

## ON LATVIAN CHRYSOMELINAE (COLEOPTERA: CHRYSOMELIDAE): 3. GENUS *GONIOCTENA* CHEVROLAT, 1836

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**Abstract.** The faunal data on six species of the genus *Gonioctena* Chevrolat, 1836 recorded from Latvia are summarized. A total of 1,695 specimens of the genus were reviewed. A bibliographical analysis of Latvian *Gonioctena* was made for the first time. An annotated list including seven species and illustrated key of Latvian *Gonioctena* Chevrolat, 1836 are given.

**Key words:** Coleoptera, Chrysomelidae, *Gonioctena*, Latvia, fauna, bibliography, identification

### INTRODUCTION

The current publication is a continuation of studies on Chrysomelinae leaf-beetles of Latvian fauna (Bukejs 2009a, b, 2010). The aim of the current work is to summarize data on the genus *Gonioctena* in Latvia. Bibliographical information is compiled for the first time; faunal data on six species are presented. An annotated list and original illustrated key to Latvian *Gonioctena* are presented. Altogether, seven species of *Gonioctena* Chevrolat, 1836 are hitherto known from Latvia.

There are more than 60 species of the genus *Gonioctena* Chevrolat, 1836 known in the Holarctic ecozone (Lopatin & Nesterova 2005). Of them, 13 species and two subspecies are known from eastern (Bieńkowski 2004) and 11 species from northern Europe (Silfverberg 2004). Seven species of *Gonioctena* are hitherto registered from Latvia (Telnov 2004). These species belong to subgenera *Gonioctena* s. str. (four species) and *Goniomena* Motschulsky, 1860 (three species). In adjacent territories, the number of registered *Gonioctena* species slightly varies: six species are recorded in Belarus (Lopatin & Nesterova 2005), six species in Estonia, six species in Lithuania (Silfverberg 2004), five species in St. Petersburg and the Leningrad province (Romantsov 2007), and six species in the Kaliningrad region (Alekseev 2003; Alekseev & Bukejs (in press)).

The first information on *Gonioctena* in Latvia was published at the end of the 18<sup>th</sup> century (Fischer 1784, 1791). Subsequently, more than 30 works have been published. Fragmentary faunal data on this group can also be found in the following publications: Lindberg 1932; Šmits 1962; Pūtele 1974, 1981a; Barševskis 1988, 1993; Telnov 2002; Telnov and Kalniņš 2003; Telnov *et al.* 2005; Bukejs and Telnov 2007. In Latvia, some spe-

cies of *Gonioctena* are mentioned as pests of agriculture (Brammanis 1940; Danka 1950; Pūtele 1982, 1984; Rupais 1999).

The imago and larvae of *Gonioctena* feed on foliage of various deciduous trees and shrubs (*Salix*, *Populus*, *Sorbus*, *Padus*, *Betula*, *Alnus*, *Corylus*, *Crataegus*) or herbaceous plants (*Genista*, *Laburnum*, *Lupinus*, *Saxothamnus* and other). Pupation takes place in the soil. Some species are ovoviparous (Bieńkowski 2004).

### MATERIAL AND METHODS

A total of 1,695 specimens were reviewed during the study. They represent six species of *Gonioctena* Chevrolat, 1836. The material studied is stored in the collection of Daugavpils University Institute of Systematic Biology (DUBC, Daugavpils, LV), collection of Latvian Natural History Museum (LDM, Riga, LV), collection of Institute of Biology of Latvian University (LUBI, Salaspils, LV), private collection of Dmitry Telnov (DTC, Riga, LV), private collection of Andris Bukejs (ABUC, Daugavpils, LV), and collection of V. Pūtele (LU Institute of Biology, Salaspils, LV); the electronic database of the Entomological Society of Latvia (held by D. Telnov, Riga, LV) has also been used.

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

The following species keys were used for the identification of material: Bieńkowski 2004; Lopatin and Nesterova 2005; Mohr 1966; Warchałowski 2003. In our work, we follow the systematics suggested by Silfverberg (2004). An interactive on-line manual (Borowiec 2004) was used for the modern nomenclature and synonymy of the genus.

Host plants are listed citing the monograph of Lopatin and Nesterova (2005). General species distribution is given according to Bieńkowski (2004); Borowiec (2004); Lopatin (1977, 1986); Lopatin and Kulenova (1986); Lopatin and Nesterova (2005); Medvedev (1982, 1992); Medvedev and Dubeshko (1992), and Warchałowski (2003).

The classification of chorotypes follows that suggested by Taglianti *et al.* (1999). The transcript of chorotypes codes: OLA – Holarctic, ASE – Asiatic-European, SIE – Sibero-European, EUR – European.

Explanations of the abbreviations used: d. – administrative district (system of administrative districts used in Latvia from 1991 to 2009), env. – environs, Isl. – island, NP – National park, num. – numerous specimens (more than 10), syn. – synonym, PNT – protected nature territory, vill. – village or little settlement, C – Central, S – South, N – North, E – East, W – West. Some of the abbreviations employed are not standard English language abbreviations.

Photographs were taken using Zeiss Stereo Discovery V12 stereomicroscope and AxioCam digital camera.

## RESULTS AND DISCUSSION

During our research, the occurrence of six species of *Gonioctena* Chevrolat, 1836 was confirmed for the fauna of Latvia. One species, *G. flavigornis* (Suffrian, 1851), was not found, and the occurrence of this species in Latvian fauna needs further confirmation.

*G. kaufmanni* (Miller, 1881) is herewith deleted from the check-list of Latvian Coleoptera (Telnov *et al.* 1997; Telnov 2004). In Latvia, it was incorrectly reported by Pūtele (1980, 1981a, b, 1984) from Slītere National Park (NW Latvia). Thus, this species is endemic to E Alps. The occurrence of this species in Latvian fauna is doubtful; therefore, this species is not mentioned in the presented publication.

Ulanowski (1883) reported *Gonioctena fornicate* Brüggemann, 1873 (*Phytodecta*) for Livonia ['Inflant Polski', currently E Latvia]. This species is generally distributed in the Danube River basin, S Poland, on Balkan Peninsula, Moldova, Ukraine, S part of European Russia, Caucasus, and Asia Minor (Bieńkowski 2004; Borowiec 2004; Warchałowski 2003). The occurrence

of this species in Latvian fauna is doubtful. Therefore, this species is not mentioned in our publication.

An analysis of the chorotypes of Latvian *Gonioctena* shows the predominance of species with a wide distribution range: Holarctic – one species [*G. decemnotata* (Marsham, 1802)], Asiatic-European – one species [*G. viminalis* (Linnaeus, 1758)], Sibero-European – four species [*G. flavigornis* (Suffrian, 1851), *G. linnaeana* (Schrank, 1781), *G. quinquepunctata* (Fabricius, 1787), *G. pallida* (Linnaeus, 1758)], and European – one species [*G. intermedia* (Helliesen, 1913)].

The shape of the flagellums apex in *G. quinquepunctata* (Fabricius, 1787) and *G. intermedia* (Helliesen, 1913) is variable (Figs 8, 9).

## List of *Gonioctena* Chevrolat, 1836 of Latvian fauna

### **Chrysomelidae Latreille, 1802**

#### **Chrysomelinae Latreille, 1802**

##### ***Gonioctena* Chevrolat, 1836**

syn.: *Phytodecta* Kirby, 1837

##### **subgenus *Gonioctena* s. str.**

###### ***G. flavigornis* (Suffrian, 1851)**

**References:** Šmits 1962 (*Phytodecta*); Telnov *et al.* 1997; Telnov 2004.

**Examined material:** not confirmed by authors.

**Host plants:** Bieńkowski (2004) mentions the following host plants: *Salix*, *Populus*, *Betula*, *Alnus*.

**Phenology:** VII.

**General distribution:** Boreoalpin species. Europe (Fennoscandia and mountains of Europe – Pyrenees, Alps, Jura, Ardennes, Giant Mountains, Carpathians), Siberia, Mongolia, Russian Far East, Japan. [SIE]

**Note:** very rare; known from a single locality in C Latvia. The occurrence of this species in Latvia needs further confirmation. According to the catalogue of Silfverberg (2004), it is mentioned for Finland, Russian Karelia, Latvia, Lithuania, and Norway.

###### ***G. viminalis* (Linnaeus, 1758)**

syn.: *baaderi* (Panzer, 1794); *decempunctata* (Linnaeus, 1758); *haemorrhoidalis* (Scopoli, 1763)

**References:** Fischer 1784 (*Chrysomela viminalis* L.), 1791 (*Chrysomela viminalis* L.); Precht 1818 (*Chrysomela*); Kawall 1866 (*Chrysomela*); Ulanowski 1883 (*Phytodecta*); Seidlitz 1872–1875 (*Chrysomela*), 1887–1891 (*Phytodecta*); Sintenis 1900 (*Phytodecta*); Rathlef 1905 (*Phytodecta*); Rathlef 1921 (*Phytodecta viminalis* L. ab. *baaderi* Pz., ab. *decempunctatus* L.); Brammanis 1940 (*Phytodecta*); Danka 1950 (*Phytodecta*); Trauberga 1957 (*Phytodecta*); Pūtele 1974, 1980,

1981a, b, 1982, 1984 (*Phytodecta*); Stiprais 1977 (*Phytodecta*); Barševskis 1988, 1993, 2002; Barševskis and Savenkovs 1991; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Bukejs and Telnov 2007.

