

REVIEW OF LIXINAE (COLEOPTERA: CURCULIONIDAE) OF THE LATVIAN FAUNA

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Abstract. The current article summarizes the faunal and bibliographical information on weevils of the Latvian fauna belonging to the genera *Larinus*, *Lixus*, *Rhinocyllus*, *Coniocleonus*, *Stephanocleonus*, *Bothynoderes*, *Cyphocleonus* and *Cleonis*. A total of 462 specimens of these genera were reviewed. The analysis of the bibliography of Latvian Lixinae was made for the first time. The first record of *Larinus turbinatus* Gyllenhal, 1835 in the Latvian fauna is reported. One species, *Stephanocleonus tetragrammus* (Pallas, 1781) is excluded from the list of Latvian Coleoptera. The annotated list including 15 species and 7 genera as well as an illustrated key to Latvian Lixinae are given.

Key words: Lixinae, Latvia, fauna, bibliography, new records, identification

INTRODUCTION

Lixinae Schoenherr, 1823 is one of the largest subfamilies of Curculionidae, comprising more than 1200 species spread worldwide. Approximately 700 species are known from the Palearctic region (Ter-Minassian 1967), of which 20 species of 10 genera are reported for northern Europe and the Eastern Baltic region (Silfverberg 2004).

Hitherto, the Latvian fauna was known to comprise 14 species and 8 genera of Lixinae (Telnov 2004; Telnov *et al.* 2006): *Larinus* Dejean, 1821 with 3 species, *Lixus* Fabricius, 1801 with 3 species, *Rhinocyllus* Germar, 1817 with 1 species, *Coniocleonus* Motschulsky, 1860 with 2 species, *Stephanocleonus* Motschulsky, 1860 with 1 species, *Bothynoderes* Schoenherr, 1823 with 1 species, *Cyphocleonus* Motschulsky, 1860 with 1 species and *Cleonis* Dejean, 1821 with 1 species. The number of species of this subfamily recorded in adjacent territories slightly varies: 23 species of 9 genera – in Belarus (Alexandrovich *et al.* 1996), 13 species of 7 genera – in Estonia (Silfverberg 2004), 16 species of 9 genera – in Lithuania (Pileckis & Monsevičius 1997; Silfverberg 2004).

The first information on weevils of Lixinae in Latvia was published at the end of the 18th century (Fischer 1784). More than 20 works appeared in Latvia subsequently. In 1993, A. Barševskis published his monograph ‘The Beetles of Eastern Latvia’, containing data on 5 genera and 9 species of Lixinae, mostly from eastern and south-eastern parts of the country. Faunal data on 8 species and 5 genera of Lixinae can be found in Barševskis (1997). Fragmentary faunal data can also be found in the following articles: Fischer 1784, 1791; Precht 1818;

Ulanowski 1883; Brammanis 1930; Mikutowicz 1905; Lackschewitz and Mikutowicz 1939; Priedītis 1958; Ozols 1963, 1982, 1985; Barševskis 1993, 1997; Barševskis *et al.* 2001, 2008, 2009; Telnov *et al.* 2006. The most recent lists of Latvian Lixinae can be found in Barševskis (1997) and in the published catalogues of Latvian Coleoptera (Telnov *et al.* 1997; Telnov 2004). Imagoes of Lixinae feed on the foliage of herbaceous plants and shrubs (Chenopodiaceae, Compositae, Cruciferae, Ericaceae, Umbelliferae and other). Larvae of *Larinus* and *Rhinocyllus* develop in inflorescences of Compositae. Larvae of *Lixus* develop in shoots and stems of Chenopodiaceae, Compositae, Cruciferae, Umbelliferae, etc. Larvae of *Coniocleonus*, *Stephanocleonus*, *Bothynoderes*, *Cyphocleonus* and *Cleonis* develop in soil on and inside the roots of Chenopodiaceae and Compositae (Ter-Minassian 1967, 1988; Dieckmann 1983; Gültekin 2008).

Some species of Lixinae are pests of cultivated plants (Ter-Minassian 1967; Kryzhanovskij 1974). In Latvia, *Bothynoderes affinis* (Schrank, 1781) is reported as a pest of sugar beet (Ozols 1963; Šmits & Spuris 1966). The aim of the current paper is to summarize the information available on Lixinae in Latvia. The bibliographical information on this weevil subfamily in Latvia is compiled for the first time. The annotated list and the illustrated key to Latvian species are presented.

MATERIAL AND METHODS

A total of 462 specimens were reviewed in the current study. The examined material is deposited in the

collection of the Institute of Systematic Biology of Daugavpils University (DUBC, Daugavpils, Latvia), the entomological collection of the Institute of Biology of the Latvian University (LUBI, Salaspils, Latvia), the collection of the Latvian Natural History Museum (LDM, Rīga, Latvia), the collection of A. Barševskis (Daugavpils, Latvia), the collection of C. Mūthel (Latvian Natural History Museum, Rīga, Latvia), and the private collection of the author (Daugavpils, Latvia).

The following keys were used for species identification: (Hoffmann 1958; Ter-Minassian 1967, 1988; Smreczynski 1968; Dieckmann 1983; Lohse & Tischler 1983; Arzanov 2006). In this article, we follow the systematics suggested by Silfverberg (2004). The nomenclature and synonymy used are in compliance with Arzanov (2006) and Gültekin (2006). Subgenera and species are listed taxonomically. The general distribution of species and host plants is presented in the following works: Hoffmann 1958; Ter-Minassian 1967, 1988; Smreczynski 1968; Dieckmann 1983; Lohse & Tischler 1983; Legalov 2010; Legalov *et al.* 2010.

The classification of chorotypes, with the exception of that of the Circum-Caspian, follows the one suggested by Vigna-Taglianti *et al.* (1999). The chorotype codes used stand for: ASE – Asiatic-European, CAE – Central Asiatic-European, CCA – Circum-Caspian, CEM – Central Asiatic-European-Mediterranean, MED – Mediterranean, PAL – Palaearctic, SIE – Sibero-European.

The following information is given for each species: scientific name & author, published bibliographical sources for Latvia, faunal data (sampling locality and date, number of collected specimens in parentheses, 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 respectively; in parentheses – ten-day period), general distribution of species and the chorotype code. Species marked with dashes (–) were previously recorded for the Latvian fauna, but in fact appear to be absent from Latvia, and it is doubtful whether they have ever occurred there (earlier records were probably based on misidentification or misinterpretation). These species are herewith excluded from the list of Latvian Coleoptera.

The abbreviations used stand for: d. – district (the system of administrative districts used in Latvia from 1991 to 2008), env. – environs, Isl. – island, NP – Nature Park, NR – Nature Reserve, S – South, N – North, E – East, W – West.

