Latvian Curculioninae (Coleoptera: Curculionidae). 2. Tribe Tychiini Gistel, 1848

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Abstract: The current paper summarizes information on the Latvian fauna of Tychiini Gistel, 1848. Faunal data on 20 species of this tribe are presented. The first records of *Tychius parallelus* (Panzer, 1794); *T. pumilus* C. Brisout 1862 and *T. trivialis* Boheman, 1843 in the Latvian fauna are reported. The annotated list including 23 species and the illustrated key of Latvian Tychiini are given.

Key words: Curculionidae, Tychiini, Latvia, fauna, bibliography, new records, identification.

Introduction

Genera *Tychius* Germar, 1817 and *Sibinia* Germar, 1817 comprising more than 630 species spread worldwide (Curculio Team 2010; Caldara, 1989, 1993, 2009, 2010; Clark 1978, 1979a, 1979b, 1984; Caldara & Karasyov 1995; Koštál & Caldara 2011). In Fennoscandia and the Baltic region Tychiini are represented by two genera and 26 species (Silfverberg 2011), in Latvia by 20 species of two genera (Telnov 2004; Telnov et al. 2006).

In adjacent territories, the number of recorded Tychiini species slightly varies: 27 species of two genera are recorded in Belarus (Alexandrovich et al. 1996; Solodovnikov 1999), 13 species of two genera in Estonia (Silfverberg 2011), and 19 species of two genera in Lithuania (Tamutis et al. 2011). The first information on species of Tychiini in Latvia was published at the end of the 19th century (Seidlitz 1872-1875). More than 10 studies appeared in Latvia subsequently. Barševskis (1997) compiled the list of Latvian Curculionidae including 17 species of this tribe with faunal data on eight of them. Fragmentary faunal data can be also found in the following articles: Ulanowsky 1884, Mikutowicz 1905, Lackschewitz, Mikutowicz 1939, Lindberg 1932, Barševskis 1993, Petrova et al. 2006, Telnov et al. 2006.

Current publication continues our study on weevils of subfamily Curculioninae of the Latvian fauna (Balalaikins 2011a, 2011b, 2012a, 2012b; Balalaikins, Bukejs 2010, 2011). The aim of the paper is to summarize the information available on Tychiini in Latvia. The bibliographical information on this weevil tribe 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 566 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 collection of the Institute of Biology

of the Latvian University (LUBI, Salaspils, Latvia), the collection of the Latvian Natural History Museum (LDM, Rīga, Latvia), A. Barševskis' (Daugavpils, Latvia), and C. Müthel's (Latvian Natural History Museum, Rīga, Latvia) collections, and the author's collection (Daugavpils, Latvia). In this study, the database of the Entomological Society of Latvia (hold by D. Telnov, Rīga) has also been used. The following keys were used for species identification: (Curculio Team 2010; Egorov et al. 1996; Hoffmann 1954; Smreczynski 1972; Lohse 1983). We followed the systematics suggested by Caldara (1985, 1990). The nomenclature and synonymy used in compliance with Caldara (1985) and Curculio Team (2010). The general distribution of species and host plants is presented in the following works (Bajtenov 1974; Caldara 1987; Curculio Team 2010; Dieckmann 1988, Egorov et al. 1996; Hoffmann 1954; Hua 2002; Legalov 2010; Legalov et al. 2010; Lohse 1983). The species in the list are arranged alphabetically in their respective genera. The classification of chorotypes follows the one suggested by Vigna Taglianti et al. (1999). The transcript of chorotypes codes is as follows: ASE – Asiatic-European, CAE – Central, Asiatic-European, CEU – Central-European, EUR – European, PAL – Palaearctic, SIE – Siberian-European, and WPA – West-Palaearctic. The following information is given for each species: scientific name and author, published bibliographical sources for Latvia, synonyms of species used in these sources, available 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, XI – months from March to November respectively; in parentheses – ten-day period), general distribution of species and the chorotype code. All records of the examined material are arranged in accordance with the administrative system of Latvia used from 1991 to 2008.

The meanings of the used abbreviations are as follows: d. – district, env. – environs, Isl. – island, NP – Nature Park, NPT – Nature protected territory, S – South, N – North, E – East, W – West.

The photos were taken with a Nikon digital camera using a stereomicroscope Nikon SMZ 745T.

Annotated Checklist of the Tychiini of Latvian fauna

Family **Curculionidae** Latreille, 1802
Subfamily **Curculioninae** Latreille, 1802
Tribe **Tychiini** Thomson, 1859
Genus ***Tychius*** Germar, 1817

Tychius aureolus Kiesenwetter, 1851
References: Rathlef 1921; Telnov et al. 1997; Telnov 2004.
Examined material – 20 specimens: Aizkraukle d.: Skrīveri, 21.06.2006 (14, leg. A. Barševskis); Daugavpils d.: Doļnaja, 18.06.2010 (1, leg. M. Balalaikins, A. Bukejs), Ilgas, Silene NP, 17–20.06.2008 (1, leg. Staskeviča, V. Krone), Mežciems, 16.06.2005 (3, leg. A. Barševskis, A. Bukejs, U. Valainis), Šedere, Straumēni house, 29.07.2007 (1, leg. M. Janovska).
Host plants genera: *Medicago*, *Melilotus*, *Trifolium* (Fabaceae).
Phenology: VI-VII.
General distribution: Europe, S and W Siberia, Central Asia (Iran, S Kazakhstan, W Kyrgyzstan, E Uzbekistan) [CAE].
Note: A rare and insufficiently known species, recorded in a few localities.

Tychius breviusculus Desbrochers des Loges, 1873
= *Tychius haematopus* auct. nec Gyllenhal, 1836

References: Milander and Varzinska 1979 (*T. haematopus*); Barševskis 1997; Barševskis et al. 2002; Telnov et al. 1997; Telnov 2004; Kalniņš et al. 2007.
Examined material – 29 specimens: Daugavpils d.: Butišķi, 21.08.2006 (1, near Daugava river, leg. M. Balalaikins, A. Bukejs), Daugavpils, Mežciems, 28.05.1993 (1, leg. A. Barševskis), Ilgas, Silene NP, 04.07.1994 (4, leg. A. Barševskis), 27.06.1996 (1, leg. A. Barševskis), 05.07.1997 (1, leg. A. Barševskis), 09.06.2008, (1, leg. A. Barševskis, A. Soldāns), Līksna, Daugavpils beltway, 2.5 km from highway Daugavpils to Rīga, 16.06.2008 (1, inland dunes, leg. A. Barševskis), Ļubesti, 05.07.2010 (1, leg. M. Balalaikins, A. Bukejs); Jēkabpils d.: Dunava, 04.08.1996 (1, leg. A. Barševskis), 05.08.1996 (1, leg. A. Barševskis), 13.08.1996 (2, leg. A. Barševskis), 15.08.1996 (1, leg. A. Barševskis), 16.08.1997 (1, leg. A. Barševskis), Jēkabpils, near Nereta road, 08.08.2008 (2, leg. A. Barševskis); Krāslava d.: Šķeltova, 23.08.1997 (3, leg. A. Barševskis); Ogre d.: Ogre, 26.11.2006 (1, leg. I. Salmane, beneath the bark of *Alnus*); Rīga d.: Cekule env., 14.06.2005 (1, raised bog, leg. D. Telnov), Jūrmala, Kauguri, 1994 (4, dunes, leg. A. Barševskis); Tukums d.: Bērzciems env., Engure Lake NP, (1, wet meadow near Engure Lake, leg. A. Karpa).
Host plants genera: *Melilotus* (Fabaceae).
Phenology: V-–VIII.
General distribution: Europe, Turkey, N Africa (Morocco), Siberia, Central Asia (Afghanistan, NW China, Iran), East Asia (N Korea, Mongolia, Russian Far East) [PAL].
Note: An infrequent species in Latvia.

