

ON LATVIAN CHRYSOMELINAE (COLEOPTERA: CHRYSOMELIDAE): 2. GENUS *CHRYSOMELA* LINNAEUS, 1758

Andris BUKEJS

Institute of Systematic Biology, Daugavpils University, Vienības 13, Daugavpils, LV-5401, Latvia. E-mail: carabidae@inbox.lv

Abstract. Faunal data on the species of the genus *Chrysomela* Linnaeus, 1758 are presented. A total of 634 specimens of this genus were reviewed. Bibliographic information on this genus in Latvia is summarised for the first time. The annotated list including 7 species and the illustrated key of Latvian *Chrysomela* Linnaeus, 1758 are given.

Key words: Coleoptera, Chrysomelidae, *Chrysomela*, Latvia, fauna, identification key

INTRODUCTION

This article continues the study on the leaf-beetle subfamily Chrysomelinae of the Latvian fauna (Bukejs 2009a, b).

The genus *Chrysomela* Linnaeus, 1758 is almost a cosmopolitan taxon (absent in Australia) with approximately 40 species (Lopatin & Nesterova 2005). Among them, 7 species are known from eastern (Bieńkowski 2004) and northern Europe (Silfverberg 2004), Belarus, Estonia, Lithuania, St. Petersburg and the Leningrad province), Lopatin & Nesterova 2005; Silfverberg 2004; Pileckis & Monsevičius 1997; Romantsov 2007).

Seven species of *Chrysomela* are also known in Latvia (Telnov 2004): in the subgenera *Strickerus* Lucas, 1920 (three species), *Pachylina* L. Medvedev, 1969 (one species) and *Chrysomela* s. str. (three species).

The first information on leaf-beetles of the genus *Chrysomela* in Latvia was published at the end of the 18th century (Fischer 1784, 1791). Subsequently, more than 30 works have been published. Scarce faunal data were provided by the following authors: Ulanowski 1883; Müthel 1886; Lackschewitz and Mikutowicz 1939; Danka and Stiprais 1972; Pūtele 1974, 1981a; Stiprais 1977; Barševskis 1988, 1993, 2001; Leiskina 1999; Barševskis *et al.* 2004; Bukejs and Telnov 2007. Some papers are dedicated to studies on the biology and ecology of species of the genus *Chrysomela* (Pūtele 1976, 1977).

In Latvia, some species of *Chrysomela* (especially *Chrysomela populi* Linnaeus, 1758) are mentioned as pests of *Salix* and *Populus* (Danka 1950; Rupais 1959; Pūtele 1977, 1982, 1984).

Both imagoes and larvae of *Chrysomela* feed on leaves of Salicaceae, rarely on *Betula* (*Ch. lapponica*). In most species, pupae attach themselves to the lower

surface of leaves or, as in *Ch. collaris*, occur in soil (Bieńkowski 2004).

The aim of the current work is to summarise data on the genus *Chrysomela* in Latvia. Bibliographic information on this leaf-beetle genus in Latvia is summarised for the first time. New faunal data on seven species are provided. The article also presents the annotated list and the illustrated key of Latvian species.

MATERIAL AND METHODS

A total of 634 specimens were reviewed in this investigation, representing 7 species of the genus *Chrysomela* Linnaeus, 1758. The examined material is stored in the collection of the Daugavpils University Institute of Systematic Biology (DUBC, Daugavpils, Latvia), the entomological collection of the Latvian University Institute of Biology (Salaspils, Latvia), the collection of V. Pūtele (Institute of Biology, Salaspils, Latvia), and the private collection of the author (Daugavpils, Latvia).

The following identification keys were used for identification of specimens: Bieńkowski 1999, 2004; Lopatin and Nesterova 2005; Mohr 1966; Warchałowski 2003. We follow the systematics suggested by Silfverberg (2004). An interactive on-line manual (Borowiec 2004) and monograph (Lopatin & Nesterova 2005) were used for the nomenclature and synonymy.

Host plants are listed citing the monograph of Lopatin and Nesterova (2005). The general distribution of species is given according to Bieńkowski (2004), Borowiec (2004), Hayashi *et al.* (1984), Lopatin (1977, 1986); Lopatin and Kulenova (1986); Lopatin and Nesterova (2005); Medvedev (1992); Medvedev and Dubeshko (1992); and Warchałowski (2003).

Classification of chorotypes follows as suggested by Taglianti *et al.* (1999). The transcript of chorotypes codes: ASE – Asiatic-European, SIE – Sibero-European.

The following information is given for each species: scientific name and author, published bibliographic sources for Latvia, faunal data (locality, collecting date, number of collected specimens in round brackets, information on the habitat and the collector's name), host plants, phenology (Latvian data only; IV, VI, VII, VIII, IX, X – months from April to October; in round brackets – ten-day period), general distribution of species and the chorotype code.

Explanations of the abbreviations used: d. – administrative district (system of administrative districts used in Latvia from 1991 to 2008), ? d. – on label, district is not mentioned but there are at least 3 places with this name in Latvia, vill. – village, env. – environs, Isl. – island, PNT – protected nature territory, syn. – synonym, C – Central, S – South, N – North, E – East, W – West.

The photographs were taken using a Zeiss Stereo Discovery V12 stereomicroscope and an AxioCam digital camera.

RESULTS AND DISCUSSION

During the current research, the occurrence of 7 species of *Chrysomela* Linnaeus, 1758 was confirmed for the Latvian fauna.

Analysis of the chorotypes of Latvian species of the genus *Chrysomela* reveals the predominance of species with wide distribution: Asiatic-European – 4 species [*Ch. lapponica* Linnaeus, 1758, *Ch. vigintipunctata* (Scopoli, 1763), *Ch. collaris* Linnaeus, 1758 and *Ch. populi* Linnaeus, 1758] and Sibero-European – 3 species [*Ch. cuprea* Fabricius, 1775, *Ch. tremula* Fabricius, 1787 and *Ch. saliceti* Suffrian, 1849].

List of *Chrysomela* Linnaeus, 1758 of the Latvian fauna

Chrysomelidae

Chrysomelinae Latreille, 1802

Chrysomela Linnaeus, 1758

syn.: *Melasoma* Stephens, 1831 partim; *Lina* Dahl, 1823

subgenus Strickerus Lucas, 1920

syn.: *Microdera* Stephens, 1839 non Eschscholtz, 1831

Ch. cuprea Fabricius, 1775

syn.: *ruficaudis* DeGeer, 1775

References: Seidlitz 1872–1875 (*Lina ruficaudis* De Geer), 1887–1891 (*Lina*); Ulanowski 1883 (*Melasoma*

cupreum F.); Rathlef 1905 (*Melasoma*); Stiprais 1977 (*Melasoma*); Pūtele 1977, 1984 (*Melasoma*); Telnov *et al.* 1997; Barševskis 2002; Barševskis *et al.* 2004; Telnov 2004.

Examined material: 8 specimens: Krāslava d.: Šķeltova, 3 November 1986 (1, leg. A. Barševskis), 28 September 1989 (2, leg. A. Barševskis); Rīga d.: Eglupe, 1 July 1993 (1, leg. A. Titovs); Tukums d.: Kandava, April 2002 (3, leg. A. Barševskis); Ķesterciems, 14 May 1989 (1, leg. A. Titovs).