The photos were taken with an Axiocam digital camera using a stereomicroscope Zeiss Stereo Lumar V12.

RESULTS AND DISCUSSION

The current research has confirmed the occurrence of 15 species of Lixinae in Latvia.

Larinus turbinatus Gyllenhal 1835 is reported in Latvia for the first time.

Stephanocleonus tetragrammus (Pallas, 1781) has been removed from the list of Latvian Coleoptera. This species was mentioned only in old monographs on Baltic Coleoptera (Seidlitz 1872–1875, 1887–1891) without the indication of precise localities in Latvia.

Overall, the list of Latvian Lixinae currently includes 15 species of 7 genera.

The performed analysis of chorotypes of Latvian Lixinae shows the predominance of species with a wide distribution range: Palaearctic – 4 species (*Lixus iridis* Ol., *Larinus sturnus* (Schall.), *Coniocleonus nebulosus* (L.), *Cleonis pigra* (Scop.)), Asiatic-European – 1 species (*Cyphocleonus dealbatus* (Gmel.)), Sibero-European – 3 species (*Lixus paraplecticus* (L.), *Coniocleonus hollbergii* (Fåhraeus), *Cyphocleonus trisulcatus* (Hbst)), Central Asiatic-European-Mediterranean – 4 species (*Larinus carlinae* (Olivier, 1807), *L. turbinatus* Gyll., *Lixus bardanae* (F.), *Rhinocyllus conicus* (Frölich)) and Central Asiatic-European – 2 species (*Larinus iaceae* (F.), *Bothynoderes affinis* (Schrnk.)), EUR – European – 1 species (*Coniocleonus turbatus* (Fåhraeus)).

List of Lixinae of the Latvian fauna

Curculionidae Latreille, 1802

Lixinae Schönherr, 1823

Lixini Schönherr, 1823

Larinus Dejean, 1821

Larinus iaceae (Fabricius, 1775)

References: Seidlitz 1872–1875, 1887–1891; Rathlef 1905; Barševskis 1993, 2002, 1997; Telnov *et al.* 1997; Telnov 2004.

Examined material: 4 specimens: Rīga d.: Ķemeri (4, Mūthel coll.).

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

Phenology: no data for Latvia.

General distribution: Europe (excl. N), the Caucasus, Turkey, Kazakhstan, Iran, Central Asia. [CAE]

Note: previous report of this species from Ilgas, Daugavpils district (Barševskis 1993, 1997, 2002) was based on misidentification. A very rare species in Latvia. Actual faunal data on this species in Latvia are absent. Examined specimens were recorded at the end of the 19th century.

Larinus carlinae (Olivier, 1807)= *planus* (Fabricius, 1792)**References:** Seidlitz 1872–1875, 1887–1891; Rathlef 1905; Telnov *et al.* 1997; Telnov 2004.**Examined material:** 2 specimens: Daugavpils d.: Ilgas, Silene NP, 1992 (1, leg. A. Barševskis); Rīga d.: Ķemeri (1, Mützel coll.).**Host plants:** *Carduus*, *Carlina*, *Centaurea*, *Cirsium*, *Serratula* (Compositae).**Phenology:** no data for Latvia.**General distribution:** Europe, the Caucasus, NW Africa, Central Asia. [CEM]**Note:** a very rare species in Latvia; with a single known locality in SE Latvia. Hitherto, this species was mentioned only in old bibliographical sources (Seidlitz 1872–1875, 1887–1891).***Larinus sturnus*** (Schaller, 1783)**References:** Seidlitz 1872–1875, 1887–1891; Rathlef 1905; Barševskis 1993, 2002, 1997; Barševskis *et al.* 2009; Telnov *et al.* 1997; Telnov 2004.**Examined material:** 125 specimens: Aizkraukle d.: Aizkraukle, 21 June 1995 (3, clearing of broad-leaved forest, leg. A. Barševskis); Ērberģe, 6 August 2009 (2, leg. A. Barševskis); Alūksne d.: Liepna, 2 July 1970 (2, leg. Z. Spuris); Bauska d.: Īslīce, 28 June 1976 (3, leg. Dmitrijevs), 18 July 1976 (1, leg. Dmitrijevs); Daugavpils d.: Butišķi, 25 July 2008 (1, valley of the Daugava River, leg. A. Bukejs); Daugavpils, 17 July 2008 (1, leg. R. Orlovskis); Ilgas, Silene NP, 5 July 1991 (2, leg. A. Barševskis), 17 July 1991 (2, leg. A. Barševskis), 5 June 1994 (5, leg. A. Barševskis), 15 June 1995 (7, leg. A. Barševskis), 16 June 1995 (2, leg. A. Barševskis), 17 June 1995 (1, leg. A. Barševskis), 17 July 1995 (1, leg. A. Barševskis), 11–14 June 1998 (1, leg. A. Barševskis), 29 April – 10 July 2000 (1, leg. A. Rutka), May – July 2000 (1, leg. I. Pavārnieka), 29 April – 10 July 2000 (1, leg. L. Niķitina), 6 June 2000 (2, leg. A. Barševskis), 13 June 2001 (1, leg. G. Lociks), 14 June 2001 (1, leg. G. Lociks), 9 July 2001 (1, leg. G. Lociks), June 2003 (3, leg. U. Valainis, A. Barševskis), 1–3 July 2003 (5, leg. U. Valainis), 2–10 July 2004 (2, leg. A. Barševskis), 30 June 2005 (8, leg. A. Barševskis), 8 July 2005 (5, leg. A. Barševskis), 1–5 June 2006 (1, leg. A. Barševskis), 1–5 July 2006 (2, leg. A. Barševskis), 27 June 2007 (4, leg. A. Barševskis); Naujene, 5 June 1989 (1, leg. A. Barševskis), 24 July 1991 (1, leg. A. Barševskis); Šedere, Straumēni house, 23–24 June 2007 (1, leg. M. Janovska), 22 July 2007 (1, leg. M. Janovska); Dobele d.: Tērvete, 14 July 1972 (1, on *Cirsium oleraceum*, leg. M. Šternbergs), Jēkabpils d.: Dunava, 18–22 June 2006 (1, leg. K. Barševska), 15 July 2006 (2, leg. A. Barševskis), 1–8 August 2006 (3, leg. A. Barševskis, K. Barševska), 11–13 August 2006

