

To the knowledge of flea beetles (Coleoptera: Chrysomelidae: Alticinae) of the Latvian fauna. 5. Genus *Psylliodes* LATREILLE, 1825

ANDRIS BUKEJS

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

BUKEJS A., 2009. TO THE KNOWLEDGE OF FLEA BEETLES (COLEOPTERA: CHRYSOMELIDAE: ALTICINAE) OF THE LATVIAN FAUNA. 5. GENUS *PSYLLIODES* LATREILLE, 1825. – *Latvijas Entomologs*, 47: 6-15.

Abstract: Faunal data on eight species of the genus *Psylliodes* LATREILLE, 1825 are presented. 432 individuals of this genus were examined. The information published on this flea beetle genus are summarized for the first time in Latvia. Two species, *P. cupreata* (DUFTSCHMID, 1825) and *P. reitteri* WEISE, 1888 are deleted from the list of Latvian Coleoptera. The annotated list of Latvian species of flea beetles is given, including 12 species of the genus *Psylliodes* LATREILLE, 1825.

Key words: Coleoptera, Chrysomelidae, Alticinae, *Psylliodes*, fauna, bibliography, Latvia.

Introduction

There are 137 species and subspecies of the genus *Psylliodes* known from the Palaearctic region (Gruev, Döberl 1997). Of them, 31 species are reported for Eastern Europe (Bieńkowski 2004) and 18 species are known in the Northern Europe (Silfverberg 2004).

Hitherto, in the second edition of checklist of Latvian beetles (Telnov 2004) 14 species of *Psylliodes* were reported, one species (*P. deplanata* L.MEDVEDEV, 1962) was excluded, and species *P. tricolor* WEISE, 1888 was mentioned as possible species for the Latvian fauna. The number of recorded species from this genus slightly varies in adjacent territories: in Belarus – 12 species (Lopatin, Nesterova 2005), in Estonia – 11 species, in Lithuania – 12 species (Silfverberg 2004), in St.-Petersburg and Leningrad region (western Russia) – 9 species (Romantsov 2007).

The first data on flea beetles species of the genus *Psylliodes* in Latvia was published in the beginning of the 19th century (Precht 1818; Fleischer 1829). Subsequently, more than 20 papers have been published in Latvia. Pūtele (1968a) provided information on 10 species of *Psylliodes* in Latvia. Faunal data can also be found in the following articles: Pūtele 1968b, 1970b, 1974, 1981a; Barševskis 1993; Telnov 2002; Bukejs, Telnov 2007.

Imago of genus *Psylliodes* feed on leaves of plants: mostly on herbaceous Cruciferae, Solanacea, Compositae and others, rarely on *Quercus*, *Ulmus*, *Carpinus* and *Corylus*. Larvae occur on roots or within the stems, pupate in the soil (Bieńkowski 2004).

Some species of this genus are pests of cultivated plants (Kryzhanovskij 1974). In Latvia *P. cucullata* (ILLIGER, 1807) is reported as a pest of cereal crops (Pūtele 1975).

This paper continues our study on flea beetles of the Latvian fauna (Bukejs 2008a, 2008b, 2009a, 2009b).

The aim of this paper is to summarize data on genus *Psylliodes* in Latvia. The literature data on this flea beetle genus in Latvia are summarized. The faunal data on seven species are presented. Two species, *P. cupreata* (DUFTSCHMID, 1825) and *P. reitteri* WEISE, 1888 are deleted from the list of Latvian Coleoptera. In the article also the annotated list of Latvian species has been published. Altogether, 12 species *Psylliodes* LATREILLE, 1825 are reported in Latvia.

Methods

432 individuals of flea beetles were reviewed in this investigation, representing eight species of genus *Psylliodes*. The material reviewed in this paper is stored in the collection

of Daugavpils University, Institute of Systematic Biology (DUBC), and in the private collection of Dmitry Telnov (Rīga, Latvia).

The following identification keys have been used: Bieńkowski 2004, Lopatin, Nesterova 2005, Mohr 1966, Nadein 2007c, Warchałowski 2003. We follow the systematics suggested by Silfverberg (2004). The Catalogue of Palaearctic Flea Beetles (Gruev, Döberl 1997) and papers (Nadein 2007a, 2007b) were used for the nomenclature and synonymies.

Host plants are listed according to Lopatin, Nesterova (2005). Characteristic of distribution of species is given according to Bieńkowski (2004), Borowiec (2004), Gruev & Döberl (1997), Lopatin 1977, 1986, Lopatin & Kulenova 1986, Lopatin & Nesterova (2005), Medvedev & Dubeshko (1992) and Warchałowski (2003).

Classification of chorotypes is made according to Taglianti et al. (1999). The abbreviations of chorotypes codes: PAL – Palaearctic, WPA – West Palaearctic, ASE – Asiatic-European, CEM – Centralasiatic-European-Mediterranean, CAE – Centralasiatic-European, TEM – Turano-European-Mediterranean, TUE – Turano-European, EUM – European-Mediterranean.

The following data are given for each species: Latin name, bibliographical source for Latvia, additional faunal data (locality, collecting date, number of collected individuals in parentheses, information on the habitat and collector's name abbreviation), host plant, general distribution and the code of the chorotype.

Some species are marked with a dash (-) in the list. These species have been reported for Latvian fauna, but their records are questioned the Baltic region. These species are herewith excluded from the list of Latvian Coleoptera.

