

## New species of Clytini Mulsant, 1839 from Palaearctic and Oriental Regions (Coleoptera: Cerambycidae: Cerambycinae)

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**Taxonomy, new species, Coleoptera, Cerambycidae, Clytini, Chlorophorus, Demonax, Rhaphuma, Xylotrechus, Asia**

**Abstract.** The following new species are described: *Chlorophorus ostentator* sp. nov. from China (Xizang, Yunnan), *Demonax invalidus* sp. nov. and *Demonax lii* sp. nov. from China (Yunnan), *Demonax paululus* sp. nov. from China (Hainan), *Demonax perturbatus* sp. nov. from Cambodia (Mondulkiri), *Demonax dongensis* sp. nov., *Demonax analogicus* sp. nov. and *Xylotrechus ignavus* sp. nov. from Malaysia (Pahang), *Demonax blanditus* sp. nov. and *Demonax necopinatus* sp. nov. from Malaysia (Sabah), *Demonax silvanus* sp. nov. from Thailand (Chiang Mai), *Demonax spurcus* sp. nov. from Vietnam (Kon Tum), *Rhaphuma lupa* sp. nov. from Vietnam (Lang Son), *Chlorophorus ngheanensis* sp. nov., *Demonax repentinus* sp. nov. and *Rhaphuma poema* sp. nov. from Vietnam (Nghe An), *Rhaphuma vidua* sp. nov. from Vietnam (Ha Giang), *Xylotrechus lacer* sp. nov. from Philippines (Luzon - Nueva Vizcaya), *Xylotrechus mirus* sp. nov. from Philippines (Mindanao - Davao del Sur, Lanao del Sur, Bukidnon) and *Xylotrechus pandus* sp. nov. from Philippines (Luzon - Quirino, Nueva Vizcaya, Mountain Province). All the habitus and male genitalia are illustrated.

### INTRODUCTION

The tribus Clytini Mulsant, 1839 is one of the most numerous - in terms of species - tribi of Cerambycidae. Species of the tribus Clytini are known from all biogeographic zones of the Earth except the Antarctic Region. The tribus Clytini is currently divided into approximately 70 genera. From the Palaearctic, Oriental and Australian biogeographic regions approximately 1570 species have been described so far. Within these regions, the most numerous genera are *Demonax* J. Thomson, 1861, *Chlorophorus* Chevrolat, 1863, *Xylotrechus* Chevrolat, 1860 and *Rhaphuma* Pascoe, 1858.

In the present paper, I describe new species of the genus *Chlorophorus*, *Demonax*, *Rhaphuma* and *Xylotrechus* from materials which were recently collected in Cambodia, China, Malaysia, Philippines, Thailand and Vietnam. Descriptions of the following twenty Clytini species are given: *Chlorophorus ostentator* sp. nov. from China (Xizang, Yunnan), *Demonax invalidus* sp. nov. and *Demonax lii* sp. nov. from China (Yunnan), *Demonax paululus* sp. nov. from China (Hainan), *Demonax perturbatus* sp. nov. from Cambodia (Mondulkiri), *Demonax dongensis* sp. nov., *Demonax analogicus* sp. nov. and *Xylotrechus ignavus* sp. nov. from Malaysia (Pahang), *Demonax blanditus* sp. nov. and *Demonax necopinatus* sp. nov. from Malaysia (Sabah), *Demonax silvanus* sp. nov. from Thailand (Chiang Mai), *Demonax spurcus* sp. nov. from Vietnam (Kon Tum), *Rhaphuma lupa* sp. nov. from Vietnam (Lang Son), *Chlorophorus ngheanensis* sp. nov., *Demonax repentinus* sp. nov. and *Rhaphuma poema* sp. nov. from Vietnam (Nghe An), *Rhaphuma vidua* sp. nov. from Vietnam (Ha Giang), *Xylotrechus lacer* sp. nov. from Philippines (Luzon - Nueva Vizcaya), *Xylotrechus mirus* sp. nov. from Philippines (Mindanao - Davao del Sur, Lanao del Sur, Bukidnon) and *Xylotrechus pandus* sp. nov. from Philippines (Luzon - Quirino, Nueva Vizcaya, Mountain Province). All the habitus and male genitalia are illustrated.

