

## ***OXYTHYREA FUNESTA* (PODA, 1761) (COLEOPTERA: SCARABAEIDAE: CETONIINAE) IN THE FAUNA OF LATVIA**

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The dung beetle *Oxythyrea funesta* (Poda, 1761) is a rare and insufficiently known species both for Latvia and for the region of the Baltic Sea basin on the whole. The locality of *Oxythyrea funesta* (Poda, 1761) discovered in Daugavpils district Bebrene is the largest in number of specimens (>130) caught in Latvia. General dilating of the species areal to the north is evident.

Key words: *Oxythyrea funesta*, Scarabaeidae, Latvia, fauna, rare species, areal dilating.

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### **Introduction**

In the fauna of Latvia *Oxythyrea funesta* (Poda, 1761) (Fig. 1) is one of the five species of Cetoniinae Leach, 1815 (Telnov et al. 1997; Telnov 2004; Smetana 2006). This is a stenotop, thermophil, floricol, herbicol and phytophag species (Koch, 1989). It was considered that *Oxythyrea funesta* (Poda, 1761) is typical for the forest-steppe and steppe European parts. Till June 1992 this species was not established in the middle of Baltic countries. Only several localities of this species with small number of specimen were described in Latvia till that time. At present in the region of the Baltic Sea basin *Oxythyrea funesta* (Poda, 1761) is a rare species about which you can not find any generalized information.

### **Results and Discussion**

The *Oxythyrea funesta* (Poda, 1761) was caught on the territory of Latvia for the first time on June

15, 1992 in Riga (Mežaparks, on flowers of *Centaurea sp.* in the waste land, 4 specimens, leg. D. Telnovs and A. Pushko) (Telnov 1996). Distribution of this species in Latvia showed in Fig. 2.

One more specimen was found on flowers on June 26, 2001 in Valmiera district, Vidusburtnieks (leg. V. Spuņģis) (Telnov 2001).

In the summer of 2005 Andris Bukejs collected a big number of *Oxythyrea funesta* (Poda, 1761) in Daugavpils. All the material was hand-picked on *Centaurea rhenana* Borean flowers not far from the railway. The total number of the specimens collected is 11: 21.VII.2005. (1 specimen), 22.VII.2005. (1 specimen), 24.VII.2005. (4 specimens), 26.VII.2005. (2 specimens) and 22.VIII.2005. (3 specimens). At in the beginning and in the middle of August, 2005 the author saw a great number of *Oxythyrea funesta* (Poda, 1761) specimens at the same place (on sunny days more that 15 specimens, including coupling

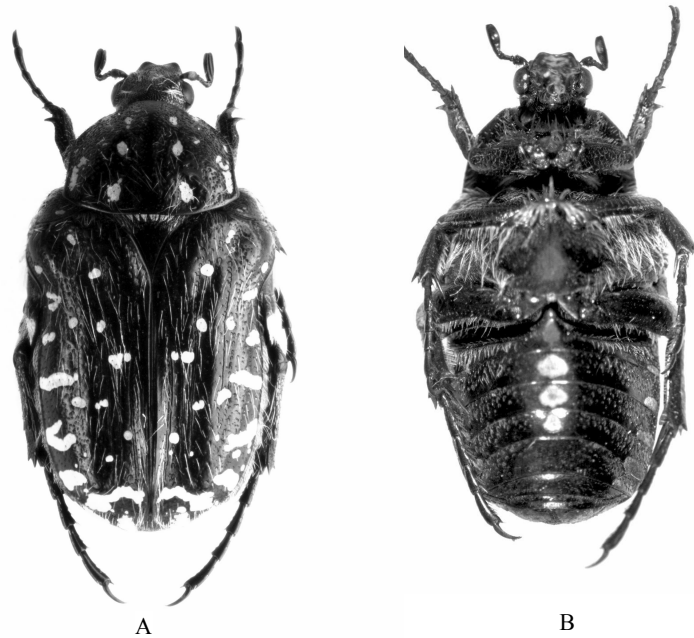


Fig. 1. Habitus of *Oxythyrea funesta* (Poda, 1761): A – dorsal view, B – ventral view

ones; on dull days there were much fewer of them).

Till 2005 this species was known in Latvia from some localities (Telnov et al. 2006): Valmiera district Vecate parish Vidusburtnieks protected nature territory (1 specimen, edge of boreal mixed forest, on flower, leg. J. Gailis); Ludza district 9 km SE Kārsava (2 specimens, old cutting area in coniferous forest, on flowers of Umbelliferae, leg. A. Napolov & I. Roma) and Ludza district Malnava village (1 freshly dead specimen, hollow Norway maple (*Acer platanoides*), leg. A. Napolov & I. Roma).

Studying a fauna of the beetles of Latvia in 2006 the new localities of *Oxythyrea funesta* (Poda, 1761) were found: Daugavpils district, Bebrene,

on flowers of *Centaurea sp.*, 01.VII.2006. (4, leg. E. Rudāns), 11.VII.2006. (122, leg. E. Rudāns), 15.VII.2006. (1, leg. E. Rudāns), 13.VII.2006. (3, leg. E. Rudāns), 02.IX.2006. (2, leg. E. Rudāns); Daugavpils city, on flower of *Centaurea sp.* 18.VII.2006. (1, leg. A. Bukejs); Valka district, Seda village, Seda bog, 03.VII.2006. (2, leg. A. Barševskis, U. Valainis & A. Pankjāns); Jēkabpils district, Dunava, 56°12'93"N 26°12'17"E, 01-08.VIII.2006. (11, leg. A. Barševskis & K. Barševska), 11-13.VIII.2006. (9, leg. A. Barševskis), 14-18.VIII.2006. (7, leg. A. Barševskis & K. Barševska), 29-31.VIII.2006. (5, leg. A. Barševskis); Preiļi district, Aglona, 14.VIII.2006. (1, leg. A. Barševskis); Madona district, Aiviekste, 56°40'73"N 25°59'04"E, 22.VIII.2006. (1, leg. A. Barševskis); Krāslava district, Skaista, 10.VIII.2006. (1, leg. S. Ungurs). The locality of

