

## ***Nanodesma* - gen. nov. from Oriental Region with description of six new species (Coleoptera: Bostrichoidea: Ptinidae)**

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### **Taxonomy, new species, Coleoptera, Ptinidae, *Nanodesma*, Oriental Region**

**Abstract.** *Nanodesma* gen. nov. from Oriental Region is described, illustrated and compared with other genera from tribe Nicobiini. The key of genera tribe Nicobiini is presented. Six new species are described: *N. knizeki* sp. nov. (Thailand); *N. laosensis* sp. nov. (Laos); *N. fasciata* sp. nov. (Indonesia: Sumatra I.), Malaysia and Thailand; *N. haucki* sp. nov. (Thailand); *N. luteopubens* sp. nov. (Malaysia) and *N. nigromaculata* sp. nov. (Malaysia). The key of species belong to genus *Nanodesma* is presented.

### INTRODUCTION

Tribe Nicobiini White, 1982 from subfamily Anobiinae Fleming, 1821, contains three genera - *Anobiopsis* Fall, 1905, *Nicobium* LeConte, 1861 and *Trichodesma* LeConte, 1861 (White 1971). The genus *Anobiopsis* Fall, 1905 contains only one species from North America (White 1974). Genus *Nicobium* LeConte, 1861 contains eight species from Palaearctic Region, one from them was introduced also in other regions (White 1974, Bercedo & Arnáiz 2007; Toskina 2014). The most numerous is genus *Trichodesma* LeConte, 1861 with 70 species. This genus is distributed especially in tropical Regions (Neotropical, Afrotropical and Oriental), but also in Holarctic Region (White 1974; Zahradník 2017). Also three fossil species from genus *Trichodesma* LeConte, 1851 are known (Zahradník & Háva 2017). This new genus is forth in tribe Nicobiini White, 1992 and is distributed in Oriental Region, in Malayan peninsula (Back India).

### MATERIAL AND METHODS

The new genus *Nanodesma* is very similar to genus *Trichodesma* LeConte, 1861. In Oriental Region is known 9 species - *T. griseofasciata* Pic, 1937 from Borneo (Sarawak), *T. innotata* Pic, 1943 from Burma, *T. maculata* Pic, 1915 from Cambodia, *T. multifasciculata* Pic, 1956 from Singapore, *T. multinotata* Pic, 1943 and *T. regalis* Pic, 1900 from India, *T. tricolor* Zahradník, 2018 from Thailand and *T. venusta* Lesne, 1902 from Ceylon. I studied all original description species from genus *Trichodesma* LeConte, 1851 from Oriental Region and some other species from neighbouring immediately adjacent regions. I studied also original description of all genera from tribe Nicobiini White, 1982 - *Anobiopsis* Fall,

1905, *Nicobium* LeConte, 1861 and *Trichodesma* LeConte, 1861 and many species from these genera.

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

The new species described here is provided with a red, printed label showing the following words: “Holotype” or “Paratype”; on the second white, printed label, there is the text: “*Nanodesma/species name*, sp. n. / P. Zahradník det. Holotypes and paratypes are deposited in author’s collection excluding one paratype of *N. fasciata* sp. n., which is deposited in J. Háva (Únětice u Prahy, Czech Republic) collection.

## RESULTS

### *Nanodesma* gen. nov.

**Type species.** *Nanodesma knizeki* sp. nov.

**Description.** Male. Body shortly oval, body length 2.5-3.5 mm, ratio elytra length : elytra wide 1.1-1.2. Their surface dark with two types of pubescence - short recumbent, sometimes very dense, the second long, sparse, erect. Antennae filiformes, consist from eleven antennomeres; the last three enlarged. Eyes small, globular, with short sparse erect setae. The last segment of maxillary palpi rectangular with small projection on the both sides in anterior margin (Fig. 14). Pronotum transverse with large and high bump. Scutellum transverse. Elytra with distinct shoulders, with more or less irregular striae. Pubescence with two types - the first short recumbent, sometimes very dense, the second long, sparse, erect. All legs the same, stout, femora thick and flattened, tibia slim, longer as femora. All tarsi with five tarsomeres. Two claws robust with broad basal tooth. Aedeagus symmetric.

