

Leaf-beetles *Oulema septentrionis* (Weise, 1880) and *O. erichsonii* (Suffrian, 1841) (Coleoptera: Chrysomelidae) in Latvian fauna

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In this paper faunal data on two leaf-beetles species, *O. septentrionis* (Weise, 1880) and *O. erichsonii* (Suffrian, 1841), are presented. *O. septentrionis* (Weise, 1880) is reported from Latvia first time. The figures of the aedeagus with flagellum of these species and general information on their distribution and ecology are given.

Key words: Coleoptera, Chrysomelidae, *Oulema septentrionis*, *Oulema erichsonii*, Latvia, aedeagus, flagellum.

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INTRODUCTION

The genus *Oulema* Gozis, 1886 contains approximately 15 species distributed in Holarctic and Ephiopian region (Barney et al. 2008; Lopatin, Nesterova 2005; Schmitt 1988). Six species are known from eastern Europe (Bieńkowski 2004).

Four species of *Oulema* are hitherto registered from Latvia (Bukejs 2009; Telnov 2004). While *Oulema septentrionis* (Weise, 1880) has been considered as a separate species from *O. erichsonii* (Suffrian, 1841) (Mohr 1985; Warchałowski 1985, 2003; Kippenberg, Döberl 1994; Bieńkowski 2004), this has not been reported for Latvian fauna.

In this paper faunal data on two leaf-beetles species, *O. septentrionis* (Weise, 1880) and *O. erichsonii* (Suffrian, 1841), are presented. *O. septentrionis* (Weise, 1880) is reported from

Latvia for the first time. The figures of the aedeagus with flagellum of these species are given.

MATERIAL AND METHODS

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

For preparation of maximum inflated internal sac of aedeagus was used Berlov's (1992) method. The internal sac was filled up with tooth paste using syringe and was dried by a glow-lamp.

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

RESULTS AND DISCUSSION

Externally, *Oulema septentrionis* (Weise, 1880) is very similar to *Oulema erichsonii* (Suffrian, 1841). These two species authentically differ only by the shapes of aedeagus apex and flagellum. A revision of the Latvian material, based on male genitalia, revealed two different aedeagus and flagellum types.

The first, interpreted as representatives of *O. erichsonii* (Suffrian, 1841): lamella of aedeagus is elongate, narrower, more or less pointed, in lateral view apex is S-shaped, bent upwards (Fig. 1); apex of flagellum is blunt and more wide (Fig. 4), generally flagellum is S-shaped (used the study of inflated internal sac of aedeagus) (Fig. 6).

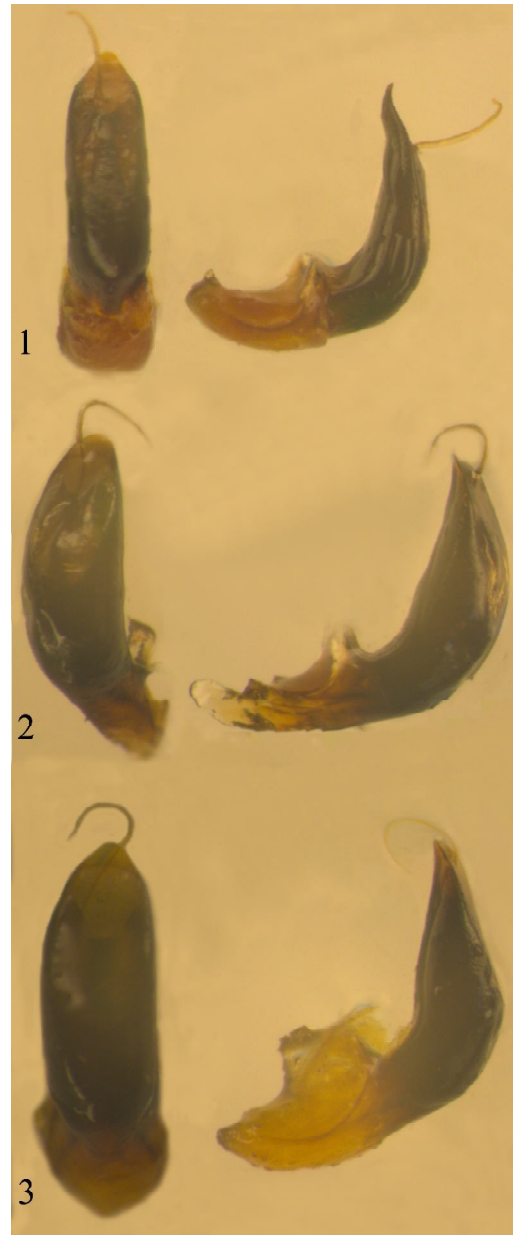
The second, interpreted as representatives of *O. septentrionis* (Weise, 1880): lamella of aedeagus is short, wider, widely or angularly-rounded, in lateral view apex is feebly bent downwards (Figs. 2 and 3); apex of flagellum is sharp and thin (Fig. 5), generally flagellum is C-shaped (used the study of inflated internal sac of aedeagus) (Fig. 7).