Explanations of used abbreviations: d. – district, env. – environs, Isl. – island, C – central, S – South, N – North, E – East, W – West, fr. – skeletal fragments of beetles, num. – numerous individuals (more than 10). Collector's name abbreviation: A.A. – A.Anichtchenko, A.Ba. – A.Barševskis, A.Bu. – A.Bukejs, A.K. – A.Karpa, A.P. – A.Pankjāns, C.F. – C.Fägerström, D.T. – D.Telnov, E.R. – E.Rudāns, F.S. – F.Savičs, K.A. – K.Aksjuta, K.B. – K.Barševska, I.L. – I.Leiskina, I.S. – I.Salmane, J.S. – J.Staskeviča, M.B. – M.Balalaikins, M.J. – M.Janovska (M.Murd), N.S. – N.Savenkov, V.S. –

V.Spunģis, U.V. – U.Valainis.

Results

The study reviewed 432 individuals belonging to eight species of the genus *Psylliodes*. Two species, *P. cupreata* (DUFTSCHMID, 1825) and *P. reitteri* WEISE, 1888 are excluded from the list of Latvian Coleoptera. The list of species of Latvian fauna now includes 12 species.

The check-list of Latvian Coleoptera (Telnov et al. 1997) contains species *P. deplanata* L.MEDVEDEV, 1962 but in the second edition of check-list (Telnov 2004) this species was excluded. The species is endemic of Caucasus. Therefore it is not mentioned in the current list.

A list of species of the Latvian fauna

Psylliodes LATREILLE, 1825

Syn.: *Macrocnema* STEPHENS, 1829

Subgenus *Psylliodes* s. str.

P. affinis (PAYKULL, 1799)

Syn.: *exoleta* ILLIGER, 1807 nec LINNAEUS, 1761

References: Seidlitz 1872-1875, 1887-1891; Rathlef 1905; Palij 1958; Pūtele 1968a, 1970a, 1970b, 1971; Barševskis 1993; Telnov et al. 1997; Telnov 2004.

Examined material: 24 ind.: Balvi d.: Kuprava, 28.08.1994 (1, A.Ba.); Daugavpils d.: Daugavpils env., E bank of Lale Ļubasts, 29.06.2006 (1, D.T.); Ilgas, Silene Nature Park, 28.06.1994 (1, on *Solanum*, A.Ba.), 02.07.1994 (1, A.Ba.); Līksna parish, 2 km N Daugavpils, 17.05.2008 (1, inland dunes, edge of pine forest, A.Bu.); Medumi, Vilkukrogs, 29.09.1992 (1, A.Ba.); Pilskalne, 29.05.1993 (1, A.Ba.); Stropi, 27.04.2008 (6, bank of Lake Lielais Stropu, A.Bu.); Jēkabpils d.: Dunava, 17.07.1995 (1, A.Ba.); Vandāni, 16.08.2008 (2, bank of the Daugava River, M.B.); Krāslava d.: Izvalta, Murāni house, 21.08.1992 (2, bog, A.Ba.); Liepāja d.: Lake Papes N env., 17.06.2005 (5, meadow, D.T.); Tukums d.: Lake Engurs near ornithological station, 20.06.2004 (1, wet meadow, on *Solanum*, D.T.); Ventspils d.: Moricsala Isl., Moricsala Nature Reserve,

15.07.2008 (1, A.Ba.).

Host plants: *Solanum nigrum*, *S. dulcamara* (Solanaceae).

Distribution: Europe, N Africa (Morocco), Near East, Caucasus, Kazakhstan, Central Asia, W Siberia; introduced also to N America. [WPA]

P. marcida (ILLIGER, 1807)

References: Mickutowicz 1905; Rathlef 1921; Pūtele 1968a, 1970a, 1970b, 1971, 1981a, 1981b; Telnov et al. 1997; Telnov 2004.

Examined material: 89 ind.: Jūrmala: Lielupe, 20.06.2002 (num., near mouth of the Lielupe River, on *Cakile maritima*, D.T.); Liepāja d.: Pape, 24-26.05.1994 (3, seashore, dunes, N.S.), 23-25.06.1994 (1, seashore, dunes, N.S.), 15.06.2005 (1, wet meadow, C.F.); Limbaži d.: Ainaži, 15.06.2002 (num., seashore, D.T.); between Ainaži and Kuiviži, Randu meadows, 25.07.2006 (5, coastal meadow, A.K.), 27.06.2007 (1, coastal meadow, A.K.); Dunte, 16.08.2008 (1, A.Ba.); Jelgavkrasti, 15.06.2002 (num., D.T.); Salacgrīva, Veczemja rock, 27.07.2007 (1, near the sea, A.Ba.), 17.08.2008 (1, A.Ba.); Lauči, 17.07.2005 (1, seashore, D.T.); Rīga d.: Saulkrasti, 01.10.2005 (6, Pabažu seashore, on *Cakile maritima*, I.S.), 15.07.2008 (2, seashore, on *Cakile maritima*, A.Bu., M.B.); 5.5 km S Svētciems, mouth of the Vitrupe River, 12.08.1997 (1, seashore, A.Ba.); Talsi d.: Kolka, 17-23.07.2002 (num., on *Cakile maritima*, I.S.), 13.06.2004 (5, seashore, on *Cakile maritima*, D.T.); 05-06.08.2004 (1, seashore, on *Cakile maritima*, I.S.); Mazirbe, 13.06.2004 (7, seashore, dunes, on *Cakile maritima*, D.T.); Tukums d.: Engure, 10.06.1977 (2, leg. V.Pūtele); Ventspils d.: Jūrkalne, 16.07.2005 (28, A.Ba.), 28.07.2005 (1, seashore, A.Ba., A.Bu., U.V.); Miķeļtornis, 07.08.2004 (6, seashore, on *Cakile maritima*, D.T.).

Host plants: *Cakile maritima* (Cruciferae).

Distribution: seashores of Europe and N Africa (Baltic Sea, North Sea, Atlantic, Mediterranean Sea; northwards to Gulf of Bothnia), Crimea, Caucasus (coast of Black Sea). [EUM]

P. luteola (MÜLLER, 1776)

References: Pūtele 1968a, 1968b, 1970a, 1970b, 1971, 1974, 1975; Priedītis, Pūtele 1976; Telnov et al. 1997; Telnov 2004.

