

**A contribution to the knowledge of the genus *Trichodesma* LeConte, 1861  
from the Afrotropical Region  
(Coleoptera: Ptinidae: Anobiinae)**

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**Taxonomy, new species, Coleoptera, Ptinidae, Anobiinae, *Trichodesma*, Afrotropical Region**

**Abstract.** The new following species *Trichodesma muehlei* sp. nov. (Rwanda); *T. kantneri* sp. nov. (Zimbabwe); *T. bilyi* sp. nov. (RSA); *T. snizeki* sp. nov. (Kenya); *T. vinolasi* sp. nov. (RSA); *T. haladai* sp. nov. (RSA); *T. murzini* sp. nov. (Namibia); *T. lackneri* sp. nov. (Angola); *T. tanzaniana* sp. nov. (Tanzania); *T. paralisaie* sp. nov. (Zambia); *T. smrzi* sp. nov. (Zambia); *T. somalica* sp. nov. (Somalia) are described, illustrated and compared with similar species. The species *T. lateritia* Pic, 1903 is newly recorded from Mozambique and *T. soleri* Viñolas, 2018 is newly recorded from Malawi.

INTRODUCTION

The Afrotropical Region includes the sub-Saharan part of Africa, including adjacent islands. The species diversity of the family Ptinidae is very high here, but it is clear that many species are still unknown to science.

The genus *Trichodesma* LeConte, 1861 belongs to the subfamily Anobiinae Fleming, 1821, tribe Nicobiini White, 1982 together with the genera *Anobiopsis* Fall, 1905 (1 species - North America), *Belemia* Español, 1984 (1 species - Brazil), *Nicobium* LeConte, 1861 (9 species - Europe, Middle East, North America, Brazil, St. Helen I., including one fossil species), *Nanodesma* Zahradník 2019 (11 species - Southeast Asia, China) and *Trichobiopsis* White, 1973 (2 species - Brazil). The genus *Trichodesma* LeConte, 1861 is known worldwide (Zahradník & Háva 2014; Schnepf 2023), and contains 76 species, including 4 fossil species. From the Afrotropical Region the following 8 species are known: *T. dentitibia* Español, 1966, *T. endroedyoungai* Viñolas & Masó, 2007, *T. lateritia* Pic, 1903, *T. lisae* Viñolas, 2018, *T. munyoi* Viñolas, 2018, *T. nigrofasciata* Español, 1966, *T. soleri* Viñolas, 2018 and *T. verdugoi* Viñolas, 2022 (Viñolas 2018; Schnepf 2023). An additional twelve species are described here.

## MATERIAL AND METHODS

We studied all the original description of species from the Afrotropical Region in the genus *Trichodesma* LeConte, 1861 (Español 1966, Pic 1903, Viñolas 2018, Viñolas & Masó 2007). We were able to study most of the known species from this genus (unfortunately not type materials), except for *T. dentitibia* Español, 1966, *T. munyози* Viñolas, 2018 and *T. verdugoi* Viñolas, 2022.

The type material of the new species is deposited in the following collections:

PZPC Petr Zahradník, private collection, Jesenice, Czech Republic;

JHAC Private Entomological Laboratory and Collection, Jiří Háva, Únětice u Prahy, Prague west, Czech Republic.

The photographs were made by digital camera Olympus DP 72 on a stereobinocular microscope Olympus SZX 16 using the programme Quick Photo Camera 2.3 and Deep Focus 3.0 for the modification of the pictures.

The new species described here are provided with a red, printed label showing the following words: “Holotype” or “Paratype”; on the second white, printed label, there is the text: “*Trichodesma* / *species name*, sp. n. / Zahradník & Háva det.”.

### LIST OF KNOWN AFROTROPICAL *TRICHODESMA* SPECIES

<i>T. bilyi</i> sp. nov.	South Africa (RSA)
<i>T. dentitibia</i> Español, 1966	Angola, Ivory Coast, Zaire
<i>T. endroedyoungai</i> Viñolas & Masó, 2007	South Africa (RSA)
<i>T. haladai</i> sp. nov.	South Africa (RSA)
<i>T. kantneri</i> sp. nov.	Zimbabwe
<i>T. lackneri</i> sp. nov.	Angola
<i>T. lateritia</i> Pic, 1903	Botswana, Ethiopia Guinea-Bissau, Guinea Equatorial, Ivory Coast, Kenya, Mozambique, Niger, Nigeria, Senegal, South Sudan, Sudan, Zaire, Zambia
<i>T. lisae</i> Viñolas, 2018	Zambia
<i>T. muehlei</i> sp. nov.	Rwanda
<i>T. munyози</i> Viñolas, 2018	Sierra Leone
<i>T. murzini</i> sp. nov.	Namibia
<i>T. nigrofasciata</i> Español, 1966	Zaire, Zambia
<i>T. paralisae</i> sp. nov.	Zambia
<i>T. smrzi</i> sp. nov.	Zambia
<i>T. snizeki</i> sp. nov.	Ethiopia, Kenya
<i>T. soleri</i> Viñolas, 2018	Malawi, Zambia,
<i>T. somalica</i> sp. nov.	Somalia
<i>T. tanzaniana</i> sp. nov.	Tanzania
<i>T. verdugoi</i> Viñolas, 2022	Somalia
<i>T. vinolasi</i> sp. nov.	South Africa (RSA)

## DESCRIPTIONS

### Genus *Trichodesma* LeConte, 1861

#### *Trichodesma bilyi* sp. nov.

(Figs. 1a-f)

**Type material.** Holotype (♂): RSA, North prov., KNP [Kruger National Park], Pafuri, 22°26' S, 31°12' E, 5-7. xii.1997, S. Bilý lgt., (PZPC).

**Description.** Elongate-elliptical, transversally slightly convex. Body length 4.9 mm, the greatest width 2.8 mm. Ratio elytra length : elytra width of 1.3. Body brown with white or yellowish-white pubescence, antennae, palpi and legs a little lighter. Habitus see Figs. 1a (dorsal view) and 1b (lateral view).

Head flat, with two types of setae - the first short very dense recumbent, cloudy arranged, covering entire head, punctures invisible, the second long, erect, but only Anterior part and about base of antennae, inclined more or less anteriorly. Eyes large, globular, with sparse long erect setae. Front twice as wide as width of eye in dorsal view. Antennae with 11 antennomeres, filiform, the last three antennomeres enlarged (Fig. 1d). The 1<sup>st</sup> antennomere robust, 2.1 times longer than wide. The 2<sup>nd</sup> antennomere twice long as wide, three times shorter than the 1<sup>st</sup>. The 3<sup>rd</sup> antennomere 0.9 times shorter as the 2<sup>nd</sup>, half as wide. Antennomeres 4<sup>th</sup> to 8<sup>th</sup> also the same length, slightly transverse, 1.2 times wider than long. The 9<sup>th</sup> and 10<sup>th</sup> antennomere large, serrated, the 9<sup>th</sup>, as long as 2<sup>nd</sup>-8<sup>th</sup> together, 0.8 times shorter than 10<sup>th</sup>. The 9<sup>th</sup> 1.5 times longer than wide, the 10<sup>th</sup> 2.1 times longer than wide. The 11<sup>th</sup> not serrated, 7 times longer as wide, 3 times narrower than previous. All antennomeres with sparse long erect setae. The last segment of maxillary palpi triangular, 1.2 longer than wide.

Pronotum transverse, ratio length : width 0.7, the widest in the second third (Fig. 1c). Middle of pronotum with sharp tubercle, inclined backwards. On the sides of this tubercle shallow depression. Pronotum with two types of setae - the first very dense, recumbent, covered almost entire pronotum, the second long, erect, sparser than previous, missing around tubercle and posterior part. Part of tubercle with short erect brown setae combed arranged, triangular, narrower posteriorly, twice long as wide, between with narrow line from white-yellowish recumbent pubescence. Shallow depression without recumbent pubescence, shining, with small irregular bulges.

Scutellum small, almost rectangular, as wide as long, with dense short white recumbent setae, inclined backward.

Elytra oval, with distinct humeri, visible part of surface matte shining, with large dense punctures, almost confluent, arranged in rows. Anterior part of elytra with small irregular bulges. Surface of elytra with two types of setae - the first short dense recumbent or semierect, especially on border of recumbent pubescence, arranged irregularly. The second sparser, erect. Each elytron between the first and the third part with longitudinal surface without pubescence, from lateral margin almost to suture.

Legs robust, with two types of pubescence - the first dense, recumbent, the second long, sparse erect. Mesotibia on base smooth, without hook. Tarsi stout, the first segment longest, the last similar to the first, but wider, tarsal claws broadly toothed.

The 1<sup>st</sup> abdominal sternite in middle with peak as long as the width of lateral margin of this sternite. The 2<sup>nd</sup> longest, 1.4 times longer than 3<sup>rd</sup> and twice as long as 4<sup>th</sup>. The 5<sup>th</sup> 1.3 times shorter than 2<sup>nd</sup>. Surface shining, with double punctures - the 1<sup>st</sup> coarse, dense, diameter from the 3<sup>rd</sup> sternite the same as distance between them; on the 1<sup>st</sup> and 2<sup>nd</sup> sternites arranged in rows, obliquely posterior from lateral margin.

Aedeagus see Figs. 1e-f.

**Female.** Unknown.

**Differential diagnosis.** See key.

**Name derivation.** Patronymic, dedicated to the collector of the holotype, my very good friend Svatopluk Bílý (\*1945-†2022), well-known specialist on the family Buprestidae.

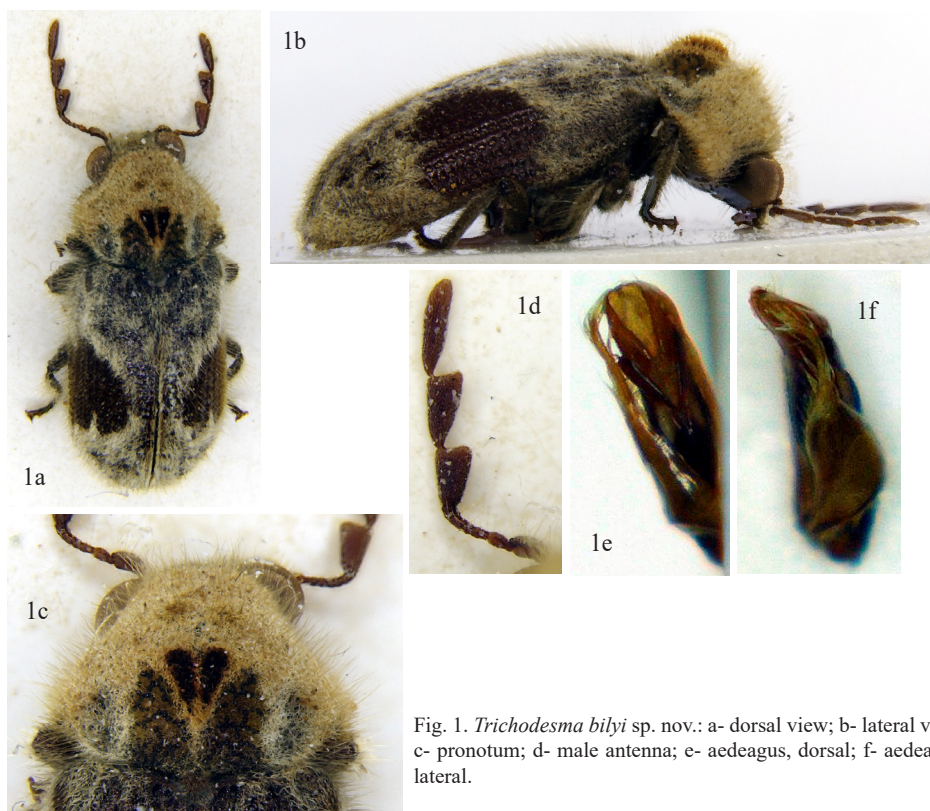


Fig. 1. *Trichodesma bilyi* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus, dorsal; f- aedeagus, lateral.

*Trichodesma haladai* sp. nov.

(Figs. 2a-g)

**Type material.** Holotype (♂): RSA, Kwazulu Natal, Elephant p(ark)., Jozini Tembe, 8.xii.2002, M. Halada lgt., (PZPC). Paratype (1 ♀): RSA, Kwazulu Natal, Elephant p(ark)., Jozini Tembe, 30.xi.2002, M. Snížek lgt., (PZPC); (1 ♀): RSA, Kwazulu Natal NEE, S of Emangusi, 5.12.2002, M. Snížek lgt., (PZPC).

**Description.** Elongate-elliptical, transversally slightly convex. Body length 4.9 mm, the greatest width 2.3 mm. Ratio elytra length : elytra width of 1.5. Body dark brown with yellow-orange pubescence, legs also dark brown, antennae and palpi a little lighter. Habitus see Figs. 2a (dorsal view) and 2b (lateral view).

Head flat, with two types of setae - the first short very dense recumbent, cloudy arranged, covered entire head, punctures invisible, the second long, erect, but only Anterior part and around base of antennae, inclined, more or less anteriorly. Eyes large, globular, with sparse long erect setae. Front twice as wide as width of eye in dorsal view. Antennae consist of 11 antennomeres, filiform, the last three antennomeres enlarged (Fig. 2d). The 1<sup>st</sup> antennomere robust, 3 times longer than wide. The 2<sup>nd</sup> antennomere 1.2 as long as wide, three times shorter than 1<sup>st</sup>. The 3<sup>rd</sup> antennomere 0.9 times shorter as the 2<sup>nd</sup>, 0.9 slimmer than previous. Antennomeres 4<sup>th</sup> to 8<sup>th</sup> also the same length, slightly transverse, 1.2 times wider than long. The 9<sup>th</sup> and 10<sup>th</sup> antennomere large, serrated, the 9<sup>th</sup> the same length as 2<sup>nd</sup>-8<sup>th</sup> together, 0.8 times shorter than 10<sup>th</sup> and 2.1 times longer than wide. The 10<sup>th</sup> 2.6 times longer than wide, as long as previous. The 11<sup>th</sup> not serrated, 4 times longer than wide, 0.8 times narrower as previous. All antennomeres with sparse long erect setae. The last segment of maxillary palpi triangular, 1.2 longer than wide.

Pronotum transverse, ratio length : wide 0.8, the widest shortly before on base (Fig. 2c). Middle of pronotum with sharp tubercle, inclined backwards. On the sides of this tubercle shallow depression. Pronotum with two types of setae - the first very dense, recumbent, covered almost entire pronotum, the second long, erect, sparser than previous, missing about tubercle. Part of tubercle with short erect brown setae combed arranged, triangular, narrower posteriorly, twice long as wide, between with narrow line of yellowish-orange recumbent pubescence and with two transverse combed brown setae before tubercle. Posterior part of pronotum with small irregular bulges.

