

## MATERIALS ON FAUNA OF OEDEMERIDAE (HEXAPODA: COLEOPTERA) IN LATVIA. 3. *DYTYLUS LAEVIS* (FABRICIUS, 1787), *CHRYSANTHIA VIRIDISSIMA* (LINNAEUS, 1758) AND *CHRYSANTHIA GENICULATA* (SCHMIDT, 1846)

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Barševskis A., Vorobjova I., Valainis U., Nitcis M. 2012. Materials on fauna of Oedemeridae (Hexapoda: Coleoptera) in Latvia. 3. *Dytylus laevis* (Fabricius, 1787), *Chrysanthia viridissima* (Linnaeus, 1758) and *Chrysanthia geniculata* (Schmidt, 1846). *Acta Biol. Univ. Daugavp.*, 12 (4): 119 – 125.

The article contains information about distribution of three species of family Oedemeridae – *Dytylus laevis* (F.), *Chrysanthia viridissima* (L.) and *Chrysanthia geniculata* (Schmidt) in Latvia. The revision of collection material provided opportunity to change the opinion about distribution of *Chrysanthia viridissima* (L.) and *Chrysanthia geniculata* (Schmidt) in Latvia. *Chrysanthia viridissima* (L.) is found only in Western part of Latvia practically, while *Chrysanthia geniculata* (Schmidt) is widespread in all territory of state. *Dytylus laevis* (F.) is very rare in Latvia, and there is only one specimen determined in our collection material, collected in South-Eastern part of Latvia. Most of *Chrysanthia viridissima* (L.) findings in Central and Eastern part of Latvia, which was previously published, appeared to be based on mistakenly determined specimens.

Key words: Oedemeridae, *Dytylus laevis*, *Chrysanthia viridissima*, *Chrysanthia geniculata*, fauna, Latvia.

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### INTRODUCTION

The article is continuing the series of articles about Oedemeridae (Hexapoda: Coleoptera) family species distribution and incidence in Latvia, where 15 species from this family are known. The goal of this article is to summarize the faunistic information about species of family Oedemeridae found in Latvia and deposited in beetle collection of Coleopterological Research Centre, Institute of Systematic Biology,

Daugavpils University (Daugavpils Distr., Ilgas, Latvia) (DUBC).

The first article from aforementioned series was devoted to two species of genus *Oedemera* Ol. – *Oe. subrobusta* (Nakane, 1954) and *Oe. lurida* (Marsham, 1802), which are difficult to determine. First of these species – *Oe. subrobusta* (Nakane, 1954) was indicated as new to fauna of Latvia in this article (Barševskis 2009). The second article contains information

