

GROUND BEETLES OF THE GENUS *NOTIOPHILUS* DUMERIL, 1806 (COLEOPTERA: CARABIDAE) IN THE WORLD ENTOMOLOGICAL COLLECTIONS

3. WIBURN R. ENNS ENTOMOLOGY MUSEUM (UNIVERSITY OF MISSOURI – COLUMBIA)

Arvīds Barševskis

Barševskis A. 2010. Ground Beetles of the Genus *Notiophilus* Dumeril, 1806 (Coleoptera: Carabidae) in the World Entomological Collections. 3. Wiburn R. Enns Entomology Museum (University of Missouri – Columbia). *Acta Biol. Univ. Daugavp.*, 10(2): 189 – 192.

The article presents the summary of information on the species of the genus *Notiophilus* Dum. deposited in the collection of Wiburn R. Enns Entomology Museum (University of Missouri – Columbia). We have inspected 67 specimens of this genus which represent 7 species. One of the species of the collection *N. palustris* (Duft.) has been collected in Europe (Germany), another one, namely, *N. aquaticus* (L.) has been found both in Europe (Belgium) and North America (U.S.A.), but the other five species - *N. aeneus* Hbst., *N. nemoralis* Fall, *N. novemstriatus* LeC., *N. semiopacus* Eschsch. and *N. semistriatus* LeC. have been collected in North America. The material inspected will supplement the information on the distribution of the species of the genus *Notiophilus* Dum. in both North America and Europe.

Key words: *Notiophilus*, Carabidae, Coleoptera, fauna, Nearctic, Europe, R. Enns Entomology Museum, University of Missouri – Columbia.

Arvīds Barševskis, Institute of Systematic Biology, Daugavpils University, Vienības Str. 13, Daugavpils, LV-5401, Latvia; e-mail: arvīds.barševskis@du.lv

INTRODUCTION

This is the third article that continues the series of publications on ground beetles of the genus *Notiophilus* Dumeril, 1806 (Coleoptera: Carabidae) in the world entomological collections, which have been inspected by the author while carrying out the research into the fauna, taxonomy and distribution of this genus in the world. The aim of the present article is to publish the faunistic information on the species of the genus *Notiophilus* Dum. deposited in the world

museum collections and to indicate the places where they have been found.

The previous two articles summarize the information on the species of this genus kept in the collections of Illinois Natural History Survey, Eastern Illinois University and University of Colorado Museum (Barševskis 2009a, b). The first article presents the information on the definite 157 specimens that represent 9 species of the genus, but the second article focuses on 13 specimens representing 6 species of the genus.

The present article presents the information on the 7 species of the genus *Notiophilus* Dum. that are deposited in the collection of Wibur R. Enns Entomology Museum (University of Missouri – Columbia). All in all the author of the article has identified and done the morphometric measurements of 67 specimens of the genus, which were kindly supplied and sent for the study by the curator of the museum collection R.W.Sites. All the specimens identified by the author have been supplemented with the printed species identification labels that contain the name of the taxon, the author, the year of description, the taxon identifier's name and the year of identification.

One of the species represented in the collection, namely, *N. palustris* (Duft.) has been collected in Europe (Germany). Another species - *N. aquaticus* (L.) has been collected both in Europe (Belgium) and North America (U.S.A.). The other five species - *N. aeneus* Hbst., *N. nemoralis* Fall, *N. novemstriatus* LeC., *N. semiopacus* Eschsch. and *N. semistriatus* LeC. – have been collected in the U.S.A. Two species found in U.S.A. *N. nemoralis* Fall and *N. semiopacus* Eschsch. are represented in the museum collection by only one specimen each. The rest of species are rather widely distributed in North America and are represented in the collection in bigger numbers. The specimens of some species had incomplete

labels that contained only the names of the states where they had been found, but there was no information concerning the time of collection and the name of collector. Ground beetles of this genus have been collected for the museum collection by W.R.Enns, E.Becker, W.M.Gordon, S.O.Swander, G.W.Bock, C.L.Creve, B.Alexander, C.M.Heyden, T.R.Yonke, M.Grabau, C.Wingo, S.E.Thewke a.o.

The list of species contains the name of species, the author and the year of collection, and then follow the data presented on the labels of the specimens inspected: region, country, state, place and date of detection; the number of specimens collected and their division by genders (M – male, F – female), as well as the collector's name are presented in brackets. Occasionally there was also the biotype indicated where a particular specimen had been collected. In some cases the data presented in the labels were incomplete and at best presented only the name of the state where the specimen had been collected. Table 1 summarizes the data on the number and distribution of the specimens of every species of ground beetles inspected from the collection of Wibur R. Enns Entomology Museum (University of Missouri – Columbia). The following abbreviations have been used in the table and the list of species: NAR – Nearctic, EUR – Europe; BE – Belgium, GE – Germany,

Table 1. Species of the genus *Notiophilus* Dum. in the collection of Wibur R. Enns Entomology Museum (University of Missouri – Columbia)

Number	Species	Number of specimens	Distribution
1.	<i>N. aeneus</i> Herbst, 1806	10	NAR: DC, IL, MA, MO, PA
2.	<i>N. aquaticus</i> (Linnaeus, 1758)	15	EUR: BE; NAR: AL, IL, MA, NM, UT, WI
3.	<i>N. nemoralis</i> Fall, 1906	1	NAR: OR
4.	<i>N. novemstriatus</i> LeConte, 1849	26	NAR: AL, KN, IN, MO, NY, WI
5.	<i>N. palustris</i> (Duftschmid, 1812)	1	EUR: GE
6.	<i>N. semiopacus</i> Eschscholtz, 1833	1	NAR: CA
7.	<i>N. semistriatus</i> LeConte, 1857	13	NAR: IL, MI, MO, WI
TOTAL		67	

U.S.A. – United States of America; AL – Alabama, CA – California, DC – District of Columbia, KN – Kansas, IL – Illinois, IN – Indiana, MA – Massachusetts, MI – Michigan, MO – Missouri, NM – New Mexico, NY – New York, OR – Oregon, PA – Pennsylvania, UT – Utah, WI – Wisconsin

The information presented in the article will perfect our knowledge of the distribution of ground beetles of the genus *Notiophilus* Dum. in North America and Europe.