**Female.** Without distinct sexual dimorphism.

**Distribution.** Oriental Region - south Asia: Malaysia, Thailand, Laos, Indonesia (Sumatra I.).

**Name derivation.** Derived from Greece word “nannos” - in Latin “nanus” means “dwarf” and part of name of genus “*Trichodesma*”. Gender feminine.

### KEY OF WORLD GENERA TRIBE NICOBIIINI

- 1 Tarsal claws each with a broad basal tooth (Fig. 12) ..... 2
- Tarsal claws each without a basal tooth (Fig. 13) ..... 3
- 2 Ratio length : width of elytra at most 1.3 ..... *Nanodesma* gen. nov.
- Ratio length : width of elytra larger than 1.3 ..... *Trichodesma* LeConte, 1861
- 3 Metasternum excavate anteriorly; punctures at apical 1/3 of elytra confused ..... *Anobiopsis* Fall, 1905
- Metasternum not excavate anteriorly; punctures at apical 1/3 of elytra forming distinct striae ..... *Nicobium* LeConte, 1861

*Nanodesma knizeki* sp. nov.

(Figs. 1, 3)

**Type material.** Holotype (♂): Thailand E, Chanthaburi distr., Khao Soi Dao, 5.-13.v.1998, M. Knížek lgt.

**Description.** Male (holotype): Shortly oval, almost rounded, convex, body length 2.5 mm, the greatest width 1.6 mm. Ratio elytra length : elytra width of 1.1. Body brown, antennae, palpi and legs slightly lighter. Habitus see Fig. 1.

Head almost flattened, very dense recumbent pubescence, surface of head almost invisible, only part in the middle on base before pronotum visible, shining, dark brown, very finely and densely punctuated, punctures almost touching. Pubescence in the middle longitudinally divided by line without pubescence. Erect setae on head short and sparse, white. Eyes small, slightly rounded, with very sparse white erect setae. Front 4.5 times wider than width of eye in dorsal view. Antennae filiformes, consisted of eleven antennomeres. The last three antennomeres enlarged. The 1<sup>st</sup> antennomere robust, twice longer than wide, the 2<sup>nd</sup> twice shorter than the 1<sup>st</sup> and slightly narrower. The 3<sup>rd</sup> to 8<sup>th</sup> still narrower than the 2<sup>nd</sup>. The 3<sup>rd</sup> as long as the 2<sup>nd</sup>, the 4<sup>th</sup>-8<sup>th</sup> as long as wide. The 9<sup>th</sup> as long as 3<sup>rd</sup> - 8<sup>th</sup>, five times longer than wide; the 10<sup>th</sup> and 11<sup>th</sup> very similar, only, the last slightly sharpened. All antennomeres with dense fine shortly recumbent pubescence and with a few sparse longer setae.

Pronotum transverse, ratio length : width 0.6, the widest in the 2/3 of their length, rectangular sharpened on lateral margin, anteriorly narrower, posteriorly wider than anterior part. Middle of pronotum with large and high bump slightly inclined backwards. Surface of pronotum shining, with small rounded bulges and fine dense punctures, very densely pubescence with two types - very dense, recumbent, short, white, almost covered surface of pronotum, and second long erect, also dense, on the sides of pronotum white, in the middle brown. From top of bump to scutellum slim stripe from with recumbent pubescence inclined backwards and the denser than rest of surface of pronotum.

Scutellum transverse, twice as wide as long.

Elytra almost as long as wide, rounded, with distinct shoulders, shining, with a few irregular striae from large punctures on sides almost more irregular, almost do not form striae; distance between these punctures as same as their diameter. Surface between this striae with very fine and dense punctures, which almost touched. Pubescence of elytra in two types - the first very short white recumbent, covered part of surface of elytra, the second long erect, on sides of elytra white, in disc of elytra brown.

All legs the same, stout, femora thick and flattened, tibia slim, longer as femora. All tarsi with five tarsomeres, twice shorter than tibia. The 1<sup>st</sup> tarsomere the same length as 4<sup>th</sup>, the 2<sup>nd</sup> and 3<sup>rd</sup> slightly shorter, as long as wide. The 4<sup>th</sup> slightly emarginated. The 5<sup>th</sup> the largest, the same length as 3<sup>rd</sup> and 4<sup>th</sup> together, slightly wider as previous. Two claws robust with broad basal tooth.