(2, leg. A. Barševskis), 14–18 August 2006 (1, leg. A. Barševskis, K. Barševska), 14 September 2006 (1, leg. A. Barševskis), 2–5 June 2007 (1, leg. K. Barševska), 11–17 July 2007 (3, leg. K. Barševska), 15 July 2007 (6, leg. A. Barševskis), 29 June 2008 (1, leg. A. Barševskis), 9–10 August 2008 (1, leg. A. Barševskis), 15–18 July 2009 (4, leg. A. Barševskis); Rubeņi, 15 July 1997 (1, leg. I. Leiskina), 3 August 1998 (1, leg. I. Leiskina), 8 August 2001 (1, leg. I. Leiskina); Jelgava d.: Dalbe, 24 June 1937 (1, leg. M. Stiprais); Krāslava d.: Tartaks, 4 July 1989 (1, leg. A. Barševskis); Ludza d.: Grebļa kalns, 14 July 1976 (1, leg. Jansone); Preiļi d.: Jersika, Kurpnieki house, 4 June 2006 (1, leg. A. Barševskis); Rēzekne d.: Dubuļi, 21 June 1992, (1, meadow, leg. F. Kovalevsky); Rīga d.: Kūdra, 27 May 2001 (1, leg. A. Titovs); Turaida, Gauja NP 17 July 1970 (1, leg. Z. Spuris); Talsi d.: Slītere NP, 'Zilie kalni and Davida Pļavas', 20 July 2000 (1, leg. J. Gailis), 26 June 2002 (3, leg. A. Barševskis), 4 August 2004 (3, leg. A. Barševskis, U. Valainis, I. Gurčonoks), 27 June 2006 (1, leg. A. Barševskis), 10 August 2006 (1, leg. A. Barševskis), 17 July 2007 (2, leg. A. Barševskis), 5 August 2009 (1, leg. I. Krīvēne, I. Jahimoviča).

Host plants: *Carduus*, *Centaurea*, *Cirsium* (Compositae).**Phenology:** V, VI, VII, VIII, IX.**General distribution:** Europe, the Caucasus, N Africa, Turkey, Iran, Central Asia, W Siberia. [PAL]**Note:** a very common and widespread species in Latvia.***Larinus turbinatus*** Gyllenhal 1835**Examined material:** 3 specimens: Preiļi d.: Jersika, Kurpnieki house, 6 June 2008 (2, leg. A. Barševskis); Rīga d.: Ķemeri (1, Mützel coll.).**Host plants:** *Carduus*, *Cirsium* (Compositae).**Phenology:** VI.**General distribution:** Europe (excl. N), the Caucasus, Asia Minor, Iran, Kazakhstan, Central Asia, the southern part of W Siberia; also introduced to N America (USA). [CEM]**Note:** new species for the Latvian fauna, and also for the eastern Baltic region and Fennoscandia.***Lixus*** Fabricius, 1801***Lixus bardanae*** (Fabricius, 1787)**References:** Seidlitz 1872–1875, 1887–1891; Rathlef 1905; Barševskis 1997, 2002; Barševskis *et al.* 2004; Telnov *et al.* 1997; Telnov 2004.**Examined material:** 2 specimens: Daugavpils d.: Ilgas, Silene NP, 1991 (1, leg. A. Barševskis); Ļubesti, 5 July 2010 (1, leg. A. Bukejs, M. Balalaikins).**Host plants:** *Rumex* (Polygonaceae), *Laserpitium* (Umbelliferae).

Phenology: VII.

General distribution: Europe, the Caucasus, N Africa, Turkey, Kazakhstan, Central Asia. [CEM]

Note: a very rare species in Latvia; known only from two localities in SE Latvia.

Lixus iridis Olivier, 1807

References: Seidlitz 1872–1875, 1887–1891; Rathlef 1905; Mikutowicz 1905; Lackschewitz and Mikutowicz 1939; Barševskis 1993, 1997, 2002; Telnov *et al.* 1997; Telnov 2004.

Examined material: 90 specimens: Aizkraukle d.: Rīteri, 8 June 2009 (1, leg. R. Orlovskis, A. Barševskis); Alūksne d.: Gaujiena, 30 May 2001 (2, leg. J. Gailis); Daugavpils d.: Bebrene, 27 June 2005 (1, leg. A. Barševskis), 13 June 2006 (1, leg. E. Rudāns); Butišķi, 26 May 2008 (1, valley of the Daugava River, leg. A. Bukejs); 2 km N Daugavpils, 4 May 2008 (1, inland dunes, edge of pine forest, leg. A. Bukejs); Demene, 2 km from Kurcums, 6 June 2008 (1, leg. A. Barševskis); Elerne, Muravki house, 26 June 2005 (2, leg. A. Barševskis, K. Barševska), 24 May 2007 (1, leg. A. Barševskis); Ilgas, Silene NP, 1992 (1, leg. A. Barševskis), 6 July 1994 (1, leg. A. Barševskis), 7 June 1996 (1, leg. R. Cibuļskis), 11 June 1996 (2, leg. A. Barševskis), 18 June 1996 (1, leg. A. Barševskis), 20 June 1996 (1, leg. A. Barševskis), 29 April – 10 July 2000 (1, leg. A. Rutka), 15 June 2001 (1, leg. G. Lociks), May 2002 (1, leg. U. Valainis, A. Barševskis), 1–3 July 2003 (1, leg. U. Valainis), August 2003 (1, leg. A. Barševskis), 6–15 June 2004 (2, leg. A. Barševskis), 19–22 June 2006 (1, leg. E. Rudāns), 27 June 2007 (2, leg. A. Barševskis), 17–20 June 2008 (1, leg. V. Krone, J. Staškeviča), 1–4 July 2008 (1, leg. R. Cibuļskis); Ļubesti, 16 June 2005 (1, leg. A. Barševskis); Peipiņi, 27 August 1989 (1, leg. A. Barševskis); Saliēna, Ritāni, the Mārkalne River, 21 May 2008 (1, leg. A. Pankjāns); Šedere, Straumēni house, 5–6 April 2008 (1, leg. M. Janovska), 19 April – 2 May 2008 (1, leg. M. Janovska), 1–3 May 2008 (4, leg. M. Janovska); Vārgališķi, 4 June 2005 (4, leg. A. Barševskis); Višķi, 2 June 1987 (1, leg. A. Barševskis); Jēkabpils d.: Duna, 1 June 2002 (2, leg. A. Barševskis), 18–22 June 2006 (2, leg. K. Barševska), 10–18 July 2006 (1, leg. K. Barševska), 2–5 June 2007 (4, leg. K. Barševska), 6–9 June 2007 (4, leg. K. Barševska), 10–19 June 2007 (2, leg. K. Barševska), 16–21 June 2007 (1, leg. A. Barševskis), 22 June 2008 (1, leg. A. Barševskis), 1–8 June 2009 (1, leg. K. Barševska), 11–22 June 2009 (2, leg. K. Barševska); Rubeņi, 26 August 1997 (1, leg. I. Leiskina); Jelgava d.: Jelgava, 2 June 1996 (1, meadow, leg. I. Zagradina); Kalnciems 29 April 1989 (1, leg. A. Titovs); Krāslava d.: Asūne, 12 July 1997 (1,

