Biology, Salaspils).

The following identification keys have been used for identification of specimens: Beenen 2007; Bieńkowski 2004; Lopatin, Nesterova 2005; Mohr 1966; Ogloblin 1936; Warchałowski 2003. Genera and species are listed taxonomically. We follow the systematics suggested by Silfverberg (2004). The monograph (Warchałowski 2003), an interactive on-line manual (Borowiec 2004) and series of articles (Beenen 1999, 2002, 2007, 2008) were used for the nomenclature and synonymy.

Host plants are listed citing the monograph of Lopatin & Nesterova (2005). The general distribution of species is given according to Bezdžk (2004), Bieńkowski (2004), Borowiec (2004), Lopatin (1977, 1986), Lopatin & Kulenova (1986), Lopatin & Nesterova (2005), Medvedev (1992), Medvedev & Dubeshko (1992), Ogloblin (1936) and Warchałowski (2003).

Classification of chorotypes follows as suggested by Taglianti *et al.* (1999), the transcripts of chorotypes codes are: ASE – Asiatic-European, CAE – Centralasiatic-European, CEM – Centralasiatic-Europeo-Mediterranean, EUR – European, PAL – Palaearctic, SIE – Sibero-European.

The following information is given for each of the species: scientific name & author, published bibliographical sources for Latvia, faunistic data (the place where it was found and the collecting date are indicated, in brackets are indicated the number of specimens collected, information about habitat and collector's name), host plants, phenology (Latvian data only; IV, VI, VII, VIII, IX, X – months from April to October, respectively; in oval brackets – ten-day period), general distribution of species and the chorotype code. Species marked with dashes (-) have been previously recorded for the Latvian fauna, but in fact appear to be absent from Latvia, and it is doubtful whether they ever occurred here (earlier records, probably based on misidentifications or misinterpretations). These species are herewith excluded from the list of Latvian Coleoptera.

Explanations of used abbreviations: d. – administrative district (system of administrative districts used in Latvia from 1991 to 2008), env. – environ, PNT – protected nature territory, vill. – village or settlement, syn. – synonym, C – central, S – South, N – North, E – East, W – West.

RESULTS AND DISCUSSION

During the current research, occurrence of 19 species and 9 genera of Galerucinae were confirmed for Latvia. Two species, *Lochmaea crataegi* (Forster, 1771) and *Xanthogaleruca luteola* (Müller, 1766), were not confirmed during the research. Occurrence of these species in the Latvian fauna needs further confirmation.

Galerucella nymphaeae-complex includes *G. nymphaeae* (Linnaeus, 1758), *G. aquatica* (Geoffroy, 1785), *G. sagittariae* (Gyllenhal, 1813) and *G. kerstensi* Lohse, 1989. They are very similar morphologically. Differences in structure of aedeagus, shape of last abdominal sternite in females, size and coloration of body are weak (Bieńkowski 2004; Lohse 1989; Kippenberg, Döber, 1994). They feed on different host plants: *G. nymphaeae* – on *Nymphaea* and *Nuphar*; *G. aquatica* – on Polygonaceae (*Polygonum amphibium*, *Rumex hydrolapathum* and *R. aquaticus*); *G. sagittariae* and *G. kerstensi* – on *Comarum palustre* (Lohse 1989; Bieńkowski 2004; Lopatin & Nesterova 2005; Romantsov 2007). During the preparation of Galerucinae section of volume 6 of the Catalogue of the Palearctic Coleoptera (Lobl & Smetana eds.), Beenen (2008) has summarized the information on molecular, morphological and ecological studying of *Galerucella nymphaeae*-complex (Hippa & Koponen 1986; Kangas 1991; Lohse 1989; Nokkala 1989; Nokkala & Nokkala 2004; Pappers 2001; after Beenen 2008) and it will not be split in species or subspecies. The taxa hitherto separated from *Galerucella nymphaea* are to be regarded as host races and are therefore intrasubspecific (Beenen 2008). Borghuis et al. (2009) confirms that the host-associated taxa of the *Galerucella nymphaeae* species complex are not defined as distinct gene pools under the

phylogenetic species concept, however, the species complex as a whole is.

Galerucella nymphaeae (Linnaeus, 1758) is mentioned in current list of Latvian Galerucina. In Latvia, specimens were recorded on *Nymphaea*, *Nuphar* and *Rumex hydrolapathum*, and also were reports on *G. sagittariae* (Mikutowicz 1905; Rathlef 1921; Lackschewitz 1927).

Two species, *Galeruca dahlia* (Joannis, 1866) and *Luperus luperus* (Sulzer, 1776), are excluded from the list of Latvian Coleoptera. Overall, the list of species of subfamily Galerucinae of Latvian fauna includes 21 species and 10 genera.

Analysis of the distribution of the Latvian species of the subfamily Galerucinae reveals that the range of chorotypes is rather wide: Palearctic – one species [*Xanthogaleruca luteola* (Müll.)], Asiatic-European – six species [*Galerucella grisescens* (Joann.), *G. lineola* (F.), *G. calmariensis* (L.), *Lochmaea caprea* (L.), *Galeruca tanacetii* (L.), *Agelastica alni* (L.)], Sibero-European – eight species [*Galerucella nymphaeae* (L.), *G. tenella* (L.), *Lochmaea crataegi* (Forst.), *Pyrrhalta viburni* (Pk.), *Galeruca laticollis* (Sahlb.), *Phyllobrotica quadrimaculata* (L.), *Luperus longicornis* (F.), *L. flavipes* (L.)], Centralasiatic-European-Mediterranean – one species [*Galeruca interrupta* (Ill.)], Centralasiatic-European – three species [*Galerucella pusilla* (Duft.), *Galeruca pomonae* (Scop.), *Sermylassa halensis* (L.)], European – two species [*Lochmaea suturalis* (Thoms.), *Calomicrus pinicola* (Duft.)].

In *Lochmaea caprea* (L.) (Fig. 1.) and *L. suturalis* (Thoms.) (Fig. 2), differences in body coloration, shape and sculpture of antennal calluses, punctures of frons and vertex are weak. Bieńkowski (2004) paid attention that external characters do not permit the separation of these species and determination is possible only after shape of aedeagus. I have studied aedeagi (Fig. 3) and sculpture of antennal calluses and vertex (Fig. 4) in these species.

LIST OF SPECIES OF LATVIAN FAUNA

CHRYSOMELIDAE

GALERUCINAE LATREILLE, 1802

GALERUCINI LATREILLE, 1802

GALERUCELLA CROTCH, 1873

subgenus *Galerucella* s.str.

1. *G. nymphaeae* (Linnaeus, 1758)

References: Precht 1818 (*Galleruca nymphaeae*); Kawall 1865, 1866; Seidlitz 1872-1875 (*Galleruca*), 1887-1891 (*Galleruca*); Rathlef 1905; Mikutowicz 1905 (*Galleruca sagittariae* Gyll.); Rathlef 1921 (*sagittariae* Gyll.); Lackschewitz 1927 (*sagittariae* Gyll.); Spuris 1953, 1974; Šmits, Spuris 1966; Pūtele 1974, 1980, 1981a, 1981b, 1984; Stiprais 1977; Barševskis 1988, 1993, 2002; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007.

Examined material: 149 specimens: Daugavpils d.: Dviete, Dvietes paliene Nature Park, 56°01'38"N 26°21'04"E, 11.V.2008 (1, Daugava riverside, leg. A.Pankjāns); Elerne, 31.V.2007 (1, bank of the Daugava River, leg. M.Murd); Ilgas, Silene Nature Park, 10.VII.1993 (1, leg. A.Barševskis), VI-VII.2000 (4, leg. I.Haka & G.Hļebnaja), 14-20.VI.2002 (1, leg. A.Barševskis); Medumi, Lake Ilgas, 02.VIII.2007 (32, on *Nuphar luteum* leaves, leg. M.Murd); Pilskalne, 5 km NE Ilukste, Lake Paukštes, 14.VIII.2007 (4, on *Nuphar luteum*, leg. U.Suško); Šedere, Lake Marinova, 12.VIII.2007 (7, leg. M.Murd); Višķi, 1987 (1, leg. A.Barševskis), 27.V.1987 (4, leg. A.Barševskis), 20.V.2007 (1, bank of Lake Višķu, leg. M.Murd); Jēkabpils d.: Dunava, 23.VI.1993 (5, leg. A.Barševskis), 21.VII.1993 (4, leg. A.Barševskis), 01-05.VIII.1997 (5, leg. A.Barševskis), 04.IX.2004 (2, leg. A.Barševskis), 10-18.VI.2006 (1, leg. K.Barševska), 18-22.VI.2006 (8, leg. K.Barševska), 01-08.VIII.2006 (17, leg. A.Barševskis & K.Barševska), 29.VIII.2006 (1, leg. A.Barševskis), 09-10.VIII.2008 (1, leg. A.Barševskis); Rubene, 25.IV.1998 (1, leg. I.Leiskina), 23.IV.1999 (1, leg. I.Leiskina), 08.VIII.1999 (1, leg. I.Leiskina); Vandāni, 12.VIII.2007 (1, bank of the Daugava River, leg. A.Bukejs); Krāslava d.: Asūne, 10.VIII.1998 (2, leg. I.Plotka); Izvalta, 31.III.1989 (1, leg. A.Barševskis); Saltupe house, 55°51'01"N 27°17'17"E, Augšdaugva PNT, 28.IV.2009 (1, leg.

M.Nitcis, A.Anishtchenko); 3.7 km SW Varnaviči, 55°47'55"N 27°16'32"E, 05.IX.2008 (1, leg. R.Cibuļskis); Vecokra, 26.VII.2008 (3, leg. A.Soldāns); Velnezers Nature Reserve, 11.VII.2008 (1, leg. A.Barševskis, V.Aleksejev); Kuldīga d.: Lake Lielais Nabes, 57°04'04"N 21°48'26"E, 28.VII.2005 (2, leg. A.Bukejs, A.Barševskis); Skrunda, bank of the Venta River, 11.VII.2006 (2, leg. A.Barševskis, K.Barševska); Limbaži d.: Vīķi, 57°51'42"N 24°47'53"E, 22.VIII.2006 (1, leg. A.Barševskis); Preiļi d.: Jersika, Kurpnieki house, 04.V.2006 (1, leg. K.Barševska); Rozukalne, S bank of Lake Lielais Kalūpes, 07.VII.2007 (1, leg. U.Suško); Rēzekne d.: Andzeļi, Lake Ežezers, Lielā Laču Is., 24.VII.2008 (1, leg. R.Cibuļskis, U.Valainis); Bērzgale, 29.VII.1992 (8, lake, leg. A.Barševskis); Īdeņa env., 06.VII.2008 (1, leg. A.Bukejs, M.Balalaikins), 15.VII.2009 (6, Lake Lubāns, on *Nuphar*, leg. A.Bukejs, M.Balalaikins); 7 km SW Kaunata, Lipušķi, Lake Razna, 18.V.2009 (1, leg. A.Bukejs); Lūznava, Zosna, Rāzna National Park, 24.VII.2008 (1, leg. R.Cibuļskis, U.Valainis); Mākonkalns, 03.VIII.1992 (2, leg. A.Barševskis); Lake Micānu, 28.VII.2009 (1, leg. M.Balalaikins); Rīga d.: Spuņciems, 10.VIII.2006 (1, leg. E.Rudāns, A.Barševskis); Valmiera d.: Mazsalaca, 57°43'04"N 25°07'75"E, 21.VIII.2006 (4, leg. A.Barševskis, A.Pankjāns); Ventspils d.: Moricsala Is., Moricsala Nature Reserve, VII.2007 (1, leg. A.Barševskis); Usma forestry env., 05.V.2008 (1, leg. A.Pankjāns, U.Valainis, A.Soldāns, E.Tamanis).

Host plants: *Nymphaea*, *Nuphar* (Nymphaeaceae), *Polygonum amphibium*, *Rumex hydrolapathum*, *R. aquaticus* (Polygonaceae), *Comarum palustre* (Rosaceae).

Phenology: IV(3), V, VI, VII, VIII, IX(1)

General distribution: Europe, Siberia. [SIE]

Note: Common species in Latvia.

2. *G. griseescens* (Joannis, 1865)

References: Spuris 1953; Stiprais 1977; Pūtele 1980, 1981b; Barševskis 1988, 1993, 2002; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Bukejs, Telnov 2007.

Examined material: 37 specimens: Daugavpils d.: Ilgas, Silene Nature Park, 18.VI.2008 (1, leg. R.Cibuļskis); Krauja, 29.V.2007 (2, old wet

clearing, leg. A.Bukejs); Oborūni, 27.VII.2001 (1, leg. G.Lociks); Stropi, 27.V.2006 (1, leg. A.Bukejs), 20.V.2007 (1, swampy bank of Lake Lielais Stropu, leg. A.Bukejs), 27.IV.2008 (3, bank of Lake Lielais Stropu, leg. A.Bukejs); Višķi, 22.III.1987 (1, leg. A.Barševskis), 05.IV.1987 (1, leg. A.Barševskis); Jēkabpils d.: Rubene, 27.III.1998 (1, leg. I.Leiskina); Zasa, 15.VII.1998 (1, leg. I.Leiskina), 19.VI.2000 (2, leg. I.Leiskina); Krāslava d.: Ezernieki, Garaudži, Rāzna National Park, 24.VII.2008 (1, leg. U.Valainis, R.Cibuļskis); Izvalta, Murāni house, 21.VIII.1992 (1, leg. A.Barševskis); Peipiņi, 4 km W Šķeltova, 28.VIII.1989 (1, leg. A.Barševskis); Šķeltova, 17.X.1992 (1, leg. A.Barševskis), 20.V.1995 (1, wet meadow, leg. A.Barševskis); Preiļi d.: Jersika, Kurpnieki house, 26-28.V.2006 (1, leg. K.Barševska), 23-24.VI.2008 (2, leg. A.Barševskis), 01-10.V.2009 (1, leg. K.Barševska, A.Barševskis); Tālsī d.: Šķēde, 24.VII.1972 (6, leg. V.Pūtele); Slītere National Park, Zilie kalni (hills) and Dāvida pļavas (meadows), 10.VIII.2006 (1, leg. A.Barševskis), 01.IX.2006 (1, leg. A.Pankjāns, E.Rudāns, U.Valainis); Valmiera d.: Mazsalaca, 57°51'83"N 25°02'07"E, 27.VIII.2006 (2, leg. A.Barševskis); Ventspils d.: Moricsala Is., Moricsala Nature Reserve, X.2003 (1, window trap, leg. U.Valainis), 14.V.2004 (1, leg. A.Barševskis), 15.VII.2008 (1, leg. A.Bukejs).

Host plants: *Lysimachia vulgaris*, *Hydrocharis morsusranae*. In the literature, *Polygonum*, *Rumex*, *Filipendula*, *Fragaria*, *Comarum* (Bieńkowski 2004) and *Lythrum* (Romantsov 2007) are also mentioned as host plants.