**Examined material:** 1,023 specimens: Aizkraukle d.: Aizkraukle, 5 July 1996 (9, bank of the Daugava River, leg. D. Telnov); Aklais purvs (bog) PNT, 4 June 2002 (1, bog, leg. D. Telnov); Jaunjelgava, 4 June 2002 (32, inner city, bank of the Daugava River, on *Salix*, leg. D. Telnov); Mazzalvītes bog S env., Mazzalvītes purvs (bog) PNT, 3 June 2002 (7, firebreak in moist pine forest, on *Salix*, leg. D. Telnov); Pļaviņas env., Aiviekstes karjers (quarry), 11 May 2002 (9, bushes, on *Salix*, leg. D. Telnov); Seržu purvs (bog) PNT, 3 June 2002 (6, forest edge, on *Salix*, leg. D. Telnov); 5 km W Skrīveri, train station 'Dendrārijs', 1 June 2008 (1, leg. M. Puķītis); Taurkalne, 3 June 2002 (1, pine forest, leg. D. Telnov); Lake Vāveres W env., 3 June 2002 (6, forest edge, on *Salix*, leg. D. Telnov); Vietalva, Odziena, 19 July 2008 (1, leg. A. Barševskis); Alūksne d.: Alūksne, 3 August 2005 (8, park, leg. D. Telnov); Gaujiena, 26 August 2006 (2, park, on *Salix*, leg. D. Telnov); Liepna env., Sils, 15 July 2002 (1, forest edge, leg. D. Telnov); Mālupe, 20 August 2006 (1, bank of the Pedēdze River, leg. D. Telnov); Strautiņi, 20 August 2006 (5, coniferous forest, leg. D. Telnov); Strautiņi env., Lāčusila military training area, 19 July 2008 (1, mixed forest, on *Salix*, leg. D. Telnov); 9 km S Vidaga, Dundurpils house env., 23 May 2002 (8, leg. M. Kalniņš); Zvārtava, 11 September 2005 (3, bank of Lake Zvārtavas, on *Salix*, leg. D. Telnov); Balvi d.: Baltinava, 22 July 2006 (1, lime-tree avenue, leg. D. Telnov); Bērzpils, 22 July 2006 (1, avenue, leg. D. Telnov); Kuprava, 19 May 1991 (5, leg. A. Barševskis); Kuprava N env., Strauti, 22 July 2006 (2, mixed forest, leg. D. Telnov); Bauska d.: Skaistkalne env., Jumpravas, 24 June 2002 (1, bank of the Mēmele River, leg. I. Salmane); Dzelzāmurs, 23 June 2002 (1, meadow, leg. I. Salmane); Cēsis d.: Gauja NP, valley of the Dzērdupe River near mouth, WN of Kārlī vill., 23 September 2001 (6, moist forest, on *Salix*, leg. D. Telnov); Cēsis, 26 June 2004 (18, edge of Sīķu forest and bank of the Gauja River, on *Salix*, leg. D. Telnov), 8 July 2004 (1, Pārgaujas Str., meadow, leg. I. Salmane); Gauja NP, Ērgļu klintis (rock), Gauja NP, Pieškalni N env., 22 May 2004 (9, also in copula, bank of the Gauja River, on *Salix*, leg. D. Telnov); Gauja NP, Ieriķi env., 13 June 2003 (1, valley of the Pērļupe River, on *Salix*, leg. D. Telnov); Lode, 17 June 2002 (5, bushes, on *Salix*, leg. I. Salmane); Miglači, 21 June 2001 (1, agroecosystem, leg. C. Fägerström); Gauja NP, Ozolkrogs, 5 September 2001 (2, moist mixed forest, on *Salix*, leg. D. Telnov); Gauja NP, Pielekši N env., 18–19 June 2001 (2, bank of the Lenčupe River, leg. C. Fägerström);

Gauja NP, Skaļupes vill., 7–11 July 2003 (1, leg. H. Silfverberg); Vecpiebalga PNT, Vecpiebalga, 1–3 July 1991 (1, bushes, leg. D. Telnov); Gauja NP, Klāmanī villa, 11 June 2005 (num., pondside, leg. D. Telnov); Daugavpils d.: Butiški villa, 27 May 2007 (2, valley of the Daugava River, leg. M. Balalaikins); Daugavpils, Mežciems, 1 July 1995 (5, xeric habitat, leg. A. Barševskis), Daugavpils, Križi, 20 May 2001 (1, leg. G. Lociks), 26 August 2001 (1, leg. G. Lociks); Silene PNT, Ilgas villa, 30 June 1989 (3, leg. A. Barševskis), 1 July 1989 (1, leg. A. Barševskis), 23 May 1992 (1, leg. A. Barševskis), 2 July 1992 (1, leg. A. Barševskis), 9 July 1992 (1, leg. A. Barševskis), 15 May 1993 (1, leg. A. Barševskis), 6 July 1993 (1, leg. A. Barševskis), 9 July 1993 (1, leg. A. Barševskis), 31 May 1994 (1, leg. A. Barševskis), 5 June 1994 (1, leg. A. Barševskis), July 1994 (2, leg. R. Cibulskis), 11 May 1996 (1, meadow, leg. D. Telnov), 25–30 May 1998 (1, leg. A. Barševskis), June 1999 (1, leg. A. Bukejs), 5–7 July 2000 (4, uncultivated meadow, on *Salix*, leg. D. Telnov); June–July 2000 (1, leg. I. Hala and G. Hlebnaja), 9 June 2001 (3, leg. G. Lociks), 15 June 2001 (1, leg. G. Lociks), 28–30 June 2004 (1, leg. A. Barševskis), 5–10 June 2006 (2, leg. M. Verdenfelde), 25–27 June 2007 (1, leg. J. Staskeviča), 25–27 June 2007 (2, leg. A. Čuklīna, J. Daņilova), 26 June 2007 (1, leg. A. Barševskis), 27 June 2007 (15, leg. A. Barševskis), 25–29 June 2007 (2, leg. V. Krone), 25–29 June 2007 (1, leg. D. Pavļenko), 2 July 2007 (1, leg. E. Polāns, D. Pavļenko); Līksna, 27 May 1995 (6, leg. R. Cibulskis); Līksna parish, 2 km N Daugavpils, 17 May 2008 (4, inland dunes, edge of pine forest, leg. A. Bukejs), Līksna parish, 3 km N Daugavpils, 27 May 2009 (3, on *Salix*, leg. A. Bukejs); Ļubaste env., near Daugavpils beltway, 24 June 1991 (1, leg. A. Barševskis), 1 July 1991 (1, leg. A. Barševskis), 29 March 2009 (1, leg. K. Barševska, A. Barševskis); Naujene, 24 July 2005 (7, valley of the Daugava River, on *Salix*, leg. D. Telnov); Silene PNT, Silene, 7 July 1993 (1, leg. A. Barševskis); Slutišķi, 24 May 2003 (15, valley of the Daugava River, leg. M. Kalniņš); Stropi, 2 July 2008 (7, clearing, leg. A. Bukejs); Vabole, 27 May 1995 (2, leg. R. Cibulskis); Dobeles d.: Auce, 20 May 1940 (1, leg. A. Švolkovskis); 7 km NE Ukri, Ukru gārša (rich deciduous forest) PNT, 27 May 2001 (8, firebreak, on *Salix*, leg. D. Telnov), 15 May 2002 (7, mixed forest, leg. D. Telnov); Gulgene d.: Gulgene–Rēzekne highway behind the Pedēdze River bridge, 9 July 2005 (2, clearing, on *Salix*, leg. D. Telnov); Kadājs PNT, 10 September 2005 (1, mixed forest, leg. D. Telnov); Kāršu purvs (bog) S env., 15 July 2002 (1, meadow, on *Salix*, leg. D. Telnov); Pededzes lejtece (lower course) PNT, near Ezernieki forestry, 10 June 2006 (43, mixed forest, on *Salix*, leg. D. Telnov); Pededzes lejtece (lower course)

PNT, Silenieki house W env., Augstsaliešu forest, valley of ditch Tīro, Pededzes lejtece (lower course) PNT, 11 May 2002 (1, edge of deciduous forest, on *Salix*, leg. D. Telnov), 21–22 May 2005 (2, clearing, leg. D. Telnov); Pededzes lejtece (lower course) PNT, Silenieki NW env., bank of the Audīle River, 22 May 2005 (33, on *Salix*, leg. D. Telnov); Pededzes lejtece (lower course) PNT, between Silenieki and Mežīši houses, 21 May 2005 (1, valley of the Pededze River, pasture woodland, leg. D. Telnov); Ušurs, 8 June 2005 (3, along marsh, leg. A. Barševskis); Jēkabpils d.: Asare, 2 May 1998 (2, leg. I. Leiskina); Dunava, 15 July 2006 (1, leg. A. Barševskis), 18 May 2008 (5, Dviete forest, leg. A. Barševskis), 25 June 2008 (21, clearing, leg. A. Barševskis); Lake Ildzeniekus, 27 May 2006 (2, lakeside, on *Salix angustifolia*, leg. D. Telnov); Rubeņi vill., 10 July 1997 (1, leg. I. Leiskina), 9 May 1998 (1, leg. I. Leiskina), 10 May 2000 (3, leg. I. Leiskina); Jelgava d.: Dalbe, 9 June 1996 (2, on *Salix*, leg. D. Telnov); Kēmeri NP, Krāčkalni (hills), between Ķemeri and Kaļķis, 19 July 2003 (2, mixed forest, on *Salix*, leg. D. Telnov); Jūrmala: Bulduri, 4 September 2005 (1, seashore, dunes, on *Salix*, leg. D. Telnov); Dzintari, 24 June 2005 (2, leg. D. Telnov); Pumpuri, 8 September 1987 (1, seashore, dunes, leg. D. Telnov); Sloka, 6 June 1974 (1, Spilves meadow, leg. Z. Spuris); Krāslava d.: Kārļi vill. S env., near Ašinieku bog, 10 June 2002 (2, clearing, on *Salix*, leg. D. Telnov); Lake Rušons, Bēruz Isl., 11 June 2002 (1, leg. D. Telnov); Šķeltova, 21 May 1985 (1, leg. A. Barševskis); Kuldīga d.: Diļļu pļavas (meadows) PNT, 22 July 2001 (1, wet meadow, on *Salix*, leg. D. Telnov); valley of the Venta and Šķervelis Rivers PNT, Dzelda E env., mouth of the Šķervelis River, 3 June 2001 (1, mixed forest, leg. D. Telnov); Liepāja d.: Dunika PNT, 22 July 2001 (1, leg. D. Telnov); Embūte PNT, Klaviņas house, 6 June 2008 (6, bushes, leg. D. Telnov), 18 July 2009 (13, bushes and forest edge, leg. D. Telnov); Gramzda SE env., Aizvīķi, 10 May 2008 (1, forest edge, leg. M. Keiša); Krusāta, 16 July 2006 (3, leg. A. Napolov); Pape PNT, Pape vill. S env., 15 June 2005 (3, bushes, leg. D. Telnov); Šķēde, 16–17 July 2006 (2, Baltic sea shore, dunes, leg. A. Napolov); Vītiņu pļavas (meadows) PNT, Vītiņi vill. env., 6 October 2001 (1, wet meadow, on *Salix*, leg. V. Spuņģis); Ziemupe PNT, 18 June 2005 (1, seashore, dunes, leg. J. Gailis); Limbaži d.: 5 km N Aloja, 15 June 2002 (11, meadow, leg. D. Telnov); Dzeņi, 12 June 1999 (17, coastal meadow, leg. D. Telnov); Dzērves purvs (bog) PNT, Dzērves houses, 15 June 2002 (5, forest edge, on *Salix*, leg. D. Telnov); Kuivīži N env., Randu pļavas (meadows) PNT, 14 August 2000 (1, coastal meadows, leg. A. Karpa), 5 August 2001 (1, coastal meadows, leg. A. Karpa), 26 August 2003 (1, coastal