Scutellum small, almost rectangular, as wide as long, with dense short yellowish-orange recumbent setae, inclined backward.

Elytra oval, with distinct humeri, visible part of surface matte shining, with large dense rectangular punctures, almost confluent, arranged in rows. Anterior part of elytra with small irregular bulges. Surface of elytra with two types of setae - the first short dense recumbent or semierect, especially on border of recumbent pubescence, arranged irregularly. The second sparser, erect. Each elytron between the first and the third part with longitudinal surface without pubescence, from lateral margin almost to suture.

Legs robust, with two types of pubescence - the first dense, recumbent, the second long, sparse erect. Mesotibia on base smooth, without hook. Tarsi stout, the first longest, the last similar as the first, but wider, tarsal claws broadly toothed.

The 1<sup>st</sup> abdominal sternite in middle with peak as long as wide as lateral margin of this sternite. The 2<sup>nd</sup> longest, 1.4 times longer as 3<sup>rd</sup> and twice longer than 4<sup>th</sup>. The 5<sup>th</sup> 1.3 times shorter than 2<sup>nd</sup>. Surface shining, with double punctures - the 1<sup>st</sup> coarse, dense, diameter from the 3<sup>rd</sup> sternite the same as distance between them; on the 1<sup>st</sup> and 2<sup>nd</sup> sternites arranged in rows, obliquely posterior from lateral margin.

Aedeagus see Figs. 2f-g.

**Female.** Recumbent pubescence on elytra sparser, surface of elytra more visible (Fig. 2e).

**Variability.** Length from 4.0 to 6.0 mm.

**Differential diagnosis.** See key.

**Name derivation.** Patronymic, dedicated to the collector of the holotype, Marek Halada.

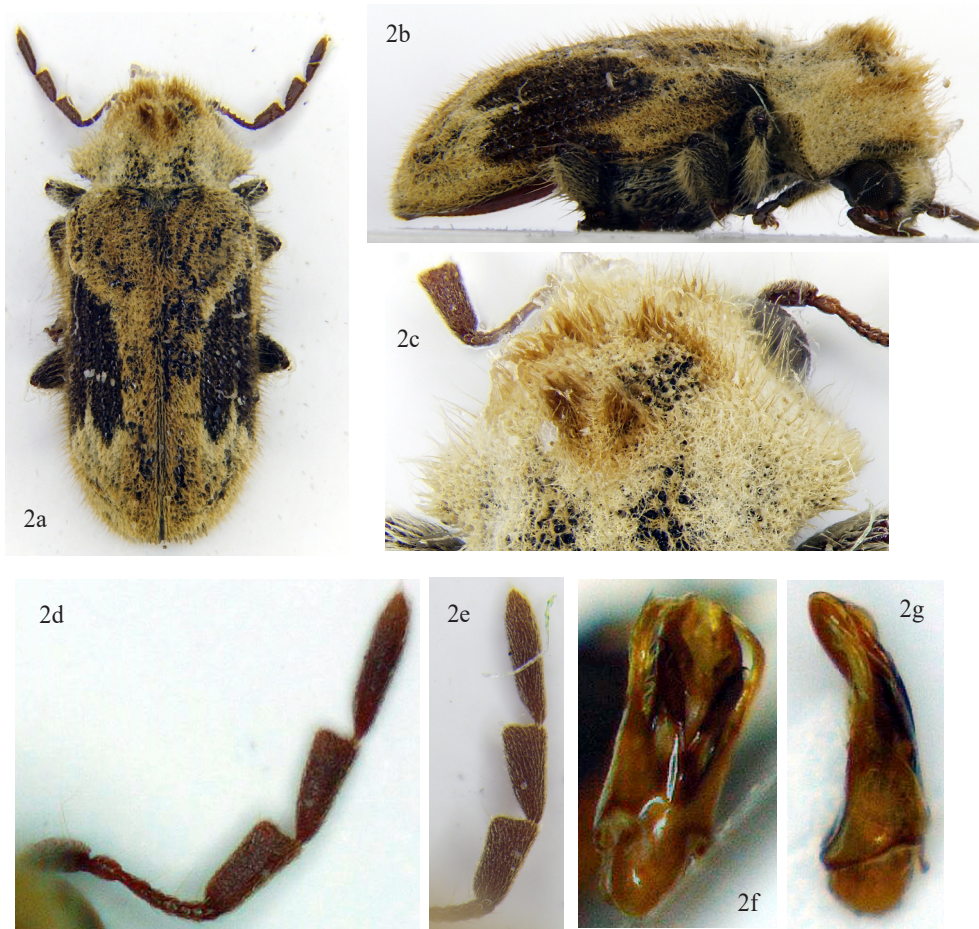


Fig. 2. *Trichodesma haladai* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- female antenna; f- aedeagus, dorsal; g- aedeagus, lateral.

*Trichodesma kantneri* sp. nov.

(Figs. 3a-f)

**Type material.** Holotype (♂): ZIMBABWE or. mer., Chirinda Forest, Mt. Selinda, 3.ii.1998, F. Kantner lgt., (PZPC). Paratype (1 ♀): ZIMBABWE mer., Bubi river vall., 70 km N of Beitbridge, 2.xii.1998, F. Kantner lgt., (PZPC).

**Description.** Elongate-elliptical, transversally slightly convex. Body length 4.9 mm, the greatest width 2.2 mm. Ratio elytra length : elytra width of 1.6. Body brown with white-yellowish pubescence, legs dark brown. Habitus see Figs. 3a (dorsal view) and 3b (lateral view).

Head flat, with two types of setae – the first short very dense recumbent, cloudy arranged, covering entire head, punctures invisible, the second long, erect, but only anterior part and around base of antennae, inclined, more or less anteriorly. Eyes large, globular, with sparse long erect setae. Front three times wider than width of eye in dorsal view. Antennae with 11 antennomeres, filiform, the last three antennomeres enlarged (Fig. 3d). The 1<sup>st</sup> antennomere robust, 3 times longer than wide. The 2<sup>nd</sup> antennomere 1.2 as long as wide, three times shorter than the 1<sup>st</sup>. The 3<sup>rd</sup> antennomere 0.9 times shorter than the 2<sup>nd</sup>, 0.9 slimmer than previous. Antennomeres 4<sup>th</sup> to 8<sup>th</sup> also the same length, slightly transverse, 1.2 times wider than long. The 9<sup>th</sup> and 10<sup>th</sup> antennomere large, slightly serrated, the 9<sup>th</sup> the same length as 2<sup>nd</sup>-8<sup>th</sup> together, 0.9 times shorter than 10<sup>th</sup> and 2.1 times longer than wide. The 10<sup>th</sup> 2.6 times longer than wide, as long as previous. The 11<sup>th</sup> not serrated, 4 times longer as wide, 0.8 times narrower than previous. All antennomeres with sparse long erect setae. The last segment of maxillary palpi triangular, 1.2 longer than wide.

Pronotum transverse, ratio length : wide 0.7, the widest in the second third of length (Fig. 3c). Middle of pronotum with blunt tubercle, inclined backwards. On the sides of this tubercle shallow depression. Pronotum with two types of setae - the first very dense, recumbent, covering almost entire pronotum, the second long, erect, sparser than previous. Top of tubercle with short erect rusty setae combed arranged and two small spots from the same setae before this tubercle. Surface shining matte with double punctures - the first coarse and very dense almost confluent, their diameter 0.5 smaller as distance between them, the second very fine and dense. Posterior part of pronotum with small irregular bulges.

Scutellum small, triangular, as wide as long, with dense long semierect setae, inclined backward.

Elytra oval, with distinct humeri, visible part of surface matte shining, with large dense rectangular punctures, almost confluent, arranged in rows. Anterior part of elytra with small irregular bulges. Surface of elytra with three types of setae - the first short dense recumbent, the second semierect, together with the first recumbent pubescence, inclined backwards. The third sparser, erect, longer as the second. Each elytron between the first and the third part with longitudinal surface without pubescence, from lateral margin almost to suture.

Legs robust, with two types of pubescence - the first dense, recumbent, the second long, sparse erect. Mesotibia on base smooth, without hook. Tarsi stout, the first segment longest, the last similar to the first, but wider, tarsal claws broadly toothed.

The 1<sup>st</sup> abdominal sternite in middle with peak as long as width of lateral margin of this

sternite. The 2<sup>nd</sup> longest, 1.4 times longer as 3<sup>rd</sup> and twice as long as 4<sup>th</sup>. The 5<sup>th</sup> 1.3 times shorter than 2<sup>nd</sup>. Surface shining, with double punctures - the 1<sup>st</sup> coarse, dense, diameter from the 3<sup>rd</sup> sternite the same as distance between them; on the 1<sup>st</sup> and 2<sup>nd</sup> sternites arranged in rows, obliquely posterior from lateral margin.

Aedeagus see Figs. 3e-f.

**Female.** Without distinct dimorphism.

**Differential diagnosis.** See key.

**Name derivation.** Patronymic, dedicated to the collector of the type materials, František Kantner.

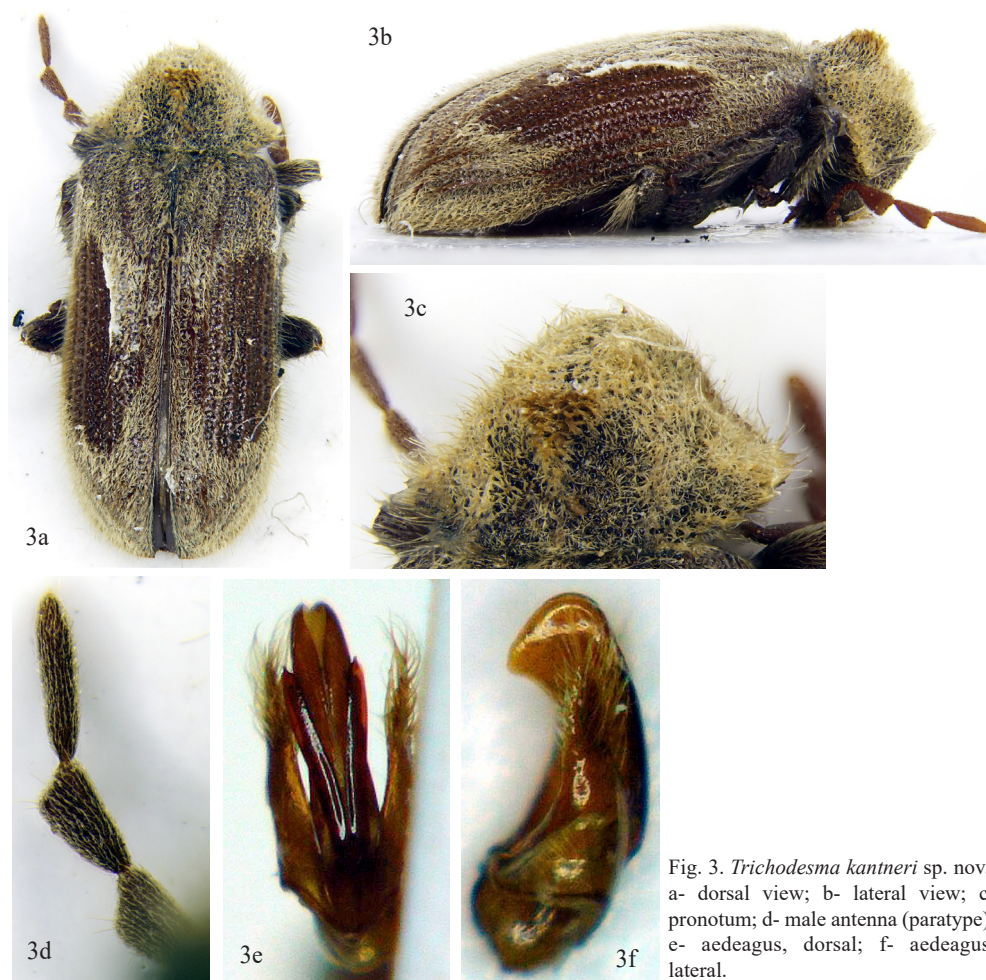


Fig. 3. *Trichodesma kantneri* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna (paratype); e- aedeagus, dorsal; f- aedeagus, lateral.



*Trichodesma lackneri* sp. nov.

(Figs. 4a-f)

**Type material.** Holotype (♂): ANGOLA central, Bié prov., Kuemba env., 17.xi.2012, T. Lackner lgt., (PZPC).

**Description.** Elongate-elliptical, transversally slightly convex. Body length 6.0 mm, the greatest width 2.3 mm. Ratio elytra length : elytra width of 1.8. Body dark brown with yellowish pubescence, legs, antennae and palpi a little lighter. Habitus see Figs. 4a (dorsal view) and 4b (lateral view).

Head flat, with two types of setae - the first short dense recumbent, covering almost entire head, the second longer, erect, irregular. Punctures coarse and very dense almost confluent, their diameter 0.5 smaller than distance between them. Eyes large, globular, with sparse long erect setae. Front 2.5 times wider than width of eye in dorsal view. Antennae consist of 11 antennomeres, filiform, the last three antennomeres enlarged (Fig. 4d). The 1<sup>st</sup> antennomere robust, twice as long as wide. The 2<sup>nd</sup> antennomere 1.1 longer than wide, twice as short as 1<sup>st</sup> and the same width as 1<sup>st</sup>. The 3<sup>rd</sup> antennomere 0.9 times shorter than 2<sup>nd</sup>, 0.9 slimmer than previous. Antennomeres 4<sup>th</sup> to 8<sup>th</sup> approximately the same length, slightly transverse. The 9<sup>th</sup> and 10<sup>th</sup> antennomere large, serrated, the 9<sup>th</sup> 1.5 times long as 3<sup>rd</sup>-8<sup>th</sup> together, 0.8 times shorter than 10<sup>th</sup> and 1.5 times longer than wide. The 10<sup>th</sup> 2.4 times longer than wide, 1.3 longer than previous. The 11<sup>th</sup> not serrated, 4 times longer than wide, 0.6 times narrower than previous. The 3<sup>rd</sup>-8<sup>th</sup> antennomere with only one long erect seta, other antennomeres without pubescence or setae. The last segment of maxillary palpi twice as long as wide, apex slightly emarginated.

Pronotum transverse, ratio length : wide 0.9, the widest in the middle of their length (Fig. 4c). Middle of pronotum with sharp tubercle, inclined backwards. On the sides of this tubercle shallow depression. Pronotum with two types of setae - the first very dense, recumbent, partly semierect, covering almost entire pronotum, the second long, erect, sparser than previous. Top of tubercle with short erect sparse pubescence. Between spots on tubercles short stripe of yellowish pubescence, behind of tubercles sparse, surface visible. Surface shining matte with double punctures - the first coarse and very dense almost confluent, their diameter 0.5 smaller as distance between them, the second very fine and dense. Posterior part of pronotum with small irregular bulges.

