**Anthrenus (Anthrenodes) himalayensis** sp. nov. from Western Himalayas, India (Coleoptera: Dermestidae: Megatominae)

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**Abstract:** *Anthrenus (Anthrenodes) himalayensis* sp. nov., a new dermestid species from Kashmir Himalayas, India is described, illustrated, and compared with similar species. The new species is closest to *A. occultus* Háva, 2006 and *A. katrinkrauseae* Háva, 2018 but differs by the structure of antennae, male genitalia, and scale pattern.

**Key words:** Taxonomy, new species, Coleoptera, Dermestidae, Megatominae, *Anthrenus*, India


*Anthrenus (Anthrenodes) himalayensis* sp. nov., described herewith is placed in the subgenus *Anthrenodes*, based on the presence of 10-antennomered antenna in males and females, triangular scales, and oval eyes. The new species represents the 31st species in the subgenus *Anthrenodes* globally and seventh to be reported from India (Veer, 2011; Háva, 2015, 2018).

The specimens were hand collected in Kashmir valley of the northernmost Indian state Jammu and Kashmir. Kashmir Himalaya is the Palearctic portion of India, located between 33°22′N and 34°50′N latitudes and 73°55′E and 73°33′E longitudes (Maqbool et al., 2018; Wachkoo et al., 2018a, 2018b). The specimens were collected over flowers of *Sium latijugum* along a stream at Shopian district situated in the laps of foot hills of Pirpanchal range situated at an altitude of 2146 m a.s.l. with an average annual precipitation of 740.5 mm and 14 °C average temperature (Figures 1–3).

The taxonomic study was conducted using MBS 10 stereo zoom microscope and images were produced using a Nikon D5300 with a lens Tokina 100 mm fitted over Infinity corrected microscope objectives (Nikon and Lomo) and an auto stacking rail (stackrail rs90) in a light box using cool daylight LED lamps. Images were merged in SnapFuse software provided with the StackRail, final images were cleaned with Photoshop CS6.

Morphological terminology for measurements (given in millimeters) and description follows Kadej and Háva (2012) and include: TL (total length): linear distance from anterior margin of pronotum to apex of elytra and EW (elytral width): maximum linear transverse distance.

The type material is housed in GCSI, JHAC, and KUIC. The male holotype and 2 male and 2 female paratypes will be deposited at BMNH. Two male and 2 female paratypes will be deposited at CNC. The acronyms used and their equivalents are:

BMNH Natural History Museum, London, UK; CNC The Canadian National Collection of Insects, Arachnids and Nematodes, Ontario, Canada; GCSI Department of Zoology, Government Degree College, Shopian, Jammu
Figure 1. Map showing type locality in state of Jammu and Kashmir, India.

Figures 2–3. 2-Habitat; 3-Anthrenus (Anthrenodes) himalayensis sp. nov. on flowers of Sium latijugum.
Figures 4–12. *Anthrenus (Anthrenodes) himalayensis* sp. nov.: 4-Habitus lateral view; 5-Habitus dorsal view; 6-Habitus ventral view; 7-Head full-face view; 8-Female antenna; 9-KOH-treated male (♂) and female (♀) antennae; 10-Abdominal segment IX; 11-Abdominal segment X; 12-Male genitalia ventral view.
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and Kashmir, India; JHAC Jiří Háva, Private Entomological
Laboratory and Collection, Únětice u Prahy, Prague-
West, Czech Republic; KUIC Kashmir University Insect
Collection, University of Kashmir, Srinagar, Jammu and
Kashmir, India.

Subfamily Megatominae Leach, 1815
Tribe Anthrenini Casey, 1900
Genus Anthrenus Geoffroy, 1762
Subgenus Anthrenodes Chobaut, 1898

Anthrenus (Anthrenodes) himalayensis sp. nov.
(Figures 4–13)

Type material: Holotype male, India: Jammu and
Kashmir, Shopian, 33.7103°N 74.8441°E, 2146 m a.s.l.,
25.ix.2017, leg. Aijaz A. Wachkoo (BMNH); Paratypes:
9♂, 12♀♀ (same data as holotype) (5♂, 8♀♀ GCSI,
4♂, 4♀♀ JHAC); 17♂, 14♀♀, 18.vii.2018 (same
data as holotype) (10♂, 8♀♀ GCSI, 3♂, 2♀♀ KUIC,
2♂, 2♀♀ BMNH, 2♂, 2♀♀ CNC). Specimens of the
presently described species are provided with red, printed
labels with text as follows: “HOLOTYPE/PARATYPE
Anthrenus (Anthrenodes) himalayensis Det. J. Háva & A.A.
Wachkoo 2018”.