meadows, leg. D. Telnov); Lauči vill., 17 July 2005 (4, seashore, dunes, on *Salix*, leg. D. Telnov); Lēdurga N env., Grabatpurvs (bog), bank of Lake Grabatiņš, 31 July 2005 (1, leg. M. Kalniņš); Mērnieki, 5 July 2003 (3, moist mixed forest, on *Salix*, leg. D. Telnov); Madona d.: Ērgļi SE env., Namkalns, 7 August 2005 (4, clearing, on *Salix*, leg. D. Telnov); Jumurda, Lake Lācīšu env., 19 July 2008 (3, leg. A. Barševskis); Mētriene S env., Ozolkalns, 28 July 2006 (2, avenue, leg. M. Kalniņš); Salacas ieleja (valley) PNT, Staicele, 16 August 1992 (1, meadow, leg. M. Kalniņš); Ogre d.: 3 km SE Glāžšķūnis, Eglītes house, 30 July 2005 (2, roadside, leg. D. Telnov); Madliena, 24 May 2003 (1, meadow, leg. D. Telnov); Ogre, Pārogre, 9 June 2002 (7, left bank of the Ogre River, leg. I. Salmane), 11 August 2005 (4, roadside, leg. I. Salmane), 11 September 2005 (1, garden, leg. I. Salmane); Preiļi d.: Lake Pelēču N env., 19 June 2004 (6, lower bog, on *Salix*, leg. D. Telnov); Rīga city: Bolderāja, 21 May 2003 (4, bank of the Daugava River, on *Salix*, leg. D. Telnov); Daugavgrīva Isl., Daugavgrīva PNT, 30 May 2003 (1, dunes, on *Salix*, leg. A. Napolov); Ilģuciems, 2 August 2002 (1, leg. A. Napolov); Jugla, 22 July 2005 (3, right bank of Lake Juglas, on *Salix*, leg. I. Salmane), 17 September 2006 (4, NW bank of Lake Bābelītis, leg. D. Telnov); Ķengarags, 29 May 2003 (2, meadow, on *Salix*, leg. D. Telnov); Lucavsalas, 19 August 2005 (1, leg. I. Salmane); Mežaparks, 31 July 2005 (5, bank of Lake Ķīšezers, leg. D. Telnov); Pļavnieki, 1 June 1996 (1, on *Salix*, leg. D. Telnov), 14 May 2002 (1, on *Salix*, leg. D. Telnov); Pārdaugava, near Salu tilts bridge, 27 July 2005 (1, bank of the Daugava River, on *Salix angustifolia*, leg. D. Telnov); Pļavnieki, Ulbrokas forest, 31 May 2004 (1, mixed forest, on *Salix*, leg. D. Telnov); Sarkandaugava, 7 July 2005 (1, in flight, leg. D. Telnov); Vecāķi, 28 May 2000 (1, seashore, dunes, leg. D. Telnov); Rīga d.: Bajāri, 24 May 1972 (2, leg. L. Danka), 7 May 1975 (1, leg. L. Danka), 13 May 1977 (4, leg. A. Stiprais); Piejūras PNT, between Carnikava and mouth of the Gauja River, 4 May 2000 (1, on *Salix*, leg. D. Telnov); Cekule vill. and env., 22 May 1991 (33, forest edge, on *Salix*, leg. D. Telnov), 25–26 June 1993 (23, forest edge and mixed forest, on *Salix*, leg. D. Telnov), 25 June 1994 (2, leg. D. Telnov), 27 July 1994 (7, garden, leg. D. Telnov), 13 May 2001 (5, pine forest, leg. D. Telnov), 5 May 2002 (7, firebreak in mixed forest, on young *Salix*, leg. D. Telnov), 13 June 2002 (1, bog, leg. D. Telnov), 10 May 2003 (14, meadow, on *Salix*, leg. D. Telnov), 10 June 2004 (7, bank of the Ķīvuļurga River, on *Salix*, leg. D. Telnov), 17 May 2008 (19, xeric habitat, on *Salix*, leg. D. Telnov); between Cekule vill. and Ķīvuļi house, 28 May 2006 (22, pine forest, on *Salix*, leg. D. Telnov); between Cekule and

Saulrieši, 10 May 2003 (3, meadow, leg. D. Telnov); Ulbroka env., Dzidriņas vill., 14 August 2005 (1, moist meadow, on *Salix angustifolia*, leg. D. Telnov), 26 February 2006 (1, in flight, leg. D. Telnov); Piejūras PNT, bank of Lake Ziemeļu Garezers, 28 May 2005 (1, leg. I. Salmane); Garciems, 2 May 1973 (6, leg. M. Stiprais); Piejūras PNT, Garupe, 1990 (6, bushes, leg. D. Telnov), 10 August 2005 (4, leg. I. Salmane); Getliņu izgāztuve (city dump), 15 April 1993 (2, on *Salix*, leg. F. Kovaļevskis); Inčukalns, Rāmnieku salas, 12 September 1992 (1, deciduous forest, leg. M. Kalniņš); Jauncekule vill., 14 June 2005 (6, xeric roadside, on *Salix*, leg. D. Telnov); Jaunmārupe, 15 July 2005 (1, leg. A. Barševskis); Ķemeri NP, Ķemeri, Raganu purvs (bog), 12 June 1995 (1, on *Salix*, leg. D. Telnov); Kūdra, 13 May 2001 (3, leg. A. Titovs); Līči, 1 July 1995 (2, meadow, on *Salix*, leg. D. Telnov); Piejūras PNT, Lilaste, 26 June 2008 (1, on *Salix*, leg. D. Telnov); between Lilaste and Ādaži military training area, July 2006 (22, bushes, on *Salix*, leg. D. Telnov); Lakes Lieluikas and Mazuikas PNT, near Lake Mazuikas, 19 May 2002 (7, pine forest, on *Salix*, leg. D. Telnov); Piņķi, 19 August 2006 (1, avenue, leg. D. Telnov); Salaspils, 5 May 1995 (5, bank of pond, on *Salix*, leg. D. Telnov); Saulkalne, 12 June 1993 (2, on *Salix*, leg. Z. Spuris); Piejūras PNT, Saulkrasti, mouth of the Inčupe River, 6 July 2003 (13, seashore, leg. D. Telnov), 9 July 2005 (1, seashore, dunes, leg. K. Greķe); Gauja NP, Sigulda, 5 June 1993 (10, Gauja NP, Turaidas, on *Salix*, leg. M. Kalniņš), 20 May 2001 (5, left bank of the Gauja River, edge of deciduous forest, on *Salix*, leg. D. Telnov), 10 June 2005 (8, leg. D. Telnov), 22 June 2005 (9, left bank of the Gauja River, leg. D. Telnov), 13 June 2006 (2, bushes, leg. D. Telnov); Silciems, 30 May 1939 (2, leg. anonymous); Tumšupe, 9 May 2002 (8, pine forest, on *Salix*, leg. D. Telnov); Gauja NP, Turaida, 14 April 1993 (1, leg. M. Kalniņš); Upesciems, 24 May 2003 (1, bank of pond, bushes, on *Salix*, leg. D. Telnov); Vite env., Vites pond, 24 May 2003 (6, bushes, on *Salix*, leg. D. Telnov); Saldus d.: Grieze, 6 June 1993 (1, forest, leg. F. Savičs); Renģe, 16 May 1932 (3, leg. J. Muskars), 4 August 1932 (3, leg. J. Muskars); Talsi d.: Slītere NP, Bažu purvs (bog), ca. 2 km SE Saunags vill., 2 July 2005 (13, raised bog, on *Salix*, leg. D. Telnov); Dundaga env., Pāces meadows, 14 May 2003 (1, leg. V. Spuņģis); Kolka, 4–5 July, 1995 (1, on *Salix*, leg. D. Telnov); Slītere NP, 3 km NW Kolka, 21 July 1996 (1, dunes, on *Salix*, leg. D. Telnov); Slītere NP, 1.5 km S Kolka, pond Zēņu diķs, 17 July 2002 (2, bushes, on *Salix*, leg. I. Salmane); Slītere NP, Mazirbe, 26 July 1996 (6, roadside in mixed forest, on *Salix*, leg. D. Telnov), 19 May 2001 (6, seashore, dunes, leg. D. Telnov), 24 July 2004 (1, leg. A. Barševskis); Slītere NP, 4 km SW Mazirbe, Lake