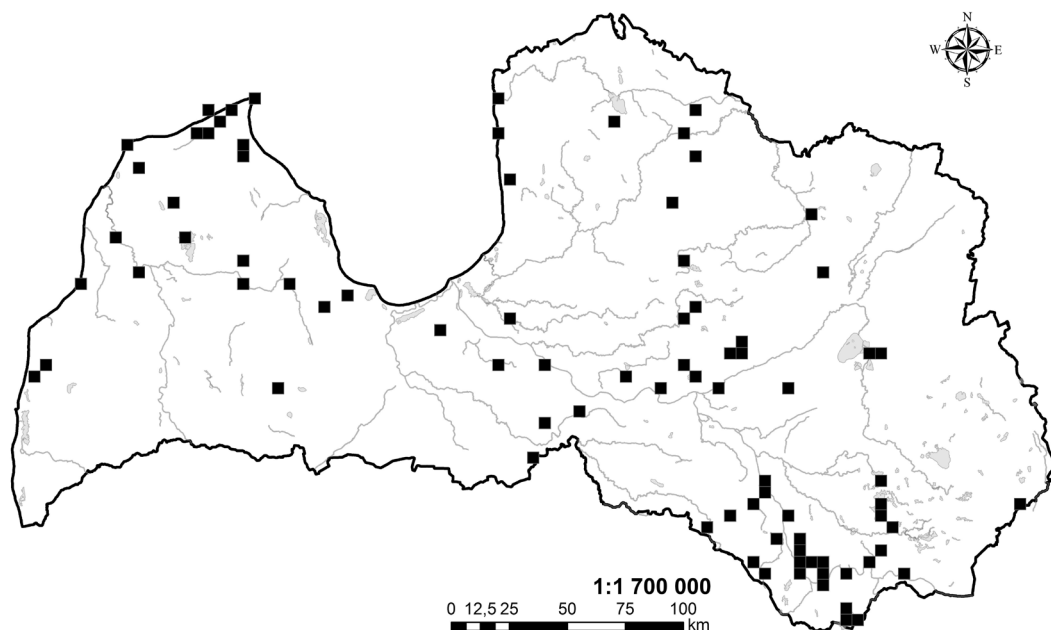


Fig.1. The material collection sites.

about distribution of *Oe. flavipes* (Fabricius, 1762), *Oe. virescens* (Linnaeus, 1767), and *Oe. femorata* (Scopoli, 1763) in Latvia (Barševskis, Vorobjova 2011).

The current article summarizes information about *Dytylus laevis* (Fabricius, 1787), *Chrysanthia viridissima* (Linnaeus, 1758) and *Chrysanthia geniculata* (Schmidt, 1846) distribution in Latvia. The article complements already available information about Oedemeridae family species in fauna of Latvia.

## MATERIAL AND METHODS

The result of current study is determination of 1 specimen of *Dytylus laevis* (F.), 47 specimens of *Chrysanthia viridissima* (L.), and 398 specimens of *Chrysanthia geniculata* (Schmidt). There are 446 specimens processed in total. The study is conducted in all territory of Latvia. The material collection sites are shown in Figure 1.

Species was determined using monograph X.A.Vazquez (2002). The genitals of many

males were dissected, and structure studied.

The stereomicroscopes *Nikon AZ100* and *Nikon SMZ745T* and *NIS-Elements 6D* software are used in laboratory for determination of species.

All findings are classified in the alphabetical order by administrative regions (using the division before administrative reform of year 2008) after the name of species. There are findings, date of collection, number of collected specimen by sex (M – male, F – female), and surname and initials of collector indicated for each species.

## FAUNISTICS

***Ditylus laevis* (Fabricius, 1787)** – Daugavpils Distr.: Ilgas, Silene Nature park, 09.06.1994. (1F, A.Barševskis leg.). Materials: 1 specimen. Map of distribution in Latvia (Fig. 2).

***Chrysanthia viridissima* (Linnaeus, 1758)** – **Kuldīga Distr.:** Lielais Nabes Lake, 28.07.2005., (1F, A.Bukejs, A.Barševskis

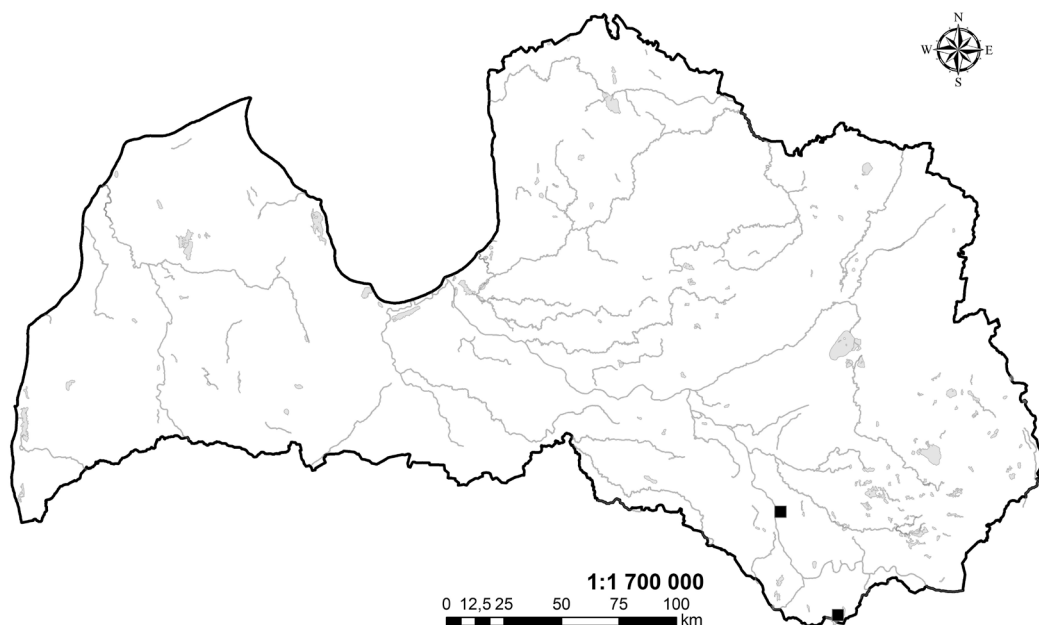


Fig.2. Distribution of *Ditylus laevis* (Fabricius, 1787) in Latvia.