Tychius junceus (Reich, 1797)
References: Lackschewitz, Mikutowicz 1939; Barševskis 1997; Telnov et al. 1997; Telnov 2004.
Examined material – 8 specimens: Daugavpils d.: Bebrene, 21.10.2006 (1, leg. E. Rudāns), Daugavpils, Mežciems, 19.07.2007 (1, leg. K. Aksjuta, M. Janovska); Jēkabpils d.: Dunava, 18.07.1995 (1, on *Medicago falcata*, leg. A. Barševskis); Jelgava d.: Zaļenieki, 22.05.1973 (1, leg. M. Šternbergs); Preiļi d.: Preiļi env., 25.05.2005 (1, meadow, leg. C. Fägerström); Rīga d.: Jauncekule 14.06.2005 (2, leg. C. Fägerström); Jūrmala, Kūdra, 08.06.1999 (1, leg. A. Titovs).
Host plants genera: *Anthyllis, Lotus, Melilotus, Medicago, Trifolium* (Fabaceae).
Phenology: V-VII; X(3).
General distribution: Europe**,** S and W Siberia**,** Central Asia (Iran, SW Kazakhstan) [CAE].
Note: A rare and insufficiently known species, recorded in a few localities.

Tychius lineatulus Stephens, 1831
References: Rathlef 1905; Telnov et al. 1997; Telnov 2004.
Examined material – 3 specimens: Daugavpils d.: Ilgas, Silene NP, 02.07.1996 (1, leg. A. Barševskis); Krāslava d.: Šķeltova, 26.07.1996 (1, leg. A. Barševskis); Limbaži d.: Liepupe, Ķurmrags, 17.08.2008 (1, dunes, leg. A. Barševskis).
Host plants genera: *Trifolium* (Fabaceae).
Phenology: VII-VIII.
General distribution: Europe (except N), Turkey, N Africa (Algeria) [EUM].
Note: A very rare species.

Tychius medicaginis Brisout, 1862
References: Mikutowicz 1905; Barševskis 1993, 1997; Telnov et al. 1997; Telnov 2004.
Examined material – 29 specimens: Cēsis d.: Bērzkrogs env., 01.07.1991 (2, cultivated grassland, on *Medicago*, leg. D. Telnov), Vecpiebalga, 02.-03.07. 1991 (5, cultivated grassland, leg. D. Telnov); Daugavpils d.: Butišķi, 01.07.2009 (3, near Daugava river, leg. M. Balalaikins, A. Bukejs), Daugavpils, 29.06.1997 (1, leg. I. Leiskina), 09.05.1998 (1, leg. A. Barševskis), 16.06.2005 (1,

leg. A. Barševskis), 01.06.2008 (1, bank of Daugava river), Elerne, 16.06.2002 (2, leg. A. Barševskis), 26.06.2005 (4, leg. A. Barševskis, K. Barševska), Naujene, 13.06.1989 (1, leg. A. Barševskis); Jēkabpils d.: Dunava, 19.07.1995 (1, leg. A. Barševskis), 01.06.2002 (1, leg. A. Barševskis); Kuldīga d.: Skrunda, 12.06.1995 (1, Venta river valley, meadow, on *Lupinus,* leg. D. Telnov); Madona d.: Odziena, 06.06.1992 (1, cultivated grassland, on *Medicago*, leg. D. Telnov); Ogre d.: Alstiķe, 30.06.2010 (2, meadow near Daugava river, leg. M. Balalaikins), Ikšķile, 03.07.2001 (2, Daugava river valley, on *Medicago,* leg. D. Telnov).
Host plants genera: *Medicago* (Fabaceae). The species was found also on *Lupinus* (Fabaceae).
Phenology: V-VII.
General distribution: Europe, W Siberia, Central Asia (Iran, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan), East Asia (N China) [CAE].
Note: An infrequent species in Latvia.

Tychius meliloti Stephens, 1831
References: Seidlitz 1887-1891; Rathlef 1905; Telnov et al. 1997; Telnov 2004.
Examined material – 2 specimens: Jēkabpils d.: Jēkabpils, 08.08.2008 (1, leg. A. Barševskis); Ventspils d.: Muižnieki, 29.07.2005 (1, leg. A. Barševskis, A. Bukejs, U. Valainis).
Host plants genera: *Medicago, Melilotus* (Fabaceae).
Phenology: VII-VIII.
General distribution: Europe, Turkey, N Africa (Algeria, Morocco), Siberia, Central Asia (Iran, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan), East Asia (Mongolia, N China, Russian Far East) [PAL].
Note: A very rare species.

Tychius parallelus (Panzer, 1794)
=*Tychius venustus* auct.nec (Fabricius 1787)
References: Rathlef 1905 (*Tychius venustus*).
Examined material – 28 specimens: Daugavpils d.: Silene, 09.06.2008 (28, on *Cytisus scoparius* (L.), leg. A.Barševskis).
Host plants genera: *Cytisus, Genista* (Fabaceae).
Phenology: VI.
General distribution: Europe, N Africa (Algeria) [WPA].
Note: This species is mentioned only in Rathlef's catalogue of the beetles of the Baltic fauna. This catalogue was written according to the Seidlitz's (1887-1891) monograph and other faunal publications of that time. It is important to know that the Baltic States in that time were Estonia and Latvia, without Latgale. Having regard, that faunal data of this species in Latvia are absent, *T.parallelus* is considered as new species for the Latvian fauna.

Tychius picirostris (Fabricius, 1787)
= *Miccotrogus picirostris* (Fabricius, 1787)
References: Seidlitz 1872-1875, 1887-1891; Rathlef 1905; Lindberg 1932; Milander and Varzinska 1979 (*Miccotrogus picirostris*); Barševskis 1993, 1997; Barševskis et al. 2002; Telnov et al. 1997; Telnov 2004; Petrova et al. 2006; Kalniņš et al. 2007.
Examined material – 91 specimens: Aizkraukle d.: Nereta, 16.06.2005 (2, leg. A. Barševskis); Daugavpils d.: Butišķi, 29.06.2010 (1, valley of river Daugava, leg. A. Bukejs, M. Balalaikins), Daugavpils, 16.06.2005 (2, leg. A. Barševskis), Doļnaja, Dvietes flood-land, Daugava river valley, 18.06.2010 (1, leg. M. Balalaikins, A. Bukejs), Ilgas, Silene NP, 02.07.1993 (1, leg. A. Barševskis), 30.05.1994 (1, leg. A. Barševskis),09.06.1994(1,leg.A.Barševskis), 11.06.1994 (1, leg. A.Barševskis), 13.06.1995

