



Contribution to Knowledge of the Dermestidae (Coleoptera) from Afghanistan with Description of Three New Species

Authors: Háva, Jiří, and Kadej, Marcin

Source: Florida Entomologist, 97(4) : 1414-1423

Published By: Florida Entomological Society

URL: <https://doi.org/10.1653/024.097.0416>

BioOne Complete (complete.bioone.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

CONTRIBUTION TO KNOWLEDGE OF THE DERMESTIDAE (COLEOPTERA) FROM AFGHANISTAN WITH DESCRIPTION OF THREE NEW SPECIES

JIŘÍ HÁVA¹ AND MARCIN KADEJ^{2,*}

¹Department 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

²Department of Invertebrate Biology, Evolution and Conservation, Institute of Environmental Biology, Faculty of Biological Science, University of Wrocław, Przybyszewskiego 63/77, PL-51-148 Wrocław, Poland

*Corresponding author; E-mail: marcin.kadej@uni.wroc.pl

ABSTRACT

Three new species *Orphilus kabakovi* **sp. nov.**, *Orphinus* (s. str.) *kabakovi* **sp. nov.**, *Ctesias* (*Decemctesias*) *mroczkowskii* **sp. nov.** (Coleoptera: Dermestidae) are described from Afghanistan. The habitus, antenna, genitalia are illustrated and compared with related species. The species *Attagenus indicus* Kalík, 1954 and *Anthrenus* (*Anthrenodes*) *amoenus* Reitter, 1896 are newly recorded from Afghanistan. Morphological details with dorsal variability of *Attagenus indicus* Kalík, 1954 are illustrated for the first time. A revised list of the species from Afghanistan is given.

Key Words: taxonomy, new species, *Attagenus*, *Anthrenus*, *Ctesias*, *Orphilus*, *Orphinus*, Afghanistan

RESUMEN

Se describen tres especies nuevas *Orphilus kabakovi* **sp. nov.**, *Orphinus* (s. str.) *kabakovi* **sp. nov.**, *Ctesias* (*Decemctesias*) *mroczkowskii* sp. nov. (Coleoptera: Dermestidae) de Afganistán. Se ilustran y se comparan el habitus, las antenas, la genitalia con otras especies afines. Se registran por primera vez las especies *Attagenus indicus* Kalík, 1954 y *Anthrenus* (*Anthrenodes*) *amoenus* Reitter, 1896 en Afganistán. Se ilustran por primera vez los detalles morfológicos con la variabilidad dorsal de *Attagenus indicus* Kalík, 1954. Se provee una lista revisada de las especies de Afganistán.

Palabras Clave: taxonomía, nuevas especies, *Attagenus*, *Anthrenus*, *Ctesias*, *Orphilus*, *Orphinus*, Afganistán

The knowledge about Dermestidae of Afghanistan, located mainly in Central Asia, is still poor and undoubtedly requires further study. The list of available references is small. Most of them include short lists of the species recorded from Afghanistan so far (Mroczkowski 1959, 1960, 1961a, b). Recent papers with the descriptions of a new species are infrequent and were provided by Mroczkowski (1959 – description of *Anthrenus lindbergi*; 1961b – descriptions of 2 species of *Ctesias* spp.), John (1964 – descriptions of 8 species of *Thorictus* spp.) and Kadej & Háva (2006 – description of 2 species of *Anthrenus* spp.). Fifty seven species have been recorded from Afghanistan. Together, the species represent 13 of 62 genera of Dermestidae established so far. The study of the materials from Russian Academy of Science allowed us to find and describe new species, as well as supplement our knowledge about distribution of some of the skin beetles species.

MATERIALS AND METHODS

Morphological structures were boiled for 3–10 min in 10% KOH, and placed in distilled water for about 1 h to clean and soften the cuticle. All structures were placed in glycerin mounts. Morphological structures were examined by a Nikon Eclipse E 600® (Tokyo, Japan) phase contrast microscope, and a Nikon SMZ–800® (Tokyo, Japan) binocular microscope. Photographs were taken by a Canon 500D® (Taiwan) and a Nikon D5100® (Tokyo, Japan) camera under a Nikon Eclipse 80i® (Tokyo, Japan) and/or a Nikon SMZ–800® (Tokyo, Japan). Image stacks were processed using Combine ZM® (Hadley 2010).

The distribution and the classification we used follow the world catalogues of Háva (2003, 2007).

The type specimens were each labelled with a red printed label bearing the following text: "HOLOTYPE [PARATYPE respectively, *Orphilus kabakovi* **sp. nov.** Háva & Kadej det. 2014; Or-

phinus (s. str.) *kabakovi* **sp. nov.** Háva & Kadej det. 2014; *Ctesias* (*Decemctesias*) *mroczkowskii* **sp. nov.** Háva & Kadej det. 2014”.

The following abbreviations were used in this study:

DBEIC Department of Invertebrate Biology, Evolution and Conservation, Institute of Environmental Biology, Faculty of Biological Science, University of Wrocław, Poland.

JHAC Private Entomological Laboratory & Collection, Jiří Háva, Prague-West, Czech Republic.

ZIN Zoological Institute of the Russian Academy of Science, St. Petersburg, Russia.