Examined material: Not confirmed by the author.

Host plants: *Quercus* (Fagaceae), *Ulmus* (*Ulmaceae*), *Carpinus* (Corylaceae).

Distribution: S and Central Europe (northwards to England, Denmark, Estonia), NW Africa (Morocco, Algeria), Asia Minor, Near East (Syria, Lebanon), Caucasus, Iran. [TEM]

Note: Very rare species, known only from two localities in W and C Latvia. In catalogue "Enumeratio nova Coleopterorum Fennoscandiae, Daniae et Baltiae" (Silfverberg 2004) this species is mentioned for Denmark, Estonia and Latvia.

P. picina (MARSHAM, 1802)

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

Examined material: 5 ind.: Daugavpils d.: Kalnišķi, 55°52'54"N 26°44'03"E, 21.08.2009 (2, bank of the Daugava River, A.Bu., M.B.); Gulbene d.: Pededzes ozolu audze, Pededzes lejtece PNT, 28.05.2005 (1, pasture woodland, C.F.); Jēkabpils d.: Dunava, 25.07.1999 (1, A.Ba.); Valmiera d.: Mazsalaca, 27.08.2006 (1, A.Ba.).

Host plants: *Quercus* (Fagaceae), *Ulmus* (*Ulmaceae*), *Carpinus* and *Corylus* (Corylaceae).

Distribution: Europe, Asia Minor, Caucasus, Iraq. [TUE]

Note: Very rare species, known from five localities.

P. attenuata (KOCH, 1803)

References: Pūtele 1968a, 1968b, 1970a, 1970b, 1971; Telnov et al. 1997; Telnov 2004; Kalniņš et al. 2007.

Examined material: Not confirmed by the author.

Host plants: Cannabaceae. In literature (Bieńkowski 2004) as host plants mentioned also Urticaceae (*Urtica*), Fabaceae (*Phaseolus*), Solanaceae (*Solanum*), Chenopodiaceae (*Chenopodium*, *Beta*), Linaceae (*Linum*) and Compositae (*Arctium*).

Distribution: Europe, Caucasus, Asia Minor, Siberia, Central Asia, Kazakhstan, Mongolia, Far East of Russia, China (Kweichow, Manchuria, Heilungkiang, Shansi, Shensi), Japan, Korean Peninsula. [ASE]

Note: Very rare species, known only from two localities in N and E Latvia.

P. chrysocephala (LINNAEUS, 1758)

Syn.: *erythrocephala* LINNAEUS, 1758; *cyanoptera* (ILLIGER, 1807); *sophiae* (ILLIGER, 1807).

References: Fleischer 1829 (*Altica*); Kawall 1866; Seidlitz 1872-1875, 1887-1891; Rathlef 1905; Palij 1958; Pūtele 1968a, 1970a, 1970b, 1971; Barševskis 1993 (misidentifications); Telnov et al. 1997; Telnov 2002, 2004; Kalniņš et al. 2007.

Examined material: 10 ind.: Talsi d.: Slītere National Park, 25.08.1980 (1, leg. V.Pūtele), 18.08.1983 (9, leg. V.Pūtele).

Some earlier records of this species, "Balvi d., Kuprava, 19.05.1992 (1, moist forest, A.Ba.)" and "Daugavpils d., Šarlote, 14.09.1991 (1, A.Ba.)" (Barševskis 1993), were based on misidentifications.

Host plants: Cruciferae.

Distribution: Europe, N Africa, Caucasus, Asia Minor, Near East, Iran, Kazakhstan, south part of W Siberia. [CEM]

Note: Very rare species, known only from three localities.

(-) *P. tricolor* WEISE, 1888

Syn.: *cyanopterus* REDTENBACHER, 1849 nec ILLIGER, 1807; *sophiae* HEIKERTINGER, 1914 nec ILLIGER, 1807.

References: In some papers (Pūtele 1968a; Telnov et al. 1997; Telnov 2004) it is reported as possible species for Latvian fauna.

Host plants: Cruciferae (mostly on *Sisymbrium officinale*).

Distribution: Europe, N Africa (Morocco), Caucasus, Asia Minor, Near East, Iran, south part of W Siberia, Kazakhstan, Central Asia. [CEM]

Note: Possible species in Latvia. According to the catalogue of Silfverberg (2004), the species is mentioned for Denmark, Estonia, Finland, Karelia (Fennoscandian part of Russia), Lithuania, Norway and Sweden. It is known also from Belarus (Lopatin, Nesterova 2005).

P. napi (FABRICIUS, 1792)

Syn.: *flavicornis* WEISE, 1883

References: Precht 1818 (*Chrysomela napi*);

Seidlitz 1872-1875, 1887-1891; Rathlef 1905; Palij 1958; Pūtele 1968a, 1970a, 1970b, 1971; Telnov et al. 1997; Telnov 2004; Kalniņš et al. 2007.

