

**Description of four new species of *Anthrenus* O. F. MÜLLER, 1764  
(Coleoptera: Dermestidae: Megatominae: Anthrenini)**

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**ABSTRACT.** *Anthrenus* (*Anthrenodes*) *ceylonicus* n. sp. from Sri Lanka, *A. (Anthrenodes) distinctus* n. sp., *A. (Anthrenodes) klapperichi* n. sp. from Afghanistan and *A. (Anthrenops) eichleri* n. sp. from Palestina and Israel are described, illustrated and compared with related species.

**KEY WORDS:** Coleoptera, *Dermestidae*, *Anthrenus*, description, sp. nov., faunistic records, Sri Lanka, Afghanistan, Palestine, Israel.

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INTRODUCTION

More over 160 species of *Anthrenus* O. F. MÜLLER, 1764 have been reported in world so far, but only eleven occur in Israel, eight in Afghanistan, one in Sri Lanka and none in Palestina nowadays (HÁVA 2003, 2006).

In material studied recently we have found specimens representing four new species and their detailed description is given below. Three of the species mentioned were determined by Mr. KALÍK but with unknown reasons had never been described (HÁVA 2003, 2006).

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This work was supported by founding (2020/IZ2006) from the Institute of Zoology, University of Wrocław

## MESUREMENTS AND METHODS

Explanation of abbreviations:

JHAC - Jiří HÁVA, Private Entomological Laboratory and Collection, Praha, Czech Republic.

MiIZ – Muzeum i Instytut Zoologii PAN, Warszawa, Poland.

MK - Marcin KADEJ, Institute of Zoology, Department of Biodiversity and Evolutionary Taxonomy collection, Wrocław, Poland.

MTD – Staatliches Museum für Tierkunde, Dresden, Germany.

SMNS - Staatliches Museum für Naturkunde, Stuttgart, Germany.

BL - body length (measured from anterior margin of the head to the apex of the elytra).

BW - body width (measured between two anterolateral humeral calli).

PL - pronotum length (measured from the top of the anterior margin to scutellum).

PW - pronotum width (measured between the two posterior angles of pronotum).

SL - sternites length (measured from the anterior margin to the apex of posterior margin).

SW - sternites width (measured between two lateral margins in the anterior part of sternites).

AFL - antennal fossa length (measured along the antennal fossa).

LMP - length of lateral margin of pronotum (measured as a distance between inferior part of pronotum and exterior angle).

All measurements are given in millimeters. The morphological structures (antenna, wing, leg, genitalia, galea and lacinia, abdominal sternit IX, abdominal tergite VI) were observed under phase contrast microscope Nikon Eclipse E 600 with drawing attachment in transparent light in glycerin. All morphological structures were put into plastic micro vials with glycerin under proper specimens. Photos were taken with the camera Nikon Coolpix 4500.

All type specimens were labelled with red, printed labels bearing the text as follows: "HOLOTYPE [or PARATYPE, respectively] *genus\_name species\_name* HÁVA & KADEJ, 2005 det. "*Anthrenus (Anthrenodes) ceylonicus* n. sp.

(Figs 1-12)

*Anthrenus ceylonicus* KALÍK (unpublished name)

**Type Material**

Holotype (male): Ceylon, Trincomali, W. Horn 1899/Pic det./Paratypus/*Anthrenus ceylonicus* sp. n. Vl. KALÍK det. 85; (29 paratypes): the same data as holotype.

Holotype and 27 paratypes are deposited in MTD, 2 paratypes in JHAC, 2 paratypes in MK.

**Distribution**

Ceylon

**Name derivation**

Locotypical, after the type locality, Ceylon.

**Diagnosis**

*A. ceylonicus* sp. n. can also be easily distinguished from the other south-eastern oriental species by the following characters:

- 1(6) antennae with 11 segments  
 2(5) eyes with median margin broadly and deeply emarginated at about anterior 1/3  
 3(4) elytra with small white patterns .....*A. flavipes* LÉCONTE, 1854  
 4(3) elytra with one anterior broad transverse white fasciae .....*A. oceanicus* FAUVEL, 1903  
 5(2) eyes with median margin complete; antennal club 2-segmented, terminal segment long and narrow .....*A. mindanaoensis* HÁVA, 2004  
 6(1) .....antennae with 10 segments  
 7(8) elytra covered with black scales, with small white or yellowish-white spots ..... *A. maculifer* REITTER, 1881  
 8(7) elytra covered with creamy grey scales, with three transverse fasciae divided to spots ..... *A. ceylonicus* n. sp.