leg. I. Plotka); Dagda, 4 June 1950 (2, leg. M. Stiprais); Skaista, 14 August 2006 (1, leg. S. Ungurs); Šķeltova, Barševski house 28 June 2008 (1, leg. A. Barševskis); Ūdrīši, Tartaks, 55°54'15"N 26°48'54"E, 30 May 2008 (1, leg. A. Pankjāns); Madona d.: Krustkalne, 11 July 1976 (1, on *Cirsium oleraceum* leg. V. Spuņģis); Preiļi d.: Jersika, Kurpnieki house, 4 June 2006 (1, leg. K. Barševska), 20 May 2007 (1, leg. A. Barševskis), 6 June 2008 (1, leg. A. Barševskis), 22–24 June 2009 (2, leg. A. Barševskis); Pelēči, 23 June 1997 (1, leg. I. Jurkjāne); Rēzekne d.: Rēzekne, 18 May 2008 (1, leg. J. Burovs); Rīga d.: Jaunmārupe, 15 July 2005 (1, leg. A. Barševskis); Kūdra, 10 June 1993 (1, leg. A. Titovs), 6 June 1994 (1, leg. A. Titovs); Rīga, Vecdaugava, 17 January 1993 (1, under the bark, leg. R. Matrozis); Valka d.: Strenči, 3 July 2006 (6, leg. A. Barševskis, U. Valainis, A. Pankjāns).

Host plants: *Sium*, *Oenanthe*, *Chaerophyllum*, *Conium*, *Cicuta*, *Heracleum*, *Apium*, *Levisticum*, *Angelica*, *Archangelica*, *Anthriscus*, *Cnidium* and *Pastinaca* (Umbelliferae).

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

General distribution: Europe, the Caucasus, N Africa (Morocco), Turkey, Iran, Iraq, Kazakhstan, Central Asia, Siberia. [PAL]

Note: a very common and widespread species in Latvia.

Lixus paraplecticus (Linnaeus, 1758)

References: Fischer 1784, 1791 (*Curculio paraplecticus* L.); Groschke 1805 (*Curculio paraplecticus* L.); Precht 1818; Kawall 1865; Seidlitz 1872–1875, 1887–1891; Ulanowski 1888; Mikutowicz 1905; Rathlef 1905; Spuris 1974; Telnov *et al.* 1997, 2006; Telnov 2004.

Examined material: 9 specimens: Preiļi d.: Jersika, Kurpnieki house, 23–24 June 2008 (1, leg. A. Barševskis); Rīga d.: Babīte, 10 June 1951 (3, leg. Z. Spuris); Jugla, 15 June 1951 (2, leg. Z. Spuris); Turaīda, 2 July 1970 (1, leg. Z. Spuris); Tukums d.: Pūre, 8 June 1956 (2, leg. Z. Spuris).

Host plants: *Apium*, *Sium*, *Oenanthe*, *Anthriscus* (Umbelliferae).

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

General distribution: Europe, the Caucasus, Turkey, Iran, Central Asia, Siberia, Russian Far East. [SIE]

(-) *Lixus punctiventris* Boheman, 1835

References: Barševskis 1993, 1997 (deleted from the list); Telnov *et al.* 1997 (deleted from the list); Telnov 2004 (deleted from the list).

Host plants: *Senecio*, *Crepis*, *Barkausia* (Compositae).

General distribution: C and S Europe, the Caucasus, N Africa, Turkey, Siberia, the Russian Far East. [PAL]

Rhinocyllini Lacordaire, 1863*Rhinocyllus* Germar, 1817*Rhinocyllus conicus* (Frölich, 1792)**References:** Seidlitz 1872–1875; Telnov 2004; Telnov *et al.* 2005.**Examined material:** 16 specimens: Daugavpils d.: Daugavpils, 22 March 1998 (1, under the bark of *Populus*, leg. D. Grigorjeva); Līksna, 29 March 1996 (4, leg. R. Cibulskis); Vabole, 28 March 1996 (1, leg. R. Cibulskis), 29 March 1996 (2, leg. R. Cibulskis); Krāslava d.: Šķeltova, 2 November 1996 (1, leg. A. Barševskis); Preiļi d.: Jersika, Kurpnieki house, 18 September 1994, (1, under the bark of *Populus*, leg. A. Barševskis), 26 May 2007 (1, leg. A. Barševskis); Rīga d.: Kūdra, 9 July 1997 (1, leg. A. Titovs); Ķemeri, 27 July 1953 (1, leg. M. Stiprais), 7 July 1997 (1, leg. A. Titovs); Tukums d.: Lepste, 13 August 1989 (2, leg. N. Savenkovs).**Host plants:** *Cnicus*, *Carduus*, *Cirsium*, *Centaurea*, *Galactitis* (Compositae).**Phenology:** V, VI, VII, VIII, IX.**General distribution:** Europe, the Caucasus, N Africa, Turkey, Iran, Kazakhstan, Central Asia; also introduced to N America and New Zealand. [CEM]**Note:** insufficiently known species in Latvia. Hitherto, it was known only from a single locality in Slītere NP, NW Latvia (Telnov *et al.* 2005).**Cleonini** Schoenherr, 1826*Coniocleonus* Motschulsky, 1860*Coniocleonus hollbergii* (Fähræus, 1842)= *glaucus* Fabricius, 1787 (non Scop., 1763; Muller, 1776).**References:** Fleischer 1829; Rathlef 1905; Brammanis 1930; Ozols 1982, 1985; Barševskis 1993, 1997; Telnov *et al.* 1997; Telnov 2004.**Examined material:** 10 specimens: Krāslava d.: Piedruja, 10 April 1991 (1, dry meadow, leg. A. Barševskis), 30 April 1991 (2, dry meadow, leg. A. Barševskis), 10 May 1991 (4, dry meadow, leg. A. Barševskis), 25 May 1991 (1, leg. A. Barševskis), 4 June 1991 (1, dry meadow, leg. A. Barševskis); Rīga d.: Silciems, 25 April 1937 (1, leg. M. Stiprais).**Host plants:** *Rumex acetosella* (Polygonaceae) (H.- E. Wanntorp, pers. comm.), *Calluna* (Ericaceae).**Phenology:** IV, V, VI.**General distribution:** Europe, Siberia. [SIE]*Coniocleonus turbatus* (Fähræus, 1842)**References:** Seidlitz 1872–1875, 1887–1891; Rathlef 1905; Barševskis 1993, 1997, 2002; Telnov *et al.* 1997.**Examined material:** 72 specimens: Aizkraukle d.:

