Studies and Reports
Taxonomical Series 21 (1): 203-219, 2025

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

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Taxonomy, new species, lectotype designation, Coleoptera, Ptinidae, Anobiinae, *Trichodesma*, Palaearctic Region

Abstract. The four new following species are described, illustrated and compared with other species from the Palaearctic Region: *Trichodesma havai* sp. nov. (India: Uttar Pradesh; India: Assam, Oriental Region); *T. honouri* sp. nov. (Nepal), *T. schneideri* sp. nov. (China: Sichuan) and *T. unimaculata* sp. nov. (India: Arunachal Pradesh). A lectotype and paralectotype for *Trichodesma lewisi* Kiesenwetter, 1879 are designated.

INTRODUCTION

The entomofauna of the Palaearctic Region is relatively well known. However, even here there are areas that are little explored, such as China and adjacent areas in the Himalayas (Nepal, northern India). It is from these areas that the 4 newly described species come from.

The genus *Trichodesma* LeConte, 1861 currently includes 91 species, including 4 fossil species. From the Nearctic Region 11 species are known (White 1982), together with South America, the total numebr is 45 (Schnepp 2023a-b). From the Afrotropical Region 20 species are known (Zahradník & Háva 2024a) and 26 from the Oriental Region (Zahradník & Háva 2024b). One species of uncertain status is known from the Australian region and 4 species are fossils. So far, 9 species have been previously reported from the Palaearctic Region (Zahradník 2007). Simple totals do not agree with the total number of species in this genus because some species occur in two regions and are included in the species count for that region.

The position of the genus *Trichodesma* LeConte, 1861 in the subfamily Anobiinae and tribe Nicobiini is given by Zahradník & Háva (2014, 2024a).

MATERIAL AND METHODS

The author studied all the original descriptions of the genus *Trichodesma* LeConte, 1861 from the Palaearctic Region (Kiesenwetter 1877; Nakane 1979; Pic 1900, 1903, 1906; Reitter 1877; Sakai 1985, 1986, 2005). Unfortunately the author did not have the opportunity to see all the type materials and had to rely on literature information or data for this paper.

Are you indicating that there are no descriptions for the remaining eight Palaearctic species, except for the original description of *T. pulchra*. There is also a lack of comparison

of type material to decide on the validity of some species, namely *T. regalis* (probably not found in the Palaearctic Region), *T. fasciulare* and *T. japonica* Pic, 1906.

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

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 showing the following words: "*Trichodesma* / *species name* sp. n. / P. Zahradník det.".

Abbreviations:

BMNH British Museum Natural History, London, England (M. Geiser);

JHAC Private Entomological Laboratory and Collection, Jiří Háva, Únětice u Prahy, Czech Republic;

PZPC Petr Zahradník, private collection, Jesenice u Prahy, Czech Republic.

LIST OF KNOWN PALAEARCTIC *TRICHODESMA* SPECIES

T. fasciculare (Reitter, 1877)	Japan (described as *Nicobium*)
T. havai sp. nov.	India (Uttar Pradesh); India (Assam - Oriental Region)
T. honouri sp. nov.	Nepal
T. japonica Pic, 1906	Japan
T. kirishimana Nakane, 1979	Japan
T. kurosawai Sakai, 1986	China (Taiwan)
T. lewisii Kiesenwetter, 1879	Japan
T. michioi Sakai, 2005	Japan
T. pulchra Pic, 1903	India (Darjeeling, Sikkim)
**T. regalis* Pic, 1900	India (ost), Nepal
T. schneideri sp. nov.	China (Sichuan)
T. unimaculata sp. nov.	India (Arunachal Pradesh)
T. uruma Sakai, 1985	Japan

Note: **T. regalis* Pic, 1900 - see below.

RESULT

Genus *Trichodesma* LeConte, 1861

Trichodesma havai sp. nov.

(Figs. 1a-f)

Type material. Holotype (♂): Holotype (male): INDIA, Meghalaya, Tura env., 500-600 m a. s. l., 25°30' N, 90°14' E, 2.-5.v.2002, M. Trýzna & P. Benda lgt., (PZPC). Paratypes: (3 ♂♂): the same data as holotype, (PZPC); (1 ♀): INDIA, North Uttar Pradesh, Almora, 1950 m a. s. l., 10.v.2006, E. Kučera lgt., (PZPC); (1 ♀): INDIA, Assam, Umrongso env., 700 m a. s. l., 25°27' N, 92°43' E, 3.-8.vi.2002, M. Trýzna & P. Benda lgt., (PZPC); (1 ♂): INDIA, Uttar Pradesh, Agra, 28.ix.1997, P. Pucholt lgt., (JHAC).

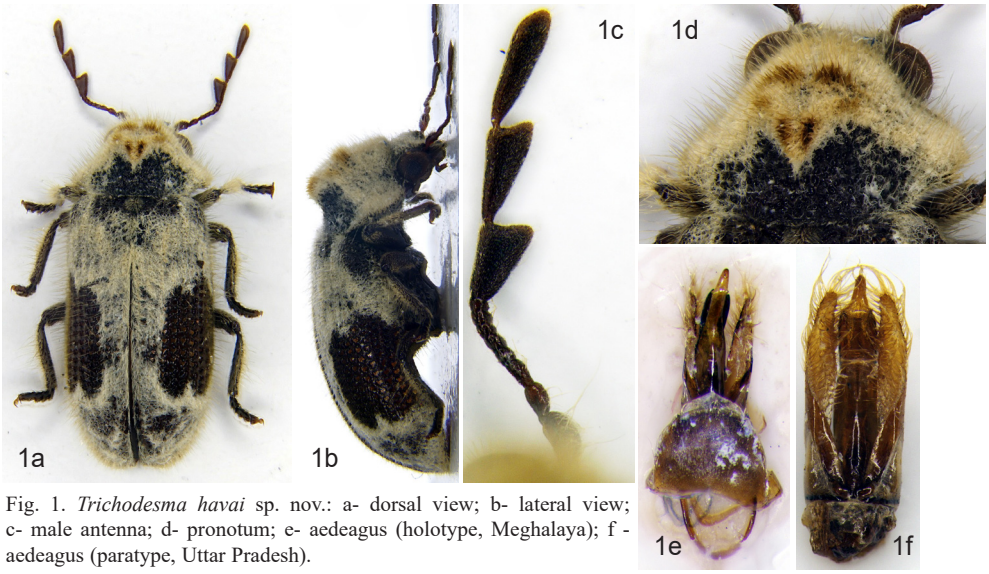


Fig. 1. *Trichodesma havai* sp. nov.: a- dorsal view; b- lateral view; c- male antenna; d- pronotum; e- aedeagus (holotype, Meghalaya); f - aedeagus (paratype, Uttar Pradesh).