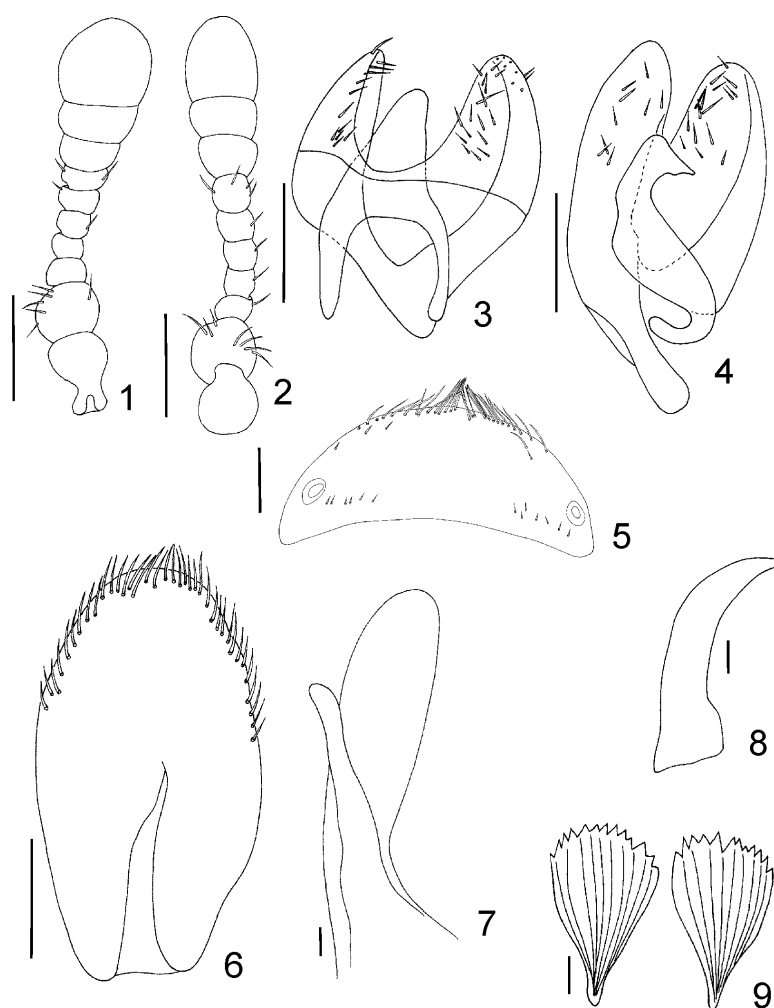
**Description**

Body strongly convex, oval, covered with scales (BL: 2.15-2.7; BW: 1.5-1.65) (Figs 10, 9). Head with big convex eyes. Frons with pseudoocelli, covered with light brown scales. Antenna of both sexes light brown, 10-segmented, antennal club 3-segmented (Fig. 1-2), covered densely with light-brown pubescence. 10-th segment oval, covered densely with light-brown pubescence.

Antenna occupies the whole cavity of antennal fossa. Antennal fossa completely open (AFL: 0.12-0.15) along lateral margin of the pronotum (LMP: 0.4-0.5).

Dorsal and ventral surface of integument dark brown, slightly punctuated, covered with grey and light brown scales (Figs 10-11). Pronotum (PL: 0.65-0.75; PW: 1.1-1.35), covered with light brown and creamy grey scales. Elytra covered with creamy grey and light brown scales, which create pattern. Dorsum of the elytra covered with light brown scales interspersed with creamy grey ones creating small patches. Ventral surface and sternites I-V (SL: 1.15-1.25; SW: 1.5-1.7) (Fig. 11) covered with creamy grey scales. Legs brown, covered with grey scales on dorsal surface. Tarsus with two slightly curved tarsalclaws (Fig. 8). Male genitalia as in figures 3, 4. Parameres broad, covered with few short setae. Aedeagus wide posteriorly, with the apex curved. In lateral view the apex of aedeagus beak-shaped