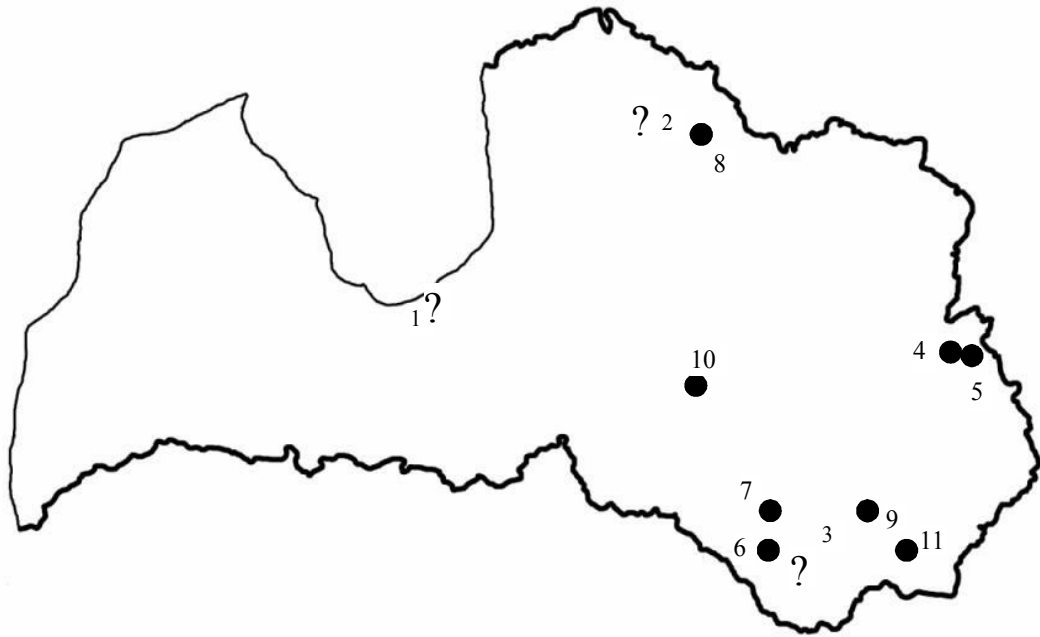


Fig. 2. Distribution of *Oxythyrea funesta* (Poda, 1761) in Latvia:

1 - Rīga, Mežaparks (corner of Kokneses Str. and Ķīšezera Str.); 2 - Vidusburtnieks and Vidusburtnieks protected nature territory, Vecate parish, Valmiera district; 3 – Daugavpils; 4 – 9 km SE Kārsava, Ludza district; 5 - Malnava village, Ludza district; 6 – Bebrene, Daugavpils district; 7 - Dunava, Jēkabpils district; 8 - Seda village, Seda bog, Valka district; 9 - Aglona, Preiļi district; 10 – Aiviekste, Madona district; 11 Skaista, Krāslava district

*Oxythyrea funesta* (Poda, 1761) discovered in Daugavpils district Bebrene is the largest in number of specimens caught in Latvia. All the materials are kept in the collection of the Institute of Systematic Biology (Daugavpils, Latvia).

In the north-east of Lithuania (Jgna, Mikalavas, Daugėliškis environs), not far from the Latvian border a big number of *Oxythyrea funesta* (Poda, 1761) (7 specimens) was collected on June 6, 2004 (Šablevičius 2004). That find and the author's next finds in Latvia affirm the fact of gradual distribution of localities of this species with a great number of specimens in the Baltic Sea basin region.

In his monograph S. Medvedev (1964) shows the northern border of the *Oxythyrea funesta* (Poda, 1761) areal coming through Kaliningrad district, Lithuania (Kaunas), Belarus (Vitebsk), northern Ukraine, Tambov, Saratov, Bugulma, Belebey and Turgay.

During the last ten years the areal of the given species has essentially spread to the north. In the Enumeratio Coleopterorum Fennoscandiae, Daniae et Baltiae (Silfverberg 1992) *Oxythyrea funesta* (Poda, 1761) only Lithuania is mentioned and Denmark as an introduced species. In the next catalogue (Silfverberg 2004) Lithuania, Latvia, Estonia and Finland are mentioned as well.

Only one *Oxythyrea funesta* (Poda, 1761) specimen was found in the south of Estonia (Kanakūla, 58°16'00"N, 25°10'00"E) on June 9, 2002 (Roosileht, 2003).

In Russia *Oxythyrea funesta* (Poda, 1761) was discovered in the north of Yaroslavl district (Власов 2003) and south of Vologda district. On June 21, 2003 a specimen was caught in Leningrad district (near the village of Sapyorniy, some 10-15 km NE of St. Peterburg) on Umbelliferae Juss. plant flowers (oral information from P. Baturin). In the summer of 2005 Pavel Baturin caught one more specimen on the flower of Umbelliferae Juss. plant in Kolpinsk (St. Peterburg suburbus).

All the summarized facts about dung beetle *Oxythyrea funesta* (Poda, 1761) point to the fact of gradual dilating of this species areal to the north.

The pictures are made by Zeiss stereomicroscope *Zeiss SteREO Lumar V12* and *Axiocam* digital camera.

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