The new species are compared to the congeners (*Chlorophorus inhumeralis* Pic, 1918, *Chlorophorus moupinensis* (Fairmaire, 1888), *Chlorophorus tixieri* (Pic, 1902), *Chlorophorus trivialis* Holzschuh, 2010, *Demonax antireductus* Pic, 1935, *Demonax bakerioides* Dauber,

2006, *Demonax bimaculicollis* (Schwarzer, 1925), *Demonax globicollis* Dauber, 2016, *Demonax manifestus* Viktora, 2020, *Demonax nuntius* Viktora, 2023, *Demonax parilis* Holzschuh, 1995, *Demonax simillimus* Gressitt, 1939, *Demonax triaculeatus* Aurivillius, 1922, *Demonax venustus* Dauber, 2014, *Demonax vilis* Holzschuh, 1991, *Rhaphuma inusta* Holzschuh, 1991, *Rhaphuma rufobasalis* Pic, 1924, *Rhaphuma sharmai* Holzschuh, 1990, *Xylotrechus discors* Gahan, 1906, *Xylotrechus fluctuosus* (Pascoe, 1869) and *Xylotrechus humeralis* Aurivillius, 1928), which are also illustrated in some cases.

## MATERIAL AND METHODS

Observation and photography. The habitus of all specimens were taken by the Canon EOS 350D digital camera with the Sigma 105 mm macro lens. Composite images were created using the software Image Stacking Software Combine ZP. The genitalia photographs were taken with a Canon MP-E 65mm/2.8 1–5× Macrolens on bellows attached to a Canon EOS 550D camera. Each photograph was taken as several partially focused images and afterwards composed in the Helicon Focus 3.20.2 Pro software. The photographs were modified using Adobe Photoshop CC.

Specimens examined including type materials are deposited in the following collections:

CLD collection of Luboš Dembický, Brno, Czech Republic;

CPK collection of Petr Kabátek, Praha, Czech Republic;

CPV collection of Petr Viktora, Kutná Hora, Czech Republic.

Slash (/) separates data in different lines on locality and determination labels.

## TAXONOMY

### Tribe Clytini Mulsant, 1839

### Genus *Chlorophorus* Chevrolat, 1863

**Type species:** *Callidium annulare* Fabricius, 1787.

### *Chlorophorus ngheanensis* sp. nov.

(Fig. 1)

**Type locality.** Vietnam, Nghe An Province.

**Type material.** Holotype (♂): 'Vietnam' / 'Nghe An' / '5/2022', (CPV).

The type is provided with a printed red label: '*Chlorophorus ngheanensis* sp. nov.' / 'HOLOTYPE' / 'P. Viktora det., 2023'.

**Description.** Habitus of male holotype as in Fig. 1a. Body largely black, elongate, punctate, with pubescence. Body length from head to elytral apex 7.07 mm, the widest at humeral part of elytra (1.82 mm), 3.88 times longer than wide.

Head from brownish anterior margin to black (largely black), narrow, the widest through eyes, narrower than pronotum at the widest point. Dorsal surface with irregular granulation with microgranulation and micropunctuation between granules, frons with distinct almost smooth place on bottom part. Head partly covered with sparse yellowish grey pubescence. Interspace between antennal insertions narrow, antennal insertions prolonged into short spine on inner side. Eyes goldenish brown, emarginate. Clypeus and labrum pale ochre yellow with brown margins, shiny,

partly punctured, with long yellowish setation on edges. Mandibles brown with blackish margins and tip, shiny, with whitish pubescence and longer pale setae on edges.

Maxillary palpus ochre yellow, semi-glossy. Palpomeres short, widened apically, covered with pale setation. Last palpomere the largest, distinctly widened apically, axe-shaped with rounded apex.



Fig. 1. *Chlorophorus ngheanensis* sp. nov.: a- male holotype; b- male genitalia.

Fig. 2. *Chlorophorus inhumeralis* Pic, 1918: a- male from China (Hainan), (CPV); b- male genitalia.

Antennae narrow, reaching half elytral length. Antennomeres brown, slightly widened apically, with shallow small-sized punctation, covered with indistinct greyish pubescence (the longest on antennal scape), antennomeres 1-6 semi-glossy, antennomeres 7-11 semi-matte, antennomeres 2-5 with long yellowish setation on inner side. Antennomeres without spines. Antennomere 2 the shortest, antennomere 3 the longest, antennal scape relatively long. Ratios of relative lengths of antennomeres 1-11 equal to: 0.82 : 0.36 : 1.00 : 0.80 : 0.86 : 0.78 : 0.78 : 0.70 : 0.58 : 0.53 : 0.72.