Phenology: V, VI, VII, VIII, IX

General distribution: Europe, Siberia, Russian Far East, Mongolia, N China, N Japan. [ASE]

Note: Rather infrequent species in Latvia.

subgenus *Neogalerucella* Chūjo, 1962

3. *G. lineola* (Fabricius, 1781)

References: Precht 1818 (*Galleruca lineola*); Seidlitz 1872-1875 (*Galleruca*), 1887-1891 (*Galleruca*); Rathlef 1905; Spuris 1953; Pūtele 1974, 1980, 1981a, 1981b, 1984; Stiprais 1977; Barševskis 1988, 1993, 2002; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Bukejs, Telnov 2007.

Examined material: 267 specimens: Aizkraukle d.: 6 km N Aizkraukle, Aizkraukles purvs (bog) PNT, 01.VII.2008 (1, leg. A.Bukejs); Nereta, 15.IV.2008 (2, leg. A.Barševskis); Bauska d.: Bauska Nature Park, 56°24'10"N 24°10'41"E, 03.V.2008 (1, leg. A.Pankjāns); Mežotne env., 56°44'185"N 24°04'865"E, 03.V.2008 (4, bank of the Lielupe River, leg. U.Valainis, A.Pankjāns, A.Soldāns, E.Tamanis); Cēsis d.: Bērzkrogs, 03.VII.2006 (4, leg. A.Barševskis); Daugavpils d.: 2 km SE Apses, Daugavpils env., 011.VIII.2009 (2, bank of the Daugava River, leg. A.Bukejs); Bebrene, 14.V.2006 (2, leg. E.Rudāns); Butiški, 12.VIII.2006 (1, valley of the Daugava River, leg. A.Bukejs & M.Balalaikins); Daugavpils, 30.IV.1994 (1, leg. A.Barševskis), 10.IX.1998 (1, leg. I.Leiskina), 06.V.2007 (2, leg. A.Baševskis), Daugavpils, Mežciems, 19.VII.2007 (1, leg. K.Aksjuta, M.Murd), Daugavpils, Cietoksnis, 07.VIII.2008 (1, bank of the Daugava River, leg. A.Bukejs, M.Balalaikins); Ilgas, Silene Nature Park, 10.VII.1989 (1, leg. A.Barševskis), 20.VI.1993 (1, leg. A.Barševskis), 07.VII.1993 (1, leg. A.Barševskis), 21-24.IV.1995 (1, leg. A.Barševskis), 29.IV-10.VII.2000 (1, leg. L.Nikitina), 15.VI.2001 (1, leg. G.Lociks), 17-20.VI.2008 (1, leg. V.Krone, J.Staskeviča), 18.VI.2008 (1, leg. R.Cibuļskis); Kalnišķi, 55°52'54"N 26°44'03"E, 21.VIII.2009 (4, bank of the Daugava River, on *Salix*, leg. A.Bukejs, M.Balalaikins); Lociki, 05.VIII.2001 (2, leg. G.Lociks); Naujene, Daugavas Loki Nature Park, 29.IV.2008 (8, bank of the Daugava River, leg. A.Pankjāns, U.Valainis); Slutišķi, 01.VII.1995 (1, valley of the Daugava River, leg. A.Barševskis), 07.VII.1996 (1, old valley of the Daugava River, leg. A.Barševskis); Stropi, 28.VI.1992 (2, leg. A.Barševskis), 20.V.2007 (4, swampy bank of Lake Lielais Stropu, leg. A.Bukejs), 25.V.2007 (5, swampy bank of Lake Lielais Stropu, leg. A.Bukejs), 28.V.2007 (1, meadow, leg. A.Bukejs), 27.IV.2008 (2, leg. A.Bukejs); 1.5 km SSW Vecpils, Starozamkovij rov (river glen), 55°54'710"N 26°43'515"E, 09.V.2008 (1, valley of the Daugava River, broad-leaved forest and meadow, leg. U.Valainis); Svente, near Lake Svente, 11.V.2008 (1, roadside, leg. A.Barševskis); Višķi, 30.III.1987 (3, leg. A.Barševskis), 05.IV.1987 (1, leg. A.Barševskis), 15.V.1987 (1, leg. A.Barševskis),

25.V.1987 (1, leg. A.Barševskis); Jēkabpils d.: Ābeļu parish, bank of the Daugava River, 17.V.1995 (3, leg. A.Barševskis); Asare, 02.V.1998 (1, leg. I.Leiskina), 12.IX.1998 (1, leg. I.Leiskina); Dignāja, 28.VII.1999 (7, leg. I.Leiskina); Dunava, 08.VIII.1994 (9, leg. A.Barševskis), 25.III.1995 (3, along the Daugava River, leg. A.Barševskis), 15-16.IV.1995 (1, in hibernation place, leg. A.Barševskis), 17.VII.1995 (11, leg. A.Barševskis), 06.IV.1996 (1, forest, leg. A.Barševskis), 03.VII.2005 (1, bank of the Daugava River, leg. A.Barševskis), 10-18.VI.2006 (2, leg. K.Barševska), 01.IV.2007 (21, leg. A.Barševskis), 13.V.2007 (2, leg. K.Barševska, A.Barševskis), 29.VI.2008 (1, leg. A.Barševskis), 01-07.VI.2009 (2, leg. K.Barševska); Rubene, 18.V.1997 (2, leg. I.Leiskina), 06.IX.1997 (1, leg. I.Leiskina), 17.IV.1999 (1, leg. I.Leiskina), 29.X.1999 (1, leg. I.Leiskina), 21.IV.2000 (1, leg. I.Leiskina); 6 km NW Vandāni, Vimbaru forest, 12.VIII.2008 (1, leg. M.Balalaikins); Zasa, 29.VII.1999 (1, leg. I.Leiskina), 19.VI.2000 (2, leg. I.Leiskina); Jelgava d.: Jelgava N env., Hercogi (=Vītoļini), 09.VI.1977 (1, leg. V.Pūtele); Jelgava, Rulli, 02.VI.1977 (2, leg. V.Pūtele); Jūrmala: Kauguri, 01.V.1992 (4, leg. A.Barševskis); Krāslava d.: Asūne, 10.VIII.1998 (3, leg. I.Plotka); Izvalta, Stivriņi, 08.IV.1995 (1, under stone, leg. A.Barševskis); Piedruja, 16.VI.1989 (1, leg. A.Barševskis); Šķeltova, 17.V.1987 (3, leg. A.Barševskis), 02.XI.1987 (1, leg. A.Barševskis), 20.V.1987 (1, wet meadow, leg. A.Barševskis); Liepāja d.: Pape, 17-27.IV.1995 (1, on light, leg. N.Savenkov), 06.V.1996 (2, dunes, leg. N.Savenkovs); Madona d.: Ošupe, 2.5 km NE Lake Lubāns, 56°50'03"N 26°56'05"E, 06.VII.2008 (3, wet meadow and bank of the Aiviekste River, leg. M.Balalaikins, A.Bukejs); Preiļi d.: Jersika, 01.VII.1997 (1, leg. I.Leiskina); Jersika, Kurpnieki house, 26.VI.2005 (1, leg. A.Barševskis), 04.V.2006 (3, leg. K.Barševska), 06-07.VI.2006 (2, leg. A.Barševskis, A.Barševska), 08.VII.2006 (1, leg. A.Barševskis), 15.IV.2007 (2, leg. A.Barševskis), 29.IV.2007 (1, leg. K.Barševska, A.Barševskis), 20.V.2007 (1, leg. A.Barševskis), 10.VII.2007 (3, leg. A.Barševskis, K.Barševska), 06.VIII.2008 (1, leg. K.Barševska), X.2008 (9, leg. A.Barševskis), 11-12.IV.2009 (2, leg. A.Barševskis), 10.V.2009 (1, leg. A.Barševskis); Rēzekne d.: Bērzgale, 08.VII.2008 (1, leg.

M.Balalaikins); Īdeņa env., 56°44'38"N 26°55'11"E, 06.VII.2008 (4, bank of Lake Lubāns, leg. A.Bukejs, M.Balalaikins), 15.VII.2009 (1, bank of Lake Lubāns, leg. A.Bukejs, M.Balalaikins); Gaigalava env., bank of Lake Lubāns near the Aiviekste River, 15.VII.2009 (1, leg. A.Bukejs, M.Balalaikins), 08.VIII.2009 (1, on *Salix*, leg. M.Balalaikins); Lūznava, Zosna, Rāzna National Park, 24.VII.2008 (2, leg. R.Cibuļskis, U.Valainis); bank of Lake Zolvu, 12.VI.2008 (6, leg. A.Barševskis, U.Valainis); Rīga d.: Kūdra, 07.V.2006 (1, leg. A.Titov); Talsi d.: Dundaga, 02.V.2006 (1, leg. A.Barševskis); Slītere National Park, Zilie Kalni (hills) and Dāvida Pļavas (meadows), 11.VI.2005 (4, leg. A.Barševskis), 02.V.2006 (2, leg. A.Barševskis), 30.V.2006 (1, leg. A.Barševskis), 17.VII.2007 (1, leg. U.Valainis, A.Pankjāns, A.Soldāns, A.Barševskis), 02.VI.2009 (1, leg. A.Barševskis); Valka d.: Launkalne parish, Mežole, 15.VII.2005 (1, leg. J.Donis), 10.VI.2006 (1, leg. J.Donis), 26.VI.2006 (1, leg. J.Donis), 02.X.2006 (1, leg. J.Donis); Ventspils d.: Usma, bank of Lake Usmas, 28.VI.2006 (1, leg. A.Barševskis, A.Pankjāns, U.Valainis); Moricsala Is., Moricsala Nature Reserve, VII.2003 (2, leg. U.Valainis), 10.VI.2005 (1, leg. A.Barševskis), 11.VII.2005 (2, leg. U.Valainis), 14.IX.2005 (2, leg. A.Barševskis), 21.X.2005 (6, leg. A.Bukejs, U.Valainis), 02.V.2006 (4, leg. A.Barševskis & U.Valainis), 03.V.2006 (4, leg. A.Barševskis), 29.V.2006 (1, leg. A.Barševskis), 29.V.2006 (5, leg. E.Rudāns), 30.V.2006 (4, leg. A.Barševskis & E.Rudāns), 30.VII.2006 (2, leg. A.Barševskis), 21.IX.2008 (2, window trap, leg. A.Pankjāns).

Host plants: *Salix*, *Populus* (Salicaceae), *Alnus* (Betulaceae).

Phenology: IV, V, VI, VII, VIII, IX

General distribution: Europe, Caucasus, Siberia, Kazakhstan, Central Asia, Mongolia, Russian Far East, Japan. [ASE]

Note: Very common and widely distributed species in Latvia.

4. *G. calmariensis* (Linnaeus, 1767)

syn.: *aquatica* Müller, 1776

References: Seidlitz 1872-1875 (*Galleruca*), 1887-1891 (*Galeruca*); Rathlef 1905; Pūtele 1974, 1980, 1981a, 1981b, 1984; Stiprais 1977; Barševskis

1993; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Bukejs, Telnov 2007.

Examined material: 31 specimens: Cēsis d.: Lake Inesis, 15.VII.1976 (1, leg. V.Pūtele); Daugavpils d.: Butiški, 01.VII.2009 (1, valley of the Daugava River, leg. A.Bukejs, M.Balalaikins); Medumi, Kurcums, 18.V.2009 (1, leg. A.Barševskis, A.Anishtchenko); Naujene, 27.IV.2007 (1, Jezufov's park, leg. J.Staskeviča, V.Krone), 29.IV.2008 (1, valley of the Daugava River, leg. A.Pankjāns, U.Valainis); Stropi, 25.V.2007 (1, swampy bank of Lake Lielais Stropu, leg. A.Bukejs); Vecsalienas parish, Orehovka N env., Ververu krauja (precipice), 15.VI.1989 (1, leg. A.Barševskis); Jēkabpils d.: Dunava, 25-29.VI.2006 (1, leg. K.Barševska), 01-08.VI.2009 (1, leg. K.Barševska); Jūrmala: Kauguri, 13.VIII.1994 (1, leg. A.Barševskis); Krāslava d.: Auleja, bank of Lake Auleja, 07.VIII.2007 (3, leg. M.Murd); Kuldīga d.: bank of Lake Lielais Nabes, 57°04'04"N 21°48'26"E, 28.VII.2005 (2, leg. A.Bukejs, A.Barševskis); Liepāja d.: Pape, 24-25.V.1994 (2, seashore, dunes, leg. N.Savenkovs); Madona d.: Ošupe, 2.5 km NE Lake Lubāns, 56°50'03"N 26°56'05"E, 06.VII.2008 (1, wet meadow and bank of the Aiviekste River, leg. M.Balalaikins, A.Bukejs); Preiļi d.: Jersika, Kurpnieki house, 14.V.2006 (1, leg. K.Barševska), 20.V.2006 (1, leg. K.Barševska), 04.VI.2006 (1, leg. K.Barševska), 23-24.VI.2006 (1, leg. A.Barševskis, K.Barševska), 23-24.VI.2008 (2, leg. A.Barševskis), 03.VII.2009 (2, leg. K.Barševska); Rēzekne d.: Īdeņa env., 15.VII.2009 (2, bank of Lake Lubāns, leg. A.Bukejs, M.Balalaikins); Puša, 26.VI.2002 (3, leg. A.Barševskis).

Host plants: *Lythrum salicaria*, *L.virgatum* (Lythraceae).

Phenology: IV(3), V, VI, VII, VIII

General distribution: from Catalonia and the British Isles to Japan; introduced also to N America (USA). [ASE]

Note: Rather infrequent species in Latvia.

5. *G. pusilla* (Duftschmid, 1825)

References: Pūtele 1974, 1980, 1981a, 1981b; Telnov *et al.* 1997; Barševskis 2002; Telnov 2004; Petrova *et al.* 2006; Kalniņš *et al.* 2007; Bukejs, Telnov 2007.

Examined material: 19 specimens: Daugavpils d.: Butiški, 12.VIII.2006 (1, valley of the Daugava River, leg. A.Bukejs & M.Balalaikins); Daugavpils, 06.V.2007 (1, leg. A.Baševskis); Ogre d.: Jumprava, 10.VII.2008 (1, leg. A.Barševskis); Preiļi d.: Jersika, Kurpnieki house, 23-24.VI.2006 (3, leg. A.Barševskis, K.Barševska), 04-05.VIII.2007 (1, leg. A.Barševskis), 23-24.VI.2008 (3, leg. A.Barševskis), 03.VII.2009 (2, leg. K.Barševska); Rēzekne d.: Īdeņa env., 15.VII.2009 (1, bank of Lake Lubāns, leg. A.Bukejs, M.Balalaikins); Puša, 25.V.2002 (2, leg. A.Barševskis); Talsi d.: Mazirbe, 05.VIII.2002 (2, leg. A.Barševskis); Ventspils d.: Moricsala Is., Moricsala Nature Reserve, VI.2003 (2, leg. U.Valainis).

Host plants: *Lythrum* (Lythraceae).

Phenology: V, VI, VII, VIII

General distribution: Europe, Caucasus, Kazakhstan, Central Asia (Kyrgyzstan), Mongolia. [CAE]

Note: Rather infrequent species in Latvia.