Scutellum small, triangular, 1.2 times longer as wide, with dense long semierect setae, inclined backward.

Elytra oval, with distinct humeri, visible part of surface matte shining, with large dense rectangular punctures, almost confluent, arranged in rows. Anterior part of elytra with small irregular bulges. Surface of elytra with three types of setae - the first short dense recumbent, the second semierect, together with the first recumbent pubescence, inclined backwards. The third sparser, erect, longer than the second. Each elytron between the first and the third part with longitudinal surface without pubescence, from lateral margin almost to suture.

Legs robust, with two types of pubescence - the first dense, recumbent, the second long, dense erect. Mesotibia on base smooth, without hook. Tarsi stout, the first segment longest, the last similar to the first, but wider, tarsal claws broadly toothed.



Fig. 4. *Trichodesma lackneri* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus, dorsal, f- aedeagus, lateral..

The 1<sup>st</sup> abdominal sternite in middle with peak as long as width of lateral margin of this sternite. The 2<sup>nd</sup> longest, 1.4 times longer than 3<sup>rd</sup> and twice as long as 4<sup>th</sup>. The 5<sup>th</sup> 1.3 times shorter than 2<sup>nd</sup>. Surface shining, with double punctures - the 1<sup>st</sup> coarse, dense, diameter from the 3<sup>rd</sup> sternite the same as distance between them; on the 1<sup>st</sup> and 2<sup>nd</sup> sternites arranged in rows, obliquely posterior from lateral margin.

Aedeagus see Figs. 4e-f.

**Female.** Unknown.

**Differential diagnosis.** See key.

**Name derivation.** Patronymic, dedicated to the collector of the holotype Tomáš Lackner, well-known specialist on the family Histeridae.

*Trichodesma muehlelei* sp. nov.

(Figs. 5a-e)

**Type material.** Holotype (♀): RWANDA, Cyangugu, Nyakabuye, 3.1.1986, H. Mühle lgt., (PZPC).

**Description.** Shortly-elliptical, transversally convex. Body length 6.7 mm, the greatest width 3.0 mm. Ratio elytra length : elytra width of 1.6. Body brown with yellow pubescence, legs, antennae and palpi a little lighter. Habitus see Figs. 5a (dorsal view) and 5b (lateral view).

Head flat, with two types of setae - the first short very dense recumbent, covered entire head, surface invisible, the second long, erect, irregular. Eyes large, globular, with dense long erect setae. Front 4.5 times wider than width of eye in dorsal view. Antennae consist of 11 antennomeres, filiform, the last three antennomeres enlarged (Fig. 5d). The 1<sup>st</sup> antennomere robust, twice as long as wide. The 2<sup>nd</sup> antennomere 1.3 longer than wide, twice as short as the 1<sup>st</sup> and the slightly narrower than 1<sup>st</sup>. The 3<sup>rd</sup> antennomere as long as the 2<sup>nd</sup>, 0.9 slimmer than previous. Antennomeres 4<sup>th</sup> to 8<sup>th</sup> approximately the same length, slightly transverse. The 9<sup>th</sup> and 10<sup>th</sup> antennomere large, serrated, the 9<sup>th</sup> 0.8 times shorter than 3<sup>rd</sup>-8<sup>th</sup> together, 0.8 times shorter than 10<sup>th</sup> and 1.3 times longer than wide. The 10<sup>th</sup> 1.6 times longer than wide. The 11<sup>th</sup> not serrated, 4 times as long as wide, twice as narrow as previous. The first three antennomeres with sparse long erect setae, other antennomeres glabrous. The last segment of maxillary palpi twice as long as wide, apex slightly emarginated.

Pronotum transverse, ratio length : wide 0.6, the widest in the middle, this part almost parallel, after this part strongly emarginated (Fig. 5c). Middle of pronotum with sharp tubercle, inclined backwards. On the sides of this tubercle shallow depression, lateral margin flattened. Pronotum with two types of setae - the first very dense, recumbent, partly semierect, covering almost entire pronotum, the second long, erect, sparser than previous. Between flattened margin and tubercle and posterior part behind tubercle almost glabrous. Top of tubercle with short erect rusty setae combed arranged, triangular, narrowed posteriorly and two small spots from the same setae before this tubercle, with sparse long erect setae. Between spots on tubercles short stripe of yellowish pubescence, and longitudinal almost glabrous narrow line, going to anterior part of pronotum. Visible part of surface shining matte with double punctures - the first coarse and very dense almost confluent, their diameter 0.5 smaller than distance between them, the second very fine and dense. Posterior part of pronotum with small irregular bulges.

Scutellum small, rectangular, 1.2 times wider as long, posterior margin in middle emarginated, with dense long semierect setae, inclined backward, slightly inclined toward sides of scutellum.

Elytra oval, with distinct humeri, visible part of surface matte shining, with large dense rectangular punctures, almost confluent, arranged in rows. Anterior part of elytra with small irregular bulges. Surface of elytra with two types of setae - the first short dense recumbent, the second sparser, erect, long, the second recumbent dense. Anterior part of elytra arranged of V-shaped, going from humeri to suture, continued along suture and covering apex of elytra, on the narrow apex very dense. Triangular spot on base of elytra with sparse recumbent pubescence and dense erect long setae. Each elytron between the first and the third part with spot from lateral margin almost to suture, with short stripe from sparse

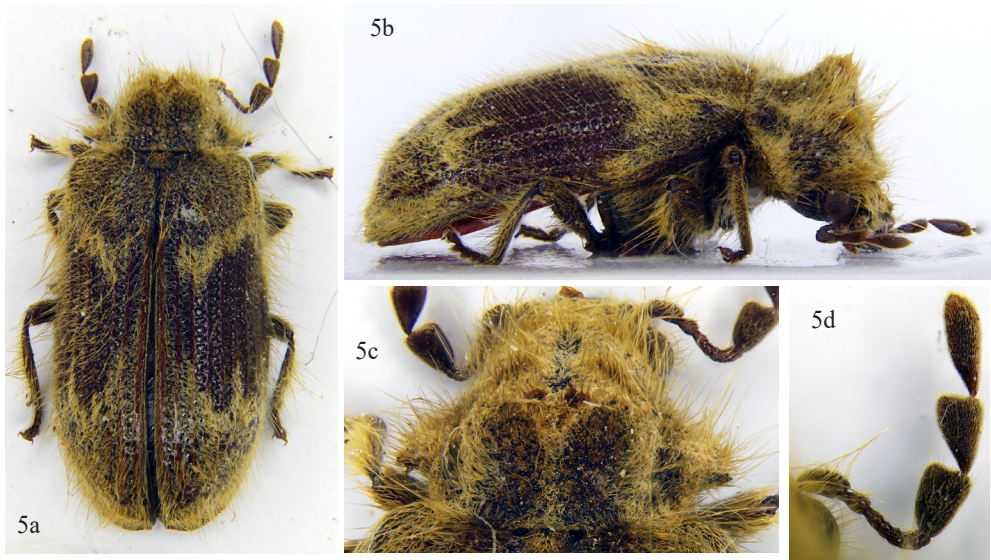


Fig. 5. *Trichodesma muehlelei* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna.

recumbent pubescence going from posterior part in middle, to middle of this spot.

Legs robust, with two types of pubescence - the first dense, recumbent, the second long, dense erect. Mesotibia on base smooth, without hook. Tarsi stout, the first segment longest, the last similar to the first, but wider, tarsal claws broadly toothed.

The 1<sup>st</sup> abdominal sternite in middle with peak as long as width of lateral margin of this sternite. The 2<sup>nd</sup> and 3<sup>rd</sup> the same length, 1.9 times longer than 1<sup>st</sup>. The 4<sup>th</sup> and the 5<sup>th</sup> the same length as the 1<sup>st</sup>. Surface shining, with double punctures, different between sternites, The 1<sup>st</sup>, 4<sup>th</sup> and 5<sup>th</sup> coarse, dense, large, diameter the same as distance between them; the 2<sup>nd</sup> and the 3<sup>rd</sup> sternites with coarse punctures very large, oval. All sternites with dense, long, yellow pubescence, inclined backwards.

**Male.** Unknown.

**Differential diagnosis.** See key.

**Name derivation.** Patronymic, dedicated to the collector of the holotype, Hans Mühle.

***Trichodesma murzini* sp. nov.**

(Figs. 6a-f)

**Type material.** Holotype (♂): NAMIBIA, Kavango pr., Shamwura Rest Camp, 130 km E Rundu, 1090 m, 18.0262° S, 20.78509° E, 13.-31.xii. 2013, S. Murzin lgt., (PZPC).

**Description.** Elongate-elliptical, transversally slightly convex. Body length 6.0 mm, the greatest width 2.2 mm. Ratio elytra length : elytra width of 1.8. Body black with white pubescence, legs, antennae and palpi brown. Habitus see Figs. 6a (dorsal view) and 6b (lateral view).

Head flat, with medium length dense semierect pubescence, covering almost entire head, cloudy arranged. Punctures invisible are they there or not do they require high microscope power to be visible. Eyes large, globular, with sparse long erect setae. Front twice as wide as width of eye in dorsal view. Antennae consist of 11 antennomeres, filiform, the last three antennomeres enlarged (Fig. 6d). The 1<sup>st</sup> antennomere robust, twice as long as wide. The 2<sup>nd</sup> antennomere 1.1 longer as wide, twice as short as 1<sup>st</sup> and the same width as the 1<sup>st</sup>. The 3<sup>rd</sup> antennomere 0.9 times shorter than 2<sup>nd</sup>, 0.9 slimmer than previous. Antennomeres 4<sup>th</sup> to 8<sup>th</sup> approximately the same length, slightly transverse. The 9<sup>th</sup> and 10<sup>th</sup> antennomere large, serrated, the 9<sup>th</sup> as long as 3<sup>rd</sup>-8<sup>th</sup> together, 0.9 times shorter than 10<sup>th</sup> and 1.8 times longer than wide. The 10<sup>th</sup> 1.8 times longer than wide, 1.5 longer than previous. The 11<sup>th</sup> not serrated, 2 times longer than wide, 0.7 times narrower than previous. The 1<sup>st</sup> and 2<sup>nd</sup> antennomeres with a few long erect setae, other antennomeres without pubescence. The last segment of maxillary palpi twice as long as wide, apex slightly emarginated.

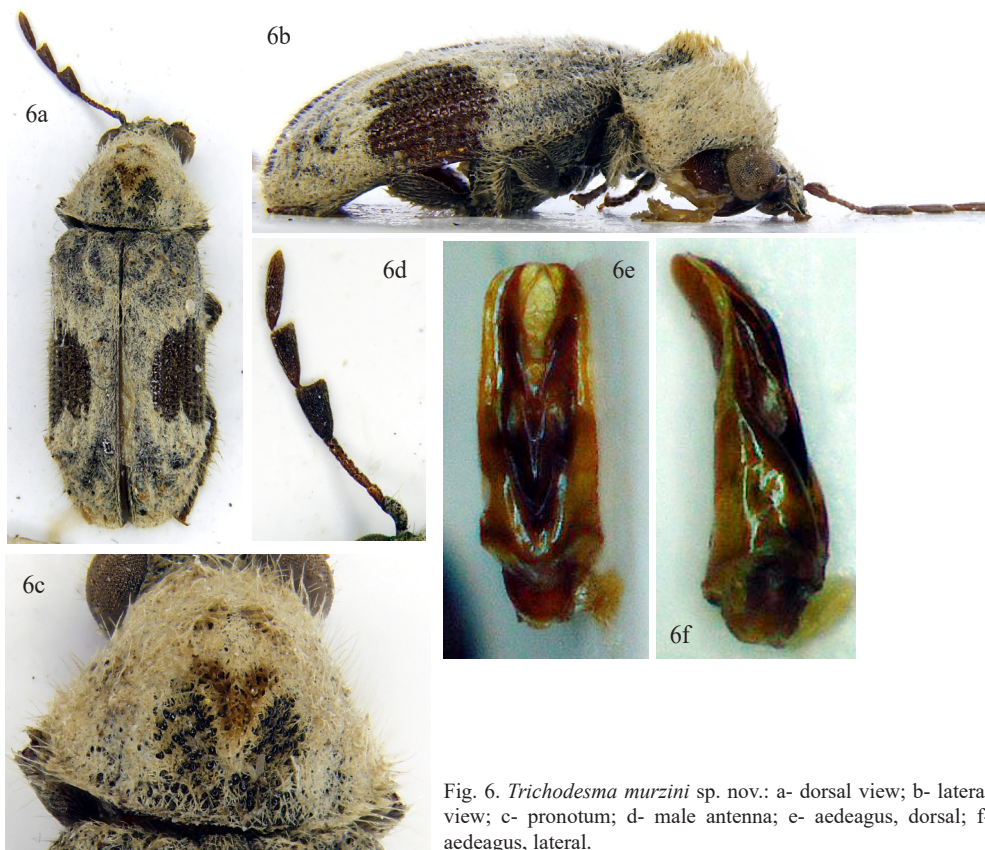


Fig. 6. *Trichodesma murzini* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus, dorsal; f- aedeagus, lateral.

Pronotum transverse, ratio length : wide 0.7, the widest before base (Fig. 6c). Middle of pronotum with blunt tubercle, inclined backwards. On the sides and part on behind of this tubercle with shallow depression. Pronotum with two types of setae - the first very dense, recumbent, covering almost entire pronotum, the second long, erect, sparse. Top of tubercle with two spots of short erect sparse light brown pubescence arranged triangularly, narrowest posteriorly. Between spots on tubercles short stripe of white pubescence, behind of tubercles sparse, surface visible. Before tubercle two spots of the same pubescence. Visible surface shining matte with double punctures - the first coarse and very dense almost confluent, their diameter 0.5 smaller than distance between them, the second very fine and dense. Posterior part of pronotum with small irregular bulges.

Scutellum small, triangular, 1.3 times wider than long, with dense long semierect setae, inclined backward.

Elytra oval, with almost indistinct humeri, visible part of surface matte shining, with large dense rectangular punctures, almost confluent, arranged in rows. Anterior part of elytra with small irregular bulges. Surface of elytra with two types of setae - the first short dense recumbent, covering entire first third of elytra and narrow part along suture and apex of elytra. The second sparse, erect, shortly longer as the first. Each elytron between the first and the third part with rounded surface almost without pubescence, from lateral margin almost to suture.

Legs robust, with two types of pubescence - the first dense, recumbent, the second long, dense erect. Mesotibia on base smooth, without hook. Tarsi stout, the first segment longest, the last similar to the first, but wider, tarsal claws broadly toothed.

