

A New Record of *Phyllotreta astrachanica* Lopatin, 1977 (Coleoptera: Chrysomelidae) from Latvia: A Flea Beetle New to the Eastern Baltic Region

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ABSTRACT

The flea beetle *Phyllotreta astrachanica* Lopatin, 1977 is reported for the first time from Latvia. It is also new to the eastern Baltic area (Estonia, Latvia, Lithuania and the Kaliningrad region). One specimen of this species was found in Kalķi, Talsi district (north-western Latvia). The general information on the species and figures of habitus and aedeagus are given.

Key words: Coleoptera, Chrysomelidae, *Phyllotreta astrachanica*, first record, Latvia

INTRODUCTION

Phyllotreta Chevrolat, 1836 is a cosmopolitan genus with more than 200 species. There are 135 species known in the Palaearctic region (Döberl, 2010). Sixteen species are reported from northern Europe (Silfverberg, 2004, Wanntorp, 2005, Molander & Hellquist in press). Hitherto, 13 species of *Phyllotreta* are known from Latvia (Bukejs, 2008). In adjacent territories, the number of the registered species of this genus: in Belarus - 14 species (Lopatin & Nesterova, 2005), Estonia - 10 species (Silfverberg, 2004), Lithuania - 12 species (Pileckis & Monsevičius, 1997, Silfverberg, 2004), the Kaliningrad region - 13 species (Alekseev, 2003, Bukejs & Alekseev, 2009), St. Petersburg and the Leningrad province - 12 species (Romantsov, 2007).

In the present paper, faunal data and general information on *Phyllotreta astrachanica* Lopatin, 1977 are presented. This flea-beetle species is reported as a new species for Latvia as well as for the entire eastern Baltic fauna.

MATERIAL AND METHODS

The examined material is stored in the collection of Daugavpils University, Institute of Systematic Biology (DUBC).

The following keys were used for the identification of specimens: Bieńkowski (2004), Lopatin & Nesterova (2005) and Warchałowski (2003).

The photographs were taken using a *Zeiss Stereo Discovery V12* stereomicroscope and an *AxioCam* digital camera.

RESULTS AND DISCUSSION

During the study of the Latvian fauna of Chrysomelidae, the flea beetle species *Phyllotreta astrachanica* Lopatin, 1977 was recorded for the first time. This species is also new for eastern Baltic region (Estonia, Latvia, Lithuania and the Kaliningrad region).

After this record of *Ph. astrachanica*, the number of the species of the genus *Phyllotreta* in Latvia reaches to 14 species.

Phyllotreta astrachanica Lopatin, 1977

Material examined (Fig. 1): Latvia, Talsi district, Kalķi, Kalķupes ieleja (river valley) Protected Nature Territory, 57°32'31"N 022°30'45"E, 12.V.2009 (1 ♂, leg. A. Barševskis).

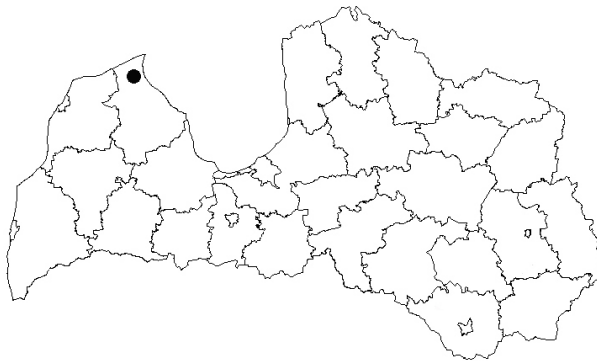


Fig. 1. Locality of *Phyllotreta astrachanica* in Latvia: Kalķi

Morphology: Length 1.8 – 2.5 mm. Upper side unicolorous black, without metallic reflection; 2nd – 3rd antennomeres, tarsi and basal parts of tibiae are rufous or brown (Fig. 2); underside black. Vertex with dense punctures forming broad transverse band between eyes and without punctures behind posterior border of eyes (Fig. 4). Elytral punctures confused. Aedeagus (Fig. 6).

Taxonomic remarks: *Ph. astrachanica* is close to *Ph. atra* (Fabricius, 1775) (Fig. 3) which has completely punctured head (Fig. 5), slightly narrower body and different shape of aedeagus (Fig. 7). For a long time, *Ph. astrachanica* was confused with *Ph. diademata* Foudras, 1860, which has similar puncturation of the head. It was earlier reported under this name in the Nordic Countries (Jansson 1927, Silfverberg 2004). These two species authentically differ only in the shape of aedeagus (Figs. 6, 8) and spermatheca (Figs. 9, 10).

Distribution: *Ph. astrachanica* is distributed in south, south-eastern and central Europe (Austria, Bulgaria, Czech Republic, France, Germany, Greece, Hungary, Italy, Montenegro, the Netherlands, Poland, Serbia, Slovakia, Slovenia, Spain, South



Figs. 2-10. 2-3) habitus, 4-5) head, dorsal aspect, 6-8) aedeagus, dorsal, ventral and lateral aspects, 9-10) spermatheca: 2, 4, 6, 9) *Phyllotreta astrachanica*; 3, 5, 7) *Ph. atra*; 8, 10) *Ph. diademata* (fig. 8 after Borowiec 2004, 9-10 after Warchałowski 2003, other original).

European territory of Russia, Switzerland, Yugoslavia), Caucasus (Azerbaijan, Georgia), Asia Minor (Cyprus, Turkey), Iran and Kazakhstan (Döberl, 2010). It is reported also from southwestern Belarus (Lopatin & Nesterova, 2005) and from southeastern Sweden where it is most common on the Baltic Islands, Öland and Gotland (Wanntorp, 2005). Thus, the record of the species in Latvia extends its distribution range.

Host plant: The species feeds on *Alliaria*, *Cardaria draba*, *Isatis tinctoria*, *Raphanus sativus* and *Rorippa palustris* (Brassicaceae) (Lopatin & Nesterova, 2005, Aslan & Gök, 2006). In Belarus specimens are caught in June (Lopatin & Nesterova, 2005) but in Sweden – from the end of March till middle of November (Wanntorp, 2005).

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