Host plants: *Salix*, *Populus*.

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

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

Note: Rare species in Latvia.

Ch. lapponica Linnaeus, 1758

References: Fleischer 1829; Ulanowski 1883 (*Melasoma*); Müthel 1886 (*Lina*); Seidlitz 1887–1891 (*Lina*); Rathlef 1905 (*Melasoma*); Pūtele 1977 (*Melasoma*); Stiprais 1977 (*Melasoma*); Barševskis 1993; Telnov *et al.* 1997; Telnov 2004.

Examined material: 55 specimens: Aizkraukle d.: Sērene, Krieviņi house, 56°35'51" N 25°08'25"E, 19 July 2007 (1, leg. A. Barševskis, U. Valainis, A. Pankjāns, A. Soldāns); Daugavpils d.: Daugavpils, Cietokšņa Str. July 2006 (1, leg. A. Barševskis); Ilgas, Silene Nature Park, 12 June 1994 (1, leg. A. Barševskis), 19 June 1995 (4, leg. A. Barševskis), 18 June 1996 (1, leg. A. Barševskis), 25–30 June 1998 (15, on *Salix caprea*, leg. A. Barševskis), 9 June 2001 (1, leg. G. Lociks), 14–20 June 2002 (1, leg. A. Barševskis), 6–15 June 2004 (2, leg. A. Barševskis), 2–10 July 2004 (4, leg. A. Barševskis), 18 May 2005 (3, leg. A. Barševskis), 30 June 2005 (3, leg. A. Barševskis); Dobele d.: Jaunbērze env., Mežnieki, 12 August 2008 (2, leg. A. Barševskis); Ogre d.: Ķegums, left bank of the Daugava River, 13 July 2006 (1, leg. A. Barševskis, K. Barševska); Preiļi d.: Jersika, Kurpnieki house, 23–24 June 2006 (1, leg. A. Barševskis, K. Barševska), 22–24 June 2009 (5, leg. A. Barševskis); Rīga d.: Jaunmārupe, 15 July 2005 (1, leg. A. Barševskis); Tukums d.: Ķemeri National Park, 26 June 2006 (2, leg. A. Pankjāns, A. Barševskis, U. Valainis); Pure, 6 August 2002 (5, leg. A. Barševskis); Valka d.: Launkalne parish, Mežole, 30 August 2005 (1, leg. J. Donis).

Host plants: *Salix*, *Populus*, *Betula*.

Phenology: V, VI, VII, VIII

General distribution: C, N and E Europe, Siberia, Altai, Tuva, Kirghizia (Tian-Shan), Mongolia, Russian Far East, N-E China, Japan. [ASE]

Note: rare species. Hitherto, this species in Latvia was known only from 3 localities (Stiprais 1977; Pūtele 1977; Barševskis 1993).

***Ch. vigintipunctata* (Scopoli, 1763)**

References: Precht 1818; Seidlitz 1872–1875, 1887–1891 (*Lina*); Ulanowski 1883 (*Melasoma*); Rathlef 1905 (*Melasoma*); Pūtele 1974, 1977, 1984 (*Melasoma*); Stiprais 1977; Priedītis 1979 (*Melasoma*); Barševskis 1988, 1993, 2002; Barševskis *et al.* 1992; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Bukejs and Telnov 2007.

Examined material: 107 specimens: Bauska d.: Ceraukste, 13 June 1973 (1, firebreak, leg. V. Melecis); Cēsis d.: Drabeši, 2 July 1997 (1, leg. I. Leiskina); Vaive, 21 May 1995 (1, leg. R. Cibulskis); Daugavpils d.: Daugavpils, Esplanāde, 1 May 2006 (1, leg. K. Barševska); Ilgas, U. Valainis, 6–15 June 2004 (3, leg. A. Barševskis), 18 May 2005 (11, leg. A. Barševskis), 4 July 2005 (1, leg. A. Barševskis), 8 July 2005 (1, leg. A. Barševskis), 5–10 June 2006 (1, leg. A. Barševskis), 18 June 2008 (1, leg. R. Cibulskis), 1–3 July 2008 (1, leg. R. Cibulskis), 1–3 July 2008 (1, T. Vasiljeva), 1–3 July 2008 (1, leg. N. Mihailova); Līksna, 1987 (1, leg. R. Cibulskis); Maļinova, 15 May 2001 (1, leg. R. Cibulskis); Medumi, 30 May 2001 (1, leg. R. Cibulskis); Naujene, 5 June 1989 (1, leg. A. Barševskis), 15 October 2004 (1, Juzefova park, leg. A. Barševskis); Salienas parish, Ververu precipice, 11 July 1991 (1, leg. A. Barševskis); Šedere, Straumēni house, 1–3 May 2008 (2, leg. M. Janovska); Višķi, 15 March 1986 (4, leg. A. Barševskis), 1 February 1987 (1, leg. A. Barševskis), 8 March 1987 (2, leg. A. Barševskis), 22 March 1987 (2, leg. A. Barševskis), 30 March 1987 (2, leg. A. Barševskis); Gulbene d.: Gulbītis, Lake Ušūrs env., May–June 2003 (1, bog and burnt forest area, leg. O. Koškina and A. Barševskis); Jēkabpils d.: Dunava, 1 June 2002 (1, leg. A. Barševskis), 7 May 2005 (1, leg. A. Barševskis); Tadenava, 14 May 2005 (1, leg. A. Barševskis); Krāslava d.: Izvalta, 25 June 2002 (1, leg. A. Barševskis); Šķeltova, 29 March 1987 (1, leg. A. Barševskis); Ogre d.: Jumprava, 10 July 2008 (1, leg. A. Barševskis); Preiļi d.: Jersika, Kurpnieki house, 15 May 2005 (6, leg. A. Barševskis); Rīga d.: Sigulda, Vikmestes pilskalns, 20 July 1974 (1, valley of the Gauja River, leg. V. Melecis), 21 June 1975 (2, valley of the Gauja River, on *Salix*, leg. V. Melecis); Tukums d.: Kandava, April 2002 (37, leg. A. Barševskis); Ventpils d.: Moricsala Isl., Moricsala Nature Reserve, 29 June 2002 (1, leg. U. Valainis), 1 May 2003 (1, leg. U. Valainis), 4–5 May 2008 (1, leg. A. Pankjāns, U. Valainis, E. Tamanis, A. Soldāns).

Host plants: *Salix*, *Populus*.

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

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

Note: common.

subgenus *Pachylina* L. Medvedev, 1969***Ch. collaris* Linnaeus, 1758**

syn.: *escheri* Heer, 1836; ab. *salicis* Fabricius, 1792

References: Fischer 1784, 1791; Precht 1818; Fleischer 1829 (*Chrysomela salicis* F.); Seidlitz 1872–1875, 1887–1891 (*Lina*); Ulanowski 1883 (*Melasoma collaris* L.); Rathlef 1905 (*Melasoma*); Lackschewitz and Mikutowicz 1939 (*Melasoma*); Pūtele 1977, 1980, 1981a, b (*Melasoma*); Stiprais 1977 (*Melasoma*); Barševskis 1993, 2002; Telnov *et al.* 1997; Telnov 2002, 2004.