(5, leg. A. Barševskis), 18.06.1995 (2, leg. A.Barševskis), 09.05.1996 (1, leg. A.Barševskis), 31.05.1996 (1, leg. A. Barševskis),04.06.1996(1,leg.A.Barševskis), 06.06.1996 (1, leg. A.Barševskis), 10.06.1996 (1, leg. A. Barševskis), 11.06.1996 (1, leg. A. Barševskis), 13.06.1996 (1, leg. A. Barševskis), 15.06.1996 (2, leg. A.Barševskis), 16.06.1996 (3, leg. A. Barševskis),28.06.1996(1,leg.A.Barševskis), 02.07.1996 (1, leg. A.Barševskis), 03.07.1996 (1, leg. A. Barševskis), 05.07.1996 (3, leg. A.Barševskis), 05.06.1997 (2, leg. A. Barševskis),10.06.1997(1,leg.A.Barševskis), 15.06.1997 (2, leg. A. Barševskis), 08-10.06.1998 (1, leg. A. Barševskis), 11-14.06.1998 (1, leg. A. Barševskis), 01-4.07.1998 (1, leg. A. Barševskis), 28.05.1999 (1, leg. A. Barševskis), 06-15.06.2004 (2, leg. A. Barševskis), 02-10.07.2004 (1, leg. A. Barševskis), 30.06.2005 (1, leg. A. Barševskis), Ļubesti, 05.07.2010 (1, leg. A. Bukejs, M. Balalaikins), Līksna 29.06.1996 (1, leg. R. Cibuļskis), Mežciems, 16.06.2005 (1, leg. A. Barševskis, A. Bukejs, U. Valainis), 01.06.2008 (1, bank of Daugava river, leg. A. Bukejs), Višķi, 11.06.1989 (1, leg. A. Barševskis), 18.07.1990 (1, leg. A. Barševskis); Jēkabpils d: Birži, 25.06.2010 (2, leg. M. Balalaikins), Dunava, 13.08.1996 (1, leg. A. Barševskis), 03.08.1997 (2, leg. A. Barševskis), 12.07.1997 (3, leg. A. Barševskis), Rubene, 07. 06.1998 (1, leg. I. Leiskina), 28.03.1999 (1, leg. I. Leiskina); Jelgava d.: Dalbe, 14.07.1969 (2, on *Trifolium*), Svēte, 02.06.1972 (1, leg. M. Šternbergs); Krāslava d.: Šķeltova, 31.07.1995 (3, on *Trifolium hybridum* (L.), leg. A. Barševskis); Liepāja d.: Pape N env., 18.06.2005 (1, meadow, leg. D. Telnov); Limbaži d.: Ķirbiži, 17.06.1971 (1, leg. M. Šternbergs), Pāle, 09.06.1973 (1ex.); Rīga d.: Doles sala, 06.06.1992 (1, leg. M. Kalniņš), Garupe, 28.06.1974 (2 ex., cultivated grassland, on *Trifolium pratense*), Jūrmala, Kūdra, 29.06.1997 (1, leg. A. Titovs), Krimulda, Gaujas National Park, 16.06.2005 (1, mixed forest, leg. D. Telnov); Rīga, 21.06.1939 (1, leg. J. Muskars), Salaspils, 08.06.1992 (1, leg. M. Kalniņš), Sigulda, 06.06.1969 (1ex.), 17.06.1969 (1ex.), Stopiņi, 10-11.06.2009 (1, garden, leg. D. Telnov); Talsi d.: Slītere National Park, 27.06.2006 (1, leg. A. Barševskis, U. Valainis, A. Pankjāns); Tukums d.: near Jaunmoku castle 16.07.2008 (1, leg. A. Barševskis), Lielaisciems, Ķemeri National Park, 07.2006 (1, leg. A. Barševskis); Valka d.: Mežole, 26.06.2006 (1, leg. J. Donis); Ventspils d.: Moricsala Nature Reserve, 26.06.2004 (1, leg. A. Barševskis), 09.07.2004 (2, leg. A. Barševskis), 14.06.2008 (1, on bracket-fungus, leg. U. Valainis), 07.2007 (2, leg. A. Barševskis).

Host plants genera: *Trifolium* (Fabaceae).

Phenology: III(3), V-VII.

General distribution: Europe, Siberia, Anatolia, Central Asia (Kazakhstan, Turkmenistan), East Asia (Mongolia, Russian Far East) introduced in N America [ASE].

Note: A common species in Latvia.

Tychius polylineatus (Germar, 1824)

References: Seidlitz 1887-1891; Rathlef 1905; Telnov et al. 1997; Telnov 2004.

Host plants genera: *Trifolium* (Fabaceae).

General distribution: Europe, Turkey, N Africa, Central Asia (Iran, S Kazakhstan, W Kyrgyzstan, E Uzbekistan) [CEM].

Note: Not confirmed in this research.

Tychius pumilus C.Brisout, 1862

Examined material – 7 specimens: Daugavpils d.: Daugavpils, Ruģeļi, 20.07.1997 (1, dry meadow, leg. A. Barševskis), Ilgas, Silene NP, 01-5.05.2000 (6, on *Antennaria dioica*, leg. A. Barševskis);

Host plants genera: *Trifolium* (Fabaceae). The species was found also on *Antennaria* (Compositae).

Phenology: V.
General distribution: Europe [EUR].
Note: A new species for the Latvian fauna.

Tychius quinquepunctatus (Linnaeus, 1758)
References: Seidlitz 1872-1875, 1887-1891, Rathlef 1905; Lindberg 1932; Smarods, Liepa 1956; Ozols 1963; Barševskis 1997; Barševskis et al. 2002; Telnov et al. 1997; Telnov 2004.
Examined material – 8 specimens: Aizkraukle d.: Rīteri, 10.06.1994 (1, leg. N. Savenkovs); Daugavpils d.: Ilgas, Silene NP, 05.07.1995 (1, leg. A. Barševskis); Ļubesti, 05.07.2010 (3, dry meadow, leg. A. Bukejs, M. Balalaikins); Krāslava d.: Indrica, 23.07.1991 (1, leg. A. Barševskis); Saldus d.: Reņģe, 21.06.1934 (1, leg. J. Muskars); Tukums d.: Antiņciems, 04.06.1948 (1, meadow, leg. M. Stiprais).
Host plants genera: *Lathyrus, Onobrychis, Pisum, Vicia* (Fabaceae).
Phenology: VI-VII.
General distribution: Europe, Turkey, N Africa (Algeria), Siberia, Central Asia (E Kazakhstan), East Asia (N Mongolia, Russian Far East) [PAL].
Note: A rare and insufficiently known species, recorded from a few localities.

Tychius sharpi Tournier, 1873
References: Silfverberg 2004, 2010.
Examined material – 11 specimens: Daugavpils d.: Ruģeļi, 20.06.1997 (2, dry meadow, leg. A. Barševskis), Vasargelišķi, NP Daugavas Loki, 11.07.2008 (1, valley of river Daugava, leg. A. Barševskis. V. Alekseev); Rīga d.: Saulkalne 03.06.1973 (8 ex.).
Host plants genera: *Trifolium* (Fabaceae).
Phenology: VI-VII.
General distribution: Central Europe [CEU].
Note: A very rare species.

Tychius schneideri (Herbst, 1795)
References: Seidlitz 1872-1875, 1887-1891; Telnov et al. 1997; Telnov 2004; Milander and Varzinska 1979.
Examined material – 68 specimens: Aizkraukle d.: Rīteri, 29.06.2006 (21, leg. A. Barševskis); Daugavpils d.: Ilgas, Silene NP, 03.07.1997 (9, leg. A. Barševskis), 08-10.06.1998 (7, leg. A. Barševskis), 25-30.06.1998 (1, leg. A. Barševskis), 02-10.07.2004 (1, leg. A. Barševskis), 30.06.2005 (6, leg. A. Barševskis), 17.06.2008 (10, leg. R. Cibuļskis), 17-20.06.2008 (2, leg. J. Daņilova, A. Zdankovska), Līksna, Daugavpils beltway, 2.5 km from highway Daugavpils to Rīga, 16.06.2008 (1, forest, inland dunes, leg. A. Barševskis), Vasargelišķi, NP Daugavas loki, 11.07.2008 (3, valley of river Daugava, leg. A. Barševskis. V. Alekseev); Liepāja d.: Embūte NP, 08.08.2009 (1, leg. D. Telnov); Rīga d.: Jauncekule, 14.06.2005 (1, leg. C. Fägerström); Jūrmala, Kūdra, 10.06.2000 (1, leg. A. Titovs), Rīga, Vecdaugava, 18.06.1974 (2 ex.); Talsi d.: Mazirbe, 04.08.2004 (1, leg. A. Barševskis, U. Valainis); Ventspils d.: Ventspils S env., 08.06.2005 (1, leg. C. Fägerström).
Host plants genera: *Anthyllis* (Fabaceae).
Phenology: VI-VIII(1).
General distribution: Europe, introduced in New Zealand [EUR].
Note: An infrequent species in Latvia.

Tychius squamulatus Gyllenhal, 1836
= *Tychius flavicollis* auct. nec Stephens, 1831
References: Rathlef 1905, 1921; Telnov et al. 1997; Telnov 2004.
Host plants genera: *Lotus* (Fabaceae).
Phenology: No data available for Latvia.
General distribution: Europe, Caucasus, Turkey, N Africa, S Siberia, Western Asia (Syria), Central Asia (Iran) [CEM].
Note: Not confirmed in our research.