Pronotum black, elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 1a). Pronotum 1.47 times longer than wide at base and 1.28 times longer than wide at the widest point (middle of pronotum), the narrowest at anterior margin. Lateral margins only slightly arcuate, anterior margin and base indistinctly undulate. Dorsal surface with dense, small-sized granulation with micropunctuation inside granules. Pronotum covered with recumbent, very short yellowish grey pubescence and semi-oval spot of black pubescence on bottom of pronotal disc (as in Fig. 1a). Pronotal disc slightly elevated at basal third. Pronotum with a few longer colorless setae on basal third.

Scutellum black, wide, oval, covered with very sparse whitish pubescence, margins narrowly with dense whitish pubescence.

Elytra 4.28 mm long and 1.82 mm wide (2.35 times longer than wide), black. Elytra narrowing apically, with sparse small-sized punctation, matte. Elytra covered with sparse black (with goldenish lustre) and greyish pubescence (as in Fig. 1a). Elytra with narrow longitudinal depression below scutellum. Apex truncate, indistinctly undulate, lateral and sutural angle with short sharp spine. Each elytron the longest in lateral apical angle. Apical margin with long yellowish setae.

Pygidium brown with narrowly pale brown apex, with dense, shallow small-sized punctation, covered with sparse, indistinct pale pubescence, margins with longer pale setae. Apex rounded.

Legs long and narrow, blackish brown, with small-sized shallow punctation, largely covered with sparse yellowish grey pubescence (meso- and metafemora partly glabrous on inner side) and long yellowish setation (the densest on apex of tibiae). Tibiae widened apically, profemora the widest, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi long and narrow, dark brown (claws and tibial spurs reddish brown), punctured with dense, small-sized shallow punctation, covered with yellowish grey pubescence and yellowish setation. Protarsi the widest, metatarsi the longest and the narrowest, metatarsomere 1 1.53 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from blackish brown (in coxae) to black (largely black), punctured with irregular small-sized punctation. Mesepisternum covered with dense white pubescence on apical half, metepisternum completely covered with dense white pubescence, metasternum and ventrites covered with slightly sparser white pubescence, ventrites 3-5 covered with sparse, pale shiny setation. Ventral side with a few erect colorless setae. Elytral epipleura black, distinctly undulate, covered with sparse, indistinct shiny pubescence.

Genitalia as in Fig. 1b.

**Female.** Unknown.

**Differential diagnosis.** The most similar species is *Chlorophorus inhumeralis* Pic, 1918 (Fig. 2). Other species of the genus *Chlorophorus* with similar drawing on elytra distinctly differ

from *C. ngheanensis* sp. nov. by different shape of pronotum (wider, mostly transverse with distinctly rounded lateral margins in other species).

*Chlorophorus ngheanensis* sp. nov. (based on comparison of males) differs from the similar species *C. inhumeralis* by different shape of pronotum (narrower with dark spots on pronotal disc in *C. ngheanensis*, while wider without dark spots in *C. inhumeralis*), by different shape of scutellum (distinctly lower in *C. ngheanensis*), by different shape of pubescent spots at basal elytral third (as in Figs. 1a and 2a) and by distinctly different shape of abdominal segment 8, tegmen and median lobe (as in Figs. 1b and 2b).

**Etymology.** Toponymic, named after the type locality, Nghe An province in Vietnam.

**Distribution.** Vietnam (Nghe An).

### ***Chlorophorus ostentator* sp. nov.**

(Figs. 3-4)

**Type locality.** China, Yunnan, Gongshan County, Galabo Village, Mt. Biluoxueshan, 27°45'9.66" N, 98°47'13.30" E.

**Type material.** Holotype (♂): 'Yunnan, CHINA' / 'Mt. Biluoxueshan, Galabo Village' / 'Gongshan County, 5-VI-2017, 2597 m' / '27°45'9.66" N, 98°47'13.30" E' / 'Sweep Flower, coll. Yinghui LI', (CPV); Paratypes: (1 ♀): same data as holotype, (CPV); (1 ♂): 'CHINA, Yunnan' / 'Deqin, Zha'an' / '17 km N of Feilaisi' / 'T. Tichý, 2000-3200m' / '7. VII. 2019', (CPV); (1 ♂): 'CHINA, Yunnan, Deqin,' / 'Zha'an 17 km N of Feilaisi,' / '2900-3200m, 3. + 7. 7. 2019' / 'lgt. T. Tichý', (CPK); (1 ♀): 'Xizang, CHINA' / 'Chayu County, Chawalong Township' / 'Longpu Village, Mt. Tangdulaka' / '14-VIII-2017, 3050 m,' / '28°33'16.59" N, 98°28'23.98" E' / 'coll. Yinghui LI', (CPV).