6. *G. tenella* (Linnaeus, 1760)

References: Fleischer 1829 (*Galleruca tenella* F.); Seidlitz 1872-1875 (*Galleruca*), 1887-1891 (*Galleruca*); Rathlef 1905; Ozols 1929; Trauberga 1957; Čakstiņa 1962; Ozols 1948, 1963; Šmits, Spuris 1966; Spuris 1974; Priedītis 1971a; Pūtele 1974, 1980, 1981a, 1981b, 1981c, 1982, 1984; Dūks 1976; Stiprais 1977; Barševskis 1988, 1993, 2002; Rūtenberga 1992; Telnov *et al.* 1997; Petrova *et al.* 2000; Telnov 2004; Petrova *et al.* 2006; Kalniņš *et al.* 2007; Bukejs, Telnov 2007.

Examined material: 167 specimens: Aizkraukle d.: Jaunjelgava, 56°36'28"N 25°02'44"E, 11.VIII.2006 (1, bank of the Daugava River, leg. E.Rudāns, A.Barševskis); Skrīveri, 21.VI.2006 (1, leg. A.Barševskis); Balvi d.: Kuprava, 19.V.1991 (1, leg. A.Barševskis), 26.VIII.1994 (1, leg. A.Barševskis); Viļaka, 27.VII.1992 (1, leg. A.Barševskis); Cēsis d.: Bērzkrogs, 03.VII.2006 (1, leg. A.Barševskis); Daugavpils d.: Bebrene, Dvietes palienes Nature Park, 23.VI.2006 (1, leg. E.Rudāns); Daugavpils, Mežciems env., 01.VI.2008 (1, edge of pine forest, leg. A.Bukejs); Ilgas, Silene Nature Park, 06.VII.1992 (1, leg. A.Barševskis), VI-VII.2000 (3, leg. I.Haka & G.Hļebnaja), 09.VI.2001 (1, leg. G.Lociks),

VIII.2002 (2, leg. A.Baarševskis), 18.V.2005 (8, leg. A.Barševskis), 01-03.VII.2008 (1, leg. N.Mihailova); Kalnišķi, 55°52'54"N 26°44'03"E, 21.VIII.2009 (1, bank of the Daugava River, leg. A.Bukejs, M.Balalaikins); Krauja, 29.V.2007 (1, old wet clearing, leg. A.Bukejs); Lociki, 21.VII.2001 (1, leg. G.Lociks); Pilskalne, Pilskalnes Nature Park, 09.V.2005 (3, leg. A.Barševskis); Šedere, Raudas meži (forests) Nature Park, 11.V.2008 (1, leg. K.Aksjuta); Stropi, 25.V.2007 (1, swampy bank of Lake Lielais Stropu, leg. A.Bukejs), 27.IV.2008 (7, bank of Lake Lielais Stropu, leg. A.Bukejs), 05.V.2008 (2, leg. A.Bukejs), 04.V.2009 (3, leg. A.Bukejs), 14.V.2009 (4, moist forest, leg. A.Bukejs); Vasargēlišķi, 29.IV.2008 (1, leg. A.Pankjāns, U.Valainis); Višķi, bank of Lake Dotkas, 13.V.1995 (3, leg. A.Barševskis); Zaļumi, 03.VIII.2001 (1, leg. G.Lociks); Jēkabpils d.: Dunava, 20-31.VII.2006 (1, leg. K.Barševska), 01-07.VI.2009 (1, leg. K.Barševska); Rubene, 17.V.1997 (2, leg. I.Leiskina), 22.V.1997 (1, leg. I.Leiskina), 05.VIII.1997 (1, leg. I.Leiskina), 02.V.1998 (1, leg. I.Leiskina), 04.VI.1999 (1, leg. I.Leiskina), 21.VII.1999 (1, leg. I.Leiskina); Zasa, 28.VII.1998 (1, leg. I.Leiskina); Jelgava d.: Vilce Nature Park, 56°25'13"N 23°32'31"E, 03.V.2008 (1, leg. A.Soldāns, U.Valainis, A.Pankjāns, E.Tamanis); Krāslava d.: Asūne, 20.VIII.1998 (1, leg. I.Plotka); Baltinava, 23.VI.2009 (1, leg. A.Bukejs); Ezernieki, Rāzna National Park, 24.VII.2008 (1, leg. U.Valainis, R.Cibuļskis); Sauleskalns (hill), 4.5 km NE Kombuļi, 04.V.2008 (4, leg. K.Barševska, A.Barševskis); Šķeltova, 17.V.1987 (5, leg. A.Barševskis), 1987 (1, leg. A.Barševskis), 11.VIII.2009 (2, leg. A.Barševskis); Kuldīga d.: Alsunga, Augšužavas PNT, 28.VIII.2005 (4, leg. A.Barševskis, A.Bukejs, U.Valainis); bank of Lake Lielais Nabes, 57°04'04"N 21°48'26"E, 28.VII.2005 (1, leg. A.Bukejs, A.Barševskis); Ludza d.: Bļāši, 10.VIII.2008 (4, meadow, leg. M.Balalaikins); Rundēni, 10.IV.2008 (11, edge of forest, leg. A.Bukejs); Madona d.: Ošupe, 2.5 km NE Lake Lubāns, 56°50'03"N 26°56'05"E, 06.VII.2008 (2, wet meadow and bank of the Aiviekste River, leg. M.Balalaikins, A.Bukejs); Sauleskalns vill., 07.VII.2006 (1, leg. A.Pankjāns, E.Rudāns & A.Barševskis); Preiļi d.: Jersika, Kurpnieki house, 15.V.2005 (1, leg. A.Barševskis), 14.IX.2005 (1, leg.

A.Barševskis), 06-07.VI.2006 (3, leg. A.Barševskis, K.Barševska), 12.V.2007 (1, leg. A.Barševskis), 23-24.VI.2008 (1, leg. A.Barševskis), 01-10.V.2009 (1, leg. K.Barševska, A.Barševskis); Pelēči, 19.VIII.1997 (1, leg. I.Jurkjāne); Rēzekne d.: Puša, 25.V.2002 (2, leg. A.Barševskis); Rīga d.: Garupe, 31.V.1974 (1, meadow, leg. anonymous); Olaine, 19.IX.2006 (1, leg. J.Donis); Spuņciems, 06.VIII.2009 (2, leg. A.Barševskis); Talsi d.: Kaļķi, 57°32'31"N 22°30'45"E, 12.V.2009 (2, leg. A.Barševskis); Mazirbe, 04.IX.2004 (2, leg. A.Barševskis); Puiškalnciems, Kaļķupes ieleja PNT, 02.VI.2009 (11, leg. R.Cibuļskis); Sabile, 04.VIII.1998 (1, meadow, leg. A.Barševskis); Slītere, 29.V.1978 (6, leg. V.Pūtele); Slītere National Park, Zilie kalni (hills) and Dāvada pļavas (meadows), 10.VIII.2004 (1, leg. R.Cibuļskis), 29.VII.2005 (3, leg. A.Barševskis, A.Bukejs, U.Valainis), 02.V.2006 (2, leg. A.Barševskis), 27.VI.2006 (3, leg. A.Barševskis), 10.VIII.2006 (3, leg. A.Barševskis), 01.IX.2006 (3, leg. A.Pankjāns, E.Rudāns, U.Valainis), 17.VII.2007 (3, leg. A.Soldāns), 22.VIII.2008 (1, leg. A.Barševskis); Stende, 57°07'19"N 22°32'26"E, 19.VII.2007 (1, clearing, leg. A.Barševskis, U.Valainis, A.Barševskis, A.Soldāns); Tukums d.: Klapkalnciems, 13.VI.1974 (1, cultivated meadow, leg. anonymous), 01.VII.1974 (1, cultivated meadow, leg. anonymous); Ventspils d.: Moricsala Is., Moricsala Nature Reserve, 29.VI.2002. (1, leg. U.Valainis), V.2003 (1, leg. U.Valainis), VI.2003 (1, leg. U.Valainis); IX.2003. (1, leg. U.Valainis); Puze, 13.VI.1974 (2, leg. V.Melecis), 29.VII.2005 (1, leg. A.Barševskis).

Host plants: *Filipendula ulmaria* (Rosaceae). In the literature, *Fragaria*, *Spiraea* and *Potentilla* are also mentioned as host plants (Bieńkowski 2004).

Phenology: V, VI, VII, VIII, IX

General distribution: from Catalonia, E England and W Norway to basin of Amur and Ussuri. [SIE]

Note: Very common species in Latvia.

PYRRHALTA JOANNIS, 1865

7. *P. viburni* (Paykull, 1799)

References: Fleischer 1829 (*Galleruca*); Kawall 1866 (*Galeruca*); Seidlitz 1872-1875 (*Galleruca*), 1887-1891 (*Galeruca*); Ulanowski 1883

(*Galerucella*); Rathlef 1905 (*Galerucella*); Rupais 1959, 1962 (*Galerucella*), 1999; Šmits, Spuris 1966; Spuris 1974 (*Galerucella*); Pūtele 1974 (*Galerucella*); Stiprais 1977; Barševskis 1993, 2002; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Bukejs, Telnov 2007.

Examined material: 181 specimens: Daugavpils d.: Ilgas, Silene Nature Park, VI.2002 (14, leg. A.Barševskis); Lociki, 24.VII.2001 (1, leg. G.Lociks), 20.VIII.2001 (1, leg. G.Lociks); Maļinova, 05.VIII.2007 (8, leg. M.Murd); Šedere, Straumēni house, 29.VII.2007 (7, leg. M.Murd); Jēkabpils d.: Asare, 25.VII.2001 (2, leg. I.Leiskina); Dunava, 15-23.VII.2008 (1, leg. K.Barševska); Krāslava d.: Šķeltova, 31.VII.1992 (2, leg. A.Barševskis), 18.VIII.1992 (1, leg. A.Barševskis), 28.VIII.1992 (14, leg. A.Barševskis), 18.VIII.1994 (2, leg. A.Barševskis); Limbaži d.: Dunte, 16.VIII.2008 (4, leg. A.Barševskis); Preiļi d.: Aglona, 14.VIII.2009 (1, leg. A.Barševskis); Jersika, Kurpnieki house, 03.VIII.2005 (20, leg. A.Barševskis), 11.VIII.2005 (36, leg. A.Barševskis), 03.IX.2005 (1, leg. A.Barševskis), 15.VII.2006 (12, leg. K.Barševska), 27.VIII.2006 (1, leg. A.Barševskis), 04-05.VIII.2007 (6, leg. A.Barševskis), 01.VIII.2008 (2, leg. A.Barševskis), 06.VIII.2008 (1, leg. A.Barševskis), 18-20.VII.2009 (1, leg. A.Barševskis), 25.VII.2009 (8, leg. A.Barševskis); Rēzekne d.: Bērzgale, 29.VII.1992 (8, on *Viburnum*, leg. A.Barševskis); Talsi d.: Slītere National Park, Zilie kalni (hills) and Dāvida pļavas (meadows), 05.IX.2002 (3, leg. A.Barševskis), 10.VIII.2006 (9, leg. A.Barševskis), 22.VIII.2008 (15, leg. A.Barševskis).

Host plants: *Viburnum* (Viburnaceae).

Phenology: V, VI, VII, VIII, IX

General distribution: Europe, Caucasus, NW Kazakhstan, SW Siberia, Russian Far East. [SIE]

Note: Rather infrequent species in Latvia.

XANTHOGALERUCA LABOISSIÈRE, 1934

8. *X. luteola* (Müller, 1766)

References: Pūtele 1974 (misidentification), 1981a, 1981b, 1984 (*Galerucella*); Priedītis, Pūtele 1976; Telnov *et al.* 1997; Telnov 2004.

Examined material: Not confirmed by the author. Earlier record of this species “Jelgava d.: Jelgava N env., Hercogi (=Vītoliņi), 09.VI.1972 (1, leg. V.Pūtele)” (Pūtele 1974) was based on

misidentification. Probably other reports of this species by V.Pūtele (Priedītis, Pūtele 1976; Pūtele 1981a) were based also on misidentifications.

Host plants: *Ulmus* (Ulmaceae).

Phenology: V

General distribution: Europe, NW Africa, Asia Minor, Caucasus, Iran, Afghanistan, Kazakhstan, Central Asia, W Siberia, N China; introduced also to N America. [PAL]

Note: Occurrence of this species in Latvia needs further confirmation. In catalogue “Enumeratio nova Coleopterorum Fennoscandiae, Daniae et Baltiae” (Silfverberg 2004) this species is mentioned for Denmark, Latvia, Lithuania and Sweden. It is also known from Belarus (Lopatin, Nesterova 2005). Reports of this species for Lithuanian fauna are not confirmed by faunal data (Tamutis pers. comm.).

LOCHMAEA WEISE, 1883

9. *L. caprea* (Linnaeus, 1758)

References: Precht 1818 (*Galleruca capreae*); Seidlitz 1872-1875 (*Adimonia*), 1887-1891; Ulanowski 1883 (*Galeruca*); Sintenis 1900; Rathlef 1905; Brammanis 1940; Pūtele 1974, 1976, 1980, 1981a, 1981b, 1981c, 1982, 1984; Stiprais 1977; Stiprais, Varzinska 1985; Rūtenberga 1992; Barševskis 1993, 2002; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Bukejs, Telnov 2007.

Examined material: 253 specimens: Aizkraukle d.: Aizkraukle, 06.VIII.2002 (3, leg. A.Barševskis); 6 km N Aizkraukle, Aizkraukles purvs (bog) PNT, 04.V.1995 (2, leg. A.Barševskis), 01.VII.2008 (7, leg. A.Bukejs), 06.VIII.2008 (3, leg. A.Bukejs, M.Balalaikins); Rīteri, 14.VI.2006 (2, leg. A.Barševskis), V.2009 (1, leg. A.Barševskis); Skrīveri, 20.VI.2006 (2, bank of the Daugava River, leg. A.Barševskis); Balvi d.: Kaplava, 10.VII.1991 (1, leg. A.Barševskis); Cēsis d.: Sudas purvs (bog), near Lake Zviedru, 31.VII.1973 (1, leg. A.Kacīna); Daugavpils d.: Bebrene, 04.V.2006 (2, leg. E.Rudāns), 14.V.2006 (1, leg. E.Rudāns); Butiški, 12.VIII.2006 (1, valley of the Daugava River, leg. A.Bukejs & M.Balalaikins), 21.VIII.2006 (1, valley of the Daugava River, leg. A.Bukejs & M.Balalaikins), 01.VII.2009 (1, valley of the Daugava River, leg. A.Bukejs, M.Balalaikins); Daugavpils, Križi, 20.V.2001 (1, leg. G.Lociks), Daugavpils, 55°54'03"N 26°34'42"E, 05.V.2009 (1,

pine forest, leg. R.Cibuļskis); Elerne, 31.V.2007 (1, bank of the Daugava River, leg. M.Murd); Ilgas, Nature Park Silene, 01.VII.1989 (1, leg. A.Barševskis), 30.V.1992 (1, leg. A.Barševskis), 29.IV-10.VII.2000 (1, leg. L.Nikitina), 29.IV-10.VII.2000 (1, leg. A.Rutka), VI-VII.2000 (2, leg. I.Haka & G.Hļebnaja), 20.VIII.2002 (1, leg. A.Barševskis), 18.V.2005 (3, leg. A.Barševskis), 04.VII.2005 (1, leg. A.Barševskis), 08.VII.2005 (1, leg. A.Barševskis), 10.V.2006 (3, leg. A.Barševskis), 04-10.VI.2006 (2, leg. L.Jakubāne); 4 mn NE Geitvinišķi, 55°54'51"N 26°53'47"E, 23.V.2008 (1, leg. U.Valainis); Kalnišķi, 55°52'54"N 26°44'03"E, 21.VIII.2009 (3, bank of the Daugava River, on *Salix*, leg. A.Bukejs, M.Balalainis); Līksna parish, Mežciems env., 01.VI.2008 (1, edge of pine forest, leg. A.Bukejs); Lociki, 26.V.2001 (1, leg. G.Lociks), 21.VII.2001 (1, leg. G.Lociks), 07.VIII.2001 (1, leg. G.Lociks); Medumi, Kurcums, 18.V.2009 (2, leg. A.Barševskis, A.Anishtchenko); Naujene, Nature Park Daugavas Loki, 20.V.1988 (1, leg. A.Barševskis), 29.IV.2008 (4, valley of the Daugava River, leg. A.Pankjāns, U.Valainis), 25.VI.2008 (1, clearing, leg. K.Aksjuta); Nīcgale, 26.VI.1996 (1, leg. R.Cibuļskis); Lake Plotišķu N side, Viduspoguļanka env., 55°54'943"N 26°29'789"E, 21.IV.2008 (1, leg. U.Valainis); Šarlote, 01.VI.2008 (2, leg. K.Aksjuta); Šedere, Straumēni house, 01-03.V.2008 (2, leg. M.Janovska); Silene, 03.VII.1992 (1, leg. A.Barševskis); Slutišķi, Nature Park Daugavas Loki, 12.VI.1987 (2, leg. A.Barševskis), 29.IV.2008 (2, bank of the Putānu nullah, leg. A.Pankjāns, U.Valainis); Stropi, 28.VI.1992 (1, leg. A.Barševskis), 20.IV.2008 (2, clearing, leg.