Aedeagus symmetric, see Fig. 7.

**Female.** Unknown.

**Differential diagnosis.** See key of species. Aedeagus differs from other species (Fig. 7).

**Name derivation.** Dedicated to the collector of holotype, my very good friend Miloš Knížek (Praha), a well-know specialist in Curculionidae: Scolytinae (Coleoptera).

**Distribution.** Thailand.

*Nanodesma laosensis* sp. nov.

(Figs. 2, 8)

**Type material.** Holotype (♂): Laos, Hua Phan pr., Ban Kangpabong env., Vieng Xai, 14.-18.v.2001, D. Hauck lgt. Paratypes: (3 ♂♂, 2 ♀♀): the same data as holotype; (2 ♀♀): Laos, Hua Phan pr., Ban Saluei, Phiu Phan Mt., 26.iv.-11.v.2001, 2000 m, D. Hauck lgt.

**Description.** Male (holotype): Shortly oval, almost rounded, convex, body length 2.5 mm, the greatest width 1.6 mm. Ratio elytra length : elytra width of 1.1. Body brown, antennae, palpi and legs slightly lighter. Habitus see Fig. 8.

Head almost flattened, sparse recumbent white pubescence, shining, dark brown, finely and densely punctuated, punctures almost touching. Pubescence sparse, recumbent, white. Erect setae on head missing. Eyes small, slightly rounded, with sparse white erect setae. Front 3 times wider than width of eye in dorsal view. Antennae filiformes, consisted of eleven antennomeres. The last three antennomeres enlarged. The 1<sup>st</sup> antennomere robust, twice longer than wide, the 2<sup>nd</sup> twice shorter than the 1<sup>st</sup> and slightly narrower. The 3<sup>rd</sup> to 8<sup>th</sup> still narrower than the 2<sup>nd</sup>. The 3<sup>rd</sup> as long as the 2<sup>nd</sup>, the 4<sup>th</sup>-8<sup>th</sup> as long as wide. The 9<sup>th</sup> as long as 3<sup>rd</sup> - 8<sup>th</sup>, five times longer than wide; the 10<sup>th</sup> and 11<sup>th</sup> very similar, only, the last slightly sharpened. All antennomeres with dense fine shortly recumbent pubescence and with a few sparse longer setae. The last segment of maxillary palpi rectangular with small projection on the both sides in anterior margin.

Pronotum transverse, ratio length : width 0.7, the widest in the one half of their length, rectangular sharpened on lateral margin, anteriorly narrower, posteriorly wider than anterior part. Middle of pronotum with large and high bump slightly inclined backwards. Surface of pronotum shining, with small rounded bulges and fine dense punctures, very densely pubescence with two types -dense, recumbent, short, white, almost covered surface of anterior and lateral sides, the rest of pronotum without recumbent pubescence, and second long erect, also dense, on the sides of pronotum white, in the middle brown, on the bum denser.

Scutellum transverse, twice as wide as long.

Elytra as long as wide, rounded, with distinct shoulders, shining, with a few irregular striae from large punctures on sides almost more irregular, almost do not form striae; distance between these punctures as same as their diameter. Surface between this striae with very fine and dense punctures, which almost touched. Pubescence of elytra in two types - very short white recumbent, covered part of surface of elytra, surface without pubescence created two transversal stripes, the first stripe is almost invisible, the second stripe is clearer; the second pubescence long erect, on sides of elytra white, in disc of elytra light brown.

All legs the same, stout, femora thick and flattened, tibia slim, longer as femora. All tarsi with five tarsomeres, twice shorter than tibia. The 1<sup>st</sup> tarsomere the same length as 4<sup>th</sup>, the 2<sup>nd</sup> and 3<sup>rd</sup> slightly shorter, as long as wide. The 4<sup>th</sup> slightly emarginated. The 5<sup>th</sup> the largest, the same length as 3<sup>rd</sup> and 4<sup>th</sup> together, slightly wider as previous. Two claws robust with broad basal tooth.

Aedeagus symmetric, see Fig. 8.

