

NEW FAUNAL DATA ON SPECIES COMPOSITION OF CARPET BEETLES (COLEOPTERA: DERMESTIDAE) FAUNA OF THE RUSSIA

S.V. Pushkin¹, J. Háva², A. Herrmann³

¹ North Caucasian Federal University, Chair of Botany, Zoology and General Biology, e-mail: sergey-pushkin-st@yandex.ru,

² Department of Forest Protection and Entomology, Faculty of Forestry and Wood Sciences, Czech University of Life Sciences, Kamýcká 1176, CZ-165 21, Prague 6 - Suchdol, Czech Republic, e-mail: jh.dermestidae@volny.cz

³ Bremervorder Strasse 123, 21682 Stade, Germany. e-mail: herrmann@coleopterologie.de, Amateur coleopterologist

Key-words: carpet beetles, Dermestidae, fauna of the Russia.

Abstract: As a result of the collecting in 2003–2015 in the south part of European Russia and in the North Caucasus 15 species of the carpet beetles (Dermestidae) were found, which was firstly recorded for the Russian territory or was recently listed without specific information: *Dermestes intermedius* Kalík, 1951, *Dermestes elegans* Gebler in Ledebour, 1830, *Attagenus fasciolatus* (Solsky, 1876), *Anthrenus amoenulus* Reitter, 1896, *Anthrenus zebra* Reitter, 1889, *Anthrenus latefasciatus* Reitter, 1892, *Anthrenus olgae* Kalík, 1946, *Anthrenus tadzhicus* Mroczkowski, 1961, *Anthrenus hissaricus* Mroczkowski, 1961, *Anthrenus sordidulus* Reitter, 1889, *Attagenus ionicus* Zhantiev, 2005, *Attagenus unicolor simulans* Solsky, 1876, *Attagenus suspiciosus* Solsky, 1876, *Ctesias hajeki* Háva, 2005, *Megatoma conspersa* Solsky, 1876.

The faunal lists, carpet beetle (Dermestidae) in Russia and neighboring countries are published in several papers [2-13]. In a recent article [4] presented the first information about the species of 8 from the Chechen Republic including 1 was a new species for Russia. The site of the Zoological Institute of Russian Academy of Sciences (<http://www.zin.ru/Animalia/Coleoptera/rus/cadastre.htm>) A.G. Kirejtshuk and R.D. Zhantiev lead to the fauna of Russia 76 species [14]. For the territory of Southern Russia indicated 35 species of [7.8].

The material presented in this paper were collected 2003-2015, S.V. Pushkin, in different districts of Dagestan and other regions. Was collected using standard methods. Determination is made A. Herrmann and J. Háva; studied material is kept in a private collection of A. Herrmann (Germany, Stade) and in the collection S. Pushkin (Stavropol, Zoological Museum of the North Caucasus Federal University).

Below is a listing of new species for the fauna of Russia. Nomenclature and sequence of taxon are accepted by the System [1]. Annotations include information on distribution (in the States), and the necessary comments.

THE LIST OF SPECIES

Dermestes Linnaeus, 1758

Subgenus *Dermestinus* Zhantiev, 1967

1. *Dermestes intermedius intermedius* Kalík, 1951

Distribution: Austria; Bulgaria; Czech Republic; Crete; Croatia; Cyprus; Germany; Greece; Hungary; Italy; Macedonia; Romania; Russia: Ingushetia Republic; Slovakia; Turkey; Ukraine [1].

Material. North Ossetia: Neighborhood of the city of Vladikavkaz, 20.05.2010, 3 ex., S.V. Pushkin; Ingushetia: The vicinity of the town of Magas, 25.07.2010, 4 ex, S.V. Pushkin.

Comment. Probably the species imported from neighboring regions due to heavy turnover in recent years.

2. *Dermestes elegans* Gebler in Ledebour, 1830

Distribution: Turkey; N China; Iran; Kazakhstan; Kyrgyzstan; Mongolia; Tadjikistan; Turkmenistan; Uzbekistan [1].

Material: 17-22.8.2015 Dagestan: Lakskiy District, near Hulisma village. New to Russia.

Attagenus Latreille, 1802

Subgenus *Attagenus* s.str.

3. *Attagenus fasciolatus* (Solsky, 1876)

Distribution: „Caucasus“; Kazakhstan; Mongolia; Russia; Saudi Arabia; Tadjikistan; Turkmenistan; Uzbekistan [1].