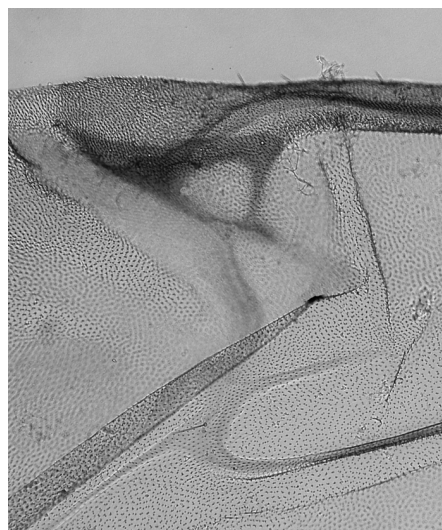
(Figs 3, 4). Abdominal sternite IX oval with numerous short setae on the top (Fig. 6). Abdominal tergite VI light-brown, with two types of setae: longer on the posterior margin and shorter laterally in the anterior part (Fig. 5). Galea and lacinia as in figure 7. Wing as in Fig. 12.



**Figs 1-9.** *Anthrenus (Anthrenodes) ceylonicus* n. sp.: 1 - male antenna; 2 - female antenna; 3 - genitalia; 4 - genitalia (lateral view); 5 - sixth abdominal tergite; 6 - ninth abdominal sternite; 7 - galea and lacinia; 8 - tarsal-claw; 9 - scales.



**Figs 10-11** . *Anthrenus (Anthrenodes) ceylonicus* n. sp.: 10 – habitus (dorsal side); 11 - habitus (ventral side)



**Fig. 12.** *Anthrenus (Anthrenodes) ceylonicus* n. sp. wing.

*Anthrenus (Anthrenodes) distinctus* n. sp.  
(Figs 13-24)

*Anthrenus distinctus* KALÍK (unpublished name): SCHAWALLER, 1994:27 (nomen nudum)

**Type Material**

Holotype (male): Tangi-Gharuh a. Kabul-Fluss / O. Afghanistan, J. KLAPPERICH / [red printed label] / *Anthrenus distinctus* sp. n. KALIK det. 1987 [red printed label]. Paratypes (5 exx.): the same data as holotype (all are deposited in SMNS); (2 exx.): the same data as holotype, (JHAC).

**Distribution**

Afghanistan

**Name derivation**

Derived from the latin name *distinguo*, meaning to separate, divide, distinguish, punctuate, point out, decorate. The name is connected with the distinctive feature of the species (its elytral bands are punctuated).

**Diagnosis**

*Anthrenus distinctus* n. sp. is confusingly similar to new species *A. klapperichi* n. sp. and *A. semenovi rupestris* ZHANTIEV, 1976, but differs from it with the characters mentioned in the following key.

**Description**

Body strongly convex, covered with scales (BL: 2.15-2.35; BW: 1.25-1.45) (Figs 21, 22-23).

Head with big convex eyes. Frons with pseudoocelli, covered with dark brown (almost black) scales. Antenna of both sexes light brown, 10-segmented, antennal club 3-segmented (Figs 13, 14), covered densely with light-brown pubescence. Terminal segment oval, covered densely with light-brown pubescence.

