

***Cepaea vindobonensis* (C. Pfeiffer, 1828) in Latvia**

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Abstract

Cepaea vindobonensis (C. Pfeiffer, 1828) is reported from one site from Riga city (Latvia). This is its only known population in Latvia. We briefly discuss information about this record and we provide historical review of the oldest collection data on this species for Latvia.

Key words: *Cepaea vindobonensis*, distribution and history, Helicidae, Latvia.

Introduction

Cepaea vindobonensis is South-East European species with a distribution from the Caucasian and Crimean territory to the Balkans. Isolated occurrence is reported from Germany, a few localities in eastern part of Austria, Czech Republic, Poland and almost the whole of Slovakia (Kerney, Cameron 1979; Wiktor 2004). For Latvia *C. vindobonensis* is mentioned by some authors in the 19th century, but this information has not been confirmed by malacologists in the 20th century. The main objective of this report, according to the historical data and newest findings, is to provide a review of *C. vindobonensis* in Latvia.

Materials

In this report *Cepaea vindobonensis* material collected in 2006 from one locality in Riga city (Latvia) and a *C. vindobonensis* shell (collected by L. Višņevska about 38 years ago) from the personal collection of A. Stalāzs was used.

Results and discussion

Historical data

The first information about the occurrence of *Cepaea vindobonensis* in Latvia is found in some references from the 19th century. Krynicky (1837) mentioned this species (with names *Acavus arvensis* Ziegl. and *A. vindobonensis* Pf. – cited in the list of species, page 51) for the territory of the Russian Empire, which partly included also the present territory of Latvia. Also Krynicky (1837) did not describe the specific distribution of this species, but he mentioned possible occurrence of the species in Russia: “Locum natale talium

non est indicatum, quae magnum Rossiae spatium occupant". Gerstfeldt (1859) in his work mentioned this species (with name *Helix (Tachea) vindobonensis* C. Pfr. = *austriaca* Mühlf., page 106) for Koknese (in Eastern Latvia) and wrote that several specimens found near Koknese have been located in collections. Ten years later Kawall (1869) included this species [as *Helix vindobonensis* Pfr. (*austriaca* Mühlf.), page 4] in the list of species for Kurzeme – Northwest region of Latvia. Braun (1883) mentioned *C. vindobonensis* (with name *Helix austriaca* Mühlf., page 176) in the list of molluscs for the Eastern territories to the Baltic Sea by citing Gerstfeldt (1859).

Later Schlesch (1942) suggested that records of *C. vindobonensis* occurrence in Koknese were improbable and he mentioned that Gerstfeldt's explanation about species occurrence near Koknese is a mistake (page 311). Schlesch also rejected the possible distribution of *Cepaea nemoralis* in Koknese.

Several scientists and amateurs have consequently survived the territory near Koknese up to 1942. In papers from the 20th century *Cepaea hortensis* is mentioned only from the territory of Koknese (Pētersons 1932; Schlesch 1942). Since 1966 many habitats near Koknese have been destroyed and now are flooded by the Pļaviņu Hydroelectric Power Plant reservoir.

After the Schlesch publication in 1942, different authors listed only two snail species from the genus *Cepaea* for Latvia: *C. hortensis* and *C. nemoralis* (Sloka, Sloka 1957; Shileiko 1978; Rudzīte et al. 1996; Rudzīte et al. 1997; Spuris 1998; Rudzīte 2000). *C. nemoralis* is distributed in some sites in the Kurzeme region and two populations are found in the central part of Latvia – in the territory of Riga city (Rudzīte 2000; Dreijers, Stalažs 2000, Stalažs 2000; Stalažs 2006). *C. hortensis* is very common across Latvia and is found within various biotopes.

It is possible that in the 19th century the pale color of the shell of *C. vindobonensis* was used for identification. This could explain the former misidentifications by mentioned authors. White colored shells (generally considered as characteristic of *C. vindobonensis*) occur sporadically also in *C. hortensis* and more rarely in *C. nemoralis*. We have observed several populations of *C. hortensis* where whitish or white-yellowish shells are dominant, but also we have found whitish or dull yellowish shells for *C. nemoralis* in some individuals. The whitish-shelled *C. vindobonensis* was mentioned as similar to *C. nemoralis* also by Kerney and Cameron (1979).