The 1<sup>st</sup> abdominal sternite in middle with peak as long as width of lateral margin of this sternite. The 2<sup>nd</sup> longest, 1.4 times longer than 3<sup>rd</sup> and twice as long as 4<sup>th</sup>. The 5<sup>th</sup> 1.3 times shorter than 2<sup>nd</sup>. Surface shining, with double punctures - the 1<sup>st</sup> coarse, dense, diameter from the 3<sup>rd</sup> sternite the same as distance between them; on the 1<sup>st</sup> and 2<sup>nd</sup> sternites arranged in rows, obliquely posterior from lateral margin. The 2<sup>nd</sup> and 3<sup>rd</sup> glabrous medially.

Aedeagus see Figs. 6e-f.

**Female.** Unknown.

**Differential diagnosis.** See key.

**Name derivation.** Patronymic, dedicated to the collector of the holotype, Sergei Murzin.

***Trichodesma paralissae* sp. nov.**

(Figs. 7a-f)

**Type material.** Holotype (♂): ZAMBIA NW, 70 km NE Kapiri Mposhi ATB Lodge, 21.xi.2005, M. Snížek lgt., (PZPC).

**Description.** Elongate-elliptical, transversally slightly convex. Body length 4.7 mm, the greatest width 1.7 mm. Ratio elytra length : elytra width of 1.8. Body dark brown with

white pubescence, legs, antennae and palpi brown. Habitus see Figs. 7a (dorsal view) and 7b (lateral view).

Head flat, with medium length dense semierect, in middle arranged in longitudinal narrow stripe, other setae inclined from sides of pronotum to middle longitudinal stripe. Anterior part with a few long erect setae inclined anteriorly. Punctures invisible see comment above. Eyes large, globular, with sparse short erect setae. Front 1.7 times wider than width of eye in dorsal view. Antennae consist of 11 antennomeres, filiform, the last three antennomeres enlarged (Fig. 7d). The 1<sup>st</sup> antennomere robust, twice as long as wide. The 2<sup>nd</sup> antennomere 1.1 longer than wide, twice as short as 1<sup>st</sup> and the same width 1<sup>st</sup>. The 3<sup>rd</sup> antennomere 0.9 times shorter than 2<sup>nd</sup>, 0.9 slimmer than previous. Antennomeres 4<sup>th</sup> to 8<sup>th</sup> approximately the same length, slightly transverse. The 9<sup>th</sup> and 10<sup>th</sup> antennomere large, serrated, the 9<sup>th</sup> as long as 3<sup>rd</sup>-8<sup>th</sup> together, 0.9 times shorter than 10<sup>th</sup> and 1.7 times longer than wide. The 10<sup>th</sup> 1.5 times longer than wide, 1.1 longer than previous. The 11<sup>th</sup> not serrated, 4 times longer than wide, 0.5 times narrower than previous. All antennomeres glabrous.

Pronotum transverse, ratio length : wide 0.7, widest in middle (Fig. 7c). Middle of pronotum with blunt tubercle, inclined backwards. On the sides of this tubercle with shallow depression. Pronotum with two types of setae - the first very dense, recumbent, covering almost entire pronotum, the second long, erect, sparse, denser on margin of pronotum. Top of tubercle with two spots from short erect sparse brown pubescence arranged triangularly, narrowest posteriorly. Between spots on tubercles short stripe of white pubescence, behind tubercles sparse, surface visible. Before tubercle two almost invisible spots of light brown pubescence. Visible surface shining matte with double punctures - the first coarse and very dense almost confluent, their diameter 0.5 smaller than distance between them, the second very fine and dense. Posterior part of pronotum with small irregular bulges.

Scutellum small, triangular, 1.3 times wider than long, with dense long semierect setae, inclined backward, with small irregular sparse bulges.

Elytra oval, with almost indistinct humeri, visible part of surface matte shining, with large dense rectangular punctures, almost confluent, arranged in rows. Anterior part of elytra with small irregular bulges. Surface of elytra with two types of setae - the first short dense recumbent, cloudy arranged, between these almost glabrous. The second sparse, erect, shortly longer as the first. Each elytron between the first and the third part with elongate surface almost without pubescence, from lateral margin to suture, divided by very narrow longitudinal stripe near suture.

Legs robust, with two types of pubescence - the first sparse, recumbent, the second long, erect, denser. Mesotibia narrow, without hook. Tarsi stout, the first segment longest, the last similar as the first, but wider, tarsal claws broadly toothed.

The 1<sup>st</sup> abdominal sternite in middle with peak as long as width of lateral margin of this sternite. The 2<sup>nd</sup> longest, 1.4 times as long as 3<sup>rd</sup> and twice as long as 4<sup>th</sup>. The 5<sup>th</sup> 1.3 times shorter than 2<sup>nd</sup>. Surface shining, with double punctures - the 1<sup>st</sup> coarse, dense, diameter from the 3<sup>rd</sup> sternite the same as distance between them; on the 1<sup>st</sup> and 2<sup>nd</sup> sternites arranged in rows, obliquely posterior from lateral margin. Pubescence short, recumbent, sparse, middle part of sternites glabrous.

Aedeagus see Figs. 7e-f.

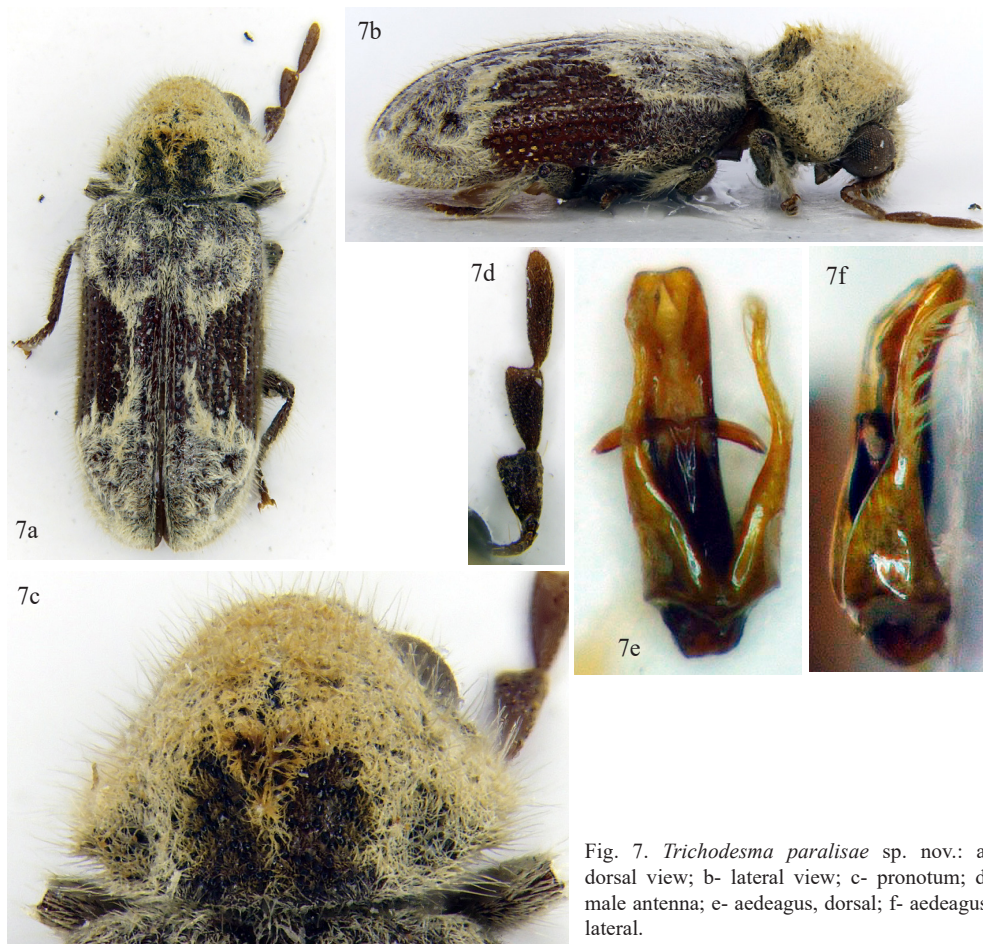


Fig. 7. *Trichodesma paraliseae* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus, dorsal; f- aedeagus, lateral.

**Female.** Unknown.

**Differential diagnosis.** See key.

**Name derivation.** Derived from the very similar species, *T. lisae* Viñolas, 2018.

***Trichodesma smrzi* sp. nov.**  
(Figs. 8a-f)

**Type material.** Holotype (♂): ZAMBIA NW, Mwinilunga env. 12-13.xi.2003, Smrž lgt., (PZPC).

**Description.** Elongate-elliptical, transversally slightly convex. Body length 4.8 mm, the greatest width 2.2 mm. Ratio elytra length : elytra width of 1.7. Body dark brown with



yellow pubescence, legs also dark brown, antennae and palpi slightly lighter. Habitus see Figs. 8a (dorsal view) and 8b (lateral view).

Head flat, with two types of pubescence - the first short dense semierect, the second sparser, long, erect. Punctures coarse, almost confluent, their diameter 0.5 times smaller than distance between them. Eyes large, globular, with dense long erect setae. Front 2.7 times wider than width of eye in dorsal view. Antennae consist of 11 antennomeres, filiform, the last three antennomeres enlarged (Fig. 8d). The 1<sup>st</sup> antennomere robust, twice as long as wide. The 2<sup>nd</sup> antennomere 1.1 as long as wide, twice as short as 1<sup>st</sup> and the same width as the 1<sup>st</sup>. The 3<sup>rd</sup> antennomere 0.8 times shorter than 2<sup>nd</sup>, 0.7 slimmer than previous. Antennomeres 4<sup>th</sup> to 7<sup>th</sup> approximately the same length, as long as wide the 8<sup>th</sup> slightly transverse. The 9<sup>th</sup> and 10<sup>th</sup> antennomeres large, serrated, the 9<sup>th</sup> as long as 3<sup>rd</sup>-8<sup>th</sup> together, 0.9 times shorter than 10<sup>th</sup> and 1.5 times longer than wide. The 10<sup>th</sup> twice longer than wide, 1.1 longer than previous. The 11<sup>th</sup> not serrated, 3.8 times longer than wide, 0.4 times narrower than previous. Antennomeres 1<sup>st</sup>-8<sup>th</sup> with long erect sparse setae on inner side of antennomeres, on the 1<sup>st</sup> the most dense. Antennal clubs with sparse recumbent pubescence.

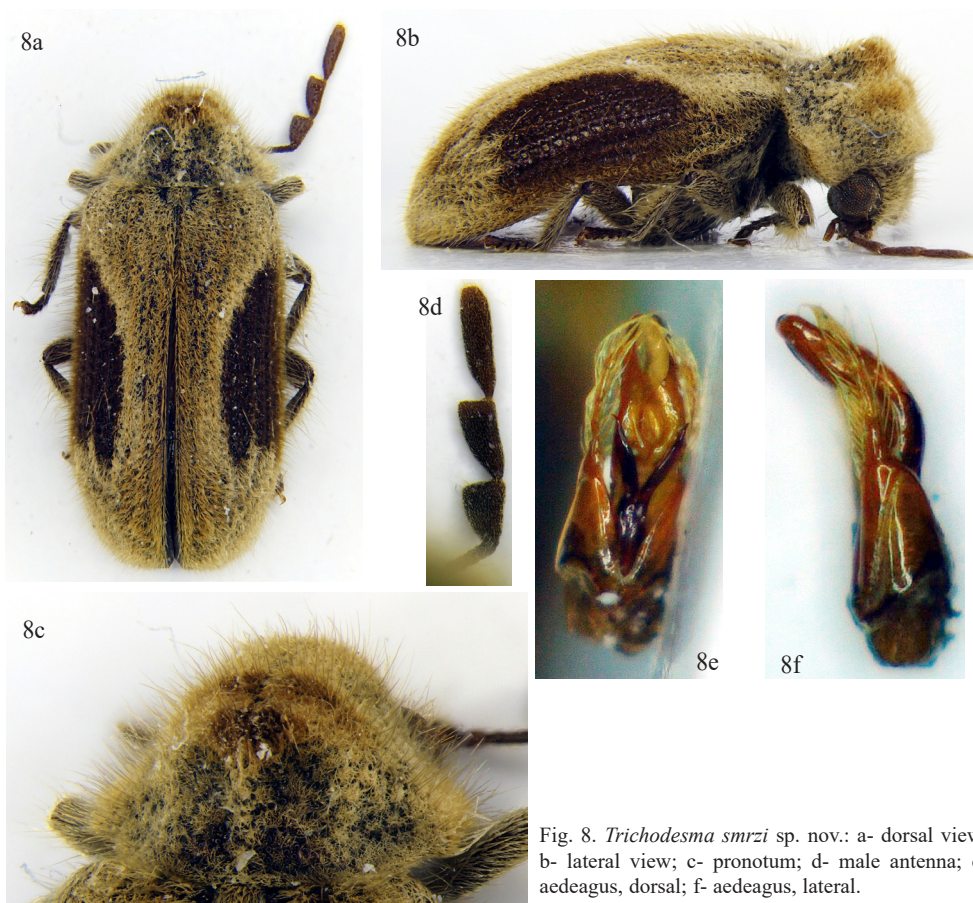


Fig. 8. *Trichodesma smrzi* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus, dorsal; f- aedeagus, lateral.

Pronotum transverse, ratio length : wide 0.9, the widest in third quarter (Fig. 8c). Middle of pronotum with sharp tubercle, inclined backwards. On the sides of this tubercle with shallow depression. Pronotum with two types of setae - the first very dense, recumbent, covering almost entire pronotum, only posterior part with sparse pubescence, cloudy arranged, the second long, erect, dense. Top of tubercle with two spots from short erect sparse brown pubescence arranged triangular, narrowest posteriorly. Between spots on tubercles short stripe of yellow pubescence. Before of tubercle two transverse spots of the brown pubescence narrowing towards sides. Visible surface shining matte with double punctures - the first coarse and very dense almost confluent, their diameter 0.5 smaller than distance between them, the second very fine and dense. Posterior part of pronotum with small irregular bulges.

Scutellum small, trapezoidal, 1.2 times wider than long, emarginate on the top, with dense long semierect setae, inclined backward, with small irregular sparse bulges.

Elytra oval, with distinct humeri, visible part of surface matte shining, with large dense rectangular punctures, almost confluent, arranged in rows. Anterior part of elytra with small irregular bulges. Surface of elytra with two types of setae - the first short dense recumbent, partly semierect, inclined backwards. The second sparser, erect, shortly longer. Each elytron between the first and the third part with surface almost without pubescence, almost from lateral margin to 2/3 of width of elytron. Also narrow lateral margin with dense recumbent pubescence.

Legs robust, with two types of pubescence - the first sparse, recumbent, the second long, erect, denser. Mesotibia narrow, without hook. Tarsi stout, the first segment longest, the last similar to first, but wider, tarsal claws broadly toothed.