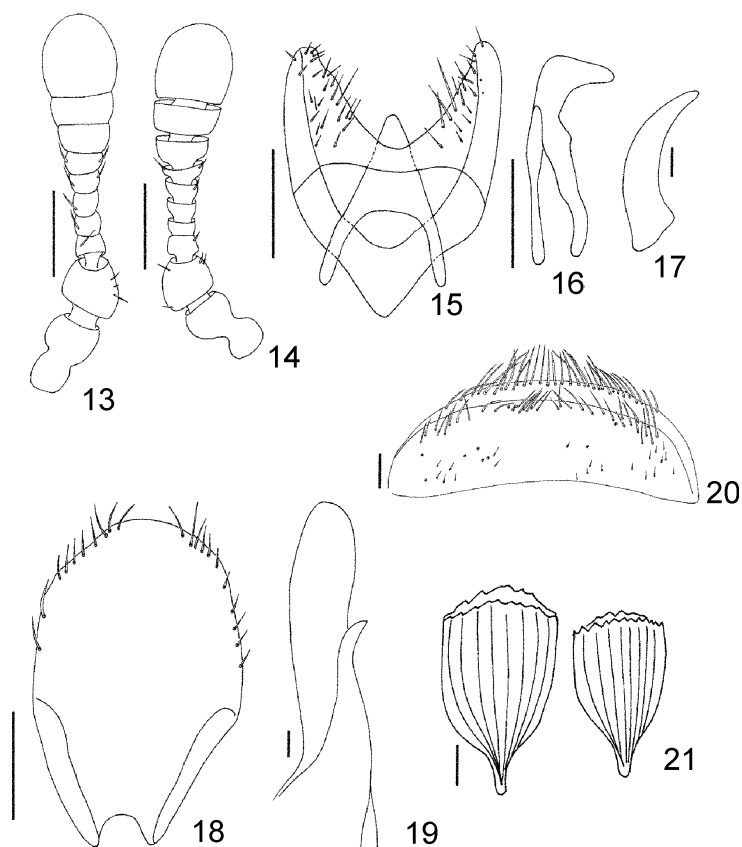
Antenna occupies the whole cavity of antennal fossa. Antennal fossa completely open (AFL: 0.1-0.2) along lateral margin of the pronotum (LMP: 0.45-0.5).

Dorsal and ventral surface of integument dark brown, slightly punctuated, covered with dark brown (almost black) scales (Figs 21-22). Pronotum (PL: 0.7; PW: 1.1-1.2), covered with dark brown scales in the central part, white scales on the angles and lateral parts.

Elytra covered with white and dark brown (almost black) scales. White scales create 8 symmetrical patches of different size.

Ventral surface with grey scales except for abdominal sternites, which are covered with grey and brown scales – especially anterolateral parts of the sternites II-V (SL: 1.2-1.25; SW: 1.3-1.45) (Fig. 23).

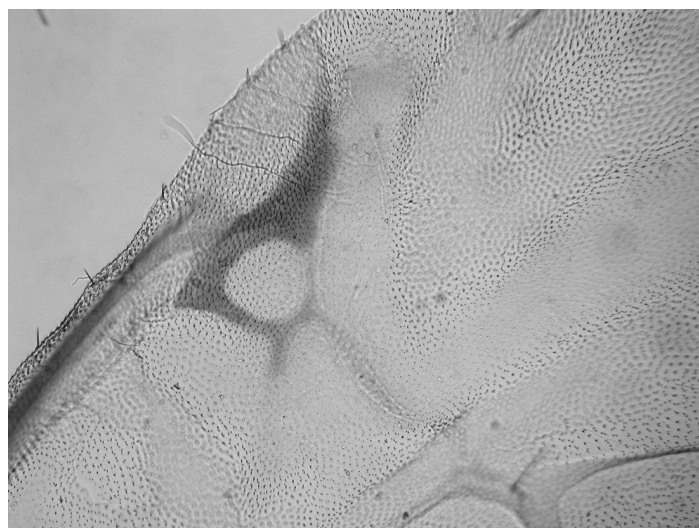
Legs brown, covered with grey scales on dorsal surface. Tarsus with two slightly curved tarsalclaws (Fig. 17). Male genitalia as in figure 15. Parameres broad, covered with numerous setae. Median lobe wide posteriorly, slightly curved with the apex bent, in lateral view similar to the letter L (Figs 15, 16). Abdominal sternite IX oval with numerous short setae on the lateral margin (Fig. 18). Abdominal tergite VI light-brown, with two types of setae: longer on the posterior margin and shorter medially in the anterior part (Fig. 20). Galea and lacinia as in Fig. 19.



**Figs 13-21.** *Anthrenus (Anthrenodes) distinctus* n. sp.: 13 - male antenna; 14 - female antenna; 15 - genitalia; 16 - aedeagus (lateral view); 17 - tarsal-claw; 18 - ninth abdominal sternite; 19 - galea and lacinia; 20 - sixth abdominal tergite and sternite; 21 - scales.