Pēterezers pathway, 17 July 2005 (1, bog, leg. M. Kalniņš); 1 km NW Roja, 1 June 2003 (9, seashore, dunes, on *Salix*, leg. D. Telnov); Slītere NP, Slītere vill., 1 June 2003 (5, mixed forest, on *Salix*, leg. D. Telnov), 2 July 2005 (6, forest edge, on *Salix*, leg. D. Telnov); Slītere NP, Zilie Kalni (hills) and Dāvida pļavas (meadows), 26 June 2002 (2, leg. A. Barševskis), 10 July 2004 (1, leg. A. Barševskis), 21 July 2004 (1, leg. A. Barševskis), 11 June 2005 (1, leg. A. Barševskis), 2 July 2005 (2, forest edge, on *Salix*, leg. D. Telnov), 17 July 2005 (2, leg. A. Barševskis), 2 June 2009 (5, leg. A. Barševskis); Slītere NP, Uši house, Bažu purvs (bog) env., 22 June 1997 (1, on *Salix*, leg. D. Telnov); Slītere NP, Vaide vill., 5 July 1995 (1, leg. D. Telnov); 1.5 km N Valtene, 1 June 2003 (7, clearing, on *Salix*, leg. D. Telnov); Tukums d.: Engure PNT, Bērzcems vill. and env., bank of Lake Engures near ornithological station, 18 May 1991 (1, meadow, leg. M. Kalniņš), 10 September 2005 (14, on *Salix*, leg. I. Salmane); Ķemeri NP, Lake Kaņieris, E bank, 12 June 2005 (1, leg. D. Telnov); Lielaisciems, 16 July 2008 (1, leg. A. Barševskis); Pliņciems, 10 July 2005 (1, grey dunes, leg. V. Spuņģis); Valka d.: Burgas pļavas (meadows) PNT, 29 July 2006 (1, moist meadow, leg. D. Telnov); between Gaujiena and Valka, Cirgaļi house, 11 September 2005 (1, meadow, leg. D. Telnov); Stepe, 26 August 2006 (1, meadow, leg. D. Telnov); Trikāta, Rūtiņi house, 15 May 1993 (1, meadow, leg. M. Kalniņš); Vijciems env., right bank of the Gauja River, 29 May 2005 (19, mixed forest, leg. D. Telnov); Zile env., Krastinji house, 29 May 2005 (1, mixed forest, leg. D. Telnov); Valmiera d.: Budenbroka, 20 May 2006 (1, avenue, leg. D. Telnov); Burtneki SE env., Igaši house, 3 June 2006 (5, mixed forest, on *Salix angustifolia*, leg. D. Telnov); Mazsalaca env., 15 July 1992 (2, Gudzona meadow, sands, leg. M. Kalniņš), 16 July 1992 (6, dry meadow, leg. M. Kalniņš), 9 July 2002 (5, meadow, on *Salix*, leg. I. Salmane); Mazsalaca W env., Silgaļi house, 22 August 2005 (1, forest edge, on *Salix*, leg. I. Salmane); Ozolmuiža, 20 May 2006 (7, old avenue, leg. D. Telnov); Vecate parish, Vidusburtnieks PNT, 18 June 2005 (1, edge of deciduous forest, leg. J. Gailis); 1.7 km S Virķeni, Ieviņas house, 29 July 2006 (1, bank of the Rūja River, leg. D. Telnov); Ventspils d.: Jūrkalne SW env., mouth of the Rīve River, 29 May 2003 (4, seashore, leg. R. Matrožis); Moricsala Isl., Moricsala Nature Reserve, 10 September 2001 (6, bushes, on *Salix*, leg. D. Telnov), September 2003 (1, leg. U. Valainis), 14 May 2004 (1, leg. A. Barševskis), 15 July 2008 (1, leg. V. Alekseev, A. Pavlova); Piltene, 11 June 2005 (53, park, leg. K. Kovaļevskis); Ventspils, 10 May 2006 (1, seashore, leg. I. Salmane).

**Host plants:** various *Salix*, occasionally on *Sorbus aucuparia*. Bieńkowski (2004) also mentions *Populus* as a host plant.

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

**General distribution:** Europe, Caucasus, Siberia, Altai mountains, E Kazakhstan, Mongolia, Russian Far East, NE China, Korean Peninsula. [ASE]

**Note:** most common species of the genus in Latvia.

### *G. decemnotata* (Marsham, 1802)

syn.: *rufipes* DeGeer, 1775 nec Linnaeus, 1758; *sexpunctata* Fabricius, 1787 nec Linnaeus, 1758

**References:** Seidlitz 1872–1875 (*Chrysomela rufipes* DeGeer), 1887–1891 (*Phytodecta rufipes* Deg.); Rathlef 1905 (*Phytodecta rufipes* Deg.); Pūtele 1974, 1980, 1981a, b, 1982, 1984 (*Phytodecta rufipes* Deg.); Stiprais 1977 (*Phytodecta rufipes* F.); Barševskis 1988, 1993, 2002; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Bukejs and Telnov 2007 (*rufipes* DeGeer).

**Examined material:** 343 specimens: Aizkraukle d.: Rīteri, 21 May 1991 (1, leg. A. Barševskis); 2 km E Reizeni, 13 June 2006 (1, clearing, leg. A. Napolov); Vietalva S env., 7 August (5, mixed forest, on *Populus tremula*, leg. D. Telnov); Alūksne d.: Dārzcems vill., 20 August 2006 (14, on *Populus tremula*, leg. D. Telnov); Ilzene, 20 August 2006 (18, park, on *Populus tremula*, leg. D. Telnov); Maliena, 20 August 2006 (2, avenue, leg. D. Telnov); between Zvārtava and Kaģuciems, 26 August 2006 (2, old avenue, leg. D. Telnov); Balvi d.: Reibāni vill., 9 July 2005 (30, clearing, on *Populus tremula*, leg. D. Telnov); Bauska d.: Bārbele, 28 May 2009 (1, leg. A. Barševskis); between Bārbele and Bauska, 12 May 2006 (1, forest edge, leg. I. Salmane); between Ērgli and Budberga, Paņemūnes meži (forests) PNT, 1 August 2004 (21, clearing, on *Populus tremula*, leg. D. Telnov); Cēsis d.: Gatarata, 21 June 2003 (1, on young *Populus tremula*, leg. D. Telnov); Gauja NP, Pielekši N env., 22 June 2001 (1, bank of the Lenčupe River, leg. C. Fägerstöm); Taurene env., Lodes muiža (manor), 7 July 2005 (1, meadow, leg. M. Kalniņš); Gauja NP, Klāmaņi house env., 11 June 2005 (12, on *Populus tremula*, leg. D. Telnov); Daugavpils d.: Daugavpils, Kauņa Str. 64, 24 July 2005 (1, garden, in flight, leg. D. Telnov); Daugavpils, Mežciems, 1 June 2008 (2, edge of pine forest, on *Salix*, leg. A. Bukejs); Silene PNT, Ilgas vill., 17 June 1987 (2, leg. A. Barševskis), 23 May 1992 (3, leg. A. Barševskis), 4 June 1992 (2, leg. A. Barševskis), 7 July 1992 (1, leg. A. Barševskis), 8 June 1994 (1, leg. A. Barševskis), 2 July 1995 (4, leg. A. Barševskis), 15 June 1996 (1, leg. A. Barševskis), 6 May 1999 (1, leg. A. Barševskis), June 1999 (1, leg. A. Bukejs), 29 April – 10 July 2000 (1, leg. L. Bogdāne), 29 April – 10 July 2000 (1, leg. L. Nikitina), 29 April – 10 July 2000 (1, leg. A. Rutka), June–July 2000 (2, leg. I. Haka and G. Hļebnaja), 5 May 2001 (1, leg. G. Lociks), 9 June 2001 (1, leg. G. Lociks), 14 June 2001 (1, leg. G. Lociks); Līksna parish,

Mežciems env., 15 June 2006 (1, leg. A. Barševskis); Līksna parish, 2 km N Daugavpils, 4 May 2008 (1, inland dunes, edge of pine forest, on *Populus tremula*, leg. A. Bukejs), 17 May 2008 (8, edge of pine forest, leg. A. Bukejs), 3 km N Daugavpils, 27 May 2009 (1, on *Salix*, leg. A. Bukejs), 28 June 2009 (1, leg. A. Bukejs); Silene PNT, Silene, 6 August 2005 (6, moist meadow, on *Populus tremula*, leg. M. Kalniņš); Stropi, 3 June 2006 (4, leg. A. Bukejs), 9 June 2006 (1, leg. A. Bukejs), 28 May 2007 (1, swampy bank of Lake Lielais Stropu, leg. A. Bukejs); Višķi, 2 June 1987 (1, leg. A. Barševskis); Jēkabpils d.: Ābeļi PNT, Ābeļi vill. E env., 7–8 August 2001 (18, mixed forest, on *Populus tremula*, leg. D. Telnov), 22 August 2005 (7, on *Populus tremula*, leg. J. Gailis); Dunava, 15 July 2006 (2, leg. A. Barševskis); 1 km W Viesīte, 31 July 2001 (1, forest edge, on *Populus tremula*, leg. D. Telnov); Gulbene d.: Gulbene–Rēzekne highway behind the Pededze River bridge, 9 July 2005 (2, clearing, on young *Populus tremula*, leg. D. Telnov); 6 km SW Litene, Jauno males house, 10 September 2005 (3, right bank of the Pededze River, leg. D. Telnov); Ostrovieši house, 9 July 2005 (23, clearing, on *Populus tremula*, leg. D. Telnov); Pededzes lejtece (lower course) PNT, Pededzes ozolu audze (oak forest), 9 July 2005 (5, moist forest edge, on *Populus tremula*, leg. D. Telnov); Pededzes lejtece (lower course) PNT, Pērtupe house E env., near Pededze bridge, 9 July 2005 (16, meadow, leg. D. Telnov); Pededzes lejtece (lower course) PNT, Silenieki house W env., 11 May 2002 (1, forest edge, on *Populus tremula*, leg. D. Telnov); Krāslava d.: Piedruja, 28 May 1991 (1, dry meadow, leg. A. Barševskis); Sauleskalns hill, 4 May 2008 (1, leg. K. Barševska, A. Barševskis); Liepāja d.: 5 km N Pavīlosta, 29 May 2003 (2, seashore, leg. R. Matrozis); Limbaži d.: 5 km N Aloja, 15 June 2002 (9, meadow, on *Populus tremula*, leg. D. Telnov); Ārciems, 16 July 1994 (3, clearing, leg. D. Telnov); Katvari PNT, 20 May 2006 (2, avenue, leg. D. Telnov); Mērnieki, 5 July 2003 (1, moist mixed forest, on *Populus tremula*, leg. D. Telnov); Nabe, 20 May 2006 (3, park, leg. D. Telnov); Tūja env., Melbārži vill., Mieriņi house env., 28 May 2005 (1, leg. M. Kalniņš); Ludza d.: Lake Istras PNT, 16 August 2006 (6, bushes, on *Populus tremula*, leg. D. Telnov); Malnava, 23 July 2006 (1, avenue, leg. A. Napolov); Madona d.: Barkava env., Barkavas ozolu audze (oak forest) PNT, 10 June 2006 (1, mixed forest, on young *Populus tremula*, leg. D. Telnov); Ērgļi SE env., Namkalns, 7 August 2005 (8, clearing, on *Populus tremula*, leg. D. Telnov); Vestienas parish, Putna kalns (hill) env., 23 June 2003 (2, clearing, on *Populus tremula*, leg. R. Matrozis); Ogre d.: Ogre, 1 July 2008 (3, on young *Populus tremula*, leg. D. Telnov); Tīnūži E env., near Kranciems quarry,