The 1<sup>st</sup> sternite in middle with peak as long as width of lateral margin of this sternite. The 2<sup>nd</sup> longest, 1.4 times longer than 3<sup>rd</sup> and twice as long as 4<sup>th</sup>. The 5<sup>th</sup> 1.3 times shorter than 2<sup>nd</sup>. Surface shining, with double punctures - the 1<sup>st</sup> coarse, dense, diameter from the 3<sup>rd</sup> sternite the same as distance between them; on the 1<sup>st</sup> and 2<sup>nd</sup> sternites arranged in transversal rows. Pubescence short, semierect, dense.

Aedeagus see Figs. 8e-f.

**Female.** Unknown.

**Differential diagnosis.** See key.

**Name derivation.** Patronymic, dedicated to the collector of the new species, Jaroslav Smrž.

***Trichodesma snizeki* sp. nov.**

(Figs. 9a-f)

**Type material.** Holotype (♂): KENYA E, Mwingi Nguni env., 26.xi.1999, M. Snížek lgt., (PZPC). Paratypes (1 ♂): the same data as holotype (PZPC); (4 ♂♂): KENYA Eastern, E 729, Sosoma, 202 km E of Thika, 20.xi.2007, M. Snížek lgt., (PZPC); (4 ♂♂): KENYA Eastern, E of Thika, Mwingi Nguni, 29.12.2007, M Snížek lgt., (PZPC, JHAC); (1 ♂): ETHIOPIA, Sidame province, ca 50 km NE Mega, 23-25.o4.2007, 1400 m, A. Kudrna lgt., (PZPC).

**Description.** Elongate-elliptical, transversally slightly convex. Body length 6.0 mm, the greatest width 2.5 mm. Ratio elytra length : elytra width of 1.7. Body, legs, antennae, palpi brown with white pubescence. Habitus see Figs. 9a (dorsal view) and 9b (lateral view).

Head flat, with two types of pubescence - the first short dense recumbent or semierect, pubescence, arranged irregularly, the second sparse, long, erect or semierect. Punctures coarse, almost confluent, their diameter 0.5 times smaller than distance between them. Eyes large, globular, with dense long erect setae. Front 2.2 times wider than width of eye in dorsal view. Antennae consist of 11 antennomeres, filiform, the last three antennomeres enlarged (Fig. 9d). The 1<sup>st</sup> antennomere robust, 2.1 times longer than wide. The 2<sup>nd</sup> antennomere 1.5 longer as wide, 3 times shorter than 1<sup>st</sup> and the same width 1<sup>st</sup>. The 3<sup>rd</sup> antennomere as long as previous, 0.7 slimmer than previous. Antennomeres 4<sup>th</sup> to 8<sup>th</sup> slightly transverse. The 9<sup>th</sup> and 10<sup>th</sup> antennomeres large, serrated, the 9<sup>th</sup> as long as 3<sup>rd</sup>-8<sup>th</sup> together, 0.7 times shorter than 10<sup>th</sup> and 1.5 times longer than wide. The 10<sup>th</sup> twice longer than wide, 1.1 longer than previous. The 11<sup>th</sup> not serrated, 2.8 times as long as wide, 0.4 times narrower than previous.

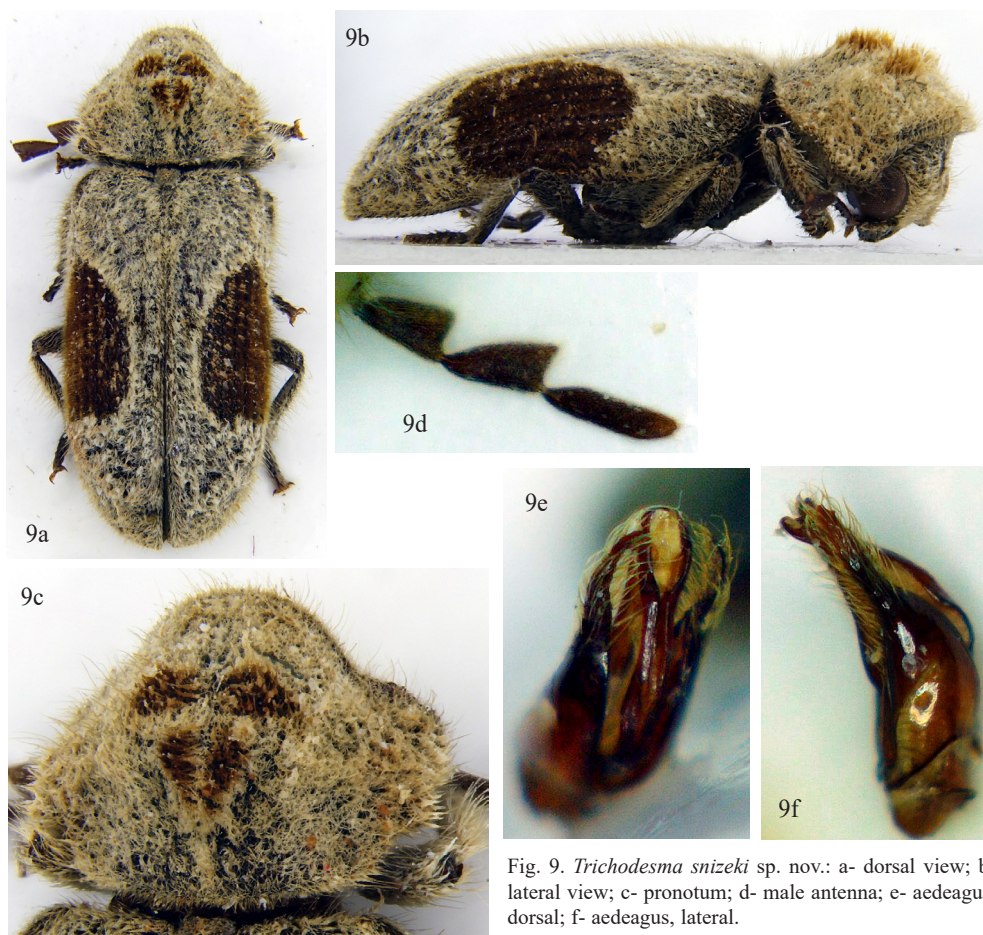


Fig. 9. *Trichodesma snizeki* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus, dorsal; f- aedeagus, lateral.

Antennomeres 1<sup>st</sup>-8<sup>th</sup> with long erect sparse setae. Antennal clubs with sparse recumbent pubescence and a few short erect setae.

Pronotum transverse, ratio length : wide 0.6, widest in third quarter (Fig. 9c). Middle of pronotum with blunt tubercle, inclined backwards. On the sides of this tubercle with shallow depression. Pronotum with two types of setae - the first very dense, recumbent, covering almost entire pronotum, partly only on posterior part with sparser pubescence, the second long, erect, dense. Top of tubercle with two spots of short erect dense combed dark brown pubescence arranged triangularly, narrowest posteriorly. Between spots on tubercles short stripe of white pubescence, inclined backwards. Before of tubercle two transverse spots of the dark brown pubescence narrowing towards sides, combed arranged. Visible surface shining matte with double punctures - the first coarse and very dense almost confluent, their diameter 0.5 smaller than distance between them, the second very fine and dense. Posterior part of pronotum with small irregular bulges.

Scutellum small, trapezoidal, 1.2 times wider than long, emarginate on the top, with dense long semierect setae, inclined backward.

Elytra oval, with distinct humeri, visible part of surface matte shining, with large dense square punctures, almost confluent, arranged in rows. Anterior part of elytra with small irregular bulges. Surface of elytra with two types of setae - the first short dense more or less recumbent, inclined backwards. The second sparser, erect, shortly longer. Each elytron between the first and the third part with elongate surface from lateral margin to 2/3 of wide of elytron, with short, erect, brown setae, arranged in narrow rows.

Legs robust, with two types of pubescence - the first sparse, recumbent, the second long, erect, denser, the most dense on tibia. Mesotibia narrow, without hook. Tarsi stout, the first segment longest, the last similar to first, but wider, tarsal claws broadly toothed.

The 1<sup>st</sup> abdominal sternite in middle with peak as long as width of lateral margin of this sternite. The 2<sup>nd</sup> longest, 1.4 times longer than 3<sup>rd</sup> and twice as long as 4<sup>th</sup>. The 5<sup>th</sup> 1.3 times shorter than 2<sup>nd</sup>. Surface shining, with double punctures - the 1<sup>st</sup> coarse, dense, diameter from the 3<sup>rd</sup> sternite the same as distance between them; on the 1<sup>st</sup> and 2<sup>nd</sup> sternites arranged in transversal rows. Pubescence short, semierect, dense, in middle of the 2<sup>nd</sup> sternite sparser.

Aedeagus see Figs. 9e-f.

**Female.** Unknown.

**Variability.** Body length 5.4-7.1 mm, the greatest width 2.0-3.1 mm. Spots on tubercle posteriorly almost confluent, spots before tubercle rounded.

**Differential diagnosis.** See key.

**Name derivation.** Patronymic, dedicated to the collector of the holotype and part of the paratypes, Miloš Snížek.

*Trichodesma somalica* sp. nov.

(Figs. 10a-f)

**Type material.** Holotype (♂): SOMALIA, Mogadiscio, Afgoi, 22/4-5/5/84, R. Mourglia lgt., (PZPC).

**Description.** Elongate-elliptical, transversally slightly convex. Body length 5.6 mm, the greatest width 2.7 mm. Ratio elytra length : elytra width of 1.5. Body dark brown with yellowish-rusty pubescence, legs, antennae and palpi slightly lighter. Habitus see Figs. 10a (dorsal view) and 10b (lateral view).

Head flat, with short dense recumbent pubescence, only on lateral margin of clypeus with a few long, erect white setae, inclined forwards. Surface with small sparse bulges. Eyes large, globular, with dense long erect yellowish- rusty setae. Front 2.9 times wider than width of eye in dorsal view. Antennae consist of 11 antennomeres, filiform, the last three

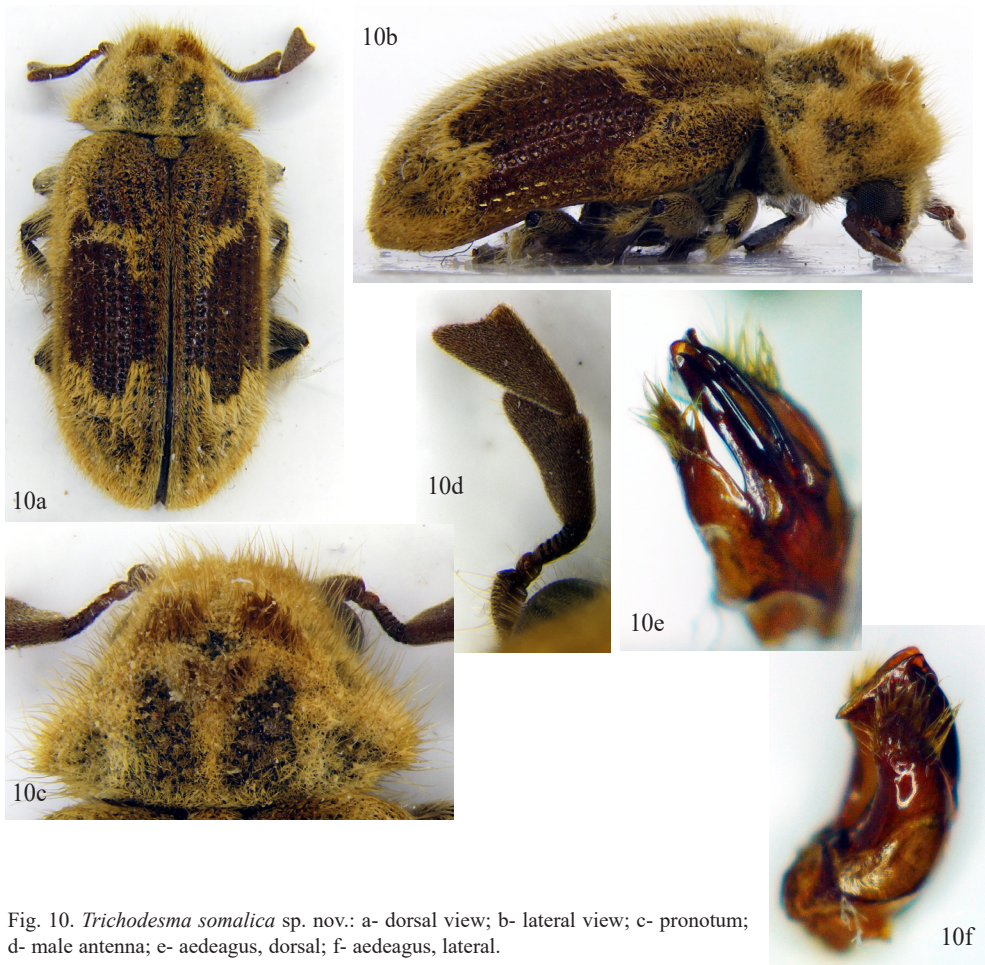


Fig. 10. *Trichodesma somalica* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus, dorsal; f- aedeagus, lateral.

antennomeres enlarged (Fig. 10d). The 1<sup>st</sup> antennomere robust, 3 times longer than wide. The 2<sup>nd</sup> antennomere as long as wide, 4 times shorter than 1<sup>st</sup> and the same width as 1<sup>st</sup>. The 3<sup>rd</sup> antennomere as long as previous, twice as slim as previous. Antennomeres 4<sup>th</sup> to 8<sup>th</sup> slightly transverse. The 9<sup>th</sup> and 10<sup>th</sup> antennomeres large, serrated, the 9<sup>th</sup> twice as long as 3<sup>rd</sup>-8<sup>th</sup> together, as long as the 10<sup>th</sup> and 1.5 times longer than wide. The 10<sup>th</sup> 1.5 times longer than wide, 1.1 times longer than previous. The 11<sup>th</sup> missing. Antennomeres 1<sup>st</sup>-8<sup>th</sup> with long erect sparse setae. Antennal clubs with sparse recumbent pubescence and a few short erect setae.

Pronotum transverse, ratio length : wide 0.7, the widest in third quarter (Fig. 10c). Middle of pronotum with blunt tubercle, inclined backwards. On the sides of this tubercle with shallow depression. Pronotum with two types of setae - the first very dense, recumbent, covering almost entire pronotum, partly only on posterior part and small area between tubercle and spots before tubercle with sparser pubescence, the second long, erect, dense. Top of tubercle with two spots of short erect dense combed dark brown pubescence arranged triangularly, narrowest posteriorly. Between spots on tubercles short stripe of yellow pubescence, inclined backwards. Before of tubercle two slightly transverse spots of dark brown pubescence narrowed towards sides, combed arranged. Visible surface shining matte with double punctures - the first coarse and very dense almost confluent, their diameter 0.5 smaller than distance between them, the second very fine and dense. Posterior part of pronotum with small irregular bulges.