RESULTS

Orphilinae LeConte, 1861

Orphilini LeConte, 1861

Orphilus Erichson, 1846

Orphilus kabakovi **sp. nov.** (Figs. 1-8)

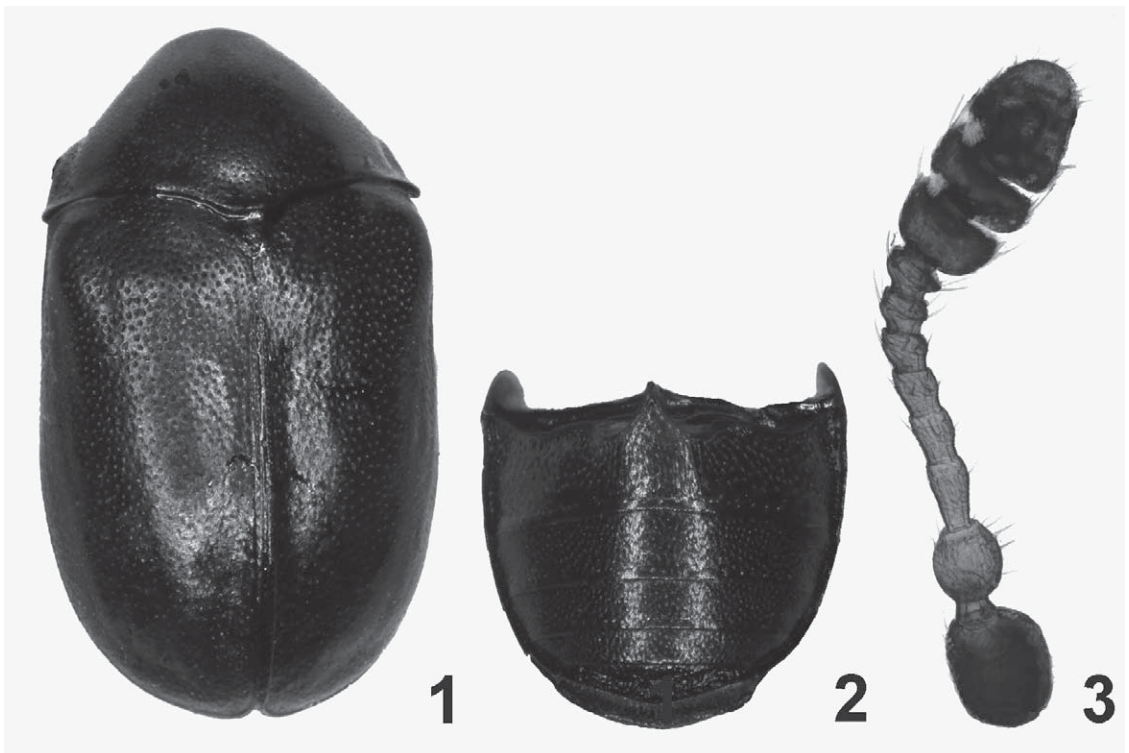
Type Material

HOLOTYPE (male): AFGHANISTAN, Nurestan N Waygal, 2700m, 7 VII 1972, Kabakov lgt., (ZIN); **PARATYPES**: 2 exx. (females): Afghanistan, Nurestan N Waygal, 2700m, 7 VII 1972,

Kabakov lgt., (1 ZIN, 1 JHAC); 1 ex. (female): Afghanistan, Nurestan SW Čapa-Dera, 1500m, 11.6.1971, Kabakov lgt., (ZIN).

Description

Measurements for holotype: length from anterior margin of pronotum to apex of elytron 3.7 mm; maximum width across elytra 2.05 mm; median length of pronotum 1.05 mm; maximum width of pronotum 2.0 mm; maximum length of sternites I-V 1.6 mm; maximum width of sternites I-V 1.8 mm; length of lateral margin of pronotum 0.9 mm; length of antennal fossa 0.75 mm [legs of third pair broken, tarsus of first left leg lost]; measurements for paratypes: length from anterior margin of pronotum to apex of elytron 4.1 mm; maximum width across elytra 2.4 mm; median length of pronotum 1.15 mm; maximum width of pronotum 2.25 mm; maximum length of sternites 1.65 mm; maximum width of sternites I-V 2.25 mm; length of lateral margin of pronotum 0.95 mm; length of antennal fossa 0.8 mm. Body subovate; nerly 2 times as long as wide. Head, antennae and legs retractile. Dorsum without dorsal patterns or elytral fasciae; dorsal and ventral surface unicolorous black (Figs. 1 and 2). Cuticle smooth, shining, densely punctated. Head with large compound eyes; median ocellus distinct and well developed.



Figs. 1–3. *Orphilus kabakovi* **sp. nov.**, holotype. 1, habitus, dorsal; 2, abdominal sternites I-V; 3, left antenna.



Figs. 4–8. *Orphilus kabakovi* sp. nov., holotype. 4, male genitalia, ventral; 5, male genitalia, lateral; 6, male genitalia, dorso-lateral; 7, abdominal sternite IX; 8, abdominal sternite X.