The abbreviation of the collection of Wibur R. Enns Entomology Museum (University of Missouri – Columbia) used further in the list of species are correspondent to V. R. E.M.J.-B. Bejsak-Colorado-Mansfeld (2004).

LIST OF SPECIES

1. *Notiophilus aeneus* Herbst, 1806

U.S.A. DC, (1M); IL, North Illinois (1M, 1F); IN, Tippecanoe Co., pitfall trap, (1F); MA, Tyngs[borough], Merck River, 25.04.1901. (1F); MO, Boone Co., 30.07.1972. (1F, S.O.Swander leg.), Boone Co., Columbia, 31.10.1942., under bark, (1F, E. Becker leg.), St. Louis, 03.02.1997. (1F), 21.03.1997. (1F, C.L.Creve leg.); PA, (1F);

2. *Notiophilus aquaticus* (Linnaeus, 1758)

Belgium, Deurne, 15.04.1908. (1M, 3F); U.S.A., AL, [Mobile Co.], Citronelle, 25.06.1919. (1F, G.W.Bock leg.), IL, Union Co., Giant City, 03.05.1992. (1M, K.Simpson leg.); MA, Tyngs[borough], Merck River, 25.04.1961. (1F); MO, Boone Co., Columbia, 13.04.1947. (1F), 28.04.1977. (1F, S.E.Thewke leg.); NM, (1M, 3F); UT, 16.07.1897. (1M); WI, (1M).

3. *Notiophilus nemoralis* Fall, 1906

U.S.A. OR, (1F).

4. *Notiophilus novemstriatus* LeConte, 1849

U.S.A. AL, [Mobile Co.], Citronelle, 25.06.1919. (1M, 2F, G.W.Bock leg.), Mobile Co., 18.04.1906. (1M, G.W.Bock leg.), 22.06.1919. (2M, 2F, G.W.Bock leg.); IN, Orange Co., 04.04.1904. (1F), Putnam Co., 07.04.1908. (1F), 03.06.1910. (1F); MO, Boone Co., 26.09.1970. (1M, B. Alexander leg.), Boone Co., Columbia, (1F), 13.04.1935. (1F, W.M.Gordon leg.), 29.04.1957. (1M, W.R.Enns leg.), 19.09.1973. (1M), 24.04.1984. (1M, C.M.Hayden leg.), Callaway Co., 13.09.1974. (1F, T.R.Yonke leg.), New Hartford, 28.03.1948. (1F), St. Louis, 17.03.1894. (1M), 31.10.1948. (1F, M.Grabau leg.), St. Louis, Ranken, 27.05.1934. (1F, E.P.Meiners leg.); KN, (1M), NY, New York (1F); WI, (1F); ? - Lonsville, 08.07.1893. (1F).

5. *Notiophilus palustris* (Duftschmid, 1812)

Germany, Heidelberg (Umgeb.), Wilhelmsfeld, (1F).

6. *Notiophilus semiopacus* Eschscholtz, 1833

U.S.A. CA, Sierra Madre, 04.04.1909. (1F).

7. *Notiophilus semistriatus* LeConte, 1857

U.S.A. IL, S. Illinois, 20.09.1891. (2F); MI, (1F); MO, Buchanan Co., Rushville, 08.10.1973. (1F, Sonnenmoser leg.), Boone Co., Columbia, 10.04.1971. (1F), 24.05.1971. (1F), 07.09.1971. (1F, C.Wingo leg.), 27.09.1971. (1M, C.Wingo leg.), Gasconade Co., 10.05.1972. (1M, S.O.Swander leg.), St. Louis Co., Ranken, 12.09.1933. (1F, E.P.Meiners leg.), Willow Spr., 04.1967., (1M, 1F); WI, Eagle Riv., 08.1916. (1F).

ACKNOWLEDGEMENT

The author expresses his gratitude to the curator of the collection of R. Enns Entomology Museum (University of Missouri – Columbia) R.W.Sites

for the materials sent for the needs of the present study.

Received: 21.06.2009.
Accepted: 19.12.2010.

REFERENCES

- Barševskis A. 2009a. Ground beetles of genus *Notiophilus* Dumeril, 1806 (Coleoptera: Carabidae) in the world entomological collections. 1. Illinois Natural History Survey and Eastern Illinois University. *Acta Biol. Univ. Daugavp.*, 9(1): 59 - 62.
- Barševskis A. 2009b. Ground beetles of genus *Notiophilus* Dumeril, 1806 (Coleoptera: Carabidae) in the world entomological collections. 2. University of Colorado Museum. *Acta Biol. Univ. Daugavp.*, 9 (2): 137 – 138.
- Bejsak-Colorado-Mansfeld V. R. E.M.J.-B. 2004. Abbreviations for Insect Collections of the World. *J. Ent. Res. Soc.* 6(3): 29-77.