leg.), **Liepāja Distr.:** Upmaļi, Baltic sea coast, 12.08.2008., (1F, A.Barševskis leg.); **Talsi Distr.:** Ance, Protected area „Ances meži un purvi”, 27.06.2006. (1M, U.Valainis leg.), (1M, 1F, A.Barševskis leg.), Kaļķi, Nature protected area „Kaļķupes ieleja”, „Puiškalns”, 02.06.2009., (1M, R.Cibuļskis leg.); Slītere National park, Kolka, 04.08.2004. (1F, A.Barševskis leg.), Slītere National park, „Zilie kalni”, 10.07.2004. (3M, 1F, R.Cibuļskis leg.), 10.07.2004. (1F, A.Barševskis leg.), 02.06.2009., (1M, A.Barševskis leg.), 13.07.2009., (1M, R.Cibuļskis leg.), Slītere National park, Mazirbe, dunes of Baltic Sea, 05.06.2002. (3M, 1F, A.Barševskis leg.), 29.06.2002. (1M, 2F, A.Barševskis leg.), 10.07.2004. (1F, A.Barševskis leg.), Stende, pine forest clearing, 19.07.2007. (4F, A.Barševskis, U.Valainis, A.Pankjāns, A.Soldāns leg.); **Tukums Distr.:** Ķemeri National park, Lielaisciems, 26.06.2006. (1F, A.Pankjāns leg.), 16.07.2008. (1M, A.Barševskis leg.), Pūre, 18.07.2005. (1F, A.Barševskis leg.), Tukums, Rīga – Ventspils road near the railway bridge, 19.07.2007., (3F, A.Barševskis leg.), Tukums, 09.2007. (1F, A.Barševskis leg.); **Ventspils Distr.:** Muižnieki,

29.07.2005., (4M, 9F, A.Barševskis, A.Bukejs, U.Valainis leg.), Ovīši, 17.07.2005. (1F, A.Barševskis leg.). Materials: 47 specimens. Map of distribution in Latvia (Fig. 3).

***Chrysanthia geniculata* (Schmidt, 1846)**

– **Aizkraukle Distr.:** Aizkraukle bog., 21.06.1995., (1M, 2F, A.Barševskis leg.), Mežezers, 18.07.2008., (1M, 2F, A.Barševskis leg.), Rīteri, 29.06.2006. (1F, A.Barševskis leg.), (1M, 1F, A.Pankjāns leg.), Taurkalne, 14.08.2006., (1F, J.Donis leg.), 02.07.2007. (1F, J.Donis leg.), 13.07.2007. (2M, 4F, J.Donis leg.), 01.08.2007., (1F, J.Donis leg.), 27.08.2007., (2F, J.Donis leg.), Valle, 12.08.2008. (2F, A.Barševskis leg.), Vietalva, Odziena, 19.07.2008. (1F, A.Barševskis leg.); **Bauska Distr.:** Skaistkalne, 30.07.2008. (2M, 5F, A.Barševskis leg.); **Cēsis Distr.:** Taurene, Brežģa kalns, 03.07.2006., (1F, A.Barševskis, U.Valainis, A.Pankjāns leg.), Rauguļi, Rauna river, 03.07.2006. (1M, 2F, A.Barševskis, U.Valainis, A.Pankjāns leg.), 21.08.2006., (1F, A.Pankjāns leg.); **Daugavpils Distr.:** Daugavpils, Križi, pine forest, 28.06.1992.,