Zalve, 31 May 1962 (3, leg. G. Ozols); Daugavpils d.: Ilgas, Silene NP, 1991 (1, leg. A. Barševskis), 22 May 1992 (1, leg. A. Barševskis), 11 May 1996 (2, leg. N. Savenkovs), 10 June 1997 (1, leg. A. Barševskis); Rīga d.: Baltezers 14 May 1943 (1, leg. M. Stiprais); Garupe, 17 July 1976 (1, leg. O. Gorska); Inčukalns, 19 May 1956 (2, leg. V. Kāposts); Jaunciems, 17 September 1950 (11, leg. M. Stiprais); Kauguri, 1 August 1947 (1, leg. M. Stiprais); Ķemeri, Antīnciems, 28 May 1947 (1, leg. M. Stiprais), 26 July 1947 (1, leg. M. Stiprais), 16 June 1948 (1, leg. M. Stiprais); Krievupe, 4 June 1997 (1, leg. A. Titovs); Ropāži, Baltezers, 30 August 1949 (5, leg. M. Stiprais); Rīga, 26 April 1943 (1, leg. M. Stiprais); Vangaži, 3 June 1955 (24, leg. M. Stiprais); Ventpils d.: Ugāle, 10 June 1959 (3, leg. G. Ozols), 13 June 1961 (7, leg. G. Ozols); Valka d.: Cirgaļi, 8 July 1962 (1, leg. G. Ozols); Oliņās 22 June 1961 (3, leg. G. Ozols).

Host plants: *Calluna* (Ericaceae).**Phenology:** V, VI, VII, VIII, IX.**General distribution:** Europe. [EUR]*Coniocleonus nebulosus* (Linnaeus, 1758)**References:** Fischer 1784, 1791 (*Curculio nebulosus* L.); Groschke 1805 (*Curculio nebulosus* L.); Precht 1818; Seidlitz 1872–1875, 1887–1891; Rathlef 1905; Lackshewitz and Mikutowicz 1939; Barševskis 1993, 1997, 2002; Telnov *et al.* 1997; Telnov 2004.**Examined material:** 18 specimens: Daugavpils d.: Ilgas, Silene NP, 1991 (1, leg. A. Barševskis); Rīga d.: Vangaži, 3 June 1955 (8, leg. M. Stiprais); Valka d.: Cirgaļi, 8 July 1962 (4, leg. G. Ozols); Oliņās, 22 June 1961 (1, leg. G. Ozols); Ventpils d.: Ugāle, 10 June 1959 (1, leg. G. Ozols), 13 June 1961 (3, leg. G. Ozols).**Host plants:** *Calluna* (Ericaceae).**Phenology:** VI, VII, IX.**General distribution:** Europe, N Africa, W Siberia, the Russian Far East. [PAL]**(-) *Coniocleonus nigrosuturatus*** (Goeze, 1777)**References:** Precht 1818; Brammanis 1930; Barševskis 1993 (misidentification), 1997 (deleted from the list); Telnov *et al.* 1997 (deleted from the list); Telnov 2004 (deleted from the list).**Host plants:** *Thymus* (Labiatae).**General distribution:** S, SE and C Europe, the southern part of the European territory of Russia, the Caucasus, N Africa (Egypt, Morocco), Turkey, Central Asia (Turkmenistan, Uzbekistan). [CEM]**(-) *Stephanocleonus*** Motschulsky, 1860**(-) *Stephanocleonus tetragrammus*** (Pallas, 1781)**References:** Seidlitz 1872–1875, 1887–1891; Rath-

lef 1905; Telnov *et al.* 1997; Telnov 2004.

General distribution: SE Europe (Hungary, Moldavia, the Crimea), the Caucasus, the South of the European territory of Russia, W Kazakhstan. [CCA]

Note: actual faunal data on this species in Latvia are absent and its inclusion in the local fauna is doubtful. Therefore it is excluded from the list of Latvian Coleoptera.

Bothynoderes Schoenherr, 1823

= *Chromoderus* Motschulsky, 1860

Bothynoderes affinis (Schrank, 1781)

= *fasciatus* (Müller, 1776 nec Scopoli, 1763)

References: Precht 1818; Seidlitz 1872–1875, 1887–1891; Rathlef 1905; Brammanis 1930; Ozols 1963; Šmits and Spuris 1966; Barševskis 1993, 1997, 2002; Barševskis *et al.* 2004, 2008; Telnov *et al.* 1997; Telnov 2004.

Examined material: 12 specimens: Daugavpils d.: Bebrene 19 June 2006 (1, leg. E. Rudāns); 2 km N Daugavpils, 4 May 2008 (1, inland dunes, edge of pine forest, leg. A. Bukejs); Ilgas, Silene NP, 9 May 1996 (1, leg. A. Barševskis), 30 June – 3 July 2007 (1, leg. L. Rancāne, A. Bērziņš); Stropi, 31 May 2008 (1, sandy agrocenosis, leg. A. Bukejs); Šedere, Šarlote, 11 May 2008 (1, leg. K. Aksjuta); Jēkabpils d.: Sala, 27 June 2001 (1, leg. K. Uģeļska); Preiļi d.: Pelēči, 20 June 1997 (1, leg. I. Jurkājāne); Rīga d.: Rīga, 31 August 1939 (1, leg. J. Muskars), 6 June 1945 (1, leg. J. Muskars); Liepāja d.: Pape, 24–26 May 1994 (2, dunes, sea shore, leg. N. Savenkovs).

Host plants: *Beta*, *Chenopodium*, *Kochia*, *Atriplex*, *Salsola* (Chenopodiaceae).

Phenology: V, VI, VII, VIII.

General distribution: Europe, the Caucasus, Turkey, Iran, Kazakhstan, Central Asia (Turkmenistan, Uzbekistan), the southern part of W Siberia. [CAE]

Cyphocleonus Motschulsky, 1860

Cyphocleonus dealbatus (Gmelin, 1790)

= *marmoratus* (Fabricius, 1792)

= *tigrinus* (Panzer, 1789 nec Geoffroy, 1785)

References: Seidlitz 1872–1875, 1887–1891; Rathlef 1905; Telnov *et al.* 1997; Telnov 2004.

