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Fifteen new species of the genus *Trichodesma* LeConte, 1861 from the Oriental Region (Coleoptera: Ptinidae: Anobiinae)

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

Abstract. The following fifteen new species: *Trichodesma assamensis* sp. nov. (India); *T. bendai* sp. nov. (India); *T. chumphonica* sp. nov. (Thailand); *T. horaki* sp. nov. (Thailand); *T. klarae* sp. nov. (India); *T. lueeri* (Thailand); *T. meghalayaensis* sp. nov. (India); *T. oborili* sp. nov. (Thailand); *T. petrae* sp. nov. (Malaysia); *T. pici* sp. nov. (Thailand); *T. prudeki* sp. nov. (Thailand); *T. sonae* sp. nov. (Laos); *T. thailandica* sp. nov. (Thailand); *T. trimaculata* sp. nov. (Thailand); *T. tryznai* sp. nov. (India) are described.

INTRODUCTION

Biodiversity of the Oriental Region is very rich not only in insects, but especially in the family Ptinidae, where there are many remaining undescribed species (and possibly even new genera). In the genus *Trichodesma* LeConte, 1861, 11 species have so far been known from this region (a few other species are known from neighbouring countries - northern India and China, which are included in the Palaearctic Region). Fifteen new species are described here.

The genus *Trichodesma* LeConte, 1861 contain 76 species, including four fossil species (Zahradník & Háva 2024). Recently the genus has been recorded from the Afrotropical Region (Zahradník & Háva 2024) and from Mexico (Schnepp 2023).

The genus *Trichodesma* LeConte, 1861 is widespread in all zoogeographic regions. It belongs to the subfamily Anobiinae, tribe Nicobiini together with five other genera (*Anobiopsis* Fall, 1905; *Belemia* Español, 1984; *Nicobium* LeConte, 1861; *Nanodesma* Zahradník 2019 and *Trichobiopsis* White, 1973).

MATERIAL AND METHODS

We studied all the original descriptions of species of the genus *Trichodesma* LeConte, 1861 from the Oriental Region (Lesne 1902; Pic 1900, 1915, 1931, 1937, 1943, 1956; Zahradník 2018, 2020). Unfortunately, we did not find the type materials for the genus *Trichodesma* in Pic's collection in the Museum National d'Histoire Naturelle, Paris France, so their original descriptions are provided below.

Only the differences between the newly described species and other species described by the first author are described in the given key.

Photographs were made by an Olympus DP 72 digital camera on an Olympus SZX 16 stereobinocular microscope 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.".

The all mentioned material are deposited in the first author´s collection (PZPC).

LIST OF KNOWN ORIENTAL *TRICHODESMA* SPECIES

T. assamensis sp. nov.	India (Assam)
T. bendai sp. nov.	India (Assam)
T. cambodgensis Pic, 1915	Cambodia
T. chumphonica sp. nov.	Thailand
T. griseofasciata Pic, 1937	Malaysia, Ceylon (Sri Lanka)
T. horaki sp. nov.	Thailand
T. innotata Pic, 1943	Burma
T. klarae sp. nov.	India (Goa)
T. lueeri sp. nov.	Thailand
T. maculata Pic, 1915	Cambodia
T. meghalayaensis sp. nov.	India (Meghalaya)
T. minima (Pic, 1931)	Vietnam (as *Microtrichodesma*)
T. multifasciculata Pic, 1956	Singapore
T. multinotata Pic, 1943	India mer.
T. nigromaculata Pic, 1900	Burma, India
T. oborili sp. nov.	Thailand
T. petrae sp. nov.	Malaysia
T. pici sp. nov.	Thailand
T. prudeki sp. nov.	Thailand
T. sonae sp. nov.	Laos
T. thailandica sp. nov.	Thailand
T. timorensis Zahradník, 2020	Indonesia (West Timor)
T. tricolor Zahradník, 2018	Thailand
T. trimaculata sp. nov.	Thailand
T. tryznai sp. nov.	India (Assam)
T. venusta Lesne, 1902	Ceylon (Sri Lanka)

RESULTS

Genus *Trichodesma* LeConte, 1861

Trichodesma assamensis sp. nov.
(Figs. 1a-e)

Type material. Holotype (♂): INDIA, Assam, Umrongso env., 700 m a. s. l., 251°27' N, 92°43' E, 3.-8.vi.2002, M. Trýzna & P. Benda lgt., (PZPC).

Description. Holotype (male). Elongate-elliptical, transversally slightly convex. Body length 7.3 mm, the greatest width 3.0 mm. Ratio length : elytra width of 1.7. Body black, with yellow pubescence (pronotum) and white pubescence (elytra). Antennae, palpi and legs brown. Habitus see Figs. 1a (dorsal view) and 1b (lateral view).

Head flat, densely covered with short recumbent irregular white pubescence. Surface shining, granulated, diameter of granules approximately the same as distance between them. Clypeus glabrous. Eyes large, globular, with sparse long erect setae. Frons twice as wide as width of eye in dorsal view.

Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and 10th serrated (Fig. 1d). Antenomere I (scape) robust, 2.4 times longer than wide. Ratio length to wide of other antennomeres is following - II - 3.0; III - 1.5; IV - 1.5; V - 1.5;

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

VI - 1.0; VII - 1.0; VIII - 1.0; IX -1.5; X - 2.3; XI - 3.6. The ratio of length of antennomere I to XI is as following - 1.0 : 0.6 : 0.6 : 0.6 : 0.6 : 0.4 : 0.4 : 0.4 : 2.6 : 3.6 : 5.0. Similarly the width of individual antennomere I - XI is as follow - 1.0 : 0.5 : 1.0 : 1.0 : 1.0 : 1.0 : 1.0 : 1.0 : 4.5 : 4.0 : 3.5. Antennomeres I - VIII on the inner side with sparse long erect setae; the last three antennomeres almost glabrous, densely coarsely punctured, punctures almost touching.

Pronotum transverse, ratio length : width 0.8, the widest in the first third (Fig. 1c), this part almost parallel, slightly convex. Centre of pronotum with sharp tubercle, inclined backwards, with longitudinal almost indistinct furrow. Surface of pronotum with two types of setae - the first dense short recumbent or semierected, covering anterior part of pronotum excluding tubercle, nearly obscuring surface. The second sparser long erect. Posterior part with only sparse short recumbent or semierect setae, not obscuring surface, granulated, distance between granules 1.0 - 1.5 times larger than their diameter.

Scutellum transverse, rectangular, twice wider than long, also with two types of setae - the first dense short recumbent or semierect, the second a few long erect setae.

Elytra oval, with almost indistinct humeri. Surface shining, with more or less regular striae of large punctures, diameter of punctures the same or slightly smaller than distance between them. Pubescence sparse, semierect or shortly erect.

Legs robust, with semierect or erect dense pubescence. Tarsi stout, without long erect setae. Tarsomere I - IV the same length as width, each as long as wide. The 5th tarsomere the longest, twice as long as previous combined. Tarsal claws robust without teeth.

The 1st abdominal sternite in middle with short narrow peaks; this sternite the longest on side. The 2nd 1.3 times longer than the previous, the 3rd as long as the 1st, the 4th half length of the 1st and 5th the same length as the 1st on sides or the 3rd. Surface coarsely granulated, with sparse short recumbent pubescence inclined backwards.

Aedeagus wide, parameres long, see Fig. 1e

Female. Unknown.

Differntial diagnosis. See key. From other species differ also by shape of the aedeagus.

Name derivation. Derived from name of country of its distribution - Assam (state of India).

Trichodesma bendai sp. nov.

(Figs. 2a-e)

Type material. Holotype (♂): INDIA, Assam, Umrongso env., 700 m a. s. l., 251°27' N, 92°43' E, 3.-8.vi.2002, M. Trýzna & P. Benda lgt., (PZPC).

Description. Holotype (male): Elongate-elliptical, transversally slightly convex. Body length 7.5 mm, the greatest width 3.2 mm. Ratio elytra length : elytra width of 1.6. Body brown with yellow pubescence. Antennae, palpi and legs light brown. Habitus see Figs. 2a (dorsal view) and 2b (lateral view).

Head transversally slightly convex. Surface shining, dense short recumbent pubescence,

not obscuring surface. Punctation sparse and coarse, irregular. Eyes large, globular with dense long erect setae. Frons 2.8 times width of eye from dorsal view.

Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and 10th serrated (Fig. 2d). Antenomere I (scape) robust, 1.5 times longer than wide. Ratio length to width of other antennomeres is following - II - 1.2; III - 1.7; IV - 1.3; V - 0.7; VI - 0.7; VII - 0.3; VIII - 0.3; IX - 1.5; X - 1.8; XI - 3.3. The ratio of length of antennomere I to XI is as following - 1.0 : 0.6 : 0.5 : 0.4 : 0.2 : 0.2 : 0.1 : 0.1 : 1.5 : 1.8 : 2.3. Similarly the width of individual antennomere I - XI is as follow - 1.0 : 0.7 : 0.4 : 0.4 : 0.4 : 0.4 : 0.4 : 0.4 : 1.4 : 1.4 : 1.0. Antennomeres I - VIII on the inner side with sparse long erect setae.

Pronotum transverse, ratio length : width 0.6, the widest shortly before base (Fig. 2c). Centre of pronotum with small rounded tubercle, inclined backwards. Surface with very dense short recumbent pubescence, covering almost all pronotum; only small part before scutellum and top of tubercle glabrous. This part is shining, granulated, diameter of granules the same as distance between them. Entire pronotum also with sparser, but dense, long erect setae.

Scutellum small, slightly transverse, surface with very dense, long semierect pubescence medially, inclined backward.

Elytra oval, with distinct humeri. Surface of elytra with two types of pubescence. Almost entire surface with very dense short recumbent (partly slightly semierect) pubescence; only

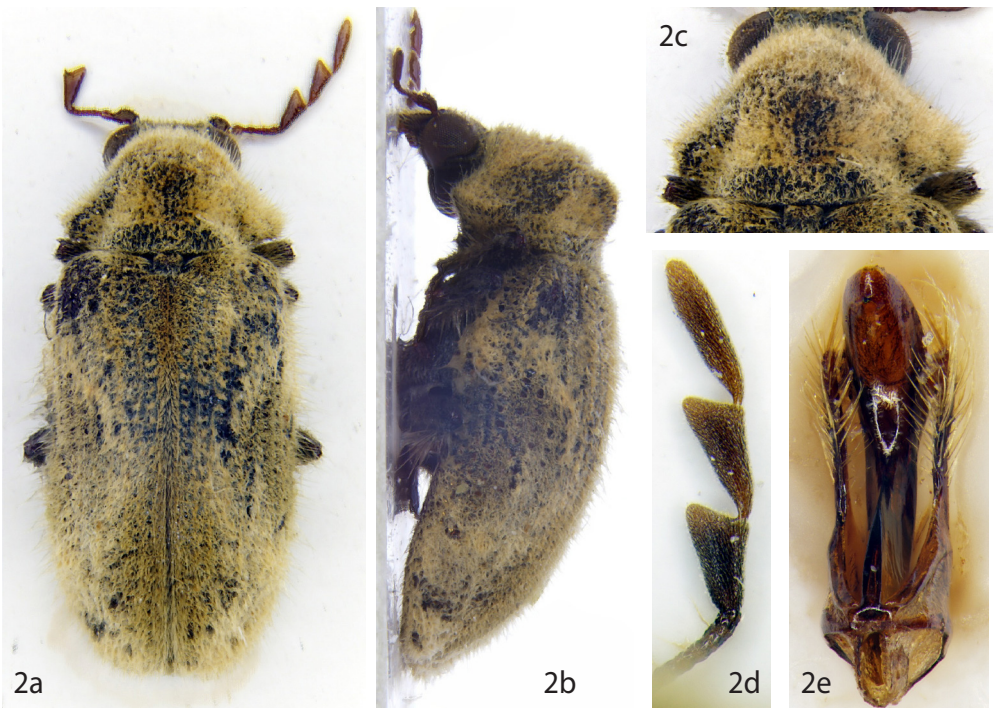

Fig. 2. *Trichodesma bendai* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus.

humeri and middle part of each elytron from lateral margin to two thirds their width with sparser pubescence, especially in middle of elytra, creating visible spot. Basal part of elytra granulated, diameter of granules the same as distance between them. The other part of elytra with striae consisting of large punctures, diameter of these punctures the same as distance between them. Entire elytra also with dense long erect setae. Each elytron before apex with small, almost invisible tubercle.

