

Travaux du Muséum National d'Histoire Naturelle «Grigore Antipa»	Vol. LIII	pp. 217–221	© Décembre 2010
---	-----------	-------------	--------------------

DOI: 10.2478/v10191-010-0016-5

CONTRIBUTIONS TO THE KNOWLEDGE OF ROVE BEETLES (COLEOPTERA: STAPHYLINIDAE) FROM “PLAIUL FAGULUI” STATE NATURE RESERVE, REPUBLIC OF MOLDOVA

SVETLANA BACAL, ALEXANDER DERUNKOV

Abstract. The paper represents the first contribution to the knowledge of the rove beetle fauna from the “Plaiul Fagului” State Nature Reserve. The identified specimens belong to 5 subfamilies and 12 genera. From the 14 identified species within the area, 8 species are recorded from the Republic of Moldova for the first time: *Atheta marcida* (Erichson, 1837), *Dinaraea aequata* (Erichson, 1837), *Geostiba circellaris* (Gravenhorst, 1806), *Lordithon trinotatus* (Erichson, 1839), *Tachinus rufipes* (Linnaeus, 1758), *Tachyporus transversalis* Gravenhorst, 1806, *Anthobium atrocephalum* (Gyllenhal, 1827) and *Lathrobium longulum* Gravenhorst, 1800. The genera *Geostiba* and *Anthobium* were recorded for the first time in the Republic of Moldova.

Résumé. Le travail présente la première contribution à la connaissance de la faune de Staphylinides de la Réserve Naturelle d'État „Plaiul Fagului”. Les espèces identifiées appartiennent à 5 sous-familles et 12 genres. Parmi les 14 espèces identifiées dans la zone, 8 sont enregistrées dans la République de Moldova pour la première fois: *Atheta marcida* (Erichson, 1837), *Dinaraea aequata* (Erichson, 1837), *Geostiba circellaris* (Gravenhorst, 1806), *Lordithon trinotatus* (Erichson, 1839), *Tachinus rufipes* (Linnaeus, 1758), *Tachyporus transversalis* Gravenhorst, 1806, *Anthobium atrocephalum* (Gyllenhal, 1827) et *Lathrobium longulum* Gravenhorst, 1800. Les genres *Geostiba* et *Anthobium* sont enregistrés pour la première fois dans la République de Moldova.

Key words: Coleoptera, Staphylinidae, “Plaiul Fagului” State Nature Reserve, Republic of Moldova.

INTRODUCTION

The information on the species of the family Staphylinidae is rare in the Republic of Moldova. Some data are included in the papers of Adashkevich (1972), Neculiseanu (1984) and Stan & Bacal (2006).

The study was carried out in the “Plaiul Fagului” State Nature Reserve, located in North-West of the Central Moldavian Plateau, 70 km from Chişinău. The Reserve covers an area of 5642 ha and has a rugged landscape with an altitude range between 150 – 410 m. The steep slopes deformed by sliding, with a 30° inclination, are prevalent here. The vegetation is formed of typical forest plants of Central Europe. The brown soils are predominant under the oak and beech forests, on the top of the hills of the altitude range of 280 – 410 m. The podzol soils formed under the oaks, on the slopes in the altitude range of 140 – 300 m (Ursu, 2005). The material identification is based on the feature of the external morphology. For the identification and geographical distribution of the species we used the following studies: Lohse (1964, 1974), and Löbl & Smetana (2004).

MATERIAL AND METHOD

The material was extracted from decomposed wood, in February and May 2009, in the “Plaiul Fagului” State Nature Reserve (47°18'N, 28°04'E). The specimens were collected by hand, on spot, or using flotation method, in laboratory.

The insects are preserved in the Entomology Museum of ASM, Chişinău, Republic of Moldova.

RESULTS AND DISCUSSIONS

The extracted rove beetles belong to 14 species. The identified species are cited according to the subfamilies and genera they belong to, with indication of the distribution data and some ecological characteristics (the new recorded species for the Republic of Moldova are marked by one asterisk, new recorded genera – by two asterisks):

Family Staphylinidae Latreille, 1802
Subfamily Aleocharinae Fleming, 1821
****Atheta marcida*** (Erichson, 1837)

Material: 1 spec., 16.02.2009.