Figs 1-2. Habitus, dorsal: 1 – *Lochmaea caprea* (L.), 2 – *L. suturalis* (Thoms.).

A.Bukejs), 27.IV.2008 (14, bank of Lake Lielais Stropu, leg. A.Bukejs), 10.VIII.2009 (2, on *Salix*, leg. A.Bukejs); Vabole, 20.VIII.1972 (1, leg. V.Pūtele); Višķi, 02.VI.1987 (2, leg. A.Barševskis); Gulbene d.: Lejasciems, Lejasciems forestry, IX-X.2003 (1, forest burning, leg. I.Kampāne & A.Barševskis); Ušūrs, 10.VII.2005 (3, leg. A.Barševskis); Jēkabpils d.: Asare, 05.IX.1997 (1, leg. I.Leiskina); Dunava, 21.VI.1992 (1, leg. A.Barševskis), 20.VIII.2000 (2, leg. I.Leiskina), 24.VIII.1995 (1, leg. A.Barševskis), 18.V.2008 (2, forest, leg. A.Barševskis), 01.VI.2008 (1, leg. A.Barševskis), 25.VI.2008 (1, clearing, leg. A.Barševskis), 25.IV.2009 (1, leg. A.Barševskis), 01-07.VI.2009 (1, leg. K.Barševska); Jēkabpils, near hospital, 13.V.2006 (6, leg. K.Barševska, A.Barševskis); Rubeņi, 18.V.1997 (1, leg. I.Leiskina), 18.VII.1997 (1, leg. I.Leiskina), 17.VIII.1997 (2, leg. I.Leiskina), 16.VII.1999 (1, leg. I.Leiskina); Tadenava, 22.VII.2001 (1, leg. A.Barševskis); Zasa, 28.VII.1998 (1, leg. I.Leiskina), 15.VIII.2000 (1, leg. I.Leiskina); Jelgava d.: Jelgava, near Rīga-Šiauliai road, 15.VI.2008 (3, leg. A.Barševskis, R.Orlovskis); Jelgava E env., Mežciems, 13.VIII.1972 (1, leg. V.Pūtele); Jekabpils E env., Kāriņi, 01.VI.1974 (1, leg. V.Pūtele); Jūrmala: Sloka, 20.IX.1974 (1, meadow, leg. anonymous); Krāslava d.: Grāveri, Lake Čertokas, 04.V.2008 (2, leg. A.Barševskis); Krāslava, 11.VI.1987 (3, leg. A.Barševskis), 16.VI.1987 (1, leg. A.Barševskis), 05.VI.1989 (1, leg. A.Barševskis); Sauleskalns, 4.5 km NE Kombuži, 04.V.2008 (1, leg. K.Barševska, A.Barševskis); Šķeltova, Barševski house, 08.VI.1987 (1, leg. A.Barševskis), 13.VI.1987 (1, leg. A.Barševskis), 16.VI.1987 (2, leg. A.Barševskis), 31.VII.1995 (2, leg. A.Barševskis), 03.VI.2008 (1, leg. A.Barševskis), 28.VI.2008 (2, leg. A.Barševskis), 11.VIII.2009 (1, leg. A.Barševskis); Liepāja d.: Durbe, 05.IX.2008 (5, leg. R.Orlovskis, A.Barševskis); Liepāja, 11.VIII.2008 (1, leg. A.Barševskis), 05.IX.2008 (5, leg. R.Orlovskis); Ludza d.: Rundēni, 10.IV.2008 (2, edge of forest, leg. A.Bukejs); Madona d.: territory of Lake Lubāns, Ezernieki house, 21.VIII.2008 (3, leg. A.Barševskis); Mārciena, near the Arona River, 07.VII.2008 (1, leg. A.Pankjāns, A.Barševskis); Ogre d.: Jumprava, 16.V.1984 (1, leg. anonymous), 10.VII.2008 (1, leg.

A.Barševskis); 4 km NW the Dīrikupīte River connect. with the Daugava River, 03.V.2006 (1, leg. A.Barševskis, U.Valainis, E.Rudāns); Preiļi d.: Jersika, 05.V.2005 (1, leg. I.Gurčonoks); Jersika, Kurpnieki house, 24.VI.2005 (1, leg. A.Barševskis), 23-24.VI.2006 (2, leg. A.Barševskis, K.Barševska), 04.IX.2007 (2, leg. A.Barševskis), 05.IX.2007 (4, leg. K.Barševska, A.Barševskis), 07.IX.2008 (1, leg. A.Barševskis, K.Barševska), 01-10.V.2009 (1, leg. A.Barševskis, K.Barševska), 30.V.2009 (2, leg. K.Barševska); Rēzekne d.: Gaigalava, 15.VII.2009 (1, old clearing, leg. A.Bukejs, M.Balalaikins); 6.5 km SE Mākoņkalns, Krepši, 24.VI.2008 (3, leg. R.Cibuļskis); Rīga d.: Rīga SE env., Rūķīši, 17.VII.1972 (1, leg. V.Pūtele); Talsi d.: Dundaga, 57°32'31"N 22°30'45"E, Kaļķupes ieleja PNT, 12.V.2009 (2, leg. M.Nitcis); Dāvida pļavas and Zilie kalni, Slītere National Park, 05.IX.2002 (3, leg. A.Barševskis), 11.VI.2005 (3, leg. A.Barševskis), 02.V.2006 (2, leg. A.Barševskis), V.2006 (1, leg. A.Barševskis), 10.VIII.2006 (1, leg. A.Barševskis); Kaļķi, 57°32'31"N 22°30'45"E, Kaļķupes ieleja PNT, 12.V.2009 (2, leg. A.Barševskis); Mazirbe, 24.VII.2004 (2, leg. A.Barševskis); Tukums d.: Ķemeri National Park, 26.VI.2006 (4, leg. A.Pankjāns, A.Barševskis, U.Valainis); Lielaiciems, Ķemeri National Park, 16.VII.2008 (4, leg. V.Alekseev); Pūre, 18.VII.2003 (1, leg. A.Barševskis); Valka d.: Mežole, 10.VI.2006 (1, leg. J.Donis); Seda, Sedas bog, 03.VII.2006 (1, leg. A.Barševskis, U.Valainis, A.Pankjāns); Strenči, 03.VII.2006 (1, leg. A.Barševskis, U.Valainis, A.Pankjāns); Valmiera d.: Kauguri parish, forest near the Gauja River, 03.VII.2006 (5, leg. A.Barševskis, U.Valainis, A.Pankjāns); Talava, 21.VIII.2006 (2, leg. A.Barševskis); Ventspils d.: Blāzma, 57°21'12"N 22°04'47"E, 22.VIII.2008 (1, clearing, leg. U.Valainis, K.Aksjuta, A.Barševskis); Moricsala Is., Moricsala Nature Reserve, VII.2003 (1, leg. U.Valainis), IX.2003 (3, leg. U.Valainis), 14.V.2004 (5, leg. A.Barševskis), 11.VII.2005 (1, leg. U.Valainis), 30.V.2006 (2, leg. E.Rudāns, A.Barševskis), 29.IX.2006 (2, leg. E.Rudāns, A.Barševskis), 15.VII.2008 (1, leg. A.Bukejs), 13.V.2009 (1, leg. A.Barševskis).

Host plants: *Salix*, *Betula*. In Latvia the species occurs mostly on *Salix* and *Betula*, rarely on

Alnus, *Corylus*, *Populus* and *Quercus* (Pūtele 1976, 1984). In the literature, *Vaccinium* and *Ledum* (Ericaceae) are also mentioned as host plants (Bienkowski 1999, 2004).

Phenology: IV, V, VI, VII, VIII, IX

General distribution: Europe, Caucasus, Asia Minor, Kazakhstan (excl. S), Siberia, Russian Far East, China, Japan, Korean Peninsula. [ASE]

Note: Very common and widely distributed species in Latvia.

10. *L. suturalis* (Thomson, 1866)

References: Mikutowicz 1905; Rathlef 1921; Lackschewitz 1942; Pūtele 1974; Rūtenberga 1992; Barševskis 1993; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Spuņģis 2008.

Examined material: 38 specimens: Daugavpils d.: Līksna parish, 2 km N Daugavpils, 04.V.2008 (3, inland dunes, edge of pine forest, on *Calluna*, leg. A.Bukejs); Līksna parish, 4 km N Daugavpils, 29.VI.2009 (2, edge of dry pine forest, on *Calluna*, leg. A.Bukejs); 3 km N Līksna, 24.IV.2008 (2, inland dunes, pine forest, on *Calluna*, leg. A.Bukejs); Lūbaste env., near Svente's bridge, 16.IV.2007 (2, leg. A.Pankjāns); 3 km SW Oborūni, 29.IV.2008 (6, pine forest, on *Calluna*, leg. A.Bukejs); Pilskalne, Nature Park Pilskalnes Siguldiņa, 09.V.2005 (1, leg. A.Barševskis); Zaļumi, 02-16.IX.2001 (1, leg. G.Lociks); Jēkabpils d.: Dunava, 25.IV.2009 (1, leg. A.Barševskis); Rubeņi, 17.V.1997 (1, leg. I.Leiskina); Jelgava d.: Vecsvirlauka, 24.V.1972 (2, leg. V.Pūtele); Jūrmala: Kauguri, 01.V.1992 (1, leg. A.Barševskis); Kūdra, 01.V.2008 (1, leg. A.Titovs); Krāslava d.: Lake Čertoks env., 27.IV.2007 (1, leg. K.Aksjuta, M.Murd); Ludza d.: 1.5 km SW Gāgari, 56°26'44"N 27°50'02"E, 10.V.2008 (1, old clearing, leg. A.Bukejs); Ogre d.: Lēdmane, 17.VIII.2008 (1, leg. A.Barševskis); Preiļi d.: Jersika, Kurpnieki house, 06-07.VI.2006 (1, leg. A.Barševskis, K.Barševska); Līvāni, 04.V.2006 (6, leg. A.Barševskis, K.Barševska); Talsi d.: Slītere National Park, Davida Pļavas (meadows) and Zilie Kalni (hills), 30.V.2006 (1, leg. A.Barševskis); Ventspils d.: Moricsala Is., Moricsala Nature Reserve, IX.2003 (1, leg. U.Valainis), 29.V.2006 (2, leg. A.Barševskis, E.Rudāns), 30.V.2006 (1, leg. E.Rudāns), 29.IX.2006 (1, leg. E.Rudāns, A.Barševskis).

Host plants: *Calluna vulgaris* (Ericaceae).
Monophagous species.

Phenology: IV, V, VI, VII, VIII, IX

General distribution: Europe. [EUR]

Note: Rather infrequent and insufficiently known species in Latvia.

11. *L. crataegi* (Forster, 1771)

References: Pūtele 1974 (misidentifications); Barševskis 1993 (misidentifications); Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007.

Examined material: Not confirmed by the author. Some previous reports of this species, “Jelgava d.: Jelgava E env., Mežciems, 13.VIII.1972 (1, leg. V.Pūtele)” (Pūtele 1974), “Rīga d.: Rīga SE env., Rūķīši, 17.VII.1972 (1, leg. V.Pūtele)” [in collection of V.Pūtele], and “Daugavpils d.: Naujene, 20.V.1988 (1, leg. A.Barševskis); Višķi, 02.VI.1987 (1, leg. A.Barševskis)” (Barševskis 1993), were based on misidentifications.

Host plants: *Crateagus*, *Malus*, *Prunus* (Rosaceae).

General distribution: Europe, Siberia, Kazakhstan, Mongolia, Russian Far East. [SIE]

Note: Very rare species in Latvia; reported only from Gauja National Park (Kalniņš *et al.* 2007). According to the catalogue of Silfverberg (2004), it is mentioned for Denmark, Latvia, Lithuania and Sweden; known also from S Belarus (Lopatin, Nesterova 2005).

GALERUCA GEOFFROY, 1762

syn.: *Adimonia* Laicharting, 1781

12. *G. tanacetii* (Linnaeus, 1758)

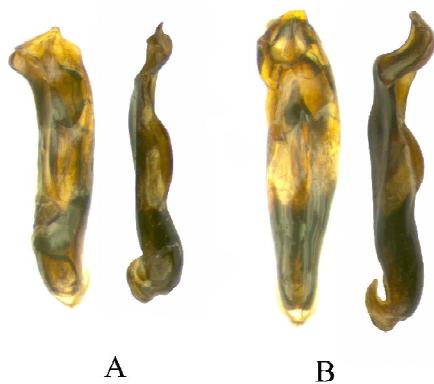


Fig. 3. Aedeagus, dorsal and lateral: A—*Lochmaea caprea* (L.), B—*L. suturalis* (Thoms.).

References: Precht 1818 (*Galleruca*); Seidlitz 1872-1875 (*Adimonia*), 1887-1891 (*Adimonia*); Ulanowski 1883; Rathlef 1905; Brammanis 1930; Trauberga 1957; Pūtele 1974, 1980, 1981a, 1981b; Stiprais 1977; Barševskis 1988, 1993 (*Galerucha*), 2002; Telnov *et al.* 1997; Princovs 2000; Telnov 2004; Petrova *et al.* 2006; Kalniņš *et al.* 2007; Bukejs, Telnov 2007.