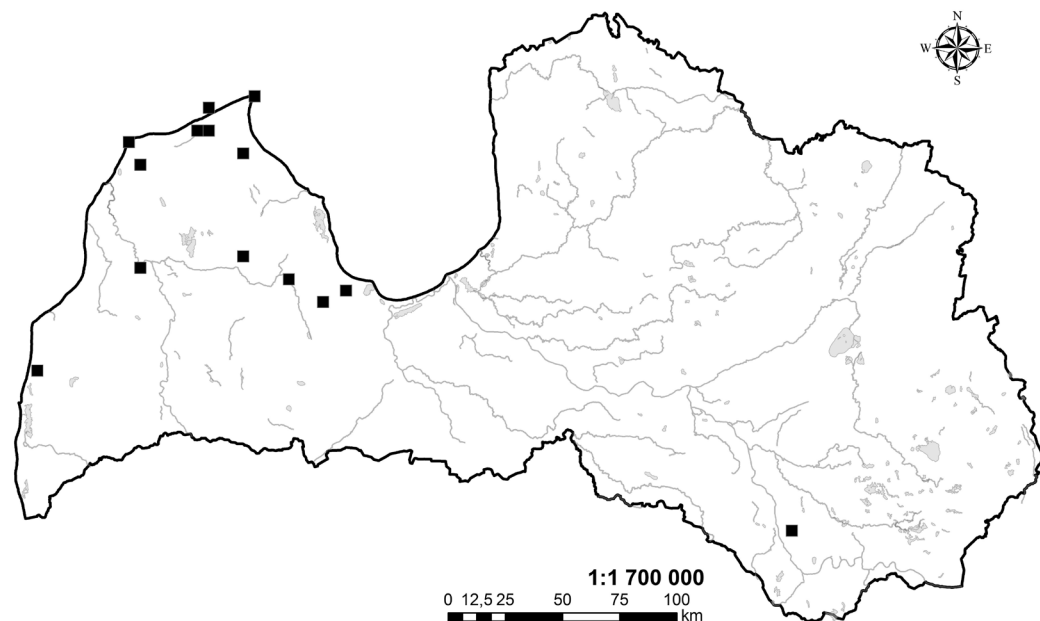


Fig.3. Distribution of *Chrysanthia viridissima* (Linnaeus, 1758) in Latvia.

(1F, A.Barševskis leg.), Daugavpils, near Mežciems, 19.07.1992. (2F, A.Barševskis leg.), 25.07.2005. (3F, A.Barševskis leg.), Daugavpils, Mežciems (Parka Str.), 19.07.2007. (3M, 7F, K.Aksjuta & M.Murd leg.), Daugavpils, Mežciems (Jaunciema Str.) 19.07.2007., (2M, 1F, K.Aksjuta & M.Murd leg.), Daugavpils, Ruģeļi, 20.07.1997. (1M, A.Barševskis leg.), Daugavpils, Stropi, 02.07.2008., (1M, A.Bukejs leg.), Dviete, 30.07.2000., (2F, I.Leiskina leg.), Dviete, forest between Dviete & Tadenava, forest clearing, 20.07.2008. (2F, A.Barševskis leg.), 10.08.2008. (3M, 4F, A.Barševskis leg.), Eglaine, 20.08.2008. (1F, A.Barševskis leg.), Līksna, inland dunes, near Daugavpils-Krāslava beltway, 28.06.2009., (2M, 1F, A.Bukejs leg.), 22.07.2008. (1M, 11F, A.Barševskis), 27.07.2008., (1M, A.Barševskis leg.), 05.07.2009.(2M, 1F, A.Barševskis leg.), Līksna, 2,5 km SW Orbidāni, 25.07.2008., (1M, A.Bukejs leg.); Naujene, Nature park „Daugavas loki”, forest clearing, 25.06.2008. (2F, K.Aksjuta leg.), Silene Nature park, Ilgas, 29.06.1988., (1F, A.Barševskis leg.), 20.06.1995., (2M, 1F, A.Barševskis leg.), 21.06.1995., (1M, 1F, A.Barševskis