Examined material: 148 ind.: Aizkraukle d.: Valle, 05.09.2006 (1, E.R.); Cēsu d.: Āraiši (1, leg. anonymous); Daugavpils d.: Bebrene, 04.05.2006 (1, E.R.); Ilgas, Silene Nature Park, 02.09.1993 (1, A.Ba.), 30.06.2007 (1, K.A.); Medumi, 18.05.2009 (1, A.Ba., A.A.); Šarlote, 14.09.1991 (1, A.Ba.), 01.06.2008 (1, K.A.), 08.05.2009 (1, K.A.); Šēdere, Straumēni house, 29.07.2007 (1, M.J.), 01-06.05.2008 (3, M.J.); Stropi, 27.04.2008 (1, bank of Lake Lielais Stropu, A.Bu.), 05.05.2008 (1, agrocenosis, A.Bu.); Jēkabpils d.: Dunava, 08.05.1994 (1, A.Ba.), 25.07.1999 (2, A.Ba.), 07.05.2005 (1, A.Ba.); Rubene, 02.09.2000 (1, I.L.); Zasa, 10.08.2008 (1, M.B.); Krāslava d.: Šķeltova, 22.08.1992 (1, A.Ba.), 09.05.1993 (1, A.Ba.), 23.08.2003 (1, A.Ba.); Limbaži d.: Staicele, 17.08.1992 (1, F.S.); Ludza d.: Bļāši, 10.08.2008 (1, meadow, M.B.); 1.5 km SW Gāgari, 56°26'44"N 27°50'02"E, 10.05.2008 (2, old clearing, A.Bu.); Preiļi d.: Jersika, Kurpnieki house, 05.09.2007 (1, K.B., A.Barševskis); Rēzekne d.: Gaigalava env., bank of Lake Lubāns near the Aivieksta River, 08.09.2007 (1, A.Bu., M.B.); Tilīši, 08.08.2008 (1, M.B.); Rīga d.: Cekule env., 07.05.2003 (1, mixed forest, D.T.); Sigulda, Paparžu grāvis (ditch), 21.05.1999 (2, D.T.), 06.06.2003 (3, mixed forest, on *Lunaria rediviva*, D.T.); Nurmiži, Nurmižupītes grāvis (ditch), 24.06.2005 (5, mixed forest, on *Lunaria rediviva*, D.T.); Talsi d.: Slītere, 01.06.2003 (num., primary mixed forest, on Cruciferae, D.T.), 13.06.2004 (num., mixed fores, D.T.), 11-18.07.2004 (2, V.S.); Slītere National Park, Zilie Kalni (hills) and Dāvida Pļavas (meadows), 19.05.2001 (num., primary mixed forest, on *Lunaria rediviva*, D.T.), 06.2002 (15, A.Ba.), 05-06.08.2002 (2, A.Ba.), 05.09.2002 (44, A.Ba.), 01.06.2003 (num., edge of forest, on Cruciferae, D.T.), 02.07.2005 (1, primary mixed forest, D.T.), 07.05.2006 (11, A.Ba.), 10.08.2006 (6, A.Ba.), 01.09.2006 (1, A.P., E.R., U.V.), 05.10.2006 (19, U.V., A.P., J.S., A.Ba.), 06-07.2007 (num., primary deciduous forest, on leaves of *Lunaria rediviva*, D.T.), 22.08.2008 (7, A.Ba.); Valka d.: Rauza,

24.04.2004 (1, valley of the Rauza River, roadside, on Cruciferae, D.T.); Valmiera d.: Sprosti house, 57°34'58"N 25°20'15"E, 21.08.2006 (1, A.P.).

Host plants: Cruciferae.

Distribution: Europe, NW Africa, Asia Minor, Caucasus, Kazakhstan, Siberia (eastwards to Yakutia). [PAL]

P. cuprea (KOCH, 1803)

References: Pūtele 1980, 1981b; Barševskis 1993 (misidentifications); Telnov et al. 1997; Telnov 2004.

Examined material: Not confirmed by the author.

Earlier record of this species, "Krāslava d., Šķeltova, 28.08.1992 (1, A.Ba.)" (Barševskis 1993), was based on misidentification.

Host plants: Cruciferae.

General distribution: C and S Europe, N Africa, Caucasus, Asia Minor, Near East, Iran, W Siberia (Sayans), Kazakhstan, C Asia, Mongolia. [CEM]

Note: Very rare species, known only from single locality in Slītere National Park (NW Latvia) (Pūtele 1981b).

(-) *P. cupreata* (DUFTSCHMID, 1825)

References: Barševskis 1993 (misidentification), 2002; Telnov et al. 1997; Telnov 2004.

Examined material: Not confirmed by the author.

Earlier records of this species, "Daugavpils d., Ilgas, Silene Nature Park, 06.07.1992 (1, A.Ba.)" (Barševskis 1993), and "Talsi d.: Slītere National Park, 25.08.1980 (1, leg. V.Pūtele)" were based on misidentifications.

Host plants: Cruciferae.

Distribution: C and SE Europe, Caucasus, W Siberia (the Altai, Sayans), Kazakhstan, C Asia (Uzbekistan, Kyrgyzstan), Mongolia. [CAE]

Note: Faunistic data on this species in Latvia are absent. The species is herewith excluded from the list of Latvian Coleoptera. The nearest locality of this species is in Belarus (Lopatin, Nesterova 2005) and Lithuania (Silfverberg 2004).

P. hyoscyami (LINNAEUS, 1758)

References: Fleischer 1829 (*Altica hyosciami*

F.); Seidlitz 1872-1875, 1887-1891; Rathlef 1905; Palij 1958; Pūtele 1968a, 1970a, 1970b, 1971; Telnov et al. 1997; Telnov 2004.

Examined material: Not confirmed by the author.

Host plants: *Hyoscyamus niger* (Solanaceae). In literature (Bieńkowski 2004) as host plants mentioned also *Datura*, *Atropa* and *Solanum* (Solanaceae).

Distribution: Europe, N Africa, Asia Minor, Near East, Caucasus, Iraq, Kazakhstan, Central Asia (Kyrgyzstan, Uzbekistan), Siberia, Far East of Russia. [PAL]

Note: Very rare and insufficiently known species. Palij (1958) reported this species from Bauska district (central Latvia).

P. chalconera (ILLIGER, 1807)

References: Palij 1958; Pūtele 1968a, 1970a, 1970b, 1971; Telnov et al. 1997; Telnov 2004; Kalniņš et al. 2007.