Examined material: 199 specimens: Aizkraukle d.: Mazzalve, VIII.2007 (2, leg. A.Grenciņa-Grencione); Pļaviņas, Gostiņi house, 06.VIII.2007 (1, leg. A.Barševskis); Rīteri, 21.VI.2006 (1, leg. A.Barševskis); Daugavpils d.: Bebrene, 02.IX.2006 (4, leg. E.Rudāns), 23.IX.2006 (1, leg. E.Rudāns); Butišķi, Nature Park Daugavas Loki, 03.VIII.2007 (1, valley of the Daugava River, leg. A.Bukejs & M.Balalaikins), 25.VII.2008 (1, valley of the Daugava River, meadow, leg. A.Bukejs); Daugavpils N env., Mežciems env., 01.VII.1991 (1, leg. A.Barševskis); Dviete, 20.VIII.2006 (1, leg. A.Barševskis), 31.VII.2008 (1, forest, leg. A.Barševskis); Ilgas, Silene Nature Park, 04.VII.1989 (1, leg. A.Barševskis), 07.VII.1991 (1, near Lake Riču, leg. A.Barševskis), 29.IV-10.VII.2000 (3, leg. A.Rutka), VI-VII.2000 (6, leg. I.Haka & G.Hļebnaja), 14.VI.2001 (2, leg. G.Lociks), 14.V.2002 (1, leg. U.Valainis), V.2002 (3, leg. U.Valainis), 14-20.VI.2002 (3, leg. A.Barševskis), VI.2002 (4, leg. A.Barševskis), 12.VII.2002 (3, leg. U.Valainis), VIII.2002 (4, leg. A.Barševskis), 02.IX.2002 (1, leg. A.Barševskis), 25-29.VI.2007 (1, leg. V.Krone), 13.IX.2007 (4, leg. A.Barševskis), 17.VI.2008 (1, leg. R.Cibuļskis), 17-20.VI.2008 (4, leg. V.Krone, J.Staskeviča), 17-20.VI.2008 (1, leg. J.Daņilova, A.Zdankovska), 27.VI.2008 (2, leg. T.Vasiljeva, S.Pupiņa), 01.VII.2008 (1, leg. I.Irbe), 02.VII.2008 (5, leg. T.Vasiljeva), 01-03.VII.2008 (2, leg. N.Mihailova), 01-04.VII.2008 (2, leg. R.Cibuļskis); Liksna parish, 3 km N Daugavpils, 28.VI.2009 (1, inland dunes, leg. A.Bukejs); Lociki, 25.VI.2007 (3, leg. A.Barševskis); Salienas parish, Daugavsargu loks, 1.5 km NW Ritāni, 30.VI.2009 (1, edge of forest, leg. A.Bukejs); Slutišķi, 14.VI.1989 (1, leg. A.Barševskis); Stropi, 02.VII.2008 (1, clearing, leg. A.Bukejs), 10.VIII.2009 (1, leg. A.Bukejs); Svente, 13.VII.2008 (1, meadow, leg. A.Bukejs); Vasarģelišķi, Nature Park Daugavas Loki, 11.VII.2008 (4, valley of the Daugava River, leg.

A.Barševskis, V.Alekseev); Dobele d.: near Liepāja road, near Ķemeri National Park, 02.X.2008 (1, leg. R.Orlovskis); Jēkabpils d.: Asare, 10.VIII.2001 (1, leg. I.Leiskina); Dunava, 26.VIII.1999 (1, leg. I.Leiskina), 01-08.VII.2006 (2, leg. A.Barševskis, K.Barševska), 07-08.X.2006 (11, leg. A.Barševskis), 21.X.2006 (1, leg. A.Barševskis), 10-19.VI.2007 (1, leg. K.Barševska), 16-21.VI.2007 (1, leg. K.Barševska), 23-30.VI.2007 (4, leg. K.Barševska), 20-30.VIII.2007 (2, leg. K.Barševska), 30.IX.2007 (9, leg. A.Barševskis), 01-14.VIII.2008 (1, leg. K.Barševska); Gārsene, 10.VIII.2001 (1, leg. I.Leiskina); Jēkabpils, 16-17.VIII.2008 (1, aerodrome, leg. M.Balalaikins); Rubeņi, 18.VII.1997 (1, leg. I.Leiskina), 06.VII.1999 (1, leg. I.Leiskina), 14.VII.1999 (1, leg. I.Leiskina); Zasa, 15.VIII.2000 (1, leg. I.Leiskina), 28.VII.2001 (1, leg. I.Leiskina); Zasa NW env., Leimaņi, 14.VIII.2001 (1, leg. I.Leiskina); Krāslava d.: Ezernieki, Garaudži house, Rāzna National Park, 24.VII.2008 (3, leg. U.Valainis, R.Cibuļskis); Indrica, 17.VI.1989 (1, leg. A.Barševskis); Izvalta, VI (3, leg. A.Barševskis); Krāslava, 26.IX.2007 (1, leg. K.Igaune); 3.6 km NEE Skaista, Grundāni, Lake Dridzis Nature Park, 15.VII.2008 (5, leg. R.Cibuļskis); Šķeltova, 12.VII.1986 (3, leg. A.Barševskis), VII.2002 (1, leg. A.Barševskis), 17.VII.2008 (1, leg. A.Barševskis), VII.2009 (1, leg. A.Barševskis); Stivriņi, 26.VII.1986 (1, leg. A.Barševskis); Ūdrīši, Zapoļniki house, 30.VIII-01.IX.2007 (2, leg. M.Murd); Tartaks, 05.VII.2008 (1, leg. A.Soldāns); Velnezers Nature Reserve, 11.VII.2008 (2, leg. A.Barševskis, V.Alekseev); Kuldīga d.: Skrunda, 05.IX.2008 (2, leg. R.Orlovskis, A.Barševskis); Ogre d.: Jumprava, 10.VII.2008 (1, leg. A.Barševskis); Preiļi d.: Jersika, 30.IV.2005 (1, leg. I.Gurčonoks); Jersika, Kurpnieki

house, 04-05.VIII.2007 (1, leg. A.Barševskis), 01.VIII.2008 (1, leg. A.Barševskis), 07.IX.2008 (1, leg. A.Barševskis, K.Barševska), 22-25.IX.2008 (2, leg. A.Barševskis), 22-24.VI.2009 (1, leg. A.Barševskis); Rēzekne d.: Lūznava, Zosna, Rāzna National Park, 24.VII.2008 (1, leg. R.Cibuļskis, U.Valainis); Makonkalns vill., 03.VIII.1992 (1, leg. A.Barševskis); Sprukti, 08.VII.2008 (1, leg. M.Balalaikins); Stojerova, Lake Šostu env., 29.VII.2009 (1, leg. M.Balalaikins); Rīga city: Biķernieki, 04.XI.2008 (2, leg. V.Ferber); Rīga, Daugavgrīva, 10.X.1992 (2, leg. M.Kalniņš); Rīga d.: Mārupe env., 07.VII.2009 (1, leg. K.Barševska, A.Barševskis); Saulkalne, 22.IX.2007 (3, leg. A.Barševskis); Saulkrasti SW env., Inčupe train station env., 16.IX.1974 (1, flood-lands, leg. anonymous); Talsi d.: Slītere National Park, Zilie Kalni and Dāvida Pļavas, VII.2003 (1, leg. A.Barševskis), 10.VII.2004 (1, leg. A.Barševskis), VII.2008 (1, leg. A.Barševskis, U.Valainis); Tukums d.: 56°55'04"N 23°10'50"E, 19.VII.2007 (1, leg. A.Barševskis, A.Soldāns, A.Pankjāns, U.Valainis); 5 km NW Tukums, near Jaunmoku castle, 16.VII.2008 (1, leg. A.Barševskis); Valka d.: Strenči, 03.VII.2008 (2, leg. A.Barševskis, U.Valainis, A.Pankjāns); Valmiera d.: Sprosti house, 57°34'58"N 25°20'15"E, 21.VIII.2006 (1, leg. A.Pankjāns); Ventspils d.: Moricsala Is., Moricsala Nature Reserve, 29.VI.2002 (2, leg. U.Valainis), IX.2003 (1, leg. U.Valainis), X.2003 (1, leg. U.Valainis), 09.VII.2004 (1, leg. A.Barševskis), 06.X.2006 (4, leg. J.Staskeviča, A.Barševskis), 26.X.2006 (9, leg. E.Rudāns), 04-05.X.2007 (2, leg. A.Barševskis).

Host plants: Compositae, Labiatea, Fabaceae. In the literature, Brassicaceae, Caryophyllaceae, Solanaceae, Plantaginaceae, Boraginaceae and Ranunculaceae are also mentioned as host plants (Bieńkowski 2004).

Phenology: V, VI, VII, VIII, IX, X

General distribution: Europe, Caucasus, Asia Minor, Siberia, S Kazakhstan, Central Asia (Kyrgyzstan), Russian Far East, Mongolia, Japan, E China, Korean Peninsula; introduced also to N America. [ASE]

Note: Very common and widely distributed species in Latvia.

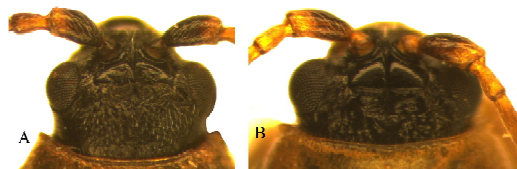


Fig. 4. Head, dorsal: A – *Lochmaea caprea* (L.), B – *L. suturalis* (Thoms.).

13. *G. interrupta* (Illiger, 1802)

References: Lackschewitz, Mikutowicz 1939 (*interrupta* Ol.); Stiprais 1977; Telnov *et al.* 1997; Telnov 2004.

Examined material: 2 specimens: Liepāja d.: Pape, 23-25.VI.1994 (2, dunes, seashore, leg. N.Savenkovs).

Host plants: *Artemisia* (Compositae).

Phenology: VI

General distribution: Europe, NW Africa, Asia Minor, Near East, Caucasus, Central Asia, Mongolia. [CEM]

Note: Very rare, known from five localities.

14. *G. pomonae* (Scopoli, 1763)

syn.: *dispar* Joannis, 1866; *erratica* Joannis, 1865; *rustica* Thomson, 1866; *rustica* Schaller, 1883

References: Precht 1818 (*rustica*); Seidlitz 1872-1875 (*Adimonia rustica* Schall.), 1887-1891 (*Adimonia rustica* Schall.); Ulanowski 1883; Rathlef 1905; Trauberga 1957; Stiprais 1977; Barševskis 1993 (*Galerucha*); Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007.

Examined material: 9 specimens: Daugavpils d.: Daugavpils, 08.VII.1991 (1, xeric habitat, leg. A.Barševskis); 4 km NE Geitviniški, 55°54'51"N 26°53'47"E, 13.VIII-17.IX.2008 (1, leg. A.Bukejs, A.Pankjāns); Līksna parish, 3 km N Daugavpils, 55°56'01"N 26°33'36"E, 28.VII.2009 (1, inland dunes, leg. A.Bukejs); Slutišķi, 05.IX.1994 (1, leg. A.Barševskis); Krāslava d.: Kaplava S env., Varnaviči, Augšdaugava PNT, 06.IX.2008 (1, leg. A.Pankjāns); NEE Skaista, Grundāni house, Lake Dridzis Nature Park, 15.VII.2008 (1, leg. R.Cibuļskis); Šķeltova, 28.VIII.1992 (1, leg. A.Barševskis); Jēkabpils d.: Dunava, 56°12'93"N 26°12'17"E, 07-08.X.2006 (1, leg. A.Barševskis); Preiļi d.: Aglona, 28.VI.2008 (1, leg. J.Kundziņš).

Host plants: Compositae. In the literature, Cruciferae are mentioned also as host plants (Bieńkowski 2004).

Phenology: VI, VII, VIII, IX, X (1)

General distribution: Europe, Caucasus, Asia Minor, N Iran, south part of W Siberia, Kazakhstan, Central Asia, Mongolia. [CAE]

Note: Rare species in Latvia.

15. *G. laticollis* Sahlberg, 1838

References: Seidlitz 1872-1875 (*Adimonia*), 1887-1891; Rathlef 1905; Pūtele 1974, 1980, 1981a, 1981b, 1984; Telnov *et al.* 1997; Telnov 2002, 2004.

Examined material: 10 specimens: Jēkabpils d.: Dignāja, 01.VIII.2005 (1, leg. A.Barševskis); Madona d.: Ošupe env., 2.5 km NE Lake Lubāns, 56°50'03"N 26°56'05"E, 06.VII.2008 (3, wet meadow, leg. M.Balalaikins, A.Bukejs); Valka d.: Smiltene, 03.VIII.1973 (1, leg. V.Pūtele); Talsi d.: Slītere, 13.VIII.1977 (1, leg. V.Pūtele), 27.VII.1982 (2, leg. V.Pūtele), 21.VIII.1983 (1, leg. V.Pūtele), 22.VIII.1983 (1, leg. V.Pūtele).

Host plants: *Thalictrum flavum*, *Aconitum napelus* (Ranunculaceae).

Phenology: VII, VIII

General distribution: Europe, Kazakhstan, Siberia. [SIE]

Note: Very rare, known from five localities.

(-) *G. dahlii* (Joannis, 1865)

References: Telnov *et al.* 1997; Telnov 2004.

Examined material: Not confirmed by the author. Earlier record of this species, "Valka d.: Smiltene, 03.VIII.1973 (1, leg. V.Pūtele)" [in collection of V.Pūtele], was based on misidentification and concern to *G. laticollis* Sahlb.

Host plants: *Cirsium* (Compositae), *Thalictrum* (Ranunculaceae) (Bieńkowski 2004).

General distribution: Europe (from France, N Italy, Germany, Austria, northern part of basin of Danube, S Poland, Romania, S Ukraine, Crimea), Siberia. [SIE]

Note: The occurrence of the species in Latvian fauna is doubtful. Faunistical data on this species in Latvia are absent. Only in Seidlitz (1872-1875, 1887-1891) *dahlii* Joann. was mentioned as synonym of *laticollis* Sahlb. Therefore it is deleted from the list of Latvian Coleoptera.

HYLASPINI CHAPUIS, 1875***SERMYLASSA* REITTER, 1912****16. *S. halensis* (Linnaeus, 1767)**

References: Barševskis 2001; Telnov 2004; Telnov *et al.* 2006.

Examined material: 14 specimens: Liepāja d.: Medze env., Upmaļi, 12.VII.2008 (13, sea-coast,

leg. A.Barševskis); Pape, 28.VIII-04.IX.1995 (1, leg. N.Savenkovs).

Host plants: *Galium* (Rubiaceae). In the literature, *Urtica* is also mentioned as host plant (Bieńkowski 2004).

Phenology: VII, VIII

General distribution: Europe (excluding N), Caucasus, south part of W Siberia, Altai, Kazakhstan and Central Asia. [CAE]

Note: Very rare species with three known localities in SE Latvia (Liepāja district, Baltic Sea coast). North border of main distribution area.

AGELASTICA CHEVROLAT, 1836

17. *A. alni* (Linnaeus, 1758)

References: Fischer 1784 (*Chrysomela*), 1791 (*Chrysomela*); Groschke 1805 (*Chrysomela alni*); Precht 1818 (*Galleruca alni*); Kawall 1866 (*Chrysomela alni*); Seidlitz 1872-1875, 1887-1891; Ulanowski 1883; Sintenis 1900; Rathlef 1905; Brammanis 1940; Danka 1950; Trauberga 1957; Rupais 1959, 1999; Šmits, Spuris 1966; Spuris 1974; Pūtele 1974, 1977, 1980, 1981a, 1981b, 1982, 1984; Priedītis, Pūtele 1976; Stiprais 1977; Priedītis 1979; Barševskis 1988, 1993, 2002; Rūtenberga 1992; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Bukejs, Telnov 2007; Spuņģis 2008.