Description. Male (holotype). Elongate-elliptical, transversally slightly convex. Body length 5.3 mm, the greatest width 2.0 mm. Ratio elytra length : elytra width 1.5. Body dark brown, with white-gray pubescence. Antennae, palpi and legs brighter, brown. Habitus see Figs. 1a (dorsal view) and 1b (lateral view).

Head flat, entire surface covered by very dense, short, recumbent pubescence obscuring surface. Eyes relatively small, globular with dense long erect setae. Frons 1.7 times wider then of width of eye from dorsal view. Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and the 10th serrated (Fig. 1c). Antennomere I (scape) robust, 3.2 times longer than width. Ratio length to width of other antennomeres is following - II - 1.7; III - 1.5; IV - 1.0; V - 1.0; VI - 1.0; VII - 1.0; VII - 1.0; IX -1.1; X - 2.0; XI - 3.3. The ratio length of antennomere I - XI is as following - 1.0 : 0.4 : 0.2 : 0.1 : 0.1 : 0.1 . 0.1 : 0.1 : 0.8 : 1.4 : 1.5. Similarly the width of antennomere I - XI is as follow - 1.0 : 0.8 : 0.5 : 0.25 : 0.25 : 0.25 : 0.25 : 0.25 : 2.5 : 2.25 : 1.5. Antennomeres I - VIII on inner side with sparse long erect setae, the last three antennomeres glabrous.

Pronotum transverse, ratio length : width 0.6, the widest in the first third. The anterior part of pronotum tapered, emarginate on the sides, the posterior part tapers roundly (Fig. 1d). Centre of pronotum with sharp tubercle, inclined backwards. Surface of pronotum with two types of pubescence - the first very dense, short, recumbent, covering almost entire surface except basal part of pronotum, the remainder of surface obscuring. The second consist of sparser, long, erect, white setae. Tubercle with 4 symmetric spots from dense, long, erect yellowish-brown setae - the first two on basal part of tubercles, slightly transverse, almost touching in middle, the second two smaller on top of tubercle, also almost touching. Visible part of elytron densely coarsely granulated, distance between granules the same as their diameter.

Scutellum large, square, with dense recumbent pubescence, surface obscuring.

Elytra oval, with distinct humeri, with two types of setae. The first very dense, covering entire part of elytra surface, which is obscuring surface, short, recumbent, created typical designed, the second sparser, long, erect. Design is formed to more or less a cross. It starts on the humeri , in the first third of the elytra it continues with wide transverse stripe reaching from the lateral edge of elytra to suture. It continues to end of elytra with wide longitudinal stripe. Apex completely covered with dense pubescence. Without pubescence, only the basal part of the trusses along the suture and then in middle of elytra are two extensive longitudinal spots going from edge of elytra to stripe under suture. Visible part of elytra with punctated striae, punctures large, rectangular, interstriae very narrow, striae almost touching.

Legs robust, with long erect dense setae on their inner part. Tarsi almost glabrous, the same length as tibiae. Tarsomere I - IV the same length, on top shallow cordially emarginated. Tarsomere V longest with two robust claws without teeth.

The 1st abdominal sternite in middle with short and narrow peak, on base as long as wide. Length of this sternite is in middle (beside peak) is three times narrower than the second, but at the lateral edge it is as long as the second. Abdominal sternites 4th is half as long as the 3rd and the 5th. Surface with mixed pubescence - shorter and longer, recumbent, inclined backwards.

Aedeagus wide, median lobus on the top narrowed. Parameres slim, shorter than the median lobe, with dense, erect setae (Fig. 1e-f).

Female. Without visible sexual dimorphism. Body length 6.7 mm, body width 3.2 mm.

Variability. Body length 5.3-8.1 mm, body width 2.0-3.3. mm. Parameres variously with long and dense setae.

Differential diagnosis. The lateral glabrous spot in each elytron and the aedeagus are typical for this genus. See key. This is not a differential diagnosis it is simply “remarks”.

Name derivation. Patronymic, dedicated to my very good friend Jiří Háva, well-known specialist in the beetle family Dermestidae (Coleoptera).

Trichodesma honouri sp. nov.

(Figs. 2a-e)

Type material. Holotype (♂): NEPAL, Petchabun prov., 150 km W of Khon Kaen, Nam Nao NP, 800 m a. s. l., 29.iv.-3.ix.2017, T. Staněk et T. Staněk jr. lgt., (PZPC).

Description. Male (holotype). Elongate-elliptical, transversally slightly convex. Body length 4.5 mm, the greatest width 2.0 mm. Ratio elytra length : width 1.7. Body dark brown, with white pubescence. Antennae, palpi and legs light brown. Habitus see Figs. 2a (dorsal view) and 2b (lateral view).

Head flat, entire surface covered by very dense, short recumbent pubescence, obscuring surface. Eyes relatively small, globular, with sparse long erect setae. Frons 1.2 times wider as eye from dorsal view.

