

***BAGOUS ELEGANS* (FABRICIUS, 1801) (COLEOPTERA: CURCULIONIDAE) – A NEW FOR THE LATVIAN FAUNA WEEVIL SPECIES**

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Abstract. *Bagous elegans* (Fabricius, 1801) was recorded in Latvia for the first time. One specimen of the species was collected in Lake Lubāns near Īdeņa village (eastern Latvia), Rēzekne district. The general information on this weevil species along with the list of *Bagous* Germar, 1817 of the Latvian fauna is given.

Key words: Curculionidae, *Bagous elegans*, Latvia, first record

INTRODUCTION

The European fauna of the genus *Bagous* Germar, 1817, belonging to the subfamily Bagoinae Thomson, 1859, currently includes 64 species (Alonso-Zarazaga 2010; Stüben 2010). In his catalogue 'Enumeratio nova Coleopterorum Fennoscandiae, Daniae et Baltiae' Silfverberg (2004) mentioned 24 species of Bagoinae occurring in Fennoscandia and the Baltic region.

The Latvian fauna of weevils of the genus *Bagous* comprises 12 species (Telnov 2004; Telnov *et al.* 2006; Vorst *et al.* 2007). In adjacent territories, the number of recorded species of this genus slightly varies: 13 species of *Bagous* are reported from Lithuania (Pileckis & Monsevičius 1997; Silfverberg 2004; Tamutis 2003; Tamutis *et al.* 2008; Tamutis & Pankevičius 2001), 14 species from Belarus (Alexandrovich *et al.* 1996), and 16 species from Estonia (Silfverberg 2004).

The first data on weevil species of the genus *Bagous* in Latvia were published by Fleischer (1829). Barševskis (1997) published a check-list of Latvian Curculionidae and faunal data on four species of the genus *Bagous*. In recent years only separate data on the occurrence of some species have been published, including data on eight new for the local fauna species (Telnov *et al.* 2006; Vorst *et al.* 2007).

Bagous elegans (Fabricius, 1801) is distributed in Europe (the Czech Republic, Denmark, Estonia, Germany, Hungary, France, Italy, Lithuania, the Netherlands, Poland, Romania, the European part of Russia, Serbia, Slovakia, Sweden) and in Central Asia (Kazakhstan, Kyrgyzstan, Tadjikistan, Uzbekistan) (Alonso-Zarazaga 2010; Dieckmann 1983; Kodada *et al.* 1992). Recently it has been recorded in Latvia.

MATERIAL AND METHODS

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

The pictures were made using a stereomicroscope *Zeiss SteREO Discovery V12* and a digital camera *AxioCam*.

RESULTS AND DISCUSSION

During the study of the Latvian weevil fauna, the species *Bagous elegans* (Fabricius, 1801) was recorded for the first time. One specimen was found using an entomological net in the middle of the reed bed, ca. 250-m from the lakeshore. Locality and material (Fig. 1): Lake Lubāns near Īdeņa village, Nagļi parish, Rēzekne district, 56°45'35" N 26°55'76"E 15 July 2009 (1 specimen, on *Phragmites australis*, leg. M. Balalaikins & A. Bukejs).

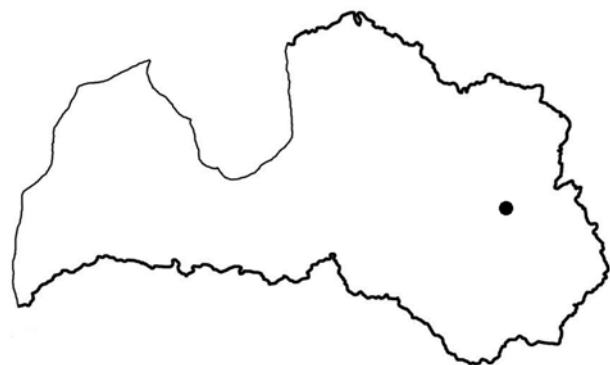


Figure 1. Locality of *Bagous elegans* in Latvia: Lake Lubāns near Īdeņa village.

Lake Lubāns is situated in the centre of the Eastern Latvian Lowland, on the territory of the nature reserve Lubāns Wetlands, which is the largest wetland complex in Latvia. The lake is shallow with the mean depth of 1.6 metres. The water surface of the lake covers an area of 8,210 hectares. The composition of the lake-bottom sediments is clay, silt, or rock. Reed beds occupy approximately 882 hectares of the lake area (Čubars & Noviks 2009; Lake database ... 1999).

According to the previous weevil classification, *B. elegans* (Fabricius, 1801) belongs to the genus *Dicranthus* Motschulsky, 1845 (Dieckmann 1983; Kodada *et al.* 1992). According to the recent catalogue of world Curculionoidea (Alonso-Zarazaga & Lyal 1999), the subfamily Bagoinae has one genus and the taxon *Dicranthus* Motschulsky, 1845 is a synonym of *Bagous*.