**Female.** Without distinct sexual dimorphism.

**Variability.** In some cases two transversal stripes without recumbent pubescence are more or less visible, especially the first stripe is sometimes almost covered by recumbent pubescence. Small differences in body size.

**Differential diagnosis.** See key of species. Aedeagus differs from other species (Fig. 8).

**Name derivation.** Derived from name of place of its distribution - Laos.

**Distribution.** Laos.

*Nanodesma fasciata* sp. nov.

(Figs. 3, 9)

**Type material.** Holotype (♂): Indonesia, Sumatra S, Lampung prov., Bukit Barisan Selatan, 7.-17.ii.2000, 600 m, D. Hauck lgt. Paratypes: (1 ♀): Thailand NW, Mao Hong Son, Ban Si Lang, 1200 m, 23.-31.v.1991, J. Horák lgt.; (2 ♀♀): Malaysia W, Pahang Baniaran, Benom Mts., Ulu Dono 10-15 km SSE, 17.-23.iv.1997, D. Hauck lgt.; (1 ♂): Thailand NW, Ban Si Lang, 4.-6.v.1991, J. Horák lgt.

**Description.** Male (holotype): Shortly oval, almost rounded, convex, body length 2.5 mm, the greatest width 1.6 mm. Ratio elytra length : elytra width of 1.1. Body brown, antennae, palpi and legs slightly lighter. Habitus see Fig. 3.

Head almost flattened, very dense recumbent, white pubescence, created on the posterior part of bump longitudinal stripe, surface of head almost invisible, shining, dark brown, very finely and densely punctuated, punctures almost touching. Erect setae on head short and sparse, white. Eyes small, slightly rounded, with very sparse white erect setae. Front 3.2 times wider than width of eye in dorsal view. Antennae filiformes, consisted of eleven antennomeres. The last three antennomeres enlarged. The 1<sup>st</sup> antennomere robust, twice longer than wide, the 2<sup>nd</sup> twice shorter than the 1<sup>st</sup> and slightly narrower. The 3<sup>rd</sup> to 8<sup>th</sup> still narrower than the 2<sup>nd</sup>. The 3<sup>rd</sup> as long as the 2<sup>nd</sup>, the 4<sup>th</sup>-8<sup>th</sup> as long as wide. The 9<sup>th</sup> as long as 3<sup>rd</sup> - 8<sup>th</sup>, five times longer than wide; the 10<sup>th</sup> and 11<sup>th</sup> very similar, only, the last slightly sharpened. All antennomeres with dense fine shortly recumbent pubescence and with a few sparse longer setae. The last segment of maxillary palpi rectangular with small projection on the both sides in anterior margin.

Pronotum transverse, ratio length : width 0.6, the widest in the 2/3 of their length, rectangular sharpened on lateral margin, anteriorly narrower, posteriorly wider than anterior

part. Middle of pronotum with large and high bump slightly inclined backwards. Surface of pronotum shining, with small rounded bulges and fine dense punctures; very densely pubescence with two types - the first dense, recumbent, short, white, almost covered surface of anterior and lateral sides, the rest of pronotum without recumbent pubescence, and the second long erect, also dense, on the sides of pronotum white, in the middle brown, on the bum denser, black.

Scutellum transverse, twice as wide as long.

Elytra almost as long as wide, rounded, with distinct shoulders, shining, with a few irregular striae from large punctures on sides almost more irregular, almost do not form striae; distance between these punctures as same as their diameter. Surface between this striae with very fine and dense punctures, which almost touched. Pubescence of elytra in two types - the first short, white, recumbent, covered part of surface of elytra, between these pubescence two wide transversal stripes without pubescence; the second pubescence long erect, on sides of elytra white, in disc of elytra brown.

All legs the same, stout, femora thick and flattened, tibia slim, longer as femora. All tarsi with five tarsomeres, twice shorter than tibia. The 1<sup>st</sup> tarsomere the same length as 4<sup>th</sup>, the 2<sup>nd</sup> and 3<sup>rd</sup> slightly shorter, as long as wide. The 4<sup>th</sup> slightly emarginated. The 5<sup>th</sup> the largest, the same length as 3<sup>rd</sup> and 4<sup>th</sup> together, slightly wider as previous. Two claws robust with broad basal tooth.