Examined material: 29 ind.: Cēsis d.: Āraiši, 23-24.08.1958 (1, leg. anonymous); Daugavpils d.: Butiški, 25.07.2008 (2, valley of the Daugava River, A.Bu.); Preiļi d.: Jersika, Kurpnieki house, 04.06.2006 (2, K.B.), 14.05.2006 (1, K.B.), 29.04.2007 (1, K.B., A.Ba.), 12.05.2007 (1, A.Ba.), 26.05.2007 (1, A.Ba.), 15.04.2008 (3, A.Ba.), 27.04.2008 (1, K.B.), 09.05.2008 (3, A.Ba.), 24.05.2008 (4, A.Ba.), 17.06.2008 (5, A.Ba.), 24.05.2009 (2, A.Ba., K.B.); Rīga d.: Cekule env., 07.05.2003 (1, mixed forest, D.T.); Ventspils d.: Ziras, 28.07.2005 (1, bank of the Venta River, A.Ba., A.Bu., U.V.).

Host plants: *Carduus*, *Cirsium* (Compositae).

General distribution: Europe, N Africa, Caucasus, Asia Minor, Near East, Iran, Kazakhstan, Central Asia (Kyrgyzstan), Siberia, Far East of Russia, N China. [PAL]

P. dulcamarae (KOCH, 1803)

References: Seidlitz 1872-1875, 1887-1891; Rathlef 1905; Palij 1958; Pūtele 1968a, 1970a, 1970b, 1971; Barševskis 1993; Telnov et al. 1997; Telnov 2004; Bukejs, Telnov 2007; Kalniņš et al. 2007.

Examined material: 84 ind.: Alūksne d.: between Alūksne and Ziemei, near the Vaidava River, 19.07.2008 (2, D.T.); Balvi d.: Kuprava, 26.08.1994 (3, A.Ba.); Bauska d.: Kalēju tīrelis (moorland) PNT, 03.06.2002 (num., moist

mixed forest, D.T.); Cēsis d.: Rāmnieki, 14.06.2008 (3, D.T.); Daugavpils d.: Ilgas, Silene Nature Park, 28.06.1994 (3, A.Ba.), 02.07.1994 (5, A.Ba.), 09.05.1996 (1, A.Ba.); Šēdere, Straumēni house, 10-11.05.2008 (1, M.J.); Stropi, 01.07.2006 (1, bank of Lake Lielais Stropu, on *Solanum*, D.T.), 27.04.2008 (3, bank of Lake Lielais Stropu, A.Bu.), 14.05.2009 (2, moist forest, A.Bu.); Dobele d.: Zebrene W env., Pona pond, 15.06.2008 (3, D.T.); Krāslava d.: Asūne SE env., bank of Lake Mazais Asūnes, 30.06.2006 (1, on *Solanum*, D.T.); Liepāja d.: Embūte, 18.07.2009 (5, D.T.); N bank of Lake Papes, 17.06.2005 (3, meadow, D.T.); Limbaži d.: Braslava, 28.06.2006 (1, park, on *Solanum*, D.T.); 1 km N Kuiviži, Randu pļavas (meadows), 25.07.2004 (1, moist forest, D.T.); Vīķi, 22.08.2006 (1, A.Ba.); Madona d.: Barkava, 23.05.2005 (1, deciduous forest, C.F.); Vestiena env., N bank of Lake Kāla, 30.06.2007 (7, wet meadow, D.T.); Rēzekne d.: Gaiduļi, near Lake Gaiduļu, 20.05.2005 (1, xeric sandy meadow, C.F.); Rīga: Bukulti, 17.09.2006 (fr., D.T.); Jugla, 17.09.2006 (fr., D.T.); Rīga d.: Dzidriņas, 22.05.2005 (1, wet meadow, on *Solanum*, D.T.); Garupe, 08.08.2004 (1, moist mixed forest, on *Solanum*, D.T.); Ķemeri, 26.02.1995 (1, moist forest, under bark, D.T.), 26.09.1996 (2, under bark, D.T.); Lake Lieluikas E env., 11.08.2007 (1, valley of the Cimeļupe River, on *Solanum*, D.T.); N bank of Lake Lilastes, Medzābaki house, 21.07.2007 (1, D.T.); Talsi d.: Slītere, 21.06.2002 (1, C.F.); Tukums d.: Bērzciems, 20.06.2004 (num., wet meadow, on *Solanum*, D.T.); Lapmežciems, 03.06.2007 (2, seashore, D.T.); Lielais Ķemeru tīrelis (moorland), Tīreļi houses, Ķemeru National Park, 22.06.2008 (1, bog, D.T.); Valka d.: Pirtslīcis, 30.07.2006 (1, D.T.); Valmiera d.: Sēli E env., Rūjas paliene PNT, 29.07.2006 (2, bank of river, on *Solanum*, D.T.); Ventspils d.: Moricsala Isl., Moricsala Nature Reserve, 29.06.2002 (1, U.V.), 06.09.2002 (1, U.V.), 05.2003 (1, U.V.), 30.05.2006 (3, A.Ba., E.R.), 03-04.06.2008 (num., on *Solanum*, D.T.); Sārnate E env., near Lake Sārnates, 31.08.2008 (7, moist deciduous forest, D.T.).

Host plants: *Solanum*, *Atropa*, *Hyoscyamus* (Solanaceae).

Distribution: Europe, Asia Minor, Caucasus,

south part of W Siberia, Kazakhstan, Mongolia. [CAE]

P. cucullata (ILLIGER, 1807)

Syn: *spergulae* GYLLENHAL, 1813

References: Fleischer 1829 (*Altica spergulae* GYLL.); Seidlitz 1872-1875, 1887-1891; Rathlef 1905; Palij 1958; Pūtele 1968a, 1970a, 1970b, 1971, 1974, 1975, 1980, 1981a, 1981b, 1982, 1984; Barševskis 1993, 2002; Telnov et al. 1997; Telnov 2004; Kalniņš et al. 2007.

