

## THE FIRST RECORD OF *OULEMA DUFTSCHMIDI* (REDTENBACHER, 1874) (COLEOPTERA: CHRYSOMELIDAE) IN THE LITHUANIAN FAUNA

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**Abstract.** *Oulema duftschmidi* (Redtenbacher, 1874) is mentioned from Lithuania for the first time. Eight specimens of the species were identified in the collection of Kaunas T. Ivanauskas Zoological Museum (Lithuania). General information on this leaf-beetle species and figures of aedeagus with everted endophallus are presented. Additional faunal data on sibling species *O. melanopus* (Linnaeus, 1758) and a list of *Oulema* of Lithuanian fauna are also given.

**Key words:** Chrysomelidae, *Oulema duftschmidi*, new record, Lithuania

### INTRODUCTION

The genus *Oulema* Gozis, 1886 is distributed in the Holarctic and Ethiopian region (Barney *et al.* 2008; Lopatin & Nesterova 2005; Schmitt 1988). In the Palaearctic 21 species of this genus are known (Schmitt 2010). Of them, six species are mentioned from eastern Europe (Bieńkowski 2004).

Hitherto, five species of *Oulema* were known from Lithuania (Pileckis 1976; Pileckis & Monsevičius 1997; Tamutis & Ferenca 2006; Schmitt 2010). The number of species of this genus reported from adjacent territories slightly differs: Belarus – four species (Lopatin & Nesterova 2005), Estonia – four species (Silfverberg 2004; Schmitt 2010), Latvia – five species (Bukejs 2010; Telnov 2004), St. Petersburg and the Leningrad region – four species (Romantsov 2007), the Kaliningrad region – four species (Alekseev 2003; Bukejs & Alekseev 2009).

In the current paper faunal data on two leaf-beetle species, *Oulema duftschmidi* (Redtenbacher, 1874) and *O. melanopus* (Linnaeus, 1758), are presented. *O. duftschmidi* (Redtenbacher, 1874) is reported from Lithuania for the first time.

### MATERIAL AND METHODS

The examined material is deposited in the collection of Kaunas T. Ivanauskas Zoological Museum (Lithuania) and the collection of Institute of Systematic Biology, Daugavpils University (DUBC, Latvia).

The following identification guides have been used for

determination of specimens: Bieńkowski (2004), Lopatin and Nesterova (2005) and Warchałowski (2003).

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

### RESULTS AND DISCUSSION

During the study of the Baltic leaf-beetle fauna, the species *Oulema duftschmidi* was recorded in Lithuania for the first time.

#### *Oulema duftschmidi* (Redtenbacher, 1874)

**Examined material:** eight specimens: Ringovė Entomological Preserve, Kaunas distr., 20 May 1998 (1, leg. R. Ferenca); Kamanos State Strict Nature Reserve, Akmenė distr., 4 May 1992 (1, leg. R. Ferenca); Dubrava forest, Kaunas env., 1 May 1990 (1, leg. R. Ferenca); Jiesia Landscape Preserve, Kaunas env., 9 April 1989 (1, leg. R. Ferenca); Jiesia Landscape Preserve, Kaunas env., 54°51'05.2"N 23°56'25.3"E, 2 June 2006 (1, leg. R. Ferenca); Povilauskai, Panevėžys distr., 5 September 1926 (1, leg. A. Palionis); Curonian Spit, Nagliai Nature Reserve, 55°29'37.3"N 21°06'55.8"E, 28 April 2006 (1, leg. R. Ferenca); Raudondvaris Landscape Preserve, Kaunas env., 20 May 1998 (1, leg. D. Lukoševičius).

#### *Oulema melanopus* (Linnaeus, 1758)

**Examined material:** 11 specimens: Curonian Spit, Juodkrantė env., 55°31'27.6"N 21°05'45.8"E, 7 July 2004 (1, leg. R. Ferenca); Dubrava forest, Kaunas env., 5 April 1986 (1, leg. R. Ferenca); Jiesia Landscape

Preserve, Kaunas env., 18 August 1985 (1, leg. R. Ferenca); Šeduva, Radviliškis distr., 28 July 2008 (5, leg. A. Barševskis); Suostas, Biržai distr., 30 July 2008 (1, leg. A. Barševskis); Kairiai, Šiauliai distr., 26 July 2008 (2, leg. A. Barševskis).

Externally, *Oulema duftschmidi* (Fig. 1) is very similar to *O. melanopus*. They are sibling species. These two species authentically differ only in the shape of the flagellum (Fig. 2). *O. duftschmidi* feeds on Gramineae and is distributed in Europe, north Africa (Morocco), north Caucasus, Turkey, Armenia, Kazakhstan, Central Asia (Kirghizstan, Turkmenistan, Tajikistan, Uzbekistan) and north-west China (Bieńkowski 2004; Lopatin & Nesterova 2002, 2005; Warchałowski 2003). In the Baltic States and Fennoscandia it is known from Denmark, Sweden (Silfverberg 2004) and Latvia (Bukejs 2009) and also from Belarus (Lopatin & Nesterova 2005) and Kalinin-

grad region (Bukejs & Alekseev 2009). The distribution of this species must be defined more exactly to avoid confusion with the closely related species *O. melanopus* (Linnaeus, 1758).

After this record of *Oulema duftschmidtii*, the Lithuanian fauna of the genus *Oulema* comprises a total of six species. The list of leaf-beetles of Lithuania was completed.