Aedeagus symmetric, see Fig. 9.

**Female.** Without distinct sexual dimorphism.

**Variability.** In the same case the first stripe disrupted by small parts with recumbent pubescence. Small differences in body size.

**Differential diagnosis.** See key of species. Aedeagus differs from other species (Fig. 9).

**Name derivation.** Derived from Latin name “fasciatus” means fascia - dark brown transversal part of elytra without pubescence.

**Distribution.** South west Asia - Malaysia, Thailand, Indonesia (Sumatra I.).

***Nanodesma haucki* sp. nov.**

(Figs. 4, 10)

**Type material.** Holotype (♂): Thailand N, Nan prov., Dol Phu Kha NP, Headq., 19,13 N, 101,07 E, 22.-26.iv.1999, D. Hauck lgt.

**Description.** Male (holotype): Shortly oval, almost rounded, convex, body length 3.0 mm, the greatest width 1.9 mm. Ratio elytra length : elytra width of 1.1. Body dark brown, antennae, palpi and legs lighter, yellow brown. Habitus see Fig. 4.

Head flattened, sparse long recumbent pubescence, shining, dark brown, finely and densely punctuated, punctures almost touching. Pubescence white, concentrate on side of

head, especially of anterior margin, inclined to longitudinal middle of head, only on anterior margin of head inclined anteriorly. Erect setae missing. Eyes small, slightly rounded, with sparse white long erect setae. Front 2.7 times wider than width of eye in dorsal view. Antennae filiformes, consisted of eleven antennomeres. The last three antennomeres enlarged. The 1<sup>st</sup> antennomere robust, twice longer than wide, the 2<sup>nd</sup> twice shorter than the 1<sup>st</sup> also robust. The 3<sup>rd</sup> to 8<sup>th</sup> still narrower than the 2<sup>nd</sup>. The 3<sup>rd</sup> as long as the 2<sup>nd</sup>, the 4<sup>th</sup> slightly longer as wide, the 5<sup>th</sup> slightly transverse, the 6<sup>th</sup> and 7<sup>th</sup> as long as wide. The 9<sup>th</sup> as long as 3<sup>rd</sup> - 8<sup>th</sup>, five times longer than wide; the 10<sup>th</sup> and 11<sup>th</sup> very similar, only, the last slightly sharpened. The last three antennomeres with dense fine shortly recumbent pubescence and previous with a few sparse longer setae. The last segment of maxillary palpi rectangular with small projections on the both sides in anterior margin.

Pronotum transverse, ratio length : width 0.5, the widest in the 2/3 of their length, rectangular sharpened on lateral margin, anteriorly narrower, posteriorly wider than anterior part. Middle of pronotum with large and high sharp bump slightly inclined backwards with keel inclined forwards. Surface of pronotum shining, with small rounded bulges; only these bulges are visible through dense white recumbent short pubescence, inclined mainly forwards, on the bump distinctly sparse. On the top of bump form to short tassel from dense yellow hairs. Surface of pronotum also with second long erect, also dense brown setae in middle of pronotum and white on sides.

Scutellum transverse, twice as wide as long.

Elytra rounded, with distinct shoulders, shining, with eleven irregular striae from large punctures; distance between these punctures as same as their diameter. Surface between this striae with very fine and dense punctures, which almost touched. Pubescence of elytra in two types - the first very short white-yellow recumbent, covered part of surface of elytra along of the anterior part of sutura, inclined mostly backwards, the second long erect, mixed white and brown.

All legs the same, stout, femora thick and flattened, tibia slim, longer as femora. All tarsi with five tarsomeres, twice shorter than tibia. The 1<sup>st</sup> tarsomere te same length as 4<sup>th</sup>, the 2<sup>nd</sup> and 3<sup>rd</sup> slightly shorter, as long as wide. The 4<sup>th</sup> slightly emarginated. The 5<sup>th</sup> the largest, the same length as 3<sup>rd</sup> and 4<sup>th</sup> together, slightly wider as previous. Two claws robust with broad basal tooth.

Aedeagus symmetric, see Fig. 10.