Examined material: 267 specimens: Aizkraukle d.: Aizkraukle, 06.VIII.2002 (4, leg. A.Barševskis); 6 km N Aizkraukle, Aizkraukles purvs (bog) PNT, 01.VII.2008 (2, leg. A.Pankjāns), 01.VII.2008 (3, leg. A.Bukejs); Ērberģe, 12.VIII.2008 (1, leg. A.Barševskis); Nereta, 15.IV.2008 (3, leg. A.Barševskis); Rīteri, 14.VI.2006 (4, leg. A.Barševskis), 20.VI.2006 (1, leg. A.Barševskis), 21.VI.2006 (1, leg. A.Barševskis), 26.IV.2008 (2, leg. A.Barševskis), V.2009 (3, leg. A.Barševskis); Skrīveri, 19.VI.2006 (1, leg. A.Barševskis), 21.VI.2006 (1, valley of the Daugava River, leg. A.Barševskis), 21.VI.2006 (1, leg. M.Nitcis), 26.IV.2008 (2, arboretum, leg. A.Barševskis); Valle, 12.VIII.2008 (3, leg. A.Barševskis); Balvi d.: Kuprava, 26.VIII.1994 (1, leg. A.Barševskis); Bauska d.: Bārbele, 08.V.2009 (1, leg. A.Barševskis, R.Orlovskis); Cēsis d.: Ciruļišu rock, 24.III.2007 (1, leg. E.Rudāns); Daugavpils d.: Bebrene, 04.V.2006 (7, leg. E.Rudāns), 05.V.2006 (4, leg. E.Rudāns), 14.V.2006 (2, leg. E.Rudāns), 20.V.2006 (1, leg. E.Rudāns), 15.VI.2006

(1, leg. E.Rudāns), 23.IX.2006 (1, leg. E.Rudāns), 25-26.XII.2006 (1, under bark, leg. E.Rudāns); Butišķi, 01.VII.2009 (1, valley of the Daugava River, leg. A.Bukejs, M.Balalainis); Daugavpils, Centre, 02.V.1993 (1, bank of the Daugava River, leg. A.Barševskis), Daugavpils, Križi, 20.V.2001 (1, leg. G.Lociks), Daugavpils, near Mežciems, 01.VI.2008 (1, bank of the Daugava River, leg. A.Bukejs), Daugavpils, Ruģeļi, 16.V.2006 (1, leg. V.Kokina); Dviete, 11.V.1996 (2, leg. A.Lapa), 11.V.2008 (1, Daugava riverside, leg. A.Pankjāns), 31.VII.2008 (2, forest, leg. A.Barševskis); Elerne, Muravki house, 26.VI.2006 (1, leg. A.Barševskis, K.Barševska); Ilgas, Silene Nature Park, 19.VI.1994 (1, leg. A.Barševskis), 21-24.IV.1995 (1, leg. A.Barševskis), 09.V.1996 (1, leg. A.Barševskis), 09.IX.1997 (3, leg. A.Barševskis), 29.IV-10.VII.2000 (9, leg. L.Nikitina), 29.IV-10.VII.2000 (2, leg. A.Rutka), VI-VII.2000 (7, leg. I.Haka & G.Hļebnaja), 06-15.VI.2004 (4, leg. A.Barševskis), 18.V.2005 (3, leg. A.Barševskis), 21.VI.2005 (1, bank of Lake Riču, on *Alnus incana*, leg. A.Bukejs), 17.VII.2005 (1, leg. A.Barševskis), 05-10.VI.2006 (1, leg. L.Jakubāne), 27.VI.2009 (1, leg. A.Barševskis); Ilūkste, 28-29.VI.2008 (1, leg. S.Piopiņa); Kalnišķi, 55°52'54"N 26°44'03"E, 21.VIII.2009 (1, bank of the Daugava River, on Salix, leg. A.Bukejs, M.Balalainis); Līksna parish, 2 km N Daugavpils, 04.V.2008 (1, inland dunes, edge of pine forest, leg. A.Bukejs), 3 km N Daugavpils, 27.V.2009 (1, inland dunes, roadside, leg. A.Bukejs); Lociki, 26.V.2001 (1, leg. G.Lociks); Lūbaste, 18.IV.1993 (4, leg. A.Barševskis); Naujene, Daugavas Loki Nature Park, 04.V.2008 (1, leg. K.Barševska, A.Barševskis); Nīcgaile, 12.V.2001 (1, leg. G.Lociks); Šarlote, 01.V.2008 (1, leg. K.Aksjuta), 11.V.2008 (2, leg. K.Aksjuta); Šedere, Straumēni house, 01-03.V.2008 (1, leg. M.Janovska), 01-04.V.2009 (3, leg. M.Janovska); Slutišķi, 12.VI.1987 (3, leg. A.Barševskis); Svente, Sasaļu forest PNT, 20.I.2008 (1, leg. A.Barševskis); Vabole, 1993 (2, leg. M.Jukšs); 1.5 km SW Vecpils, 55°54'710"N 26°43'515"E, 09.V.2008 (1, leg. R.Cibuļskis); Vecsaliena, Lejzemnieki house, 21.V.2008 (1, bank of the Mārkalne River, leg. A.Pankjāns); Višķi, 02.VI.1987 (1, leg. A.Barševskis); Gulbene d.: Lejasciems, 30.IX.2005 (1, leg. A.Barševskis, A.Bukejs, U.Valainis); Ušurs, 08.VI.2005 (1, along marsh,

leg. A.Barševskis); Jēkabpils d.: Ābeļu parish, bank of Rive Daugava, 17.V.1995 (2, leg. A.Barševskis); Aknīste, 10.VIII.2001 (1, leg. I.Leiskina); Asare, 02.III.1998 (1, leg. I.Leiskina); Dignāja, 28.VII.1999 (1, leg. I.Leiskina); Dunava, 20.VIII.2000 (1, leg. I.Leiskina), 07.VIII.2001 (1, leg. I.Leiskina), 14.V.2005 (1, leg. A.Barševskis), 10-18.VI.2006 (1, leg. K.Barševska), 18.V.2008 (1, forest, leg. A.Barševskis), 01.VI.2008 (1, leg. A.Barševskis), 09-10.VIII.2008 (1, leg. A.Barševskis); Jēkabpils, near Jēkabpils hospital, 13.V.2006 (4, leg. K.Barševska & A.Barševskis); Mežāre, 04.IX.2009 (1, leg. M.Balalaikins); Rubene, 25.IV.1998 (1, leg. I.Leiskina), 11.IV.1999 (1, leg. I.Leiskina), 02.VIII.1999 (1, leg. I.Leiskina); Vandāni, 16.VIII.2008 (2, bank of the Daugava River, leg. A.Barševskis); Zasa, 15.VIII.2000 (1, leg. I.Leiskina), 14.VIII.2001 (1, leg. I.Leiskina); Krāslava d.: Krāslava, 11.VI.1987 (8, leg. A.Barševskis); Sauleskalns, 4.5 km NE Kombuļi, 04.V.2008 (2, leg. K.Barševska, A.Barševskis); Šķeltova, 09.V.1993 (1, leg. A.Barševskis), 21.V.1994 (1, leg. A.Barševskis), 15.VII.1994 (2, leg. A.Barševskis); Ūdrīši, Zapoļniki house, 06.V.2007 (1, leg. M.Murd); Kuldīga d.: Skruna, 05.IX.2008 (5, leg. R.Orlovskis, A.Barševskis); Liepāja d.: Durbe, 05.IX.2008 (3, leg. R.Orlovskis, A.Barševskis); Limbaži d.: Salacgrīva, Veczemu rock, 17.VIII.2008 (2, leg. A.Barševskis); Madona d.: Kalsnava, 03.VII.2006 (1, leg. A.Barševskis, U.Valainis, A.Pankjāns); Ogre d.: Lēdmane, 17.VIII.2008 (3, leg. A.Barševskis); Lielvārde, 19.IX.1992 (1, leg. anonymous); the Ņega River connect. with the Daugava River, 29.VI.2006 (3, leg. A.Barševskis), 29.VI.2006 (1, leg. U.Valainis), 29.VI.2006 (5, leg. A.Pankjāns); Robežnieki, 30.V.2006 (2, leg. E.Rudāns); Preiļi d.: Aglona, near the Tartaka River, 56°08'94"N 26°59'27"E, 14.VIII.2006 (1, leg. A.Barševskis); Jersika, 16.IV.2005 (2, leg. I.Gurčonoks); Jersika, Kurpnieki house, 22.V.2005 (1, leg. A.Barševskis), 04.V.2006 (9, leg. K.Barševska), 14.V.2006 (1, leg. K.Barševska), 20.V.2006 (1, leg. K.Barševska), 26-28.V.2006 (3, leg. K.Barševska), 04.VI.2006 (2, leg. K.Barševska), 07.VI.2006 (1, leg. A.Barševskis, K.Barševska), 10-18.VI.2006 (1, leg. K.Barševska), 17.VI.2006 (2, leg. A.Barševskis), 23-24.VI.2006 (3, leg. A.Barševskis, K.Barševska), 02.IX.2006 (1, leg. A.Barševskis), 05-06.V.2007 (10, leg.

K.Barševska, A.Barševskis), 12.V.2007 (2, leg. A.Barševskis), 15.V.2007 (1, leg. A.Barševskis), 20.V.2007 (3, leg. A.Barševskis), 27.V.2007 (1, leg. A.Barševskis), 09-10.VI.2007 (1, leg. K.Barševska, A.Barševskis), 05.IX.2007 (3, leg. K.Barševska, A.Barševska), 27.IV.2008 (1, leg. K.Barševska), 09.V.2008 (1, leg. A.Barševskis), 24.V.2008 (1, leg. A.Barševskis), 31.V.2008 (1, leg. A.Barševskis), 13.VI.2008 (2, leg. A.Barševskis), 17.VI.2008 (1, leg. A.Barševskis), 23-24.VI.2008 (2, leg. A.Barševskis), 07.IX.2008 (2, leg. A.Barševskis, K.Barševska), 22-25.IX.2008 (4, leg. A.Barševskis), 11-12.IV.2009 (1, leg. A.Barševskis), 28.IV.2009 (1, leg. A.Barševskis, K.Barševska), 01-10.V.2009 (2, leg. A.Barševskis, K.Barševska); Pelēči, 18.VIII.1997 (1, leg. I.Jurkjāne); Sutri, 14.VIII.2008 (3, leg. A.Barševskis); Rēzekne d.: Puša, 25.V.2002 (1, leg. A.Barševskis); Rīga d.: Carnikava, 22.V.1974 (1, meadow, leg. Varzinska); Mālpils, 16.VIII.2008 (3, leg. A.Barševskis); Olaine, 19.IX.2006 (1, leg. J.Donis); Saulkalne, 20.V.2006 (1, leg. A.Barševskis); Saulkrasti, 16.VIII.2008 (2, leg. A.Barševskis); Saukrasti SW env., Inčupe train station env., 14.VI.1974 (1, meadow, leg. anonymous); Saldus d.: Brocēņi, 05.IX.2008 (1, leg. A.Barševskis, R.Orlovskis); Talsi d.: Ances meži un purvi (forests and bog) PNT, 27.VI.2006 (1, leg. U.Valainis); Krievragciems, 18.VI.1958 (1, leg. J.Zariņš); Mazirbe, 05.VIII.2002 (3, leg. A.Barševskis); Slītere National Park, Zilie Kalni and Dāvida Pļavas, 06.VI.2002 (1, leg. A.Barševskis), VII.2003 (1, leg. A.Barševskis); Valmiera d.: Burtnieku parish, Briede, 57°39'85"N 25°13'54"E, 21.VIII.2006 (4, leg. A.Barševskis).

Host plants: *Alnus*, rarely on *Betula*, *Corylus*. In Latvia, the species occurs mostly on *Alnus*, rarely on *Betula*, *Corylus avelana*, *Salix*, *Populus* and *Padus racemosa* (Pūtele 1977).

Phenology: IV, V, VI, VII, VIII, IX

General distribution: Europe, Asia Minor, Caucasus, Siberia, Kazakhstan, Central Asia, NW China, Korean Peninsula; introduced also to North America. [ASE]

Note: Very common and widely distributed species in Latvia.

LUPERINI GISTEL, 1848

PHYLLOBROTICA CHEVROLAT, 1836

18. *Ph. quadrimaculata* (Linnaeus, 1758)

References: Precht 1818 (*Galleruca*); Seidlitz 1872-1875, 1887-1891; Ulanowski 1883; Rathlef 1905; Pūtele 1974, 1984; Stiprais 1977; Barševskis 1988, 1993, 2002; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Bukejs, Telnov 2007.

Examined material: 51 specimens: Aizkraukle d.: Aizkraukle, 21.VI.1995 (4, broad-leaved forest, leg. A.Barševskis); Daugavpils d.: Ilgas, Silene Nature Park, 01.VI.1986 (1, leg. A.Barševskis), 29.VI.1988 (1, leg. A.Barševskis), 16.VI.1995 (1, leg. A.Barševskis), 27.VI.1995 (1, leg. A.Barševskis), 05.VII.1995 (1, leg. A.Barševskis), 28.VI.1996 (1, leg. A.Barševskis), 25-27.VI.2007 (1, leg. A.Čukļiņa, J.Daņilova), 01.VII.2008 (2, leg. I.Irbe), 01-03.VII.2008 (1, leg. J.Kundziņš), 27.V-01.VI.2009 (1, leg. R.Cibuļskis); Stropi, 17.VII.2006 (2, leg. A.Bukejs); Višķi, 09.VI.1986 (1, leg. A.Barševskis); Jēkabpils d.: Dunava, 16.VII.1995 (3, leg. A.Barševskis), 17.VII.1995 (5, leg. A.Barševskis); Vandāni, 16.VIII.2008 (1, bank of the Daugava River, leg. M.Balalaikins); Zasa, 19.VI.2000 (1, leg. I.Leiskina); Krāslava d.: 4 km W Skaista, Orupi, Lake Dridzis Nature Park, 15.VII.2008 (2, leg. R.Cibuļskis); Šķeltova, 31.VII.1993 (1, leg. A.Barševskis); Ogre d.: Ķegums, left bank of the Daugava River, 11.VII.2006 (1, leg. A.Barševskis); Rēzekne d.: Ezernieki, Rāzna National Park, 24.VII.2008 (1, park, leg. R.Cibuļskis, U.Valainis); Rīga d.: Carnikava, Gauja train station, 16.VII.1992 (1, meadow, leg. R.Matrozis), 19.VII.1992 (1, leg. R.Matrozis); Saldus d.: Blīdene, 11.VII.2006 (1, leg. A.Barševskis & K.Barševska); Talsi d.: Šķēde, 25.VII.1975 (2, leg. V.Pūtele); Valmiera d.: Mazsalaca NW env., Ģenderti house, 13.VIII.1992 (1, leg. anonymous); Ventspils d.: Moricsala Is., Moricsala Nature Reserve, 29.VI.2002 (1, leg. U.Valainis), V.2003 (1, leg. U.Valainis), IX.2003 (1, leg. U.Valainis), X.2003 (1, window trap, leg. U.Valainis), 03.VIII.2004 (1, leg. U.Valainis), VII.2005 (1, leg. A.Barševskis), 15.VII.2008 (3, leg. A.Bukejs), 15.VII.2008 (4, leg. V.Alekseev, A.Pavlova), 15.VII.2008 (1, leg. A.Barševskis); Jūrkalne, 28.VII.2005 (1, leg. A.Barševskis, A.Bukejs, U.Valainis); ? d.: Klumpji, 16.VIII.1973 (1, leg. V.Pūtele).