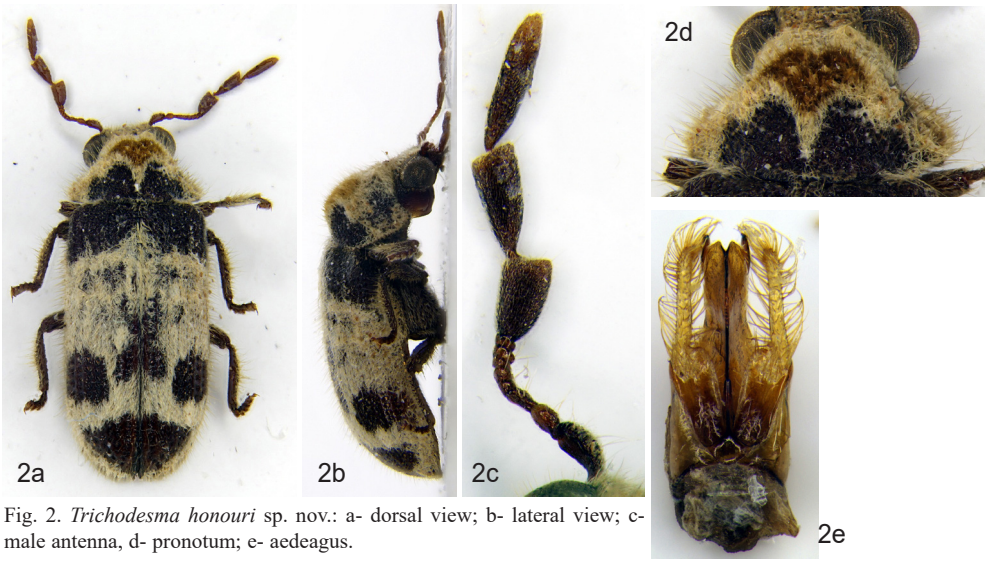


Fig. 2. *Trichodesma honouri* sp. nov.: a- dorsal view; b- lateral view; c- male antenna, d- pronotum; e- aedeagus.

Antennae consist of eleven antennomeres, filiform, the last three antennomeres enlarged, the 9th and 10th serrated (Fig. 2c). Antennomere I (scape) robust, 2.5 times longer than wide. Ratio length to width of other antennomeres is following - II - 2.0; III - 1.0; IV - 1.0; V - 1.0; VI - 1.0; VII - 1.0; VIII - 1.0; IX - 1.7; X - 2.2; XI - 4.0. The ratio length of antennomere I to XI is as following - 1.0 : 0.4 : 0.1 : 0.1 : 0.1 : 0.1 : 0.1 : 0.1 : 1.0 : 1.3 : 2.0. Similarly the width of individual antennomeres I - XI is as follow - 1.0 : 0.5 : 0.25 : 0.25 : 0.25 : 0.25 : 0.25 : 0.25 : 1.5 : 1.5 : 1.25. Antennomeres I - VIII on the inner side with sparse long erect setae. Antennomeres IX - XI with dense short recumbent pubescence.

Pronotum transverse, ratio length : width 0.5, the widest in the posterior third (Fig. 2d). Centre of pronotum with sharp tubercle inclined backwards. Surface of pronotum with very dense short recumbent pubescence covering almost entire of pronotum except for the centre of the posterior of pronotum. The second pubescence dense, long erect setae, only with part with dense pubescence. Pubescence yellowish, on tubercle darker. Visible part of pronotum roughly granulated, diameter of granules the same as distance between them.

Scutellum transverse, trapezoidal, posteriorly narrower, with semierect pubescence.

Elytra oval, with very slight humeri. Surface of elytra with two type of pubescence. Almost entire surface with very dense short recumbent pubescence, only basal part of elytra and apex without this pubescence, and also small spots on lateral margin and suture in the second part of elytra. The second dense long erect setae covering posterior two thirds of elytra. Each elytron partly without pubescence with visible regular striae from large almost rectangular punctures, only on apex with rounded punctures.

Legs robust, with semierect or erect dense pubescence. Tarsi stout, without erect setae, tarsomere I - IV the same length, tarsomere V twice as long as previous segments. Tarsal claws robust without teeth.

The 1st abdominal sternite in middle with short wide peak. The 2nd, the 3rd and the 5th the same length, the 1st on lateral margin also this same length, beside of middle only 1/3 of the

2nd, the 4th one half as 2nd. Surface with sparse short recumbent pubescence, with two types of punctures - the first fine dense, almost touching, the second very sparse, larger.

Aedeagus wide, parameres the same length as median lobus, with dense long, erect setae (Fig. 2e).

Female. Unkown.

Differential diagnosis. Basal part and apex of elytra almost glabrous and glabrous spots in middle of elytra. Different shape of aedegaus. See key.

Name derivation. Patronymic, dedicated to the well-known specialist of Chilean Ptinidae, Richard Honour.

Trichodesma schneideri sp. nov.
(Figs. 3a-e)

Type material. Holotype (♂): CHINA, Sichuan prov., Emei Shan mt., 29.viii.-2.ix. 1995, J. Schneider lgt., (PZPC).

Description. Male (holotype). Elongate-elliptical, transversally slightly convex. Body length 4.3 mm, the greatest width 2.4 mm. Ratio elytra length : elytra width of 1.2. Body piceous, with white and yellow pubescence. Antennae, palpi and legs brown. Habitus see Figs. 3a (dorsal view) and 3b (lateral view).

Head transversally slightly convex, with denseland short recumbent, partly semierect pubescence, inclined forwards. Visible surface of head finely densely punctuated, punctures almost touching and with sparse roughly granulated, diameter of granules the same as distance between them. Eyes globular with sparse long erect setae. Frons 1.8 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 serrate (Fig. 3c). Antennomere I (scape) robust, 2.5 times longer than wide. Ratio length to width of other antennomeres - II - 1.3; III - 1.5; IV - 1.0; V - 0.5; VI - 1.0; VII - 0.5; VIII - 1.0; IX - 2.4; X - 3.8; XI - 5.8. The 3rd, 5th and 7th slightly serrate. The ratio length of antennomere I to XI is as following - 1.0 : 0.4 : 0.3 : 0.1 : 0.1 : 0.1 : 0.1 : 0.1 : 1.7 : 1.9 : 2.3. Similarly the width of individual antennomere I - XI is as follow - 1.0 : 0.7 : 0.5 : 0.25 : 0.5 : 0.25 : 0.5 : 0.25 : 1.75 : 1.25 : 1.25. Antennomeres almost glabrous, only a few erect setae on inner side and the last three antennomeres with short recumbent sparse pubescence.