30 July 2005 (8, clearing, on young *Populus tremula*, leg. D. Telnov); Rīga city: Bukulti, 17 September 2006 (7, mixed forest, leg. D. Telnov); Purvciems, 9 July 1991 (1, leg. D. Telnov); Rīga d.: 3 km N Baldone, 6 September 2003 (1, moist mixed forest, on *Populus tremula*, leg. D. Telnov); Cekule vill. and env., 13 June 2002 (3, moist mixed forest, leg. D. Telnov); between Cekule and Jauncekule villages, 17 May 2008 (2, mixed forest, on young *Populus tremula*, leg. D. Telnov); Daugmale, 5 May 2002 (2, mixed forest, on *Populus tremula*, leg. D. Telnov); Garkalne S env., Lake Peldezers env., 24 May 2008 (3, on young *Populus tremula*, leg. D. Telnov); Jauncekule vill., 14 June 2005 (2, xeric roadside, on *Populus tremula*, leg. D. Telnov); Jaunkemeri, Ķemeri NP, 30 April 1995 (2, seashore, leg. D. Telnov); Gauja NP, Silciems, 8 June 1994 (6, on *Populus tremula* and *Salix*, leg. D. Telnov); Salaspils, 14 May 2001 (7, on *Populus tremula*, leg. D. Telnov); Saldus d.: Reņģe, 16 May 1934 (1, leg. J. Muskars); Valka d.: Pirtsliča-Līkā atteka (distributary) PNT, Pirtlīcis oxbow, 30 July 2006 (4, mixed forest, leg. D. Telnov); Smiltene NE env., near the Kamaldiņa River, 29 May 2005 (1, clearing, leg. D. Telnov); Valmiera d.: Burtneki SE env., Igaši house, 3 June 2006 (1, mixed forest, on *Populus tremula*, leg. D. Telnov); Pantene, 29 July 2006 (1, left bank of the Tūja River, leg. D. Telnov); Strenči env., Ūdriņi house, 11 September 2005 (2, bank of the Gauja River, on *Populus tremula*, leg. D. Telnov); Ventspils d.: Jūrkalne SW env., mouth of the Rīva River, 29 May 2003 (7, seashore, leg. R. Matrozis); Stikļu purvi (bogs) PNT, 28 June 2005 (1, mixed forest, leg. V. Spuņģis).

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

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

**General distribution:** Europe, Caucasus, Siberia, Kazakhstan, Mongolia, NE China, Russian Far East, Japan, N America. [OLA]

**Note:** one of the most common species of the genus in Latvia.

#### *G. linnaeana* (Schrank, 1781)

syn.: *triandrae* (Suffrian, 1851); *decastigma* Duftschmidt, 1825

**References:** Seidlitz 1872–1875 (*Chrysomela triandrae* Suffr.), 1887–1891 (*Phytodecta triandrae* Suffr.); Rathlef 1905 (*Phytodecta*); Rathlef 1921 (*Phytodecta linnaeana* Schrank var. *decastigma* Duft.); Lindberg 1932 (*Phytodecta*); Stiprais 1977 (*Phytodecta*); Barševskis 1988, 1993, 2002; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Bukejs and Telnov 2007.

**Examined material:** 137 specimens: Aizkraukle d.: Aizkraukles purvs (bog) PNT, N env. of Aizkraukles

bog, 8 June 2001 (21, clearing, on *Salix*, leg. D. Telnov); Alūksne d.: Zvārtava N env., 26 August 2006 (3, bushes, leg. D. Telnov); Balvi d.: Eglava env., Eglavas PNT, 15 July 2002 (1, moist mixed forest, leg. D. Telnov); Bauska d.: Bauska, 15 June 2003 (2, bank of the Mēmele River, leg. D. Telnov); between Ērgļi and Budberga, Paņemūnes meži (forests) PNT, 1 August 2004 (2, clearing, leg. D. Telnov); Cēsis d.: Gauja NP, Augšlīgatne N env., Ramas house, 20 August 2005 (1, avenue, leg. D. Telnov); Gauja NP, Jāņmuiža, 19 August 2001 (1, avenue, leg. D. Telnov); Gauja NP, Ķempji, 23 September 2003 (5, moist forest, leg. D. Telnov); Gauja NP, Nurmiži, 5 September 2001 (1, glen, leg. D. Telnov); Gauja NP, Pielekši N env., 18–19 June 2001 (10, bank of the Lenčupe River, leg. C. Fägerstöm); Straupe, 30 July 2005 (1, roadside, leg. D. Telnov); Daugavpils d.: Butišķi, 26 May 2008 (3, valley of the Daugava River, leg. A. Bukejs), 1 July 2009 (2, valley of the Daugava River, on *Salix*, leg. A. Bukejs, M. Balalaikins); Elerne, 31 May 2007 (7, bank of the Daugava River, leg. M. Murd); Silene PNT, Ilgas vill., June–July 2000 (1, leg. I. Haka and G. Hlebnaja); Naujene, 13 June 1989 (1, leg. A. Barševskis), 29 April 2008 (2, valley of the Daugava River, leg. A. Pankjāns, U. Valainis); Slutišķi, 12 June 1987 (2, leg. A. Barševskis); Vecsalienas parish, Orefovka vill. N env., Ververu precipice, Daugavas loki PNT, 18 May 2008 (1, leg. G. Jurševska, P. Evarts-Bunders); Gulbene d.: 6 km SW Litene, Jaunošmales house, 10 September 2005 (1, right bank of the Pededze River, leg. D. Telnov); Jēkabpils d.: Dunava, 23 June 1993 (1, leg. A. Barševskis), 13 May 2007 (1, leg. K. Barševska, A. Barševskis), 1 June 2008 (4, leg. A. Barševskis); Krāslava d.: Adamova vill., 29 June 2001 (3, leg. G. Lociks); Indrica, 17 June 1989 (1, leg. A. Barševskis); Krāslava, 11 June 1987 (4, leg. A. Barševskis); Piedruja, 16 June 1989 (1, leg. A. Barševskis), 28 May 1991 (2, dry meadow, leg. A. Barševskis); Liepāja d.: Pape PNT, Pape vill. S env., 15 June 2005 (2, bushes, leg. D. Telnov); Aizpute N env., Tebras ozolu audze (oak forest) PNT, July 2006 (1, oak forest, leg. J. Gailis); Šķēde, 14 September 2005 (3, leg. A. Napolov); Ogre d.: Glāžšķuņis, 30 July 2005 (1, right bank of the Ogre River, leg. D. Telnov); Ķeipene, 30 July 2005 (3, leg. D. Telnov); Vērene vill., 24 May 2003 (1, mixed forest, leg. D. Telnov); Rīga d.: bank of Lake Mazais Baltezers, 10 July 2000 (1, on *Salix*, leg. D. Telnov); Garciems, 10 August 1952 (1, leg. M. Stiprais); Garupe, 17 June 1977 (10, leg. M. Stiprais); Saulkrasti SW env., 19 July 2008 (1, seashore, on *Salix*, leg. A. Bukejs); Gauja NP, Sigulda, 20 June 1991 (1, meadow near Gleznotājkalns, leg. D. Telnov), 15 July 1991 (1, meadow, leg. D. Telnov), 10 July 1992 (1, meadow, leg. D. Telnov); Silciems, 15 May 1938 (2,

leg. anonymous); Talsi d.: Slītere NP, Kolka, 18 June 2002 (5, seashore, leg. C. Fägerstöm); Slītere NP, Mazirbe, 20 June 2002 (6, leg. C. Fägerstöm), 10 July 2004 (3, dunes, leg. A. Barševskis); 4 km E Vīdāle, 25 July 1996 (2, mixed forest, leg. D. Telnov); Tukums d.: Kandava, 14 May 2005 (1, pasture meadow, leg. D. Telnov); Plosti, 21–22 June 1996 (2, broad-leaved forest, leg. D. Telnov); Valmiera d.: Kauguru parish, forest near the Gauja River, 3 July 2006 (1, leg. A. Barševskis, U. Valainis, A. Pankjāns); Ventspils d.: Raķupe PNT, junction of the Pāce and Raķupe Rivers, Kuikas house, 6 May 2006 (1, leg. D. Telnov).

**Host plants:** *Salix*.

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

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

**Note:** common.

#### subgenus *GONIOMENA* Motschulsky, 1860

##### *G. quinquepunctata* (Fabricius, 1787)

syn.: *decempunctata* Schrank, 1781 nec Linnaeus, 1758

**References:** Seidlitz 1872–1875 (*Chrysomela*), 1887–1891 (*Phytodecta*); Rathlef 1905 (*Phytodecta*); Pūtele 1974, 1980, 1981a, b, 1984 (*Phytodecta*); Stiprais 1977 (*Phytodecta*); Barševskis 1988, 1993, 2002; Telnov *et al.* 1997; Rupais 1999; Telnov 2004; Kalniņš *et al.* 2007; Bukejs and Telnov 2007.