**Female.** Unknown.

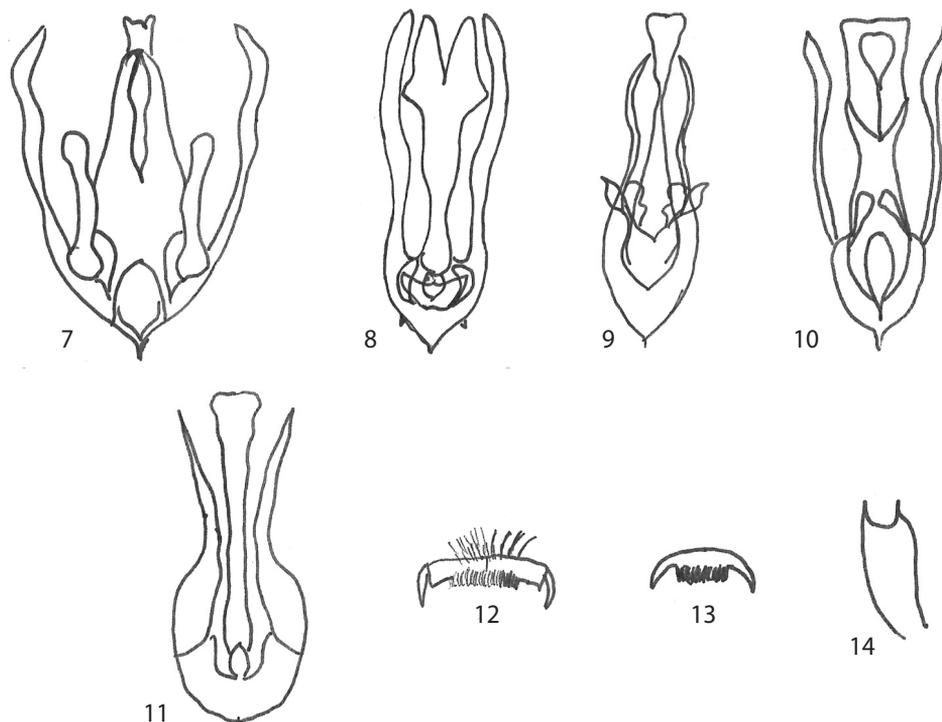
**Differential diagnosis.** See key of species. Aedeagus differs from other species (Fig. 10).

**Name derivation.** Dedicated to the collector of holotype, my friend David Hauck (Brno), a well-know specialist in Tenebrionidae: Alleculinae (Coleoptera).

**Distribution.** Thailand.



Figs. 1-6. Habitus: 1- *Nanodesma knizeki* sp. nov.; 2- *Nanodesma laosensis* sp. nov.; 3- *Nanodesma fasciata* sp. nov.; 4- *Nanodesma haucki* sp. nov.; 5- *Nanodesma luteopubens* sp. nov.; 6- *Nanodesma nigromaculata* sp. nov.



Figs. 7-14. Aedeagus: 7- *Nanodesma knizeki* sp. nov.; 8- *Nanodesma laosensis* sp. nov.; 9- *Nanodesma fasciata* sp. nov.; 10- *Nanodesma haucki* sp. nov.; 11- *Nanodesma nigromaculata* sp. nov.; Tarsal claws: 12- *Trichodesma* Le Conte, 1861; 13- *Nicobium* LeConte, 1861 (according to White, 1971); 14- Last maxillary palpomere of *Nanodesma*.

***Nanodesma luteopubens* sp. nov.**

(Fig. 5)

**Type material.** Holotype (♀): Malaysia, Pahang, Kuala Rompin env., Endau R. NP, 9.-30.iv.2008, P. Čechovský lgt. Paratype: (1 ♀): the same data as holotype.

**Description.** Female (holotype): Shortly oval, almost rounded, convex, body length 2.9 mm, the greatest width 2.0 mm. Ratio elytra length : elytra width of 1.1. Body brown, antennae, palpi and legs slightly lighter. Habitus see Fig. 5.