Scutellum small, trapezoidal, 1.2 times wider than long, slightly emarginate on the top, with dense long semierect setae, inclined backward.

Elytra oval, with distinct humeri, visible part of surface matte shining, with large dense square punctures, almost confluent, arranged in rows. Anterior part of elytra with small irregular bulges. Surface of elytra with two types of setae - the first short dense more or less recumbent, especially on posterior part arranged to pointed brush, inclined backwards. The second sparser, erect, shortly longer, on margins a little denser. Each elytron between the first and the third part with elongate area without pubescence from lateral margin to 2/3 of width of elytron.

Legs robust, with two types of pubescence - the first sparse, recumbent, the second long, erect, denser, the most dense on tibia. Mesofemur with sharp longitudinal edge. Mesotibia narrow, without hook. Tarsi stout, the first segment longest, the last similar to first, but wider, tarsal claws broadly toothed.

The 1<sup>st</sup> abdominal sternite in middle with peak as long as width of lateral margin of this sternite. The 2<sup>nd</sup> longest, 1.4 times longer than 3<sup>rd</sup> and twice as long as 4<sup>th</sup>. The 5<sup>th</sup> 1.3 times shorter than 2<sup>nd</sup>. Surface shining, with double punctures - the 1<sup>st</sup> coarse, dense, diameter from the 3<sup>rd</sup> sternite the same as distance between them. Pubescence short, semierect, dense.

Aedeagus see Figs. 10e-f.

**Female.** Unknown.

**Differential diagnosis.** See key.

**Name derivation.** Derived from the name of the country of its distribution – Somalia.

***Trichodesma tanzaniana* sp. nov.**

(Figs. 11a-f)

**Type material.** Holotype (♂): TANZANIA NEE, SSW of Pangani, Pande env., 10.iii.2002, M. Snížek lgt., (PZPC).

**Description.** Elongate-elliptical, transversally slightly convex. Body length 5.3 mm, the greatest width 2.7 mm. Ratio elytra length : elytra width of 1.4. Body, legs, antennae and palpi brown with yellowish-white pubescence. Habitus see Figs. 11a (dorsal view) and 11b (lateral view).

Head flat, with short dense semierect pubescence, inclined forwards. Part of head before base of pronotum almost without pubescence. Surface with small sparse bulges. Eyes large, globular, with sparse shortly long erect setae. Front 2.5 times wider than width of eye in dorsal view. Antennae consist of 11 antennomeres, filiform, the last three antennomeres enlarged (Fig. 11d). The 1<sup>st</sup> antennomere robust, 3 times longer than wide. The 2<sup>nd</sup>

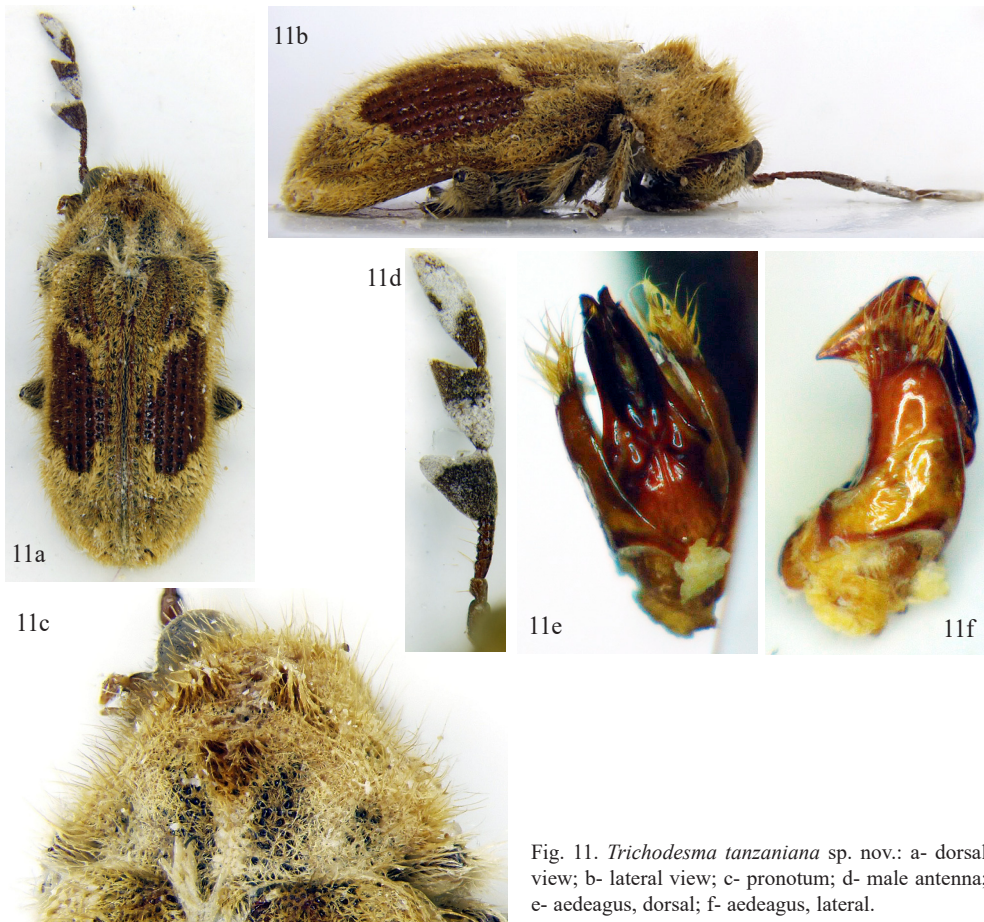


Fig. 11. *Trichodesma tanzaniana* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus, dorsal; f- aedeagus, lateral.

antennomere 1.3 times longer than wide, 3 times shorter than 1<sup>st</sup> and 0.8 times narrower than 1<sup>st</sup>. The 3<sup>rd</sup> antennomere as long as previous, 0.8 slimmer than previous. Antennomeres 4<sup>th</sup> to 8<sup>th</sup> slightly transverse. The 9<sup>th</sup> and 10<sup>th</sup> antennomeres large, serrated, the 9<sup>th</sup> 1.2 times longer than 3<sup>rd</sup>-8<sup>th</sup> together, twice as shorter than 10<sup>th</sup> and twice as long as wide. The 10<sup>th</sup> 1.7 times longer than wide, 1.1 longer than previous. The 11<sup>th</sup> not serrated, 3.8 times longer than wide, 0.8 times narrower than previous. Antennomeres 1<sup>st</sup>-8<sup>th</sup> with long erect sparse setae. Antennal clubs with sparse recumbent pubescence and a few short erect setae.

Pronotum transverse, ratio length : wide 0.6, the widest shortly before base (Fig. 11c). Middle of pronotum with blunt tubercle, inclined backwards. On the sides of this tubercle with shallow depression. Pronotum with two types of setae - the first very dense, more or less recumbent, covering almost entire pronotum, small areas especially on posterior part with sparser pubescence, the second long, erect, dense. Top of tubercle with two spots of short erect dense combed dark brown pubescence arranged triangularly, narrowest posteriorly. Between spots on tubercles short stripe of yellow pubescence, inclined backwards. Before of tubercle two shortly transverse spots of dark brown pubescence narrowed towards sides, combed arranged. Visible surface shining matte with double punctures - the first coarse and very dense almost confluent, their diameter 0.5 smaller than distance between them, the second very fine and dense. Posterior part of pronotum with small irregular bulges.

Scutellum small, trapezoidal, 1.2 times as wide as long, slightly emarginate on the top, with dense long semierect setae, inclined backward.

Elytra oval, with distinct humeri, visible part of surface matte shining, with large dense rounded punctures, almost confluent, arranged in rows. Anterior part of elytra with small irregular bulges. Surface of elytra with two types of setae - the first short dense more or less recumbent, especially on posterior part arranged to pointed brush, inclined backwards. The second sparser, erect, shortly longer, on margins a little denser. Each elytron between the first and the third part with elongate area without pubescence towards suture, lateral margin with short dense recumbent pubescence.

Legs robust, with two types of pubescence - the first sparse, recumbent, the second long, erect, denser, the most dense on tibia. Mesofemur with sharp longitudinal edge. Mesotibia narrow, without hook. Tarsi stout, the first segment longest, the last similar to first, but wider, tarsal claws broadly toothed.

The 1<sup>st</sup> abdominal sternite in middle with peak as long as width of lateral margin of this sternite. The 2<sup>nd</sup> longest, 1.4 times as longer as 3<sup>rd</sup> and twice as long as 4<sup>th</sup>. The 5<sup>th</sup> 1.3 times shorter than 2<sup>nd</sup>. Surface shining, with double punctures - the 1<sup>st</sup> coarse, dense, diameter from the 3<sup>rd</sup> sternite the same as distance between them. Pubescence short, semierect, dense, on the 2<sup>nd</sup>, 3<sup>rd</sup> and 5<sup>th</sup> almost glabrous.

Aedeagus see Figs. 11e-f.

**Female.** Unknown.

**Differential diagnosis.** See key.

**Name derivation.** Derived from the name of the country of its distribution - Tanzania.



*Trichodesma vinolasi* sp. nov.

(Figs. 12a-f)

**Type material.** Holotype (♂): RSA, Kwazulu Natal, Elephant p., Jozini Tembe, 30.xi.2002, M. Snížek lgt., (PZPC).

**Description.** Elongate-elliptical, transversally slightly convex. Body length 4.8 mm, the greatest width 2.1 mm. Ratio elytra length : elytra width of 1.7. Body, legs, antennae and palpi dark brown with white pubescence. Habitus see Figs. 12a (dorsal view) and 12b (lateral view).

Head flat, with short sparse semierect pubescence, inclined forwards. Surface with small sparse bulges. Eyes large, globular, with sparse shortly longer erect setae. Front twice as wide as width of eye in dorsal view. Antennae consist of 11 antennomeres, filiform, the last three antennomeres enlarged (Fig. 12d). The 1<sup>st</sup> antennomere robust, 3 times longer than wide. The 2<sup>nd</sup> antennomere 1.3 times longer as wide, 3 times shorter than 1<sup>st</sup> and 0.8 times

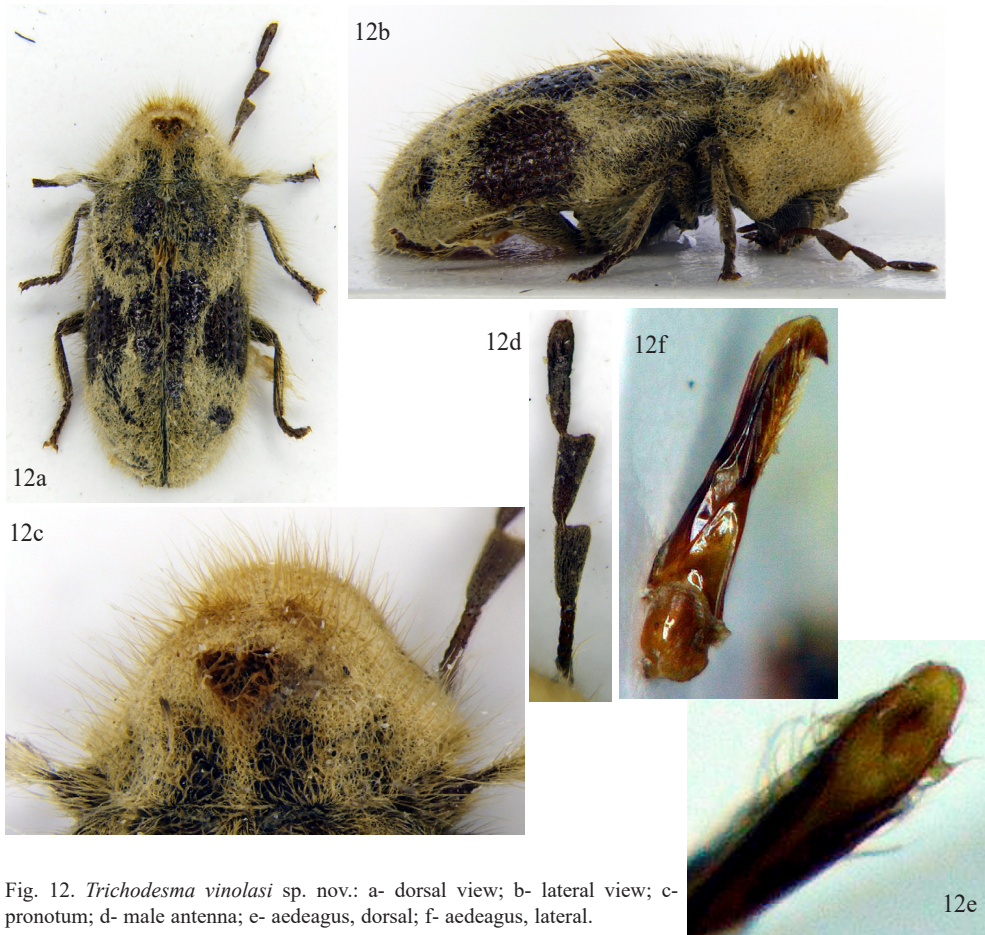


Fig. 12. *Trichodesma vinolasi* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus, dorsal; f- aedeagus, lateral.

narrower than 1<sup>st</sup>. The 3<sup>rd</sup> antennomere as long as previous, 0.8 slimmer than previous. Antennomeres 4<sup>th</sup> to 8<sup>th</sup> slightly transverse. The 9<sup>th</sup> and 10<sup>th</sup> antennomeres large, slightly serrated, the 9<sup>th</sup> 1.5 times longer than 3<sup>rd</sup>-8<sup>th</sup> together, 1.3 shorter than the 10<sup>th</sup> and 4 times as long as wide. The 10<sup>th</sup> 4 times longer than wide, 1.1 longer than previous. The 11<sup>th</sup> not serrated, 1.2 times longer than wide, 0.8 times narrower than previous. Antennomeres 1<sup>st</sup>-8<sup>th</sup> with long erect very sparse setae. Antennal clubs with sparse recumbent pubescence.

Pronotum transverse, ratio length : wide 0.6, the widest on the second third (12c). Middle of pronotum with blunt tubercle, inclined backwards. On the sides of this tubercle with shallow depression. Pronotum with two types of setae - the first very dense, recumbent, covering almost entire pronotum, only small areas on posterior part with sparser pubescence, the second long, erect, dense, arranged in longitudinal rows. Top of tubercle with two spots of short erect dense combed rusty pubescence arranged heartily, narrowest posteriorly. Before of tubercle two short, almost invisible transverse spots of light rusty pubescence narrowed towards sides, combed arranged. Visible surface shining matte with double punctures - the first coarse and very dense almost confluent, their diameter 0.5 smaller than distance between them, the second very fine and dense. Posterior part of pronotum with small irregular bulges.