Tychius stephensi GYLLENHAL, 1836
= *Tychius tomentosus* (HERBST, 1795 nec OLIVIER, 1790)
References: Seidlitz 1872-1875, 1887-1891, Rathlef 1905; Lindberg 1932; Milander and Varzinska 1979 (*T. tomentosus*); Barševskis 1993, 1997; Barševskis et al. 2002; Telnov et al. 1997; Telnov 2004; Kalniņš et al. 2007.
Examined material – 50 specimens: Aizkraukle d.: Valle, 12.08.2008 (3, leg. A. Barševskis); Daugavpils d.: Daugavpils, Šuņezers Lake env. 18.06.2010 (1, leg. M. Balalaikins); Ilgas, Silene NP, 18.06.1996 (3, leg. A. Barševskis), 25-30.06.1998 (2, leg. A. Barševskis), 01.07.1999 (2, leg. A. Barševskis), 13.06.2001 (2, leg. G. Lociks), 30.06.2005 (3, leg. A. Barševskis), 17.06.2008 (1, leg. R. Cibuļskis), Naujene, 13.06.1989 (1, leg. A. Barševskis), 11.06.1989 (1, leg. A. Barševskis), Svente, 01-8.07.2011 (1, leg. A. Barševskis); Gulbene d.: Ušurs, 08.05.2005 (1, along marsh, leg. A. Barševskis); Jēkabpils d.: Dunava, 04.08.1996 (1, leg. A. Barševskis), 12.07.1997 (8, leg. A. Barševskis), 03.08.1997 (5, leg. A. Barševskis), Jēkabpils, near Nereta road, 08.08.2008 (2, leg. A. Barševskis); Limbaži d.: Ķirbiži, 17.06.1971 (2, leg. M. Šternbergs); Madona d.: Sauleskalns, 07.07.2006 (1, leg. A. Pankjāns, E. Rudāns, A. Barševskis), Rīga d.: Jūrmala, Kauguri, 1994 (3, dunes, leg. A. Barševskis), Jūrmala, Kūdra, 10.06.2000 (1, leg. A. Titovs), Rīga, Vecdaugava, 18.06.1974 (2, leg. Z. Spuris) 1.07.1974 (1, leg. Z. Spuris), Vangaži, 21.05.1971 (1 ex.),; Talsi d.: Kolka, 04.08.2004 (1, leg. A. Barševskis); Ventspils d.: Zlēkas, 27.05.1974 (1 ex.).
Host plants genera: *Trifolium* (Fabaceae).
Phenology: V-VIII.
General distribution: Europe, S Siberia, Central Asia (NW Iran, N Kazakhstan), East Asia (Russian Far East), introduced in N America [ASE].
Note: An infrequent species in Latvia.

Tychius trivialis BOHEMAN, 1843
Examined material – 1 specimen: Daugavpils d.: Daugavpils, 18.06.2010 (1, near Šuņezers Lake, leg. M. Balalaikins).
Host plants genera: *Astragalus* (Fabaceae).
Phenology: VI.
General distribution: Europe, Siberia, Central Asia (Kazakhstan), East Asia (N Mongolia) [CAE].
Note: A new species for the Latvian fauna. Single specimen was sampled on dry meadow at sandy place.

Genus ***Sibinia***
Sibinia pellucens (SCOPOLI, 1772)
= *Sibinia cana,* (HERBST, 1784)
References: Seidlitz G. 1872-1875, 1887-1891; Ulanowski 1884; Rathlef 1905; Telnov et al. 1997; Telnov 2004.
Examined material – 72 specimens: Aizkraukle d.: Nereta, 16.06.2005 (1, leg. A. Barševskis); Daugavpils d.: Butišķi, 1.07.2009 (1, valley of Daugava river, leg. A. Bukejs, M. Balalaikins), 29.06.2010 (9, valley of Daugava river, leg. A. Bukejs, M. Balalaikins), Daugavpils, 16.06.2003 (1, leg. C. Fägerström), Elerne, Muravki house, 26.06.2005 (2, leg. A. Barševskis, K. Barševska), Ilgas, Silene NP, 26.06.1997 (1, leg. A. Barševskis), 06.06.2000 (8, leg. A. Barševskis), 25-30.06.2000 (1, leg. A. Barševskis), Līksna, 06.06.2004 (2, inland dunes, leg. A. Barševskis), 29.06.2008 (2, old cutting area, leg. A. Bukejs), 12.07.2009 (1, leg. A. Bukejs), Ļubesti, 16.06.2005 (2, leg. U. Valainis), Stropi, 11.06.2009 (3, leg. A. Bukejs), 16.06.2010 (6, on *Silene alba*, leg. A. Bukejs); Jēkabpils d: Ābeļi, 10 km S Jēkabpils, 05.06.2010 (1, leg. M. Balalaikins), Jēkabpils, Vidsala, 17.06.2003 (1, meadow, leg. C. Fägerström), Rubene, 29.06.1997 (1, leg. I. Leiskina), 08.06.1998 (1, leg. I. Leiskina), Sala, 11.07.2010 (2, leg. M. Balalaikins); Liepāja d.: Klampjuciems 09.06.2005 (5, ruderal habitat, leg. C.

Fägerström); Limbaži d.: Pāle, 09.06.1971 (1ex.); Rīga d.: Cekule, 17.05.1991 (1, leg. F. Kovaļevskis), 25.06.1993 (1, meadow, leg. D. Telnov), 25.06.1994 (1, leg. D. Telnov), 23.05.2001 (1, dry road-side, leg. D. Telnov), 11.07.2002 (2, clearing, D. Telnov), Dobelnieki, 12.06.1991 (1, meadow, leg. D. Telnov), Jauncekule 14.06.2005 (1, leg. J. Geijer), Rīga, Mežaparks, 09.05.2003 (2, near Lake Ķīšezers, leg. D. Telnov); Ventspils d.: Moricsala Nature Reserve, 06.2002 (10, leg. A. Barševskis).
Host plants genera: *Melandrium*, *Silene* (Caryophyllaceae).
Phenology: V-VII.
General distribution: Europe, N Africa, SW Siberia, Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan) [CEM].
Note: Infrequent species in Latvia.

Sibinia phalerata (Gyllenhal, 1836)
References: Telnov et al. 2006.
Examined material – 7 specimens: Daugavpils d.: Špoģi env., 25.05.2005 (5, dry meadow at sandy place, leg. C. Fägerström) (record was previously published (Telnov et al. 2006)); Krāslava d.: Asūne, Asūne Lake NP, 30.06.2006 (2, near Mazais Asūne Lake, leg. D. Telnov).
Host plants genera: *Arenaria, Cerastium, Dianthus, Silene* (Caryophyllaceae).
Phenology: V-VI.
General distribution: Europe, Anatolia, Central Asia (S Kazakhstan (the record is doubtful)) [EUR].
Note: A very rare species.

Sibinia pyrrhodactyla (Marsham, 1802)
= *Sibinia potentillae* Germar, 1824
References: Rathlef 1905 (*S. potentillae)*, 1921 (*S. potentillae)*; Mikutowicz 1905; Lackschewitz, Mikutowicz 1939; Milander and Varzinska 1979 (*S. potentillae)*; Telnov et al. 1997; Telnov 2004.
Examined material – 3 specimens: Daugavpils d.: Daugavpils, 26.05.1998 (1, leg. I. Leiskina), Mežciems, 05.07.2009 (1, leg. A. Barševskis); Rīga d.: Inčupe, 16.07.1974 (1 ex.).
Host plants genera: *Spergula* (Caryophyllaceae).
Phenology: V; VII.
General distribution: Europe, Central Asia (W Kazakhstan) [TUE].
Note: Very rare species.

Sibinia primita (Herbst, 1795)
References: Rathlef 1905; Telnov et al 1997; Telnov 2004.
Host plants genera: *Spergularia, Daphne* (Caryophyllaceae).
Phenology: No data available for Latvia.
General distribution: Europe, N Africa, Anatolia, Central Asia (S Kazakhstan, Kyrgyzstan, Uzbekistan) [CEM].
Note: Not confirmed in this research.

