

## ***Trogoderma burgai* sp. nov., a new species from Peru (Coleoptera: Dermestidae: Megatominae)**

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### **Taxonomy, description, new species, Coleoptera, Dermestidae, *Trogoderma*, Peru**

**Abstract.** A new species, *Trogoderma burgai* from Peru, is described, illustrated and compared with the habitually similar species *Trogoderma angustum* (Solier, 1849). Furthermore a list of all species belonging to the genus so far recorded from Peru is provided.

### INTRODUCTION

When identifying some dermestids sent by the entomologist Walter Díaz Burga from Peru to the first author as an yet undescribed species of the genus *Trogoderma* was revealed. The concerning specimens formerly have been recorded as *Trogoderma angustum* var. alfa (Díaz, Anteparra & Herrmann, 2008) as being the first country record for Peru. Since - beneath the differences in the elytral fasciae - also the shape of the head and the antenna differ slightly from the basic form, the extraction and examination of their genitalia have recently been carried out, and after this they turned out to belong to a separate species indeed. Unfortunately the authors have no access to original examples of the variation alfa, and so it is only a suggestion that the old description of the variation alfa probably could concern specimens of the new species too. Somewhat more than 150 different species and subspecies are included in the genus *Trogoderma* Dejean, 1821 worldwide (Háva 2015), less than ten of them have been recorded from Peru so far. In the present paper the authors describe another new species of the genus.

### MATERIAL AND METHODS

The specimens were stored for 5 days in a solution of 1% pepsin in hydrochloric acid to make them roughly free of protein tissues and to 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, the genitalia were excluded and then cleaned with a fine needle in a drop of 99 percent glycerol. Afterwards they were also glued onto the plate behind the beetle, firmly embedded in a drop of a solution consisting

of polyvinylpyrrolidone, aqua demineralisata and diglycerin (the liquid solution becomes permanently solid after a few minutes). Photos of body and abdomen were taken with the 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 the Bresser Junior USB-Handmikroskop at 200x magnification was used. Because of the low depth of field all photos were taken as layered images, afterwards combined on a PC by software. Nomenclature and systematics in this paper follow Háva (2015).

The size of the beetles and their body parts can be useful in species recognition, so following measurements were made:

- a) total length (TL) - linear distance from anterior margin of pronotum to apex of elytra.
- b) pronotal length (PL) - maximal length measured from anterior margin to posterior margin.
- c) pronotal width (PW) - maximal linear transverse distance.
- d) elytral length (EL) - linear distance from shoulder to apex of elytron.
- e) elytral width (EW) - maximal linear transverse distance.

The type specimens of the described species are provided with a red, printed label showing the following text: „HOLOTYPUS [respectively PARATYPUS], *Trogoderma burgai* n. sp., Herrmann & Háva det. 2016”.

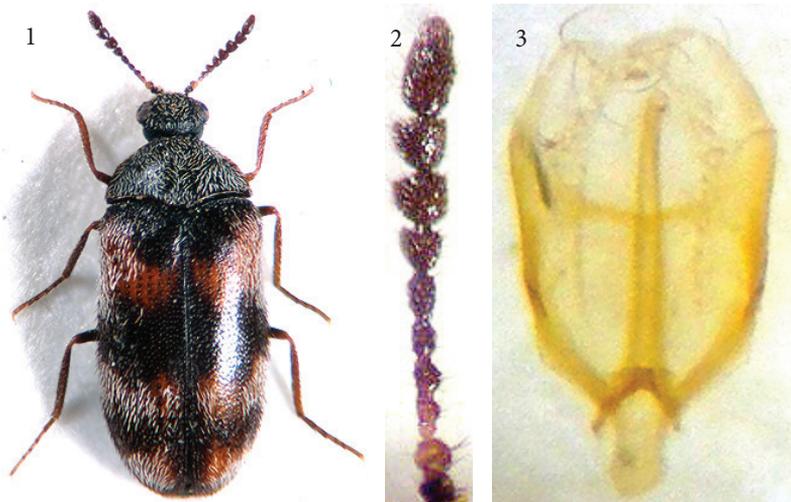
## DESCRIPTION

### *Trogoderma burgai* sp. nov.

(Figs. 1-3)

**Type material.** Holotype (♂) labelled: „Peru, Puerto Materani / Arequipa, collected by trapping, 21.11.1998 leg. SENASA”. Paratypes (8 ♂♂): same data as holotype. All specimens were collected with traps for monitoring *Trogoderma granarium* by the Dirección Ejecutiva de SENASA AREQUIPA. The holotype is deposited in the collection of the first author, paratypes in the collections of both authors.

**Description.** Body small and slender, longish oval (Fig. 1); measurements (in mm): TL 1.8, PL 0.4, PW 0.7, EL 1.4, EW 0.8. Head black, appears dull because of rough and dense punctation, covered sparsely with decumbent brown setae; palpi light brown. Eyes large with short and hardly visible erect microsetae. Median ocellus distinctly present on front. Antennae entirely yellowish brown, the club as well as the first antennomere slightly darkened, 11-antennomered, the last four to five antennomeres forming a somewhat indistinct club covered densely by fine decumbent brown setation (Fig. 2); shaft almost as long as the club, sparsely provided with some strong, erect brown setae. Pronotum slightly bulged, broadest at the apical rectangular edges, narrowed towards the front, entirely black to darkish brown, somewhat shiny between the sparse and coarse punctation, covered sparsely with decumbent brown setation, lateral margins distinctly edged, both visible from above at the same time. Scutellum small, dark and triangular, with a few decumbent setae. Cuticle of the elytra darkish brown with a light brown fascia in the anterior third; punctation as in the pronotum, humeri with an indistinct bump; the elytral setation consists of suberect brown



Figs. 1-3. *Trogoderma burgai* sp. nov.: 1- habitus; 2- antenna; 3- genitalia.



Figs. 4-6. *Trogoderma angustum* (Solier, 1849): 4- habitus; 5- antenna; 6- genitalia.

setae which are replaced with grayish setae on the fascia (Fig. 1). Legs long and slender, entirely light brown, their edges covered sparsely with erect, short brown setae. Hind and middle tarsi roughly as long as the tibiae, front tarsi distinctly shorter than the front tibiae. Mesosternum darkish, punctured and furnished as in the elytra. Abdominal visible ventrites brownish, punctate as the elytra, covered sparsely with decumbent light brown setae. Genitalia as shown in (Fig. 3).

Female. Unknown.

**Differential diagnosis.** The new species differs from the similarly looking *Trogoderma angustum* (Solier, 1849) by a single fascia on the elytra as well as by the form of the male antenna and genitalia. From all other species of the genus *Trogoderma* occurring in Peru it could easily be distinguished by the elytral fasciae.

**Etymology.** The name of the new species is dedicated to the collector of the type specimens, Walter Díaz Burga from the Laboratorio de Sanidad Vegetal - SENASA - in Peru.

#### THE *TROGODERMA* SPECIES SO FAR RECORDED FROM PERU

*Trogoderma angustum* (Solier, 1849)  
*Trogoderma anthrenoides* (Sharp, 1902)  
*Trogoderma burgai* sp. nov.  
*Trogoderma granarium* Everts, 1898  
*Trogoderma inclusum* LeConte, 1854  
*Trogoderma rufonotatum* Pic, 1942  
*Trogoderma variabile* Ballion, 1878  
*Trogoderma westerduijni* Háva et Herrmann, 2007

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