Examined material: 81 ind.: Aluksne d.: 3 km E Jaunanna, 15.07.2002 (1, mixed forest, D.T.); Cēsis d.: Āraiši (1, leg. anonymous); Daugavpils d.: Butiški, 25.07.2008 (8, valley of the Daugava River, A.Bu.), 01.07.2009 (1, A.Bu.); Daugavpils, city, 03.07.2007 (1, K.B., A.Ba.), city, bank of the Daugava River, 08.08.2007 (1, K.A., M.J.), Mežciems, 26.06.1992 (1, A.Ba.), 27.06.1992 (2, A.Ba.), 28.06.1992 (2, A.Ba.), 19.07.1992 (2, A.Ba.); Elerne, Muravki house, 26.06.2005 (2, A.Ba., K.Barševska); Ilgas, Silene Nature Park, 04.07.1992 (1, A.Ba.), 06.07.1992 (1, A.Ba.), 07.07.1992 (1, A.Ba.), 08.07.1992 (1, A.Ba.), 09.07.1992 (1, A.Ba.), 04.07.1994 (1, A.Ba.), 30.06.2007 (1, K.A.), 29.06-04.07.2007 (1, A.Ba.); Līksna parish, 4 km N Daugavpils, 29.06.2009 (5, old clearing, A.Bu.); Šarlote, 29.06.2008 (1, K.A.), 12.07.2008 (1, K.A.); Stropi, 10.08.2009 (1, A.Bu.); Višķi, near Lake Dotkas, 18.08.1990 (1, A.Ba.); Jēkabpils d.: Dunava, 15.07.2007 (11, A.Ba.), 01-09.08.2007 (1, K.B.), 09-10.08.2008 (1, A.Ba.), 16.08.2008 (11, A.Ba.); Vandāni, 16.08.2008 (1, bank of the Daugava River, M.B.); Zasa, 10.08.2008 (1, M.B.); Limbaži d.: Ķumrags, 17.08.2008 (1, dunes, A.Ba.); Ogre d.: Ķegums, left bank of the Daugava River, 13.07.2006 (2, A.Ba., K.B.); Rēzekne d.: Īdeņa env., 56°44'38"N 26°55'11"E, 06.VII.2008 (2, bank of Lake Lubāns, A.Bu., M.B.); bank of Lake Galdacis, 12.07.2008 (4, A.Bu.); Nagļi env., bank of Lake Lubāns near the Rēzekne River, 10.06.2007 (1, A.Bu.); Zosna, 02.08.1992 (3, A.Ba.); Rīga d.: Baldone, 20.08.2008 (1, A.Ba.); Valka d.: Strenči, 03.07.2006 (1, A.Ba., U.V., A.P.); Ventspils d.: Jūrkalne, 28.07.2005 (1, seashore, A.Ba., A.Bu., U.V.); Moricsala Isl., Moricsala Nature Reserve, 15.07.2008 (1, A.Ba.); Ziras, 28.07.2005 (1, bank of the Venta River, A.Ba.,

A.Bu., U.V.).

Host plants: Caryophyllaceae (*Spergula*), Polygonaceae, Gramineae, Cruciferae.

Distribution: Europe (southwards to Rumania and Ukraine), Caucasus, Siberia, Kazakhstan, Central Asia, Mongolia, Far East of Russia, China (Kansu), Korean Peninsula. [ASE]

Note: Very common.

Subgenus *Semicnema* WEISE, 1888

(-) *P. reitteri* WEISE, 1888

References: Pūtele 1984; Barševskis 1993 (misidentifications); Telnov et al. 1997; Telnov 2004.

Examined material: Not confirmed by the author.

Earlier records of this species, "Rēzekne d.: Zosna, 02.08.1992 (3, wet meadow, A.Ba.)" and "Daugavpils d.: Višķi, near Lake Dotkas, 18.08.1990 (1, A.Ba.)" (Barševskis 1993), and "Jersika, 20.08.1972 (1, leg. V.Pūtele)" were based on misidentifications.

Host plants: *Phragmites* (Gramineae).

Distribution: Nominate subspecies distributed in Europe (Austria, Bosnia-Herzegovina, Bulgaria, Czech, Germany (C and W), Hungary, Russia (south, east to Volga), Slovakia, Ukraine (south); but subspecies *P. reitteri parallelus* WEISE, 1890 occur in Kazakhstan, Central Asia, Siberia, Far East of Russia, Mongolia and China (Tibet). [ASE]

Note: Presence of this species in Latvia is doubtful. The species is herewith deleted from the list of Latvian Coleoptera.

Analysis of the distribution of species reveals rather wide the range of chorotypes: Palaearctic – *P. napi*, *P. hyoscyami* and *P. chalconera*, West Palaearctic – *P. affinis*, Asiatic-European – *P. attenuata* and *P. cucullata*, Centralasiatic-European-Mediterranean – *P. chrysocephala* and *P. cuprea*, Centralasiatic-European – *P. dulcamarae*, Turano-European-Mediterranean – *P. luteola*, Turano-European – *P. picina* and Europeo-Mediterranean – *P. marcida*.

Acknowledgments

The author is grateful to the colleagues Kristīna Aksjuta, Arvīds Barševskis, Marina

Janovska (Murd), Ainārs Pankjāns, Jāna Staskeviča, Uldis Valainis (Daugavpils University, Institute of Systematic Biology, Latvia), Maksims Balalaikins (Rēzekne, Latvia), Katrīna Barševska, Iveta Leiskina (Daugavpils, Latvia), Nikolajs Savenkovs (Rīga, Latvia) and the students of the Daugavpils University for presented material. I would like to thank Dmitry Telnov (The Entomological Society of Latvia, Rīga) for presented faunal data.

Special thanks are given to Andrzej Warchałowski (Wrocław, Poland) for valuable comments and to Konstantin Nadein (Kiev, Ukraine) for constructive advice.