**Figs 22-23.** *Anthrenus (Anthrenodes) distinctus* n. sp.: 22 – habitus (dorsal side); 23 – sternites.



**Fig. 24.** *Anthrenus (Anthrenodes) distinctus* n. sp. wing.



***Anthrenus (Anthrenodes) klapperichi* n. sp.**  
(Figs 25-34)

*Anthrenus klapperichi* KALÍK (unpublished name): SCHAWALLER, 1994:27 (nomen nudum)

**Type material**

Holotype (male): J. KLAPPERICH, Schau, 2000m, 19.7.53, Kokschatal, Badakschan, NO Afghanistan / Paratypus KALIK det. [red printed label] / *Anthrenus klapperichi* sp. n. KALIK det. 1987 [red printed label]. Paratypes (3 exx.): the same data as holotype; (2 exx.): J. KLAPPERICH, Djurm, 1750m, Kokschatal, 15.7.53, Badakschan, NO Afghanistan / Paratypus KALIK det. [red printed label] / *Anthrenus klapperichi* sp. n. KALIK det. 1987 [red printed label], (all are deposited in SMNS); (1 ex.): J. KLAPPERICH, Schau, 2000m, 19.7.53, Kokschatal, Badakschan, NO Afghanistan / Paratypus KALIK det. [red printed label] / *Anthrenus klapperichi* sp. n. KALIK det. 1987 [red printed label], (JHAC).

**Distribution**

Afghanistan

**Name Derivation**

Dedicated to the excellent traveler and coleopterologist J. KLAPPERICH.

**Diagnosis**

*Anthrenus klapperichi* n. sp. is confusingly similar to the following species, but differs with the characters mentioned in the following key.

- 1(2) .....elytra covered with bicolorous scales  
 - elytra covered with black and white scales; lacinia without long tip; male genitalia as in Figs 15-16; Afghanistan .....*A. distinctus* n. sp.  
 - elytra covered with brown and yellow-whitish scales; lacinia with long tip; male genitalia as in Figs 25-26; Afghanistan .....*A. klapperichi* n. sp.  
 - elytra covered with yellow and white scales, white scales forming three transverse bands and apical spot Tadzhikistan..... *A. semenovi rupestris* ZHANTIEV, 1976  
 2(1) elytra covered only with unicolorous grey scales; Turkey.....  
 .....*A. ineptus* HÁVA & TEZCAN, 2004

### **Description**

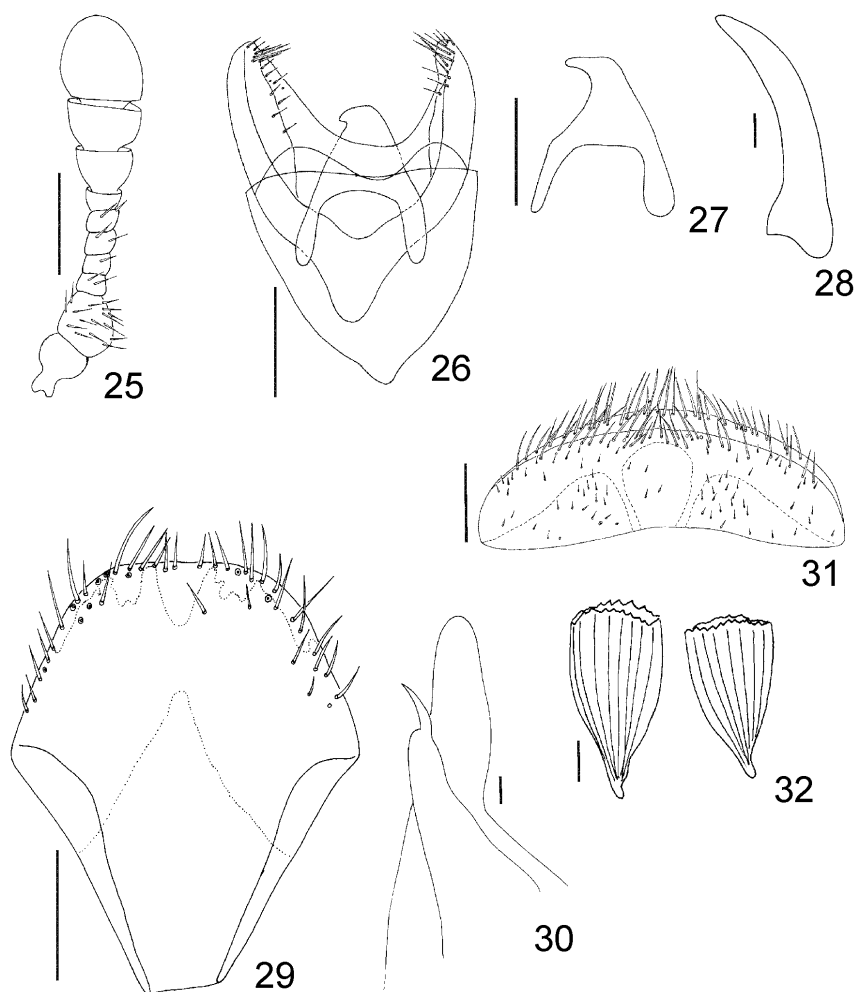
Body strongly convex, elongate, covered with scales (BL: 1.95-2.25; BW: 1.25-1.35) (Figs 33-34). Head with big convex eyes. Frons with pseudoocelli, covered with brown scales. Antenna of male, 10-segmented, antennal club 3-segmented (Fig. 25), covered densely with light-brown pubescence. Terminal segment oval, covered densely with light-brown pubescence.

