

A new species of *Anthrenus* Geoffroy, 1762 (Coleoptera: Dermestidae) from Dagestan.

Andreas HERRMANN¹, Marcin KADEJ² & Jiří HÁVA^{3,4}

¹Bremervörder Straße 123, D-21682 Stade, Germany
e-mail: herrmann@coleopterologie.de

²Department of Invertebrate Biology, Evolution and Conservation, Faculty of Biological Science, University of Wrocław, Przybyszewskiego 63/77, PL-51-148 Wrocław, Poland
e-mail: marcin.kadej@uw.edu.pl

³Department of Forest Protection and Entomology,
Faculty of Forestry and Wood Sciences,
Czech University of Life Sciences,
Kamýcká 1176, CZ-165 21, Prague 6 - Suchbát, Czech Republic

⁴Private Entomological Laboratory and Collection,
Rýznerova 37, CZ - 252 62 Únětice u Prahy, Praha-západ, Czech Republic
e-mail: jh.dermestidae@volny.cz

Taxonomy, description, new species, Coleoptera, Dermestidae, *Anthrenus*, Dagestan, Russia

Abstract. A new species *Anthrenus* (*Anthrenus*) *pushkini* sp. nov. from Dagestan in Russia is described, illustrated and compared with its most closely related species occurring in Russia and/or adjacent countries.

INTRODUCTION

In numerous material of dermestid beetles recently collected in the Federal Republic of Dagestan (Russia), located in the North Caucasus region, by the Russian entomologist Sergey Pushkin and then sent to the first author for his help with identification, a species of the genus *Anthrenus* Geoffroy, 1762 so far unknown to science was detected. Roundabout 280 different species and subspecies are included in the genus *Anthrenus* worldwide. Almost 80 of them belong to the nominal subgenus, and till today less than a tenth of them have been recorded from Russia (Háva 2015). A brief characteristic of the genus *Anthrenus* was provided by Beal (1998) and Kadej (2011). In the present paper a new species belonging to the nominal subgenus is described.

MATERIAL AND METHODS

The specimen examined was stored for 5 days in a solution of 1% pepsin in diluted hydrochloric acid to remove most protein tissues and make the extremities of the body moveable. The abdomen was disconnected from the body and glued upside-down onto the same cardboard plate, just behind the beetle. Before this procedure the genitalia was extracted and then cleaned with a fine needle in a drop of 99% glycerol. Afterwards it was also glued onto the plate behind the beetle, firmly embedded in a drop of a solution consisting of polyvinylpyrrolidone, aqua demineralisata and diglycerol (the liquid solution becomes permanent solid after a few minutes). Photos of body and abdomen were taken by a digital SLR camera Sony alpha 35, connected with an objective

Nikon CF N Plan Achromat 4x 160/- and extension rings; for the photos of the genitalia and antenna a Bresser Junior USB-Handmikroskop at 200x magnification was used. Because of the low depth of field all photos were taken as layered images, afterwards being combined on a personal computer with stacking software.

Nomenclature and systematics employed here follow Háva (2015).

The size of the beetle and of its body parts can be useful in species recognition and thus, the following measurements were made:

total length (TL) – linear distance from anterior margin of pronotum to apex of elytra.

pronotal length (PL) – maximum length measured from anterior margin to posterior margin.

pronotal width (PW) – maximum linear transverse distance.

elytral length (EL) – linear distance from shoulder to apex of elytron.

elytral width (EW) – maximum linear transverse distance.

All type specimens of the herewith described species are provided with a red, printed label showing the following text: „HOLOTYPE [respectively PARATYPE], *Anthrenus* (s. str.) *pushkini* n. sp., Herrmann, Kadej & Háva det. 2016”.

DESCRIPTION

Anthrenus (Anthrenus) pushkini sp. nov.

(Figs. 1-4)

Type material. Holotype (♂) labelled: „Russia: Dagestan, Tlyaratinsky District, near Kamiluh vill., 10.-19.7.2015 leg. S. V. Pushkin”. Paratypes (95 spec not sexed) with the same data as the holotype. The specimens are deposited in the collection of the first author.