Sibinia subelliptica (Desbrochers, 1873)
References: Telnov et al. 2006.
Examined material – 4 specimens: Rīga d.: Rīga, 10.06.1937 (2, leg. J. Muskars), 07.07.1940 (1, leg. J. Muskars); Talsi d: Kolka, Slītere National Park, 7.06.2005 (1, seashore, leg. C. Fägerström) (record was previously published (Telnov et al. 2006)).
Host plants genera: *Dianthus* (Caryophyllaceae).
Phenology: VI.
General distribution: Europe, Siberia, N Africa (Algeria), Anatolia, East Asia (NE China, N Korea, Russian Far East, Japan) [PAL].
Note: A very rare species.

Sibinia unicolor (Fahraeus, 1843)
= *Sibinia nigritarsis* Desbrochers des Loges, 1875
References: Barševskis 1997; Telnov 2004 (*Sibinia unicolor* and *S. nigritarsis* as two separate species).

Examined material – 91 specimens: Daugavpils d.: Daugavpils, 20.07.1997 (50, dry meadow, leg. A. Barševskis), Līksna, 16.06.2005 (1, leg. A. Barševskis), Mežciems, 01.07.1995 (3, dry meadow, leg. A. Barševskis), 16.06.2005 (1, leg. A. Barševskis), 25.07.2005 (10, leg. A. Barševskis), 05.07.2009 (20, leg. A. Barševskis); Krāslava d.: Slutišķi, 30.06.1996 (1, leg. A. Barševskis); Liepāja d.: Pape, Pape Lake NP 14.06.2005 (5, dunes, leg. C. Fägerström).
Host plants genera: *Gypsophila* (Caryophyllaceae).
Phenology: VI-VII.
General distribution: Europe, Siberia, Anatolia, Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan), East Asia (E China, Mongolia, N Korea) [ASE].
Note: A rare and insufficiently known species, recorded in a few localities.

Sibinia viscariae (Linnaeus, 1761)
References: Ulanowski 1884; Rathlef 1905, 1921; Lindberg 1932; Barševskis 1993, 1997; Barševskis et al. 2002; Telnov et al. 1997; Telnov 2004; Kalniņš et al. 2007.
Examined material – 34 specimens: Daugavpils d.: Ilgas, Silene NP, 06.06.2000 (2, leg. A. Barševskis), Mežciems, 05.07.2009 (1, leg. A. Barševskis); Krāslava d.: Neiciškas, Daugavas Loki NP, 30.07.2009 (2, leg. R. Cibuļskis), Piedruja, 16.06.1989 (10, leg. A. Barševskis), 23.05.1990 (3, leg. A. Barševskis), 05.1993 (2, leg. A. Barševskis), 25.05.1995 (2, light trap, leg. N. Savenkovs), Slutišķi, 30.06.1996 (2, leg. A. Barševskis); Ludza d.: Šķaune env., 30.05.2005 (5, meadow, leg. C. Fägerström); Rēzekne d.: Gaiduļi, near Gaiduļu Lake 20.05.2005 (1, meadow, leg. C. Fägerström); Rīga d.: Cekule env, near railway, 17.05.2008 (2, dry meadow, leg. D. Telnov); Silciems, 13.06.2005 (1, meadow, leg. C. Fägerström); Valmiera d.: Kauguri, 03.07.2006 (1, forest near Gauja river, leg. A. Barševskis, U. Valainis, A. Pankjāns).
Host plants genera: *Melandrium*, *Silene*, *Viscaria* (Caryophyllaceae).
Phenology: V-VII.
General distribution: Europe, Siberia, N Africa, Anatolia, Central Asia (S Kazakhstan), East Asia (Russian Far East) [PAL].
Note: Rare and insufficiently known species.

A key to the Latvian Tychiini

1 Elytral apices are rounded together (Fig. 45) 2
- Elytral apices are separately rounded (Fig. 46) 17
2 Funicle 6-segmented (Fig. 48). Body length 1.5-2.3 mm. Habitus (Fig. 6). Aedeagus (Fig. 25) ..... *Tychius picirostris*
- Funicle 7-segmented (Fig. 47) 3
3 Elytral intervals covered with various colored scales 4
- Elytral intervals covered with unicolorous scales 8
4 Intervals of elytra covered with scales of two varied shapes. Body length 2.5-4.0 mm. Habitus (Fig. 1). Aedeagus (Fig. 30) ..... *Tychius parallelus*
- Intervals of elytra covered with same shape scales 5
5 Mesofemora and metafemora with distinct tooth. Body length 2.5-4.0 mm. Habitus (Fig. 3). Aedeagus (Fig. 35) ..... *Tychius quinquepunctatus*