Head slightly transversally convex, dense recumbent grey-brown pubescence, pubescence inclined mostly forwards, shining, dark brown, very finely and densely punctuated, punctures almost touching. Erect setae on head long and sparse, brown. Eyes small, slightly rounded, with sparse short brown erect setae. Front 2.5 times wider than width of eye in dorsal view. Antennae filiformes, consisted of eleven antennomeres. The last three antennomeres enlarged. The 1<sup>st</sup> antennomere robust, twice longer than wide, the 2<sup>nd</sup> twice shorter than the

1<sup>st</sup> and slightly narrower. The 3<sup>rd</sup> to 8<sup>th</sup> still narrower than the 2<sup>nd</sup>. The 3<sup>rd</sup> as long as the 2<sup>nd</sup>, the 4<sup>th</sup>-8<sup>th</sup> 1.2 times long as wide. The 9<sup>th</sup> only 0.8 long as 3<sup>rd</sup> - 8<sup>th</sup> together, twice longer than wide, slightly serrated; the 10<sup>th</sup> also slightly serrated, narrower than previous, 2.7 longer than wide and the last slightly spindleformis, on the apex sharpened. All antennomeres with dense fine shortly recumbent pubescence and with a few sparse longer setae.

Pronotum transverse, ratio length : width 0.6, the widest in the 2/3 of their length, rectangular sharpened on lateral margin, anteriorly narrower, posteriorly wider than anterior part. Middle of pronotum with large and high bump slightly inclined backwards, on sides of this bump indicated keel, formed triangular wit top on posterior on top of bump. Surface of pronotum shining, with small rounded bulges and fine dense punctures, very densely pubescence with two types - the first dense, recumbent, short, grey, and the second long erect, dense, brown.

Scutellum transverse, triangular, 1.5 times wide as long.

Elytra as long as wide, rounded, with distinct shoulders, shining, with 10 irregular striae from large punctures; punctures almost touched. Surface between this punctures with very fine and dense punctures, which almost touched. Pubescence of elytra in two types - the first very short grey recumbent, cloudily arrangement, the second long, erect, brown. In the middle of each elytron small longitudinal spot from yellow-gold short recumbent pubescence, inclined backwards, between this spot and lateral margin one small spot from dense clustering strong black semierrected setae inclined backwards, other two similar smaller spots from black semierrected setae in the back third. Between them near to suture dense clustering strong black semierrected setae inclined backwards.

All legs the same, stout, femora thick and flattened, tibia slim, longer as femora. All tarsi with five tarsomeres, twice shorter than tibia. The 1<sup>st</sup> tarsomere te same length as 4<sup>th</sup>, the 2<sup>nd</sup> and 3<sup>rd</sup> slightly shorter, as long as wide. The 4<sup>th</sup> slightly emarginated. The 5<sup>th</sup> the largest, the same length as 3<sup>rd</sup> and 4<sup>th</sup> together, slightly wider as previous. Two claws robust with broad basal tooth.

**Male.** Unknown.

**Variability.** Without distinct variability.

**Differential diagnosis.** See key of species.

**Name derivation.** Derived from Latin word “luteus” means “yellow”, according to colour of pubescence of small spots on elytra.

**Distribution.** Malaysia.

*Nanodesma nigromaculata* sp. nov.

(Figs. 6, 11)

**Type material.** Holotype (♂): Malaysia, Pahang, Kuala Rompin env., Endau R. NP, 9.-30.iv.2008, P. Čechovský lgt. Paratype: (1 ♀): Malaysia, Pahang, Bukit Fraser, 29.ii.-6.iii.2000, K. Deneš jun. lgt.; (1 ♀): Malaysia W, Cameron Highlands, Tanag Rata - Mt. Gunung Jasar, 30.i.-24.ii.2008, P. Viktora lgt.

**Description.** Male (holotype): Shortly oval, almost rounded, convex, body length 3.8 mm, the greatest width 2.0 mm. Ratio elytra length : elytra width of 1.2. Body dark brown, antennae, palpi and legs lighter, hell brown. Habitus see Fig. 6.