#### The list of species of the Lithuanian fauna of genus *Oulema* Gozis, 1886:

- O. erichsonii* (Suffrian, 1841)
- O. septentrionis* (Weise, 1880)
- O. gallaeciana* (Heyden, 1870)
- O. melanopus* (Linnaeus, 1758)
- O. duftschmidtii* (Redtenbacher, 1874)
- O. tristis* (Herbst, 1786).



Figure 1. *Oulema duftschmidtii*: habitus, dorsal view.



Figure 2. Aedeagus with everted endophallus, lateral view: A – *Oulema duftschmidtii*, B – *O. melanopus* (after Bukejs & Alekseev 2009).

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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.
- Barney, R. J., Clark, S. M. and Riley, E. G. 2008. Annotated List of the Subfamilies Donaciinae and Criocerinae (Coleoptera: Chrysomelidae). *Journal of the Kentucky Academy of Science* 69 (1): 29–36.
- Bieńkowski, A. O. 2004. *Leaf-beetles (Coleoptera: Chrysomelidae) of the Eastern Europe. New key to subfamilies, genera and species.* Moscow: Mikronprint.
- Bukejs, A. 2009. Faunal data on leaf-beetles subfamilies Criocerinae and Clytrinae (Coleoptera: Chrysomelidae) in Latvia. In: D. Oļehnovičs (ed.) *Proceedings of the 50<sup>th</sup> International Scientific Conference of Daugavpils University. Nature*, pp. 23–30. Daugavpils: Saule.
- Bukejs, A. 2010. Leaf-beetles *Oulema septentrionis* (Weise, 1880) and *O. erichsonii* (Suffrian, 1841) (Coleoptera: Chrysomelidae) in Latvian fauna. *Baltic Journal of Coleopterology* 10 (1): 65–69.

- Bukejs, A. and Alekseev, V. I. 2009. Eight new and little-known leaf-beetles species (Coleoptera: Megalopodidae & Chrysomelidae) for the Kaliningrad region. *Baltic Journal of Coleopterology* 9 (1): 45–50.
- Lopatin, I. K. and Nesterova, O. L. 2002. Sibling species of leaf-beetles (Coleoptera, Chrysomelidae) in eastern Europe and northern Asia. *Reference Book of Belarus State University, Serial No 2, Chemistry, Biology, Geography* 2: 39–42 (in Russian).
- Lopatin, I. K. and Nesterova, O. L. 2005. *Insecta of Byelorussia: Leaf-Beetles (Coleoptera, Chrysomelidae)*. Minsk: Tehnoprint (in Russian, English summary).
- Pileckis, S. 1976. *The beetles of Lithuania*. Vilnius: Mokslas. [Pileckis, S. 1976. *Lietuvos vabalai*. Vilnius: Mokslas.]
- Pileckis, S. and Monsevičius, V. 1997. *Fauna of Lithuania: Beetles*, 2. Vilnius: Publishing House of Encyclopaedias and Scientific Literature. [Pileckis, S., Monsevičius, V. 1997. *Lietuvos fauna, Vabalai*, 2. Vilnius: Mokslo ir enciklopedijų leidybos institutas.]
- Romantsov, P. V. 2007. A review of leaf beetles (Coleoptera, Chrysomelidae) of St. Petersburg and Leningrad province. *Entomological Reviews* 86 (2): 306–336 (in Russian, English summary).
- Schmitt, M. 1988. The Criocerinae: Biology, Phylogeny and Evolution. In: P. Jolivet, E. Pettitpierre and T. H. Hsiao (eds) *Biology of Chrysomelidae*, pp. 475–495. Kluwer Academic Publishers.
- Schmitt, M. 2010. Criocerinae. In: I. Löbl and A. Smetana (eds) *Catalogue of Palaearctic Coleoptera* 6: 359–368. Stenstrup: Apollo Books.
- Silfverberg, H. 2004. *Enumeratio nova Coleopterorum Fennoscandiae, Daniae et Baltiae. Sahlbergia* 9: 1–111.
- Tamutis, V. and Ferenca, R. 2006. Recordings of beetles species (Coleoptera) new for the Lithuania fauna. *Baltic Journal of Coleopterology* 6 (1): 59–64.
- 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.
- Warchałowski, A. 2003. *The leaf-beetles (Chrysomelidae) of Europe and the Mediterranean region*. Warszawa: Natura optima dux Foundation.

**PIRMAS LAPGRAUŽIŲ *OULEMA DUFTSCHMIDI* (REDTENBACHER, 1874) (COLEOPTERA: CHRYSOMELIDAE) RŪŠIES UŽREGISTRAVIMAS LIETUVOS FAUNOJE**

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**SANTRAUKA**

*Oulema duftschmidi* (Redtenbacher, 1874) Lietuvoje užregistruota pirmą kartą. Aštuoni šios rūšies individai pirmą kartą identifikuoti Kauno T. Ivanausko zoologijos muziejaus (Lietuva) kolekcijoje. Pateikiama bendra informacija apie šią lapgraužių rūšį ir edeaguso su išverstu endofalusu paveikslai. Taip pat pateikiami papildomi duomenys apie giminingą *O. melanopus* (Linnaeus, 1758) rūšį bei *Oulema* rūšių Lietuvoje sąrašas.

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