Frons with short pubescence and gently punctation. Antenna 11-segmented; brown (first antennomer and segments of antennal club darker than the rest of antennomeres (Fig. 3). Antennal club of 3 segments (Fig. 3). Antennal fossa deeply excavate and occupy greater part of hypomeron. Pronotum convex, gently punctate with distinct lateral margin visible from above (Fig. 1). Scutellum triangular, black, small and poorly marked, without punctation. Elytra parallel-sided, each elytron densely punctated, those punctures larger than on pronotum. Humeral calli well developed and visible. All of the elytral area covered with brownish, short pubescence (it is visible under microscope). Elytral suture slightly convex at half of its length. Abdomen densely punctated, punctures distinctly denser on 2nd to 5th visible sternite, and with sublateral distal carinae on 1st visible sternite. Abdominal sternites I–V covered with short brownish pubescence; setation longer on 1st visible sternite (Fig. 2). Legs covered with stout, brownish setation. Tarsi lighter than tibia and femora; femora without distinct teeth (tibial spines). Tarsus with 2 tarsal-claws. Phallus as in Figs. 4–6. Parameres deeply U-shaped, covered with few, short setae on the lateral margins as well as in the central and inner areas; longer setae present only on apex of parameres. Distal parts of parameres thinner than the rest part of parameres. Penis with distal end pointing up (Figs. 4–6); in frontal view straight (Fig. 4), in lateral distinctly curved in a basal part above narrow and short apodemes (Fig. 5). Shape of ninth abdominal sternite oval-like (Fig. 7). Apex slightly elongated and rounded. Setae present on the top and lateral margins, but only in the anterior part. Tenth abdominal sternite as in Fig. 8.

Dimorphism. Females habitually similar to males. Sexual dimorphism not observed, thus to distinguish both sexes dissection of genitalia is required.

Differential Diagnosis

Orphilus kabakovi sp. nov. is similar to *O. niger* (Rossi, 1790) and *O. beali* Zhantiev, 2000 but differs from them by the morphology of male genitalia, pronotum and antennae.

Morphology of parameres: In *Orphilus kabakovi* sp. nov. the apices of parameres slightly narrowed, acute and not curved to inner, lateral margins of parameres in the middle not widened, median lobe narrow; in *O. niger* apices of parameres slightly narrowed, rounded and curved to the inner side, lateral margins of parameres in the middle widened; while in *O. beali* parameres are widened in the middle and strongly narrowed apically.

Morphology of pronotum: In *Orphilus kabakovi* sp. nov. the lateral margin distinctly visible from above in basal third; in *O. niger* lateral margin visible from above in basal third but the deflection is smaller in comparison with *O. kabakovi*; while in *O. beali* lateral margin not visible from above in basal third.

Morphology of antennae: In *Orphilus kabakovi* sp. nov. the last antennal segment elongated and convex, while flattened in *O. niger* and *O. beali*.

Etymology

The epithet is a patronym honoring the collector of the beetles – O. N. Kabakov (St. Petersburg, Russia).

Remarks

Genus *Orphilus* recently includes only 6 species. One of them—*O. dubius* Wickham, 1912—represents fossil species (Early Oligocene: Florissant). The rest of the known species have been recorded mainly in Nearctic or Palaearctic region

(Háva 2003, 2007). The knowledge about biology and ecology of the *Orphilus* species is limited only to information provided by Beal (1985) and Zhantiev (2001). The description of immatures stages have been given by Paulian (1943), Beal (1985, 1991), Zhantiev (2001) and Kiselyova & McHugh, 2006.

Attageninae Laporte de Castelnau, 1840
 Attagenini Laporte de Castelnau, 1840
Attagenus Latreille, 1802
Attagenus indicus Kalík, 1954 (Figs. 9-19)

Material Examined

Afghanistan, Laghman E Šamak, 1,100m, 20 IV 1972, Kabakov lgt., 6 exx., (ZIN, DBEIC, JHAC); Afghanistan, Laghman O Šamak, 1,300m, 17.9.1972, Kabakov lgt., 2 exx., (ZIN).

Distribution

India: Madhya Pradesh, Uttar Pradesh; Nepal (Háva 2007). New record for Afghanistan.

Remarks

Redescription with some additional drawings of larval and adult morphology of *A. indicus* has been made by Veer & Rao (1995). Figures 9, 11-12 show the spectrum of color variability of the dorsal patterns. Because Vladimír Kalík did not attach any drawings or photographs of this species in his original description (Kalík 1954), the morphology of *A. indicus* is richly illustrated with photographs for the first time (Figs. 9-19). Due to lack of the differential diagnosis in Kalík's original description we decided to provide additional characters which differentiate *A. indicus* from similar species such as *A. farsus* Háva, 2012 below:

In *A. indicus* Kalík, 1954: antenna yellowish-brown; pubescence on dorsal and ventral integument short; integument of anterior transverse fasciae on elytra yellowish and the same as apical spot covered with golden-yellow pubescence; apical spot isolated. In contrast, in *A. farsus* Háva, 2012, the antenna dark brown; pubescence on dorsal and ventral integument long; integument of anterior transverse fasciae on elytra orange-reddish and the same as apical fasciae covered with grey pubescence; apical fasciae not isolated.

Subfamily Megatominae Leach, 1815

Tribe Anthrenini Gistel, 1848
 Genus *Anthrenus* Geoffroy, 1762
Anthrenus (Anthrenodes) amoenulus Reitter, 1896

Material Examined

Afghanistan, Oruzgan, N Sahzestan 2,500 m, 18.vii.1970, Kabakov lgt., 1 spec., M. Kadej & J. Háva det., (ZIN); Afghanistan, Oruzgan, N Sahzestan 2,500 m, 18.7.1970, Kabakov lgt., 1 spec., M. Kadej & J. Háva det., (ZIN).