Scutellum small, triangular, 1.2 times wider than long, with sparser long semierect setae, inclined backward.

Elytra oval, with distinct humeri, visible part of surface matte shining, with large dense rectangular punctures, almost confluent, arranged in rows. Anterior part of elytra with small irregular bulges. Surface of elytra with two types of setae - the first short dense recumbent, inclined backwards. The second dense, erect, long. Each elytron between the first and the third part with elongate area without pubescence towards suture, interrupted narrow longitudinal stripe near suture. Part behind base along of suture almost glabrous. Long erect setae arranged in rows. On the first third beside suture with small spot of yellow-rusty semierect setae, inclined backwards.

Legs robust, with two types of pubescence - the first dense, recumbent, the second long, erect, sparse, the most dense on tibia. Mesotibia narrow, without hook. Tarsi stout, the first segment longest, the last similar to first, but wider, tarsal claws broadly toothed.

The 1<sup>st</sup> abdominal sternite in middle with peak as long as width of lateral margin of this sternite. The 2<sup>nd</sup> longest, 1.4 times longer than 3<sup>rd</sup> and twice as long as 4<sup>th</sup>. The 5<sup>th</sup> 1.3 times shorter than 2<sup>nd</sup>. Surface shining, with double punctures - the 1<sup>st</sup> coarse, dense, diameter from the 3<sup>rd</sup> sternite the same as distance between them. Pubescence short, semierect, dense, sternite 2<sup>nd</sup>, 3<sup>rd</sup> and 5<sup>th</sup> almost glabrous.

Aedeagus see Figs. 12e-f.

**Female.** Unknown.

**Differential diagnosis.** See key.

**Name derivation.** Patronymic, dedicated to the well-known specialist of Ptinidae, Amador Viñolas.

OTHER EXAMINED MATERIAL

*Trichodesma endroedyoungai* Viñolas & Masó, 2007

(Figs. 13a-f)

**Material examined:** RSA, Kwazulu Natal NEE, S of Emangusi, 5.12.2002, M. Snížek lgt., 2 spec., (PZPC); RSA, Kwazulu Natal, Ndumo G.R. near Pongola riv., 9-12.xii.2003, I. Martínů lgt., 1 spec., (PZPC).

**Distribution.** This species is known from the Republic of South Africa (for those of us who are not familiar with the abbreviation RSA): Kwazulu Natal (Viñolas 2018).

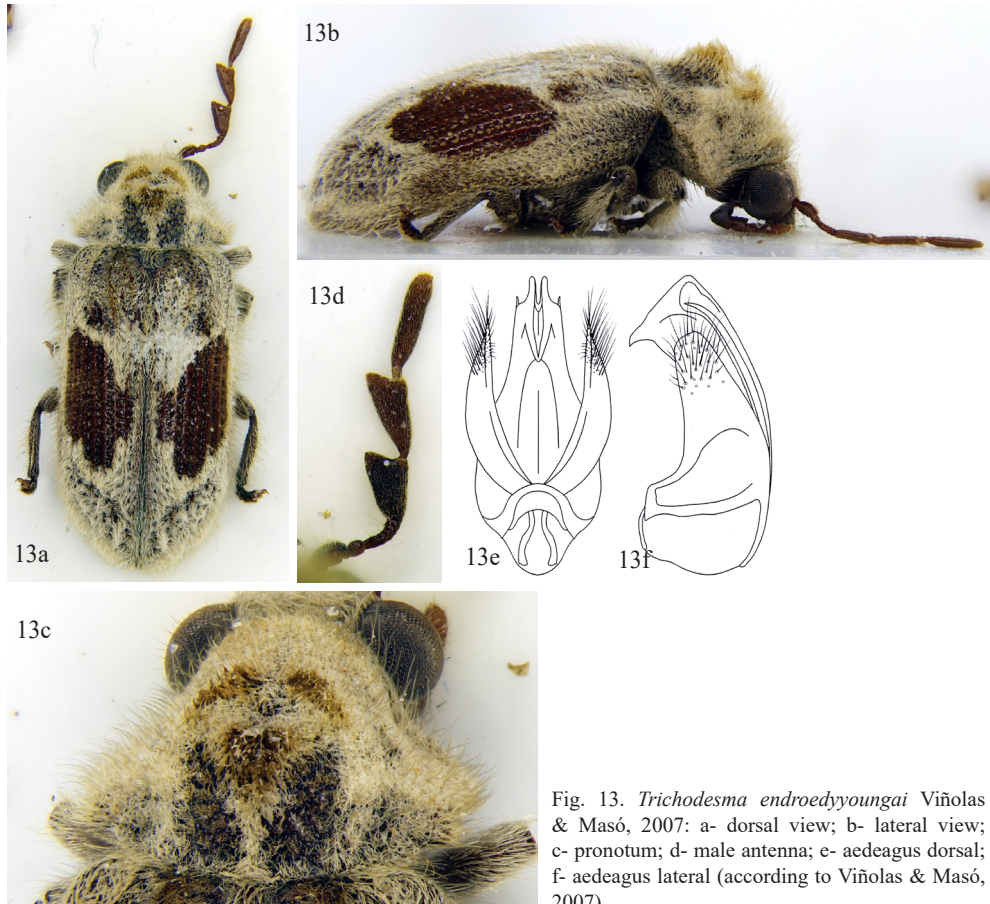


Fig. 13. *Trichodesma endroedyoungai* Viñolas & Masó, 2007: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus dorsal; f- aedeagus lateral (according to Viñolas & Masó, 2007).

***Trichodesma lateritia* Pic, 1903**

(Figs. 14a-f)

**Material examined:** ETHIOPIA S, Hamer pr., Turmi near, 955 m, 04°58.31' N 36°30.53' E, 6-11.iv.2016, V. Maior lgt., 1 ♂, (JHAC); KENYA, Tana pr., Garsen env., 9.iv.2004, M. Snižek lgt., 2 ♂♂, (PZPC); ZAMBIA NC, 35 km W Chingola, Tanga farm, 6.xi.2005, M. Snižek lgt., 1 ♂, (PZPC); Mozambique, Tete prov., 123 km SE Manje, 15.4858°S 33.2583°E, 5-6.xii.2019, M. Bednařík lgt., 1 ♀, (JHAC).

**Distribution.** This species is known from Botswana, Democratic Republic of Congo, Ethiopia, Guinea-Bissau, Guinea Equatorial, Kenya, Niger, Senegal, Sudan, and Zambia (Viñolas 2018).

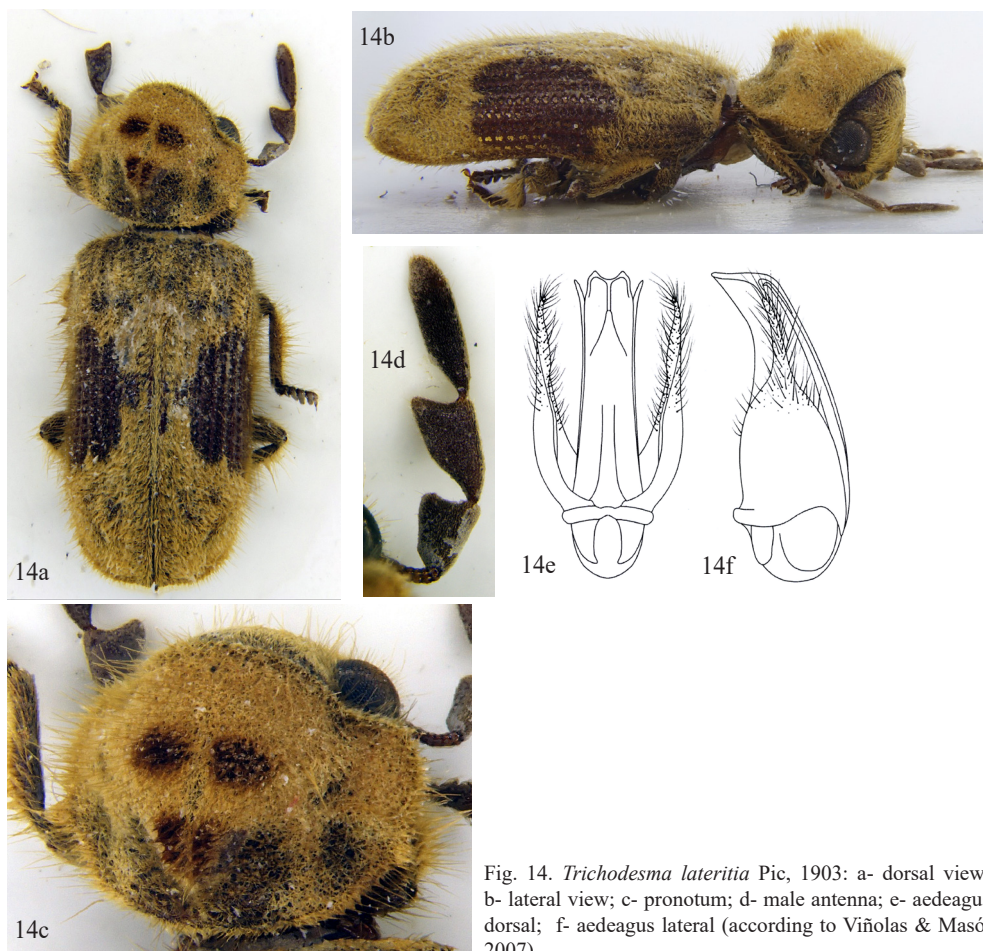


Fig. 14. *Trichodesma lateritia* Pic, 1903: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus dorsal; f- aedeagus lateral (according to Viñolas & Masó, 2007).

*Trichodesma lisae* Viñolas, 2018

(Figs. 15a-f)

**Material examined:** ZAMBIA NW, NW Kasempa, E of Mutumbwa, 5.11.2008, Snížek lgt., 2 ♂♂, (PZPC); ZAMBIA NW, 50 km E of Mwinilunga, 28.x.2008, Snížek lgt., 1 ♂, (JHAC).

**Distribution.** This species is known from Zambia (Viñolas 2018).

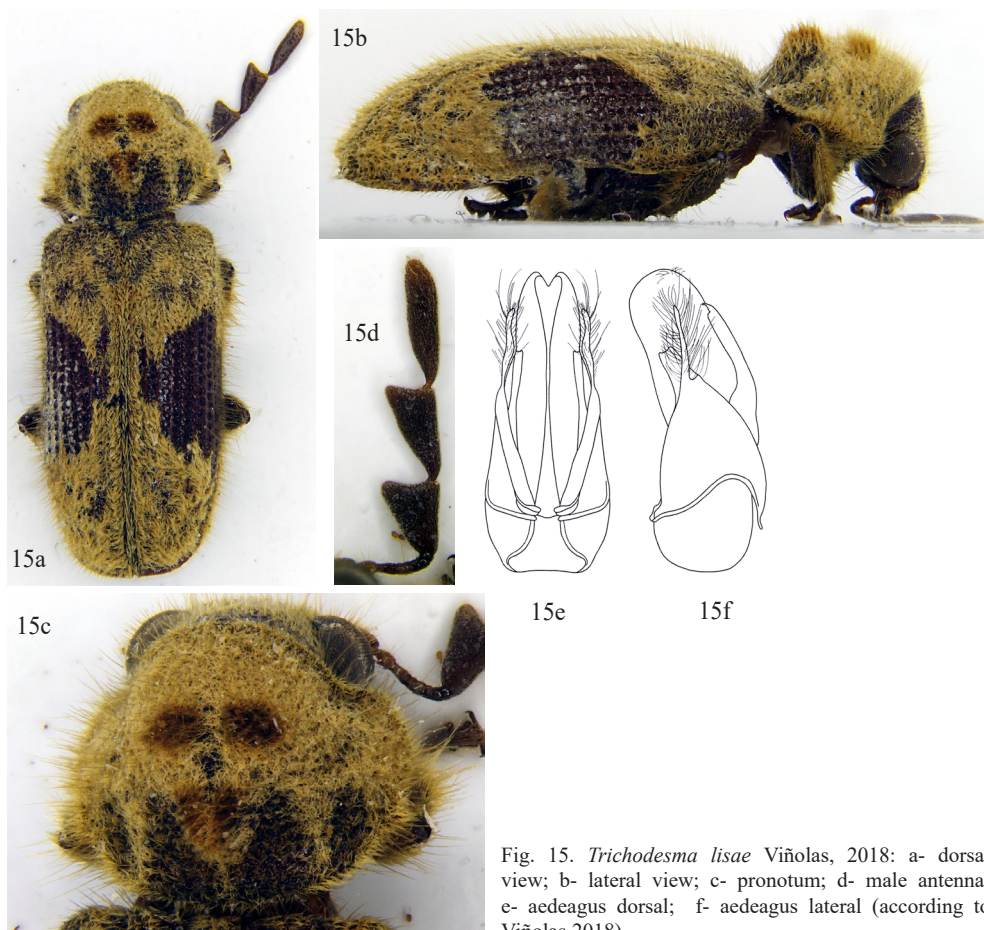


Fig. 15. *Trichodesma lisae* Viñolas, 2018: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus dorsal; f- aedeagus lateral (according to Viñolas 2018).

*Trichodesma nigrofasciata* Español, 1966  
(Figs. 16a-f)

**Material examined:** ZAMBIA W, 40 km W Kawana, 22-23.xi.2003, Smrž lgt., 2 spec., (PZPC); ZAMBIA, Copperbelt pr., W of Kapiri Mposhi, 13.xii.2002, S. Prepsl lgt., 1 spec., (PZPC).