Ecology: eurytopic mycetophylous forest species, frequently in the floodplain forests, in the decayed autumn mushrooms.

Distribution: Europa, North Africa and India.

Aleochara bipustulata (Linnaeus, 1760)

Material: 1 ♀, 29.05.2009.

Ecology: ubiquitous, mostly coprophilous species, in animal dung, in the decaying plant remnants, in decaying fungi, common.

Distribution: Transpalaeartic.

****Dinaraea aequata*** (Erichson, 1837)

Material: 1 spec., 16.02.2009.

Ecology: eurytopic xylobiontic species, under bark of dead broad-leaf wood, in bracket fungi (*Fomes*, *Polyporus*, *Trametes*, *Ganoderma* etc.).

Distribution: Europa and Siberia.

*****Geostiba circellaris*** (Gravenhorst, 1806)

Material: 4 specs, 16.02.2009.

Ecology: eurytopic species with the wide ecological amplitude, very common in moss and grass litter of both woodland and pastureland, myrmecophilous as a rule.

Distribution: Transpalaeartic, Nearctic (introduced).

Oxypoda abdominalis (Mannerheim, 1830)

Material: 1 spec., 16.02.2009.

Ecology: the eurytopic xerophilous species, very common in the forest and meadow litter on the sandy soils, frequently myrmecophilous.

Distribution: Transpalaeartic.

Subfamily Tachyporinae MacLeay, 1825

****Lordithon trinotatus*** (Erichson, 1839)

Material: 1 spec., 16.02.2009.

Ecology: eurytopic mycetophylous forest species, in a variety of woodland fungi in autumn.

Distribution: Transpalaeartic.

Mycetoporus eppelsheimianus Fagel, 1968

Material: 1 spec., 16.02.2009.

Ecology: stenoecic forest species, inhabits mostly deciduous, but also the mixed forests, in the forest litter, in moss.

Distribution: Europa (mostly the Central and South).

**Tachinus rufipes* (Linnaeus, 1758)

Material: 1 spec., 16.02.2009.

Ecology: ubiquitous saprophilous species, widespread and very common in moss and grass litter and in cow and horse dung.

Distribution: Transpalaeartic, Nearctic (introduced).

Tachyporus hypnorum (Fabricius, 1775)

Material: 2 specs, 16.02.2009.

Ecology: ubiquitous, humicolous, muscicolous, phytodetriticolous.

Distribution: Transpalaeartic.

Tachyporus solutus Erichson, 1839

Material: 3 specs, 16.02.2009.

Ecology: eurytopic, mostly xerophilous, humicolous, phytodetriticolous, in different open biotopes.

Distribution: Transpalaeartic.

**Tachyporus transversalis* Gravenhorst, 1806

Material: 1 spec., 16.02.2009.

Ecology: stenoecic sphagnum bog species.

Distribution: Europe, Russia, Afghanistan and Nearctic.

Subfamily Omaliinae MacLeay, 1825

***Anthobium atrocephalum* (Gyllenhal, 1827)

Material: 1 spec., 16.02.2009.

Ecology: hygrophilous, humicolous, phytodetriticolous, a forest species, prefer the wet forests, frequently floodplain alder forests, locally distributed in durable leaf litter mostly in birch woods.

Distribution: Transholartic.

Subfamily Paederinae Fleming, 1821

**Lathrobium longulum* Gravenhorst, 1800

Material: 2 specs, 16.02.2009.

Ecology: eurytopic hygrophilous species, in bogs of different types, on the riverbanks and lakeshores, very common.

Distribution: Transpalaeartic.

Subfamily Staphylininae Latreille, 1802
Philonthus decorus (Gravenhorst, 1802)

Material: 1 spec., 16.02.2009.

Ecology: eurytopic hygrophilous species, one of the dominant ones in moss in woods and wetlands.

Distribution: Transpalaeartic.

The identified specimens belong to 5 subfamilies and 12 genera. Most species belong to the subfamily Tachyporinae – 6 species of 4 genera. From the subfamily Aleocharinae, 5 species were recorded which belong to 5 genera. The subfamilies Omaliinae, Paederinae and Staphylininae are represented by a genus with a single species each. For the first time, in the “Plaiul Fagului” State Nature Reserve 14 rove beetle species were found in decomposing wood. Two genera, *Geostiba* and *Anthobium*, and 8 species are recorded for the first time in the Republic of Moldova.