Examined material: 1 specimen: Tukums d.: Tukums, 13 July 1974 (1, *Achillea millefolium*, leg. M. Šternbergs).

Host plants: *Carduus*, *Cirsium*, *Onopordon*, *Achillea*, *Artemisia*, *Matricaria*, *Centaurea*, *Chrysanthemum*, *Tanacetum*, *Andryala* (Compositae).

Phenology: VII.

General distribution: Europe, the Caucasus, Turkey, Iran, Kazakhstan, Central Asia, Siberia, China. [ASE]

Note: a very rare species in Latvia with a single actual known locality.

Cyphocleonus trisulcatus (Herbst, 1795)

References: Seidlitz 1872–1875, 1887–1891; Rathlef 1905; Telnov *et al.* 2006.

Examined material: 2 specimens Rīga d.: Rīga (2, Mūthel coll.).

Host plants: *Chrysanthemum*, *Leucanthemum* (Compositae).

Phenology: VI.

General distribution: Europe, Siberia. [SIE]

Note: a very rare species in Latvia with 2 known localities. It was also recorded in Liepāja env., SW Latvia (Telnov *et al.* 2006).

Cleonis Dejean, 1821

Cleonis pigra (Scopoli, 1763)

= *sulcirostris* (Linnaeus, 1758)

References: Fischer 1784, 1791 (*Curculio sulcirostris* L.); Precht 1818; Seidlitz 1872–1875, 1887–1891; Rathlef 1905; Brammanis 1930; Priedītis 1958; Ozols 1963; Barševskis 1993, 1997, 2002; Telnov *et al.* 1997; Telnov 2004.

Examined material: 96 specimens: Aizkraukle d.: 20 May 1995 (1, leg. R. Cibulskis); Daugavpils d.: Ilgas, Silene NP, 12 June 1994 (1, leg. A. Barševskis), 21–24 April 1995 (1, leg. A. Barševskis), 3 July 1995 (1, leg. A. Barševskis), 10 May 1996 (1, leg. R. Cibulskis), 10 June 1997 (1, leg. A. Barševskis), 18 June 1997 (2, leg. A. Barševskis), 29–30 April 2000 (1, leg. A. Barševskis), 29 April – 10 July 2000 (1, leg. A. Rutka), May–July 2000 (1, leg. I. Pavārnika), 15 April 2003 (1, leg. U. Valainis), 30 June 2005 (1, leg. A. Barševskis); Līksna, 24 April 1996, (1, leg. R. Cibulskis); Medumi, Kurcums, 18 May 2009 (1, leg. A. Barševskis, A. Anichenko); Naujene, Vasargeliški, Daugavas Loki NP, 55°54'55"N 26°48'50"E, 29 April 2008 (1, Bondaru glen, leg. A. Pankjāns, U. Valainis); Šedere, Straumēni house, 27 May 2007 (1, leg. M. Janovska), 9–10 June 2007 (1, leg. M. Janovska), 1–3 May 2008 (1, leg. M. Janovska); Šedere, Šarlote, 18 May 2008 (1, leg. K. Aksjuta), 1 June 2008 (1, leg. K. Aksjuta); Vabole, July 1993 (2, leg. M. Jukšs); Jēkabpils d.: Dunava, 15–16 April 1995 (2, in litter ground, leg. A. Barševskis), 4 June 1995 (1, leg. A. Barševskis), 2 June 1996 (3, leg. A. Barševskis), 6 September 1998 (3, agrocenosis, leg. A. Barševskis), 4–20 June 2008 (1, leg. K. Barševska); Rubene, 20 August 2001 (2, leg. I. Leiskina); Sala, 27 May 2000 (1, leg. K. Uģeļska), 22 July 2000 (1, leg. K. Uģeļska), 22 August 2001 (2, leg. K. Uģeļska); Jelgava d.: Zaļenieki, Pumpuri house, 8 August 1969 (11, leg. anonymous), 5 July, 1972 (4, on *Cirsium arvense*, leg. M. Šternbergs), 22 May 1973 (1, leg. M. Šternbergs); Svēte, 2 June

1972 (1, meadows, M. Šternbergs); Ogre d.: Turkalne, 29 May 1987 (1, leg. anonymous); Preiļi d.: Jersika, Kurpnieki house, 15 May 2005 (4, leg. A. Barševskis), 21 May 2005 (1, leg. A. Barševskis), 22 May 2005 (1, leg. A. Barševskis), 23 May 2005 (1, leg. A. Barševskis), 24 June 2005 (2, leg. A. Barševskis), 4 May 2006 (1, leg. K. Barševska), 26–28 May 2006 (1, leg. K. Barševska), 6–7 June 2006 (1, leg. A. Barševskis, K. Barševska), 29 May 2007 (1, leg. A. Barševskis, K. Barševska); Pelēči, 25 August 1997 (1, leg. I. Jurkājāne); Rēzekne d.: Gaigalava, 15 July 2009 (2, old clearing, leg. A. Balalainkins, A. Bukejs); Dricāni (1, leg. anonymous); Rīga d.: Baldone, 16 May 1976 (1, pine forest, leg. L. Maliņš); Bērziems, 1 May 1992 (1, leg. M. Kalniņš); Bišumuiža, September 1937 (1, leg. Bruņenieks); Dārziņi, 19 May 1972 (1, leg. L. Danka); Garupe, 6 August 1975 (1, leg. M. Stiprais), 16 May 1976 (1, leg. Dmitrijevs), 12 June 1976 (1, leg. S. Burlakovs); Kangari, 10 May 1948 (1, leg. M. Stiprais); Kārde, September 1993 (1, leg. A. Titovs); Ķemeri, 1 June 1941 (1, leg. M. Stiprais); Rīga, 20 May 1940 (1, leg. M. Stiprais), 21 May 1940 (1, dunes with scarce vegetation, leg. M. Stiprais), 24 May 1940 (1, dunes with scarce vegetation, leg. M. Stiprais), 28 May 1940 (2, sandy area with scarce vegetation, leg. M. Stiprais), 28 May 1941 (1, leg. unknown), 25 May 1942 (1, leg. M. Stiprais); Vējupīte, 5 August 1970 (1, leg. Z. Spuris); Saldus d.: Reņģe, 24 May 1934 (2, leg. J. Muskars); Talsi d.: Slītere NP, Zilie kalni, 10 July 2004 (1, leg. A. Barševskis); Tukums d.: 18 May 1991 (1, leg. M. Kalniņš).

Host plants: *Cirsium*, *Carduus*, *Silybum*, *Cynara*, *Onopordon*, *Arctium*, *Centaurea* (Compositae).