**Distribution.** This species is known from the Democratic Republic of Congo and Zambia (Viñolas 2018).

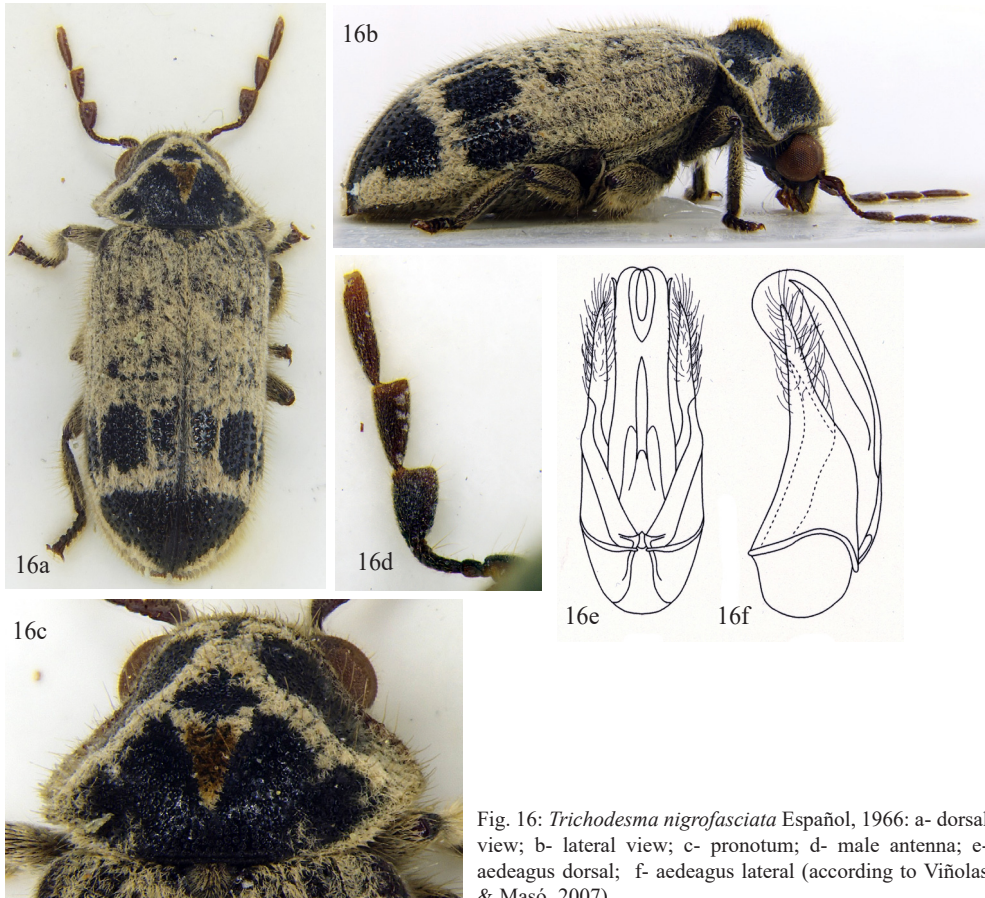


Fig. 16: *Trichodesma nigrofasciata* Español, 1966: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus dorsal; f- aedeagus lateral (according to Viñolas & Masó, 2007).

***Trichodesma soleri* Viñolas, 2018**

(Figs. 17a-f)

**Material examined:** MALAWI S, Mulanje Mts., Likhubula Longe, 15°56.15.7' S, 35°30.4.9' E, 827 m, 18-25.11.2018, I. Smatana lgt., 5 ♂♂, (PZPC, JHAC); ZAMBIA NC, 35 km W Chingola, Tanga farm, 6.xi.2005, M. Snižek lgt., 1 ♂, (PZPC).

**Distribution.** This species is known from Zambia (Viñolas 2018). This is a new country record for Malawi.

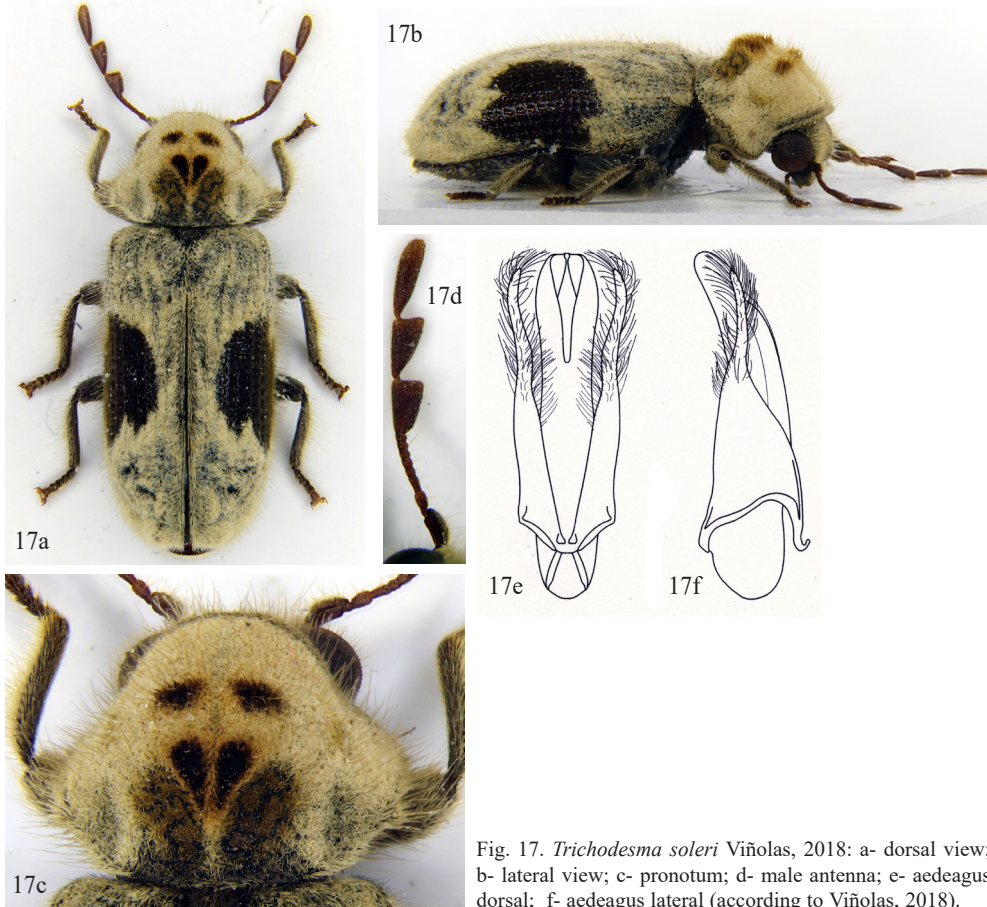


Fig. 17. *Trichodesma soleri* Viñolas, 2018: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus dorsal; f- aedeagus lateral (according to Viñolas, 2018).

## KEY OF AFROTROPICAL REGION SPECIES

- |    |                                                                                                                                                |                                                |
|----|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| 1  | Lateral edges of mesotibiae parallel, without hook on the basal part (Fig. 15f) .....                                                          | 2                                              |
| -  | The outer lateral edge of the mesotibia is convex, with hook on the basal part (Figs. 4, 5) .....                                              | 18                                             |
| 2  | Body black, pubescence white .....                                                                                                             | <i>T. nigrofasciata</i> Español, 1966          |
| -  | Body brown or rusty brown, pubescence brown, white or yellow .....                                                                             | 3                                              |
| 3  | Pubescence on elytra at least partly brown .....                                                                                               | 4                                              |
| -  | Pubescence on elytra unicolour, white or yellow .....                                                                                          | 5                                              |
| 4  | Pubescence on elytra unicolour brown .....                                                                                                     | <i>T. smrzi</i> sp. nov.                       |
| -  | Pubescence on elytra bicolour, around suture brown, on margin white .....                                                                      | <i>T. lackneri</i> sp. nov.                    |
| 5  | Pubescence on elytra white .....                                                                                                               | 6                                              |
| -  | Pubescence on elytra yellow .....                                                                                                              | 13                                             |
| 6  | Spot on elytra disc not reaching lateral margin, wide stripe of white recumbent pubescence .....                                               | <i>T. enroedyyoungai</i> Viñolas et Masó, 2007 |
| -  | Spot on elytra disc reaching lateral margin, or almost reaching lateral margin, very narrow, almost invisible stripe of white pubescence ..... | 7                                              |
| 7  | Elytra with two types of pubescence - the first recumbent, the second erect very short, sparse .....                                           | 8                                              |
| -  | Elytra with two or three types of pubescence - the first recumbent, the second and third erect, long, dense .....                              | 9                                              |
| 8  | Side of pronotum regular convex, the widest in the middle, not emarginated in last third ....                                                  | <i>T. paralisa</i> sp. nov.                    |
| -  | Side of pronotum the widest in the middle, in last third distinctly emarginated .....                                                          | <i>T. kantneri</i> sp. nov.                    |
| 9  | Erect pubescence both long and short .....                                                                                                     | <i>T. vinolasi</i> sp. nov.                    |
| -  | Erect setae the same length .....                                                                                                              | 10                                             |
| 10 | Pronotum with four clearly delimitation spots of dense brown short setae .....                                                                 | 11                                             |
| -  | Pronotum with differently arranged spots .....                                                                                                 | 12                                             |
| 11 | Setae anterior part of pronotum with different lengths, long and short .....                                                                   | <i>T. snizeki</i> sp. nov.                     |
| -  | Setae anterior part of pronotum the same length .....                                                                                          | <i>T. soleri</i> Viñolas, 2018                 |
| 12 | The anterior margin of pronotum is strongly curved and emarginate .....                                                                        | <i>T. murzini</i> sp. nov.                     |
| -  | The anterior margin of pronotum only slightly curved any emarginate .....                                                                      | <i>T. bilyi</i> sp. nov.                       |
| 13 | The central tubercle on pronotum very distinct .....                                                                                           | <i>T. muehle</i> sp. nov.                      |
| -  | Disc of pronotum without distinct tubercle .....                                                                                               | 14                                             |
| 14 | Pronotum with distinct central and lateral depression .....                                                                                    | <i>T. somalica</i> sp. nov.                    |
| -  | Pronotum only with shallow depressions or without depression, especially on central part of disc .....                                         | 15                                             |
| 15 | Spot on elytra disc not reaching lateral margin, wide stripe of white recumbent pubescence .....                                               | <i>T. tanzaniana</i> sp. nov.                  |
| -  | Spot on elytra disc reaching lateral margin, or almost reaching lateral margin, very narrow, almost invisible stripe of white pubescence ..... | 16                                             |
| 16 | Entire lateral margin of pronotum rounded .....                                                                                                | <i>T. lateritia</i> Pic, 1903                  |
| -  | Middle part of lateral margin of pronotum parallel-sided .....                                                                                 | 17                                             |
| 17 | Tubercular punctures distinctly transversely rectangular, bottom of punctures with golden shining .....                                        | <i>T. haladai</i> sp. nov.                     |
| -  | Tubercular puncture almost square, bottom of punctures without golden shining, the same colour as elytra ....                                  | <i>T. lisae</i> Viñolas, 2018                  |
| 18 | The outer lateral margin of mesotibiae long, uniformly convex, hook on base large (Fig. 19b) .....                                             | <i>T. munyoz</i> Viñolas, 2018                 |
| -  | The outer lateral margin of mesotibiae cut out convex, hook on base small (Fig. 18b) .....                                                     | <i>T. dentitibia</i> Español, 1966             |

The species *T. verdugoi* Viñolas, 2022 could not be included in the key, because the authors only had the original description. Habitus, antenna and aedeagus are presented.





18a

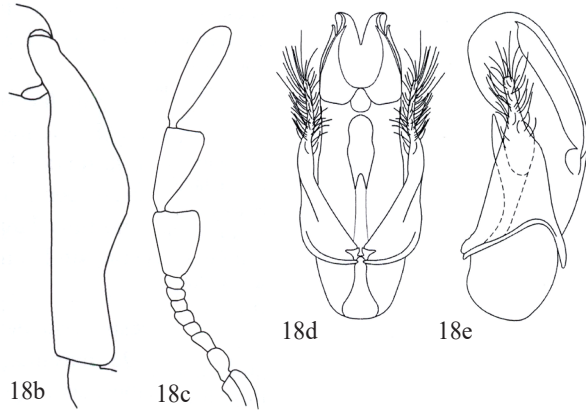
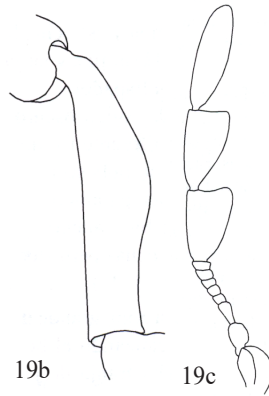


Fig. 18. *Trichodesma dentitibia* Viñolas, 2018: a- dorsal view; b- mesotibia; c- male antenna; d- aedeagus dorsal; e- aedeagus lateral (according to Viñolas, 2018).

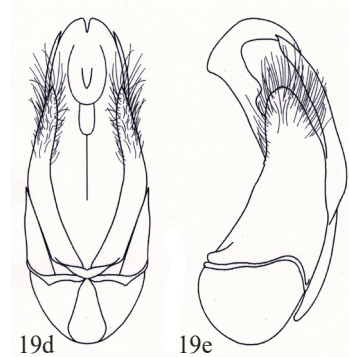


19a



19b

19c



19d

19e

Fig. 19. *Trichodesma munyози* Viñolas, 2018: a- dorsal view; b- mesotibia; c- male antenna; d- aedeagus dorsal; e- aedeagus lateral (according to Viñolas, 2018).

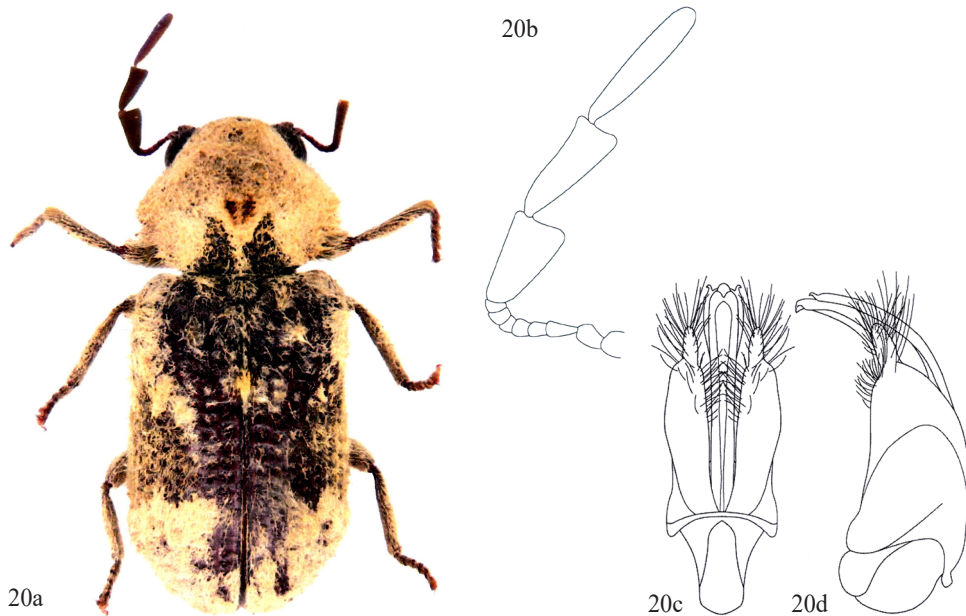


Fig. 20. *Trichodesma verdugoi* Viñolas, 2022: a- dorsal view; b- male antenna; c- aedeagus dorsal; d- aedeagus lateral (according to Viñolas, 2022).

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