Distribution

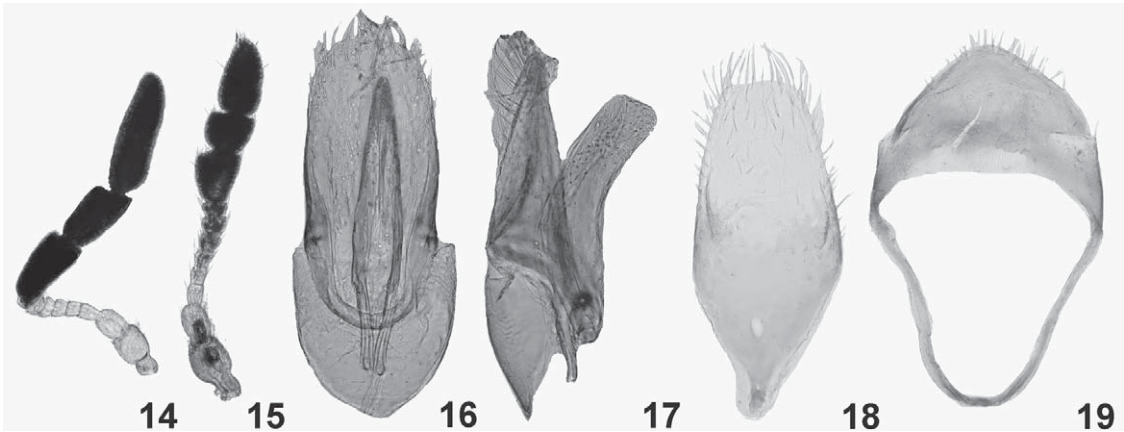
Species known from Caspian Lowlands, "Caucasus", Iran, Turkey, Turkmenistan (Háva 2007); new for Afghanistan.

Tribe Megatomini Leach, 1815

Genus *Orphinus* Motschulsky, 1858a
Orphinus (Orphinus) kabakovi **sp. nov.** (Figs. 20-29)



Figs. 9–13. *Attagenus indicus* Kalík, 1954, habitus. 9, 11 male, dorsal; 12, female, dorsal; 10, 13 ventral.



Figs. 14–19. *Attagenus indicus* Kalík, 1954. 14, male antenna, left; 15, female antenna, left; 16, male genitalia; 17, male genitalia, lateral; 18, abdominal sternite IX; 19, abdominal sternite X.

Type material

HOLOTYPE (male): AFGANISTAN, 30 km O Jalalbad 500 m 20.12.1970 Kabakov lgt. (ZIN).

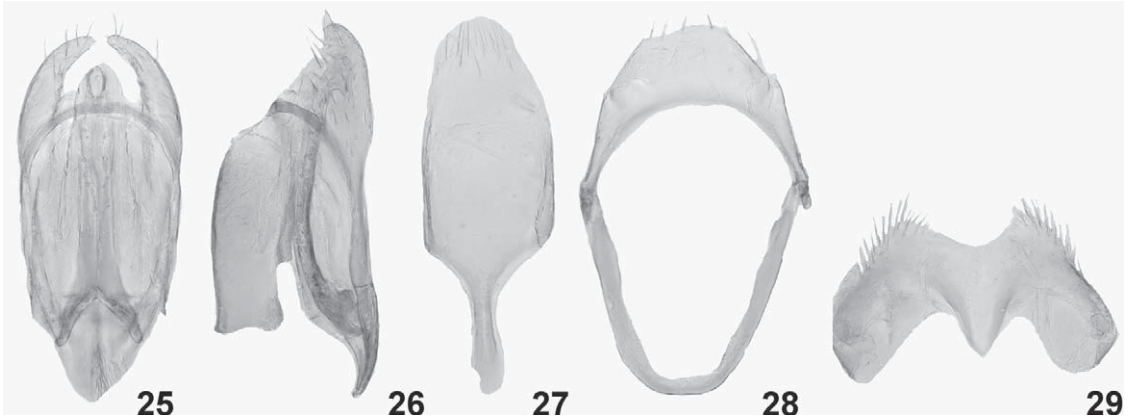
Description

Measurements for holotype: length from anterior margin of pronotum to apex of elytron 2.3 mm; maximum width across elytra 1.15 mm; median length of pronotum 0.55 mm; maximum width of pronotum 2.25 mm; maximum length of sternites I-V 1.1 mm; maximum width of sternites I-V 1.25 mm; length of lateral margin of pronotum 0.4 mm; length of antennal fossa 0.3 mm. Body oval, slightly convex, densely clothed with simple and relatively long hairs (Fig. 20). Punctuation of body visible; those punctures on elytra better marked than on pronotum. Ratio of width (across humeri) to length (of pronotum and elytra combined) 1:2. Dorsal in-

tegument bicolorous - dark brown and light brown; while ventral unicolor - dark brown. Antennae light brown (only first antennomeres darker than the rest); legs brown but tibiae and tarsi lighter than femora and trochanters (Fig. 21). Dorsal and ventral integument with light brownish pubescence (Figs. 20, 21, 23). Head with large compound eyes, median ocellus distinct and well developed (but covered by long light brownish hairs). Antenna light brown, 11-segmented (Fig. 22). Antennal club of 2 segments: segment 1 short and transverse, segment 2 considerably larger (Fig. 22). Last segment of antennal club rather circular (slightly suboval) in general shape; 4.5 times as long and 1.5 times as wide as preceding segment. Antennal fossa deeply excavate and occupies greater part of hypomeron (Fig. 21). Adjacent area of hypomeron (around antennal fossa) with stout setation. Pronotum slightly punctuated with lateral margin slightly visible from above (in anterior part near head). Scutellum trian-



Figs. 20–24. *Orphinus (Orphinus) kabakovi* sp. nov., holotype. 20, habitus, dorsal; 21, habitus, ventral; 22, left antenna; 23, abdominal sternites I-V; 24, pygidium.