Examined material: 21 specimens: Daugavpils d.: Butiški, 1 July 2009 (8, valley of the Daugava River, on *Salix*, leg. A. Bukejs); Ilgas, Silene Nature Park, 17 June 1987 (1, leg. A. Barševskis), 15 July 1987 (1, leg. A. Barševskis), 6 July 1991 (1, leg. A. Barševskis); Jēkabpils d.: Rubeņi, 5 July 2001 (1, leg. I. Leiskina); Liepāja d.: Vītiņi, 6 September 1995 (1, on *Salix*, leg. N. Savenkovs); Rēzekne d.: Īdeņa env., 56°44'38"N 26°55'11"E, 6 July 2008 (7, swampy bank of Lake Lubāns, on *Salix*, leg. A. Bukejs, M. Balalainis); Talsi d.: Krievragciems, 20 June 1958 (1, leg. J. Zariņš).

Host plants: *Salix* (mostly on *S. viminalis*, *S. aurita*, *S. fragilis* and *S. rosmarinifolia*).

Phenology: V, VI, VII, IX.

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

Note: Rare species in Latvia.

subgenus *Chrysomela* s. str.***Ch. populi* Linnaeus, 1758**

References: Precht 1818; Seidlitz 1872–1875, 1887–1891 (*Lina*); Ulanowski 1883 (*Melasoma*); Sintenis 1900 (*Lina*); Rathlef 1905 (*Melasoma*); Brammanis 1930 (*Melasoma*); Danka 1950 (*Melasoma*); Trauberga 1957 (*Melasoma*); Rupais 1959 (*Melasoma*); Šmits and Spurris 1966 (*Melasoma*); Danka and Stiprais 1972; Pūtele 1974, 1977, 1980, 1981a, b, 1982, 1984 (*Melasoma*); Stiprais 1977 (*Melasoma*); Barševskis 1988, 1993, 2002; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Bukejs and Telnov 2007.

Examined material: 209 specimens: Aizkraukle d.: 6 km N Aizkraukle, Aizkraukles purvs (bog) PNT, 1 July 2008 (1, leg. A. Pankjāns), 6 August 2008 (1, leg. A. Bukejs, M. Balalainis); Ērberģe, 12 August 2008 (1, leg. A. Barševskis), 6 August 2009 (1, leg. A. Barševskis); Mežezers, 18 July 2008 (4, leg. A. Barševskis); Rīteri, 14 June 2006 (1, leg. A. Barševskis), 20 June 2006 (1, leg. A. Barševskis); Valle, 12 August 2008 (1, leg. A. Barševskis); Balvi d.: Kuprava, 19 May 1991 (1, leg. A. Barševskis), 10 July 1991 (1, leg. A. Barševskis); Bauska d.: Bārbele, 28 May 2009 (1, leg. A. Barševskis); Skaistkalne, 19 June 2009

- (2, leg. A. Barševskis); Cēsis d.: Dzērbene, 3 July 2006 (4, leg. A. Barševskis, U. Valainis, A. Pankjāns); Daugavpils d.: Butiški, 27 May 2007 (2, valley of the Daugava River, leg. A. Bukejs); Daugavpils, Ruģeļi, 16 May 2006 (1, leg. V. Kokina); Demene, Kurcums env., 6 June 2008 (2, leg. A. Barševskis); Dviete, 3 June 2007 (4, leg. A. Barševskis), 22 June 2008 (4, forest, leg. A. Barševskis), 25 June 2008 (1, forest, leg. A. Barševskis), 20 July 2008 (1, forest, leg. A. Barševskis); Ilgas, Silene Nature Park, 1986 (2, leg. A. Barševskis), 28 May 1991 (2, leg. A. Barševskis), 15 June 1995 (1, leg. A. Barševskis), 16 June 1995 (1, leg. A. Barševskis), 29 April – 10 July 2000 (2, leg. L. Ņikitina), 9 July 2001 (1, leg. G. Lociks), 18 May 2005 (2, leg. A. Barševskis), July 2005 (1, leg. A. Barševskis), 17 July 2005 (1, leg. A. Barševskis), 4 August 2005 (1, leg. A. Barševskis), 7 September 2005 (1, leg. A. Barševskis), 10 May 2006 (1, leg. A. Barševskis), 1–5 June 2006 (1, leg. A. Barševskis), 5–10 June 2006 (1, leg. M. Verdenfelde), 5–10 June 2006 (1, leg. L. Jakubāne), 25–27 June 2008 (1, leg. J. Staskeviča), 28–29 June 2007 (2, leg. A. Barševskis), 27 June – 3 July 2007 (1, leg. I. Rancāne, A. Berziņš), 29 June – 6 July 2007 (1, leg. R. Cibuļskis), 1–3 July 2008 (2, leg. J. Kundziņš), 8 June 2009 (1, leg. J. Staskeviča); Krauja, 29 May 2007 (3, old clearing, leg. A. Bukejs); Līksna, 23 July 1994 (6, leg. R. Cibuļskis); Līksna parish, 2 km N Daugavpils, 4 May 2008 (2, inland dunes, edge of pine forest, on *Salix*, leg. A. Bukejs), 17 May 2008 (1, edge of pine forest, leg. A. Bukejs); Līksna parish, 4 km N Daugavpils, 29 June 2009 (10, edge of pine forest and old clearing, on *Salix*, leg. A. Bukejs); Lūbaste env., near Rīga-Krāslava beltway, 1 July 1995 (3, xeric meadow, leg. A. Barševskis), 16 June 2005 (6, leg. A. Barševskis), 2 June 2007 (2, leg. A. Barševskis, K. Barševska), 11 May 2008 (3, clearing, leg. A. Barševskis), 8 June 2008 (1, clearing, leg. A. Barševskis), 20 June 2008 (4, clearing, leg. A. Barševskis), 1 July 2008 (1, clearing, leg. A. Barševskis), 22 July 2008 (1, inland dunes, leg. A. Barševskis); Līksna parish, Mežciems env., 15 June 2006 (3, leg. A. Barševskis); Medumi, Kurcums, 18 May 2009 (1, leg. A. Anichtchenko); Šedere, Straumēni house, 10–11 May 2008 (1, leg. M. Janovska); Stropi, 3 June 2006 (4, edge of forest, on *Populus tremula*, leg. A. Bukejs), 9 June 2006 (1, leg. A. Bukejs), 25 May 2007 (8, old cutting area, on young *Populus tremula*, leg. A. Bukejs), 2 May 2008 (1, leg. A. Bukejs); Vabole, 10 July 1994 (3, leg. R. Cibuļskis), 20 July 1994 (1, leg. R. Cibuļskis), 5 August 1994 (1, leg. R. Cibuļskis); Gulbene d.: Lejasciems, August 2003 (1, burnt area, leg. I. Kampāne and A. Barševskis), 11 July 2004 (1, leg. A. Barševskis); Gulbītis, Lake Ūšurs env., 5 August 2004 (1, leg. A. Barševskis, U. Valainis), 8 June 2005 (1, leg. A. Barševskis), 11 August 2005 (1, leg. A. Barševskis); Velēna, 10 June 1972 (1, bank of the Gauja River, bushes, leg. V. Melecis); Jēkabpils d.: Dignāja, 12 July 2009 (1, leg. M. Balalaikins); Dunava, 16 July 1995 (1, leg. A. Barševskis), 8 April 2007 (1, pine forest, leg. A. Barševskis), 1–8 June 2009 (2, leg. K. Barševska); Gārsene, 25 June 2005 (7, leg. A. Barševskis); Jēkabpils, 8 August 2008 (2, leg. A. Barševskis); Mežāre, 4 September 2009 (1, leg. M. Balalaikins); Rubeņi, 18 July 1997 (1, leg. I. Leiskina); Tadenava, 16 June 2006 (2, leg. A. Barševskis), 29 June 2008 (1, clearing, leg. A. Barševskis); Viesīte, 8 August 2008 (2, clearing, leg. A. Barševskis); Jelgava d.: Zaļenieki, 7 July 1972 (1, clearing, on *Populus tremula*, leg. V. Melecis); 5 km SW Zaļenieki, Pūteļi house, 23 May 1974 (1, dry forest edge, leg. V. Melecis); Krāslava d.: Sauleskalns hill, 4.5 km NE Kombuļi, 4 May 2008 (2, leg. K. Barševska, A. Barševskis); Šķeltova, 5 July 1986 (4, leg. A. Barševskis), 3 June 2008 (1, leg. A. Barševskis), 11 August 2009 (1, leg. A. Barševskis); Kuldīga d.: Skruna, 5 September 2008 (1, leg. R. Orlovskis, A. Barševskis); Ludza d.: Isnaudas parish, Gāgari env., 5 May 2007 (1, mixed forest, leg. A. Bukejs); Madona d.: Bērzaune, 7 July 2006 (1, leg. A. Pankjāns, E. Rudāns, A. Barševskis); Jamurda, Lake Lācīšu env., 19 July 2008 (2, leg. A. Barševskis); Kalsnava, 7 May 2002 (1, leg. M. Bičevskis); Mārciena, near the Arona River, 7 July 2006 (1, leg. A. Pankjāns, A. Barševskis); Preiļi d.: Jersika, Kurpnieki house, 22 May 2005 (2, leg. A. Barševskis), 20 May 2006 (1, leg. K. Barševska), 23–24 June 2006 (1, leg. K. Barševskis), 25 July 2009 (1, leg. A. Barševskis); Rēzekne d.: Gaigalava, 15 July 2009 (2, old clearing, leg. A. Bukejs, M. Balalaikins); Lūznava env., Zosna, Rāzna National Park, 24 July 2008 (2, leg. R. Cibuļskis, U. Valainis); Teirumnieki, 15 July 2009 (1, clearing, leg. M. Balalaikins, A. Bukejs); Stoļerova, Lake Šostu env., 29 July 2009 (1, clearing, leg. M. Balalaikins); Rīga d.: Bajāri, 28 June 2008 (3, clearing, leg. A. Barševskis); Baldone, 20 August 2008 (1, leg. A. Barševskis); Saulkalne, 20 May 2006 (2, leg. A. Barševskis); Saldus d.: Brocēni, 5 September 2008 (1, leg. A. Barševskis, R. Orlovskis); Talsi d.: Kaļķi, Kaļķupes ieleja PNT, 13 July 2009 (1, leg. A. Barševskis, R. Cibuļskis); Krievragciems, 20 June 1958 (1, J. Zariņš); Mazirbe, Baltic Sea dunes, 26 June 2006 (3, seashore, leg. A. Barševskis, U. Valainis, A. Pankjāns); Slītere, June 2002 (1, leg. A. Barševskis); Stende, 57°07'19"N 22°32'26"E, 19 July 2007 (2, clearing in pine forest, leg. A. Barševskis, U. Valainis, A. Pankjāns, A. Soldāns); Valmiera d.: Burtnieku parish, Briede vill., 57°39'58"N 25°13'54"E, 21 August 2006 (3, leg. A. Barševskis); Sprosti house, 57°34'58"N 25°20'15"E, 21 August 2006 (2, leg. A. Pankjāns); Vent-