Host plants: *Scutellaria galericulata*, *Stachys palustris* (Labiatae).

Phenology: V, VI, VII, VIII, IX

General distribution: Europe, N Caucasus, N and E Kazakhstan, Siberia. [SIE]

Note: Rather infrequent and insufficiently known species in Latvia. Hitherto, it was known only from 8 localities.

CALOMICRUS* DILLWYN, 1829*19. *C. pinicola* (Duftschmid, 1825)**

References: Seidlitz 1887-1891 (*Luperus*); Rathlef 1905 (*Luperus*); Ozols 1982, 1985; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Spunģis 2008; Barševskis *et al.* 2008.

Examined material: 2 specimens: Talsi d.: Slītere National Park, 29.VII.2005 (1, leg. A.Barševskis); Tukums d.: Ķemeri National Park, 28.VI.2006 (1, leg. A.Pankjāns).

Host plants: *Pinus* (Pinaceae).

Phenology: V, VI, VII

General distribution: Europe, Turkey. [EUR]

Note: Rare species in Latvia, with few records.

LUPERUS* GEOFFROY, 1762*(-) *L. luperus* (Sulzer, 1776)**

syn.: *lyperus* Bedel, 1897; *niger* Goeze, 1777; *rufipes* Goeze, 1777

References: Barševskis 1993 (misidentification); Telnov *et al.* 1997; Telnov 2004.

Examined material: Not confirmed by the author. Earlier records of this species, “*Jēkabpils d.*: Dunava, 23.VI.1993 (2, leg. A.Barševskis)” (Barševskis 1993), and “*Daugavpils d.*: Špoģi, 07.VII.1977 (1, leg. V.Pūtele); *Cēsis d.*: Lake Inesis, 10.VII.1977 (1, leg. V.Pūtele)” [in collection of V.Pūtele], were based on misidentifications.

Host plants: *Salix*, *Ulmus*.

General distribution: C and S Europe, south part of W Siberia, Altay, Mongolia. [CAE]

Note: Faunal data on this species in Latvia are absent. Therefore it is deleted from the list of Latvian Coleoptera. This species is reported also for Belarus (Lopatin, Nesterova 2005) and Lithuania (Silfverberg 2004).

20. *L. longicornis* (Fabricius, 1781)

syn.: *betulinus* Joanis, 1865; *diniensis* Bellier, 1870; *rufipes* Gyllenhal, 1813

References: Fleischer 1829 (*rufipes* F.); Seidlitz 1872-1875, 1887-1891; Rathlef 1905; Stiprais 1977;

Priedītis 1971b, 1979; Pūtele 1980, 1981b, 1984; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007.

Examined material: 48 specimens: Aizkraukle d.: 6 km N Aizkraukle, Aizkraukles purvs (bog) PNT, 01.VII.2008 (1, clearing, on *Salix*, leg. A.Bukejs), 06.VIII.2008 (1, leg. A.Bukejs, M.Balalaikins); Cēsis d.: Rozula, 11.VII.1977 (1, leg. V.Pūtele); Daugavpils d.: Ilgas, Silene Nature Park, 14-20.VI.2002 (1, leg. A.Barševskis), 10-12.IX.2002 (1, leg. A.Barševskis); Līksna parish, 4 km N Daugavpils, 29.VI.2009 (6, inland dunes, roadside in pine forest, on *Betula*, leg. A.Bukejs); Lūbaste env., 01.VII.1995 (4, xeric meadow, leg. A.Barševskis); Rēzekne d.: Gaigalava, 15.VII.2009 (2, old clearing, leg. A.Bukejs, M.Balalaikins); Stoļerova, Lake Šostu env., 29.VII.2009 (1, clearing, leg. M.Balalaikins); Rīga d.: Lake Kanieris, Ķemeri National Park, 16.VI.2007 (1, leg. A.Pankjāns); Talsi d.: Stende, 19.VII.2007 (25, clearing, leg. A.Barševskis, U.Valainis, A.Pankjāns, A.Soldāns); Slītere National Park, Zilie Kalni (hills) and Dāvida Pļavas (meadows), 17.VII.2005 (2, leg. A.Barševskis); Ventspils d.: Puze, 30.VII.1974 (1, leg. V.Melecis).

Host plants: *Salix*, *Ulmus*.

Phenology: VI, VII, VIII, IX

General distribution: Europe, Caucasus, Siberia, Russian Far East. [SIE]

Note: Rare species in Latvia.

21. *L. flavipes* (Linnaeus, 1767)

References: Kawall 1866; Seidlitz 1872-1875, 1887-1891; Rathlef 1905; Trauberga 1957; Stiprais 1977; Priedītis 1971b, 1979; Barševskis 1993, 2002; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Bukejs, Telnov 2007.

Examined material: 52 specimens: Aizkraukle d.: 6 km N Aizkraukle, Aizkraukles purvs (bog) PNT, 01.VII.2008 (4, old clearing, on *Salix*, leg. A.Bukejs); Cēsis d.: Lake Inesis, 10.VII.1977 (1, leg. V.Pūtele); Daugavpils d.: Bebrene, 13.VI.2006 (1, leg. E.Rudāns), 16.VI.2006 (1, leg. A.Barševskis); Daugavpils, near Cietoksnis, 28.V.1993 (2, leg. A.Barševskis), 25.VI.2009 (1, bank of the Daugava River, leg. A.Bukejs), Daugavpils, near Mežciems, 01.VI.2008 (1, bank of the Daugava River, leg. A.Bukejs); Elerne, Muravki house, 26.VI.2005 (1, leg. A.Barševskis,

K.Barševska); Līksna, 23.VII.1996 (1, leg. R.Cibuļskis); Līksna parish, 4 km N Daugavpils, 29.VI.2008 (2, old clearing, leg. A.Bukejs); Lociki, 26.V.2001. (4, leg. G.Lociks), 22.VI.2001 (1, leg. G.Lociks); Špoģi, 07.VII.1977 (1, leg. V.Pūtele); Jēkabpils d.: Dunava, 23.V.1993 (2, leg. A.Barševskis), 23.VI.1993 (2, leg. A.Barševskis), 24.VII.1994 (1, leg. A.Barševskis), 22-23.VI.1998 (2, leg. A.Barševskis), 01.VI.2002 (6, leg. A.Barševskis), VI.2002 (1, leg. A.Barševskis), 10-18.VI.2006 (1, leg. K.Barševska); Rubeņi, 17.VII.1997 (1, leg. I.Leiskina); Jūrmala: Kūdra, 11.VI.2008 (1, leg. A.Titovs); Krāslava d.: Indrica, 17.VI.1989 (1, leg. A.Barševskis); Piedruja, 23.V.1989 (1, leg. A.Barševskis); Ludza d., Bļāši, 23.VI.2009 (1, leg. M.Balalaikins); Preiļi d.: Jersika, Kurpnieki house, 17.VI.2006 (1, leg. A.Barševskis), 09-10.VI.2007 (4, leg. K.Barševska, A.Barševskis), 22-25.VI.2007 (1, leg. A.Barševskis), 31.V.2008 (2, leg. A.Barševskis), 23-24.VI.2008 (1, leg. A.Barševskis); Rēzekne d.: Rēzekne, Nakotnes Str. 17/19, 18.V.2008 (1, leg. J.Burovs); Rīga d.: Mārupe env., 07.VII.2009 (1, leg. K.Barševska, A.Barševskis); Turaida env., Gaujas senleja, Turaidas loks (precipice), 02.VII.1974 (1, leg. V.Melecis), 21.VI.1975 (1, meadow near River Vējupīte, leg. V.Melecis); Tukums d.: Mustene, 04.VII.1974 (1, leg. V.Pūtele).

Host plants: *Alnus*, *Salix*, *Ulmus*.

Phenology: V, VI, VII

General distribution: Europe, Caucasus, Siberia, W and NE Kazakhstan, Mongolia, Russian Far East. [SIE]

Note: Rather infrequent species in Latvia.

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REFERENCES

- Barševskis A. 1988. Faunal investigations on beetles in various habitats of the south-eastern part of Latvia. In: *Žīvētāņu un dzīvnieku pasaulē un cilvēka dzīvē*. Ārvalstu zinātnieku darbi, 63-75. [in Russian].
- Barševskis A. 1993. *The Beetles of Eastern Latvia*. Saule, Daugavpils: 1-221. [in Latvian, English abstract]
- Barševskis A. 2001. New and rare species of beetles (Insecta: Coleoptera) in the Baltic states and Belarus. *Baltic Journal of Coleopterology*, 1 (1-2): 3-18.
- Barševskis A. 2002. Vaboļu kārtā (Coleoptera). In: Barševskis A., Savenkovs N., Everts-Bunders P., Daniele I., Pētersons G., Pilāts V., Zviedre E., Pilāte D., Kalniņš M., Vilks K., Poppels A. (eds.) *Silenes dabas parka fauna, flora un veģetācija*. Baltijas Koleopteroloģijas institūts, Daugavpils: 37-60. [in Latvian]
- Barševskis A., Bukejs A., Anichtchenko A. 2008. Faunistic records of the beetles (Hexapoda: Coleoptera) in Latvia. 2. *Acta Biologica Universitatis Daugavpiliensis*, 8 (2): 227-258.
- Beenen R. 1999. Revisional notes on *Galeruca* 1 (Coleoptera, Chrysomelidae). *Entomologische Blätter* (1999), 95: 157-164.
- Beenen R. 2002. Revisional notes on *Galeruca* 2 (Coleoptera, Chrysomelidae). *Entomologische Blätter* (2002), 98: 21-28.
- Beenen R. 2007. Revisional notes on *Galeruca* 6: the species group of *Galeruca interrupta* (Coleoptera, Chrysomelidae). *Entomologische Blätter* (2006), 102: 157-164.
- Beenen R. 2008. Taxonomical and nomenclatural changes in Palaearctic Galerucinae and description of a new species (Chrysomelidae). *Entomologische Blätter* (2008), 103/104: 63-80.
- Bezdžk J. 2004. A review of the *Lochmaea crataegi* (Forster, 1771) species group from Asia Minor, Near East and Caucasus (Coleoptera: Chrysomelidae: Galerucinae). *Annales Zoologici (Warszawa)*, 54 (3): 561-566.
- Bieńkowski A. O. 1999. *Guide to the identification of leaf-beetles (Coleoptera Chrysomelidae) of the Eastern Europe*. Moscow, Tehpoligrafcentr: 1-204. [in Russian, English summary]
- Bieńkowski A. O. 2004. *Leaf-beetles (Coleoptera: Chrysomelidae) of the Eastern Europe. New key to subfamilies, genera and species*. Moscow: Mikron-print. 1-278.
- Borghuis A., Groenendael J., Madsen O., Ouborg J. 2009. Phylogenetic analyses of the leaf beetle genus *Galerucella*: Evidence for host switching at speciation? *Molecular Phylogenetics and Evolution*, 53: 361-367.
- Borowiec L. 2004. The Leaf Beetles (Chrysomelidae) of Europe and the Mediterranean Subregion (Checklist and Iconography). <http://www.biol.uni.wroc.pl/cassidae/European%20Chrysomelidae/index.htm>. Last modification: 18 September 2008.
- Brammanis L. 1930. Zur Kenntnis der Coleopterenfauna des Saatkampeschutzgrabens in der Oberforstei Intschukalms (Hinzenberg). *Folia zoologica et hydrobiologica*, 2 (1): 129-135.

- Brammanis L. 1940. Latvijas mežu kaitēkļu apskats. *Mežkopja darbs un zinātne*, 1-2 (1940): 257-340. [in Latvian, German summary]
- Bukejs A., Telnov D. 2007. Materials about the fauna of beetles (Insecta: Coleoptera) of Naujene rural municipality (Daugavpils district, Latvia). Part 2. *Acta Biologica Universitatis Daugavpiliensis*, 7 (2): 191-208.
- Čakstiņa T. 1962. *Augļu dārzu kaitēkļi un slimības*. [Pests and diseases of the small garden plants.] Rīga, Latvijas Valsts izdevniecība: 1-221. [in Latvian]
- Danka L. 1950. *Derīgas un kaitīgas vaboles*. Rīga, Latvijas Valsts Izdevniecība: 1-117. [in Latvian]
- Dūks V. 1976. *Strawberry*. Liesma, Rīga: 1-175. [in Latvian]
- Fischer J. B. 1784. Zusätze zu seinem „Versuch einer Naturgeschichte von Livland“. In: J.J.Febers Anmerkungen zur physischen Erdbeschreibung von Kurland, nebst J.B.Fischers Zusätzen zu einem Versuch einer Naturgeschichte von Livland. Riga: XVI + 305.
- Fischer J. B. 1791. *Versuch einer Naturgeschichte von Livland. 2. Auflage*. Königsberg, Friedrich Nicolobius: XXIV + 826.
- Fleischer J. 1829. Beitrag zur Fauna der Ostseeprovinzen. Verzeichnis derjenigen Käfer, die soweit mir bekannt ist, als einheimische bis hierzu noch nicht aufgeführt sind. *Die Quatember, Kurländische Gesellschaft für Literatur und Kunst*, 1 (2): 9-19.
- Groschke J. 1805. Merkwürdigkeiten aus dem Tierreich. In: Derschau E., Keyserlingk P. (eds.) *Beschreibungen der Provinz Kurland*. Mitau: 119-176.
- Hippa H., Koponen S. 1986. Morphological, cytological, ecological and ethological evidence of reproductive isolation between *Galerucella nymphaea* (L.) and *G. sagittariae* (Gyll.) in Fennoscandia. *Annales Entomologici Fennici*, 52: 49-62.
- Kalniņš M., Juceviča E., Karpa A., Salmane I., Poppels A. and Telnovs D. 2007. Invertebrates. In: Pilāts V. (ed.) *Biodiversity in Gauja National Park*: 106-149 pp. Sigulda, Gauja National Park Administration: 1-224.
- Kangas E. 1991. The *Galerucella* (*Hydrogaleruca*) species in Finland. *Entomologica Fennica*, 2: 2.
- Kawall J. H. 1865. Chronik phänologischer Beobachtungen in Kurland. *Korrespondenzblatt des Naturforscher-Vereins zu Riga*, 15 (4/5): 47-67.
- Kawall J. H. 1866. Phänologische Beobachtungen in Kurland (Pussen). *Korrespondenzblatt des Naturforscher-Vereins zu Riga*, 16 (5): 35-50.
- Kippenberg H., Döberl M. 1994. Familie: Chrysomelidae. In: *Ergänzungen und Berichtigungen zu Freude-Harde-Lohse „Die Käfer Mitteleuropas“ 9 (1966). 3 Supplementband*. Krefeld: 17-142.
- Kryzhanovskij O. L. (ed.) 1974. *Insects and ticks – the pests of agricultural cultures. II. Coleoptera*. Leningrad: Nauka. [Крыжановский О. Л. (ред.) 1974. *Насекомые и клещи – вредители сельскохозяйственных культур. II. Жесткокрылые*. Ленинград: Наука.] 1-336.
- Lackschewitz T. 1927. Zur Koleopterenfauna des ostbaltischen Gebietes, I. *Korrespondenzblatt des Naturforscher-Vereins zu Riga*, 59: 12-14.
- Lackschewitz T. 1942. Zur Koleopterenfauna des ostbaltischen Gebietes, III.