Legs robust, with semierect or erect dense pubescence. Tarsi stout, without long erect setae. Tarsomere I - IV the same length as wide, each as long as wide. The 5th tarsomere the longest, twice as long as previous. Tarsal claws robust without teeth.

The 1st abdominal sternite in middle with short wide peak. Sternites I - III and V the same length (the 1st on lateral margin, in middle much narrover), the IV half. Surface sparse with short recumbent pubescence.

Aedeagus narrow, parameres long (Fig. 2e).

Female. Unknown.

Differntial diagnosis. See key. From other species differs also by the shape of the aedeagus.

Name derivation. Patronymic, dedicated to collector of type materials, Pavel Benda, zoologist - ornithologist.

Trichodesma chumphonica sp. nov.

(Figs. 3a-e)

Type material. Holotype (♂): THAILAND, Chumphon prov., Pha To env., 27.iii.-14.iv.1996, 9°48' S, 98°478' E, P. Průdek lgt., (PZPC).

Description. Male (holotype). Elongate-elliptical, transversally slightly convex. Body length 6.1 mm, the greatest width 2.8 mm. Ratio elytra length : elytra width of 1.6. Body light brown, with yellow pubescence. Antennae, palpi and legs brown. Habitus see Figs. 3a (dorsal view) and 3b (lateral view).

Head flat, in middle with longitudinal furrow, deeply cut in the front, very dense, shortl recumbent pubescence, without punctures. Pubescence on clypeus sparse. Eyes large, globular, with sparse long erect setae. Frons twice as wide as width of eye in dorsal view.

Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and 10th serrated (Fig. 3d). Antenomere I (scape) robust, twice as long as wide. Ratio length to widthof other antennomeres is following - II - 1.7; III - 5.0; IV - 0.5; V - 1.0; VI - 1.0; VII - 1.0; VIII -1.0; IX - 0.8; X - 1.7; XI - 6.0. The ratio of length of antennomere I to XI is as following - 1.0 : 0.4 : 0.4 : 0.1 : 0.2 : 0.2 : 0.2 : 0.2 : 1.0 : 1.6 : 2.5. Similarly the width of individual antennomere I - XI is as follows - 1.0 : 0.5 : 0.2 : 0.3 : 0.3 : 0.3 : 0.3 : 0.3 : 2.5 : 1.8 : 0.8. Antennomeres I - VIII on the inner side with sparse long erect setae, antennomeres IX - XI glabrous.

Pronotum transverse, ratio length : width 0.5, widest on the second third (Fig. 3c). Centre of pronotum with sharp tubercle, inclined backwards, with longitudinal almost indistinct

keel. Surface of pronotum with two types of setae - the first very dense recumbent covering almost entirepronotum, the second long erect sparser than previous.

Scutellum small rectangular, with dense short recumbent setae, inclined backward.

Elytra oval, with distinct humeri, visible part of surface matte, with large rectangular punctures, almost touching, arranged in rows. Each elytron on posterior part with small tubercle. 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 with sparser erect long setae. Each elytron between the first and the third part with longitudinal surface with sparser pubescence, creating irregular spot, from lateral margin almost to suture.

Legs robust, with two types of pubescence - the first dense, recumbent, the second long, sparse, erect. Femorr and tibiae with dense long erect setae. Tarsi stout, the first tarsomere longest, the last of similar length and width, tarsal claws robust without teeth.

The 1st abdominal sternite in middle with peak as long as width of lateral margin of this sternite. The 2nd longest, 1.4 times longer, the same length as 3rd. The 4th half the length of previous. The 5th the same length as 2nd. Surface with dense medium length recumbent pubescence, inclined backward.

Aedeagus wide, parameres long (Fig. 3e).

Female. Unknown.

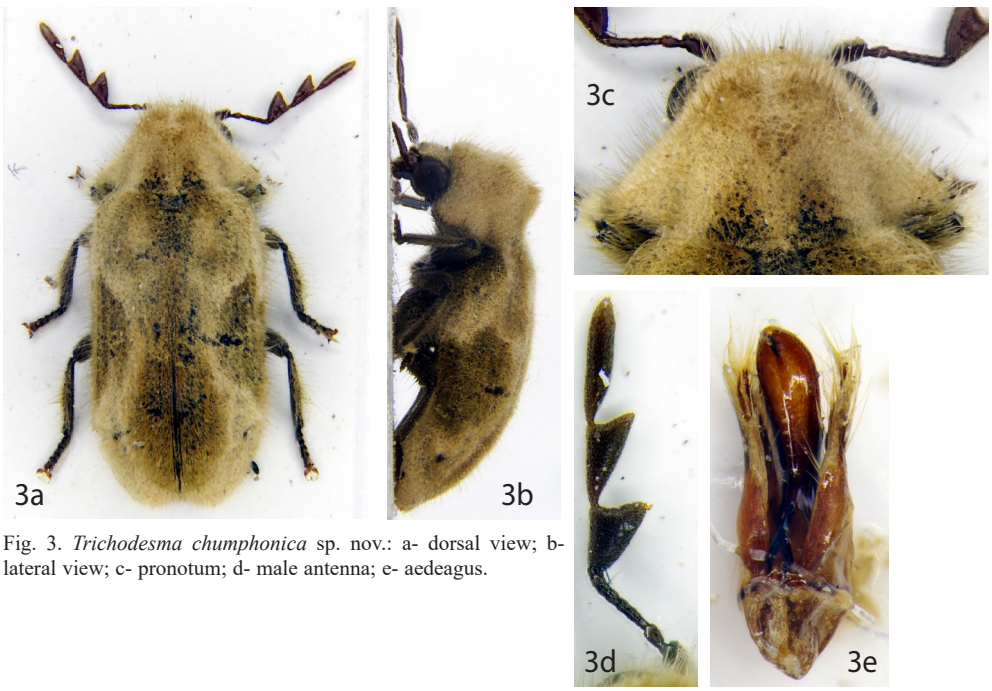

Fig. 3. *Trichodesma chumphonica* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus.

Differential diagnosis. See key. From other species differs also by the shape of the aedeagus.

Name derivation. Derived from name of type locality - Chumphon Province.

***Trichodesma horaki* sp. nov.**
(Figs. 4a-e)

Type material. Holotype (♂): THAILAND NW, Ban Huai Po, 1600-2000 m a. s. l., 8.-18.v.1992, J. Horák lgt., (PZPC). Paratypes: (1 ♂): THAILAND NW, Mae Hong Son, Ban Huai Po, 1600-2000 m a. s. l., 9.-16.v.1991, J. Horák lgt., (PZPC); (2 ♂♂): THAILAND NW, Mae Hong Son, Ban Huai Po, 1600-2000 m a. s. l., 15.-19.v.1996, S. Bílý lgt., (PZPC).

Description. Male (holotype). Elongate- elliptical, transversally slightly convex. Body length 5.1 mm, the greatest width 2.0 mm. Ratio elytra length : elytra width 1.7. Body dark brown with grey pubescence. Antennae, palpi and legs slightly lighter. Habitus see Figs. 4a (dorsal view) and 4b (lateral view).

Head transversally slightly convex, with densely short recumbent pubescence. Punctation of two types - the first fine dense, punctures almost touching; the second coarse, sparser than previous, diameter of punctures the same as distance between punctures. Eyes large,

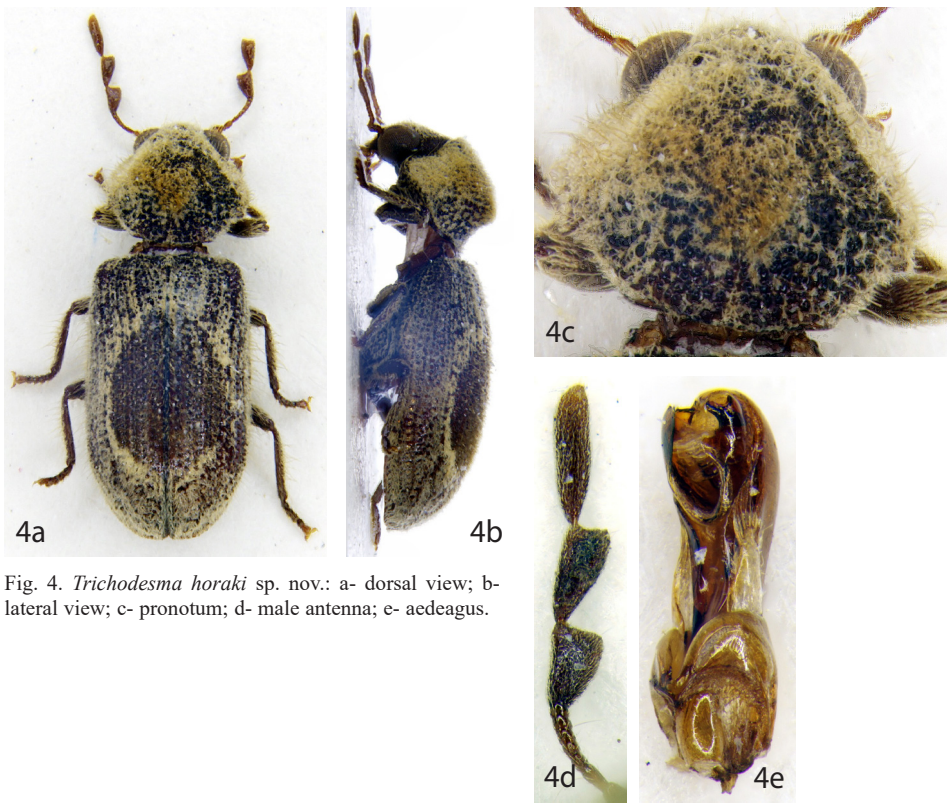

Fig. 4. *Trichodesma horaki* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus.

globular, with spars long erect setae. Frons 1.5 times as wide as eye from dorsal view.

Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and 10th serrated (Fig. 4d). Antennomere I (scape) long, twice as longas wide. Ratio length to width of other antennomeres is following - II - 1.7; III - 1.2; IV - 0.6; V - 1.1; VI - 0.9; VII - 1.0; VIII -0.5; IX - 1.8; X - 2.4; XI - 3.9. The ratio of length of antennomeres I to XI is as following - 1.0 : 0.4 : 0.5 : 0.2 : 0.4 : 0.4 : 0.4 : 0.2 : 2.7 : 3.3 : 4.3; similary the width of individual antennomere I - XI is as follow - 1.0 : 0.4 : 0.6 : 0.5 : 0.6 : 0.7 : 0.7 : 0.7 : 2.3 : 2.0 : 1.7. Antennomeres on the inner side only with a few long erect setae.

Pronotum slightly transverse, ratio length : width 0.9, widest on the first third (Fig. 4c). Centre of pronotum with rounded tubercle. Surface of pronotum shining with coarse dense punctures, diameter of these punctures 0.8 the distance between punctures. Pubescence on pronotum with two types -dense, short recumbent covering almost entire pronotum (sparser in middle around tubercle) and sparse long erect setae.

Scutellum small, transverse granulated, with dense short recumbent pubescence, inclined backwards.

Elytra oval, with distinct humeri, visible part of surface shining, with large dense coarse almost rectangular punctures, arranged in rows, diameter of punctures the same as distance between them. Elytra in middle with longitudinal oval spot without pubescence. Remaider of elytra with dense short recumbent pubescence with sparser semierect long setae arranged in lines.

Legs robust, densely shortly recumbent pubescence. Femora and tibiae with sparse long erect setae. Tarsi stout the first tarsomere longest, the last similar length as width, tarsal claws robust without teeth.

The 1st abdominal sternite in middle with peak as long as wide of lateral margin of this sternite. The 2nd longest, 1.4 times longer, the same length as 3rd. The 4th half the length of previous. The 5th the same length as 2nd. Surface with dense medium length recumbent pubescence, inclined backward.

Aedeagus narrow, top of median lobus greatly expanded, parameres long (Fig. 4e).

Female. Unknown.

Variability. Body length 5.0-5.2 mm.

Differential diagnosis. See key. From other species differs also by the shape of the aedeagus.

Name derivation. Patronymic, dedicated to the collector of holotype and some of the paratypes, our very good friend Jan Horák, well-known specialist on the family Mordellidae.

Trichodesma klarae sp. nov.