leg.), 04.06.2005., (1F, A.Barševskis leg.), 08.07.2005. (1F, A.Barševskis leg.), 04.08.2005., (2M, A.Barševskis leg.), 25.-27.06.2007., (2F, J.Staskeviča leg.), 30.06.2007., (1F, A.Pankjāns leg.), 02.07.2007., (1F, A.Čulīna & J.Daņilova leg.), 01.08.2007., (2F, U.Valainis & A.Barševskis leg.), 29.06.2008., (1F, R.Cibuļskis leg.), Silene Nature park, Silene, 03.07.1992., (2M, 3F, A.Barševskis leg.), Silene Nature park, Silene, „Viktoria”, pine forest near Sila lake, 17.06.2007., (1F, A.Barševskis leg.), Slutišķi, Daugava river valley, dry pine forest, 05.09.1994., (1F, A.Barševskis leg.), Šedere, „Straumēni”, 29.07.2007. (1F, M.Murd leg.), Šedere, Šarlote, 12.07.2008. (1F, K.Aksjuta leg.); Višķi, 01.07.1990., (1M, A.Barševskis leg.); **Gulbene Distr.:** Gulbītis, Ušūrs lake, 05.08.2004., (6M, 2F, A.Barševskis leg.), 08.2004. (3F, A.Barševskis leg.), 08.2003., (4F, O.Koškina & A.Barševskis leg.), Lejasciems, 08.2003., burned pine forest, (1F, I.Kampāne & A.Barševskis leg.), 03.09.2004., (1F, U.Valainis, A.Barševskis leg.), 06.2005. (2F, A.Barševskis leg.), 07.2005. (2M, 4F, A.Barševskis, A.Bukejs, R.Cibuļskis leg.); **Jēkabpils Distr.:** Dunava, 31.06.1992. (1F,

