

A contribution to knowledge of Dermestidae (Coleoptera) from New Caledonia with description of a new species

Jiří HÁVA

Forestry and Game Management Research Institute,
Strnady 136, CZ-156 00 Praha 5 - Zbraslav, Czech Republic
e-mail: jh.dermestidae@volny.cz

Taxonomy, faunistics, description, new species, new records, Coleoptera, Dermestidae, New Caledonia

Abstract. The species *Trogoderma fauveli* sp. nov. from New Caledonia is described, illustrated and compared with related species. New distributional records from New Caledonia are mentioned for *Trichelodes caledonicus* Háva, 2019, *Trinoparvus villosus* Háva, 2004 and *Trogoderma millei* Háva, 2013.

INTRODUCTION

The first concrete faunistic data and descriptions of species belonging to the family Dermestidae (Coleoptera) from New Caledonia were reported by Fauvel (1903). Until Mroczkowski (1968) and Háva (2004, 2013, 2014, 2015, 2019, Háva & Kadej 2015), no more data on New Caledonian dermestids were reported. During the determination of some unidentified Dermestidae deposited in Queensland Museum, Brisbane, Queensland, Australia, a new species from New Caledonia belonging to the genus *Trogoderma* Dejean, 1821 were found and therefore described here.

MATERIAL AND METHODS

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

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

elytral width (EW) - maximum linear transverse distance.

Moreover, the following abbreviations refer to the collections, in which the examined material is deposited:

JHAC Jiří Háva, Private Entomological Laboratory & Collection, Únětice u Prahy, Prague-west, Czech Republic;

MNHN Muséum National d'Histoire Naturelle, Paris, France;

QMBA Queensland Museum, Brisbane, Queensland, Australia.

Specimens of the species described here are provided with red, printed labels with text as follows: „HOLOTYPE [or PARATYPE, respectively] *Trogoderma fauveli* sp. nov. Jiří Háva det. 2021”.

RESULTS

Subfamily Trinodinae Tribe Thylo driini

Trichelodes caledonicus Háva, 2019

Material examined: New Caledonia, 11832, 22°19'S 166°55'E, 200 m, Foret Nord, site 2, rainfor., 2 Dec 2004, pyrethrum, CJ Burwell & GB Monteith / Photog. Spm PS 1420, 1 ex., J. Háva det., (QMBA).

Remarks. The species is known according to the holotype specimen described from New Caledonia. The second known specimen and new distributional data are considered here.

Tribe Trinoparvini

Trinoparvus villosus Háva, 2004 (Figs. 1-2)

Material examined: New Caledonia, 11814, 22°23' S 166°55' E, 50 m, Cap Ndoua, site 2, rainfor., 28-29 Nov.2004, berlesate, G. Monteith, P. Grimbacher / Photog. Spm PS 1419, 2 spec., J. Háva det., (QMBA, MNHN).



Figs. 1-2. *Trinoparvus villosus* Háva, 2004: 1- habitus, dorso-lateral; 2- head and pronotum.

Remarks. The species has been still known according to the holotype specimen described from New Caledonia. Second and third known specimens and new distributional data are considered here.

**Subfamily Megatominiæ
Tribe Magatomini**

***Trogoderma millei* Háva, 2013**
(Figs. 3-4)

Material examined: New Caledonia, 11864, 22°14'S 166°50'E, 280 m, Pic du Pin, site 2, 25 Nov-23 Dec 2004, malaise, Burwell, Wrightz, rainforest / Photog. Spm PS 1418, 1 spec., J. Háva det., (QMBA).

Remarks. The species has been still known according to the holotype specimen described from New Caledonia. Second known specimen and new distributional data are considered here.



Figs. 3-4. *Trogoderma millei* Háva, 2013: 3- habitus, dorsal; 4- habitus, dorso-lateral.