(Figs. 5a-e)

Type material. Holotype (♂): INDIA, Goa, Baga Beach, NW Panaji, 26.-28.v.2000, P. Pacholátko lgt., (PZAC).

Description. Holotype (male). Elongate-elliptical, transversally slightly convex. Body length 4.0 mm, the greatest width 1.5 mm. Ratio elytra length : elytra width 1.8. Body

brown, with white pubescence; head and pronotum dark brown, antennae, palpi and legs light brown. Habitus see Figs. 5a (dorsal view) and 5b (lateral view).

Head transversal slight convex, shining, with sparse short recumbent pubescence, with two types of punctation - the first very fine dense, punctures almost touching, the second coarse sparser, diameter of punctures the same as distance between them. Eyes large, globular with sparse long erect setae. Frons twice as wide as width of eye in dorsal view.

Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and 10th serrated (Fig. 5d). Antennnomere I (scape) three times longer than wide. Ratio length to wide of other antennomeres is following - II - 0.5, III - 3, IV - 1.0, V - 1.0, VI - 1.0, VII - 1.0, VIII - 2.0. IX - 1.2, X -2.2, XI - 5.0. The ratio of length of antennomere I to XI is as following - 1.0 : 0.5 : 0.3 : 0.1 : 0.1 : 0.1 : 0.1 : 0.2 : 1.1 : 1.3 : 2.0. Similarly the width of individual antennomere I - XI is as follows - 1.0 : 0.7 : 0.3 : 0.3 : 0.3 : 0.3 : 0.3: 0.3 : 3.0 : 2.0 : 1.3. Antennomeres I - VIII on the inner side with sparse long erect setae, antennomeres IX - XI glabrous.

Pronotum transverse, ratio length : width 0.7, widest on the half (Fig. 5c). Lateral margin round, without teeth. Centre of the pronotum with small rounded tubercle, inclined slightly backwards. Surface of pronotum with two types of pubescence - the first very dense short recumbent, almost covering surface of pronotum, the second sparser than previous, long erect. Visible punctation consists of coarse punctures, their diameter as the same as distance between them.

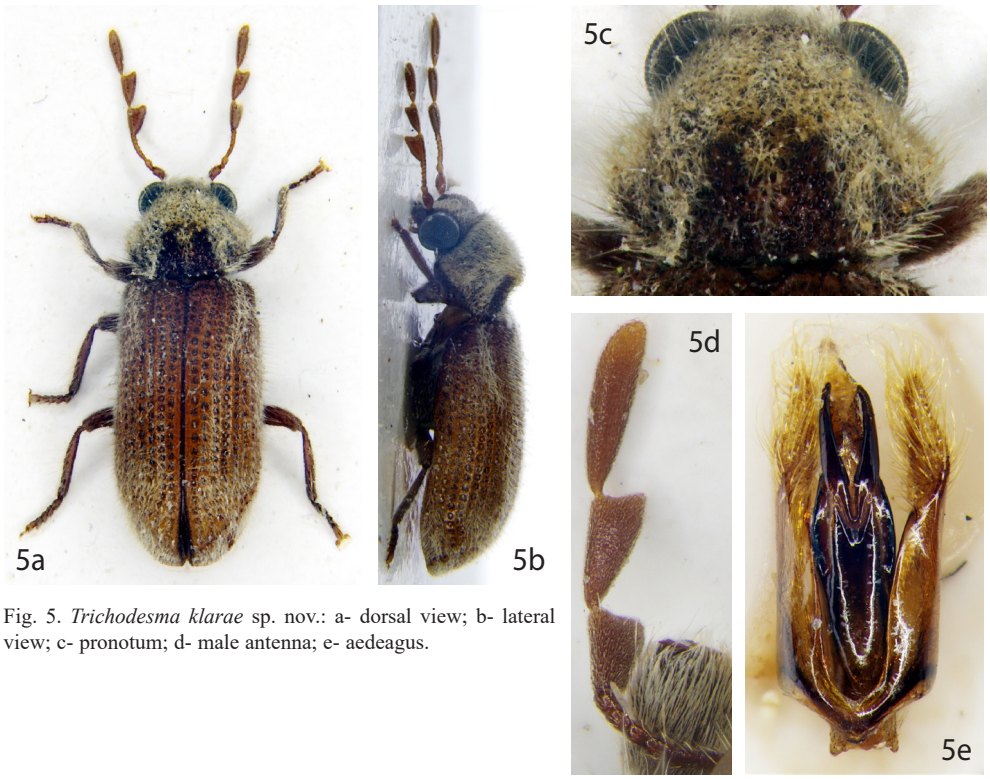

Fig. 5. *Trichodesma klarae* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus.

Scutellum small, transverse trapezoidal, broadest at the base of pronotum shining, finely punctate, with a few coarse granules, almost glabrous.

Elytra parallel, without distinct humeri and without any spots. Surface shining, with regular rows of rounded coarse punctures, distance between them half their diameter. Pubescence sparse long erect or semierect.

Legs robust with dense long erect setae. All tarsomeres similar in length and width. Tarsal claws small.

The 1st abdominal sternite in middle with peak as long as wide of lateral margin of this sternite. The 2nd longest, 1.2 times longer, the 3rd 1.2 times shorter than previous. The 4th half as long as the 3rd. The 5th the same length as 2nd. Surface with dense medium length semierect pubescence, inclined backward.

Aedeagus wide, parameres longer than median lobus (Fig. 5e).

Female. Unknown.

Differential diagnosis. See key. From other species differs also by the shape of the aedeagus.

Name derivation. Patronymic, dedicated to colleague of the first author Klára Šimerová, who helps regularly with the graphic preparation of tables and other graphic works.

Trichodesma lueeri sp. nov.

(Figs. 6a-d)

Type material. Holotype (♂): THAILAND, Nam Tok env., 17.-19.v.2004, S. Bílý lgt., (PZPC).

Description. Holotype (male). Elongate-elliptical, transversally slightly convex. Body length 4.0 mm, the greatest width 1.9 mm. Ratio elytra length : elytra width of 1.4. Body piceous, with yellow pubescence. Antennae, palpi and legs brown. Habitus see Figs. 6a (dorsal view) and 6b (lateral view).

Head flat, pubescence of two types - dense short recumbent and sparse, the second sparser long erect setae. Punctures almost invisible, coarse, their diameter the same as distance between them. Eyes large, globular, with sparse short erect setae. Frons twice as wide as eye from dorsal view.

Antennae missing.

Pronotum transverse, ratio length : width 0.6, the widest on the base (Fig. 6c). Centre of pronotum with sharp tubercle, inclined backwards. Pronotum with two types of setae - the first very dense short recumbent, covering almost entire surface of pronotum, the second long, erect, sparser than previous, concentrated mainly along the edges of pronotum. Part of tubercle (except top) with shorter erect dense black setae and the same setae forming two spots before this tubercle. Visible part of pronotum shining with dense coarse granules. Granules as large as the distance between them.

Scutellum small, triangular, with dense long semierect pubescence, inclined backwards.

Elytra long oval, with distinct humeri. Visible part of surface shinning with dense coarse almost rectangular punctures arranged in regular rows; punctures almost touching. Surface

of elytra with two types of setae - the first short, dense recumbent or semierect, arranged irregularly, covering almost entire surface, the second sparser, erect, long. Each elytron in middle with longitudinal surface without pubescence from lateral margin almost to suture; small part along suture without pubescence. These two areas divided by narrow stripes with pubescence.

Legs robust, with two types of pubescence - the first dense, short, recumbent, the second long, sparser, erect. Tarsi stout, the first tarsomere longest, other similar length. Tarsal claws small.

The 1st abdominal sternite in middle with peak as long as wide as the width of lateral margin of this sternite. The 2nd longest, similar to the 5th, 3rd and 4th half the lengthof the 2nd. Surface shining, with dense recumbent medium length pubescence, inclined backwards.

Aedeagus wide, top of median lobus wide, cut out in the middle, parameres short (Fig. 6d).

Female. Unknown.

Differential diagnosis. See key. From other species differs also by the shape of the aedeagus.

Name derivation. Patronymic, dedicated to the well-known specialist of Chilean Ptinidae, Alfredo Lüer.

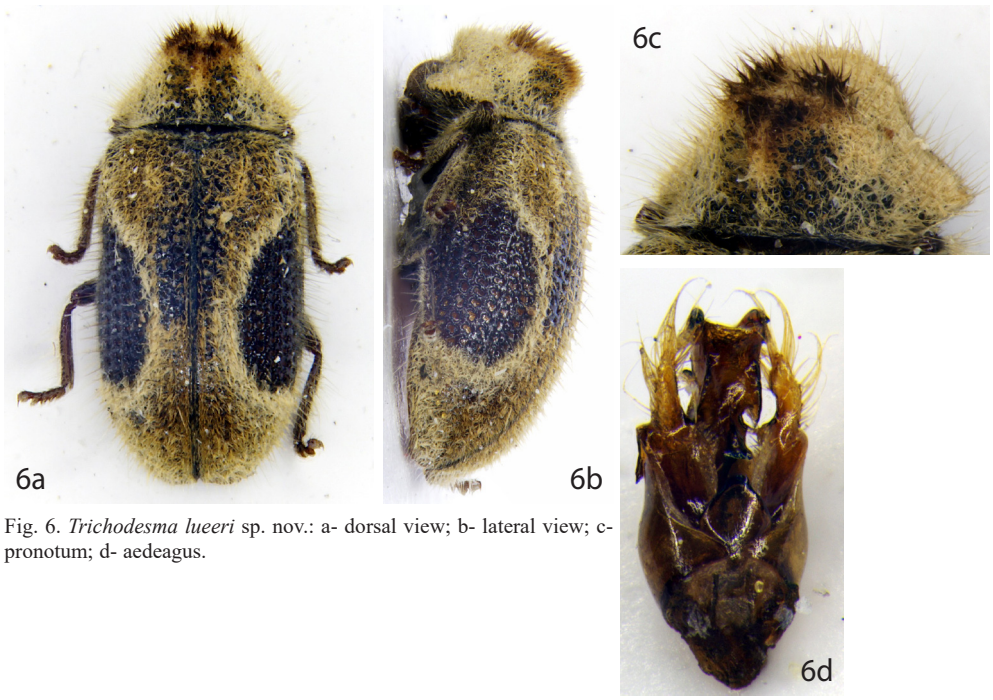

Fig. 6. *Trichodesma lueeri* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- aedeagus.

Trichodesma meghalayaensis sp. nov.
(Figs. 7a-d)

Type material. Holotype (♀): INDIA NE, Meghalaya, Tura N, 500-600 m a. s. l., 25°30' N, 90°14' E, 2.-5.v.2002, M. Trýzna & P. Benda lgt., (PZPC).

Description. Female (holotype). Elongate-elliptical, transversally slightly convex. Body length 7.0 mm, the greatest width 4.0 mm. Ratio elytra length : elytra width of 1.3. Body black, with yellow pubescence. Antennae, palpi and legs brown. Habitus see Figs. 7a (dorsal view) and 7b (lateral view).

Head flat, with very dense short recumbent pubescence covering entire surface, punctation invisible. Eyes large, globular, with sparse long erect setae. Frons twice as wide as width of eye in dorsal view.

Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and 10th serrated, the last antennomere filiforme (Fig. 7d). Antennomere I (scape) robust, 1.4 longer than wide. Ratio length to wide of other antennomeres is following - II - 1.8; III - 2.5; IV - 1.0; V - 1.0; VI - 1.0; VII - 1.0; VIII - 0.5; IX - 1.3; X - 1.7; XI - 2.6. The ratio of length of antennomere I to XI is as following - 1.0 : 0.5 : 0.4 : 0.2 : 0.2 : 0.2 : 0.2 : 0.1 : 1.2 : 1.5 : 1.8. Similarly the width of individual antennomeres I - XI is as follow - 1.0 : 0.4 : 0.2 : 0.2 : 0.2 : 0.2 : 0.2 : 0.2 : 1.3 : 1.2 : 1.0. Antennomeres I - VIII on the inner side with a few long erect setae.

Pronotum transverse, ratio length : width 0.6, the widest in the half (Fig. 7c). Centre of pronotum with sharp tubercle, inclined backwards. Surface of pronotum with two types of setae. The first very dense short recumbent, covering almost entire surface of pronotum, except small part in middle of pronotum before the base. The second sparser long erect, before base of pronotum with two small transverse thickened orange setae, top of tubercle with thickened orange setae, divided by yellow pubescence like the remainder of pronotum. Visible part of pronotum shining granulated, diameter of granules the same as distance between them.