The body of *B. elegans* (Fabricius, 1801) is narrow cylindrical (Fig. 2). The length of the body without a rostrum is 4.5–7.5 mm. The rostrum is long and thin, nearly straight, slightly longer than the pronotum. The pronotum is constricted behind the head, then abruptly widened with nearly parallel sides posteriorly. The prosternum is with a groove to receive the rostrum. The scutellum is small, covered with bunch-formed setae. Elytra with humeri are weakly developed, sides subparallel in basal-two thirds, emarginate in distal

third to strongly developed acuminate apical projections (Kodada *et al.* 1992).

B. elegans (Fabricius, 1801) is a hygrophilous, stenotopic, phytophagous species and a monophagous on *Phragmites australis* (Koch 1992; Kodada *et al.* 1992). The imago has the ability to form a plastron and spend a considerable part of life under water. Larvae develop in stalk internodes below water level, with no more than one larva per internode. Eggs are laid from the middle of May till the middle of July (Dieckmann 1983).

Sprick (2001) indicates that *B. elegans* (Fabricius, 1801) is a very rare species in its entire area and should be protected, since it is a species incapable of flight, inhabiting only clear waters with high oxygen contents, i.e. the wave zone of lakes and streams. This species is included in Danish (Danish Red Data Book 1997), German (Geiser 1998), Polish (Głowaciński *et al.* 2002) and Swedish (Gärdenfors 2000) red data lists.

B. elegans (Fabricius, 1801) is a new species for Latvia. Now the Latvian fauna of weevils of the genus *Bagous* comprises a total of 13 species, including this record.

The list of species of the genus *Bagous* Germar, 1817 of the Latvian fauna:

B. [= *Dicranthus* Motschulsky, 1845] *elegans* (Fabricius, 1801)

B. [= *Hydronomus* Schönherr, 1825] *alismatis* (Marsham, 1802)

B. petro (Herbst, 1795)

B. tubulus Caldara & O'Brien, 1994

B. binodulus (Herbst, 1795)

B. collignensis (Herbst, 1797)

B. frit (Herbst, 1795)

B. lutulosus (Gyllenhal, 1827)

B. tempestivus (Herbst, 1795)

B. lutosus (Gyllenhal, 1813)

B. puncticollis Boheman, 1845

B. lutulentus (Gyllenhal, 1813)

B. glabrirostris (Herbst, 1795).



Figure 2. *Bagous elegans*: habitus, dorsal view.