spils d.: Blāzma, 29 July 1974 (1, roadside, leg. V. Melcis), 22 August 2008 (2, clearing, leg. U. Valainis, K. Aksjuta, A. Barševskis); Moricsala Isl., Moricsala Nature Reserve, 29 June 2002. (2, leg. U. Valainis), 26 June 2004 (1, leg. A. Barševskis); ? d.: Rudzāti, 1994 (1, leg. V. Postars).

Host plants: *Populus*, *Salix* (mostly on *P. tremulae*, *P. alba*, *S. viminalis*, *S. purpurea*).

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

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

Note: very common and widely distributed species in Latvia.

Ch. tremula Fabricius, 1787

syn.: *tremulae* Paykull, 1799; *longicollis* Suffrian, 1851

References: Precht 1818; Seidlitz 1872–1875, 1887–1891 (*Lina*); Ulanowski 1883 (*Melasoma*); Sintenis 1899 (*Lina*); Rathlef 1905 (*Melasoma*); Trauberga 1957 (*Melasoma*); Šmits and Spuris 1966 (*Melasoma*); Pūtele 1974, 1977, 1980, 1981a, b, 1982, 1984 (*Melasoma*); Stiprais 1977 (*Melasoma*); Barševskis 1988, 1993, 2002; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Bukejs and Telnov 2007.

Examined material: 176 specimens: Aizkraukle d.: Aizkraukle N env., 4 May 1995 (6, clearing and forest, leg. A. Barševskis); Bauska d.: Bārbele, 28 May 2009 (1, leg. A. Barševskis); Zvirgzde, 6 August 2009 (2, leg. A. Barševskis); Cēsis d.: Dzērbene, 3 July 2006 (21, leg. A. Barševskis, U. Valainis, A. Pankjāns); Daugavpils d.: Butiški, 27 May 2007 (1, valley of the Daugava River, leg. A. Bukejs); Demene, Kurcums, 2 June 2008 (4, leg. A. Barševskis); Dviete env., near Kinkauskū mire, 22 June 2008 (3, forest, leg. A. Barševskis), 25 June 2008 (2, leg. A. Barševskis), 23 July 2008 (1, clearing, leg. A. Barševskis), 10 August 2008 (1, clearing, leg. A. Barševskis); Ilgas, Silene Nature Park, 1984 (1, leg. A. Barševskis), 6 June 1988 (1, leg. A. Barševskis), 6–8 June 1988 (1, leg. A. Barševskis), 1 July 1989 (1, leg. A. Barševskis), 6 June 1996 (1, leg. A. Barševskis), 28 May 1999 (1, leg. A. Barševskis), 19–22 June 2006 (1, leg. E. Rudāns); Līksna, 25 June 1994 (1, leg. R. Cibulskis); Ļubāste env., near Daugavpils beltway, 16 June 2005 (1, inland dunes, leg. A. Barševskis), 15 June 2006 (2, leg. A. Barševskis), 8 June 2008 (2, clearing, leg. A. Barševskis), 20 June 2008 (5, clearing, leg. A. Barševskis), 5 June 2009 (1, leg. A. Barševskis); Nīcgale, 13 May 1995 (17, clearing, leg. A. Barševskis); Oborūni env., 29 July 2009 (2, clearing, leg. A. Bukejs); Randene, 26 June 2008 (1, leg. M. Janovska); Stropi, 25 May 2007 (1, old clearing, leg. A. Bukejs); Gul-