Scutellum large, transverse, rectangular, widest at base of pronotum, 1.5 times wider than long, surface with dense, short, recumbent pubescence.

Elytra oval, with distinct humeri. Largest part of elytra covered by dense, short recumbent pubescence, obscuring surface. All elytra with sparser, long, erect setae. Each elytron in middle with distinct spot from lateral margin almost to suture, with dense, short recumbent brown pubescence, not obscuring surface. Also small area before apex of elytra with similar pubescence. Small part on centre of elytra without recumbent pubescence, shining. Other visible part with striae of large rounded punctures, their diameter the same as distance between them (longitudinally); interstriae 1.5 times as wide as diameter of punctures.

Legs robust, with two types pubescence - the first dense, short, recumbent, the second sparser, long, erect, the second type of setae missing on tarsi. Tarsomeres I - IV as long as wide, the same length, tarsomere V 1.9 times longer than previous, the same width. Tarsal claws robust, without teeth.

The 1st abdominal sternite in middle with narrow long peak. Length of sternites I-III and IV the same length, the sternite IV one third the length of the othere. Surface shining with

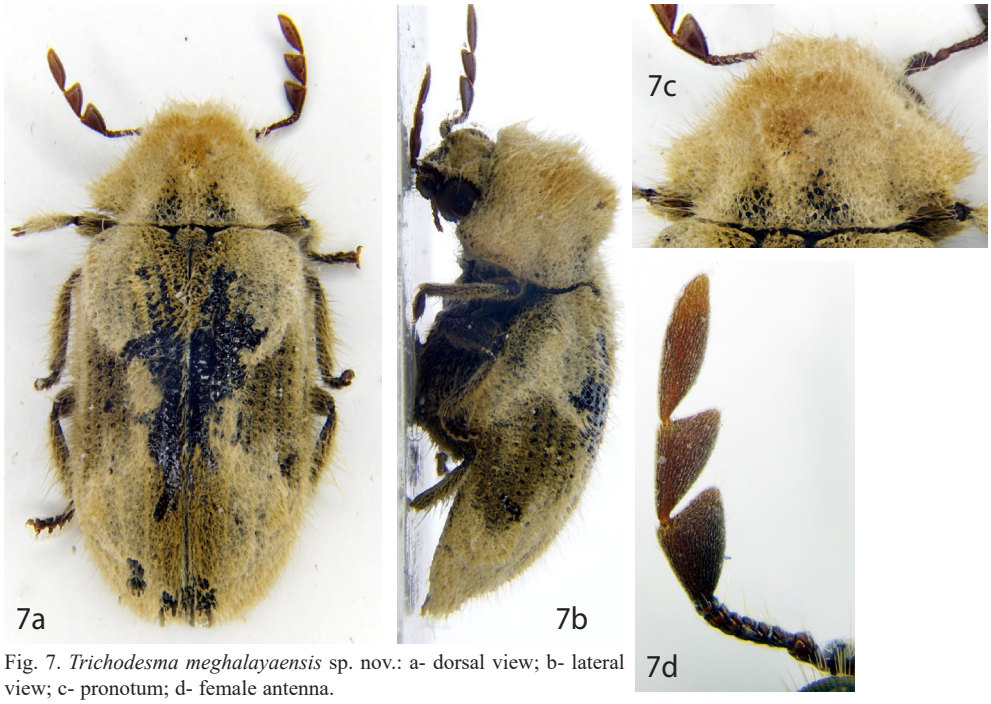

Fig. 7. *Trichodesma meghalayaensis* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- female antenna.

large dense punctures, their diameter the same as distance between them. Pubescence dense, short, recumbent.

Male. Unknown

Differential diagnosis. See key.

Name derivation. Derived from name of country of its distribution - Meghalaya (state of India).

***Trichodesma oborili* sp. nov.**

(Figs. 8a-e)

Type material. Holotype (♂): THAILAND, Nan prov., Ban Huay Kon env., 27.v.-10.vi.2002, P. Průdek & M. Obořil, lgt., (PZPC). Paratypes: (1 ♂, 2 ♀♀): the same data as holotype, (PZPC).

Description. Male (holotype). Shortly elongate-elliptical, convex. Body length 5.0 mm, the greatest width 2.9 mm. Ratio elytra length : elytra width 1.3. Body black, with yellow pubescence. Antennae, palpi and legs light brown. Habitus see Figs. 8a (dorsal view) and 8b (lateral view).

Head flat, deeply cut in the front, with dense, short recumbent pubescence. Visible part of head without pubescence, with dense coarse punctures, their diameter twice as large as distance between them. Eyes globular with sparse long erect setae. Frons three times as wide as eye from dorsal view.

Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and 10th serrated (Fig. 8d). Antennomere I (scape) robust, three times longer than wide. Ratio length to wide of other antennomeres is following - II 1.0; III - 0.8; IV - 1; V - 0.8; VI - 1.4; VII - 1.0; VIII - 1.0; IX - 1.7; X - 2.9; XI - 4.8. The ratio of length of antennomeres I to XI is as following - 1.0 : 0.33 : 0.27 : 0.33 : 0.27 : 0.47: 0.33 : 0.33 : 1.67 : 2.53 : 3.17 (due to the small but distinct differences in the length of antennomeres, the ratio was calculated to two decimal places). Similarly the width of individual antennomeres I - XI is as follows - 1.0 : 0.8 : 0.8 : 0.8 : 0.8 : 0.8 : 0.8 : 0.8 : 2.3 : 2.0 : 2.0. All antennnomeres on inner side with long and short erect sparse setae.

Pronotum transverse, twice as wide as long; widest shortly before of the base (Fig. 8c). Centre of pronotum with sharp tubercle, inclined backwards. Tubercle with long, erect, dense setae, without short pubescence, glabrous. Remainder of pronotum with short dense recumbent yellow pubescence, sparser before of base of pronotum in middle, not obscuring surface. Visible part of pronotum densely granulate, diameter of granules is the same as distance between them.

Scutellum large, more or less cordiform, with short dense recumbent pubescence inclined backwards.

Elytra shortly oval, with distinct humeri. Surface of elytra shining, with irregular granules, their diameter 0.7 smaller than distance between them. Pubescence from scutellum in wider strip up to one third, then disconnected in narrow strips up to the edge of elytra forming rhombus, followed by wider strip along the suture, which does not reach the end of elytra. Each elytron is pubescenct at end and closely joined at the base.

Legs robust, with two pubescence - the first dense, recumbent, the second long, sparse, erect. Tarsi stout, the 1st the longest, 1.3 times longer than others. The 5th transversally enlarged. Tarsal claws on the base wide, on the end slim and small.

The 1st abdominal sternite in middle with peak, twice wide as long, on the lateral margin the widest. The 2nd three times longer than the 1st on lateral margin, the 3rd almost twice shorter than previous, the 4th the shortest only one third of the 2nd. The 5th the same length as the 2nd. Surface with short, dense, recumbent pubescence, densely, coarsely punctate; diameter of punctures the same as distance between them.

Aedeagus wide, top of median lobus wide, uncut in the middle, parameres short (Fig. 8e).

Female. Without distinct dimorphism. Body length 4.2-5.0 mm.

Variability. Body length 4.0-5.0. Stripes on elytra of different widths.

Differential diagnosis. See key. From other species differs also by the shape of the aedeagus.

Name derivation. Patronymic, dedicated to one of the two collectors of the type materials, Martin Obořil.

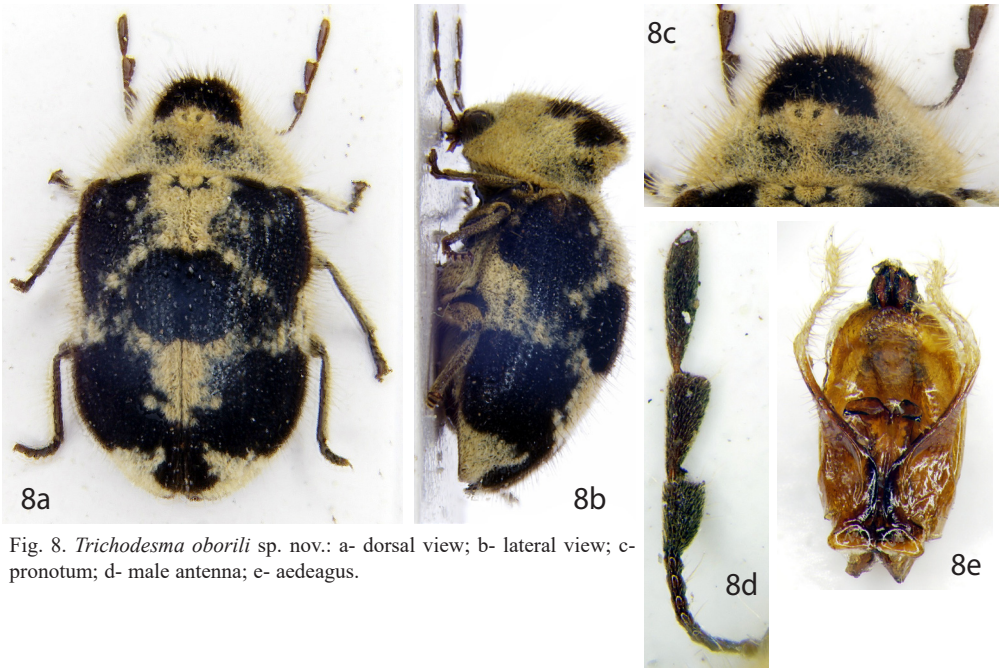

Fig. 8. *Trichodesma oborili* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus.

***Trichodesma petrae* sp. nov.**
(Figs. 9a-e)

Type material. Holotype (♂): MALAYSIA, Pahang. distr., Lata Lembik, Raub, 3°56' N, 101°38' E, 8.-15.v.2002, E. Jendek & O. Šauša lgt., (PZPC).

Description. Male (holotype). Elongate-elliptical, transversally slightly convex. Body length 6.4 mm, the greatest width 3.5 mm. Ratio elytra length : elytra width of 1.3. Body black, with white pubescence. Antennae, palpi and legs dark brown. Habitus see Figs. 9a (dorsal view) and 9b (lateral view).

Head flat, with sparse, medium short recumbent pubescence, mostly inclined backwards. Surface shining, with two type of pubescence - the first fine dense, punctures almost touching, the second also dense coarsely, their diameter the same as distance between them. Eyes large, globular, with sparse long erect setae. Frons 2.9 times as wide as width of eye in dorsal view.

Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and 10th serrated (Fig. 9d). Antennomere I (scape) robust, twice longer than width. Ratio length to width of other antennomeres is following - II - 1.7; III - 6.0; IV - 2.0; V - 2.0; VI - 2.0; VII - 2.0; VIII - 2.0; IX - 1.1; X - 1.4; XI - 3.3. The ratio of length of antennomere I to IX is as following - 1.0 : 0.5 : 0.6 : 0.2 : 0.2 : 0.2 : 0.2 :0.2 : 1.0 : 1.2 : 1.8. Similarly the width of individual antennomere I - XI is as follows - 1.0 : 0.6 : 0.2 : 0.2 : 0.2 : 0.2 : 0.2 : 0.2 : 2.0 : 1.8 : 1.2. Antennomeres I - VIII on the inner side with sparse long erect setae, antennomeres IX - XI glabrous.

Pronotum transverse, ratio length : width 0.6, widest at the end of the second third, subsequently narrowing (Fig. 9c). Centre of pronotum with sharp tubercle, inclined backwards; from tubercle to anterior edge of pronotum with wide furrow. Anterior half of pronotum with two types of white pubescence - the first short, dense, recumbent, inclined mostly backwards, covering surface of pronotum, including the tubercle and the narrow lateral edge of the sides of the pronotum; the second sparser, long, erect. Posterior half without pubescence, glabrous, granulated, diameter of granules 0.5-1.2 distance between them.

Scutellum rectangular, narrower posteriorly, longitudinal, shining, with sparse short recumbent pubescence, inclined backwards and slightly towards sides.

Elytra oval, with almost indistinct humeri. Visible part of surface shining; with large rectangular punctures, almost touching, arranged in rows. Middle of the elytra with wide transversal strip, with narrow stripe along suture and on the second third diverging transversely in narrow serrate stripe to lateral margin of elytra and also around of margin of elytra. This pubescence short dense, recumbent. The second type of pubescence sparser long erect concentrated towards previous pubescence.