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REFERENCES

- Alexandrovich, O. R., Lopatin, I. K., Pisanenko A. D., Tsinkevich, V. A. and Snitko, S. M. 1996. *Catalogue of Coleoptera (Insecta) of Belarus*. Minsk: Fund of Fundamental Investigations of the Republic of Belarus. [Александрович, О. Р., Лопатин, И. К., Писаненко, А. Д., Цинкевич, В. А., Снитко, С. М. 1996. *Каталог жесткокрылых Беларуси*. Минск: Фонд Фундаментальных исследований Республики Беларусь.]
- Alonso-Zarazaga, M. A. 2010. Fauna Europaea: Coleoptera: Leiodidae, Staphylinidae, Aphodiidae, Scarabaeidae, Melolonthidae, Rutelidae, Nemonychidae, Anthribidae, Apionidae, Nanophyidae, Curculionidae. *Fauna Europaea* version 2.2. Available at: <http://www.faunaeur.org/> (Last access October 01, 2010).
- Alonso-Zarazaga, M. A. and Lyal, C. H. C. 1999. *A world catalogue of families and genera of Curculionoidea (Insecta: Coleoptera) (Excepting Scolytidae and Platypodidae)*. Barcelona: Entomopraxis.
- Barševskis, A. 1997. Materials about Latvian beetles (Coleoptera: Curculionidae). *Acta coleopterologica Latvica* 1 (2): 63–71. [Barševskis, A. 1997. Materiali par Latvijas smecernieku (Coleoptera: Curculionidae) faunu un sugu saraksts]. *Acta coleopterologica Latvica* 1 (2): 63–71.
- Čubars, E. and Noviks, G. 2009. Evaluation of reed resources in the Lubans lake and substantiation of their use in energy production Environment technology. *Resources of the Proceedings of the 7th International Scientific and Practical Conference* 1: 66–73. [Čubars, E., Noviks, G. 2009. Lubāna ezera niedru resursu izvērtēšana un to izmantošanas enerģijas ieguvei pamatojums. *Resources of the Proceedings of the 7th International Scientific and Practical Conference* 1: 66–73. Rēzeknes Augstskola, Rēzekne, RA Izdevniecība (in Latvian, abstract in English).]
- Danish Red Data Book*. 1997. National Environmental Research Institute, Denmark. Available at: http://www2.dmu.dk/1_Om_DMU/2_Tvaerfunk/3_fdc_bio/projekter/iframe/redlist/gpdata.asp?ID=103&mode=ALL (Accessed October 01 2010).
- Dieckmann, L. 1983. Review of Insect fauna of the GDR: Coleoptera – Curculionidae (Tanymecinae, Leptopiinae, Cleoninae, Tanyrhynchinae, Cossoninae, Raymondionyminae, Bagoinae, Tanysphyrinae). *Beitrage Entomology* 33: 257–381. [Dieckmann, L. 1983. Beiträge zur Insektenfauna der DDR. *Beitrage Entomology* 33: 257–381.]
- Fleischer, J. 1829. Review of fauna of the Baltic provinces. *Die Quatember, Kurlandische Gesellschaft für Literatur und Kunst* 1 (2): 9–19. [Fleischer, J. 1829. Beitrag zur Fauna der Verzeichnis derjenigen Käfer, die soweit mir bekannt ist, als einheimische bis hierzu noch nicht aufgeführt sind. *Die Quatember, Kurlandische Gesellschaft für Literatur und Kunst* 1 (2): 9–19.]
- Gärdenfors, U. (ed.) 2000. *The 2000 Red List of Swedish Species*. Uppsala: SLU. [Gärdenfors, U. (ed.) 2000. *Art Databanken Röd listade arter i Sverige*. Uppsala: SLU.]
- Geiser, R. 1998. Red list of beetles. In: M. Binot, R. Bless, P. Boye, H. Gruttke and P. Pretschner (eds) *Red list of threatened animals of Germany*, pp. 168–230. [Geiser, R. 1998. Rote Liste der Käfer (Coleoptera).] *Rote liste gefährdeter Tiere Deutschlands*, pp. 168–230. Schriftenreihe für Landschaftspflege und Naturschutz.]
- Głowaczynski, Z., Makomaska-Juchiewicz, M. and Polczynska-Konior, G. (eds) 2002. *Red List of Threatened Animals in Poland*. Kraków: Institut Ochrony Przyrody PAN.
- Koch, K. 1992. *Beetles of the Central Europe: Ecology* 3: 1–389. Krefeld: Goecke & Evers. [Koch, K. 1992. *Die Käfer Mitteleuropas: Ökologie* 3: 1–389. Krefeld: Goecke & Evers.]
- Kodada, J., Holecová, M. and Behne, L. 1992. The genus *Dicranthus*. I. Taxonomic revision, karyology and notes on the biology (Coleoptera: Curculionidae). *Koleopterologische Rundschau* 62: 195–211.
- Lake database by lake characteristics, and photographs, as well as search capabilities*. 1999. Available at: <http://www.ezeri.lv> (Accessed October 01 2010).
- Silfverberg, H. 2004. Enumeratio nova Coleopterorum Fennoscandiae, Daniae et Baltiae. *Sahlbergia* 9: 1–111.
- Sprick, P. 2001. Suitability of an Insect group for the Habitats Directive of the EU: The Weevil Subfamily Bagoinae. Contributions to the Ecology of Phytophagous Beetles VII (Col.: Curculionidae: Bagoinae). *Snudebiller* 2: 7–40.
- Stüben, P. E. 2010. *Bagous monanthiphagus* sp. n. (Coleoptera: Curculionidae: Bagoinae), Curculio-Institute: Germany/Mönchengladbach. *Weevil News* 54: 2. Available at: <http://www.curci.de> (Accessed October 01 2010).
- Tamutis, V. 2003. Eighty-two new for Lithuania beetle (Coleoptera) species. *New and rare for Lithuania insect species, Records and descriptions* 15: 54–62.
- Tamutis, V. and Pankevičius, R. 2001. Contribution to the knowledge of Lithuanian weevils (Curculionidae (Apionidae), Coleoptera) fauna. *Lithuanian biodi-*

- iversity (condition, structure, protection): 93–94 (in Lithuanian).
- Tamutis, V., Ferenc R., Ivinskis, P., Rimšaitė, J. and Meržijevskis, A. 2008. New data on Lithuanian beetle (Coleoptera) fauna. *New and rare for Lithuania insect species, Records and descriptions* 20: 29–38.
- 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.
- Telnov, D., Fägerström, Ch., Gailis, J., Kalniņš, M., Piterāns, U. and Vilks, K. 2006. Contributions to the Knowledge of Latvian Coleoptera. 5. *Latvijas Entomologs* 43: 78–125.
- Vorst, O., Ee, G. van, Huijbregts, H. and Nieuwenhuijzen, A. van. 2007. On some smaller Latvian Coleoptera. *Latvijas Entomologs* 44: 15–25.
- BAGOUS ELEGANS (FABRICIUS, 1801) (COLEOPTERA: CURCULIONIDAE) – NAUJA STRAUBLIUKŲ RŪŠIS LATVIJOS FAUNOJE**
- M. Balalaikins, A. Bukejs*
- SANTRAUKA**
- Pirmą kartą Latvijoje buvo aptikta straubliukų rūšis *Bagous elegans* (Fabricius, 1801). Vienas šios rūšies individas buvo rastas Lubano ežere prie Ydenios kaimo (rytinė Latvija), Rezeknės rajone. Pateikiama bendra informacija apie šią straubliukų rūšį bei Latvijoje randamų *Bagous* Germar, 1817 genties rūšių sąrašas.
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