Antenna occupies the whole cavity of antennal fossa. Antennal fossa completely open (AFL: 0.2) along lateral margin of the pronotum (LMP: 0.4).

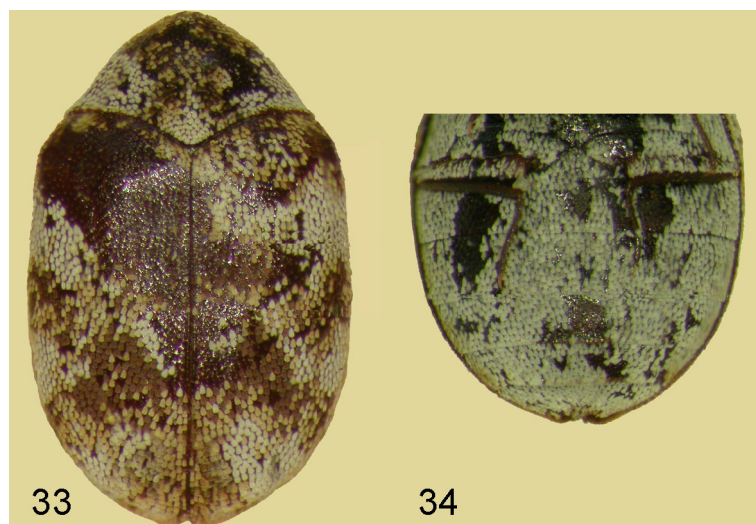
Dorsal and ventral surface of integument dark brown, slightly punctuated, covered with grey, light brown and brown scales (Figs 32, 33-34). Pronotum (PL: 0.65-0.75; PW: 1.0-1.1), covered with light brown and brown scales in the central part, grey scales on the angles and lateral parts. Elytra covered with grey, brown and light brown scales, which create transverse, nearly complete bands.

Ventral surface with grey scales except for abdominal sternites, which are covered with mixture of grey and light brown scales – especially anterolateral parts of the sternites II-V (SL: 1.0-1.1; SW: 1.25-1.35) (Fig. 34).

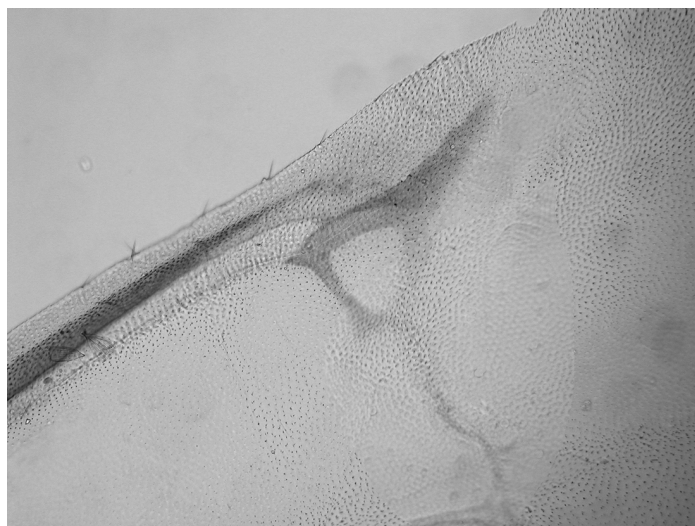
Legs brown, covered with grey scales on dorsal surface. Tarsus with two slightly curved tarsalclaws (Fig. 28). Male genitalia as in figure 27. Parameres broad, covered with numerous short setae on the inferior surface. Median lobe short and wide posteriorly, slightly curved with the apex straight (Figs 26-27). Abdominal sternite IX wide with numerous short setae on the top (Fig. 28). Abdominal tergite VI light-brown, with two types of setae: longer on the posterior margin and shorter centrally in the anterior part (Fig. 31). Galea and lacinia as in fig. 30.