The types are provided with a printed red label: '*Chlorophorus ostentator* sp. nov.' / 'HOLOTYPE [respective PARATYPE]' / 'P. Viktora def., 2023'.

**Description.** Habitus of male holotype as in Fig. 3a. Body from brown to black (largely black), elongate, parallel, punctate, with pubescence. Body length from head to elytral apex 12.48 mm (male paratypes from 11.9 to 12.0 mm), the widest at humeral part of elytra (3.1 mm), 4 times longer than wide.

Head black, narrow, the widest through eyes, narrower than pronotum at the widest point. Dorsal surface with relatively coarser granulate punctation, partly with larger punctures (between eyes). Head covered with long yellow and pale yellowish pubescence (pale pubescence near anterior margin and below eyes). Interspace between antennal insertions narrow, antennal insertions prolonged into a distinct spine on inner side. Eyes goldenish brown, strongly emarginate. Clypeus and labrum dirty pale brown, shiny, with long yellowish setation on edges. Mandibles black, shiny, with whitish pubescence and very long pale setae on edges. Head largely covered with sparse, erect, very long colorless setae.

Maxillary palpus brown. Palpomeres short, widened apically, covered with sparse yellowish setation. Last palpomere the longest and the largest, distinctly widened apically, axe-shaped with rounded apex.

Antennae narrow, reaching three fifths elytral length. Antennomeres blackish brown, widened and rounded apically, with shallow small-sized punctation, covered with relatively dense yellowish grey pubescence (longer on antennomeres 1-4), antennomeres with yellowish setation on inner side (the longest on antennomeres 1-5). Antennomeres without spines. Antennomere 2 the shortest, antennomere 5 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 1.00 : 0.33 : 1.00 : 1.00 : 1.08 : 1.00 : 1.03 : 0.86 : 0.85 : 0.66 : 0.91.

Pronotum black, elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 3a).

Pronotum 1.32 times longer than wide at base and 1.15 times longer than wide at the widest point (middle of pronotum), the narrowest at anterior margin. Lateral margins only slightly arcuate, anterior margin and base indistinctly undulate (almost straight). Dorsal surface with dense, small-sized granulation and microgranulation. Pronotum almost completely covered with recumbent yellow pubescence and sparse, erect, long yellowish setation, pronotal disc with small elevation at basal quarter.



Fig. 3. *Chlorophorus ostentator* sp. nov.: a- male holotype; b- male genitalia.  
Fig. 4. *Chlorophorus ostentator* sp. nov.: female paratype.