Pronotum transverse, ratio length : width 0.7, the widest in the first third. The anterior part of pronotum tapered, emarginate on the sides, the posterior part tapers roundly (Fig. 3d). Centre of pronotum with sharp tubercle, “V” shaped with raised edges and slightly split at the end; deepened in the anterior part. Surface of pronotum with two types of pubescence. The first dense short, recumbent, coveringd part of pronotum; the second of sparse long erect setae. Surface of pronotum with sparse large shining granules, their diameter the same as distance between them.

Scutellum small, triangular, shining, glabrous.

Elytra oval, with slightly distinct humeri (visible especially from lateral view). Each

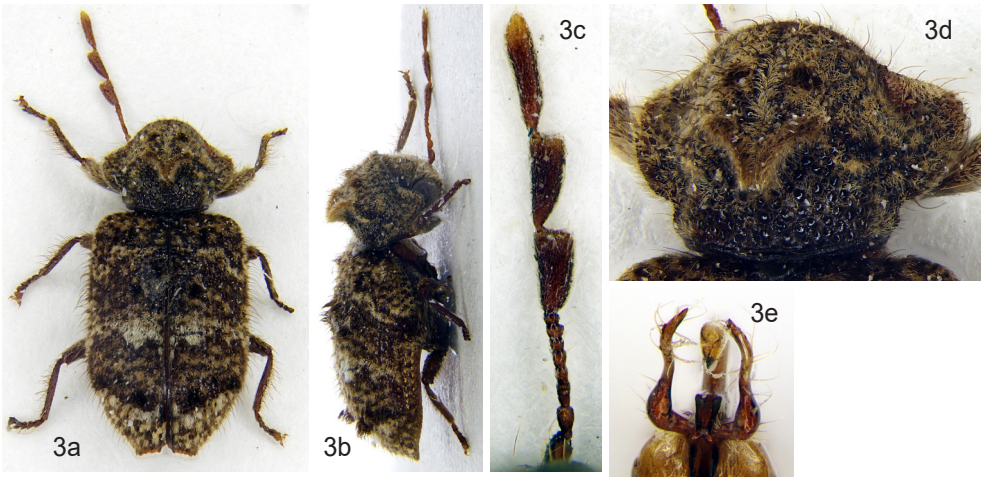


Fig. 3. *Trichodesma schneideri* sp. nov.: a- dorsal view; b- lateral view; c- male antenna; d- pronotum; e- aedeagus.

elytron with 10 more or less visible striae of large rectangular punctures. Interstriae half width of striae. Surface of elytra with three types of pubescence. The first yellowish, arranged cloud-like, forming indistinct transverse stripes. The second white, arranged in three transverse stripes from dense short recumbent hairs - the first stripe very narrow, almost obscuring surface, the second in middle of elytra the most visible, beside on suture width, to side of elytra only very narrow and the third shortly before apex of elytra also narrow and more or less visible. The third with sparse long, erect setae. Each elytron with three small spots ofm black dense, long, erect setae. The first in basal part of elytron, between suture and margin of elytron, the second two are on apex of elytron - one near suture and other on the lateral margin of elytron.

Legs robust, consisting of 5 tarsomeres. Femora and tibiae on outside part with dense long, erect setae. Tarsi stout, without erect setae. The first two tarsomeres are longer than wide, relatively narrow, the next three transversely cordate, emarginate medially, shorter than the previous ones. Claws very robust, strongly expanded at the base, without teeth.

The first abdominal sternite in middle with short wide peaks, rounded on apex. Sternites I - III and V the same length (the first only on lateral margin, in middle beside of peak much narrower, the 4th shorter than 2nd). The IV three times shorter then 2nd. Surface shinning with sparse short, recumbent pubescence, finely densely punctate.

Basal part of aedeagus width, median lobus very narrow, parameres lyre-curved, narrow, equal length to median lobe (Fig. 3e).

Female. Unknown.

Differential diagnosis. The pattern on the elytra is indistinct, with only short white

transverse stripe behind the middle of elytra. The shape of the aedeagus is completely different - parameres are twisted, longer than median lobe. See key.

Name derivation. Patronymic, dedicated to collector of type, my very good friend Jan Schneider, well-known specialist in families Silphidae and Geotrupidae (Coleoptera).

Trichodesma unimaculata sp. nov.

(Figs. 4a-e)

Type material. Holotype (♂): INDIA, Arunachal Pradesh st., Dirang vicinity, 1 800 ± 100 m a. s. l., 27°21‘ N, 92°13‘ E, 8.-22.v.2006, P. Pacholátko lgt., (PZPC).

Description. Male (holotype). Elongate-elliptical, transversally slightly convex. Body length 4.0 mm, the greatest width 2.0 mm. Ratio elytra length : elytra width of 1.25. Body black, with white and partly also yellow pubescence. Antennae, palpi and legs dark brown. Habitus see Figs. 4a (dorsal view) and 4b (lateral view).

Head transversally slightly convex, with dense and shorty erect yellow pubescence, visible from lateral view, with sparse very long black setae. Surface of head finely densely punctate, punctures almost touching. Eyes small, almost globular, with sparse long, erect black setae. Frons 3 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 slightly serrated (Fig. 4c). Antennomere I (scape) robust, 2.5 times longer than wide. Ratio length to width of other antennomeres - II - 1.5; III - 3.0; IV - 1.0; V - 1.0; VI - 1.0; VII - 5.0; VIII - 5.0; IX - 2.9; X - 2,4; XI - 9.3. The ratio length of antennomere I to XI is as following - 1.0 : 0.3 : 0.3 : 0.1 : 0.1 : 0.1 : 0.5 : 0.5 : 2.9 : 2.2 : 3.7. Similarly the width of individual antennomere I - XI is as follow - 0.4 : 0.2 : 0.1 : 0.1 : 0.1 : 0.1 : 0.1 : 0.1 : 1.0 : 0.9 : 0.4. Antennomeres almost glabrous.