Figs. 25–29. *Orphinus (Orphinus) kabakovi* sp. nov., holotype. 25, male genitalia; 26, male genitalia, lateral; 27, abdominal sternite IX; 28, abdominal sternite X; 29, abdominal sternite VIII.

gular (acute angles), dark brown, small and poorly marked. Elytra parallel-sided, each elytron densely punctuated, those punctures larger than on pronotum. Almost all of the elytral area covered with light brownish pubescence (Fig. 20). Elytra with 2 areas of light brown cuticle – one situated under humeral calli (looks like reversed V and does not reach the suture), second one located in the lower part of elytra from half of length to apices (circular in general shape) (Fig. 20). Abdomen densely punctuated, punctures denser on 2nd to 5th visible sternite, and with sublateral distal carinae on 1st visible sternite. Pygidium as in Fig. 24. Legs covered with stout, brownish setation. Tibiae and tarsi lighter than femora and trochanters, without distinct teeth (tibial spines). Tarsus with 2 tarsal-claws. Phallus as in Figs. 25 and 26. Parameres deeply u-shaped, covered with few setae on the lateral margins as well as in the central and inner areas; the longest setae present only on apex of parameres. Distal parts of parameres curved inward above the bridge of parameres. Penis with distal end pointing up (Figs. 25 and 26); in frontal view straight (Fig. 26), in lateral slightly curved in a basal part above short apodemes and below of the apical part (Fig. 26). Apical part of penis (on top) acute (in lateral view, Fig. 26). Ninth abdominal sternite spatula-like (Fig. 27). Apex slightly elongated and rounded. Setae present on the top and lateral margins, but only in the anterior part. Abdominal sternite X as in Fig. 28. VIII abdominal sternites as illustrated in Fig. 29.

Differential Diagnosis

The new species is similar to the *Orphinus atrofasciatus* Pic, 1916 and *Orphinus notaticollis* Pic, 1916, but differs from them by the following characters:

In *Orphinus atrofasciatus* Pic, 1916: dark elytral transverse fascia reaching from suture to lateral part; pronotum without dark discal spot

(India: Tamil Nadu); in *Orphinus notaticollis* Pic, 1916: dark elytral transverse fascia not reaching from suture to lateral part; pronotum with dark discal spot (south and east India); while in *Orphinus kabakovi* sp. nov. elytra with 2 areas of light brown cuticle – one situated under humeral calli (looks like reversed V and does not reach the suture), second one located in the lower part of elytra from half of length to apices (circular in general shape) (Fig. 20) (Afghanistan).

Etymology

The epithet is a patronym honoring the collector of the beetles – O. N. Kabakov (St. Petersburg, Russia).

Genus *Ctesias* Stephens, 1830

Ctesias (Decemctesias) kaliki Mroczkowski, 1961 (Fig. 30)

Material Examined

Afganistan, Oruzgan N Sahvestan, 2,500 m, 18.7.1970, Kabakov lgt., 2 exx., (ZIN); Afganistan, Nurestan S Waygal, 1,500 m, 18.7.1972, Kabakov lgt., 1 ex. (ZIN).

Distribution

Afganistan (Háva 2007); new locality data for this country.

Ctesias (Decemctesias) mroczkowskii sp. nov. (Figs. 31–41)

Type Material

HOLOTYPE (male): AFGHANISTAN, Ghazni Ahguri 2,000 m 10 VII 1973 Kabakov lgt. [both



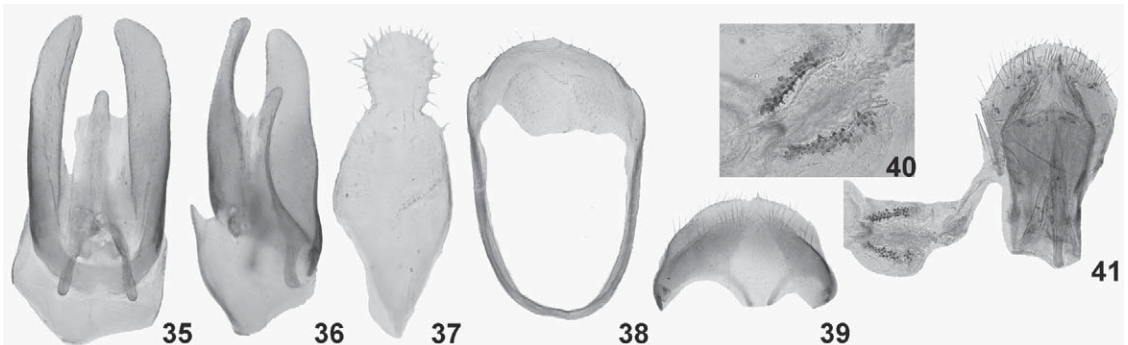
Figs. 30–34. *Ctesias (Decemctesias) kaliki* Mroczkowski, 1961. 30, habitus, dorsal; *Ctesias (Decemctesias) mroczkowskii* **sp. nov.**. 31, habitus, dorsal (holotype); 32, habitus, ventral (holotype); 33, male antenna, left (holotype); 34, female antenna, left (paratype).