Material. Krasnodar region, near the city of Krasnodar, 20.05.2007, 2 ex., S.V. Pushkin; Rostov region, Rostov-on-Don, 19.07.2002, 3 ex., S.V. Pushkin; Region of Stavropol, Stavropol, 20.07.2011, 5 ex., S.V. Pushkin; Kalmykia, Elista, 5.09.2010, 3 ex., S.V. Pushkin; Astrakhan region: Astrakhan, 3.07.2008, 5 ex., S.V. Pushkin; Kharabali, 5.07.2008, 1 ex., S.V. Pushkin.

4. *Attagenus ionicus* Zhantiev, 2005.

Distribution: Crete; Greece: Samos; Turkey [1].

Material: 17-22.8.2015. Dagestan: Lakskiy District, near Hulisma village, S. V. Pushkin. New to Russia.

5. *Attagenus unicolor simulans* Solsky, 1876.

Distribution: Afghanistan; China: Hebei, Inner Mongolia, Xingjiang; Kazakhstan; Kyrgyzstan; Mongolia; Russia; Tadjikistan; Turkmenistan; Uzbekistan [1].

Material: 10-19.7.2015 Dagestan: Tlyaratinsky District, near Kamiluh village S. V. Pushkin

6. *Attagenus suspiciosus* Solsky, 1876.

Distribution: Afghanistan; China: Sinkiang; Iran; Kazakhstan; Kyrgyzstan; Mongolia; Tadjikistan; Turkmenistan; Uzbekistan [1].

Material: 17-22.8.2015. Dagestan: Lakskiy District, near Hulisma village. S. V. Pushkin. New to Russia.

Anthrenus Geoffroy, 1762

Subgenus *Anthrenodes* Chobaut, 1898

7. *Anthrenus amoenulus* Reitter, 1896

Distribution. Afghanistan, «Caspian Lowlands», «Caucasus», Iran, Turkmenistan, Turkey [1]. Here is the first time the actual material from Russia.

Material. Stavropol Territory: Stavropol, 20.07.2013, 3 ex., S.V. Pushkin; 08.20.2014, 2 ex., S.V. Pushkin; Mineral water, 08.02.2013, 2 ex., S.V. Pushkin; 07.06.2014, 3 ex., S.V. Pushkin.

Comment. Perhaps the findings related to the importation of Asian and Caucasian countries. In the Stavropol region has successfully passed to the form commensal lifestyle. In warehouses found its larvae.

Subgenus *Anthrenops* Reitter, 1881

8. *Anthrenus zebra* Reitter, 1889

Distribution: Armenia; Azerbaijan; Turkey; Afghanistan; Iran; Turkmenistan [1]. Russia: Chechen Republic [4].

Material. Russia: Chechen Republic, the neighborhood of the village Goragorsky, steppe, mowing net, 20.06.2009, 20 ex., S.V. Pushkin.

9. *Anthrenus hissaricus* Mroczkowski, 1961.

Material: Dagestan. Tlyaratinsky District, near Kamiluh village S.V. Pushkin. 10.-19.7.2015. New to Russia.

Subgenus *Anthrenus* s.str.

10. *Anthrenus latefasciatus* Reitter, 1892

Distribution: Russia; Turkey; Afghanistan; „Caucasus“; N China; Iran; Kazakhstan; Kyrgyzstan; Mandzhuria; Mongolia; North Korea; Pakistan; Russia; Syria; Tadjikistan; Turkmenistan; Uzbekistan [1].

For the territory of the Russian [Háva, 2015], but the actual material here is for the first time.

Material. Rostov region, Rostov-on-Don, 20.06.2003, 1 ex., S.V. Pushkin; Kalmykia, Elista, 10.07.2009, 2 ex., S.V. Pushkin; North Ossetia, Vladikavkaz, 20.08.2010, 3 ex., S.V. Pushkin.

Subgenus *Florilinus* Mulsant & Rey, 1868

11. *Anthrenus olgae* Kalik, 1946

Distribution: Austria; Bulgaria; Cyprus; Czech Republic; England; Finland; Germany; Hungary; Latvia; Montenegro; Netherlands; Poland; Slovakia; Sweden; Ukraine; Canada (intr.) [1].

Material. Kalmykia, Elista, 20.07.2006, 3 ex., S.V. Pushkin; Astrakhan region, Astrakhan, 15.08.2011, 2 ex., S.V. Pushkin.

Comment. In Russia, probably imported.

12. *Anthrenus sordidulus* Reitter, 1889.

Distribution: Cyprus; Greece: Dodecanese Is., Rhodes I.; Spain; Turkey; Egypt; Israel; Syria [1].

Material: Dagestan: Lakskiy District, near Hulisma village S. V. Pushkin, 17-22.8.2015. New to Russia.