bene d.: Gulbītis, Lake Ušurs env., July 2003 (2, burnt area, leg. O. Koškina and A. Barševskis), August 2003 (7, burnt area, leg. O. Koškina and A. Barševskis); Lejasciems, August 2003 (1, burnt area, leg. I. Kampāne and A. Barševskis), June 2004 (1, burnt area, leg. A. Barševskis), 11 July 2004 (1, leg. A. Barševskis), June 2005 (1, window trap, leg. A. Barševskis, J. Laizāns); Jēkabpils d.: Ābeļu parish, Laši env., 3 June 2007 (1, clearing, leg. M. Balalaikins); Dunava, 29 June 2008 (2, clearing, leg. A. Barševskis); Tadenava, 11 July 2002 (1, leg. A. Barševskis), 16 June 2006 (3, leg. A. Barševskis); Vandāni, 16 August 2008 (1, bank of the Daugava River, leg. M. Balalaikins); Viesīte, 8 August 2008 (2, clearing, leg. A. Barševskis); Jūrmala: Dzintari, 56°58'17"N 23°49'35"E, 24 June 2009 (1, leg. R. Cibulskis); Krāslava d.: Krāslava, 16 June 1987 (1, leg. A. Barševskis); Madona d.: Bērzaune, 7 July 2006 (3, leg. A. Pankjāns, E. Rudāns, A. Barševskis); Ērgļi, 19 July 2008 (3, leg. A. Barševskis); Krustkalni Nature Reserve, 10 July 2005 (15, leg. J. Laizāns, A. Barševskis), 11 August 2005 (2, leg. A. Bukejs, A. Barševskis, J. Laizāns), August–September 2006 (1, leg. A. Barševskis); Ezernieki house, Lake Lubāns PNT, 21 August 2008 (4, leg. A. Barševskis); Preiļi d.: Jersika, Kurpnieki house, 20 July 1993 (2, leg. A. Barševskis), 13 May 2008 (1, leg. A. Barševskis); Rēzekne d.: Teirumnieki, 15 July 2009 (5, clearing, leg. M. Balalaikins, A. Bukejs); Rīga d.: Bajāri, 28 June 2008 (5, clearing, leg. A. Barševskis); Garupe, 7 June 1992 (2, forest, leg. M. Kalniņš); Saulkrasti, 4 July 1993 (1, leg. anonymous); Talsi d.: Mazirbe, 26 June 2006 (1, Baltic Sea dunes, leg. A. Barševskis, U. Valainis, A. Pankjāns); Pūnas, 11 July 2004 (1, leg. A. Barševskis); Stende, 57°07'19"N 22°32'26"E, 19 July 2007 (2, pine forest clearing, leg. A. Barševskis, U. Valainis, A. Pankjāns, A. Soldāns); Valka d.: Liepniekvalka, 10 July 2004 (1, leg. A. Barševskis, R. Cibulskis); Valmiera d.: Burtnieku parish, Briede vill., 57°39'58"N 25°13'54"E, 21 August 2006 (18, leg. A. Barševskis); Ventspils d.: Blāzma, 57°21'12"N 22°04'47"E, 22 August 2008 (5, clearing and edge of forest, leg. A. Barševskis, K. Aksjuta, U. Valainis).

Host plants: *Populus*, *Salix* (mostly on *P. tremulae*).

Phenology: V, VI, VII, VIII.

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

Note: very common.

Ch. saliceti Suffrian, 1849

References: Seidlitz 1872–1875, 1887–1891 (*Lina*); Heyden 1903 (*Melasoma*); Rathlef 1905 (*Melasoma*); Pūtele 1976, 1977, 1980, 1981a, b, 1982, 1984 (*Melasoma*); Stiprais 1977 (*Melasoma*); Barševskis 1988,

1993, 2001, 2002; Telnov *et al.* 1997; Leiskina 1999; Barševskis *et al.* 2004; Telnov 2004; Kalniņš *et al.* 2007.

Examined material: 58 specimens: Aizkraukle d.: Valle, 12 August 2008 (2, leg. A. Barševskis); Daugavpils d.: Butišķi, 26 May 2008 (7, valley of the Daugava River, leg. A. Bukejs), 1 July 2009 (3, valley of the Daugava River, on *Salix*, leg. A. Bukejs, M. Balalaikins); Ilgas, Silene Nature Park, 18 June 1996 (1, leg. A. Barševskis), June 2003 (1, leg. A. Barševskis); Līksna, 14 June 1994 (1, leg. R. Cibuļskis), 25 June 1994 (1, leg. R. Cibuļskis), 17 July 1994 (1, leg. R. Cibuļskis), 26 May 1995 (5, leg. R. Cibuļskis), 8 July 1995 (1, leg. R. Cibuļskis); Vabole, 4 April 1994 (2, leg. R. Cibuļskis), 14 June 1994 (2, leg. R. Cibuļskis), 1 April 1995 (5, leg. R. Cibuļskis); Jēkabpils d.: Dunava, 23 April 2000 (13, leg. A. Barševskis); Rubeņi, 2 May 1998 (1, leg. I. Leiskina); Jūrmala: Asari, 10 June 1993 (1, leg. anonymous); Jelgava d.: Zaļenieki, 7 June 1972 (1, bank of the Svēte River, leg. V. Pūtele); Liepāja d.: Pāvilosta, 13 August 2008 (2, dunes, leg. A. Barševskis); Rēzekne d.: Īdeņa env., 56°44'38"N 26°55'11"E, 6 July 2008 (8, bank of Lake Lubāns, on *Salix*, leg. A. Bukejs, M. Balalaikins); Valaka d.: Trikāta, 15 May 1993 (1, leg. anonymous).

Host plants: *Salix*, *Populus*.

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

General distribution: Europe, W Siberia, Tuva, Kazakhstan, Mongolia. [SIE]

Note: Rather infrequent.

An illustrated key to the Latvian species of the genus *Chrysomela* (after Bienkowski 2004 with modification)

1 (2) Humeral callus not delimited with depression interiorly. Elytra without row of punctures between lateral callus and exterior border of epipleura. Body blackish-blue, lateral sides of pronotum yellow or rufous with small black spot; elytra blue, violet or bronze. Length 5.5–8.1 mm. General view Fig. 1. *Ch. collaris* L., 1758

2 (1) Humeral callus prominent, delimited with depression interiorly.

3 (8) Elytra metallic throughout or yellow with black or metallic spots, rarely unicolorous rufous with metallic lustre.