- A.Barševskis leg.), 18.07.2000. (1M, I.Leiskina leg.), 15.07.2006. (1M, 5F, A.Barševskis leg.), 20.-31.07.2006. (4F, K.Barševska leg.), 01.-08.07.2006. (2F, K.Barševska & A.Barševskis leg.), 11.-17.07.2007. (1F, K.Barševska leg.), 15.-23.07.2008., (1F, K.Barševska leg.), 01.-09.08.2007., (1F, K.Barševska leg.), 09.-10.08.2008. (1F, A.Barševskis leg.), Gārsene, 25.06.2005. (1F, A.Barševskis leg.), Rubene, 28.06.2000., (1F, I.Leiskina leg.), 04.08.2000., (1M, I.Leiskina leg.), Tadenava, 01.06.2002., (3M, 2F, A.Barševskis leg.), 22.07.2002., (1, A.Barševskis leg.); **Krāslava Distr.:** Izvalta, 19.08.1987. (1F, A.Barševskis leg.), Krāslava, dry meadows, 21.07.2008. (1M, 5F, A.Barševskis leg.), Robežnieki, 27.07.1990., (1F, A.Barševskis leg.), Velnezers (Čertoks) Nature protection area, 11.07.2008., (1M, V.Alekseev leg.), Šķaune, 26.07.1990., (1M, 1F, A.Barševskis leg.); **Kuldīga Distr.:** Lielais Nabes lake, 28.07.2005., (2M, 2F, A.Bukejs & A.Barševskis leg.); **Liepāja Distr.:** Upmaļi, Baltic sea coast, 12.08.2008., (1F, A.Barševskis leg.); Vērgale, 12.08.2008., (1F, A.Barševskis leg.); **Limbaži Distr.:** Liepupe, Ķumrags, 17.08.2008. (3M, A.Barševskis leg.), Salacgrīva, 16.08.2008. (2M, 3F, A.Barševskis leg.), Salacgrīva, Veczemju klintis, 17.08.2008. (1F, A.Barševskis leg.); **Madona Distr.:** Aiviekste, 22.08.2006. (3F, A.Barševskis leg.), Ērgļi, 19.07.2008. (2F, A.Barševskis leg.), Jumurda, 19.07.2008., (1M, 1F, A.Barševskis leg.), Jumurda, near Lāčišu lake, 19.07.2008. (1F, A.Barševskis leg.), Kalsnava, 03.07.2006., (7M, 5F, A.Barševskis, U.Valainis, A.Pankjāns leg.), Krustkalni Nature Reserve, 11.07.2005. (14M, 38F, A.Barševskis leg.), 11.08.2005. (1F, A.Bukejs, A.Barševskis, J.Laizāns leg.), 07.07.2006. (1F, A.Pankjāns, A.Barševskis, E.Rudāns leg.), 08.2006., (2F, A.Barševskis leg.), Mārciena, near Arona river, 07.07.2006. (1F, A.Pankjāns, A.Barševskis leg.), Sauleskalns, 07.07.2006. (6F, A.Pankjāns, E.Rudāns, A.Barševskis leg.); **Ogre Distr.:** Ķegums, near Daugava river, 13.06.2006. (6M, 4F, A.Barševskis & K.Barševska leg.); **Preiļi Distr.:** Aglona, 28.06.2008., (1M, J.Kundziņš leg.), Aglona, near Tartaka river, 14.08.2006. (1F, A.Barševskis leg.), Jersika, 29.06.1992. (1M, 1F, A.Barševskis leg.), Jersika, „Kurpnieki”, pine forest, 24.06.2005. (1M, A.Barševskis leg.), 07.08.2006. (1F, A.Barševskis leg.), 01.08.2008. (1F, A.Barševskis leg.), 09. – 12.07.2009., (1F, A.Barševskis leg.); **Rēzekne Distr.:** Gaigalava, old cleaning, 15.07.2009., (2F, A.Bukejs, M.Balalajkins leg.), Galdacis lake, 12.07.2008. (1M, 1F, A.Bukejs leg.), Teirumnieki, pine clearing, 15.07.2009., (2M, 1F, M.Balalajkins & A.Bukejs leg.); **Rīga Distr.:** Bajāri, forest clearing, 28.06.2008. (1F, A.Barševskis leg.), Baldone, 20.08.2008., (1M, A.Barševskis leg.), Jaunmārupe, pine forest, 15.07.2005. (1M, A.Barševskis leg.); **Saldus Distr.:** Blīdene, 11.07.2006. (1M, A.Barševskis & K.Barševska leg.); **Talsi Distr.:** Kaļķi, Nature protection area „Kaļķupes ieleja”, 13.07.2009., (1M, J.Ivanova leg.), Sabile, 15.07.2005., (2M, A.Barševskis leg.), Slītere National park, Kolka, 04.08.2004. (2F, A.Barševskis leg.), Slītere National park, Mazirbe, dunes of Baltic Sea, 29.06.2002. (1M, 1F, A.Barševskis leg.), Slītere National park, „Zilie kalni”, 26.06.2002. (1M, 1F, A.Barševskis leg.), 18.07.2005., (4F, A.Barševskis leg.), 27.06.2006., (1F, A.Barševskis leg.), Stende, pine forest clearing, 19.07.2007. (1M, 4F, A.Barševskis, U.Valainis, A.Pankjāns, A.Soldāns leg.), Vaide, 06.08.2009., (3M, 1F, A.Barševskis leg.); **Tukums Distr.:** Lielaisciems, Ķemeri National park, pine forest, 16.07.2008., (1M, 4F, A.Barševskis & V.Alekseev leg.) 22.07.2008., (1M, A.Barševskis, U.Valainis leg.), Tukums, Rīga – Ventspils road near the railway bridge, 19.07.2007., (1M, 3F, A.Barševskis leg.), Tukums, 09.2007., (2F, A.Barševskis leg.); **Valkas Distr.:** Seda, Nature Protection Area „Sedas bog”, 03.07.2006. (2M, 1F, A.Barševskis, U.Valainis, A.Pankjāns leg.), Strenči, 03.07.2006., (6M, 8F, A.Barševskis, U.Valainis, A.Pankjāns leg.); **Valmiera Distr.:** Burtnieki, Briede vill., 21.08.2006., (2F, A.Barševskis leg.); **Ventspils Distr.:** Blāzma, pine forest clearing, 22.08.2008., (10F, U.Valainis, A.Barševskis leg.), Jūrkalne, 13.08.2008., (1F, A.Barševskis leg.); Moricsala Isl., Moricsala Nature reserve, 06.2004. (3F, A.Barševskis leg.), 15.07.2008. (1F, A.Barševskis leg.), Muižnieki, 29.07.2005., (1M, 19F, A.Barševskis, A.Bukejs, U.Valainis