antenna without last 2 antennomeres], (ZIN); PARATYPES: 3exx. (females): Afghanistan, Ghazni NW Mogur 3000m 23.5.1973 Kabakov lgt., (ZIN, DBEIC, JHAC) [one of them with damaged pronotum, left antenna in 2 parts, most of dorsal pubescence on pronotum and elytra in central part lack].

Description

Measurements for holotype: length from anterior margin of pronotum to apex of elytron 3.65 mm; maximum width across elytra 2.1 mm; median length of pronotum 0.8 mm; maximum width of pronotum 1.9 mm; maximum length of sternites I–V 1.7 mm; maximum width of sternites I–V 1.9 mm; length of lateral margin of pronotum 0.8 mm; measurements for paratype: length from anterior margin of pronotum to apex of elytron 4.15 mm; maximum width across elytra 2.4 mm; median length of

pronotum 1.0 mm; maximum width of pronotum 2.15 mm; maximum length of sternites I–V 2.15 mm; maximum width of sternites I–V 2.35 mm; length of lateral margin of pronotum 0.8 mm. Body oval and convex. Dorsal surface covered with dark brown and white setation (Fig. 31); while ventral with brownish and white (Fig. 32). Integument of pronotum black, while elytral integument dark brown to reddish (Fig. 31). Both sides of the body (dorsum and venter) with visible punctation. Head with convex and compound eyes, covered with dark brown and short setae. Median ocellus present. Antenna of both sexes 10-segmented (Fig. 34); brown (in transparent light first antennomeres darker than the rest of segments, Figs. 33 and 34). Antennal club of 3 segments; segment 1 in male as in Fig. 33, while antennal club in female as in Figs. 34. Pronotum distinctively convex in central part of disc; cavities along posterior margin slightly depressed. All area of pronotum with



Figs. 35–41. *Ctesias (Decemctesias) mroczkowskii* **sp. nov.**, 35, male genitalia (holotype); 36, male genitalia, lateral (holotype); 37, abdominal sternite IX (holotype); 38, abdominal sternite X (holotype); 39, abdominal sternite VII–VIII (holotype); 40, sclerites in bursa copulatrix (paratype); 41, female genitalia (paratype).

dark brown pubescence – only few white setae near posterior margin. Scutellum subtriangular, dark brown, small and poorly marked. Elytra parallel-sided, each elytron densely punctate, those punctures larger than on pronotum. Elytral area covered with dark brown and white pubescence (Fig. 31). Cuticle of elytra bicolorous – between dark brown areas 3 reddish transversal lines present (first under humeral calli, second in half of the total length of elytra, third above apices). Dark brown elytral integument covered with dark brown pubescence, while reddish areas with white pubescence. Abdomen densely punctuated, punctures denser on 2nd to 5th visible sternite. 1st visible sternite without sublateral distal carinae. Legs covered with stout, brownish setation. Tibiae and tarsi lighter than femora and trochanters, and without distinct teeth (tibial spines). Tarsus with 2 tarsal-claws. Phallus as in Figs. 35 and 36. Parameres deeply u-shaped, covered with few and short setae on the lateral margins as well as in the central and inner areas. Distal parts of parameres only slightly curved inward. Penis with distal end pointing up (Figs. 35 and 36); in frontal view straight (Fig. 35), in lateral as in Fig. 36. Apical part of penis (on top) rounded (Figs. 35 and 36). Ninth abdominal sternite as in Fig. 37. Apical part clearly separated from the rest by the narrowing. Apex elongated and rounded. Setae present on the top and lateral margins, but only in the anterior part. Abdominal sternite X as in Fig. 38. VII and VIII abdominal sternites as illustrated Fig. 39. Female genitalia as in Fig. 41. Sclerites in bursa copulatrix as in Fig. 40.

Dimorphism. Females similar to males, but sexual dimorphism expressed in morphology of antenna: in male length of first segment in antennal club is longer than the length of preceding segments combined, while in female shorter.

Differential Diagnosis

The new species differs from similar species *C. kaliki* Mroczkowski, 1961 and *C. tschuiiensis* Sokolov, 1972 by the following characters:

In *C. kaliki* Mroczkowski, 1961: elytra covered by white, dark brown and yellowish setation; elytra oval; in *C. tschuiiensis* Sokolov, 1972: dorsal cuticle black without reddish fasciae or spots; each elytron with 3 transverse fasciae from white setation; while in *C. mroczkowskii* **sp. nov.**: elytra and pronotum covered by white and dark brown setation; elytra more parallel.

Etymology

The epithet is a patronym honoring the well known specialist in Dermestidae – Prof. M. Mroczkowski (21.3.1927-6.10.2007).

Genus *Phradonoma* Jacquelin du Val, 1859

Phradonoma sp.