***Trogoderma fauveli* sp. nov.**
(Figs. 5-8)

Type material. Holotype (♂): New Caledonia, 11832, 22°19'S 166°55'E, 200 m, Foret Nord, site 2, rainfor., 2 Dec 2004, pyrethrum, CJ Burwell & GB Montheith / Photog. Spm. PS1417, (MNHN). Paratypes: (1 spec.): New Caledonia, 11870, 22°23'S 166°56'E, 150 m, Cap Ndoua, ste 1, 29 Nov-21 Dec 2004, malaise, Burwell, Wright, rainforest, (QMBA); (1 spec.): New Caledonia, 12082, 22°19'S 166°55'E, 200 m, Foret Nord, site 2, malaise, 22

Dec 2004-9 Jan 2005, rainforest, Burwell, Wright, (QMBA); (1 spec.): New Caledonia, 11865, 22°14'S 166°50'E, 280 m, Pic du Pin, site 2, intercepts, 25 Nov 2004-12 Jan 2005, Montheith, Grimbacher, RF, (QMBA); (1 spec.): New Caledonia, 11888, 22°19'S 166°55'E, 200 m, Foret Nord, site 2, malaise, 2-22 Dec 2004, rainforest, Burwell, Wright, (JHAC).

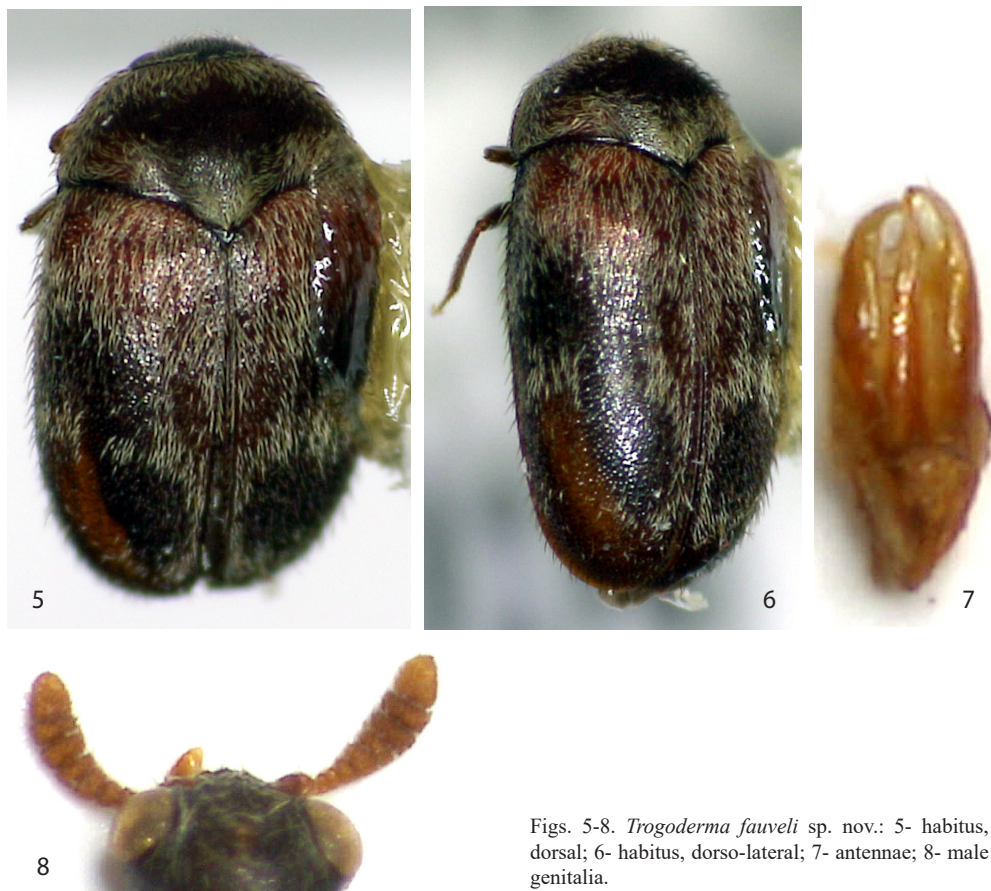
Description. Male. Body measurements (mm): TL 2.3 EW 1.3. Body oval (Figs. 5-6). Dorsal integument of head, pronotum and elytra entirely dark-brown. Ventral integument of thorax and abdomen dark-brown. Antennae and legs brown. Setation of dorsal surfaces coarse, erect, consisting of white and dark-brown setae; setation on ventral surfaces moderately fine, recumbent, white. Antennae brown, with 11 antennomeres, antennal club with 6 antennomeres (Fig. 7). Median ocellus on head present. Pronotum dark-brown, lateral margins considerably raised. Dark setation forming one large discal spot. Antennal fossa extending completely to base of prothorax, deeply excavated. Punctuation very fine on the disc and coarse on lateral margins. Elytra dark brown with light brown anterior area from humeri to scutellum, coarsely punctured on basal 1/3 and near scutellum, finely punctured on other elytral parts; humeri with one large bump. Setation white and dark-brown; dark-brown setation forming spots (Figs. 5-6). Epipleuron brown, extending to hind margin of metepimeron. Prosternum with anterior margin carinate, posterior process gradually tapering towards apex. Metasternum very finely punctured on the disc. Legs dark-brown with brown setae. Abdominal visible sternite finely punctured. Male genitalia (Fig. 8).