Pronotum transverse, ratio length : width 0.9, the widest in the basal or apical part, lateral margin almost parallel. (Fig. 4d). Centre of pronotum with sharp tubercle inclined backward. Top of tubercle covered by dense, almost recumbent dense yellow pubescence, dorsally with two stripes “V” shaped of black dense, erect, short setae. Surface of pronotum with two types of pubescence. The first dense short, recumbent, covering part of pronotum; the second of sparse long, erect setae. Anterior and posterior part of pronotum almost glabrous, shining with sparse large granules, their diameter the same as distance between them.

Scutellum small, almost rectangular, with dense recumbent short pubescence.

Elytra oval, with distinct humeri. Each elytron with 10 striae (lateral striae less distinct) from large rectangular punctures. Punctures in striae and interstriae almous touching. Surface of elytra with three types of pubescence. The first white-yellow, arranged as one distinct transversal spot on postrior third of elytra, and narrow zigzag white stripe gradually heading towards the end of the third of the elytra to their lateral margin. Small transversal spots also on the apex of elytra. The second, dark brown, dense, especially on lateral margin of elytra. The third arranged as three spots of black dense, erect setae - the first before white-yellow spot along suture, other two small on each elytron before apex. Remainder of elytra shining, almost glabrous.

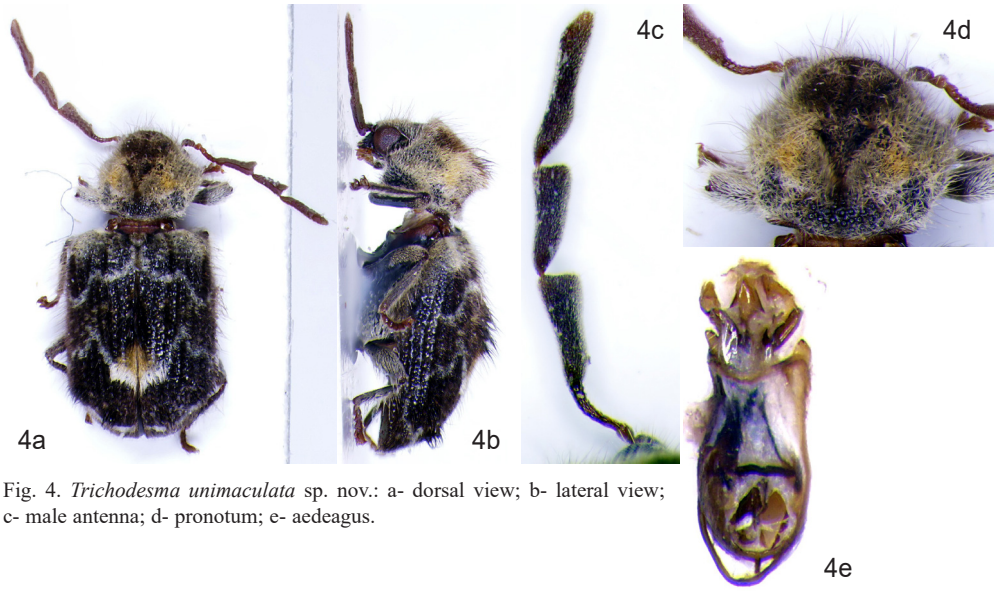


Fig. 4. *Trichodesma unimaculata* sp. nov.: a- dorsal view; b- lateral view; c- male antenna; d- pronotum; e- aedeagus.

Legs robust, consisting of 5 tarsomeres. Femora and tibiae on outside part with dense long, erect setae. Tarsi stout, without erect setae. The first two tarsomeres are longer than wide, relatively narrow, the next three transversely cordate, emarginate medially, shorter than the previous ones. Claws very robust, strongly expanded at the base, without teeth.

The first abdominal sternite in middle with short wide peaks, rounded on apex. Sternites I - III and V the same length (the first only on lateral margin, in middle beside of peak much narrower, the 4th three times shorter than 2nd. Surface shining with sparse short recumbent pubescence, finely densely punctate.

Median lobus wide, longer than parameres; parameres wide, curved, with long erect setae (Fig. 4e).

Female. Unknown.

Differential diagnosis. Completely different pubescent patterns on the elytra, which makes it different from all other representatives of the genus *Trichodesma* of the Old Word, with small white-yellow spot on the posterior third of elytra.

Name derivation. Derived from very distinct white-yellow spot in the posterior third of the elytra.

OTHER EXAMINED MATERIAL AND ORIGINAL DESCRIPTION OF OTHER SPECIES

Trichodesma fasciculare (Reitter, 1877)
(Figs. 5a-e)

Material examined: JAPAN, Honshu, Mie pref., Mt. Fujivara, 1957, 1 spec., H. Ichihashi lgt., M. Sakai det., (PZPC); JAPAN, Kashiwagi, 15.vi.-24.vi. [18]81, 1 spec., G. Lewis lgt., P. Zahradník det., (BMNH); JAPAN, Kobe, 9.vii.-19.vii. [18]81, 1 spec., G. Lewis lgt., P. Zahradník det., (BMNH); [JAPAN], Kobe, 1 spec., G. Lewis lgt., P. Zahradník det., (BMNH).

Original description. "*Nicobium fasciculare* n. sp.: Oblongum, subparallelum, nigrum, antenis obscure ferrugineis, pedibus piccis, omnoum dense nigrio-albidoque hirtum. Caput griseo-pubescens. Thorax dense griseo-pilosus, in medio valde tuberculatim obtuso elevates et tomentose nigro - hirtulus. Elytra prothoraces latiore, subparallela, apice rotundata, fortifer profunde subseriatim punctata, pube nigro albidoque varia, macula sublunary in medio et fascia apicalis lata subarguento-albidis, dorso novem fasciculis novem nigris ornate. - Long 4,5 Mm.

Von der Gestalt und Grösse des *N. hirtum*, das Halsschild aber in der Mitte stark kaputzenartig augezogen , die Punktstreifen der Flügeldecken weniger regelmässig und durch die Behaarung verschieden. Diese ist ebenso lang aber dichter schwarz und weisslich marmorirt: auf dem Halsschilde an den Seiten Weiss, die Erhöhung in der Mitte schwärzlich. Die Flügendecken sind überall schecking behaart, die breit Spitze derselben und eine gemeinschaftliche mondförmige Makel über die Mitte ganz grauweiss behaart. Ausserdem zeigt die Schiebe 9 längliche schwarze Haarbüscheln: 2 jederseits vor der Spitze, je eines auf der Scheibe vor der Mitte, endlich eines auf der Schulterbeule und ein gemeinschaftssliches auf der Nacht unterhalg des Schildehens. Die Unterseite Schwarz, ziemlich dich graunweiss, aber kürezer behaart.