Legs robust with two types of pubescence - the first tarsomere dense short recumbent, the second sparser, long erect. All tarsomeres similar, slightly transverse. Tarsal claws robust, without teeth.

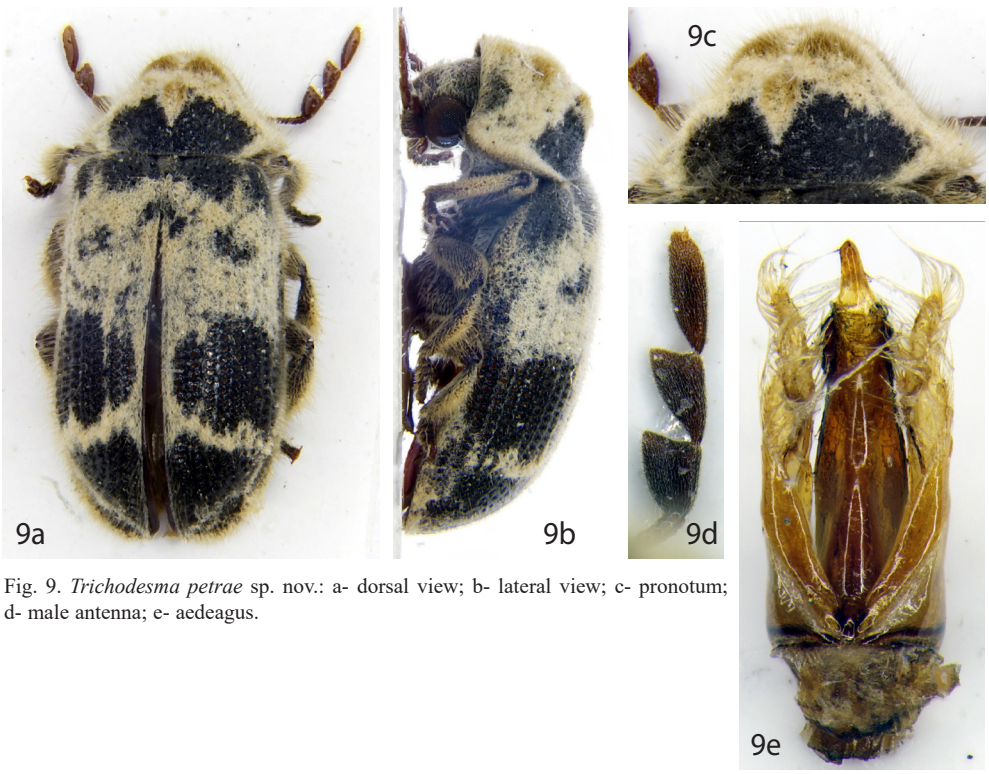

Fig. 9. *Trichodesma petrae* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus.

The 1st abdominal sternite in middle with sharp peak as long as wide, top rounded. The 2nd longest, twice longer than previous on lateral margin. The 3rd similar than the 2nd, only slightly shorter. The 4th only 0.4 length as the 2nd. The 5th the same length as the 3rd.

Aedeagus wide, top of median lobus pointed, parameres long (Fig. 9e).

Female. Unknown.

Differential diagnosis. See key. From other species differs also by the shape of the aedeagus.

Name derivation. Patronymic, dedicated to colleague of the first author Petra Mikulčíková, who helps regularly with the preparation of papers.

Trichodesma pici sp. nov.
(Figs. 10a-e)

Type material. Holotype (♂): THAILAND NW, Mae Hong Son, Ban Huai Po, 1600-2000 m a. s. l., 9.-16.v.1991, J. Horák lgt., (PZPC). Paratype: (2 ♂♂): THAILAND NW, Ban Huai Po, 1600-2000 m a. s. l., 17.-23.v.1991, J. Horák lgt., (PZAC); (1 ♂): THAILAND N, Mae Hong Son, Soppong Son, 600 m a. s. l., 19°27' S, 98°20' E, D. Hauck lgt., (PZPC).

Description. Male (holotype). Elongate-elliptical, transversally slightly convex. Body length 4.2 mm, the greatest width 2.1 mm. Ratio elytra length : elytra width 1.2. Body, antennae, palpi and legs brown, all with white-yellowish pubescence. Habitus see Figs. 10a (dorsal view) and 10b (lateral view).

Head slightly transversally convex, with dense short recumbent pubescence inclined forwards, almost covering surface of head. Visible part of head surface shining, with coarse punctures, their diameter the same as distance between them. Eyes globular, flattened, with short erect sparse setae. Frons 2.8 times as wide as width of eye in dorsal view.

Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and 10th serrated (Fig. 10d). Antennomere I (scape) robust 2.5 times longer than wide. Ratio length to wide of other antennomeres is following - II - 2.5; III - 5.0; IV - 1.0; V - 1.0; VI - 1.0; VII - 1.0; VIII - 1.0; IX - 1.1; X - 1.4; XI - 3.2. The ratio of length of antennomere I to XI is as following - 1.0 : 0.5 : 0.5 : 0.1 : 0.1 : 0.1 : 0.1 : 0.1 : 1.0 : 1.1 : 1.9. Similarly the width of individual antennomere I - XI is as follows - 1.0 : 2.0 : 4.0 : 4.0 : 4.0 : 4.0 : 0.4 : 0.4 : 2.3 : 2.0 : 1.5 (Fig. 7d). Antennomeres I - III on inner side with sparse long erect setae, other glabrous.

Pronotum transverse, ratio length : width 0.7, widest at middle of pronotum. (Fig. 10c). Centre of pronotum with sharp tubercle, inclined backwards. Surface shining, coarsely granulate, granule diameter the same as distance between them. Pubescence of two types - the first dense middle long, more or less recumbent, partly disordered, mostly directed backwards, the second long erect sparser, but also dense. Tubercle with darker, light brown setae, arranged in "V" shape with tip facing posteriorly.

Scutellum not transverse, almost triangular, but rounded angles, with dense short semierct pubescence, inclined backwards.

Elytra with distinct humeri, surface shining, with two type of punctures. The first very dense fine, punctures almost touching, the second coarse dense, their diameter the same as distance between them, arranged in striae. Pubescence of two types - the first dense middle long, more or less recumbent, partly disordered, mostly directed backwards, the second long, erect, sparser, but also dense. Humeri and two short elevated carinae (towards the suture) with dense short black setae, arranged longitudinally. Each elytron on the posterior third with two slightly longitudinal spots of black dense setae.

Legs robust, with long erect dense setae, on tarsi shorter. The 1st and 5th tarsomeres the same length, the 5th slightly narrow, the 2nd - 4th the same length as wide, 0.7 times narrower than the 1st tarsomere. Tarsal claws without teeth.

The 1st abdominal sternite in middle with short and wide peak, the base wider than long, longest on sides. The 2nd and the 3rd 1.2 times longer the 1st on side. The 4th 0.6 shorter than previous. The 5th the same length as the 2nd. Surface shining, finely and densely punctate, punctures almost touching. Pubescence short, dense, recumbent, inclined backwards.

Aedeagus wide, top of median lobus cut, parameres very short, almost invisible (Fig. 10e).

Female. Unknown.

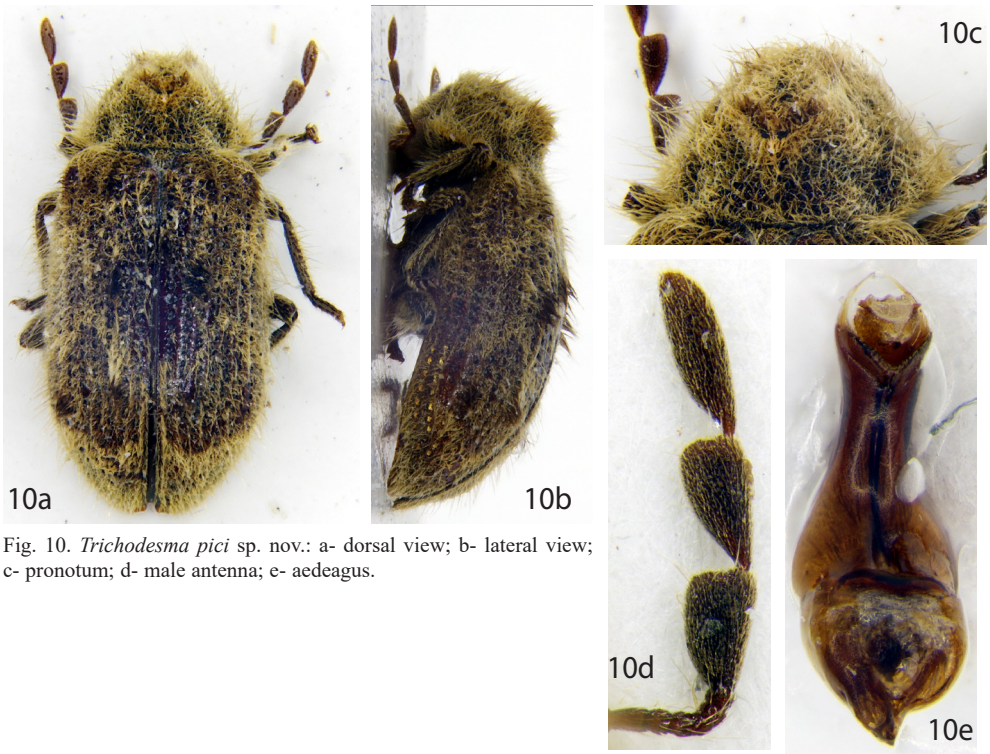

Fig. 10. *Trichodesma pici* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus.

Variability. Body 4.2-4.3 mm.

Differential diagnosis. See key. From other species differ also by the shape of the aedeagus.

Name derivation. Patronymic, dedicated to the well-known specialist of the family Ptinidae, Maurice Pic (*1866-†1957).

Trichodesma prudeki sp. nov.
(Figs. 11a-e)

Type material. Holotype (♂): THAILAND, Nan prov., Ban Huay Kon env., 22.v.-10.vi.2002, P. Průdek & M. Obořil lgt., (PZPC).

Description. Male (holotype). Elongate-elliptical, transversal slightly convex. Body length 5.6 mm, the greatest width 2.5 mm. Ratio elytra length : elytra width of 1.5. Body piceous, with white pubescence. Antennae, palpi and legs brown. Habitus see Figs. 11a (dorsal view) and 11b (lateral view).

Head flat, finely and sparsely pubescence, in the front part denser, setae inclined from side to middle, pubescence on the other part inclined forwards. Surface shining granulated, granules the same diameter as distance between them. Eyes large, globular with sparse erect long setae. Frons 1.5 as wide as width of eye in dorsal view.

Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and 10th serrated, the last antennomere on both antennae missing, but probably also filiforme (Fig. 11d). Antennomere I (scape) robust, twice longer than wide. Ratio length to wide of other antennomeres is following - II - 3.0; III - 7.0; IV - 2.0; V - 3.0; VI - 0.2; VII - 3.0; VIII - 2.0; IX - 1.8; X - 2.4. The ratio of length of antennomere I to X is as following - 1.0 : 0.6 : 0.7 : 0.2 : 0.3 : 0.2 : 0.3 : 0.2 : 1.6 : 1.9. Similarly the width of individual antennomere I - X is as follow - 1.0 : 0.4 : 0.2 : 0.2 : 0.2 : 0.2 : 0.2 : 0.2 : 1.8 : 1.6 (see Fig. 8d). Antennomere I long densely erect setae, antennomeres II - VIII on inner side with only sparse long erect setae. The last two antennomeres glabrous.

Pronotum transverse, ratio length : width 0.7, widest on the anterior part, up to one third almost parallel, then narrowing considerably. The front margin of pronotum in the middle is rounded forward and extended (Fig. 11c). Centre of pronotum with sharp tubercle, inclined backwards. Visible parts of pronotum shining, densely granulated, diameter of granules the same as distance between them. Part of surface with very dense short recumbent pubescence completely covering this part of pronotum and forming distinct design. This pubescence does not cover the small lateral area of the anterior part of pronotum, the central tubercle and the entire posterior third of the pronotum. The second type is long sparse erect setae covered all surface.

Scutellum slightly transverse, rectangular, narrower posteriorly, with long semierect dense pubescence inclined backwards.