**Figs 25-32.** *Anthrenus (Anthrenodes) klapperichi* n. sp.: 25 - male antenna; 26 - genitalia; 27 - aedeagus (lateral view); 28 - tarsal-claw; 29 - ninth abdominal sternite; 30 - galea and lacinia; 31 - sixth abdominal tergite and sternite; 32 - scales.



**Figs 33-34.** *Anthrenus (Anthrenodes) klapperichi* n. sp.: 33 - habitus (dorsal side); 34 - sternites.



**Fig. 35.** *Anthrenus (Anthrenodes) klapperichi* n. sp. wing.

***Anthrenus (Anthrenops) eichleri* n. sp.**  
(Figs 36-46)

**Type material**

Holotype (male): Tyberias Plst. /16.5.1941/dr. W. EICHLER (deposited in MiZ). Paratypes (1 male, 1 female): Israel, Jerusalem, 18.vi.1950, J. WAHRMAN lgt., c. 610., (JHAC).

**Distribution**

Israel, Palestina.

**Name Derivation**

Dedicated to the Polish excellent traveler and coleopterologist Witold EICHLER (1874-1960).

**Diagnosis**

*Anthrenus eichleri* n. sp. is habitually very similar to *A. (Anthrenodes) ineptus* HÁVA & TEZCAN, 2004 but differs from it of the number of antennal segments (nine in *A. eichleri* and ten in *A. ineptus*).

**Description**

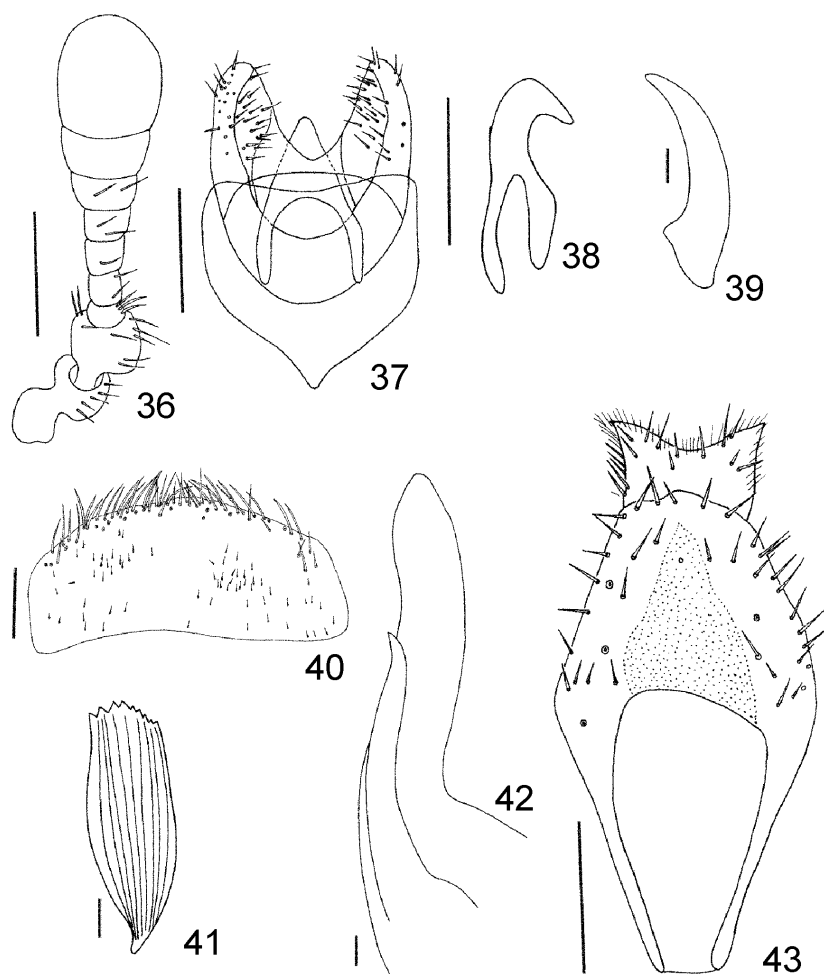
Body strongly convex, elongate, covered with scales (BL: 2.3; BW: 1.3) (Figs 41, 44-45). Head with big convex eyes. Frons with pseudoocelli, covered with yellowish scales.