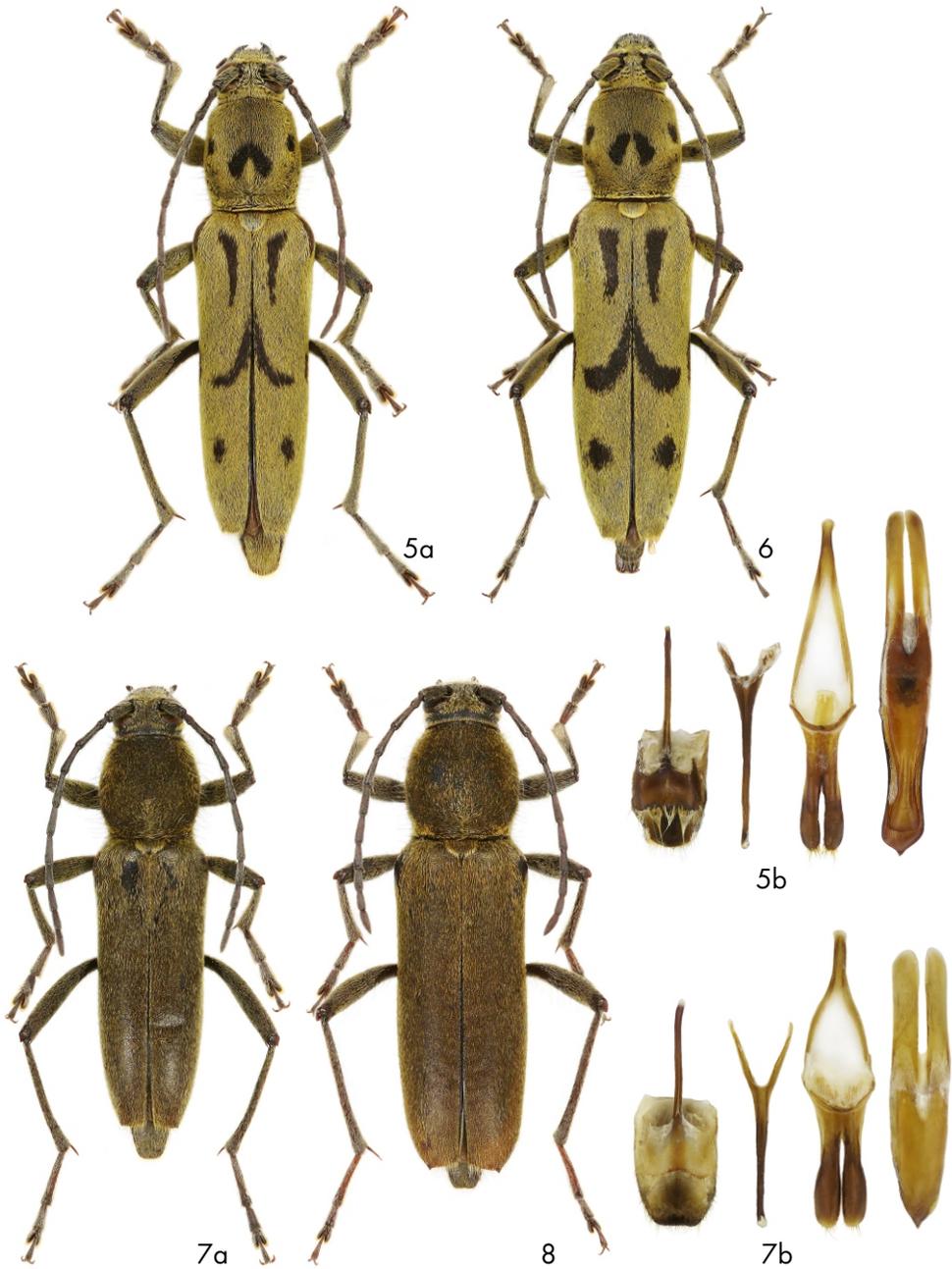


Fig. 5. *Chlorophorus tixieri* (Pic, 1902): a- male from China (Yunnan), (CPV); b- male genitalia.

Fig. 6. *Chlorophorus tixieri* (Pic, 1902): female from China (Yunnan), (CPV).

Fig. 7. *Chlorophorus trivialis* Holzschuh, 2010: a- male from China (Yunnan), (CPV); b- male genitalia.

Fig. 8. *Chlorophorus trivialis* Holzschuh, 2010: female from China (Yunnan), (CPV).

Scutellum black, wide, oval, covered with recumbent yellow pubescence.

Elytra 8.11 mm long and 3.1 mm wide (2.61 times longer than wide), black. Elytra indistinctly narrowing apically, with dense small-sized granulate punctation, glossy. Elytra covered with recumbent yellow pubescence and black pubescence on four dark places on each elytron (as in Fig. 3a). Elytra with longitudinal depression below scutellum. Apex truncate, gently undulate, lateral and sutural angle angled without distinct spine. Elytral apex with very long and dense yellow setation.

Pygidium blackish, with dense, shallow small-sized punctation, covered with sparse yellow pubescence, margins with long yellowish setae. Apex distinctly rounded.

Legs long and narrow, blackish brown, with small-sized shallow punctation, largely covered with pale yellowish pubescence (metafemora partly glabrous on inner side) and long yellowish setation (the densest on apex of tibiae). Tibiae widened apically, profemora the widest, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi long and narrow (claws very long and distinct), blackish (claws and tibial spurs reddish brown), with very dense micropunctation/microgranulation, covered with yellowish pubescence and longer yellowish setation. Protarsi distinctly wider than meso- and metatarsi, metatarsomere 1 1.5 times longer than metatarsomeres 2 and 3 together.