Description: Male body TL 2.8 mm, EW 1.7 mm;
body brown–black, small, oval. Dorsal surface covered by
intermixed brown, yellow, and white scales. Head covered
with white, yellow, and black scales. Pronotum covered
by intermixed white and yellow scales on lateral margins,
brown scales covered on the disc. Elytra with brown, yellow,
and white scales; brown scales forming three transverseuscated and apical spot on each elytron, other parts
covered by intermixed white and yellow scales. Individual
scales narrowly subtriangular or narrow with subparallel
margins. Antennae 10-antennomered, antennomeres I–VII
light brown, VIII–X black, antennal club 3-antennomered,
compact (Figure 9). Frons with median ocellus. Eyes
with entire median margin. Ventral surface covered with
white scales, abdominal sternites not bearing very small
spots of other scales at antero-lateral margins. Abdominal
visible ventrites I–IV with black, small antero-lateral spots,
ventrite V with a large centro-apical large black spot.
Prosternum only with white scales. Metasternum only
with white scales, without a large patch at lateral margins.
Ninth abdominal segment as in Figure 10 with rounded
 apex; setae present on dorsal and lateral margins. Tenth
abdominal segment as in Figure 11. Legs brown with white
scales and white setae. Parameres U-shaped, covered with
short setae apically; ratio of length to width 1:1; distal parts
of parameres curved inward. Phallus as in Figure 12.

Sexual dimorphism: Male antennal club with relative
length of terminal antennomere to length of penultimate
antennomere nearly 2.5:1, whilst in the female nearly 2:1.

Variability: Body measurements TL 2.50–3.00 mm EW
1.5–1.8 mm

Remark: All specimens collected on flowers of Sium
latijugum (Figure 3).

Differential diagnosis: The new species is externally
similar to the two north Indian species A. occultus Háva,
2006 (Jammu and Kashmir, Himachal Pradesh, Uttar
Pradesh) and A. katrinkrauseae Háva, 2018 (Jammu and
Kashmir), but differs from them and other known species
by the scale pattern, structure of the antennae and male
genitalia (Figures 13–15). In A. himalayensis ventral
surface is covered with white scales (Figure 6) whilst in
A. occultus ventral surface is covered with white, brown,

and orange scales. Head of \( A. \) himalayensis is covered by white, yellow, and black scales (Figure 7), whilst in \( A. \) kattrinkrauseae head is covered by yellow scales only. The ratio of length of terminal antennomere to that of penultimate antennomere in male antennal club is nearly 2:1 in \( A. \) occultus; 3:1 in \( A. \) kattrinkrauseae, whereas in \( A. \) himalayensis it is nearly 2.5:1. Ratio of length to width of parameres in male genitalia is nearly 1:1 in \( A. \) himalayensis (Figure 13); 1.2:1 in \( A. \) occultus (Figure 14) and 1.4:1 in \( A. \) kattrinkrauseae (Figure 15).

**Etymology:** The species is named after the collection area, Himalaya.

**Distribution:** India.

In recent times, few new species have been described from the Himalayan subregion; however, the dermestid diversity of most of the Indian geographic regions remain fragmentary and insufficient (Veer et al., 2004; Háva, 2006, 2016; Háva and Kadej, 2007; Veer, 2011; Kadej and Háva 2012). This is especially the case for the dermestid fauna of Himalayas, where probably many more species await discovery. We hope this study provides a new verve to the study of dermestid beetles in Himalayas and provide an opportunity to further explore about the biology of these beetles.

**Nomenclatural acts:** This work and the nomenclatural acts it contains have been registered in ZooBank. ZooBank Life Science Identifier (LSID) for this publication is: http://zoobank.org/urn:lsid:zoobank.org:pub:B8C85F67-D392-4D36-95DE-5EE90C61B832.

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**References**