Description. Body entirely black on dorsal and ventral surface; small, oval (Fig. 1). Body measurements (in mm): TL 2.0, PL 0.5, PW 1.0, EL 1.7, EW 1.4. Head with dense and coarse punctation, sparsely covered with whitish scales; palpi and mouthparts honey-colored. Eyes large, with internal, medial deep emargination and with very short and hardly visible erect microsetae at 80x magnification. Median ocellus present on front. Antennae 11-segmented, entirely light brown, the first antennomere slightly darker, the last three segments forming distinct oval antennal club; the terminal segment roundabout as long as the two preceding segments combined (Fig. 2); shaft shiny and slightly longer than club. Pronotum slightly bulged, broadest posteriorly (near the apices), narrowed towards the front, sparsely but distinctly punctured, covered with whitish and only few brown scales (Fig. 1). Lateral margins of pronotum smooth. Middle part of the posterior margin of pronotum pronounced towards the scutellum. Scutellum extremely small, shiny black and triangular, with the same kind of punctation as on the pronotum. Elytra black, much more densely and coarsely punctured as the pronotum, humeri with distinct bumps. Elytral scales mainly whitish, some brown scales scattered between, some of those building irregular patterns (Fig. 1). Legs light brown, covered sparsely with a few erect, short hairs. All tibia with a row of small brown spines at their lateral margins. Tarsi distinctly shorter as tibiae, somewhat darker than tibiae. Mesosternum black, punctured and furnished as elytra. Abdominal ventrites also black, dense and coarsely punctate, covered quite densely with whitish scales, with a very few brown scales at the lateral margin of each ventrite (Fig. 4). Genitalia as shown in (Fig. 3).

Sexual dimorphism. Not expressed externally (female habitually similar to the male).

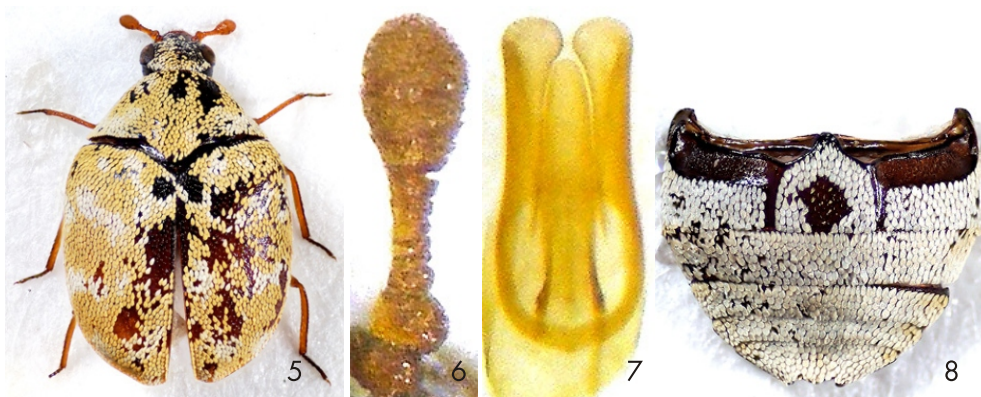
Variability. Expressed by the size of the body: 1.8-2.4 mm.

Differential diagnosis. The new species could easily be separated from the closely related *Anthrenus crustaceus* Reitter, 1881 by the deviating shape of the aedeagus (compare Figs. 3 and 6). From all other similar looking species of the nominal subgenus (*Anthrenus* s. str.) occurring in Russia it could be distinguished by the combination of the shape and color of the antennal club with the form of the genitalia.

Etymology. The name of the new species is dedicated to Sergey Viktorovich Pushkin (Stavropol, Russia), the collector of the type specimens.



Figs. 1-4. *Anthrenus (Anthrenus) pushkini* sp. nov.: 1-habitus, 2-antenna, 3-genitalia, 4-abdomen.



Figs. 5-8. *Anthrenus (Anthrenus) crustaceus* Reitter, 1881: 5-habitus, 6-genitalia, 7-antenna, 8-abdomen. All figures concern male specimens.

ACKNOWLEDGEMENTS. We are obliged very much to Sergey Viktorovich Pushkin (Stavropol, Russia) for giving to the first author the interesting dermestids recently collected by him in Dagestan.

REFERENCES

- BEAL R. S. 1998: Taxonomy and Biology of Nearctic Species of *Anthrenus* (Coleoptera: Dermestidae). *Transactions of the American Entomological Society* 124: 271-332.
- HÁVA J. 2015: *World Catalogue of Insects. Volume 13. Dermestidae (Coleoptera)*. Leiden/Boston: Brill, xxvi + 419 pp.
- KADEJ M. 2011: New Species of *Anthrenus* Geoffroy, 1762 (Coleoptera: Dermestidae) from California, with a Key to the Nearctic species. *The Coleopterists Bulletin* 65(3): 309-314.

Published: 31.1.2016