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

General distribution: Europe, the Caucasus, N Africa, Turkey, Iran, Kazakhstan, Central Asia, Siberia, the Russian Far East, Mongolia, China. [PAL]

Note: a very common and widespread species in Latvia.

(-) *Mecaspis* Schoenherr 1823

(-) *Mecaspis striatella* (Fabricius 1792)

References: Seidlitz 1872–1875, 1887–1891; Rathlef 1905; Barševskis 1997 (deleted from the list); Telnov *et al.* 1997 (deleted from the list); Telnov 2004 (deleted from the list).

Host plants: *Chnicus* (Compositae).

General distribution: S Europe, N Africa. [MED]

An illustrated key to the Latvian Lixinae

1(14) Rostrum more or less rounded, narrow (Fig. 16).

2(7) Body narrow, cylindrical; length of elytra is at

least twice the width; the width of pronotum is usually less than length; apical parts of elytra are separately protrusive and extended from the apical part of abdomen or separately rounded. Genus *Lixus*.

3(4) Apical parts of elytron are separately rounded and not protrusive from the apical part of abdomen. Body length 8.0–12.0 mm. Habitus (Fig. 2)

..... *Lixus bardanae*

4(3) Apical parts of elytron tapering and separately protrusive from the apical part of abdomen.

5(6) Body wider; apical parts of elytron are as short as the last abdominal sternite (Fig. 23). Body length 11.0–17.0 mm. Habitus (Fig. 1)

Lixus iridis

6(5) Body narrower, elongate; apical parts of elytra very extended, as long as two last abdominal sternites (Fig. 24). Body length 10.0–17.0 mm. Habitus (Fig. 3)

Lixus paraplecticus

7(2) Body short, oval; length of elytra twice shorter than the width; pronotum transverse; apical parts of elytra are rounded together. Genus *Larinus*.

8(9) Rostrum conically tapering towards the apex, completely straight (fig. 19A, 19B). Body length 4.0–9.0 mm. Habitus (Figs 6A, 6B)

Larinus turbinatus

9(8) Rostrum not conically tapering towards the apex, bent down (Figs 20A, 20B).

10(11) Body more elongate, narrow, with parallel-sided elytra. Body length 5.0–8.0 mm. Habitus (Fig. 8)

Larinus carlinae

11(10) Body broad, ovoid; elytra side-rounded.

12(13) Rostrum without carinae. Pronotum distinctly constricted before the anterior margin, lateral sides rounded (Fig. 30); finely and densely punctuated. Body length 6.0–8.0 mm. Habitus (Fig. 7)

Larinus iaceae

13(12) Rostrum with fine longitudinal carina; pronotum without constriction or weakly constricted before the anterior margin; conical, with almost straight lateral sides (Fig. 30); coarsely and densely punctuated. Body length 8.0–12.0 mm. Habitus (Figs 5A, 5B).....

Larinus sturnus

14(1) Rostrum more or less flattened and thick (Figs 17, 18).

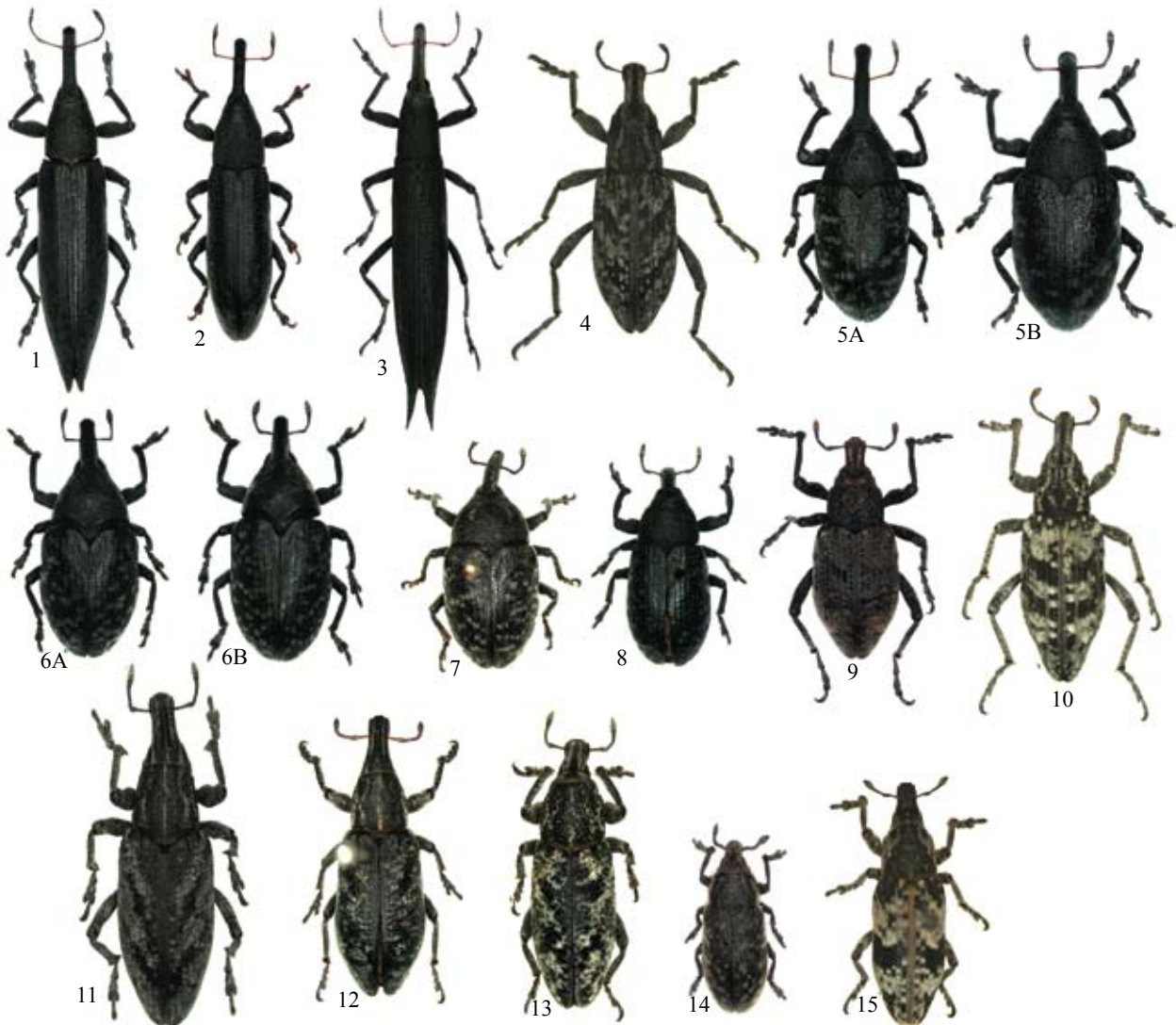
15(16) Rostrum shorter than head, very wide and thick (Fig. 18) with very fine longitudinal carinae; second segment of hind tarsi shorter than third (Fig. 27). Smaller size, body length 4.0–6.5 mm. Habitus (Fig. 14)

Rhynocyllus conicus

16(15) Rostrum longer than head (Fig. 17) with more or less pronounced longitudinal carinae. Larger size, body length 7.0–17.0 mm.