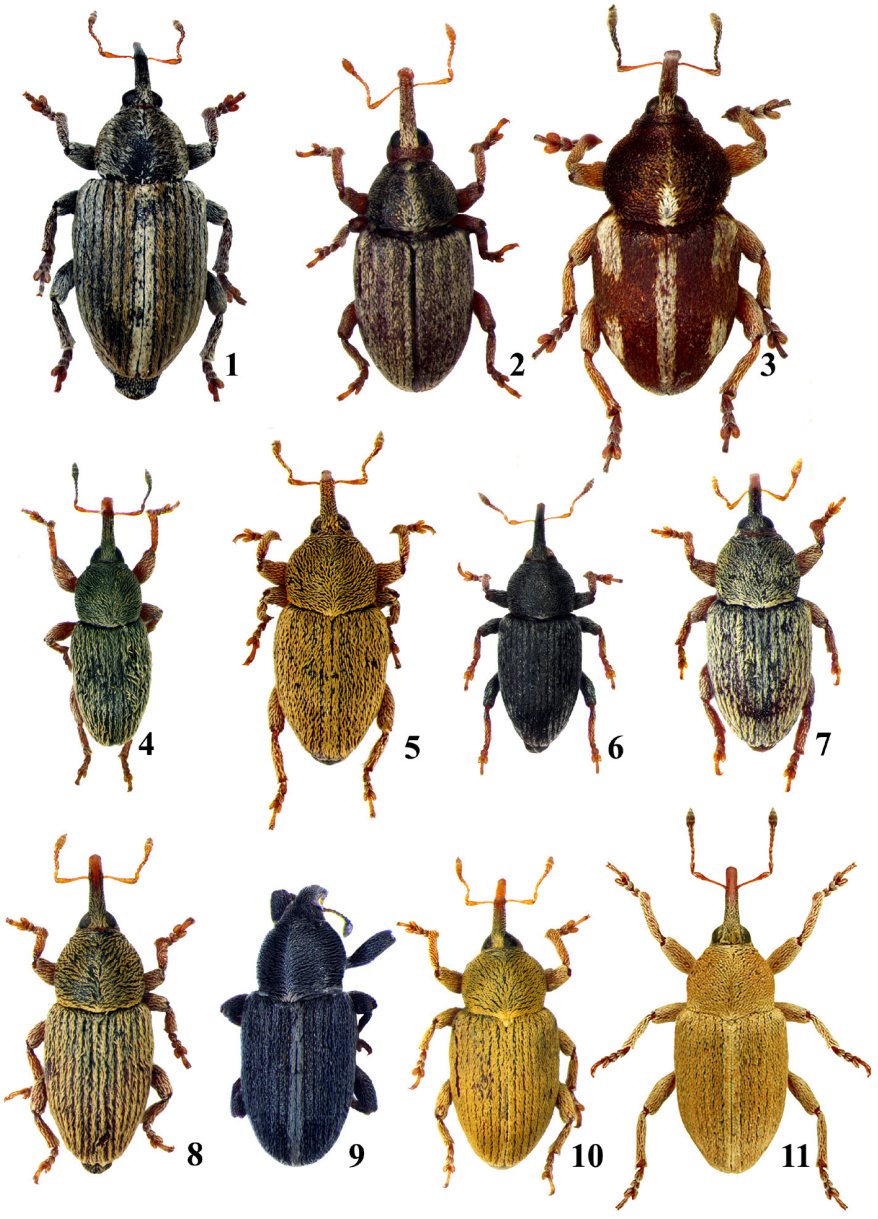
- Mesofemora and metafemora without tooth 6
6 Scales on elytral intervals alternately coloured 7
- Scales on elytral intervals narrow, uniformly coloured, pale, with copper tint, only first intervals with white wider scales. At least femora and club and some antennomeres of the funicle black (Fig. 49). Body length 2.4-2.6 mm. Habitus (Fig. 9). Aedeagus (Fig. 26) .... *Tychius lineatulus*
7 Pronotum with three longitudinal bands of white scales in the middle and sides. Body length 2.5-3.0 mm. Habitus (Fig. 15). Aedeagus (Fig. 32) ..... *Tychius schneideri*
- Pronotum with median longitudinal band of white scales. Body length 2.4-3.1 mm. Habitus (Fig. 18) Aedeagus (Fig. 41) ..... *Tychius polylineatus*
8 Male protibiae with distinct tooth in the middle of inner side (Fig. 50), Female protibiaetibia only with protuberance on the inner side (Fig. 51). Femora red or reddish brown. Rostrum thick, in lateral view almost not tapering towards the apex (Fig. 65). Body length 1.6-2.2 mm. Habitus (Fig. 7). Aedeagus (Fig. 28) ..... *Tychius sharpi*
- Protibiae without tooth. If tooth present, femora are black 9
9 Eyes flat, not protruding over the contour of the head capsule (Fig. 52) 10
- Eyes convex, laterally protruding over the contour of the head capsule (Fig. 53) 13
10 Rostrum in lateral view hook-shaped and distinctly humpbacked at the base (Fig. 59). All femora black. Male protibiae with distinct tooth in the middle of inner side. Body length 2.0-2.6 mm. Habitus (Fig. 22). Aedeagus (Fig. 36) ..... *Tychius meliloti*
- Rostrum in lateral view not hook-shaped Male protibiae without distinct tooth in the middle of inner side. (Fig. 58) 11
11 Antennae reddish brown 12
- At least club and some antennomeres of the funicle dark brown. Body length 1.5-2.0 mm. Habitus (Fig. 4). Aedeagus (Fig. 31) ..... *Tychius pumilus*
12 Rostrum shorter than pronotum, in lateral view slightly curved, parallel until insertion of antennae and weakly tapered towards the apex (Fig. 55). Body length 2.0-2.5 mm. Habitus (Fig. 8). Aedeagus (Fig. 33) ..... *Tychius stephensi*
- Rostrum longer, at least same length of pronotum, in lateral view tapering along the length towards the apex (Fig. 54). Body length 1.5-2.6 mm. Habitus (Fig. 10). Aedeagus (Fig. 27) .. .. *Tychius breviusculus*
13 Antennae reddish or reddish brown 14
- Some antennomeres of the funicle and club darker 16
14 Upper surface covered with, sparse, strongly elongated scales (6-8 times longer than wide). Rostrum (Fig. 58). Body length 1.8-2.5 mm. Habitus (Fig. 5). Aedeagus (Fig. 34) .... *Tychius junceus*
- Upper surface covered with dense, slightly elongated scales (3-4 times longer than wide) 15
15 Rostrum parallel in dorsal view and not tapered to apex in lateral view (Fig. 57, 62). Body length 2.3-3.3 mm. Habitus (Fig. 2). Aedeagus (Fig. 42) ..... *Tychius trivialis*
- Rostrum tapered to the apex in lateral and dorsal views. Body length 2.3-2.7 mm. Habitus (Fig. 23). Aedeagus (Fig. 24) ..... *Tychius aureolus*
16 Metafemora with distinct tooth (Fig. 60). Body length 2.3-3.0 mm. Habitus (Fig. 11). Aedeagus (Fig. 37) ..... *Tychius squamulatus*
- Metafemora without tooth (Fig. 61). Elytra usually with stripes of white scales on the sides.

Body length 2.0-2.5 mm. Habitus (Fig. 21). Aedeagus (Fig. 29) ..... *Tychius medicaginis*
17 Dark or golden-brown scales on discal part of elytra form a spot and longitudinal bands on sides of pronotum (Fig. 17, 19) 18
- Upper surface without spot and bands 19
18 Spot and longitudinal bands on upper surface are formed by black or dark brown scales. Body length 2.0-2.5 mm. Habitus (Fig. 17) ..... *Sibinia phalerata*
- Spot on discal part of elytra formed by golden-brown scales. Longitudinal bands on pronotum not expressed. Body length 1.7-2.0 mm. Habitus (Fig. 19) ..... *Sibinia primita*
19 Upper surface covered with scales of two various colours. Body length 2.4-2.6 mm. Habitus (Fig. 12). Aedeagus (Fig. 43) ..... *Sibinia pyrrhodactyla*
- Scales of elytra unicolor 20
20 Smaller, body length 1.7-2.3 mm. Eyes flat, not protruding over the contour of the head capsule. Habitus (Fig. 20). Aedeagus (Fig. 39) ..... *Sibinia unicolor*
- Larger, body length 2.5-4.5 mm. Eyes convex, protruding over the contour of the head capsule 21
21 Habitus broadly oval. Pronotum transverse. Rostrum longer than pronotum 22
- Habitus elongate-elliptical. Pronotum almost as long as wide. Rostrum at least same length of pronotum. Body length 2.5-3.2 mm. Habitus (Fig. 16). Aedeagus (Fig. 40) .... *Sibinia subelliptica*
22 Upper surface covered with yellowish and greyish scales, whose forming two longitudinal bands on pronotum, and alternating colouration of elytra. Teeth on the tarsal claws almost as long as the claws (Fig. 64). Body length 2.6-4.2 mm. Habitus (Fig. 14). Aedeagus (Fig. 44) ..... *Sibinia pellucens*
- Upper surface covered with yellowish or greyish, unicolor scales. Teeth on the tarsal claws distinctly shorter than the length of the claws (Fig. 63). Body length 2.3-3.1 mm. Habitus (Fig. 13). Aedeagus (Fig. 38) ..... *Sibinia viscariae*

