

Contribution to knowledge of genus *Trinodes* Dejean, 1821 from the Afrotropical Region (Coleoptera: Dermestidae: Trinodinae)

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Taxonomy, new species, Coleoptera, Dermestidae, Trinodinae, *Trinodes*, Afrotropical Region

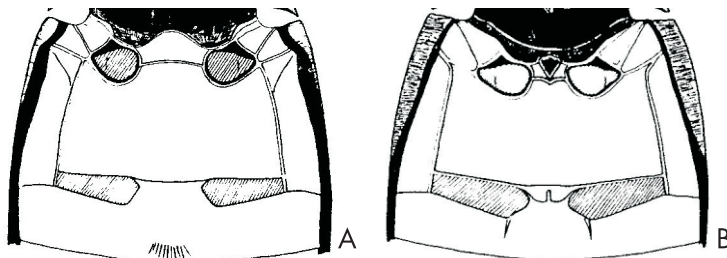
Abstract. The following new species are described, compared and illustrated: *Trinodes schawalleri* sp. nov. (Republic South Africa); *T. congoanus* sp. nov. (Congo) and *T. chadensis* sp. nov. (Chad).

INTRODUCTION

The dermestid genus *Trinodes* Dejean, 1821 belongs to the subfamily Trinodinae, tribe Trinodini, and recently contains 20 species known from the Palaearctic, Oriental and Afrotropical Regions, including a fossil species from Baltic amber (Háva 2015, 2019). The genus from the Afrotropical Region is poorly known, two old species are known and only one species was recently described by Herrmann & Háva (2013). In the present article, three new species are described from the Republic South Africa, Chad and Congo.

MATERIAL AND METHODS

The genus *Evorinea* Beal, 1961 differs from *Trinodes* Dejean, 1821 by a 1- or 2-segmented antennal club and posterior margin of metasternum without small median emargination (Fig. A); *Trinodes* has antennal club with 3 antennomeres and posterior margin of metasternum with small median emargination (Fig. B) (Peacock 1978, Háva 2019).



Figs. A-B. Metasternum: A- *Evorinea* sp.; B- *Trinodes* sp. (according to Peacock 1978).

The following abbreviations were used for measurements and collections:
TL total length - linear distance from anterior margin of pronotum to apex of elytra.
EW elytral width - maximum linear transverse distance.

Type material depository:

HNHM Hungarian Natural History Museum, Budapest, Hungary;

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

MZHF Finnish Museum of Natural History, Helsinki, Finland;

SMNS Staatliches Museum of Naturkunde, Stuttgart, Germany.

The type specimens are provided each with a red, printed label showing the text: "HOLOTYPE [or PARATYPE, respectively] *name of taxon* sp. nov. Jiří Háva det. 2019".

RESULTS

The Afrotropical *Trinodes* species:

A(B) elytral setation forming tufts

albohirsutus Kalík, 1965
chadensis sp. nov.

Kenya, Tanzania
Chad

B(A) elytral setation not forming tufts

caneparii Herrmann & Háva, 2013
congoanus sp. nov.
schawalleri sp. nov.
senegalensis Pic, 1915

Kenya, Tanzania
Congo
RSA: KwaZulu-Natal
Gambia, Guinea Bissau, Senegal

***Trinodes schawalleri* sp. nov.**

(Figs. 1-2)

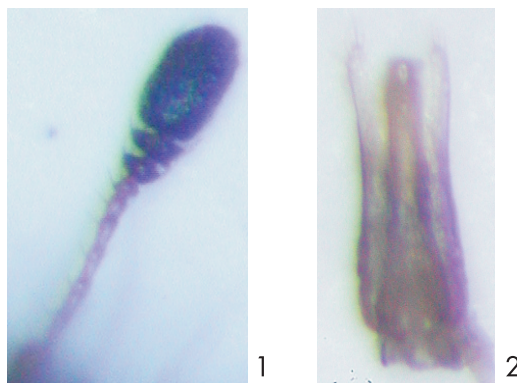
Type material. Holotype (♂): RSA: KwaZulu-Natal, Cathedral Peak Park, 1500 m, 24-27.xi.2003, W. Schawaller leg., (SMNS).