There is one shell of *C. vindobonensis* in the personal collection of A. Stalažs, dated from 1998. The history of this shell is interesting because it possibly was collected from Latvia. This particular shell was collected by L. Višņevska about 38 years ago. Višņevska provided this shell for collection (in 1998), but unfortunately she was not able to state the exact site of finding, mentioning only: "It was in Latvia near one small lake with rounded form in the vicinity of a state road. The shell was found near water". This finding cannot be used as scientific evidence; but can be interesting historical material.

Current situation

In September 2006, Jozef Šteffek found the first specimens of *C. vindobonensis* in Riga near a railway bank near Jelgavas Street (latitude 56.93841, longitude 024.09806) where it occurred together with 16 other mollusc species (Table 1). This is the first known site of confirmed occurrence of this species in Latvia.

On 24 September 2006 we collected 30 shells of *C. vindobonensis* from this site. We

Table 1. List of 17 mollusc species from the sampled site near Jelgavas Street (Riga, Latvia)

Species	Comments
<i>Arianta arbustorum</i> (Linnaeus, 1758)	
<i>Arion cf. fasciatus</i> (Nilsson, 1823)	
<i>Cepaea vindobonensis</i> (C. Pfeiffer, 1828)	non native species
<i>Cochlicopa lubrica</i> (O. F. Müller, 1774)	
<i>Cochlodina laminata</i> (Montagu, 1803)	
<i>Deroceras sturanyi</i> (Simroth, 1894)	
<i>Deroceras reticulatum</i> (O. F. Müller, 1774)	
<i>Krynickillus melanocephalus</i> Kaleniczenko, 1851	non native species
<i>Laciniaria plicata</i> (Draparnaud, 1801)	
<i>Limax maximus</i> Linnaeus 1758	non native species
<i>Oxychilus draparnaudi</i> (H. Beck, 1837)	non native species
<i>Succinea putris</i> (Linnaeus, 1758)	
<i>Succinella oblonga</i> (Draparnaud, 1801)	
<i>Trichia hispida</i> (Linnaeus, 1758)	
<i>Vallonia costata</i> (O. F. Müller, 1774)	
<i>Vallonia pulchella</i> (O. F. Müller, 1774)	
<i>Vitrina pellucida</i> (O. F. Müller, 1774)	

found altogether seven living individuals (three juvenile, four adults) and 23 empty shells, the majority of which was gnawed by small mammals. All fragmented shells occurred in the vicinity of *Acer negundo* stubs. During an additional visit on 29 September we found another 131 gnawed shells; 121 belonging to *C. vindobonensis*, seven to *Arianta arbustorum* and three to *Laciniaria plicata* shells. All were found in an area covered by *Acer negundo* shoots. *C. vindobonensis* was found in the area between Kilevena grāvis (Kilevena ditch) and Jelgavas street from the railway embankment to Vienības gatve, but in September 2008 the species was found also in surrounding territories. The species possibly occurs also in the nearby garden territory (it is a closed territory) on the other side of Jelgavas street and Vienības gatve.

At both sampling times shells with all five bands were found. Beside this pattern, also shells with an absent second band (10345) and shells where the first and second band was weakly apparent (1'2'345 and 12'345) occurred. Bands 3, 4 and 5 were generally dark and dominant. Only shells where the second band was absent have had light brown bands number 1, 3 and 4.

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Rievotais vīngliemezis *Cepaea vindobonensis* (C. Pfeiffer, 1828) Latvijā

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Kopsavilkums

Rievotais vīngliemezis *Cepaea vindobonensis* (C. Pfeiffer, 1928) ir konstatēts vienā atradnē Rīgas pilsētā. Šī ir vienīgā reāli eksistējošā sugas atradne Latvijas teritorijā. Īsumā tiek sniegta diskusija par sugas atradumu un vecākās literatūras apskats un kolekciju informācija par šo sugu Latvijā.