

A new species of the genus *Trogoderma* (Coleoptera: Dermestidae: Megatomini) from Madagascar

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ABSTRACT

Trogoderma friedmani n. sp. is described and compared to the other Madagascan species of the genus. It is characterized by the entirely black elytra, shape of the antenna and male genitalia. A key to the *Trogoderma* species of Madagascar is provided.

Keywords: Coleoptera, Dermestidae, *Trogoderma*, taxonomy, new species, distribution, Madagascar

INTRODUCTION

The genus *Trogoderma* contains about 130 known species worldwide (Háva, 2003, 2009), 13 of which are known from the Afrotropical region. Of these, eight were previously recorded from Madagascar. In the present paper we describe a new species and provide a key to all the species known from the island.

MATERIALS AND METHODS

The following measurements were used:

EL (elytra length)—linear distance from shoulder to apex of elytron

EW (elytra width)—maximum linear width of elytron

PL (pronotum length)—maximum length of pronotum measured from anterior margin to posterior margin

PW (pronotum width)—maximum linear width of pronotum

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

***Trogoderma friedmani* Herrmann and Háva, n. sp.**

(Figs. 1–4)

Description

Body small, oval (Fig. 1), shiny black on dorsal surface, lateral margins slightly brownish; ventral surface black except for brown abdominal segments. Measurements (in mm): TL 2.8, PL 0.7, PW 1.5, EL 2.3, EW 1.7. Head coarsely pitted, sparsely covered with long, erect, light-brown hairs; pits partially indistinct and somewhat blurred. Palpi light brown. Eye large with short, dark, and erect microsetae. One ocellus present on frons. Antenna light brown, with brown pubescence, 11 segments, slightly darkened towards tip, not forming distinct club; terminal segment large and cylindrical, dark brown, (Fig. 2). Pronotum shiny, sparsely and coarsely pitted, covered sparsely with sub-erect, long and light-brown hairs; density of pits and pubescence increases towards lateral margins; lateral margin of pronotum smooth, toothless. Scutellum triangular, without pubescence and distinct pits. Elytron shiny black, covered sparsely by relatively long, sub-erect, dark-brown hairs, pits similar to those on pronotum, lateral margin smooth, toothless; humerus with large bump; elytron with three more or less transverse, indistinct fasciae of thin, long, and sub-erect hairs. First fascia originates posterior to humeral bump and extends to suture at first third of elytron; second fascia located at second third of elytron; third fascia located just anterior to apex; hairs of fasciae similar to those covering elytron but of brighter color (Fig. 1). Epipleura dark brown, coarsely pitted, with recumbent light-brown pubescence. Legs including tarsi somewhat longer than in the related species, light brown, sparsely covered with sub-erect, short, light-brown hairs. Mesosternum coarsely pitted, with recumbent, short, light-brown hairs. Abdominal sternites brown, coarsely pitted, sparsely covered with short, recumbent light-brown hairs (Fig. 4). Male genitalia as in Fig. 3a,b.

Female

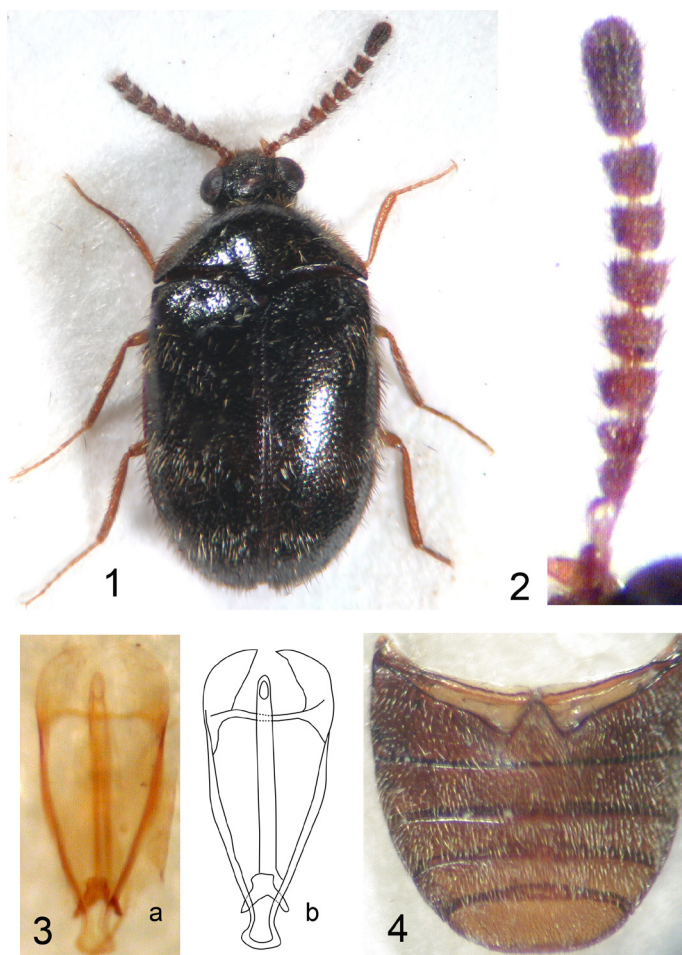
Unknown.