Female. Externally similar to male, but differs by the structure of antennae, antennomeres same but smaller.

Differential diagnosis. The new species differs from other known Caledonian and Norfolk species by the characters in the following revised key (Háva & Kadej 2015):

1. Dorsal integument of elytra unicolorous brown 2
- Dorsal integument of elytra bicolorous 4
2. Setation unicolorous, integument dark brown, form of body parallel and elongate *T. caledonica* Háva, 2014
- Setation bicolorous 3
3. Elytral setation brown, split by irregular fasciae of yellow setation, which extends from anterior margin under humeral calli along suture to elytral apices *T. millei* Háva, 2013
- Elytra covered mainly with brown setation; fasciae of white setation present around humeral calli, under humeral calli at half length of elytra and in two-thirds of length of elytra above elytral apices *T. norfolkiana* Háva & Kadej, 2015
4. Body parallel, pubescence on elytra bicolorous
- A(B) Elytral integument brown with two broad yellow transverse bands (in some specimens bands can be connected and then create one large yellow macula); antennal club brown *T. vulneratum* Fauvel, 1903
- B(A) Elytral integument dark brown with light brown anterior area from humeri to scutellum; antennae brown *T. fauveli* sp. nov.
- Body oblong-ovate, pubescence on elytra unicolorous 5
5. Integument of elytron black or dark-brown with large apical reddish-brown apex; antennal club black *T. asperatum* Fauvel, 1903
- Each elytron dark-brown with small humeral red spot; antennal club brown *T. lescheni* Háva, 2014

Etymology. Patronymic, dedicated to Charles Adolphe Albert Fauvel (*1840-†1921), was a French lawyer and amateur entomologist specialised in Coleoptera.



Figs. 5-8. *Trogoderma fauveli* sp. nov.: 5- habitus, dorsal; 6- habitus, dorso-lateral; 7- antennae; 8- male genitalia.

Distribution. New Caledonia.

ACKNOWLEDGEMENTS. I am obliged very much to Christine L. Lambkin and Karin Koch (QMBA) for providing me with the loan of the interesting material and to Miloslav Rakovič (Dobřichovice, Czech Republic) for the revision of the English manuscript. The paper was supported by the Ministry of Agriculture of the Czech Republic, institutional support MZE-RO0118.

REFERENCES

- FAUVEL A. 1903: Faune analytique des Coléoptères de la Nouvelle-Calédonie. *Revue Entomologique*, Caen 22: 203-379.
- HÁVA J. 2013: To the knowledge of the Dermestidae from New Caledonia (Coleoptera). *Entomologische Zeitschrift*, Stuttgart 123: 27-28.

- HÁVA J. 2014: Contribution to knowledge of genus *Trogoderma* from New Caledonia (Coleoptera: Dermestidae: Megatomini). *Arquivos Entomológicos* 12: 179-183.
- HÁVA J. 2015: *World Catalogue of Insects. Volume 13. Dermestidae (Coleoptera)*. Leiden/Boston: Brill, xxvi + 419 pp.
- HÁVA J. 2019: A contribution to knowledge of Dermestidae (Coleoptera) from Australia - Part 5. Subfamily Trinodinae from Queensland and New Caledonia. *Studies and Reports, Taxonomical Series* 15(2): 323-328.
- HÁVA J. & KADEJ M. 2015: Description of a new species of *Trogoderma* Dejean, 1821 from Norfolk Island (Coleoptera: Dermestidae: Megatominae). *New Zealand Journal of Zoology* 42(2): 68-72.
- MROCKOWSKI M. 1968: Distribution of the Dermestidae (Coleoptera) of the World with a catalogue of all known species. *Annales Zoologici* 26: 15-191.

Received: 20.8.2021

Accepted: 20.9.2021

Printed: 31.3.2022