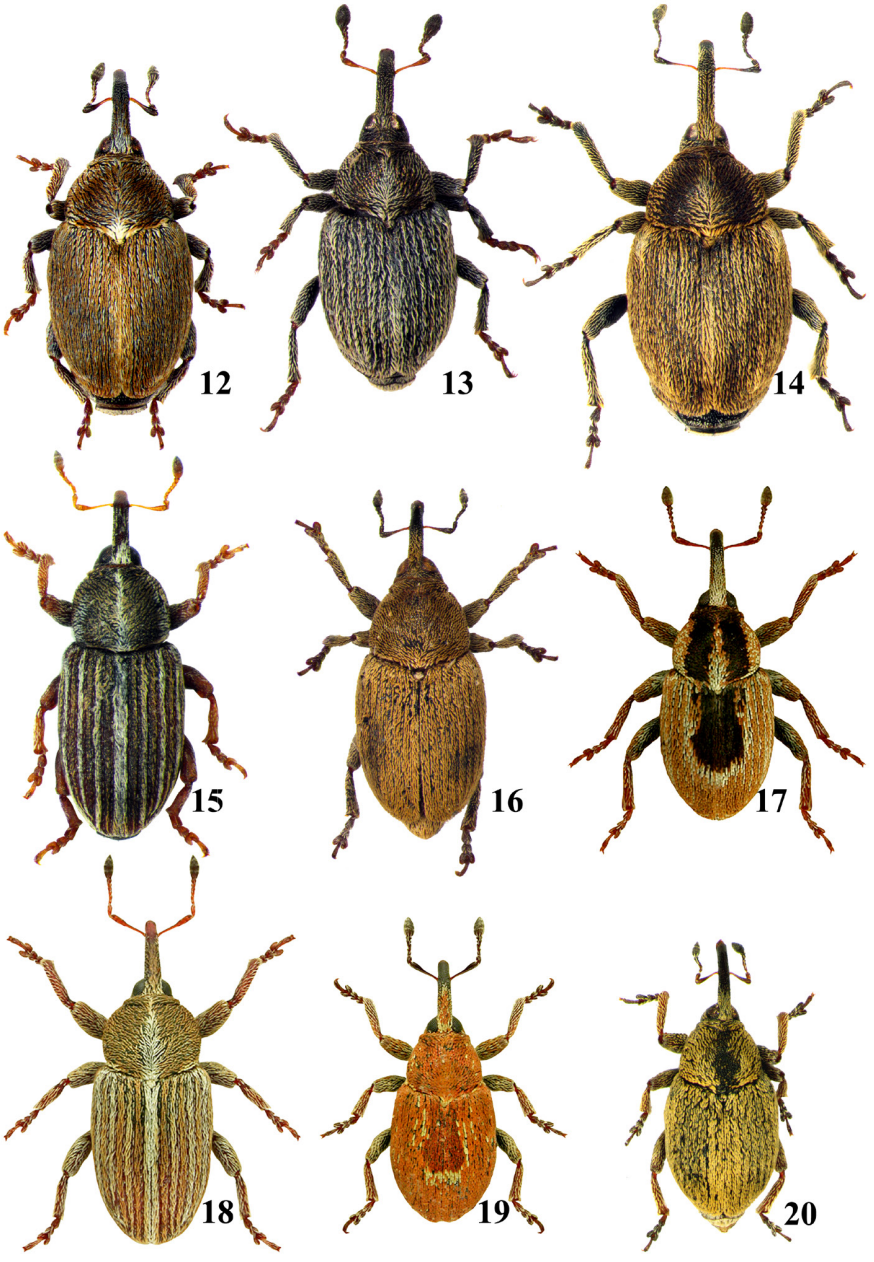
Discussion

The current research confirmed the occurrence of 20 species of Tychiini in Latvia. However three species (*Tychius squamulatus* Gyllenhal, 1836, *T. polylineatus* (Germar, 1824) and *Sibinia primita* (Herbst, 1795)) were not confirmed. Faunal data on these species in bibliographical sources are not available either. The belonging of these species to the Latvian fauna needs confirmation. Three species, *Tychius parallelus* (Panzer, 1794), *T. pumilus* C.Brisout 1862 and *T. trivialis* Boheman, 1843 are reported for the Latvian fauna for the first time. One species, *Sibinia nigritarsis* Desbrochers des Loges, 1870 which mentioned in catalogue of Latvian Coleoptera (Telnov 2004) and Catalogue of Coleoptera of Fennoscandia, Denmark and the Baltic States (Silfverberg 2011) is considered as *Sibinia nigritarsis* Desbrochers des Loges, 1875, which is junior synonym of *Sibinia unicolor* (Fahraeus, 1843). Overall, the list of Tychiini species of Latvian fauna includes 23 species of two genera. The presented original key can be used to easily identify Tychiini occurring in Latvia and in the adjacent territories. Notes on species' occurrence frequency in Latvia were prepared after studying the material and analysing the bibliographical data on Tychiini.

One species (*Tychius picirostris* (F.)) is common (known from 20 to 40 localities),



Figures 1–11. Habitus, dorsal view: 1 – *Tychius parallelus*, 2 – *T. trivialis*, 3 – *T. quinquepunctatus*, 4 – *T. pumilus*, 5 – *T. junceus*, 6 – *T. picirostris*, 7 – *T. sharpi*, 8 – *T. stephensi*, 9 – *T. lineatulus*, 10 – *T. breviusculus*, 11 – *T. squamulatus* (after Borovec 2012).



Figures 12–20. Habitus, dorsal view: 12 – *Sibinia pyrrhodactyla*, 13 – *S. viscariae*, 14 – *S. pellucens*, 15 – *Tychius schneideri*, 16 – *Sibinia subelliptica*, 17 – *S. phalerata*, 18 – *Tychius polylineatus*, 19 – *Sibinia primita*, 20 – *S. unicolor*. Items 17-19 after Borovec (2012).

five species (*Tychius schneideri* (Herbst), *T. medicaginis* C. Brisout, *T. breviusculus* Desbrochers des Loges, *T. stephensi* Gyllenhal, *Sibinia pellucens* (Scopoli)) are infrequent (known from 10 to 19 localities), five species (*Tychius quinquepunctatus* (L.), *T. aureolus* Kiesenwetter, *T. junceus* (Reich), *Sibinia unicolor* (Fahraeus), *S. viscariae* (L.)), are rare (known from 5 to 9 localities), nine species (*T. parallelus* (Panzer), *T. trivialis* Boheman, *T. meliloti* Stephens, *T. lineatulus* Stephens, *T. sharpi* Tournier, *T. pumilus* C. Brisout, *Sibinia phalerata* (Gyllenhal), *S subelliptica* (Desbrochers), *S. pyrrhodactyla* (Marsham)), three species (*Tychius squamulatus* Gyllenhal, *T. polylineatus* (Germar), *Sibinia primita* (Herbst)) included in the list of Latvian species without faunal data.

The analysis of species distribution of the tribes Tychiini in Latvia reveals that the range of chorotypes is rather wide: Asiatic-European – three species (*Tychius stephensi*, *T. picirostris*, *Sibinia unicolor*), Central Asiatic-European – three species (*Tychius aureolus, T. medicaginis, T. junceus*), Central European – one species (*Tychius sharpi*), European – four species (*Tychius schneideri*, *T. pumilus, Sibinia phalerata, S. pyrrhodactyla*), Palaearctic – five species (*Tychius quinquepunctatus*, *T. meliloti, T. breviusculus Sibinia subelliptica, S. viscariae),* Siberian-European – one species (*Tychius trivialis*), West-Palaearctic – six species (*Tychius parallelus, T. squamulatus, T. polylineatus, T. lineatulus, Sibinia primita, S. pellucens*).