Type Material

Holotype, ♂: MADAGASCAR: Andasibe, 950 m, Analamazaotra Forest, 18°56.5'S 48°24.8'E, 31.x–4.xi.2007, L. Friedman. The holotype is pinned directly, is in good condition, except for the terminal segment of the left antenna and the four last tarsal segments of the right hind leg that are missing. In addition to the collection data, it bears the following information on a red label: HOLOTYPUS *Trogoderma friedmani* sp. n., A. Herrmann & J. Háva det. 2009. It is deposited in the National Collection of Insects, Department of Zoology, Tel Aviv University, Israel.

Differential Diagnosis

The new species differs from the other known Madagascan *Trogoderma* in the entirely black elytra, and from all other known *Trogoderma* species in the shape of the antenna (Fig. 2) and male genitalia (Fig. 3).



Figs. 1–4. *Trogoderma friedmani* n. sp., holotype. 1. Habitus, dorsal view. 2. Antenna. 3. Genitalia, ventral view. 3a. Photograph. 3b. Drawing. 4. Abdominal segments, ventral view.

Etymology

This species is named after the coleopterist, Ariel-Leib-Leonid (Laibale) Friedman from Tel Aviv University, Israel, a Curculionidae taxonomist and collector of the holotype.

KEY TO MADAGASCAN SPECIES OF TROGODERMA

1. Elytron light to dark brown without clearly-defined maculae and without distinct pattern. Dorsal surface of body clothed with yellowish hairs, dark areas of cuticle clothed with light-brown hairs. Head, pronotum, and several spots on elytra sometimes darker. Antenna 11-segmented

- or, rarely, 9–10-segmented, with 3–5-segmented club in male, 3–4-segmented club in female.
 Body length 1.8–3 mm *T. granarium* Everts
- . Elytron and pubescence different. Antennal club with 7 or less segments..... 2
2. Elytron bi- or tricolored 3
- . Elytron unicolored 8
3. Body elongate; antennal club comprises 7 segments; elytron with three orange-red fasciae covered by yellow pubescence *T. trifasciatum* Háva
- . Body oval; antennal club comprises 3–5 segments; elytron different..... 4
4. Elytron with one orange transverse fascia and apical part covered by yellowish-white pubescence; antennal club consists of 5 segments..... *T. wolfgangi* Háva et Herrmann
- . Elytron and antenna different 5
5. Elytron brown, with orange-red fasciae covered by white pubescence; antennal club comprises 3 segments *T. impressiceps* (Pic)
- . Elytron and antenna different 6
6. Elytron black with one large orange spot on apex and one transverse fascia of white pubescence at mid-part; antennal club comprises 4 segments..... *T. sambiranum* Háva
- . Elytron different; antennal club with 4 or 6 segments..... 7
7. Body large: TL 3.10–3.55 mm, elytron brown with numerous small spots covered by white pubescence; antennal club comprises 4 segments *T. seminigrum* Pic
- . Body small: TL 1.77–2.27 mm; elytron black with small spots covered by white pubescence; antennal club comprises 6 segments..... *T. madecassum* (Pic)
8. Elytron brown, covered by yellow pubescence; without fasciae or spots; antennal club comprises 5 segments..... *T. taomasinum* Háva
- . Elytron entirely black with three indistinct transverse fasciae of thin bright hairs (Fig. 1), male antenna without distinct club (Fig. 2)..... *T. friedmani* n. sp.

Remarks

According to EPPO (2007), *T. granarium* Everts is known from Madagascar as an introduced synanthropic species.

ACKNOWLEDGMENTS

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REFERENCES

- Eppe. 2007. *Trogoderma granarium*. Plant Quarantine Data, Retrieval System. PQR Version 4.6 (Dec. 2007). <http://www.eppo.org/DATABASES/pqr/pqr.htm>
- HÁVA, J. 2003. World catalogue of the Dermestidae (Coleoptera). *Studie a zpravy Oblastního Muzea Praha-východ v Brandyse nad Labem a Stare Boleslavi*, Supplementum 1, 196 pp.
- HÁVA, J. 2009. Dermestidae world (Coleoptera). Permanent World Wide Web electronic publication (launched in 2004): <http://www.dermestidae.wz.cz>