17(18) Rostrum, in the middle, with two closely positioned longitudinal carinae stretching from the base to the anterior margin of rostrum. Body length 10–17 mm. Habitus (Fig. 11)..... *Cleonis pigra*
 18(17) Rostrum with a more or less distinct single longitudinal carina in the middle.
 19(26) Second antennomere shorter than the first one or of the same length (Fig. 29).
 20(23) Second segment of hind tarsi not extended, second and third segments approximately of the same length (Fig. 26). Genus *Cyphocleonus*.
 21(22) Longitudinal carina on the apical part of rostrum not divided by a median groove

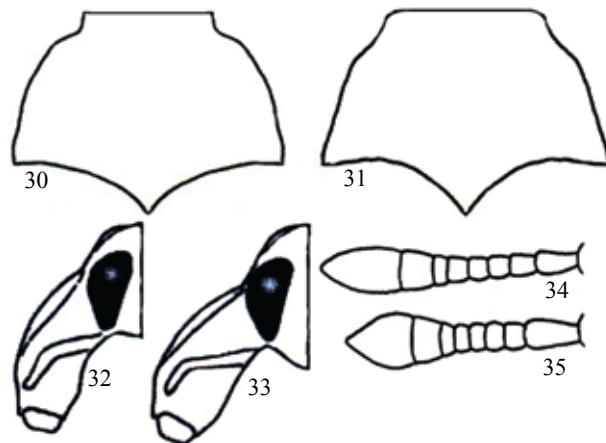
(Fig. 21). Body length 8–12 mm. Habitus (Fig. 13)..... *Cyphocleonus dealbatus*
 22(21) Longitudinal carina on the apical part of rostrum divided by a single thin median groove (Fig. 22). Body length 8.0–13.0 mm. Habitus (Fig. 12)..... *Cyphocleonus trisulcatus*
 23(20) First and second segments of hind tarsi are extended. Second segment of hind tarsi distinctly longer than the third one (Fig. 25). Genus *Coniocleonus*.
 24(25) Each elytron with two bare oblique bands; abdomen without bare spots. Body length 11.0–14.0 mm. Habitus (Fig. 4)..... *Coniocleonus nebulosus*
 25(24) Each elytron with two bare almost parallel bands;



Figures 1–15. Habitus, dorsal view: 1 – *Lixus iridis*, 2 – *L. bardanae*, 3 – *L. paraplecticus*, 4 – *Coniocleonus nebulosus*, 5A – *Larinus sturnus* ♀, 5B – *L. sturnus* ♂, 6A – *L. turbinatus* ♀, 6B – *L. turbinatus* ♂, 7 – *L. iaceae* ♂, 8 – *L. carlinae*, 9 – *Coniocleonus hollbergii*, 10 – *C. turbatus*, 11 – *Cleonis pigra*, 12 – *Cyphocleonus trisulcatus*, 13 – *Cyphocleonus dealbatus*, 14 – *Rhynocyllus conicus*, 15 – *Bothynoderes affinis*.



Figures 16–29. 16–20 – rostrum, lateral view: 16 – *Lixus paraplecticus*, 17 – *Coniocleonus nebulosus*, 18 – *Rhynocyllus conicus*, 19A – *Larinus turbinatus* ♀, 19B – *L. turbinatus* ♂, 20A – *L. sturnus* ♀, 20B – *L. sturnus* ♂; 21–22 – rostrum, dorsal view: 21 – *Cyphocleonus dealbatus*, 22 – *C. trisulcatus*; 23–24 – apex of elytra, dorsal view: 23 – *Lixus iridis*, 24 – *L. paraplecticus*; 25–27 – hind tarsus, dorsal view: 25 – *Coniocleonus hollbergii*, 26 – *Cyphocleonus dealbatus*, 27 – *Rhynocyllus conicus*; 28–29 – antenna: 28 – *Bothynoderes affinis*, 29 – *Cyphocleonus dealbatus*.



Figures 30–35. 30–31 – pronotum, dorsal view: 30 – *Larinus iaceae*, 31 – *L. sturnus*; 32–33 – rostrum, lateral view: 32 – *Coniocleonus hollbergii*, 33 – *C. turbatus*; 34–35 – antenna: 34 – *Coniocleonus hollbergii*, 35 – *C. turbatus* (32–35 after Arzanov 2006).

abdomen with bare spots.

26(27) Rostrum with a distinctly convex (in lateral view), wide carina (Fig. 32). Antenna (Fig. 34). Frons with a wide distinct impression. Body length 9.0–13.5 mm. Habitus (Fig. 9) ***Coniocleonus hollbergii***

27(26) Rostrum with weakly convex (in lateral

view) sharp long carina. (Fig. 33). Antenna (Fig. 35). Frons with point-shaped impression. Body length 9.0–13.5 mm. Habitus (Fig. 10)..... ***Coniocleonus turbatus***

28(19) Second antennomere distinctly longer than the first one (Fig. 28). Body length 6.0 – 11.0 mm. Habitus (Fig. 15)..... ***Bothynoderes affinis***

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LATVIJOS STRAUBLIUKŲ FAUNOS (COLEOPTERA: CURCULIONIDAE) APŽVALGA

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SANTRAUKA

Šiame straipsnyje apibendrinami faunistiniai bei bibliografiniai duomenys apie Latvijos faunai priklausančių straubliukų gentis *Larinus*, *Lixus*, *Rhinocyllus*, *Coniocleonus*, *Stephanocleonus*, *Bothynoderes*, *Cyphocleonus* ir *Cleonis*. Iš viso buvo peržiūrėti 462 šių genčių vabalai. Tai yra pirmoji Latvijos straubliukų bibliografijos analizė. Pirmą kartą Latvijoje buvo užregistruotas *Larinus turbinatus* Gyllenhal, 1835. Viena straubliukų rūšis *Stephanocleonus tetragrammus* (Pallas, 1781) buvo išbraukta iš Latvijos vabalų sąrašo. Pateikiamas anotuotas Latvijos straubliukų sąrašas (15 rūšių ir 7 gentys) ir iliustruotas apibūdiniojas.

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