Von R. Hiller in Japan entdeckt, wo auch *Nic. hirtum* Ill. als Cosmopolit vorkommt."

Note. From the above it follows that I had one specimen determined by Prof. M. Sakai for dissociation, whose determination I had no doubt about. Subsequently I received three more individuals from BMNH, which were identical to the individual determined by Prof. Sakai, and so I determined them. From BMNH I received two syntypes of *T. lewisi* Kiesenwetter, 1879. After studying them I found that they are identical to *T. fasciculare* (Reitter, 1877). Unfortunately I did not have the type material of this species at my disposal, so it is not possible to unequivocally prove that these are identical species, although it is very probable. However, a wrong determination by Prof. Sakai cannot be ruled out either, although it is unlikely. Nevertheless, I believe, as I stated above, that *T. lewisi* Kiesenwetter, 1879 is synonym of *T. fasciculare* Reitter, 1877, although this cannot be unequivocally proven. Sakai (1981) published small black and white photo of this species.

Fig. 5. *Trichodesma fasciculare* (Reitter, 1877): a- dorsal view; b- lateral view; c- antenna; d- pronotum; e- aedeagus.

Trichodesma japonica Pic, 1906
(Fig. 6)

Material examined: Japan, Shikoku, Tokushima pref., Mt. Ohtaki, 18. v. 1978, 1 spec., M. Satou lgt., M. Sakai det., (PZPC); Japan, Honshu, Mie pref., Mimune, 18.-21. vi. 1955, 1 spec., H. Ohira lgt., M. Sakai det., (PZPC).

Original description. "Modérement robuste, à pubescence grise ou jaunâtre, coloration foncière noire, élytres en partie glabres sur le disque et fasciculés, les fascicules gaits de poils noirs; tête moyenne, pubescente, yeux assez gros; antennes roussâtres; prothorax plus ou moins pubescent de gris ou de jaunâtre sur les côtés et en avant, assez fortement élargi antérieurement aves les angles marqués mais émoussés, impressioné de chaque côté en arrière, granuleux, orné d'une gibbosité discale élevée et saillante en dessus, celle-ci fasciculée de poils noir à son sommet; écusson peu pobescent; élytres bien plus larges que le prothorax, à épaules droites mais arrondies, subparalléles, brusquement rétrécis à l'éxtrémité et subarrondis au sommet, faiblement striés, à ponctuation large et distincte surnle disque et le milleu, un peu pubescents à la base et à l'extrémité, fascicules de noir sur la suture et près de celle-ci avant et après le milleu; pates pileuses, obscures avec les tarses un peu roussâtres. Long. 6 m. Japon: Kioto. Un exemplaire peut-être un peu défloré. Bien distinct de *Lewisi* Ksw.par la forme moins robuste, l'aspect plus foncé et la gibbosité dui disque du prothotrax plus saillante et plus redressée en dessus".

Fig. 6. *Trichodesma japonica* Pic, 1906: a- dorsal view.

Trichodesma lewisi Kiesenwetter, 1879
(Figs. 7a-e)

Material examined: Two syntypes (both males): JAPAN, Kobe, G. Lewis lgt., (BMNH). Designated here as lectotype (NHMUKO156113945) / "Lectotype" / "P. Zahradník des." and paralectotype (NHMUKO156113946) / "Paralectotype" / "P. Zahradník des.". Probably synonyme to *T. fasciculare* Reitter, 1877 (see *T. fascicilare*).

Original description. "Trichodesma lewisii: Robusta, nigro picea, albidou, fulvo nigroque inaequalifer tomentosa, albido setulosa, variegata, prothoraces gibbo, crista longitudinali, medio rotundato, elevate; elytris circa scutellum parce punctatis. - Long. 6 mill.

Caput tomento denso, adpresso, luteo indutum, parce subranulatum parum convexum. Antennae nigrae, articulo primo, secondo et tertio leviter elongatis, obconics sequentibus moniliforminus, ultimis tribus praecedentibus abrapte multo majoribus, penultimo et antepenultimo elongate-triangularibus, ultimo elongato-ovato. Prothorax medio gibbosos-elevatus, antice valde declivis, crista longitudinali, medio disco rotundata, longitudinaliter canaliculata, tomento fulvo forti elevato pilisque erectis tenuioribus ornatus, inaequaliter variegate-tomentosus, basi usque ad medium granulis parvis nitidulis parcius adspersus. Trichodesmae wariegate valde similis, major, prothoraces lateribus multo magis dilatatis et explanatis, angulis posticis minus rotundatis crista discoidali apice minus acuminate, rotundatim convexa, elytris circa scutellum minus dense punctatis et rugosis, picture albida non in disco sed ad apicem praevcalente, pilis erectis elytrorum minus densis, brevioribus. Prothorax capite plus duplo latior, transversus basi angustatus, subcordatus, margine antico untrinque sinuato, medio leviter product, basi truncate, lateribus medio apicem versus valde rotundato-dilatatis, explanatis, angulis anticis subrectis, paulo antrorsum productis, posticus obtusis subrotundatis. Scutellum triangulare, griseo-tomentosum. Coleoptera prothoraces latiora, robusta, parallela, apice rotundata longitudine vix duplo longiora, humeris promenentibus rotundatis convexa, punctis majoribus minus densis subseriatis impressa, tomento griseo adpresso variegate, facilis duabus obliquis in disco et apice toto albis. Pedes nigri.

Pulcheriman hane speciem Dom. Lewis, Japonicae faunae insectorum serutatori meritissimo, dedivato volo."