Ventral side of body largely black, with irregular punctation, almost completely covered with dense yellow and whitish pubescence (pale pubescence narrowly on margins and coxae). Ventral side almost completely with sparse, erect, long colorless setation. Elytral epipleura black, slightly undulate, with micropunctation, covered with yellow pubescence.

Genitalia as in Fig. 3b.

**Female.** Habitus of female paratype as in Fig. 4. Body length from head to elytral apex (female paratypes) 14.0 mm. Colour of female similar to male. Female without distinct differences, protarsi narrower, antennae shorter than in male.

**Differential diagnosis.** The most similar species are *Chlorophorus tixieri* (Pic, 1902) (Figs. 5-6), *Chlorophorus moupinensis* (Fairmaire, 1888) and *Chlorophorus trivialis* Holzschuh, 2010 (Figs. 7-8).

*Chlorophorus ostentator* sp. nov. (based on comparison of males) differs from the similar species *C. tixieri* mainly by different shape of pronotum (more narrowing anteriorly in *C. ostentator*), by longer tarsi, by elytra with dark dots (elytra usually with narrow dark stripes at basal and middle part in *C. tixieri*), by pronotal disc without distinct dark spots (as in Figs. 3a and 5a), and by different shape of abdominal segment 8, tegmen and median lobe (as in Figs. 3b and 5b).

*C. ostentator* (based on comparison of males) differs from the similar species *C. moupinensis* mainly by shape of pronotum (more narrowing anteriorly in *C. ostentator*), by elytra with dark dots (elytra usually with curved dark stripes at basal and middle part in *C. moupinensis*), by wider scutellum, by pronotal disc without distinct dark spots and by shape of abdominal segment 8, tegmen and median lobe (*C. moupinensis* has tegmen and median lobe similar in shape to *C. tixieri* - as in Fig. 5b).

*C. ostentator* (based on comparison of males) differs from the similar species *C. trivialis* mainly by shape of pronotum (more elongate with less arcuate lateral margins in *C. ostentator*), by longer tarsi, by elytra with dark dots (elytra usually completely spotless in *C. trivialis*) (as in Figs. 3a and 7a), and by shape of abdominal segment 8 and tegmen (as in Figs. 3b and 7b).

**Etymology.** From Latin *ostentator* (it means "braggart").

**Distribution.** China (Xizang, Yunnan).

## Genus *Demonax* Thomson, 1861

**Type species:** *Demonax nigrofasciatus* J. Thomson, 1861.

### *Demonax invalidus* sp. nov.

(Fig. 9)

**Type locality.** China, Yunnan, Mt. Gaoligongshan, Gongshan County, Bingzhongluo Town, Qiunatong Village, 1794 m alt., 28°5'37.93'' N, 98°34'18.75'' E.

**Type material.** Holotype (♂): 'Yunnan, CHINA' / 'Mt. Gaoligongshan, Qiunatong Village' / 'Bingzhongluo Town, Gongshan County' / '12-VII-2017' / '1794 m, 28°5'37.93'' N, 98°34'18.75'' E' / 'Sweep Flower, Ligustrum sp., coll. Yinghui Li', (CPV); Paratypes: (4 ♂♂): same data as holotype, (CPV).

The types are provided with a printed red label: '*Demonax invalidus* sp. nov.' / 'HOLOTYPE [respective PARATYPE]' / 'P. Viktora det., 2023'.

**Description.** Habitus of male holotype as in Fig. 9a. Body from brown to black, elongate, parallel, punctate, with pubescence. Body length from head to elytral apex 7.21 mm (male paratypes from 7.2 to 7.8 mm), the widest at humeral part of elytra (1.67 mm), 4.31 times longer than wide.

Head black with narrowly brown anterior margin, narrow, the widest through eyes, narrower than pronotum at the widest point. Dorsal surface with dense small-sized punctation (mainly on frons and anterior part) and irregular small-sized granulation (in posterior part). Head covered with yellowish green recumbent pubescence and long, sparse, erect pale yellowish setation. Interspace between antennal insertions narrow, antennal insertions prolonged into a sharp spine on inner side. Eyes goldenish, emarginate. Clypeus and labrum pale ochre yellow, shiny, partly punctured, with long yellowish setation on edges. Mandibles brown with black tip, shiny, with yellowish pubescence and long pale setae on edges.