4 (5) Upper side of tibia with longitudinal groove only in apical half. Pronotum blackish-green with yellow lateral sides. Elytra yellow usually with sutures and with 10 dark green or black spots on each elytron,

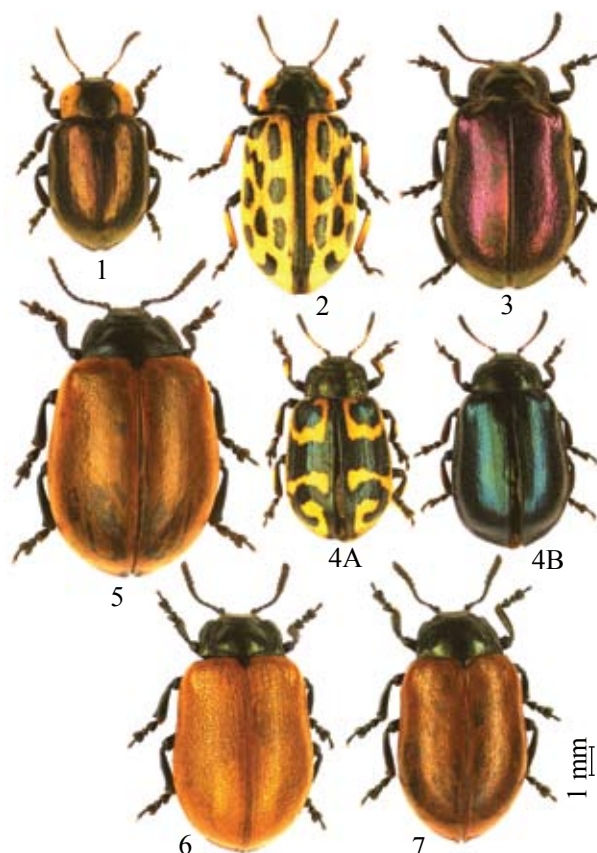
pattern is variable. Length 6.5–9.2 mm. General view Fig. 2. *Ch. vigintipunctata* (Scop., 1763)

5 (4) Upper side of tibia with longitudinal groove along entire length. Pronotum unicolorous dark metallic.

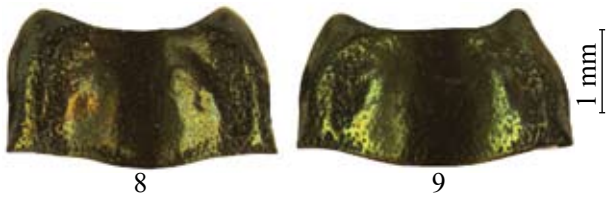
6 (7) Pronotum with fine longitudinal mid groove. Blackish-green or blackish-bronze throughout or elytra violet or coppery, more rarely elytra rufous with metallic lustre. Length 7.0–11.0 mm. General view Fig. 3. *Ch. cuprea* F. 1775

7 (6) Pronotum without longitudinal mid-groove. Dark blue, bluish-green or blackish-green; elytra rufous with bluish-green pattern (sutural stripe, basal spot or transverse band, mid-transverse band and hook-shaped apical marking) or entirely bluish-green; pattern is variable. Aedeagus (Fig. 14). Length 5.0–8.9 mm. General view Fig. 4. *Ch. lapponica* L., 1758

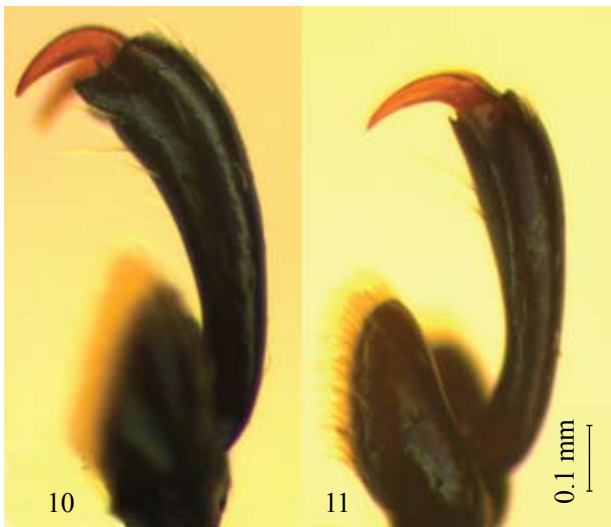
8 (3) Elytra unicolorous, red or rufous.



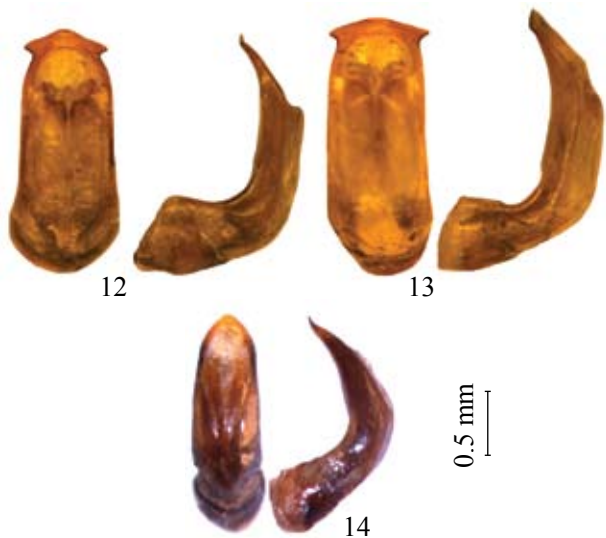
Figures 1–7. Habitus, dorsal: 1 – *Ch. collaris* L., 2 – *Ch. vigintipunctata* (Scop.), 3 – *Ch. cuprea* F., 4 – *Ch. lapponica* L. (A – nominotypical form, B – *ab. bulgharensis*), 5 – *Ch. populi* L., 6 – *Ch. tremulae* F., 7 – *Ch. saliceti* Sffr.



Figures 8–9. Pronotum, dorsal: 8 – *Ch. tremulae* F., 9 – *Ch. saliceti* Sffr.



Figures 10–11. 4th tarsomere, lateral: 10 – *Ch. tremulae* F., 11 – *Ch. saliceti* Sffr.



Figures 12–14. Aedeagus, dorsal and lateral: 12 – *Ch. tremulae* F., 13 – *Ch. saliceti* Sffr., 14 – *Ch. lapponica* L.

9 (10) Elytra with one row of punctures between laterall callus and exterior border of epipleura. Sutural corners of elytra with small black spot. Length 9.0–13.0 mm. General view Fig. 5. *Ch. populi* L., 1758

10 (9) Elytra with two rows of punctures between lateral callus and exterior border of epipleura. Sutural corners of elytra usually without black spot (in some specimens it is slightly darkened).

11 (12) 4th tarsomere with two small apical denticles beneath (Fig. 10). Lateral borders of pronotum usually straight or slightly emarginate (Fig. 8). Aedeagus (Fig. 12). Length 7.5–10.0 mm. General view Fig. 6. *Ch. tremulae* F., 1787

12 (11) 4th tarsomere without denticles beneath (Fig. 11). Lateral borders of pronotum usually convex (Fig. 9). Aedeagus (Fig. 13). Length 6.0–9.0 mm. General view Fig. 7. *Ch. saliceti* Sffr., 1849.

ACKNOWLEDGEMENTS

The author is grateful to Kristīna Aksjuta, Alexander Anichtchenko, Arvīds Barševskis, Raimonds Cibuļskis, Marina Janovska, Ainārs Pankjāns, Uldis Valainis (Daugavpils University Institute of Systematic Biology, Daugavpils, Latvia), Maksims Balalajkins (Rēzekne, Latvia), Jānis Donis (Salaspils, Latvia), Aleksandrs Titovs (Rīga, Latvia), Katrīna Barševska, Iveta Leiskina (Daugavpils, Latvia) and to the students of Daugavpils University for the presented material. Special thanks are given to Andrzej O. Bieńkowski (Moscow, Russia) and Andrzej Warchałowski (Wrocław, Poland) for valuable comments.