Antenna of male light brown, 9-segmented, antennal club 2-segmented (Fig. 36), covered densely with light-brown pubescence. 10-th segment oval, covered densely with light-brown pubescence.

Antenna occupies the whole cavity of antennal fossa. Antennal fossa completely open (AFL: 0.17) along lateral margin of the pronotum (LMP: 0.5).

Dorsal and ventral surface of integument dark brown, slightly punctuated, covered with yellowish and grey scales (Figs 41, 44-45). Pronotum (PL: 0.65; PW: 1.15) and elytra, covered with yellowish scales. Ventral surface and sternites (SL: 1.15; SW: 1.4) with grey scales (Fig. 45).

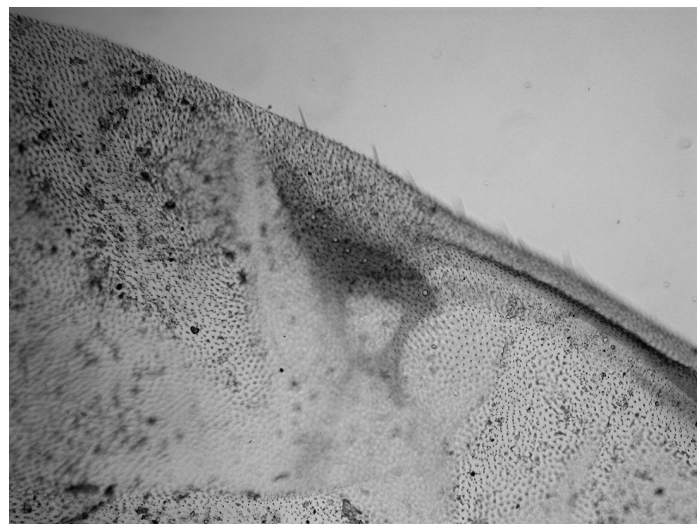
Legs brown, covered with grey scales on dorsal surface. Tarsus with two tarsal-claws slightly curved (Fig. 39). Male genitalia as in figure 37. Paramers broad, covered with numerous short setae. Aedeagus wide posteriorly, slightly curved with the apex strongly bent (Fig. 37-38). Abdominal sternite IX oval, elongated with distinct lobe at the top covered with numerous short setae (Fig. 43). Abdominal tergite VI light-brown, with two types of setae: longer on the posterior margin and shorter medially in the anterior part (Fig. 40). Galea and lacinia as in fig. 42. Wing as in Figs 15-16.



**Figs 36-43.** *Anthrenus (Anthrenops) eichleri* n. sp.: 36 - male antenna; 37 - male genitalia (dorsal view); 38 - aedeagus (lateral view); 39 - tarsal-claws; 40 - sixth abdominal tergite; 41 - scales; 42 - galea and lacinia; 43 - ninth abdominal sternit.



**Figs 44-45.** *Anthrenus (Anthrenops) eichleri* n. sp.: 44 - habitus (dorsal side); 45 – sternites.



**Fig. 46.** *Anthrenus (Anthrenops) eichleri* n. sp; - wing

### Acknowledgements

We would like to thank to B. TOMASIEWICZ, M. BOROWIEC (Zoological Institute, Wrocław University) for help with the manuscript translation; L. BOROWIEC (Zoological Institute, Wrocław University), who provided helpful comments to improve this manuscript, W. SCHAWALLER (SMNS), O. JAEGER (MTD), W. TOMASZEWSKA, M. BANASIAK (MiIZ) provided the material of interest.

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Received: Juny 12, 2006

Accepted: July 11, 2006