**Examined material:** 142 specimens: Aizkraukle d.: 5 km SE Zalve, 26 August 2006 (4, forest edge, leg. A. Napolov); Alūksne d.: Jaunlaicene, 3 August 2005 (2, park, leg. D. Telnov); Balvi d.: Kuprava, 19 May 1991 (6, leg. A. Barševskis); Daugavpils d.: Bebrene, 24 June 2006 (1, leg. E. Rudāns); Butišķi, 26 May 2008 (5, valley of the Daugava River, leg. A. Bukejs); Daugavpils, Ruģeļi, 16 May 2006 (1, leg. V. Kokina), Daugavpils, 55°54'03"N 26°34'42"E, 5 May 2009 (1, pine forest, leg. R. Cibulskis); Elerne vill., 24 May 2007 (2, leg. A. Pankjāns); 4 km NE Geitvinišķi, 55°54'51"N 26°53'47"E, 23 May 2008 (2, leg. U. Valainis); Naujene, 29 April 2008 (1, valley of the Daugava River, leg. A. Pankjāns, U. Valainis); 3 km SW Oborūni, 29 April 2008 (1, pine forest, leg. A. Bukejs); Slutišķi, 29 April 2008 (1, leg. A. Pankjāns, U. Valainis), 4 May 2008 (1, leg. K. Barševska, A. Barševskis); Šedere, Straumēni house, 1–3 May 2008 (1, leg. M. Janovska); Stropi, 14 May 2006 (2, leg. A. Bukejs), 27 April 2008 (1, bank of Lake Lielais Stropu, leg. A. Bukejs), 2 May 2009 (1, on *Padus*, leg. A. Bukejs), 4 May 2009 (12, on *Padus*, leg. A. Bukejs); 2.3 W Tartaks, Misjūni, 9 May 2008 (1, valley of the Daugava River, glen, leg. R. Cibulskis); Vasargelišķi vill., 26 June 2001 (1, leg. G. Lociks), 29 April 2008 (13, glen Bondaru, leg. A. Pankjāns, U. Valainis); 1.5 km SW Vecpils, 9 May

2008 (1, leg. R. Cibulskis); Vecsaliena N env., Lejzeme-nieki house, 21 August 2008 (2, bank of the Mālkalne River, leg. A. Pankjāns); Dobele d.: Dzeguzēni, 15 May 2002 (2, leg. D. Telnov); Gulgene d.: highway Balvi–Lubāna, near the Pededze River bridge, 9 July 2005 (2, pasture meadow, leg. D. Telnov); Jēkabpils d.: Ābeļi parish, near the Daugava River, 17 May 1995 (1, leg. A. Barševskis); Dunava, 18 July 1995 (1, leg. A. Barševskis), 1 June 2002 (2, leg. A. Barševskis), 15 July 2006 (3, leg. A. Barševskis); Rubeņi, 28 April 1999 (2, leg. I. Leiskina); Jelgava d.: Vilce, Vilce PNT, 56°25'13"N 23°32'31"E, 3 May 2008 (2, leg. A. Soldāns, U. Valainis, A. Pankjāns, E. Tamanis); Jūrmala: Kūdra, 20 July 2008 (1, leg. A. Titovs); Krāslava d.: Indrica, 29 May 1991 (1, leg. A. Barševskis); Piedruja, 28 May 1991 (3, dry meadow, leg. A. Barševskis); Lake Salāju PNT, W bank of Lake Salāju, 11 June 2002 (1, leg. D. Telnov); 1.3 km NW Skaista vill., Zukulišķi houses, 14 July 2008 (1, leg. R. Cibulskis); Šķeltova, 22 March 1986 (1, leg. A. Barševskis), 25 May 1986 (1, leg. A. Barševskis), 17 May 1987 (4, leg. A. Barševskis), 20 May 1995 (1, wet meadow, leg. A. Barševskis), 1 May 1996 (10, leg. A. Barševskis), 24 July 1996 (1, leg. A. Barševskis); Stivrini, 19 March 1989 (1, leg. A. Barševskis); 2.3 km W Tartaks, Misjūni, 9 May 2008 (1, valley of the Daugava River, glen, leg. R. Cibulskis); Ūdrīši houses, 29 April 2008 (10, leg. A. Pankjāns, U. Valainis); Velnezers PNT, Lake Velnezers (Čertoks), 11 June 2002 (1, leg. D. Telnov); Kuldiķa d.: Dzelda E env., mouth of the Šķērvelis River, 3 June 2001 (1, mixed forest, leg. D. Telnov); Ogre d.: Jumprava, 10 July 2008 (1, leg. A. Barševskis); Ogre, Pārogre, 29 April 2002 (2, forest edge, leg. R. Spots); Preiļi d.: Jersika, Kurpnieki house, 7 June 2005 (1, leg. A. Barševskis); Rēzekne d.: Lake Lubāns, Īdeņa env., 28 May 2009 (1, leg. A. Bukejs); Puša, 25 May 2002 (1, leg. A. Barševskis); Rīga d.: Cekule vill., 13 June 2002 (2, moist mixed forest, leg. D. Telnov); Gauja NP, Nurmiži, 5 September 2001 (8, leg. D. Telnov); Gauja NP, Sigulda, 12 June 1992 (4, leg. anonymous); Talsi d.: Slītere NP, Mazirbe, 5 June 2002 (1, leg. A. Barševskis); 4 km E Vīdāle, 25 July 1996 (1, mixed forest, leg. D. Telnov); Slītere NP, Zilie Kalni (hills), 24 June 2002 (1, leg. C. Fägerstöm), 14 June 2008 (1, leg. A. Pankjāns), 13 July 2009 (2, leg. R. Cibulskis); Tukums d.: Dankumi vill., 25 May 2005 (2, pasture woodland, leg. A. Napolov); Ventspils d.: Moricsala Isl., Moricsala Nature Reserve, 10 September 2001 (1, broad-leaved forest, on *Padus*, leg. D. Telnov), 14 July 2009 (1, leg. A. Barševskis).

**Host plants:** *Padus avium*, *Sorbus*, *Corylus*, *Salix*.

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

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

**Note:** common species in Latvia.

***G. intermedia* (Helliesen, 1913)**

**References:** Telnov 2002, 2004; Telnov and Kalniņš 2003; Telnov *et al.* 2005; Kalniņš *et al.* 2007.  
**Examined material:** 39 specimens: Cēsis d.: Cēsis, 22 May 2004 (1, valley of the Siļķupīte River, moist mixed forest, leg. D. Telnov); Daugavpils d.: Šedere, Straumēni house, 1–3 May 2008 (1, leg. M. Janovska); Gulbene d.: Gulbītis env., Lake Ušurs, 8 June 2005 (3, along marsh, leg. A. Barševskis); Pededzes lejtece (lower course) PNT, Silenieki house W env., Augstsaliešu forest, the valley of ditch Tīro, 21–22 May 2005 (1, clearing, leg. D. Telnov); Jēkabpils d.: Rubeņi, 28 April 1999 (1, leg. I. Leiskina); Krāslava d.: E bank of Lake Ojatu, Ojatnieki, 11 June 2002 (1, leg. D. Telnov); Liepāja d.: Embūte PNT, Kļaviņi house, 18 July 2009 (1, deciduous forest, leg. D. Telnov); Ogre d.: Vērene vill., 24 May 2003 (1, broad-leaved forest, leg. D. Telnov); Rīga d.: 5 km E Cekule vill., 10 May 2003 (2, wet meadow, leg. D. Telnov); Kūdra, Kūdra train station, 2 June 1994 (1, leg. A. Titovs); Gauja NP, Sigulda, 28 June 1994 (1, meadow, leg. D. Telnov), 20 May 2001 (1, meadow, leg. D. Telnov), 16 June 2005 (1, forest edge, leg. D. Telnov), 22 June 2005 (2, left bank of the Gauja River, leg. D. Telnov); Talsi d.: Plosti, 21–22 June 1996 (2, broad-leaved forest, leg. D. Telnov); 4 km E Vīdāle, 25 July 1996 (4, mixed forest, leg. D. Telnov); Valka d.: Smiltene N env., 29 May 2005 (2, valley of the Kamalda River, clearing, leg. D. Telnov); Vijciems, 28 April 2000 (1, roadside in forest, leg. J. Gailis); Valmiera d.: Burtnieki SE env., Igaši house, 3 June 2006 (1, mixed forest, leg. D. Telnov); Ventspils d.: Moricsala Isl., Moricsala Nature Reserve, May 2003 (1, leg. U. Valainis), 14 May 2004 (1, leg. A. Barševskis), 3 September 2004 (1, leg. U. Valainis), 3 September 2004 (1, leg. A. Barševskis), 23 June 2004 (1, leg. A. Barševskis),

U. Valainis), 15 July 2008 (5, leg. V. Alekseev, A. Pavlova), 15 July 2008 (2, leg. A. Bukejs), 13 May 2009 (1, leg. A. Barševskis).

**Host plants:** *Padus avium*, *Sorbus aucuparia*.

**Phenology:** IV (3), V, VI, VII, IX.

**General distribution:** the limits of the distribution range of this species require additional attention. Possibly, it is a boreomountainous species. S Norway, Finland, Russian Karelia, Murmansk region, Estonia, Latvia, mountains of C Europe (Alps, Carpathians, Beskids, Bieszczads), Croatia, Hungary. [EUR]

**Note:** insufficiently known species in Latvia.

***G. pallida* (Linnaeus, 1758)**

syn.: *dispar* Paykull, 1799; *frontalis* (Olivier, 1807)

**References:** Precht 1818 (*Chrysomela pallida*); Seidlitz 1872–1875 (*Chrysomela*), 1887–1891 (*Phytodecta*); Rathlef 1905 (*Phytodecta*); Pūtele 1980, 1981a, b, 1984 (*Phytodecta*); Barševskis 1993 (misidentification), 2002; Telnov *et al.* 1997; Telnov 2004; Kalniņš *et al.* 2007; Bukejs and Telnov 2007 (misidentification).

**Examined material:** 13 specimens: Aizkraukle d.: Aiz-



Figures 1–2. Fore tibiae: 1 – *G. linnaeana*, 2 – *G. quinquepunctata*.