References

- Barševskis A. 1993. *The Beetles of Eastern Latvia*. Saule, Daugavpils: 221 pp. (in Latvian, English abstract).
- Barševskis A. 2002. Vaboļu kārta (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.) *Fauna, flora and vegetation of Silene Nature Park*. Baltijas Koleopteroloģijas institūts, Daugavpils: 37-60 (in Latvian, English abstract).
- Bieńkowski A.O. 2004. *Leaf-beetles (Coleoptera: Chrysomelidae) of the Eastern Europe. New key to subfamilies, genera and species*. Moscow, Mikron-print: 278 pp.
- 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 updated: 18 September 2008.
- Bukejs A. 2008a. To the knowledge of flea beetles (Coleoptera: Chrysomelidae: Alticinae) in the fauna of Latvia. 1. Genus *Chaetocnema* STEPHENS, 1831. – *Acta zoologica lituanica* **18**, No. 3: 191-197.
- Bukejs A. 2008b. To the knowledge of flea beetles (Coleoptera: Chrysomelidae: Alticinae) of Latvian fauna. 2. Genus *Phyllotreta* CHEVROLAT, 1836. – *Acta zoologica lituanica* **18**, No. 3: 198-206.

- Bukejs A. 2009a. To the knowledge of flea beetles (Coleoptera: Chrysomelidae: Alticinae) of the fauna of Latvia. 3. Genera *Neocrepidodera* HEIKERTINGER, 1911 and *Crepidodera* CHEVROLAT, 1836. – *Acta zoologica lituanica* **19**, No. 2: 109-119.
- Bukejs A. 2009b. To the knowledge of flea beetles (Coleoptera: Chrysomelidae: Alticinae) of the Latvian fauna. 4. Genus *Aphthona* CHEVROLAT, 1836. – *Acta zoologica lituanica* **19**, No. 3: 223-230.
- 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**, No. 2: 191-208.
- 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**, No. 2: 9-19.
- Gruev B., Döberl M. 1997. General Distribution of the Flea Beetles in the Palaearctic Subregion (Coleoptera, Chrysomelidae: Alticinae). – *Scopolia* **37**: 1-496.
- Kalniņš M., Juceviča E., Karpa A., Salmane I., Poppels A., Telnovs D. 2007. Invertebrates: 106-149. In: Pilāts V. (ed.). *Biodiversity in Gauja National Park*. Sigulda, Gauja National Park Administration: 1-224.
- Kawall J.H. 1866. Phänologische Beobachtungen in Kurland (Pussen). *Korrespondenzblatt des Naturforscher-Vereins zu Riga* **16**, No. 5: 35-50.
- Kryzhanovskij O.L. (ed.) 1974. *Насекомые и клещи – вредители сельскохозяйственных культур. II. Жесткокрылые [Insects and ticks – the pests of agricultural cultures. II. Coleoptera]*. Leningrad, Nauka: 336 pp. (in Russian).
- Lopatin I.K. 1977. Жуки-листоеды (Chrysomelidae) Средней Азии и Казахстана [*Leaf-beetles (Chrysomelidae) of Central Asia and Kazakhstan*]. Ленинград, Наука: 270 pp. (in Russian).
- Lopatin I.K. 1986. Жуки-листоеды фауны Белоруссии и Прибалтики [*Leaf-beetles of Belarus and eastern Baltic*]. Минск, Вышэйшая школа: 131 pp. (in Russian).
- Lopatin I.K., Kulenova K.Z. 1986. Жуки-листоеды (Coleoptera, Chrysomelidae) Казахстана: определитель [*Leaf-beetles (Coleoptera, Chrysomelidae) of Kazakhstan*]. Алма-Ата, Наука: 200 pp. (in Russian).
- Lopatin I.K., Nesterova O.L. 2005. *Insecta of Byelarus: Leaf-Beetles (Coleoptera, Chrysomelidae)*. Minsk, Tehnoprint: 293 pp. (in Russian, English abstract).
- Medvedev L.N., Dubeshko L.N. 1992. Определитель листоедов Сибири. [*Keys to leaf-beetles of Siberia*]. Irkutsk, University of Irkutsk: 224 pp. (in Russian)
- Mikutowicz J. 1905. Zur Koleopterenfauna der Ostseeprovinzen Russlands, I. – *Korrespondenzblatt des Naturforscher-Vereins zu Riga* **48**: 73-92.
- Mohr K.H. 1966. Chrysomelidae. – In: Freude H., Harde K., Lohse G. (eds.) *Die Käfer Mitteleuropas*. Band 9. Cerambycidae, Chrysomelidae. Goecke&Evers, Krefeld: 95-280 pp. (in German).
- Nadein K.S. 2007a. On the taxonomy and classification of the genus *Psylliodes* LATREILLE, 1825 (Coleoptera, Chrysomelidae, Galerucinae). – *Entomologica Basiliensia et Collectionis Frey* **29**: 307-332.
- Nadein K.S. 2007b. Review of the *cucullatus* species group of the genus *Psylliodes* LATREILLE (Coleoptera: Chrysomelidae: Galerucinae). – *Genus* **18**, No. 4: 637-660.
- Nadein K.S. 2007c. A review of the leaf-beetles genus *Psylliodes* LATREILLE (Coleoptera, Chrysomelidae) from Russia and neighboring countries: I. A key to subgenera, species-groups, and species. – *Entomological Review* **87**, No. 3: 330-360
- Paliņ V.F. 1958. О фауне и биоценологии земляных блошек Латвии (Coleoptera, Chrysomelidae, Halticinae) [On the fauna and biocenology of Latvian flea beetles (Coleoptera, Chrysomelidae, Halticinae)]. – *Труды Института биологии Академии наук Латвийской ССР* **5**: 69-89 (in Russian).