REFERENCES

Barševskis, A. 1988. Faunal investigations on beetles in various habitats of the south-eastern part of Latvia. In: *Ecological education in secondary schools*, pp. 63–75. Daugavpils: DPI. [Баршевский, А. 1988. Фаунистические исследования жуков юго-восточной части Латвии в различных биотопах. В кн.: *Экологическое воспитание в средней и высшей школе*, сс. 63–75. Даугавпилс: ДПИ.]
 Barševskis, A. 1993. *The Beetles of Eastern Latvia*. Saule: Daugavpils (in Latvian, English summary).
 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 kārta (Coleoptera). In: A. Barševskis, N. Savenkovs, P. Evarts-Bunders, I. Daniele, G. Pētersons, V. Pilāts, E. Zviedre, D. Pilāte, M., Kalniņš, K. Vilks and A. Poppels (eds) *Silenes dabas*

- parka fauna, flora un veģetācija*: 37–60. Daugavpils: Baltijas Koleopteroloģijas institūts (in Latvian).
- Barševskis, A., Spuriņš, G. and Oga, A. 1992. Riču ezera salu vaboļu fauna. *LDPAB DPU org. IB*, 2: 11.
- Barševskis, A., Valainis, U., Bičevskis, M., Savenkovs, N., Cibulskis, R., Kalniņš, M. and Strode, N. 2004. Faunistic records of the beetles (Hexapoda: Coleoptera) in Latvia. 1. *Acta Biologica Universitatis Daugavpiliensis* 4 (2): 93–106.
- Bieńkowski, A. O. 1999. *Guide to the identification of leaf-beetles (Coleoptera: Chrysomelidae) of the Eastern Europe*. Moscow: Tehpoligrafcentr (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.
- Borowiec, L. 2004. The Leaf Beetles (Chrysomelidae) of Europe and the Mediterranean Subregion (Checklist and Iconography). <http://www.biol.uni.wroc.pl/casidae/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.
- Bukejs, A. 2009a. On Latvian Chrysomelinae (Coleoptera: Chrysomelidae). 1. Genus *Phratora* Chevrolat, 1836. *Acta Zoologica Lituanica* 19 (4): 253–262.
- Bukejs, A. 2009b. To the knowledge of Latvian Chrysomelinae (Coleoptera: Chrysomelidae). *Acta Biologica Universitatis Daugavpiliensis* 9 (2): 135–151.
- Bukejs, A. and 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.
- Danka, L. 1950. *Derīgas un kaitīgas vaboles*. Rīga: Latvijas Valsts Izdevniecība (in Latvian).
- Danka, L. and Stiprais, M. 1972. Einige Angaben über Insektenfauna der Gartenkolonie „Dārziņi“ bei Rīga. *Zooloģijas muzeja raksti* 8: 45–64 (in Latvian, German summary).
- Fischer, J. B. 1784. Zusätze zu seinem „Versuch einer Naturgeschichte von Livland“. In: J. J. Febers (ed.) *Anmerkungen zur physischen Erdbeschreibung von Kurland, nebst J. B. Fischers Zusätzen zu einem Versuch einer Naturgeschichte von Livland*. Riga.
- Fischer, J. B. 1791. *Versuch einer Naturgeschichte von Livland. 2. Auflage*. Königsberg: Friedrich Nicolobius.
- 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.
- Hayashi, M., Morimoto, K. and Kimoto, Sh. (eds) 1984. *The Coleoptera of Japan in Color*. Volume IV. Japan: Hoikusha Publishing Co. (in Japanese).
- Heyden, L. 1903. Beiträge zur Coleopteren-Fauna der nordwestlichen Teile Russlands. *Korrespondenzblatt des Naturforscher-Vereins zu Riga* 46: 18–35.
- Kalniņš, M., Juceviča, E., Karpa, A., Salmāne, I., Poppels, A. and Teļnovs, D. 2007. Invertebrates. In: V. Pilāts (ed.) *Biodiversity in Gauja National Park*, pp. 106–149. Sigulda: Gauja National Park Administration.
- Lackschewitz, T. and Mikutowicz, J. 1939. Zur Koleopterenfauna des ostbaltischen Gebietes, II. *Korrespondenzblatt des Naturforscher-Vereins zu Riga* 63: 48–76.
- Leiskina, I. 1999. Materiāli par Latvijas faunai retām un mazpazīstamām vaboļu (Coleoptera) sugām. *Daugavpils Pedagoģiskās universitātes 7. Ikgadējās zinātniskās konferences Rakstu krājums A9 (Dabaszinātnes, dabaszinātņu didaktika, matemātika, datorzinātne)*: 98–99. Daugavpils, Saule: DPU.
- Lopatin, I. K. 1977. *Leaf-beetles (Chrysomelidae) of Central Asia and Kazakhstan*. Leningrad: Nauka. [Лопатин, И. К. 1977. Жуки-листоеды (Chrysomelidae) Средней Азии и Казахстана. Ленинград: Наука.]
- Lopatin, I. K. 1986. *Leaf-beetles of Belarus and eastern Baltia*. Minsk: Vishejskaja shkola. [Лопатин, И. К. 1986. Жуки-листоеды фауны Белоруссии и Прибалтики: Определитель. Минск: Вышэйшая школа.]
- Lopatin, I. K. and Kulenova, K. Z. 1986. *Leaf-beetles (Coleoptera, Chrysomelidae) of Kazakhstan*. Alma-Ata: Nauka. [Лопатин, И. К., Куленова, К. З. 1986. Жуки-листоеды (Coleoptera, Chrysomelidae) Казахстана: Определитель. Алма-Ата: Наука.]
- Lopatin, I. K. and Nesterova, O. L. 2005. *Insecta of Byelarus: Leaf-Beetles (Coleoptera, Chrysomelidae)*. Minsk: Tehnoprprint (in Russian, English summary).
- Medvedev, L. N. 1992. Leaf beetles – Chrysomelidae. In: *Keys to Insects of Far East of SSSR. 3. Coleoptera* 2: 533–602. Sankt-Petersburg: Nauka. [Медведев, Л. Н. 1992. Листоеды – Chrysomelidae. В кн.: *Определитель насекомых Дальнего Востока СССР. Том 3. Жесткокрылые или жуки. Часть 2*: 533–602. Санкт-Петербург: Наука.]
- Medvedev, L. N. and Dubeshko, L. N. 1992. *Keys to leaf-beetles of Siberia*. Irkutsk: University of Irkutsk. [Медведев, Л. Н., Дубешко, Л. Н. 1992. *Определитель листоедов Сибири*. Иркутск: изд-во Иркутского университета.]
- Mohr, K. H. 1966. Chrysomelidae. In: H. Freude, K. Harde and G. Lohse (eds) *Die Käfer Mitteleuropas*. Band 9, *Cerambycidae und Chrysomelidae*, pp. 95–280. Krefeld: Goecke & Evers.
- Müthel, C. 1886. In den Jahren 1880–1885 neu aufge-