- Korrespondenzblatt des Naturforscher-Vereins zu Riga*, 64: 172-179.
- Lackschewitz T., Mikutowicz J. 1939. Zur Koleopterenfauna des ostbaltischen Gebietes, II. *Korrespondenzblatt des Naturforscher-Vereins zu Riga*, 63: 48-76.
- Lohse G. A. 1989. *Hydrogaleruca*-Studien (Col. Chrysomelidae, Gattung *Galerucella* Crotch). *Entomologische Blätter*, 85 (1-2): 61-96.
- Lopatin I. K. 1977. *Leaf-beetles (Chrysomelidae) of Central Asia and Kazakhstan*. [Лопатин И. К. 1977. Жуки-листоеды (Chrysomelidae) Средней Азии и Казахстана.] Leningrad, Nauka: 1-270.
- Lopatin I. K. 1986. *Leaf-beetles of Belarus and eastern Baltia*. Minsk, Vishejschaja shkola: 1-131. [Лопатин И. К. 1986. Жуки-листоеды фауны Беллоруссии и Прибалтики: Определитель. Минск: Вышэйшая школа.]
- Lopatin I. K., Kulenova K. Z. 1986. *Leaf-beetles (Coleoptera, Chrysomelidae) of Kazakhstan*. Alma-Ata, Nauka: 1-200. [Лопатин И. К., Куленова К. З. 1986. Жуки-листоеды (Coleoptera, Chrysomelidae) Казахстана: Определитель. Алма-Ата, Наука.]
- Lopatin I. K., Nesterova O. L. 2005. *Insecta of Byelarus: Leaf-Beetles (Coleoptera, Chrysomelidae)*. Minsk, Tehnoprnt: 1-293. [in Russian, English abstract]
- Medvedev L. N. 1992. Leaf beetles – Chrysomelidae. In: *Keys to Insects of Far East of SSSR*. 3. *Coleoptera*. 2. 533-602 pp. Sankt-Petersburg: Nauka. [Медведев Л. Н. 1992. Листоеды – Chrysomelidae. В кн.: *Определитель насекомых Дальнего Востока СССР. Том 3. Жесткокрылые или жуки. Часть 2*. Санкт-Петербург: Наука.]
- Medvedev L. N., Dubeshko L. N. 1992. *Keys to leaf-beetles of Siberia*. Irkutsk, University of Irkutsk: 1-224. [Медведев Л. Н., Дубешко Л. Н. 1992. *Определитель листоедов Сибири*. Иркутск: изд-во Иркутского университета.]
- Mikutowicz J. 1905. Zur Koleopterenfauna der Ostseeprovinzen Russlands, I. *Korrespondenzblatt des Naturforscher-Vereins zu Riga*, 48: 73-92.
- Mohr K. H. 1966. Chrysomelidae. In: H. Freude, K. Harde, G. Lohse *Die Käfer Mitteleuropas. Band 9. Cerambycidae und Chrysomelidae*. Goecke&Evers: Krefeld: 95-280.
- Nokkala C. 1989. Chromosomal polymorphisms and speciation in the chrysomelid *Galerucella nymphaeae* complex. Thesis, Turku.
- Nokkala C., Nokkala S. 2004. Molecular phylogeny and systematics of *Galerucella* and related taxa. In: Jolivet P., Santiago Baly J. A. & Schmitt M. (eds). *New developments in the biology of Chrysomelidae*: 125-130.
- Ogloblin D. A. 1936. *Fauna SSSR. Coleoptera T. 26 (1). Chrysomelidae Galerucinae*. Moscow-Leningrad, izd-vo AN SSSR: XVI-461.
- Ozols E. 1929. Der Erdbeerblattkäfer *Galerucella tenella* L. *Folia Zoologica et Hydrobiologica*, 1 (1): 113-147.
- Ozols E. 1948. *Agricultural entomology*. Rīga, Latvijas Valsts izdevniecība. [in Latvian]
- Ozols E. 1963. *Agricultural entomology. 2 ed.* Rīga, Latvijas Valsts izdevniecība: 1-512. [in Latvian]
- Ozols G. 1982. Priedes un egles dendrofāgo vobuļu faunas pētījumi Latvijas PSR [Investigation of the fauna of dendrophagous beetles of pine and spruce in the Latvian SSR]. *Latvijas Entomologs*, 25: 20-36.

- Ozols G. 1985. *Priedes un egles dendrofāģie kukaiņi Latvijas mežos*. Rīga, Zinātne: 1-208. [in Latvian]
- Pappers S. M. 2001. Evolution in action. Host race formation in *Galerucella nymphaeae*. Thesis, Nijmegen.
- Petrova V., Čudare Z., Šteinīte I. 2000. Invertebrates fauna on strawberry in Latvia. *Proceedings of the Latvian Academy of Sciences*, Section B, 54, 3 (608): 79-84.
- Petrova V., Čudare Z., Cibulskis R. 2006. Predators and herbivores beetles (Coleoptera) naturally occurring on strawberry (Latvia). *Acta Biologica Universitatis Daugavpiliensis*, 6 (1-2): 155-159.
- Precht K. 1818. *Verzeichnis der bis jetzt, vornehmlich in der Umgegend von Riga und im Rigischen Kreise bekannt gewordenen und systematisch bestimmten käferartigen Insecten (Coleoptera Linnaei, Eleutherata Fabricii)*. Rīga, D. Müller: 1-39.
- Priedītis A. 1971a. *Augļu koku un ogu krumu kaitēkļi*. Rīga, Liesma. 1-193. [in Latvian]
- Priedītis A. 1971b. Ābeles kultūras cenožē sastopamo kaitīgo dzīvnieku sugu sastāvs un to praktiskā nozīme. *Latvijas Lauksaimniecības akadēmijas Raksti*, 42: 11-27. [in Latvian]
- Priedītis A. 1979. [Приедитис А. П.] Видовой состав и значение жуков в кроне яблони в Латвии. *Труды Латвийской сельскохозяйственной академии*, 167 (*Защита растений от вредителей*): 19-25. [in Russian]
- Priedītis A., Pūtele V. 1976. Leaf-beetles (Coleoptera, Chrysomelidae) in agrocenoses of apple in Zemgale plain of Latvia. *Abstracts of reports of the scientificpractical conference 'Ways of implementation of progressive methods for the protection of agricultura plants, 28–30 June 1976'*: pp. 96–98. Rīga: Rīga Polytechnical Institute Press. [in Russian]
- Princovs G. 2000. Jaunas ziņas par Gulbenes rajona vaboļu (Coleoptera) izplatību. *Daugavpils Pedagoģiskās universitātes 8. Ikgadējās zinātniskās konferences Rakstu krājums A11 (Dabaszinātnes, dabaszinātņu didaktika, matemātika, datorzinātne)*. Daugavpils, DPU, Saule: 14-15.
- Pūtele V. 1974. Leaf-beetles (Coleoptera, Chrysomelidae) discovered in surroundings of Jelgava city. In: *The brief reports of a scientific conference on protection of plants. Saku, 2–4 1974 (2)*: pp. 55–58. Tallinn. [in Russian]
- Pūtele V. O. 1976. Studies of some aspects of biology of willow leaf-beetle *Lochmaea caprea* L. (Col. Chrysomelidae) in year 1975. *Abstracts of reports of the scientificpractical conference 'Ways of implementation of progressive methods for the protection of agricultura plants, 28–30 June 1976'*: pp. 122-125. Rīga: Rīga Polytechnical Institute Press. [in Russian]
- Pūtele V. 1977. Development of the alder's pest – *Agelastica alni* L. in the Latvian SSR (Col. Chrysomelidae). *Latvijas Lauksaimniecības akadēmijas raksti*, 122: 50-57. [in Latvian]
- Pūtele V. 1980. Lapgraužu (Coleoptera, Chrysomelidae) faunas pētījumi Slīteres valsts dabas rezervātā. *Slīteres rezervāta 1. zinātniski praktiskā konference, referātu tēzes*. Slītere: 18-21. [in Latvian]
- Pūtele V. 1981a. Studies on leaf-beetles (Coleoptera, Chrysomelidae) fauna of the Slītere State Nature Reserve. *Latvijas Lauksaimniecības akadēmijas raksti*, 188: 12-19. [in Russian]
- Pūtele V. 1981b. Studies on Leaf-beetles fauna of the Slītere State Nature Reserve: reports.

- Mežsaimniecība un mežrūpniecība*, 3: 42-44. [in Latvian]
- Rīga, Valsts Augu aizsardzības dienests: 1-271. [in Latvian]
- Pūtele V. 1981c. Исследование фауны листоедов Латвийской ССР [Investigation of leaf-beetles fauna in Latvia]. В кн.: *Защита растений в республиках Прибалтики и Белоруссии. Тезисы докладов научно-производственной конференции (Дотнува-Академия, 2-3 июля 1981), часть 3*. Вильнюс: 78-79.
- Rūtenberga D. 1992. Materials on beetles fauna of Slītere Reserve. *Daba un muzejs*, 4: 20-23. [in Latvian, English and Russian summary]
- Pūtele V. O. 1982. Pested leaf-beetles (Coleoptera, Chrysomelidae) of the Latvian SSR. *Latvijas Lauksaimniecības akadēmijas raksti* 200, 28-33. [in Russian]
- Seidlitz G. 1872-1875. *Fauna Baltica. Die Käfer (Coleoptera) der Ostseeprovinzen Russlands*. Dorpat: H. Laakmann: 4 + XLII + 142 + 560.
- Pūtele V. O. 1984. Leaf-beetles – pests of tree cultures in the Slītere State Nature Reserve. *Latvijas Lauksaimniecības akadēmijas raksti*, 213: 9-15. [in Russian]
- Seidlitz G. 1887-1891. *Fauna Baltica. Die Käfer (Coleoptera) der Ostseeprovinzen Russlands. Zweite neu bearbeitete Auflage mit 1 Tafel*. Königsberg, Hartungsche Verlagsdruckerei: 12 + LVI + 192 + 818.
- Rathlef H. 1905. *Coleoptera Baltica. Käfer-Verzeichnis der Ostseeprovinzen nach den Arbeiten von Ganglbauer und Reitter*. Dorpat, C. Mattiesen: 16 + 199.
- Silfverberg, H. 2004. Enumeratio nova Coleopterorum Fennoscandiae, Daniae et Baltiae. *Sahlbergia*, 9: 1-111.
- Rathlef H. 1921. Supplementum zu den Coleoptera Baltica. *Sitzungsberichte der Naturforscher-Gesellschaft bei der Universität Dorpat*, 25 (2/4): 53-65.
- Sintenis F. 1900. Forstinsecten der Ostseeprovinzen. *Sitzungsberichte der Naturforscher-Gesellschaft bei der Universität Dorpat*: 173-198.
- Romantsov P. V. 2007. A review of leaf beetles (Coleoptera, Chrysomelidae) of St. Petersburg and Leningrad province. *Entomological Review*, 86 (2): 306–336. [in Russian, English summary]
- Šmits V., Spuris Z. 1966. Vaboles – Coleoptera. Grām.: Z. Spuris (ed.) *Latvijas dzīvnieki*. Rīga, Zvaigzne: 177-187.
- Rupais A. 1959. *Dekoratīvo koku un krūmu kaitēkļi*. Rīga, Latvijas PSR Zinātņu Akadēmijas izdevniecība: 1-146.
- Spuņģis V. 2008. *Fauna and ecology of terrestrial invertebrates in raised bogs in Latvia*. Rīga, Pertovskis & Co: 1-80.
- Rupais A. 1962. Die Wahl der Eiablagestellen des Schneeballkäfers – *Galerucella viburni* Payk. *Latvijas Entomologs*, 5: 21-24. [in Russian, German summary]
- Spuris Z. 1953. Par Latvijas PSR ezeru pamatbiotopu svarīgākām dzīvnieku sugām un to izplati. *Latvijas PSR ZA Vēstis*, 9 (74): 67-82. [in Latvian]
- Rupais A. 1999. Kokaugu kaitēkļu noteicējs pēc bojajumiem augļu dārzos un apstādījumos.
- Spuris Z. 1974. Cietspārni jeb vaboles – Coleoptera. In: Z. Spuris (ed.) *Latvijas dzīvnieku pasaule*. Rīga, Liesma: 139-151.
- Stiprais M. 1977. Faunistic data on the Chrysomelidae in Latvia. *Latvijas Entomologs*, 20: 14-23. [in Latvian, German summary]

- Stiprais M., Varzinska R. 1985. The beetles in the pig-breeding farm at Jumprava. *Latvijas Entomologs*, 28: 18-31. [in Latvian]
- Taglianti V. A., Audisio P. A., Biondi M., Bologna M. A., Carpaneto G. M., De Biase A., Fattorini S., Piattella E., Sindaco R., Venchi A., Zapparoli M. 1999. A proposal for a chorotype classification of the Near East fauna, in the framework of the Western Palearctic region. *Biogeographia*, 20: 31-59.
- Telnov D. 2004. Check-List of Latvian Beetles (Insecta: Coleoptera). Second Edition. In: Telnov D. (ed.) *Compendium of Latvian Coleoptera, vol. 1*. Rīga, Pertovskis & Co: 1-114.
- Telnov D., Barševskis A., Savich F., Kovalevsky F., Berdnikov S., Doronin M., Cibulskis R., Ratniece D. 1997. Check-List of Latvian Beetles (Insecta: Coleoptera). *Mitteilungen des Internationalen Entomologischen Vereins*, Supplement V: 1-140.
- Telnov D., Fägerström Ch., Gailis J., Kalniņš M., Piterāns U., Vilks K. 2006. Contributions to the Knowledge of Latvian Coleoptera. 5. *Latvijas Entomologs*, 43: 78-125.
- Trauberga O. 1957. Coleoptera – vaboles. In: *Latvijas PSR dzīvnieku noteicējs, 1*. pp. 455-592. Rīga, Latvijas Valsts izdevniecība.
- Ulanowski A. 1883. Z fauny coleopterologiczney Inflant polskich. *Sprawozdanie Komisji Fizyograficznej*, 18: 1-60.
- Warchałowski A. 2003. *The leaf-beetles (Chrysomelidae) of Europe and the Mediterranean region*. Warszawa, Natura optima dux Foundation: 1-600.
- Wilcox J. A. 1971-1975. Chrysomelidae. Galerucinae. *Coleopterorum Catalogus Supplementa* 78: 1-770.

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