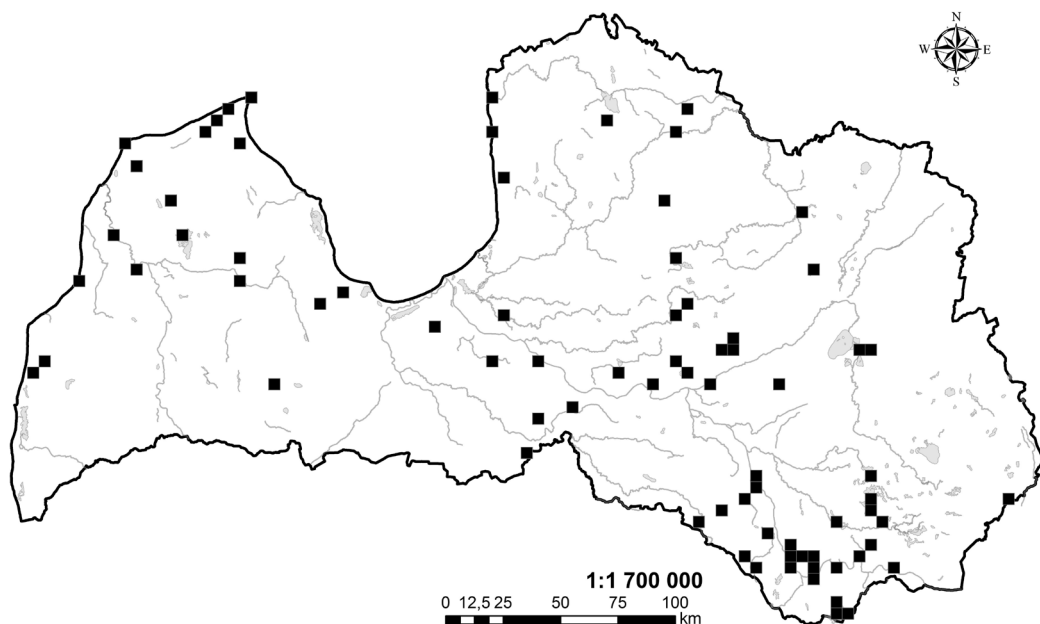


Fig.3. Distribution of *Chrysanthia viridissima* (Linnaeus, 1758) in Latvia.

leg.), Ovīši, 17.07.2005. (1F, A.Barševskis leg.), Ziru vill., Venta river valley, 25.07.2005., (3F, A.Barševskis, A.Bukejs, U.Valainis leg.). Materials: 398 specimens. Map of distribution in Latvia (Fig. 4).

## CONCLUSIONS

The study resulted in summarizing of information about findings of *Dytylus laevis* (F.), *Chrysanthia viridissima* (L.) and *Chrysanthia geniculata* (Schmidt) in Latvia, based on material deposited in beetle collection of Coleopterological Research Centre, Institute of Systematic Biology, Daugavpils University (Daugavpils Distr., Ilgas, Latvia).

The revision of collection material provided opportunity to change the opinion about distribution of *Chrysanthia viridissima* (L.) and *Chrysanthia geniculata* (Schmidt) in Latvia. *Chrysanthia viridissima* (L.) is found only in Western part of Latvia practically, while *Chrysanthia geniculata* (Schmidt) is widespread

in all territory of state. *Dytylus laevis* (F.) is very rare in Latvia, and there is only one specimen determined in our collection material, collected in South-Eastern part of Latvia. Most of *Chrysanthia viridissima* (L.) findings in Central and Eastern part of Latvia, which was previously published, appeared to be based on mistakenly determined specimens.

## ACKNOWLEDGEMENTS

Authors are particularly grateful for the assistance given by K.Aksjuta, V.Aleksejev, M.Balalaikins, K.Barševska, A.Bukejs, R.Cibuļskis, A.Čuļina, J.Daņilova, J.Donis, J.Ivanova, M.Janovska (Murd), I.Kampāne, J.Kundziņš, J.Laizāns, I.Leiskina, A.Pankjāns, E.Rudāns, A.Soldāns, J.Staskeviča etc. in collection of material, participation in expeditions and in research.

Financial support for this study was provided by the project of European Social Fund (No 2009/0206/1DP/1.1.1.2.0/09/APIA/VIAA/010).

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Received: 01.09.2012.

Accepted: 01.11.2012.

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