Note. Both individuals were pasted on one label next to each other. One was in good condition, the other showed visible damage, the shield and head were almost separated. Also, legs, which were hidden under the body, were not peeled off in all cases, but are on a separate original label. Interestingly, under the label with the beetles there was a circular label with red border, with two-line text: "Type / H. T." It is therefore possible to speculate that Lewis was trying to determine holotype, but it is impossible to determine which individual it belongs to. Therefore, I approach them as syntypes series.

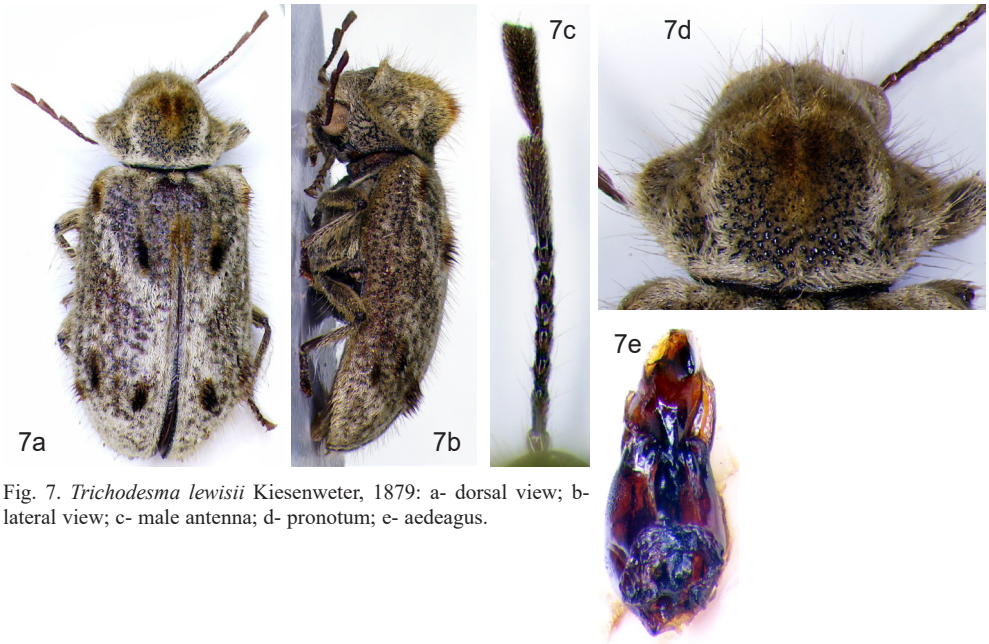


Fig. 7. *Trichodesma lewisii* Kiesenweter, 1879: a- dorsal view; b- lateral view; c- male antenna; d- pronotum; e- aedeagus.

***Trichodesma regalis* Pic, 1900**
(Figs. 8a-c)

Original description. "*Trichodesma regale* Reiche, des Indes-Orientales, est plus large et plus robuste, le prothorax étant muni sur le disque de petites houpettes pileuses et orné d'une pubescence génerale Claire, les élytres plus larges sont entièrement ornés de pubescence dense à l'exception d'une sorte de bande médiane dénudée n'atteignant pas la suture. Long 5.5-7 mill."

Note. According to the original description (Pic 1900), this species was described according to the syntype series, although it cannot be unequivocally stated that holotype was not determined (however, Pic did not usually do this at that time). I have one specimen on loan from the BMNH (unfortunately female), which is listed as the type specimen (without status update). Pic (1912) also mentions this species from the "Ostindien." However, Sakai (1983) from the Japanese expedition to Nepal in 1968 reports the discovery of the species *T. regalis* Pic, 1900. From the available sources (Sakai 1983), Prof. Satô compared with the type specimen from the BMNH collections, but it does not match the borrowed specimen from the BMHN and it is therefore not entirely clear what it was compared with (the term co-typus was previously used). After studying this specimen, however, the photograph published in Sakai's (1983) work clearly does not match this specimen. It could be another specimen from the syntype series (which is unlikely), or it could be an individual caught in Nepal. In that case it would probably be the newly described species *T. havai* sp. n. and not the species *T. regalis* Pic, 1900. It is therefore more or less clear that this species does

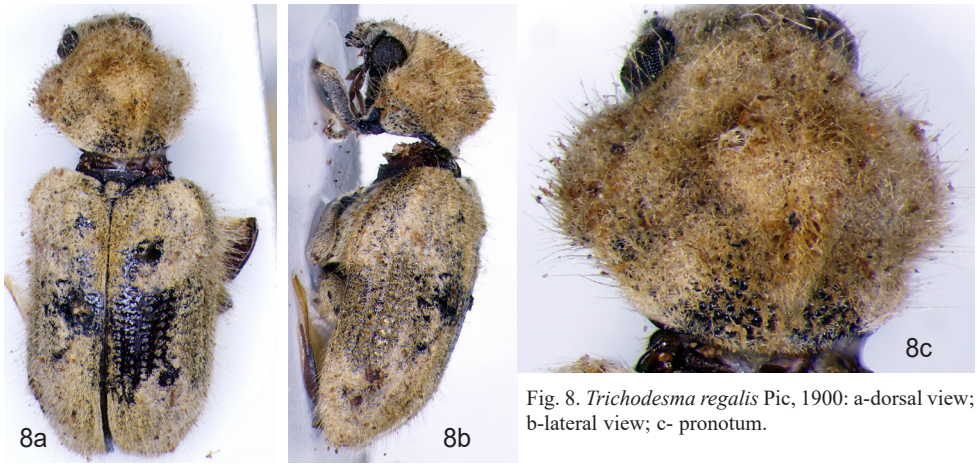


Fig. 8. *Trichodesma regalis* Pic, 1900: a-dorsal view; b-lateral view; c- pronotum.

not live in the Palaearctic Region. All data from this region come from the work of Sakai (1983). According to handwritten locality from the BMNH specimens is from Tharrawaddy (newly Thaywadi) from south Burma (Myanmar) near the border with Bangladesh (then part of India). It cannot therefore be ruled out that this is specimen from the syntype series.