Description. Body small and oval, entirely dark brown, more or less shiny. Body measurements (in mm): TL 2.3, EW 1.5. Head finely punctuate, sparsely covered with long, erect, yellowish-brown setae; punctures partly indistinct. Palpi light brown. Eyes large, with hardly visible, short and erect microsetae. Ocellus present on frons. Antennae with 11 antennomeres, antennomeres I-VIII light brown, IX-XI dark brown, the last three antennomeres forming a distinct club sparsely covered by yellow setae; the terminal antennomere long (Fig. 1). Pronotum dark brown, shiny, sparsely and coarsely punctured (with some finer intermixed punctures), sparsely covered with erect, long yellowish-brown setae; density of punctures and setation increases towards lateral margins; pronotal lateral margins smooth, untoothed; prominent sublateral carina on each side, very broad and deep, subparallel to lateral margin. Scutellum triangular, without any setae or punctation, brown and shiny. Elytra dark brown, sparsely covered by long, erect, yellowish-brown setae, punctures similar to those on pronotum, lateral margins smooth, untoothed; humeri with a small distinct bump. Epipleura brown, sparsely punctured, with short setation. Mesosternum dark brown, sparsely punctuate, with a few recumbent brown setae. Legs totally brown, sparsely covered with suberect, short light brown setae. Abdominal ventrites brown, finely punctuate, sparsely covered with recumbent light yellowish-brown setae. Aedeagus (Fig. 2), median lobe broad.

Female. Unknown.

Differential diagnosis. The new species is similar to *T. caneparii* Herrmann & Háva, 2013, but differs from it by the structure of antennae and male genitalia.

Etymology. Patronymic, dedicated to the collector of the new species Wolfgang Schawaller (SMNS).



Figs. 1-2. *Trinodes schawalleri* sp. nov.: 1-antenna of male; 2-male genitalia.

***Trinodes congoanus* sp. nov.**
(Figs. 3-4)

Type material. Holotype (♂): Congo-Brazzaville, Soil-Zoological Exp., Kindamba, Méya Bangou forest / 4.11.1963, No. 99, netted in forest, Endrödy-Younga leg., (HNHM). Paratype (1 ♀): the same data as holotype, (JHAC).

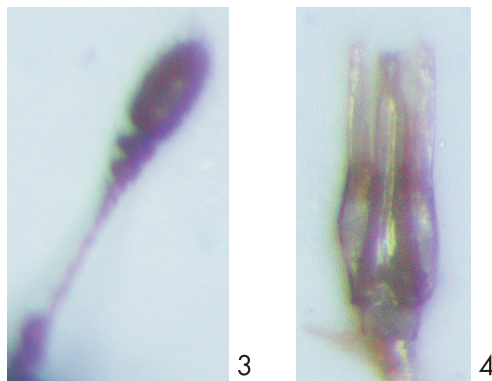
Description. Body small and oval, entirely dark brown, more or less shiny. Body measurements (in mm): TL 2.2, EW 1.4. Head finely punctuate, sparsely covered with long, erect yellow setae; punctures partly indistinct. Palpi light brown. Eyes large, with hardly visible, short and erect microsetae. Ocellus present on frons. Antennae with 11 antennomeres, antennomeres III-VIII light brown, I-II, IX-XI dark brown, the last three antennomeres forming a distinct club sparsely covered by yellow setae; the terminal antennomere long (Fig. 3). Pronotum dark brown, shiny, sparsely and coarsely punctured (with some finer intermixed punctures), sparsely covered with erect, long yellow setae; density of punctures and setation increases towards lateral margins; pronotal lateral margins smooth, untoothed; prominent sublateral carina on each side, very broad and deep, subparallel to lateral margin. Scutellum triangular, without any setae or punctuation, brown and shiny. Elytra dark brown, sparsely covered by long, erect, yellow setae not forming tufts, punctures similar to those on pronotum, lateral margins smooth, untoothed; humeri with a small distinct bump. Epipleura brown, sparsely punctured, with short setation. Mesosternum dark brown, sparsely punctuate, with a few recumbent yellow setae. Legs totally brown, sparsely covered with suberect, short yellow setae. Abdominal ventrites brown, finely punctuate, sparsely covered with recumbent yellow setae. Aedeagus (Fig. 4).