Material Examined

Afghanistan, Oruzgan, N Sahzestan 2,500 m, 18.vii.1970, Kabakov lgt., 1 spec., M. Kadej & J. Háva det., (ZIN).

Remarks

The specimen belongs to the informal “*nobile* - species group”. Because of a wide spectrum of variability of *P. nobile* the species status of this particular female must be supported and confirmed by the analysis of male morphology.

DISCUSSION

The total number of the species of Dermestidae in Afghanistan is low but we are confident that it will increase progressively. Surely, the current level of the knowledge about biodiversity of this country is strongly influenced by the uncertain political situation. Recently, representatives of 13 genera of the 62 genera established in the Dermestidae have been recognized from this country. The subfamilies of Attageninae with genus *Attagenus* (13 species) and Megatominae with genus *Anthrenus* (14 species) are the most numerous in comparison to the other subfamilies (see the list below). Nonetheless, the new records as well as newly described species allow us to believe that the future systematic study of Afghanistan's fauna will bring significant progress in determining the species richness of this country.

LIST OF THE SPECIES OF DERMESTIDAE RECORDED FROM AFGHANISTAN

An asterisk (*) indicates a new record.
Subfamily Dermestinae

Tribe Dermestini

Genus *Dermestes* Linnaeus, 1758

Subgenus *Dermestes* (s.str.)

Dermestes ater DeGeer, 1774

Dermestes bicolor bicolor Fabricius, 1781

Dermestes leechi Kalik, 1952

Subgenus *Dermestinus* Zhantiev, 1967

Dermestes coronatus Steven in Schönherr, 1808

Dermestes frischii Kugelann, 1792

Dermestes lanarius lanarius Illiger, 1802

Dermestes maculatus DeGeer, 1774

Dermestes undulatus Brahm, 1790

Subfamily Thorictinae

Tribe Thorictini

Genus *Thorictus* Germar, 1834

Thorictus angustus John, 1964

Thorictus kabulanus John, 1964
Thorictus kandaharicus John, 1962
Thorictus khinjanus John, 1964
Thorictus quiquesulcatus John, 1964
Thorictus walanganus John, 1964

Subfamily Orphilinae

Tribe Orphilini

Genus *Orphilus* Erichson, 1846*Orphilus kabakovi* **sp. nov.**

Subfamily Attageninae

Tribe Attagenini

Genus *Attagenus* Latreille, 1802*Attagenus afghanus* Háva, 2000*Attagenus bifasciatus* (Olivier, 1790)*Attagenus brunneus* Faldermann, 1835*Attagenus cyphonoides* Reitter, 1881*Attagenus fasciatus* (Thunberg, 1795)*Attagenus gobicola* Frivaldszky, 1892**Attagenus indicus* Kalík, 1954*Attagenus lobatus* Rosenhauer, 1856*Attagenus pellio* (Linnaeus, 1758)*Attagenus pictus* Ballion, 1871*Attagenus suspiciosus* Solsky, 1876*Attagenus unicolor unicolor* (Brahm, 1790)*Attagenus unicolor simulans* Solsky, 1876

Subfamily Megatominae

Tribe Anthrenini

Genus *Anthrenus* Geoffroy, 1762Subgenus *Anthrenodes* Chobaut, 1898**Anthrenus (Anthrenodes) amoenulus* Reitter, 1896*Anthrenus distinctus* Kadej & Háva, 2006*Anthrenus klapperichi* Kadej & Háva, 2006Subgenus *Anthrenops* Reitter, 1881*Anthrenus coloratus* Reitter, 1881*Anthrenus zebra* Reitter, 1889Subgenus *Anthrenus* (s. str.)*Anthrenus flavipes flavipes* LeConte, 1854*Anthrenus flavipes albopunctatus* Pic, 1895*Anthrenus latefasciatus* Reitter, 1892*Anthrenus lindbergi* Mroczkowski, 1959*Anthrenus picturatus picturatus* Solsky, 1876*Anthrenus picturatus melanoleucus* Solsky, 1876*Anthrenus pimpinellae pimpinellae* (Fabricius, 1775)*Anthrenus rotundulus* Reitter, 1889*Anthrenus scrophulariae scrophulariae* (Linnaeus, 1758)Subgenus *Florilinus* Mulsant & Rey, 1868*Anthrenus flavidus* Solsky, 1876*Anthrenus museorum* (Linnaeus, 1761)Subgenus *Nathrenus* Casey, 1900*Anthrenus verbasci* (Linnaeus, 1767)

Tribe Megatomini

Genus *Ctesias* Stephens, 1830Subgenus *Decemctesias* Háva, 2004*Ctesias kaliki* Mroczkowski, 1961*Ctesias mroczkowskii* **sp. nov.****Genus** *Globicornis* Latreille in Cuvier, 1829Subgenus *Pseudomesalia* Ganglbauer in Bode-meyer, 1900*Globicornis maculatus* Háva, 2004*Globicornis quadriguttatus* (Reitter, 1878)**Genus** *Megatoma* Herbst, 1791Subgenus *Pseudohadrotoma* Kalík, 1951*Megatoma conspersa* Solsky, 1876**Genus** *Orphinus* Motschulsky, 1858Subgenus *Orphinus* (s. str.)*Orphinus kabakovi* **sp. nov.****Genus** *Phradonoma* Jacquelin du Val, 1859*Phradonoma jelineki* Háva, 2006*Phradonoma nobile* (Reitter, 1881)**Genus** *Reesa* Beal, 1967*Reesa vespulae* (Milliron, 1939)**Genus** *Thaumaglossa* Redtenbacher, 1867*Thaumaglossa yeti* Háva, 2003**Genus** *Trogoderma* Dejean, 1821*Trogoderma granarium* Everts, 1898*Trogoderma variabile* Ballion, 1878

ACKNOWLEDGMENTS

This research was supported by the Internal Grant Agency (IGA no. 20124364), Faculty of Forestry and Wood Sciences, Czech University of Life Sciences Prague and Department of Invertebrate Biology, Evolution and Conservation, Institute of Environmental Biology, Faculty of Biological Science, University of Wrocław (project no. 1076/IBS/2014).