Elytra oval, with almost indistinct humeri, visible part of surface shining, with fine punctures, almost touching and granulated, diameter of granule 0.5-1.0 distance between them. Pubescence of two types. The first short, dense, recumbent completely covering

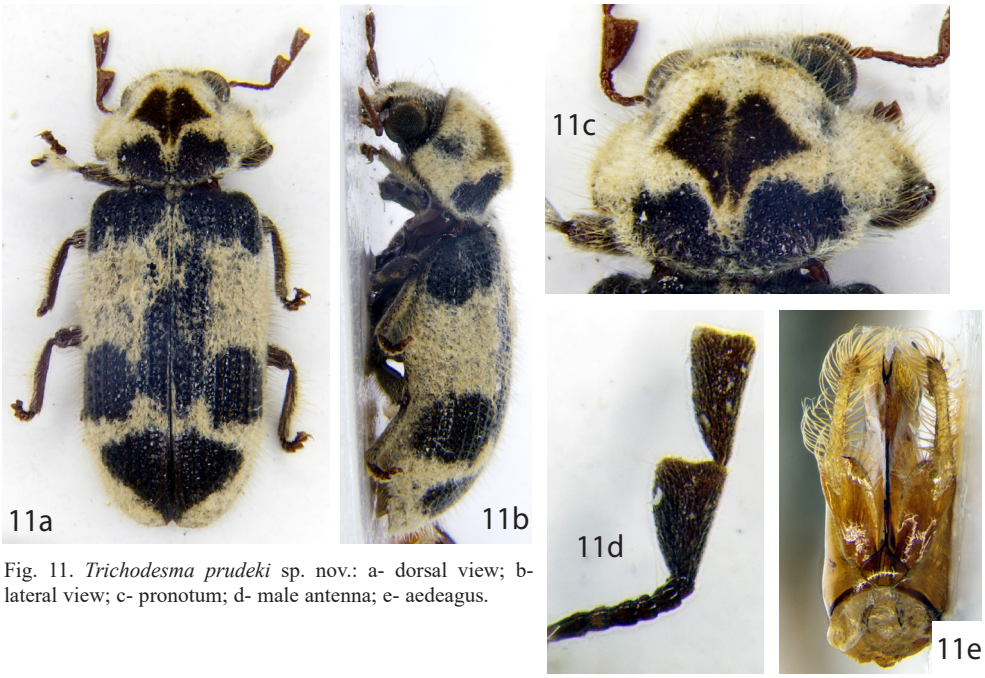

Fig. 11. *Trichodesma prudeki* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus.

part of elytra and forming distinct design. Middle part of elytra with wide transverse stripe across the entire elytra, interrupted narrowly at suture so that surface of elytra is partially visible; anterior part toothed, on posterior part at suture with long narrow sharp longitudinal projection. The posterior part of elytra with narrow ribbed transverse stripe. All surfaces of elytra with sparse, long, erect setae.

Legs robust, with long erect dense setae, on tarsi shorter. The 1st and 5th tarsomeres the same length, the 5th slightly narrow, the 2nd - 4th the same length as wide, 0.7 times narrower than the 1st tarsomere. Tarsal claws without teeth.

The 1st abdominal sternite in middle with short and wide peak, on the base as wide as long, longest on sides. The 2nd and the 3rd 1.2 times longer the 1st on side. The 4th 0.5 shorter than previous. The 5th the same length as the 2nd. Surface shining, finely and densely punctate, punctures almost touching. Pubescence short, dense, recumbent, inclined backwards.

Aedeagus wide, parameres long (Fig. 11e).

Female. Unknown.

Differential diagnosis. See key. From other species differs also by the shape of the aedeagus.

Name derivation. Patronymic, dedicated to the collector of type, our friend Pavel Průdek.

Trichodesma sonae sp. nov.

(Figs. 12a-e)

Type material. Holotype (♂): LAOS centr., Ban Phabat env., 70 km NE of Vientiane, 18°16'06" N, 103°10'54" E, 150 m a. s. l., 27.iv.-1.v.1997, 1 male, E. Jendek & O. Šauša lgt., (PZPC).

Description. Male (holotype). Elongate-elliptical, transversally slightly convex. Body length 4.2 mm, the greatest width 2.1 mm. Ratio elytra length : elytra width of 1.5. Body piceous, with white-yellowish pubescence. Antennae, palpi and tarsi brown. Habitus see Figs 12a (dorsal view) and 12b (lateral view).

Head slightly transversally convex with dense short recumbent pubescence inclined forwards, nearly obscuring surface . Frons three times as wide as width of eye in dorsal view.

Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and 10th serrated (Fig. 12d). Antennomere I (scape) robust, 1.8 longer than wide. Ratio length to wide of other antennomeres is following - II - 2.3; III - 0.3; IV - 1.0; V - 1.0; VI -1.0; VII - 1.0; VIII - 0.5; IX -- 2.1; X -- 2,5; XI -- 3.1. The ratio of length of antennomere I to XI is as following - 1.0 : 0.6 : 0.5 : 0.2 : 0.2 : 0.2 : 0.2 : 0.1 : 1.5 : 1.8 : 2.3. Similarly the width of individual antenomere I - XI is as follows - 1.0 : 0.5 : 0.3 : 0.3 : 0.3 : 0.3 : 0.3 : 0.3 : 1.8 : 1.7 : 1.3. The 1st antennomere with long, dense, erect setae, antennomeres II -VIII on inner side with only a few short erect setae, other antennomeres glabrous.

Pronotum transverse, ratio length : width 0.8, widest at the middle (Fig. 12c). Centre of pronotum with sharp tubercle, inclined backward. Surface with two types of pubescence. The first dense short recumbent, covering almost entire surface of pronotum, partly visible on small part before base, shining, granulated, granules the same diameter as distance between them. The second is sparse long erect. Setae on the tubercle denser, black, centre of tubercle formed by short yellow setae formng a "cross."

Scutellum transverse, twice as wide as long, widest anteriorly, posterior margin in middle slightly emarginated, with long, dense semierect pubescence, inclined backwards.

Elytra oval, with distinct humeri with two type of setae. The first dense, short (but longer than on pronotum), recumbent, partly semierect, inclined mostly backwards. Small part around humeri and base of pronotum partly visible, pubescence sparser granulated, diameter of granules the same diameter as distance between them. The middle third of each elytron without dense setae, covered only on the narrow part along suture. This visible part of surface with very large punctures, almost touching, arranged in rows. The second setae sparse erect long, missing only on spots in middle of elytra.

Legs robust, with long erect dense setae, on tarsi shorter. The 1st and 5th tarsomeres the same length, the 5th slightly narrow, the 2nd - 4th the same length as wide, 0.7 times narrower than the 1st tarsomere. Tarsal claws small, without teeth.

The 1st abdominal sternite in middle with short and wide peak, on the base as wide as long, longest on sides. The 2nd and the 3rd 1.2 times longer the 1st on side. The 4th 0.5 shorter than previous. The 5th the same length as the 2nd. Surface shining, finely and densely punctate, punctures almost touching. Pubescence short, dense, recumbent, inclined backwards with second type longer sparse semierect, inclined backwards.

Aedeagus wide, parameres short (Fig. 12e).

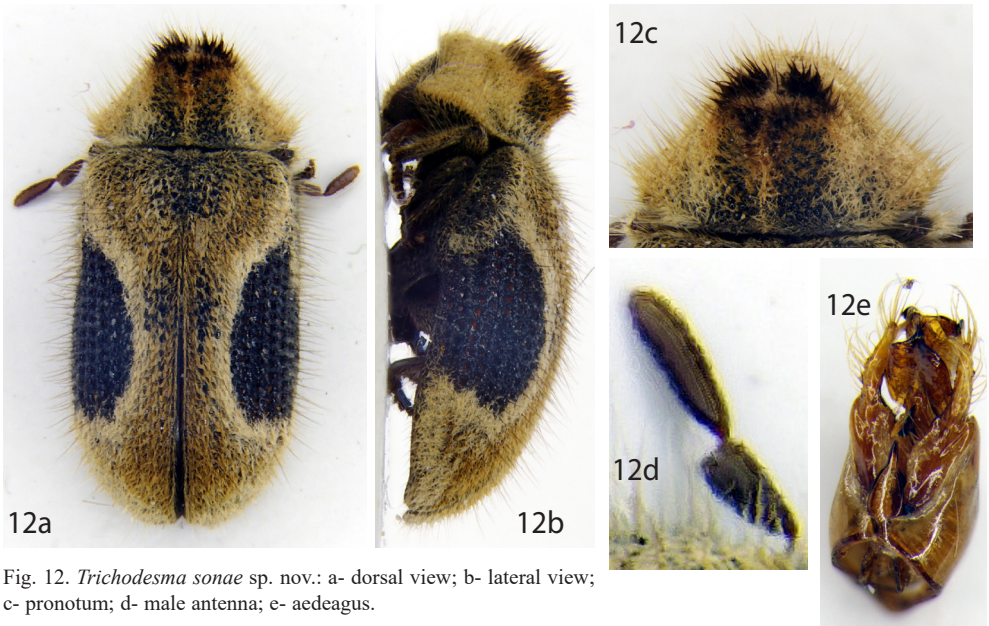

Fig. 12. *Trichodesma sonae* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus.

Female. Unknown.

Differential diagnosis. See key. From other species differs also by the shape of the aedeagus.

Name derivation. Patronymic, dedicated to the sister of the first author, Soňa, for an important life anniversary.

Trichodesma thailandica sp. nov.
(Figs. 13a-e)

Type material. Holotype (♂): THAILAND, Chanthaburi distr., Khao Soi Dao, 5.-13.v.1996, J. Rolčík lgt., (PZPC). Paratypes: (1 ♂): THAILAND, Chanthaburi distr., Khao Soi Dao, 5.-13.v.1996, M. Knížek lgt., (PZPC); (1 ♀): THAILAND NW, Ban Si Lang, 1200 m a. s. l., 1.-8.v.1992, J. Horák lgt., (PZPC).

Description. Male (holotype). Elongate-elliptical, transversally slightly convex. Body length 6.0 mm, the greatest width 3.0. Ratio elytra length : elytra width of 1.4. Body, antennae, palpi and legs light brown with golden-yellow pubescence. Habitus see Figs. 13a (dorsal view) and 13b (lateral view).

Head slightly transversally convex. Dense short recumbent pubescence only on side of head, centre of head glabrous, shining, granulated, distance between granules 1-1.5 times larger than their diameter. Eyes large, globular, with sparse long erect setae. Frons three time as wide as width of eye in dorsal view.

Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and 10th serrated, the last antennomere filiform (Fig. 13d). Antennomere I (scape)

robust, 1.8 longer than wide. Ratio length to wide of other antennomeres is following - II - 2.3; III - 0.3; IV - 1.0; V - 1.0; VI -1.0; VII - 1.0; VIII - 0.5; IX - 1.5; X - 1.8; XI - 3.1. The ratio of length of antennomere I to XI is as following - 1.0 : 0.6 : 0.5 : 0.2 : 0.2 : 0.2 : 0.2 : 0.1 : 1.5 : 1.8 : 2.3. Similarly the width of individual antenomere I - XI is as follows - 1.0 : 0.5 : 0.3 : 0.3 : 0.3 : 0.3 : 0.3 : 0.3 : 1.8 : 1.8 : 1.3. The 1st antennomere with dense long erect setae, antennomeres II -VIII on inner side with only a few short erect setae, other antennomeres glabrous.

Pronotum transverse, ratio length : wide 0.6, widest before base (Fig. 13c). Centre of pronotum with sharp tubercle, inclined backwards. Surface of pronotum with two types of pubescence. The first very dense short recumbent, covering entire surface(punctation not visible, only in middle of pronotum before base a few granules). The second is dense (especially on anterior part of pronotum) short erect. Before tubercle with two transverse strips of light brown setae and also top of tubercle with light brown setae arranged in "V" shape.

Scutellum longitudinal, rounded, 1.6 times long as wide, with dense short semierct setae inclined backward.

Elytra with distinct humeri. Pubescence with two types. Almost entire surface covered by very dense short recumbent or semierect pubescence. The second type consists of sparser long erect setae and occurs on entire surface of elytra. Each elytron in the middle of its length with sparser brownish pubescence - on side of elytra predominantly short denser recumbent, covering almost entire surface, towards suture sparser semierect, inclined backwards, area around suture almost glabrous; both types of pubescence creating spot, from lateral margin to suture. Each elytron before apex with several small areas almost glabrous and with one almost indistinct tubercle. Glabrous part of elytra shining with rows of large punctures, almost touching.