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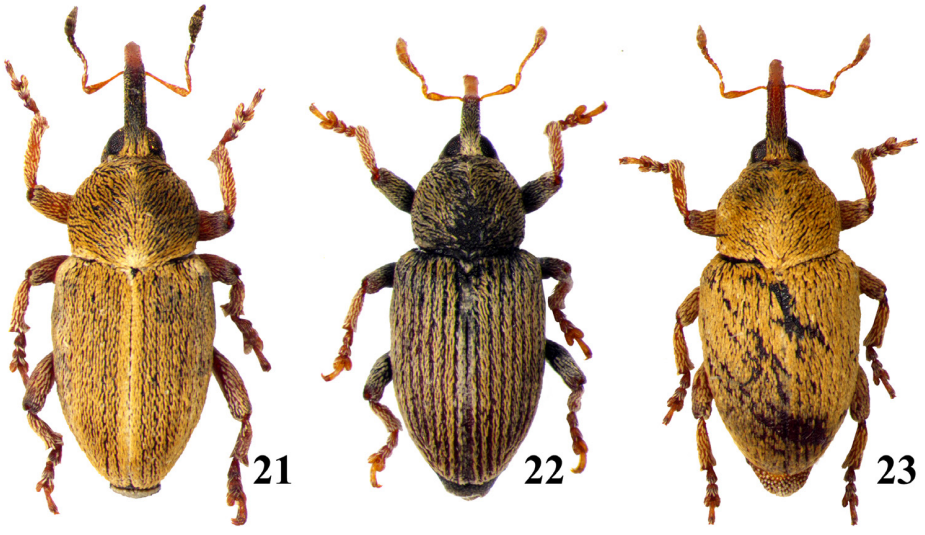
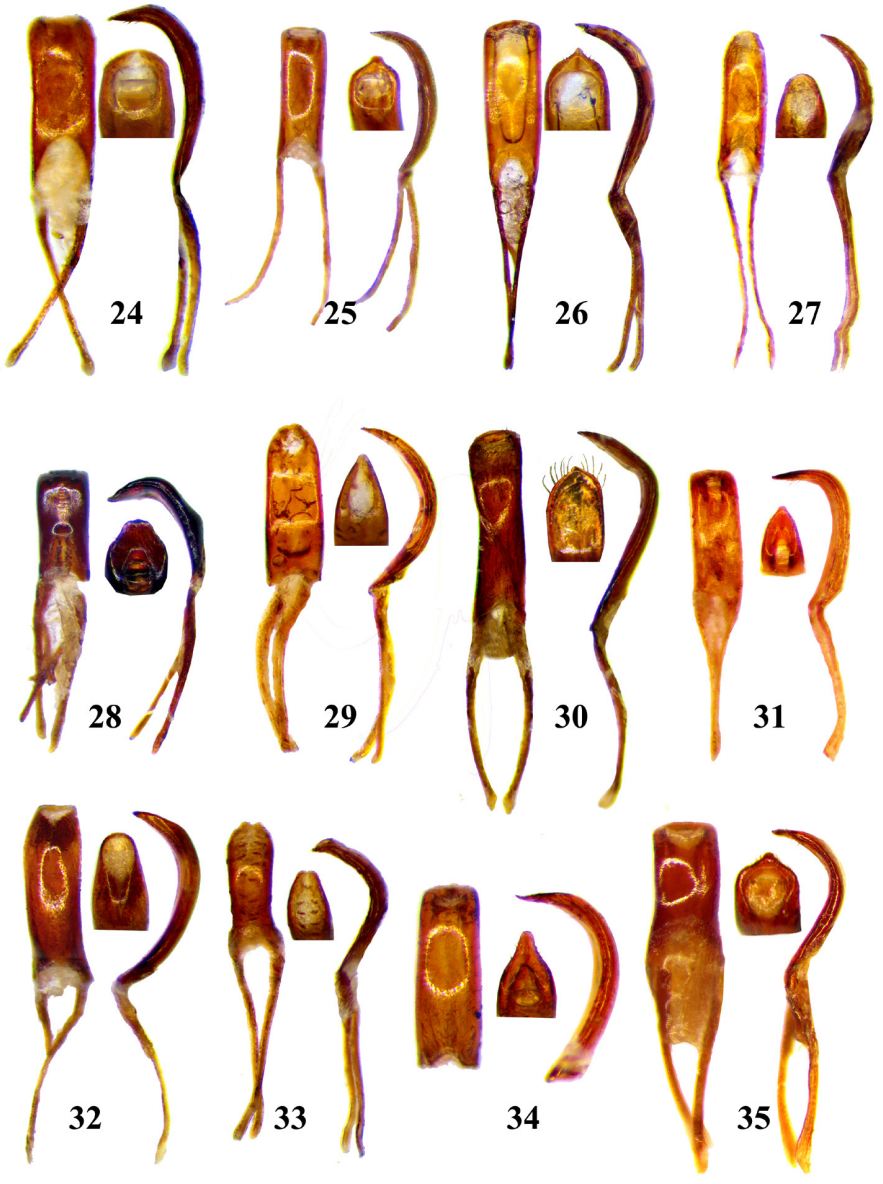


Figures 21–23. Habitus, dorsal view: 21 – *Tychius medicaginis*, 22 – *T. meliloti*, 23 – *T. aureolus*.



Figures 24–35. Aedeagus, lateral and dorsal views, apex ventral view: 24 – *Tychius aureolus*, 25 – *T. picirostris*, 26 – *T. lineatulus*, 27 – *T. breviusculus*, 28 – *T. sharpi*, 29 – *T. medicaginis*, 30 – *T. parallelus*, 31 – *T. pumilus*, 32 – *T. schneideri*, 33 – *T. stephensi*, 34 – *T. junceus*, 35 – *T. quinquepunctatus*.

Figures 36–44. Aedeagus, lateral and dorsal views, apex ventral view: 36 – *Tychius meliloti*, 37 – *T. squamulatus* (after Curculio Team 2010), 38 – *Sibinia viscariae*, 39 – *S. unicolor*, 40 – *S. subelliptica*, 41 – *Tychius polylineatus* (after Curculio Team 2010), 42 – *T. trivialis*, 43 – *S. pyrrhodactyla*, 44 – *S. pellucens*.

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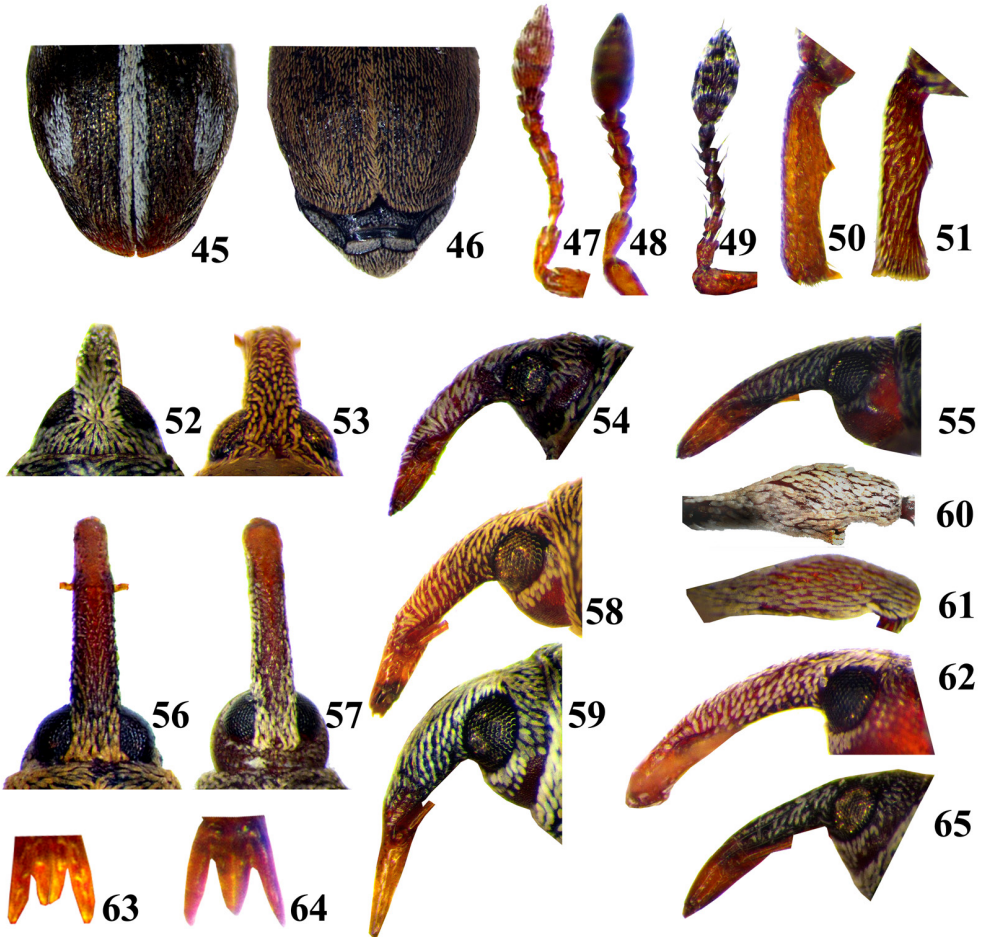

Figures 45–62. 45–46 – Apex of elytra, dorsal view: 45 – *Tychius quinquepunctatus*, 46 – *Sibinia viscariae*; 47–49 – antenna: 47 – *Tychius aureolus*, 48 – *T. picirostris*, 49 – *T. lineatulus*; 50–51 – *Tychius sharpi* fore tibia: 50 – male, 51 – female; 52–53 head, dorsal view: 52 – *Tychius meliloti*, 53 – *T. junceus*; 56–57 rostrum, dorsal view: 56 – *Tychius aureolus*, 57 – *T. trivialis*; 54–55, 58–59, 62, 65 rostrum, lateral view: 54 – *Tychius breviusculus*, 55 – *T. stephensi*, 58 – *T. junceus*, 59 – *T. meliloti*, 62 – *T. trivialis*; 60 – 61 hind femora: 60 – *T. squamulatus* (after Curculio Team 2010), 61 – *T. medicaginis*; 63–64 tarsal claws: 63 – *Sibinia viscariae*, 64 – *S. pellucens*.

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