Oulema erichsonii (Suffrian, 1841)

Examined material: 6 exx: Daugavpils district: Kalnišķi, 55°52'54"N 26°44'03"E, 21.VIII.2009 (1, bank of the Daugava River, leg. A.Bukejs, M.Balalaikins); Gulbene district: Gulbītis, 05.VIII.2004 (1, bank of Lake Ušūrs, leg. A.Barševskis, U.Valainis), 08.VI.2005 (1, leg. A.Barševskis); Rēzekne district: Puša, 27.V.2002 (1, leg. A.Barševskis); Talsi district: Mazirbe, 24.VII.2004 (1, leg. A.Barševskis); Slītere National Park, 22.VIII.2008 (1, leg. A.Barševskis).

Oulema septentrionis (Weise, 1880)

Examined material: 19 exx: Daugavpils district: Bebrene, 30.IX.2006 (1, leg. E.Rudāns); bank of the Daugava River opposite Krauja, 55°54'51"N 26°40'39"E, 19.VI.2009 (1, leg. R.Cibuļskis); Naujene, 27.IV.2008 (1, Jezufova park, leg. K.Aksjuta, M.Murd), 29.IV.2008 (1, valley of the Daugava River, leg. A.Pankjāns, U.Valainis); Elerne, 31.V.2007 (1, leg. M.Murd); Višķi, IX.1990



Figs. 1-3. Aedeagus, dorsal and lateral aspects: 1 – *Oulema erichsonii*, 2 and 3 – *O. septentrionis*.

(1, leg. A.Barševskis); Jēkabpils district: Dunava, 17.VII.1995 (1, leg. A.Barševskis), 13.VIII.1996 (1, leg. A.Barševskis), 01-07.VI.2009 (1, leg. K.Barševska); Krāslava district: Indrica, 17.VI.1989 (1, leg. A.Barševskis); Izvalta, Murāni

house, 21.VIII.1992 (2, leg. A.Barsevskis);
Piedruja, 28.V.1991 (1, leg. A.Barsevskis);
Šķeltova, 09.V.1993 (1, leg. A.Barševskis),

20.V.1995 (1, humid meadow, leg. A.Barševskis);
Ūdrīši, Tartaks, VIII.2008 (1, leg. A.Soldāns); Preiļi
district: Jersika, Kurpnieki house, 04.V.2006 (1,
leg. K.Barševska), 04.VI.2006 (1, leg.
K.Barševska); Rēzekne district: Ideņa env.,
56°44'38"N 26°55'11"E, 06.VII.2008 (1, bank of
Lake Lubāns, leg. A.Bukejs, M.Balalaikins).



Figs. 4-5. Apex of flagellum: 4 – *Oulema erichsonii*,
5 – *O. septentrionis*

Earlier faunal reports of *O. erichsonii* (Suffrian,
1841) in Latvia (Pūtele 1974, 1980, 1981, 1981a;
Barševskis 1988, 1993, 2002; Telnov 2002; Kalniņš
et al. 2007; Bukejs, Telnov 2007; Bukejs 2009)
probably is related to *O. septentrionis* (Weise,
1880).

Recently *O. septentrionis* (Weise, 1880) was
confirmed in Sweden, Denmark and Norway
(Wanntorp 2009). In Sweden, records of *O.*
septentrionis (Weise, 1880) were done in humid
meadows while *O. erichsonii* (Suffrian, 1841)
seems to prefer dry habitats.



Figs. 6-7. Apex of aedeagus with inflated internal sac: 6 – *Oulema erichsonii*, 7 – *O. septentrionis*.

The precise distribution of these species must be defined more exactly because of the former confusion. After Bieńkowski (2004), *O. septentrionis* (Weise, 1880) is distributed in W Europe, Caucasus and Russian Far East (Khabarovsk region) but *O. erichsonii* (Suffrian, 1841) is distributed in Europe, Siberia and Russian Far East.

This complex is in need of revision including type specimens and material from the entire area of distribution.

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