Subgenus *Solskinus* Mroczkowski, 1962

13. *Anthrenus tadzhicus* Mroczkowski, 1961.

Described from Tajikistan [1].

Material: Dagestan Tlyaratinsky District, near Kamiluh village. S.V. Pushkin. 10-19.7.2015. New to Russia.

Genus Ctesias Stephens, 1830

Subgenus Tiresiomorpha

14. *Ctesias hajeki* Hava, 2005.

Distribution: Iran. [1].

Material: 10-19.7.2015. Dagestan. Tlyaratinsky District, near Kamiluh village. S. V. Pushkin. New to Russia.

Subgenus Pseudohadrotoma Kalik, 1951

15. *Megatoma conspersa* Solsky, 1876

Distribution: Afghanistan; China: Xinjiang; Kazakhstan; Kyrgyzstan; Uzbekistan [1].

Material: 17-22.8.2015. Dagestan: Lakskiy District, near Hulisma village. S.V. Pushkin. New to Russia.

Thus, species composition, carpet beetles (Dermestidae) has on the territory of Russia 88 species. Found the above types of complementary list are available on the website of the Zoological Institute [http://www.zin.ru/Animalia/Coleoptera/rus/derm_ru.htm].

References

1. Háva J. (2015). World Catalogue of Insects: Dermestidae (Coleoptera). Vol. XXVI. Leiden – Boston: Brill. 419 p.
2. Háva J., Legalov A. (2010). Contribution to the knowledge to the Dermestidae (Coleoptera) from Siberia and adjacent territories // Amur. zool. J. Vol. 2 (4). P. 294–297.
3. Háva J., Herrmann A., Kadej M. (2011). Faunistic contribution to the family Dermestidae (Coleoptera) from Ukraine and Russia // Ibid. Vol. 3 (3). P. 252–254.
4. Háva J., Herrmann A., Pushkin S.V. 2014. Contribution to the knowledge of the Dermestidae (Coleoptera) from the Chechen Republic (Russia) // Arquivos Entomoloxicos. Vol. 10. P. 21–24.
5. Pushkin S. V. (2002). Zhuki - mertvoedy i kozheedy (Coleoptera: Silphidae, Dermestidae) centralnovo Predkavkazia (fauna, ekologiya, chozjajstvenoe znaczenie). 03.00.32 - biologicheskie resursy. Avtoreferat, dissertacii na soiskanie uczenoj stepeni kandidata biologicheskich nauk. Astrachan, 26 pp. (in Russian).
6. Pushkin S.V. (2004). Carpet beetles (Coleoptera: Dermestidae) Prikaspiy and adjacent territories // Problems of preservation and rational use of biodiversity Прикаспия and adjacent regions. Elista: Publishing house KGU. P. 105-107. (in Russian)

7. Pushkin S.V. (2015). A cadastre beetles insects (Insecta: Coleoptera) Ciscaucasia and adjacent territories. Moscow - Berlin: Direkt-media. 149 pp. (in Russian).
8. Pushkin S.V. (2015). Necrobionts beetles (Insecta; Coleoptera) the south of Russia. 2 edition. Moscow - Berlin: Direkt-media. 183 pp. (in Russian).
9. Pushkin S.V., Nikitskij N.B. (2010). Family Dermestidae // Beetles (Insecta, Coleoptera) Republics Adygeas (the annotated catalogue of species). (The Abstract of fauna of Adygea. № 1). Maikop: Publishing house AGU. P. 146-150.
10. Pushkin S. V. (2013): Cadastre necrobionts Coleoptera of the south of Russia. (in Russian) <http://www.zir.ru/Animalia/Coleoptera/rus/cadastre.htm>
11. Zhantiev R. D. (1976). Zhuki kozheedy fauny SSSR. [The skin eaters' family Dermestidae of fauna of the USSR.] Moskva: Izdatelstvo Moskovskogo Universiteta, 180 pp. (in Russian)
12. Zhantiev R.D. (2002). New and little-known Dermestid-Beetles (Coleoptera, Dermestidae) from Transcaucasia // Entomol. Review. Vol. 89 (7). P. 1402–1405.
13. Zhantiev R.D. (2009). New and Little-Known Dermestid Beetles (Coleoptera, Dermestidae) from the Caucasus // Ibid. Vol. 89 (7). P. 874–877.
14. [Zhantiev R. D. & Kirejtshuk A. G.]: List of species of the family Dermestidae of Russia. http://www.zin.ru/Animalia/Coleoptera/eng/derm_ru.htm