Head transversally slightly convex, very dense recumbent pubescence, inclined mostly forwards, surface of head almost invisible except of anterior and posterior margin, in middle with indicated longitudinal keel, shining, brown, very finely and densely punctuated, punctures almost touching. Only a few erect setae on head short, white. Eyes small, slightly rounded, with very sparse white erect setae. Front 3 times wider than width of eye in dorsal view. Antennae filiformes, consisted of eleven antennomeres. The last three antennomeres enlarged. The 1<sup>st</sup> antennomere robust, twice longer than wide, the 2<sup>nd</sup> twice shorter than the 1<sup>st</sup> and slightly narrower. The 3<sup>rd</sup> to 8<sup>th</sup> still narrower than the 2<sup>nd</sup>. The 3<sup>rd</sup> 1.5 times shorter as the 2<sup>nd</sup>, the 4<sup>th</sup>-8<sup>th</sup> as long as wide. The 9<sup>th</sup> as long as 3<sup>rd</sup> - 8<sup>th</sup>, three times longer than wide, slightly serrated; the 10<sup>th</sup> also slightly serrated, narrower than previous, 4 times longer than wide and the last slightly spindleformis, on the apex sharpened. All antennomeres with dense fine shortly recumbent pubescence and with a few sparse longer setae. The last segment of maxillary palpi rectangular with small projections on the both sides in anterior margin.

Pronotum transverse, ratio length : width 0.7, the widest in the 1/3 of their length, rectangular sharpened on lateral margin, anteriorly narrower, posteriorly wider than anterior part, before base emarginated. Middle of pronotum with large and high bump slightly inclined backwards, on sides of this bump indicated keel, formed triangular wit top on posterior on top of bump. Keel with dense clustering strong black semierrected setae inclined backwards. Surface of pronotum shining, with small rounded bulges and fine dense punctures, densely pubescence with two types - the first dense, recumbent, short, white, cloudily arrangement, and the second long erect, also dense brown.

Scutellum triangular, as long as wide.

Elytra shortly longer as wide, rounded, with distinct shoulders, shining, with 10 irregular striae from large punctures; punctures almost touched; distance between these punctures as same as their diameter. Surface between this punctures with very fine and dense punctures, which almost touched. Pubescence of elytra in two types - the first very short white recumbent, part of cloudily arrangement, the second long erect, mostly brown, partly also white. On each elytron with longitudinal stripe without pubescence, going from base of elytra to their one half between shoulder and sutura. In the middle of each elytron two small longitudinal spot from dense clustering strong black semierrected setae inclined backwards, other two similar smaller spots in the back third.

All legs the same, stout, femora thick and flattened, tibia slim, longer as femora. All tarsi with five tarsomeres, twice shorter than tibia. The 1<sup>st</sup> tarsomere te same length as 4<sup>th</sup>, the 2<sup>nd</sup> and 3<sup>rd</sup> slightly shorter, as long as wide. The 4<sup>th</sup> slightly emarginated. The 5<sup>th</sup> the largest, the

same length as 3<sup>rd</sup> and 4<sup>th</sup> together, slightly wider as previous. Two claws robust with broad basal tooth.

Aedeagus symmetric, see Fig. 11.

**Female.** Without distinct sexual dimorphism.

**Variability.** Sometime on each elytron with longitudinal stripe without pubescence, going from base of elytra to their one half between shoulder and sutura. Small differences in body size.

**Differential diagnosis.** See key of species. Aedeagus differs from other species (Fig. 11).

**Name derivation.** Derived from Latin word “niger” means black, and “macula” means spot, according to black spots on elytra.

#### KEY TO SPECIES OF THE GENUS *NANODESMA* GEN. NOV.

- 1 Each elytron with a few spots from erect dense setae ..... 2
- Elytra without spots from erect setae ..... 3
- 2 On each elytron one spot from yellow setae ..... *Nanodesma luteopubens* sp. nov.
- Each elytron with three spots from black setae ..... *Nanodesma nigromaculata* sp. nov.
- 3 Almost whole surface of pronotum with dense recumbent pubescence, covering the entire surface ..... 4
- Part of surface of pronotum without recumbent pubescence, missing especially in middle of pronotum ..... 5
- 4 Surface of pronotum with white-yellow pubescence, except small part on base of pronotum .....  
..... *Nanodesma haucki* sp. nov.
- Surface of pronotum with white pubescence ..... *Nanodesma knizeki* sp. nov.
- 5 Elytra with two transversal stripes without recumbent pubescence ..... *Nanodesma fasciata* sp. nov.
- Transversal stripes less pronounced, sometimes the first missing ..... *Nanodesma laosensis* sp. nov.

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