Legs robust with two types of pubescence - the first dense, recumbent, the second sparser, long, erect. Tarsi stout , without long erect setae. Tarsomere I - IV the same length as wide, each as long as wide. The 5th tarsomere the longest, twice as long as previous. Tarsal claws robust without teeth.

The 1st abdominal sternite in middle with narrow long peak, top is rounded. The 2nd 1.3 longer than the 1st. The 3rd the same length as previous, the 4th half the length of the 2nd, the 5th the same length as 2nd.

Aedeagus narrow, parameres long (Fig. 13e).

Female. Pubescence is sparser, the same length as male.

Variability. Pubescent spots more or less dense. Body length 5.8-6.0 mm.

Differential diagnosis. See key. From other species differs also by the shape of the aedeagus.

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

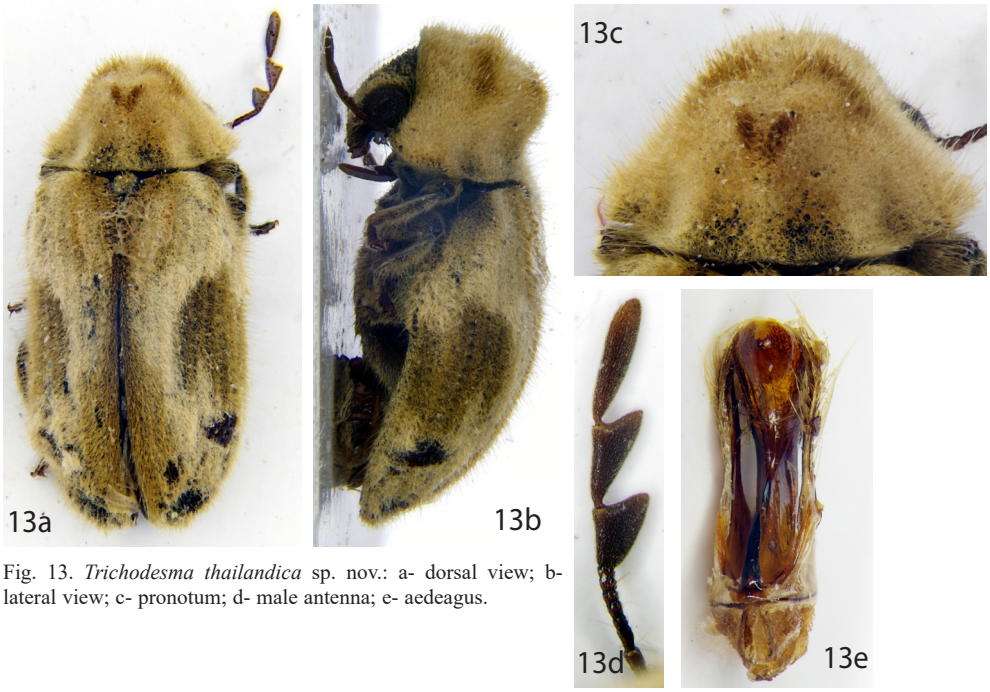

Fig. 13. *Trichodesma thailandica* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus.

***Trichodesma trimaculata* sp. nov.**
(Figs. 14a-e)

Type material. Holotype (♂): THAILAND, Chiang Dao, Wiang Haeng env., 9.v.2018, M. Snížek lgt., (PZPC).

Description. Male (holotype). Long elongate-elliptical, transversally slightly convex. Body length 7.0 mm, the greatest width 2.8 mm. Ratio length : elytra width of 1.7. Body black, with brownish-yellow pubescence. Antennae, palpi and legs brown, legs darker. Habitus see Figs. 14a (dorsal view) and 14b (lateral view).

Head flat, clypeus separated by narrow rounded raised keel. Surface with dense short recumbent pubescence, inclined more or less towards centre of head. Surface shining, with fine dense punctures, almost touching and sparsely granulated - distance between granules 1.0-1.5 times longer than their diameter. Eyes large, globular with sparse long erect setae. Frons 2.5 times as wide as width of eye in dorsal view.

Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and 10th serrated, the last antennomere filiforme (Fig. 14d). Antennomere I (scape) robust 2.5 times longer than wide. Ratio length to wide other antennomeres is following - II - 1.9; III - 1.6; IV - 1.0; V - 0.9; VI - 0.9; VII - 0.9; VIII - 0.9; IX - 1.3; X - 1.9; XI - 4.1. The ratio of length of antennomere I to XI is as following - 1.0 : 0.5 : 0.3 : 0.2 : 0:2 : 0.2 : 0.2 : 0.2 : 1.0 : 1.3 : 1.9; similary the width of individual antennomere I - XI is as follows - 1.0 : 0.6 : 0.5 : 0.6 : 0.6 : 0.6 : 0.6 : 0.6 : 1.9 : 1.6 : 1.1. Antennomeres I - VIII on inner side with a few long erect setae, antennomere IX - XI glabrous.

Pronotum transverse, ratio length : width 0.8, widest at the middle (Fig. 14c). Centre of pronotum with sharp tubercle, inclined backwards, in middle with longitudinal furrow. Largest part of pronotal surface with two types of pubescence. The first very dense short recumbent, covering and obscuring almost entire surface. The second sparser long erect. In front of tubercle on their sides with darker, almost round patch or brown setae. Posterior third of pronotum except lateral margins with sparse long erect setae, so surface is visible. This part is shining, granulated, the diameter of granules is same as distance between them.

Scutellum slightly transverse, slightly rectangular, shining, granulated, with dense short recumbent pubescence, inclined backward.

Elytra long oval, with almost indistinct humeri. Visible part of elytra shining, anterior part granulated, diameter of granules the same as distance between them, posterior part with striae of large rectangular punctures. Distance between these punctures approximately 0.5 times shorter than their transverse diameter. The larger part of elytra is covered with dense, short, recumbent setae, so that surface is practically obscured. This part of the elytra also with sparser long erect setae. Elytra with three glabrous areas, the first on the anterior part of each elytron around scutellum and humeri, the second at middle of each elytron from lateral margin almost to suture, and the third at posterior part of elytra around of suture, but apex is also pubescent.

Legs robust, with semierect or erect dense pubescence. Tarsi stout, without long erect setae. Tarsomere I - IV the same length as wide, each as long as wide. The 5th tarsomere the longest, twice as long as previous. Tarsal claws robust without teeth.

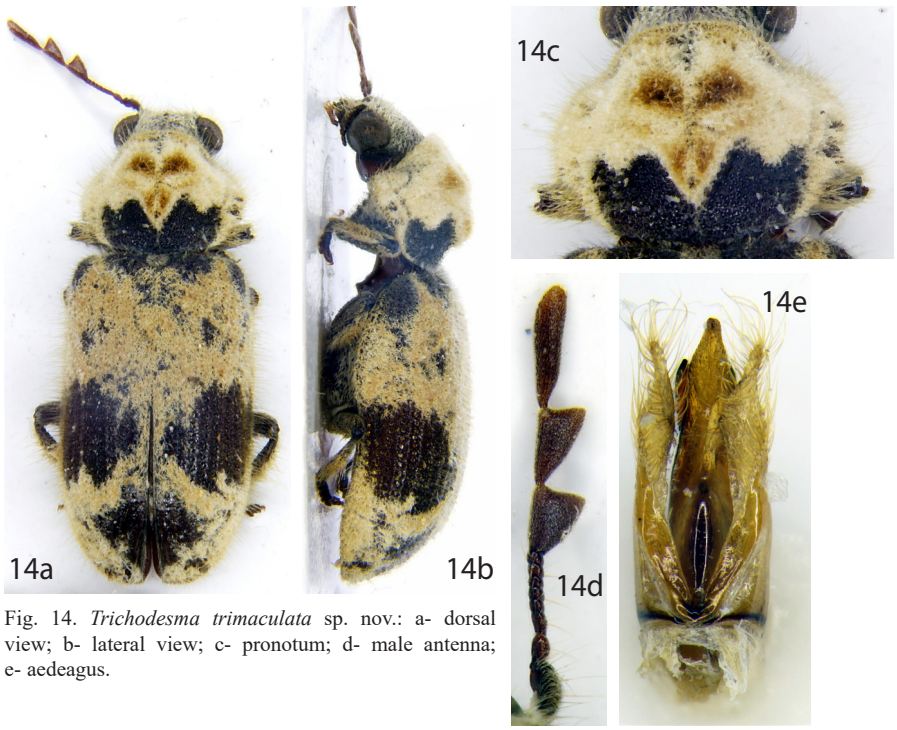

Fig. 14. *Trichodesma trimaculata* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus.

The 1st abdominal sternite triangular peak as long as wide, top rounded, 1.1 shorter than the 2nd (on the lateral margin). The 3rd the same as previous. The 4th half the length of the 2nd and the 5th the same length as the 2nd. Surface shining, granulated, diameter og granules the same as distance between them. Pubescence dense short recumbent, inclined backwards.

Aedeagus wide, parameres long (Fig. 14e).

Female. Unknown.

Differential diagnosis. See key. From other species differs also by the shape of the aedeagus.

Name derivation. Derived from the three spots on the elytra (latin word: tri - three; macula - spot).

Trichodesma tryznai sp. nov.

(Figs. 15a-e)

Type material. Holotype (♂): INDIA, Assam, Umrongso env., 700 m a. s. l., 251°27' N, 92°43' E, 3.-8.vi.2002, M. Trýzna & P. Benda lgt., (PZPC). Paratype (♀): the same data as holotype, (PZAC).

Description. Male (holotype). Elongate-elliptical, transversally slightly convex. Body length 5.0 mm, the greatest width 2.8 mm. Ratio elytra length : elytra width of 1.4. Body dark brown, with yellowish pubescence. Antennae, palpi and legs light brown. Habitus see Figs. 15a (dorsal view) and 15b (lateral view).

Head flat, entire surface covered by very dense, short recumbent pubescence, obscuring surface. Eyes relatively small, flattened with dense long erect black setae. Frons three times as wide as width of eye from dorsal view.

Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and 10th serrated (Fig. 15d). Antennomere I (scape) robust, 1.3 times longer than wide. Ratio length to width of other antennomeres is following - II - 3.0; III - 3.0; IV - 1.0; V - 1.0; VI - 1.0; VII - 1.0; VIII - 1.0; IX - 1.2; X - 1.7; XI - 4.6. The ratio length of antennomere I to XI is as following - 1.0 : 0.6 : 0.3 : 0.1 : 0.1 : 0.1 : 0.1 : 0.1 : 1.2 : 1.5 : 2.3. Similarly the width of individual antennomere I - XI is as follows - 1.0 : 0.3 : 0.1 : 0.1 : 0.1 : 0.1 : 0.1 : 0.1 : 1.3 : 1.1 : 0.6. Antennomeres I - VIII on the inner side with sparse long erect setae. Antennomere IX - XI glabrous.

Pronotum transverse, ratio length : width 0.6, widest at the posterior third (Fig. 15c). Centre of pronotum with sharp tubercle inclined backwards. Surface of pronotum with very dense short recumbent pubescence covering entire pronotum. Only small part before base of the pronotum not obscured, granulated, diameter of granules the same as distance between them.

Scutellum slightly transverse, densely shortly recumbent pubescence, almost obscuring surface.

Elytra oval, with slightly distinct humeri. Surface of elytra with two types of pubescence. Almost entire surface with very dense short recumbent (partly slightly semierct) pubescence; only humeri and middle part of each elytron from lateral margin to two thirds their width

with sparser pubescence, especially in middle of elytra creating visible spot. Basal part of elytra granulated, diameter of granules the same as distance between them. Remainder of elytra with striae consisting of large punctures, diameter of these punctures the same as distance between them. Entire elytra with dense long erect setae. Each elytron before apex with small, almost invisible tubercle.

Legs robust, with semierect or erect dense pubescence. Tarsi stout, without long erect setae. Tarsomere I - IV the same length as wide, each as long as wide. The 5th tarsomere the longest, twice as longas previous. Tarsal claws robust without teeth.

The 1st abdominal sternite in middle with short wide peak. Sternites I - III and V the same length (the 1st on lateral margin, in middle much narrower), the IV half. Surface with sparse short recumbent pubescence.