Maxillary palpus pale reddish brown, semi-matte. Palpomeres short, widened apically, with a few short pale setae. Last palpomere the longest and the largest, large, distinctly widened apically, widely axe-shaped with rounded apex.

Antennae narrow, reaching five sevenths elytral length. Antennomeres dark brown, widened apically, with shallow small-sized punctation, antennomeres 1-5 covered with sparse yellowish grey pubescence (the longest on antennal scape), antennomeres 6-11 with indistinct, very short shiny pubescence. Antennomeres 1-6 semi-glossy, remainder of antennomeres semi-matte, antennomeres 2-7 with long yellowish setation on inner side. Antennomeres 3-5 with long, narrow sharp spines (spine on antennomere 4 the longest, spine on antennomere 5 the shortest). Antennomere 2 the shortest, antennomere 3 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.52 : 0.30 : 1.00 : 0.82 : 0.85 : 0.77 : 0.71 : 0.55 : 0.57 : 0.52 : 0.71.

Pronotum black, elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 9a). Pronotum 1.63 times longer than wide at base and 1.21 times longer than wide at the widest point (middle of pronotum). Lateral margins slightly arcuate, anterior margin and base almost straight. Dorsal surface with dense, small-sized reticulation, cells with micropunctation inside. Pronotum covered with recumbent yellowish green and dark shiny pubescence (in large dark spot on pronotal disc) (as in Fig. 9a). Pronotum with a few long, erect pale setae.

Scutellum black, triangular, covered with sparse yellowish green pubescence.

Elytra 4.52 mm long and 1.67 mm wide (2.7 times longer than wide), from brown in apex to black (largely black). Elytra almost parallel, shortly narrowing apically, with small-sized

punctuation, basal two thirds matte, apical third semi-glossy. Elytra covered with relatively sparse black (with goldenish lustre) and pale yellowish green pubescence (as in Fig. 9a). Apex truncate, undulate, lateral and sutural angle with short sharp spine. Each elytron the longest in lateral apical angle. Apical margin with long yellowish setae.



Fig. 9. *Demonax invalidus* sp. nov.: a- male holotype; b- male genitalia.

Fig. 10. *Demonax antireductus* Pic, 1935: a- male from China (Sichuan), (CPV); b- male genitalia.

Pygidium dark brown with narrowly paler apex, semi-glossy, with shallow small-sized punctation, covered with sparse, pale yellowish green pubescence, margins with longer yellowish setae. Apex gently rounded.

Legs long and narrow, blackish brown, with small-sized shallow punctation, largely covered with sparse yellowish green pubescence (meso- and metafemora partly glabrous on inner side) and long pale yellowish setation (the densest on apex of tibiae). Tibiae slightly widened apically, profemora the widest, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi long and narrow, brown (claws and tibial spurs pale reddish brown), with dense, small-sized shallow punctation, covered with pale yellowish setation. Metatarsi the longest, metatarsomere 1 1.68 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from brown (in coxae) to black (largely black), partly with small-sized punctation, partly covered with large spots of dense pale yellowish pubescence (in mesepisternum, metepisternum, metasternum and ventrites 1-2), ventrites 3-5 covered with long yellowish setation. Ventral side with a few distinct, long, erect colorless setae (mainly on ventrites). Elytral epipleura blackish, distinctly undulate, very narrow apically, covered with very short, indistinct shiny pubescence.

Genitalia as in Fig. 9b.

**Female.** Unknown.

**Differential diagnosis.** The most similar species is *Demonax antireductus* Pic, 1935 (Fig. 10). *Demonax invalidus* sp. nov. (based on comparison of males) differs from the similar species *D. antireductus* by shape of pronotum (narrower, more elongate pronotum with less arcuate lateral margins in *D. invalidus*), by antennomeres 3-5 with long, narrow sharp spines (spine on antennomere 5 short and indistinct in *D. antireductus*), by colour of pale pubescence on elytra (yellowish green pubescence in *D. invalidus* while grey pubescence in *D. antireductus*) (as in Figs. 9a and 10a), and by shape of abdominal segment 8, tegmen and median lobe (as in Figs. 9b and 10b).