- 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: 1-39.
- Priedītis A., Pūtele V. 1976. Листоеды (Chrysomelidae, Coleoptera) в агроценозе яблони Земгальской низменности Латвии [Leaf-beetles (Coleoptera, Chrysomelidae) in agrocenoses of apple in Zemgale plain of Latvia]. – *Тезисы докладов научно-практической конференции „Пути внедрения прогрессивных методов защиты растений в с. х. производство 28–30 июня 1976 г.“*. Rīga, Rīga Polytechnical Institute Press: 96-98 (in Russian).
- Pūtele V. 1968a. Die Erdflöhe der Gattung *Psylliodes* Latr. in der Lettischen SSR. – *Latvijas Entomologs* **12**: 35-38 (in Latvian, German abstract).
- Pūtele V. 1968b. Новые виды земляных блошек в Латвии [New species of flea beetles in Latvia]. – *Тезисы докладов VI научной конференции Прибалтийских республик по защите растений 25-27.III.1968*. Estonian agricultural academy, Tartu: 114-115 (in Russian).
- Pūtele V. 1970a. Видовой состав земляных блошек в Латвийской ССР [Species composition of flea beetles of the Latvian SSR]. – *Материалы 7-го Прибалтийского совещания по защите растений* **1**: 17-20 (in Russian).
- Pūtele V.O. 1970b. *Исследования по фауне и экологии земляных блошек (Coleoptera, Chrysomelidae, Halticinae) Латвийской ССР* [Research on the fauna and ecology of flea beetles (Coleoptera, Chrysomelidae, Halticinae) of the Latvian SSR]. Abstract of the PhD thesis in Biological Sciences. Jelgava: 36 pp. (in Russian).
- Pūtele V.O. 1971. Flea beetle fauna in Latvian SSR. *XIII International Congress of Entomology, Moscow, 2-9 August, 1968. Proceedings, Volume I*. Leningrad, Nauka: 189-190.
- Pūtele V. 1974. Листоеды (Coleoptera, Chrysomelidae), выявленные в окрестностях города Елгава [Leaf-beetles (Coleoptera, Chrysomelidae) discovered in the surroundings of Jelgava city]. – *Краткие доклады научной конференции по защите растений, Саку, 2-4 1974 г., ч. 2*. Таллин: 55-58 (in Russian).
- Pūtele V. 1975. Graudzālēm kaitīgās spradžu sugas Latvijas PSR [Flea beetles as pests to Poaceae in the Latvian SSR]. – *Latvijas Lauksaimniecības akadēmijas raksti* **84**: 42-48 (in Latvian).
- Pūtele V. 1980. Lapgraužu (Coleoptera, Chrysomelidae) faunas pētījumi Slīteres valsts dabas rezervātā [Studies on leaf-beetles (Coleoptera, Chrysomelidae) fauna of the Slītere State Nature Reserve]. – *Slīteres rezervāta 1. zinātniski praktiskā konference, referātu tēzes*. Slītere: 18-21 (in Latvian).
- Pūtele V. 1981a. Исследование фауны листоедов (Coleoptera, Chrysomelidae) государственного заповедника «Слитере» [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. Lapgraužu faunas pētījumi Slīteres rezervātā: referātu krājums [Studies on leaf-beetles fauna of the Slītere State Nature Reserve: report]. – *Mežsaimniecība un mežrūpniecība* **3**: 42-44.
- Pūtele V. 1982. Вредные листоеды (Coleoptera, Chrysomelidae) Латвийской ССР [Pest leaf-beetles (Coleoptera, Chrysomelidae) of the Latvian SSR]. – *Труды Латвийской сельскохозяйственной академии* **200** (Борьба с вредителями и болезнями картофеля, плодовоовощных и полевых культур): 28-33 (in Russian).
- Pūtele V. 1984. Листоеды – вредители древесных культур в Государственном заповеднике «Слитере» [Leaf-beetles – pests of tree cultures in the Slītere State Nature Reserve]. – *Latvijas Lauksaimniecības akadēmijas raksti* **213**: 9-15 (in Russian).

- Rathlef H. 1905. *Coleoptera Baltica. Käfer-Verzeichnis der Ostseeprovinzen nach den Arbeiten von Ganglbauer und Reitter.* Dorpat, C. Mattiesen: 16+199.
- Rathlef H. 1921. Supplementum zu den Coleoptera Baltica. – *Sitzungsberichte der Naturforscher-Gesellschaft bei der Universität Dorpat* **25**, No. 2/4: 53-65.
- Romantsov P.V. 2007. A review of leaf beetles (Coleoptera, Chrysomelidae) of St. Petersburg and Leningrad province. – *Entomological Review* **86**, No. 2: 306-336 (in Russian, English abstract).
- Seidlitz G. 1872-1875. *Fauna Baltica. Die Käfer (Coleoptera) der Ostseeprovinzen Russlands.* Dorpat, H. Laakmann: 4+XLII+142+560.
- 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.
- Silfverberg H. 2004. Enumeratio nova Coleopterorum Fennoscandiae, Daniae et Baltiae. – *Sahlbergia* **9**: 1-111.
- 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 Palaearctic region. – *Biogeographia* **20**: 31-59.
- Telnov D. 1997. Some new species of Coleoptera in the fauna of Latvia. – *Acta coleopterologica latvica* **1**, No. 2: 83-87.
- Telnov D. 2002. To the knowledge of Latvian Coleoptera. 2. – *Latvijas Entomologs* **39**: 16-19.
- Telnov D. 2004. Check-List of Latvian Beetles (Insecta: Coleoptera). In: Telnov D. (ed.) *Compendium of Latvian Coleoptera.* Volume **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.
- Warchałowski A. 2003. *The leaf-beetles (Chrysomelidae) of Europe and the Mediterranean region.* Warszawa, Natura optima dux Foundation: 600 pp.

Received: March 11, 2009.