Figures 3–9. Aedeagi: 3 – *G. decemnotata*, 4 – *G. flavicornis* (after Bieńkowski 2004), 5 – *G. linnaeana*, 6 – *G. pallida*, 7 – *G. viminalis*, 8 – *G. quinquepunctata*, 9 – *G. intermedia*.



Figures 10–26. Habitus, dorsal: 10 – *G. decemnotata*, 11–16 – *G. viminalis*, 17–21 – *G. linnaeana*, 22 – *G. pallida*, 23–25 – *G. quinquepunctata*, 26 – *G. intermedia*.

kraukles purvs (bog) PNT, N env. of Aizkraukles bog, 8 June 2001 (1, clearing, on *Salix*, leg. D. Telnov); Cēsis d.: Gauja NP, Ieriķi, 6 May 1995 (1, valley of the Perļupe River, leg. D. Telnov); Krāslava d.: Lake Dridzis PNT, Liepu Isl., 13 July 1993 (2, deciduous forest, on *Salix*, leg. D. Telnov); Madona d.: Bērzaune, 7 July 2006 (1, leg. A. Pankjāns, E. Rudāns, A. Barševskis); Ogre d.: Dzelmes, 19 May 1992 (2, valley of the Daugava River, bushes, leg. F. Savičs); Rīga d.: Gauja NP, Sigulda, 17 May 1992 (3, meadow, leg. R. Matrozis), 12 July 2003 (1, right bank of the Gauja River, flood-lands meadow, leg. J.-F. Voisin); Turaida, 12 July 2003 (1, leg. H. Silfverberg); Talsi d.: Slītere NP, May–September 1997 (1, moist forest, window trap, leg. N. Jansson).

Some earlier reports of this species, namely ‘Krāslava d.: Šķeltiņi, Izvalta, Indrica and Piedruja’ (Barševskis 1993) and ‘Daugavpils d.: Stropi, 14 May 2006 (2, leg. A. Bukejs), Vasargeliški, 26 June 2001 (1, leg. G. Lociks)’ (Bukejs & Telnov 2007) are based on misidentifications of *G. quinquepunctata*.

**Host plants:** *Sorbus*, *Crataegus*, *Padus*, *Salix*, *Populus*.

**Phenology:** V, VI, VII.

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

**Note:** rare species in Latvia, surely known from a few localities only.

#### An illustrated key to Latvian species of genus *Gonioctena*

1 (8) Foretibiae with large subapical denticle at external side (Fig. 1). Subgenus *Gonioctena* s. str.

2 (7) Interstrial intervals shining, covered with fine but distinct punctures.

3 (4) Clypeus and legs entirely reddish. Pronotum and elytra rufous with black markings: 2 spots at the base of pronotum and 5 spots on each elytron; this pattern is variable and spots can be more or less strongly reduced. Aedeagus (Fig. 3). Length 5.0–7.5 mm. Habitus (Fig. 10).

*G. decemnotata* (Marsh., 1802).

4 (3) Clypeus and femora black.

5 (6) Legs black, rarely foretibiae rufous. Dorsal surface red or rufous with black markings: 2 spots at the base of pronotum, 5 on each elytron; this pattern is very variable (spots can be fused together, or completely absent, or dorsal surface entirely black). Aedeagus (Fig. 7). Length 5.5–7.0 mm. Habitus (Figs 11–16). .... *G. viminalis* (L., 1758).

6 (5) Main part of tibiae rufous to pale. Pronotum

entirely black, elytra reddish to brown, without darker spots; rarely lateral margins of pronotum rufous, or lateral margins of elytra black or elytra entirely black. Aedeagus (Fig. 4). Length 3.5–5.5 mm. .... *G. flavigornis* (Sffr., 1851).

7 (2) Interstrial intervals shagreened, dull, with or without indistinct punctures. Antennae short, 3<sup>rd</sup> antennomere not significantly longer than 5<sup>th</sup> one, each of 7<sup>th</sup>–10<sup>th</sup> antennomeres not more than 1.1× longer than wide. Pronotum black, mostly with anterior corners rufous; elytra rufous with 1–5 black spots on each elytron; this pattern is variable (spots can be partly absent or fused together, or elytra entirely rufous or black). Aedeagus (Fig. 5). Length 5.0–6.5 mm. Habitus (Figs 17–21). .... *G. linnaeana* (Schrnk., 1781).

8 (1) Foretibiae without subapical denticle at external side (Fig. 2). Subgenus *Goniomena* Motsch., 1860.

9 (10) Aedeagus gradually narrowed at sides of apical opening (Fig. 6). Omoplates weak. Dorsal surface pale rufous, elytra usually without black markings. Length 4.6–7.3 mm. Habitus (Fig. 22). .... *G. pallida* (L., 1758).

10 (9) Aedeagus widened at sides of apical opening and slightly elongated at apex (Figs 8–9).

11 (12) Flagellum apically hook-shaped (Fig. 8). Dorsal surface coloration variable: entirely pale rufous or with 5 black spots on each elytron or entirely black. Length 5.0–6.5 mm. Habitus (Figs 23–25). .... *G. quinquepunctata* (F., 1787).

12 (11) Flagellum apically straight or almost straight (Fig. 9). Dorsal surface coloration as in previous species. Length 4.5–6.7 mm. Habitus (Fig. 26). .... *G. intermedia* (Hell., 1913).

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## REFERENCES

- Alekseev, V. I. 2003. On fauna of leaf beetles (Coleoptera: Chrysomelidae) and seed beetles (Coleoptera: Bruchidae) of Kaliningrad region (Baltic coast). *Baltic Journal of Coleopterology* 3 (1): 63–75.
- Alekseev, V. I. and Bukejs, A. (in press) Contributions to the knowledge of beetles (Insecta: Coleoptera) in the Kaliningrad region. 1. *Baltic Journal of Coleopterology* 10 (1).
- Barševskis, A. 1988. Faunal investigations on beetles in various habitats of south-eastern part of Latvia. In: *Ecological education in secondary and higher schools*, pp. 63–75. Daugavpils: DPI. [Баршевскис, А. 1988. Фаунистические исследования жуков юго-восточной части Латвии в различных биотопах. In: Экологическое воспитание в средней и высшей школе. Даугавпилс, ДПИ: 63–75.]
- Barševskis, A. 1993. *The Beetles of Eastern Latvia*. Daugavpils: Saule (in Latvian, English summary).
- Barševskis, A. 2002. Vaboļu kārtā (Coleoptera). In: A. Barševskis, N. Savenkovs, P. Evarts-Bunders, I. Daniele, G. Pētersons, V. Pilāts, E. Zviedre, D. Pilāte, M. Kalniņš, K. Vilks and A. Poppels (eds) *Silenes dabas parka fauna, flora un veģetācija*, pp. 37–60. Daugavpils: Baltijas Koleopteroloģijas institūts (in Latvian).
- Barševskis, A. and Savenkovs, N. 1991. Peculiarities of the beetles fauna on dry meadows in Piedruja. In: *Kultūrvides veidošanas problēmas Daugavas ielejā*, pp. 40–42. Daugavpils (in Latvian).
- Bieńkowski, A. O. 2004. *Leaf-beetles (Coleoptera: Chrysomelidae) of the Eastern Europe. New key to subfamilies, genera and species*. Moscow: Mikron-print.
- Borowiec, L. 2004. *The Leaf Beetles (Chrysomelidae) of Europe and the Mediterranean Subregion* (Checklist and Iconography). <http://www.biol.uni.wroc.pl/cassidae/European%20Chrysomelidae/index.htm>. Last modification: 18 September 2008.
- Brammanis, L. 1940. A review of pests of wood in Latvia. *Mežkopja darbs un zinātnie* 1–2 (1940): 257–340. [Brammanis, L. 1940. Latvijas mežu kaitēķu apskats. *Mežkopja darbs un zinātnie* 1–2 (1940): 257–340.]
- Bukejs, A. 2009a. On Latvian Chrysomelinae (Coleoptera: Chrysomelidae): 1. Genus *Phratora* Chevrolat, 1836. *Acta Zoologica Lituanica* 19 (4): 287–296.
- Bukejs, A. 2009b. To the knowledge of Latvian Chrysomelinae (Coleoptera: Chrysomelidae). *Acta Biologica Universitatis Daugavpiliensis* 9 (2): 181–195.
- Bukejs, A. 2010. On Latvian Chrysomelinae (Coleoptera: Chrysomelidae): 2. Genus *Chrysomela* Linnaeus, 1758. *Acta Zoologica Lituanica* 20 (1): 12–21.
- Bukejs, A. and Telnov, D. 2007. Materials about the fauna of beetles (Insecta: Coleoptera) of Naujene rural municipality (Daugavpils district, Latvia). Part 2. *Acta Biologica Universitatis Daugavpiliensis* 7 (2): 191–208.
- Danka, L. 1950. *Useful and harmful beetles*. Rīga: Latvijas Valsts Izdevniecība. [Danka, L. 1950. *Derīgas un kaitīgas vaboles*. Rīga: Latvijas Valsts Izdevniecība.]
- Fischer, J. B. 1784. Zusätze zu seinem ‘Versuch einer Naturgeschichte von Livland’. In: J. J. Febers (ed.) *Anmerkungen zur physischen Erdbeschreibung von Kurland, nebst J. B. Fischers Zusätzen zu einem Versuch einer Naturgeschichte von Livland*. Riga.
- Fischer, J. B. 1791. *Versuch einer Naturgeschichte von Livland. 2. Auflage*. Königsberg: Friedrich Nicolobius.
- Kalniņš, M., Juceviča, E., Karpa, A., Salmane, I., Poppels, A. and Telnovs, D. 2007. Invertebrates. In: V. Pilāts (ed.) *Biodiversity in Gauja National Park*, pp. 106–149. Sigulda: Gauja National Park Administration.
- Kawall, J. H. 1866. Phänologische Beobachtungen. *Korrespondenzblatt des Naturforscher-Vereins zu Riga* 15 (10/11): 146–165.
- Lindberg, H. 1932. Käfer, gesammelt in Lettland 1931. *Folia zoologica et hydrobiologica* 4 (2): 163–166.
- Lopatin, I. K. 1977. *Leaf-beetles (Chrysomelidae) of Central Asia and Kazakhstan*. Leningrad: Nauka. [Лопатин, И. К. 1977. Жуки-листоеды (Chrysomelidae) Средней Азии и Казахстана. Ленинград: Наука.]
- Lopatin, I. K. 1986. *Leaf-beetles of Belarus and eastern Baltia*. Minsk: Vishejshaja shkola. [Лопатин, И. К. 1986. Жуки-листоеды фауны Белоруссии и Прибалтики: Определитель. Минск: Вышайшая школа.]
- Lopatin, I. K. and Kulenova, K. Z. 1986. *Leaf-beetles (Coleoptera, Chrysomelidae) of Kazakhstan*. Alma-Ata:

- Nauka. [Лопатин, И. К., Кулунова К. З. 1986. Жуки-листоеды (Coleoptera, Chrysomelidae) Казахстана: Определитель. Алма-Ата: Наука.]
- Lopatin, I. K. and Nesterova, O. L. 2005. *Insecta of Byelorussia: Leaf-Beetles (Coleoptera, Chrysomelidae)*. Minsk: Tehnoprint (in Russian, English summary).
- Medvedev, L. N. 1982. *Leaf beetles of Mongolia: guides*. Moscow: Nauka. [Медведев, Л. Н. 1982. Листоеды МНР: определитель. Москва: Наука.]
- Medvedev, L. N. 1992. Leaf beetles – Chrysomelidae. In: *Keys to Insects of Far East of SSSR* 3. Coleoptera 2: 533–602. Sankt-Petersburg: Nauka. [Медведев, Л. Н. 1992. Листоеды – Chrysomelidae. В кн.: Определитель насекомых Дальнего Востока СССР. Том 3. Жесткокрылые или жуки. Часть 2: 533–602. Санкт-Петербург: Наука.]
- Medvedev, L. N. and Dubeshko, L. N. 1992. *Key to leaf-beetles of Siberia*. Irkutsk: University of Irkutsk. [Медведев, Л. Н., Дубешко, Л. Н. 1992. Определитель листоедов Сибири. Иркутск: изд-во Иркутского университета.]
- Mohr, K. H. 1966. Chrysomelidae. In: H. Freude, K. Harde and G. Lohse (eds) *Die Käfer Mitteleuropas. Band 9, Cerambycidae und Chrysomelidae*, pp. 95–280. Krefeld: Goecke & Evers.
- 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.
- Pūtele, V. 1974. Leaf-beetles (Coleoptera, Chrysomelidae) discovered in the surroundings of Jelgava city. In: *Brief reports of a scientific conference on the protection of plants*. Saku, 2–4 1974 (2): 55–58. Tallinn. [Путеле, В. О. 1974. Листоеды (Coleoptera, Chrysomelidae), выявленные в окрестностях города Елгава. В кн.: Краткие доклады научной конференции по защите растений, Саку, 2–4 1974 г., ч. 2: 55–58. Таллин.]
- Pūtele, V. 1980. Lapgraužu (Coleoptera, Chrysomelidae) faunas pētījumi Slītere valsts dabas rezervātā. *Slīteres rezervāta I zinātniski praktiskā konference, referātu tēzes*: 18–21. Slītere (in Latvian).
- Pūtele, V. 1981a. Studies on leaf-beetles (Coleoptera, Chrysomelidae) fauna of the Slītere State Nature Reserve. *Latvijas Lauksaimniecības akadēmijas raksti* 188: 12–19 (in Russian).
- Pūtele, V. 1981b. Studies on leaf-beetles fauna of the Slītere State Nature Reserve: reports. *Mežsaimniecība un mežrūpniecība* 3: 42–44.
- Pūtele, V. O. 1982. Pested leaf-beetles (Coleoptera, Chrysomelidae) of the Latvian SSR. *Latvijas Lauksaimniecības akadēmijas raksti* 200: 28–33. [Путеле, В. О. 1982. Вредные листоеды (Coleoptera, Chrysomelidae) Латвийской ССР. Борьба с вредителями и болезнями картофеля, плодовоощных и полевых культур. Труды Латвийской сельскохозяйственной академии 200: 28–33.]
- Pūtele, V. 1984. Leaf-beetles – pests of tree cultures in the Slītere State Nature Reserve. *Latvijas Lauksaimniecības akadēmijas raksti* 213: 9–15. [Путеле, В. 1984. Листоеды – вредители древесных культур в Государственном заповеднике «Слитере». *Latvijas Lauksaimniecības akadēmijas raksti* 213: 9–15.]
- Rathlef, H. 1905. *Coleoptera Baltica. Käfer-Verzeichnis der Ostseeprovinzen nach den Arbeiten von Ganglbauer und Reitter*. Dorpat: C. Mattiesen.
- Rathlef, H. 1921. Supplementum zu den Coleoptera Baltica. *Sitzungsberichte der Naturforscher-Gesellschaft bei der Universität Dorpat* 25 (2/4): 53–65.
- Romantsov, P. V. 2007. A review of leaf beetles (Coleoptera, Chrysomelidae) of St. Petersburg and Leningrad province. *Entomological Reviews* 86 (2): 306–336. [Романцов, П. В. 2007. Обзор жуков-листоедов (Coleoptera, Chrysomelidae) Санкт-Петербурга и Ленинградской области. *Энтомологическое Обозрение* 86 (2): 306–336.]
- Rupais, A. 1999. *Guides to pests of gardens and greenery*. Rīga: Valsts Augu aizsardzības dienests. [Rupais, A. 1999. Kokaugu kaitēķu sugu noteicējs pēc bojājumiem augļu dārzos un apstādījumos. Rīga: Valsts Augu aizsardzības dienests.]
- Seidlitz, G. 1872–1875. *Fauna Baltica. Die Käfer (Coleoptera) der Ostseeprovinzen Russlands*. Dorpat: H. Laakmann.
- Seidlitz, G. 1887–1891. *Fauna Baltica. Die Käfer (Coleoptera) der Ostseeprovinzen Russlands. Zweite neu bearbeitete Auflage mit 1 Tafel*. Königsberg: Hartungsche Verlagsdruckerei.
- Silfverberg, H. 2004. *Enumeratio nova Coleopterorum Fennoscandiae, Daniae et Baltiae. Sahlbergia* 9: 1–111.
- Sintenis, F. 1900. Forstinsecten der Ostseeprovinzen. *Separat – Abzug aus den Sitzungsberichte der Naturforscher-Gesellschaft bei der Universität Jurjew (Dorpat)*: 173–198.
- Stiprais, M. 1977. Faunistic data on the Chrysomelidae in Latvia. *Latvijas Entomologs* 20: 14–23 (in Latvian, abstract in German).
- Šmits, V. 1962. New beetles species for the Latvian fauna. *Latvijas Entomologs* 5: 51–52. [Šmits, V. 1962. Jaunas sugas Latvijas vabolu faunai. *Latvijas Entomologs* 5: 51–52.]
- Taglianti, V. A., Audisio, P. A., Biondi, M., Bologna, M. A., Carpaneto, G. M., De Biase, A., Fattorini, S., Piatella, E., Sindaco, R., Venchi, A. and Zapparoli, M. 1999. A proposal for a chorotype classification of the Near East

- fauna, in the framework of the Western Palearctic region. *Biogeographia* 20: 31–59.
- Telnov, D. 2002. To the knowledge of Latvian Coleoptera. 2. *Latvijas Entomologs* 39: 16–19.
- Telnov, D. 2004. Check-List of Latvian Beetles (Insecta: Coleoptera). Second Edition. In: D. Telnov (ed.) *Compendium of Latvian Coleoptera* 1: 1–114. Rīga: Pertovskis & Co.
- Telnov, D. and Kalnīņš, M. 2003. To the knowledge of Latvian Coleoptera. 3. *Latvijas Entomologs* 40: 21–33.
- Telnov, D., Barševskis, A., Savich, F., Kovalevsky, F., Berdnikov, S., Doronin, M., Cibulskis, R. and Ratniece, D. 1997. Check-List of Latvian Beetles (Insecta: Coleoptera). *Mitteilungen des Internationalen Entomologischen Vereins*, Supplement V: 1–140.
- Telnov, D., Gailis, J., Kalnīņš, M., Napolov, A., Piterāns, U., Vilks, K. and Whitehead, P. F. 2005. Contributions to the Knowledge of Latvian Coleoptera. 4. *Latvijas Entomologs* 42: 18–47.
- Trauberga, O. 1957. Coleoptera. In: *Guides to Latvian animals* 1: 455–592. Rīga: Latvijas Valsts izdevniecība. [Trauberga, O. 1957. Coleoptera. *Latvijas PSR dzīvnieku noteicējs* 1: 455–592. Rīga: Latvijas Valsts izdevniecība.]
- Ulanowski, A. 1883. To the coleopterological fauna of Polish provinces. *Sprawozdanie Komisyi Fizyjograficznej* 18: 1–60. [Ulanowski, A. 1883. Z fauny coleopterologicznej Inflant Polskich. *Sprawozdanie Komisyi Fizyjograficznej* 18: 1–60.]
- Warchałowski, A. 2003. *The leaf-beetles (Chrysomelidae) of Europe and the Mediterranean region*. Warszawa: Natura optima dux Foundation.

**APIE LATVIJOS ENTOMOFAUNOS LAPGRAUŽIUS VABALUS  
CHRYSMELINAE (COLEOPTERA: CHYSOMELIDAE):  
3. GENTIS *GONIOCTENA* CHEVROLAT, 1836**

*A. Bukejs, D. Telnov*

**SANTRAUKA**

Straipsnyje apibendrinti Latvijoje aptiktų šešių *Gonioctena* Chevrolat, 1836 genties rūšių faunistiniai duomenys. Iš viso buvo ištirti 1695 šios genties individai. Pirmą kartą atlikta Latvijos *Gonioctena* bibliografinė analizė. Pateiktas anotuotas 7 rūšių sarašas ir iliustruotas Latvijos *Gonioctena* apibūdinimo raktas.

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