- fundenen Kaferarten unserer Gegend. *Korrespondenzblatt des Naturforscher-Vereins zu Riga* 29: 21–22.
- Pileckis, S. and Monsevičius, V. 1997. *Fauna of Lithuania: Beetles*, 2. Vilnius: Publishing House of Encyclopaedias and Scientific Literature. [Pileckis, S., Monsevičius, V. 1997. *Lietuvos Fauna. Vabalai*, 2. Vilnius: Mokslo ir enciklopedijų leidybos institutas.]
- 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)*. Riga: D. Müller.
- Priedītis, A. 1979. Species composition and significance of beetles in the apple tree canopy in Latvia. *Proceedings of the Latvian Agricultural Academy. Protection of plants from pests* 167: 19–25. [Приедитис, А. П. 1979. Видовой состав и значение жуков в кроне яблони в Латвии. *Труды Латвийской сельскохозяйственной академии* 167 (Защита растений от вредителей): 19–25.]
- Pūtele, V. O. 1974. Leaf-beetles (Coleoptera, Chrysomelidae) discovered in the surroundings of Jelgava city. In: *Brief reports of a scientific conference on the protection of plants. Saku, 2–4 1974* (2): 55–58. Tallinn. [Путеле, В. О. 1974. Листоеды (Coleoptera, Chrysomelidae), выявленные в окрестностях города Елгава. В кн.: *Краткие доклады научной конференции по защите растений, Саку, 2–4 1974 г.* (2): 55–58. Таллин.]
- Pūtele, V. O. 1976. Studies on biology of *Melasoma saliceti* Wse. (Col. Chrysomelidae) in year 1975. *Abstracts of reports of the scientific-practical conference 'Ways of implementation of progressive methods for the protection of agricultural plants, 28–30 June 1976'*: 125–127. Rīga: Rīga Polytechnical Institute Press. [Путеле, В. О. 1976. Исследование биологии красного ивового листоёда *Melasoma saliceti* Wse. (Col. Chrysomelidae) в 1975 году. *Тезисы докладов научно-практической конференции 'Пути внедрения прогрессивных методов защиты растений в сельскохозяйственное производство 28–30 июня 1976 г.'*: 125–127. Рига: Типография РПИ.]
- Pūtele, V. 1977. Pested leaf-beetles (Col. Chrysomelidae) in the genus *Melasoma* Steph. in the Latvian SSR. *Latvijas Lauksaimniecības akadēmijas raksti* 122: 45–49 (in Latvian).
- Pūtele, V. 1980. Lapgraužu (Coleoptera, Chrysomelidae) faunas pētījumi Slīteres valsts dabas rezervātā. *Slīteres rezervāta 1. Zinātniski praktiskā konference, referātu tēzes*: 18–21. Slītere (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).
- Pūtele, V. O. 1982. Pested leaf-beetles (Coleoptera, Chrysomelidae) of the Latvian SSR. *Latvijas Lauksaimniecības akadēmijas raksti* 200: 28–33. [Путеле, В. О. 1982. Вредные листоеды (Coleoptera, Chrysomelidae) Латвийской ССР. *Труды Латвийской сельскохозяйственной академии* 200: 28–33. (Борьба с вредителями и болезнями картофеля, плодовоовощных и полевых культур).]
- Pūtele, V. O. 1984. Leaf-beetles – pests of tree cultures in the Slītere State Nature Reserve. *Latvijas Lauksaimniecības akadēmijas raksti* 213: 9–15. [Путеле, В. О. 1984. Листоеды – вредители древесных культур в Государственном заповеднике «Слитере». *Latvijas Lauksaimniecības akadēmijas raksti* 213: 9–15.]
- Rathlef, H. 1905. *Coleoptera Baltica. Käfer-Verzeichnis der Ostseeprovinzen nach den Arbeiten von Ganglbauer und Reitter*. Dorpat: C. Mattiesen.
- Romantsov, P. V. 2007. A review of leaf beetles (Coleoptera, Chrysomelidae) of St. Petersburg and Leningrad province. *Entomological Reviews* 86 (2): 306–336. [Романцов, П. В. 2007. Обзор жуков-листоёдов (Coleoptera, Chrysomelidae) Санкт-Петербурга и Ленинградской области. *Энтомологическое обозрение* 86 (2): 306–336.]
- Rupais, A. 1959. *Dekoratīvo koku un krumu kaiteklī*. Rīga: Latvijas PSR Zinātņu Akadēmijas izdevniecība (in Latvian).
- Seidlitz, G. 1872–1875. *Fauna Baltica. Die Käfer (Coleoptera) der Ostseeprovinzen Russlands*. Dorpat: H. Laakmann.
- Seidlitz, G. 1887–1891. *Fauna Baltica. Die Käfer (Coleoptera) der deutschen Ostseeprovinzen Russlands. 2. Auflage*. Königsberg: Hartung'sche Verlagsdruckerei.
- Silfverberg, H. 2004. Enumeratio nova Coleopterorum Fennoscandiae, Daniae et Baltiae. *Sahlbergia* 9: 1–111.
- Sintenis, F. 1900. Forstinsecten der Ostseeprovinzen. *Sitzungsberichte der Naturforscher-Gesellschaft bei der Universität Dorpat*: 173–198.
- Stiprais, M. 1977. Faunistic data on the Chrysomelidae in Latvia. *Latvijas Entomologs* 20: 14–23 (in Latvian, German summary).
- Šmits, V. and Spuris, Z. 1966. Vaboles – Coleoptera. In: Z. Spuris (ed.) *Latvijas dzīvnieki*, pp. 177–187. Rīga: Zvaigzne.
- 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. and 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: D. Telnov (ed.) *Compendium of Latvian Coleoptera* 1: 1–114. Rīga: Petrovskis & Co.
- Telnov, D., Barševskis, A., Savich, F., Kovalevsky, F., Berdnikov, S., Doronin, M., Cibulskis, R. and Ratniece, D. 1997. Check-List of Latvian Beetles (Insecta: Coleoptera). *Mitteilungen des Internationalen Entomologischen Vereins*, Supplement V: 1–140.
- Trauberga, O. 1957. Coleoptera – vaboles. In: *Latvijas PSR dzīvnieku noteicējs* 1: 455–592. Rīga: Latvijas Valsts izdevniecība (in Latvian).
- Ulanowski, A. 1883. Z fauny coleopterologicznej Inflant Polskich. *Sprawozdanie Komisji Fizyjograficznej* 18: 1–60.
- Warchałowski, A. 2003. *The leaf-beetles (Chrysomelidae) of Europe and the Mediterranean region*. Warszawa: Natura optima dux Foundation.

APIE LATVIJOS LAPGRAUŽIUS (COLEOPTERA: CHRYSOMELIDAE): 2. GENTIS CHRYSOMELA LINNAEUS, 1758

A. Bukejs

SANTRAUKA

Straipsnyje aprašomos Latvijos lapgraužių rūšys, priklausančios genčiai *Chrysomela* Linnaeus, 1758. Iš viso buvo ištirti 634 šios genties individai. Bibliografinė medžiaga apie šios genties lapgraužius Latvijoje apibendrinta pirmą kartą. Pateiktas septynių šios genties rūšių sąrašas ir iliustruotas jų apibūdinimo raktas.

Received: 29 October 2009

Accepted: 15 January 2010