Aedeagus narrow, parameres long (Fig. 15e).

Female. Differs by the last three antennomeres. Ratio of length to wide of antennomere IX - 1.5; X - 1.4; XI - 2.7. Ratio length of these three antennomeres to 1st antenonemere - IX - 1.5; X - 1.5; XI - 2.4; similarly the width of individual antennomere IX - XI to 1st antennomere - IX - 1.3; X - 1.4; XI - 1.1.

Differential diagnosis. See key. From other species differs also by the shape of the aedeagus.

Name derivation. Patronymic, dedicated to the collector of the type materials, our very good friend Miloš Trýzna, well-known specialist of the family Anthribidae.

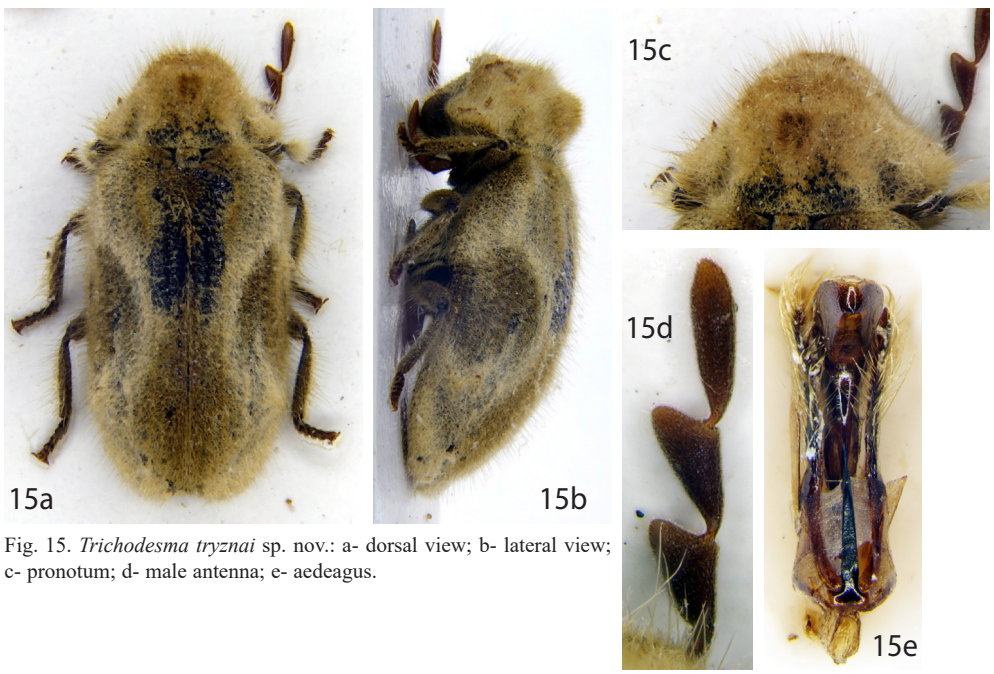

Fig. 15. *Trichodesma tryznai* sp. nov.: a- dorsal view; b- lateral view; c- pronotum; d- male antenna; e- aedeagus.

ORIGINAL DESCRIPTION OF OTHER SPECIES

Trichodesma cambodgensis Pic, 1915

"Latus, niger, dense griseo aut luteo pubescens, elytris pro parte denudates. Long 6.5 mm. "

Trichodesma griseofasciata Pic, 1937

"Oblonga, prom parte dense luteo aut albo-griseo pubescens, nigra, antennis rufescentibus. Capite breve et lato, dense griseo pubescente, sparse granuloso, oculis prominulis, distantibus; articilis ultimis antennarum sat latis et elongates; thorace breve valde transverso, antice et postice distince sinuato, postice, postice attenuato, medio supra valde prominulo, sed postice non angulato, ilo antice dense luteo pubescente, postice sparse griseo pubescente, et diverse non dense granuloso; scutello griseo pubescente; elytris latis et brevibus, postice pailo attenuates, fortiter, sat regulatiter, et late impresso punctatis, nigris, apice et lateraliter postice dense luteo pubescentibus et signaturis albo-griseis ornatis, in singulo : maculis basalibus Paulo distinctis, macula premediana lateralis, fasciis transversis quinque 2ª reducta, discoidalis, 3ª externe et postice arcuate, 5ª paulo obliqus, his usque lateraliter non prolongatis; infra corpore dense griseo pubescente,; pedibus validis, dense griseo pubescentibus et hirsutism. Long environ 4,5 mm."

Trichodesma innotata Pic, 1943

"Sat latus, hirsutus, niger, pro parte dense griseo pubescens, elytris insignatis. Long 5 mm."

Trichodesma maculata Pic, 1915

"Latus niger, dense griseo aut fulvo pubescens, elytris ad medium et lateraliter bruneo maculates. 6 mm."

Trichodesma minima (Pic, 1931)

"Brevis, subovatus, longe hirsutus, pro parte glaber, pro parte et diverse pubescens, niger, membris testaceis, articulis tribus ultimis an tennarum elongates, non crassis; thorace breve et lato lateraliter subarcuato, medio supra longe gibbuloso-subdentato, circa griseo pubescente, medio nigro; elytris latis et brevibus, apice oblique attenuates, diverse et multi griseo reducte-lineatis aut maculates, apice sat late griseis, fortiter sat regulatirer punctatis. 2 mm."

Trichodesma multifasciculata Pic, 1956

"Assez court et large, opaque, assez densément pubescent de januâtre avec quelques parties dénundées foncées, de coloration obscure avec la tête et les membres roussâtres, orné de

longs poils obscurs dressés, les élytres ayant, en surplus, plusieurs fascicules pileux ou dents foncées, disposés sur plusieurs rangées, en outre, de granules plus on moins fortes et qui se retrouvent aussi sur le thorax. Thorax transversal, très inégal en dessus, échancré et avant rétréci postériurement, surélevé en gibboisité au milieu et muni d'une dent postérieure surélevée ainsi qu'un peu arquée. Long 5 mm."

Trichodesma multinotata Pic, 1943

"Parum elongates, hirsutus, niger, pro parte dense luteo pubescens, thorace dense pubescente, diverse sex (2, 4) fulvo maculato ; elytris in singulo ad basin bi et ante medium transverse quadri nigro piceo maculates, ad medium late et sinuate nigro fasciitis, ante apicem ad suturam transverse nigro maculates, membris Paulo rufescentibus. Long 7 mm."

Trichodesma nigromaculata Pic, 1900

"Un peu alongè et peu large, subparallèle, en majeure partie orné d'une pubescence blanche, celle-ci maculée de noir, avec quelques poils claire redressés. Téte orné d'une pubescence blanche assez fournie. Antennes roussàtres, à deux avant derniers articles assez élargis, le terminal long. Prothorax large, dilaté sur le milieu des côtes, en majeure partie blanc, éleve sur le disque en saillie, subarrondi au sommet et orné de poils brunâtres avec une petite tache antérieure, de chaque côté, et presque tou tle milieu de la base noit, glabre, ces parties ornées d'une ponctuation granuleuse. Ecusson blanc. Elytres pas plus larges que le prothorax, striès, les intersties ayant une ponctuation granuleuse forte; ils sont blancs ornés des macules suivantes noires : deux antérieures, une troisime latèrale postmédiane, enfin une tache apicale irrégulière. Dessous du corps foncé, orne d'une pubescence blanche; pattes un peu roussâtres, pubescentes. Long 4.5 mm."

OTHER EXAMINED MATERIAL

Trichodesma timorensis Zahradník, 2020
(Fig. 16)

Type material. Holotype (♀): INDONESIA, Lesser Bunch, W Timor, Baun env. 370 m, 4.i.2015, J. Horák lgt., (PZAC).

Note. Description see Zahradník (2020). Habitually similar to *T. venusta* Lesne, 1902.

Fig. 16. *Trichodesma timorensis* Zahradník, 2020: a- dorsal view.

Trichodesma tricolor Zahradník, 2018
(Fig. 17)

Type material. Holotype (♀): THAILAND N., 494 m, Chiang Dao Holl Resort, 19°33'28.9" N, 99°04'33.3" E, 1.vii.2017, A. Prosvirov lgt., (PZAC).

Note. Description see Zahradník (2018).

Fig. 17. *Trichodesma tricolor* Zahradník, 2018: a- dorsal view.

Trichodesma venusta Lesne, 1902
(Figs. 18a-c)

Original description of this species is not listed here why not since you provided all the others, only Lesne's original pictures of this species is shown.

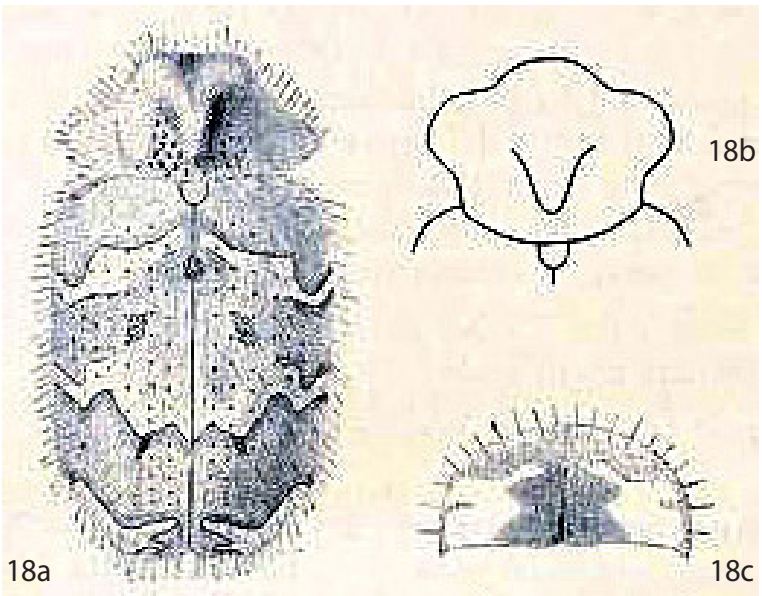

Fig. 18. *Trichodesma venusta* Lesne, 1902: a- habitus - dorsal view; b- pronotum; c- apex of elytra.

KEY TO THE SPECIES DESCRIBED HERE AND SOME OTHER TAXA

1 Each elytron with four small rounded white spots ..... *T. tricolor* Zahradník, 2018
- Elytra differently coloured 2
2 Elytra uniformly setose; each elytron with three stripes of black setae and two spots of black setae behind just before of apex of elytra ..... *T. pici* sp. nov.
- Elytra differently coloured 3
3 Elytra black with specific pubescence around suture and narrow stripes arranged to rounded figure on the second half of elytra ..... *T. oborili* sp. nov.
- Elytra differently coloured 4
4 Elytra and basal part of pronotum without pubescence, forming distinct glabrous figures 5
- Elytra differently coloured 6
5 Pubescence of elytra white ..... *T. petrae* sp. nov.
- Pubescence of elytra yellow ..... *T. trimaculata* sp. nov.
6 Pubescence of elytra yellow 7
- Pubescence of elytra white 10
7 The greatest width on basal half of pronotum ..... *T. meghalayaensis* sp. nov.
- The greatest width of pronotum at middle or before base 8
8 Each elytron before apex with very distinct tubercle ..... *T. chuphonica* sp. nov.
- Each elytron before apex with only indistinct or missing tubercle 9
9 Elytra with slight tubercle before apex ..... *T. tryznai* sp. nov.
- Elytra without tubercle before their apex ..... *T. bendai* sp. nov.
10 Elytra with wide stripe at middle and narrow stripe on posterior third ..... *T. prudeki* sp. nov.
- Elytra with different pubescence 11
11 Elytra without recumbent pubescence 12
- Elytra with recumbent pubescence 13
12 Elytra brown ..... *T. klarae* sp. nov.
- Elytra piceous, with very sparse pubescence ..... *T. assamensis* sp. nov.
13 Elytra with area without recumbent pubescence 14
- Elytra without area of recumbent pubescence, recumbent pubescence creating distinct uneven transverse stripes ..... *T. timorensis* Zahradník, 2020
14 Elytra with central elliptical longitudinal spot without recumbent pubescence ..... *T. horaki* sp. nov.
- Elytra with lateral spot without recumbent pubescence 15
15 Erect setae on pronotum black ..... *T. sonae* sp. nov.
- Erect setae on pronotum white ..... *T. sausai* sp. nov.

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