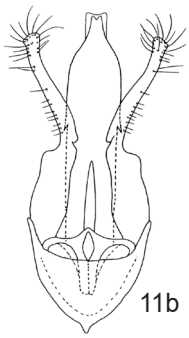
OTHER ORIGINAL DESCRIPTION, WHIIT I HAVE NOT TO DISPOSITION

Trichodesma pulchra Pic, 1903

Original description. "Assez large, noir, très densément pubescent de gris flave ou de fauve sur la majeure partie du corps (sur le milieu de la base du prothorax et sur la base de élytres la pubescence est plus espacée) avec une grande macule antéapicale foncée en partie subdénudée. Tète densément pubescente, antennes rousses, à premiers article assez courts, les 3 derniers très longs et presque égaux; prothorax peu élargi antériuerement, fortement saillant en dessus sur son milieu sous forme d'une dent fasciculée de poils fauves au sommet, ave cun sillon longituidinal en avant de cette dent quelques granulations sur la base; écusson densément pubescent et gris, subtriangulaire; élytres larges et courts, un peu diminués et subtronqués au sommet, ornés avant et après le milieu de plusieurs fascicules de poils foncés dresses, à ponctuation assez regulière et forte, ces organes revêtus d'une pubescence gris-flave étundue sur leur majeure partie (cette pubescence très dense sur le pourtour, le milieu et l'extrémité, irrégulièrement disposée ou espacée sur la base et avant l'extémité) ayant en outre une longue macule suturale médiane faite de poils fauves; pattes et desous du corps denséments pubescents. Long 5 mill. Dardjiling (Sikkim).

Espèce voisine de *venusta* Lesne à revêtement pileux particulier et par là facile à séparér de cette espèce et de toutes les autres ancienment décrites."

Note. Unfortunately, it was not possible to obtain type material or any photo. The species not included in the following key.



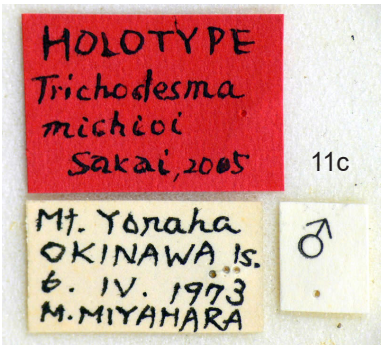
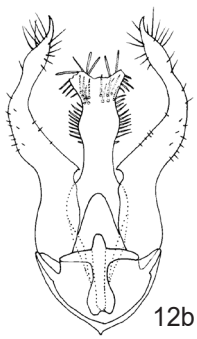


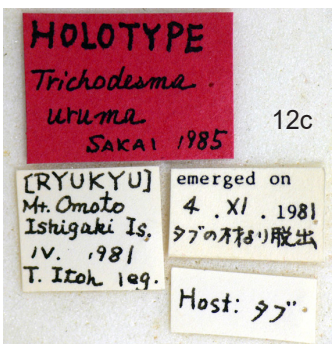
Fig. 9. *Trichodesma kirishimana* Nakane, 1979: a- dorsal view.

Fig. 10. *Trichodesma kurosawai* Sakai, 1986: a- dorsal view; b- specimen labels (source from Japan colleagues).

Fig. 11. *Trichodesma michioi* Sakai, 2005: a-dorsal view; b- aedeagus; c- specimen labels (specific source unknown).

Fig. 12. *Trichodesma uruma* Sakai, 1985: a- dorsal view; b- aedeagus (according to Sakai, 1985); c- specimen labels (other source from Japan colleagues).





KEY OF PALAEARCTIC REGION SPECIES

1 The elytra distinctly two-coloured - the anterior part is uniformly greyish-white pubescenct, the posterior third is brown ..... *T. uruma* Sakai, 1985
- Elytra different coloured 2
2 Elytra black, with small white-yellow spot on the posterior third of elytr ..... *T. unimaculata* sp. nov.
- Elytra different coloured 3
3 Elytra grey pubescent with white transversal spot on half (middle) of elytra ..... *T. schneideri* sp. nov.
Elytra different coloured 4
4 The predominant pubescence of elytra is white, with variously arranged more or less glabrous spots, piceous to black 5
- Elytra different coloured 6
5 Each elytron with large lateral spot in the half (middle) elytron ..... *T. havai* sp. nov.
- Basal part and apex of elytra without white pubescence, in front of the posterior third two lateral glabrous spots and one central one along to suture ..... *T. honouri* sp. nov.
6 Elytra white pubescent, variously arranged; each elytron with several of variously shaped and arranged spots of dense black erect setae 7
- Elytra greyish-white pubescent, variously arranged; each elytron with several of variously shaped and arranged spots of dense black erect setae 8
7 Elytra with white pubescence on basal part and apex of elytra, and wide transversal stripe in half (middle) of elytra, each elytron with 4 spots of dense black erect setae - the first on humeri, the second on half of elytron, and two before apex of elytra. Other the same spots in the front third along sutura..... *T. japonica* Pic, 1906
- Almost whole surface with white pubescence (or greyish) , each elytron with 5 spots of dense black erect setae - the first on humeri, the second on anterior half of elytron, and three before apex of elytra .... *T. fasciulare* Reitter, 1877 (*T. lewisi* Kiesenwetter, 1879)
8 Elytra are grey pubescent, without any distinct pattern ..... *T. krosawai* Sakai, 1986
- Elytra with pattern, forming transverse bands and spots 9
9 Central band on elytra in front sharply demarcated ..... *T. kirishima* Nakane, 1979
- Central band on elytra in front indistinctly demarcated .....*T. michioi* Sakai, 2005

ACKNOWLEDGMENTS. Many thanks to all donors for providing type material, namely Pavel Benda, Emil Kučera, Pavel Pucholt, Jan Schneider, Tomáš Staněk sen., Tomáš Staněk jun., Miloš Trýzna (all Czech Republic), and Maxwell V. L. Barclay, Michael Geiser (both from BMNH) for loan of some type material, and Hiroyuki Yushitomi (Japan) for some photos of Japanese species and Petra Mikulčíková (Czech Republic) for other photos. Many thank also for to Larry G. Bezark (California, U.S.A.) for the comments of English revision to the manuscript. The paper was supported by the Ministry of Agriculture of the Czech Republic, Institutional support MZE-RO0118.

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Received: 2.11.2024
Accepted: 10.12.2024
Printed: 31.3.2025