Female. Externally similar to male, but the terminal antennomere is small. Body measurements (in mm): TL 2.4, EW 1.6.

Differential diagnosis. The new species is similar to *T. caneparii* Herrmann & Háva, 2013

and *T. schawalleri* sp. nov., but differs from them by the structure of antennae and male genitalia.

Etymology. Toponymic, named after the country, Congo.



Figs. 3-4. *Trinodes congoanus* sp. nov.: 3- antenna of male; 4- male genitalia.

***Trinodes chadensis* sp. nov.**
(Figs. 5-6)

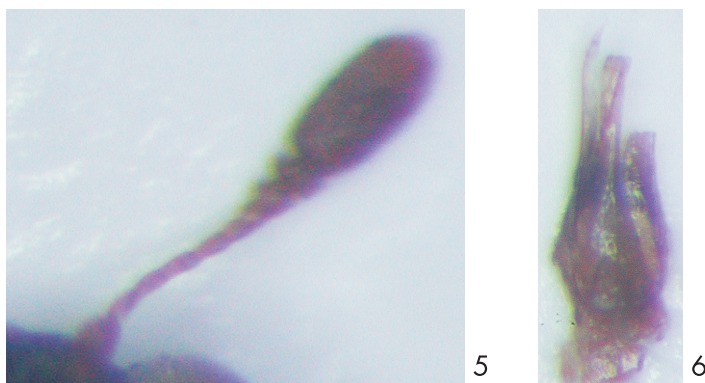
Type material. Holotype (♂): Chad, Deli, 30.5.1973, R. Linnavuori leg., (MZHF). Paratype (1 ♀): the same data as holotype, (JHAC).

Description. Body small and oval, entirely dark brown, more or less shiny. Body measurements (in mm): TL 2.4, EW 1.5. Head finely punctuate, sparsely covered with long, erect yellow setae; punctures partly indistinct. Palpi light brown. Eyes large, with hardly visible, short and erect microsetae. Ocellus present on frons. Antennae brown, with 11 antennomeres, the last three antennomeres forming a distinct club sparsely covered by yellow setae; the terminal antennomere long (Fig. 5). Pronotum dark brown, shiny, sparsely and coarsely punctured (with some finer intermixed punctures), sparsely covered with erect, long yellow setae; density of punctures and setation increases towards lateral margins; pronotal lateral margins smooth, untoothed; prominent sublateral carina on each side, very broad and deep, subparallel to lateral margin. Scutellum triangular, without any setae or punctuation, brown and shiny. Elytra dark brown, sparsely covered by long, erect, yellow setae forming tufts, punctures similar to those on pronotum, lateral margins smooth, untoothed; humeri with a small distinct bump. Epipleura brown, sparsely punctured, with short setation. Mesosternum dark brown, sparsely punctuate, with a few recumbent yellow setae. Legs totally light brown, sparsely covered with suberect, short light yellow setae. Abdominal ventrites brown, finely punctuate, sparsely covered with recumbent yellow setae. Aedeagus (Fig. 6), destroyed (right paramere missing).

Female. Externally similar to male, but the terminal antennomere is small. Body measurements (in mm): TL 2.5, EW 1.6.

Differential diagnosis. The new species is similar to *T. albohirsutus* Kalík, 1965, but differs from it by the structure of antennae and male genitalia.

Etymology. Toponymic, named after the country, Chad.



Figs. 5-6. *Trinodes chadensis* sp. nov.: 5- antenna of male; 6- male genitalia.

Trinodes sp.

Material examined. Cameroun: Olounou lez Sangmelima, 14.ix.1971, F. Puylaert leg., 1 ♀, (JHAC).

Remarks. Body measurements (in mm): TL 2.0; light brown, covered by yellow setae not forming tufts; antennae light brown with 11 antennomeres. The female probably belongs to the new species, but for definite status of this species, a male specimen from the same region is needed. The species is similar to *T. caneparii* Herrmann & Háva, 2013.

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