REFERENCES CITED

- BEAL, R. S. 1985. Review of Nearctic species of *Orphilus* (Coleoptera: Dermestidae) with description of the larva of *O. subnitidus* Le Conte. *Coleopt. Bull.* 39: 265-271.
- BEAL, R. S. 1991. Dermestidae (Bostrichoidea) (including Thorictidae, Thylodriidae), pp. 434-439 *In* F. W. Stehr [ed], *Immature Insects*. Vol. 2. Kendall/Hunt, Dubuque, Iowa.
- HADLEY, A. 2010. Combine ZM Software, new version. A. Hadley, Derby, UK. Available from <http://www.hadleyweb.pwp.blueyonder.co.uk/CZP/News.htm>. Accessed 14-I-2013.
- HÁVA, J. 2003. World Catalogue of the Dermestidae (Coleoptera). *Studie a Zprávy Oblastního Muzea Praha-východ v Brandýse nad Labem a Staré Boleslavi*, Suppl. 1: 1-196.
- HÁVA, J. 2006. Contribution to the knowledge of world Dermestidae (Coleoptera). *Studies and Reports of District Museum Prague-east, Taxon*. Ser. 2: 35-50.
- HÁVA, J. 2007. Dermestidae, pp. 57, 299-320 *In* I. Löbl and A. Smetana [eds.], *Catalogue of Palaearctic Coleoptera*. Volume 4. Elateroidea - Derodontoidea

- Bostrichoidea - Lymexyloidea - Cleroidea - Cucujoidea. Stenstrup: Apollo Books, 935 pp.
- HÁVA, J. 2014. Dermestidae, Derodontidae, Jacobsoniidae, Nosodendridae In P. Zahradník and J. Háva [eds.], Catalogue of the world genera and subgenera of the superfamilies Derodontoidea and Bostrichoidea (Coleoptera: Derodontiformia, Bostrichiformia). *Zootaxa* 3754: 301-352.
- JOHN, H. 1964. Acht neue Spezies von *Thorictus* Germ. (Thorictidae, Coleoptera). *Ann. Hist.-Natur. Mus. Nat. Hungarici* 56: 331-339.
- KADEJ, M., AND HÁVA, J. 2006. Description of four new species of *Anthrenus* O. F. Müller, 1764 (Coleoptera: Dermestidae: Megatominae: Anthrenini). *Polskie Pismo Entomol.* 75(3): 401-416.
- KALÍK, V. 1954. New and interesting Dermestidae (Coleoptera). *Ann. Mag. Nat. Hist.* 12(7): 367-370.
- KISELYOVA, T., AND MCHUGH, J. 2006. A phylogenetic study of Dermestidae (Coleoptera) based on larval morphology. *Syst. Entomol.* 31: 469-507.
- MROCKOWSKI, M. 1959. Zweiter Beitrag zur Kenntnis der Dermestiden von Afghanistan, nebst Beschreibung einer neuen Art (Coleoptera). *Kunl. Fysiografiska Sällskapets I Lund Förhandlingae* 29: 99-101.
- MROCKOWSKI, M. 1960. Dritter Beitrag zur Kenntnis der Dermestiden von Afghanistan (Coleoptera). *Kunl. Fysiografiska Sällskapets I Lund Förhandlingae* 30: 51-55.
- MROCKOWSKI, M. 1961a. Ergebnisse der Deutschen Afghanistan-Expedition 1956 der Landessammlungen für Naturkunde Karlsruhe. (Dermestidae, Coleoptera). *Beiträge zur Naturkundlichen Forschung in Südwestdeutschland, Karlsruhe* 19: 223-226.
- MROCKOWSKI, M. 1961b. Vierter Beitrag zur Kenntnis der Dermestiden von Afghanistan nebst Beschreibung von zwei neuen Arten der Gattung *Ctesias* Steph. (Coleoptera). *Entomol. Tidskrift* 82: 191-196.
- PAULIAN, R. 1943. The larvae of the subfamily Orphilinae and their bearing on the systematic status of the family Dermestidae. *Ann. Entomol. Soc. America* 35: 393-396.
- VEER, V., AND RAO, K. M. 1995. Taxonomic and biological notes on three *Attagenus* spp. (Coleoptera: Dermestidae) not previously recorded as pests of stored woollen fabrics in India. *J. Stored Prod. Res.* 31: 211-219.
- ZHANTIEV, R. D. 2001. Zhuki-kozheedy roda *Orphilus* Er. (Coleoptera, Dermestidae) fauny Palearktiki. *Entomol. Obozrenie* 80: 611-620.