The species extracted from the decomposed wood, from the “Plaiul Fagului” State Nature Reserve are, in fact, species with a large area of distribution in the Palaeartic region mostly, also they are characterized by a high ecological plasticity including fungicolous, phytodetriticolous, muscicolous, silvicolous species.

ACKNOWLEDGEMENTS

This work was supported by the grant N. 08. 820.08.02 of Moldo - Belarus cooperation. From the Belarusian part the study was supported by the Belarusian Republican Foundation for Fundamental Research (grant B08MLD-016).

CONTRIBUȚII LA CUNOAȘTEREA STAFILINIDELOR (COLEOPTERA: STAPHYLINIDAE) DIN REZERVAȚIA NATURALĂ DE STAT “PLAIUL FAGULUI”, DIN REPUBLICA MOLDOVA

REZUMAT

Lucrarea prezintă prima contribuție la cunoașterea coleopterelor stafilinide din Rezervația Naturală de Stat “Plaiul Fagului”. Speciile identificate fac parte din 5 subfamilii și 12 genuri. Din cele 14 specii identificate din această rezervație 8 sunt citate pentru prima dată în fauna Republicii Moldova: *Atheta marcida* (Erichson, 1837), *Dinaraea aequata* (Erichson, 1837), *Geostiba circellaris* (Gravenhorst, 1806), *Lordithon trinotatus* (Erichson, 1839), *Tachyporus transversalis* Gravenhorst, 1806, *Tachinus rufipes* (Linnaeus, 1758), *Anthobium atrocephalum* (Gyllenhal, 1827) și *Lathrobium longulum* Gravenhorst, 1800. Genurile *Geostiba* și *Anthobium* sunt la prima semnalare în Republica Moldova.

LITERATURE CITED

- ADASHKEVICH, B., 1972 - Poleznaya entomofauna ovoshchnykh poley Moldavii: 30-55. (in Russian)
- LÖBL, I., A. SMETANA, 2004 - Catalogue of Palaeartic Coleoptera, Vol. 2: Hydrophiloidea-Staphylinoidea. Stenstrup: Apollo Books: 942.
- LOHSE, G. A., 1964 - Staphylinidae I (Micropeplinae bis Tachyporinae). *In*: H. Freude, K. Harde, G. A. Lohse, Die Käfer Mitteleuropas, Goecke & Evers, Krefeld, 4: 1-247.
- LOHSE, G. A., 1974 - Staphylinidae II (Hypocyphinae und Aleocharinae). *In*: H. Freude, K. Harde, G. A. Lohse, Die Käfer Mitteleuropas, Goecke & Evers, Krefeld, 5: 1-304.
- NECULISEANU, Z., 1984 - Fauna i biologiya korotkonadkrylykh zhukov podsemeystv *Staphylininae* i *Paederinae* (Coleoptera, Staphylinidae) v agrotsenozakh Moldavii. Avtoreferat na soiskanie uchenoy stepeni kandidata biologicheskikh nauk. Kishinev: 18. (in Russian)

- STAN, M., S. BACAL, 2006 - Noi contribuții la cunoașterea stafilinidelor (Coleoptera: Staphylinidae) din rezervația peisagistică „Codrii Tigheciului” (Republica Moldova). Oltenia, Studii și comunicări. Științele Naturii. Craiova, 22: 155-159. (in Romanian)
- URSU, A., 2005 - Natura Rezervației „Plaiul Fagului” Chișinău – Rădenii Vechi: 13-37. (in Romanian)

Received: January 14, 2010

Accepted: August 23, 2010

Svetlana Bacal

Institute of Zoology of ASM, Academiei str., 1, 2028

Chișinău, Republic of Moldova

e-mail: svetabacal@yahoo.com

Alexander Derunkov

Scientific-practical center of the National Academy

of Sciences of Belarus for biological resources,

Akademieskaia str., 27, 220072 Minsk, Belarus

e-mail: alex_derunkov@tut.by