**Etymology.** From Latin *invalidus* (it means "helpless").

**Distribution.** China (Yunnan).

### ***Demonax lii* sp. nov.**

(Figs. 11-12)

**Type locality.** China, Yunnan, Gongshan County, Galabo Village, Mt. Biluoxueshan, 27°45'9.66" N, 98°47'13.30" E.

**Type material.** Holotype (♂): 'Yunnan, CHINA' / 'Mt. Biluoxueshan, Galabo Village' / 'Gongshan County, 30-V-2017, 2597 m' / '27°45'9.66" N, 98°47'13.30" E' / 'Sweep Flower, coll. Yinghui Li', (CPV); Paratypes: (3 ♂♂, 1 ♀): same data as holotype, (CPV).

The types are provided with a printed red label: '*Demonax lii* sp. nov.' / 'HOLOTYPE [respective PARATYPE]' / 'P. Viktora det., 2023'.

**Description.** Habitus of male holotype as in Fig. 11a. Body from blackish brown to black, elongate, almost parallel, punctate, with pubescence. Body length from head to elytral apex 8.0 mm (male paratypes from 7.4 to 8.65 mm), the widest at humeral part of elytra (1.84 mm), 4.34 times longer than wide.

Head black, narrow, the widest through eyes, narrower than pronotum at the widest point. Dorsal surface with dense small-sized granulation. Head covered with whitish and yellowish grey recumbent pubescence. Interspace between antennal insertions narrow, antennal insertions prolonged into a sharp spine on inner side. Eyes goldenish, emarginate. Clypeus and labrum pale ochre yellow, shiny, partly punctured, with long yellowish setation on edges. Mandibles brown with blackish margins and tip, shiny, with whitish pubescence and longer pale setae on edges.

Maxillary palpus pale ochre yellow, semi-matte. Palpomeres short, widened apically, covered with indistinct pale setation. Last palpomere the longest and the largest, widened apically with rounded apex.

Antennae narrow, reaching five sixths elytral length. Antennomeres blackish brown, slightly widened apically, with shallow small-sized punctation, covered with pale greyish pubescence (the longest on antennal scape), antennomeres 1-4 semi-glossy, antennomeres 2-6 with long yellowish setation on inner side. Antennomeres without spines (antennomeres 3-4 with sharp angle on inner side of apex), antennomeres 1-2 rounded apically. Antennomere 2 the shortest, antennomere 3 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.59 : 0.26 : 1.00 : 0.73 : 0.90 : 0.86 : 0.82 : 0.71 : 0.56 : 0.62 : 0.62.

Pronotum black, elongate, distinctly narrower than elytra at humeri (shape of pronotum as in Fig. 11a). Pronotum 1.6 times longer than wide at base and 1.24 times longer than wide at the widest point (before middle of pronotum from base to apex). Lateral margins slightly arcuate, anterior margin and base almost straight. Dorsal surface with dense, small-sized granulate punctation with microgranulation between granules. Pronotum covered with recumbent yellowish grey and dark whitish pubescence (narrowly the densest near basal margin as in Fig. 11a). Pronotum with a few long colorless setae on basal third.

Scutellum black, triangular, covered with dense whitish pubescence.

Elytra 5.2 mm long and 1.84 mm wide (2.82 times longer than wide), black with blackish brown margins and apex. Elytra only slightly narrowing apically, with small-sized punctation, basal third matte, apical two thirds semi-glossy. Elytra covered with sparse black (with goldenish lustre), yellowish grey and dense whitish pubescence (as in Fig. 11a). Apex truncate, slightly undulate, lateral and sutural angle with short sharp spine. Apical margin with long yellowish setae.

Pygidium dirty pale brown, with dense, shallow small-sized punctation, covered with sparse, indistinct pale pubescence, margins with yellowish setae. Apex rounded.

Legs very long and narrow, blackish brown, with small-sized shallow punctation, largely covered with sparse greyish pubescence (meso- and metafemora partly glabrous on inner side) and long yellowish setation (the densest on apex of tibiae). Tibiae widened apically, profemora the widest, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi long and narrow, dark brown (claws and tibial spurs pale reddish brown), with dense, small-sized shallow punctation, covered with yellowish setation. Metatarsi the longest, metatarsomere 1 1.96 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from blackish brown to black (largely black), partly with small-sized punctation, partly covered with large spots of dense whitish pubescence (in mesepisternum, metepisternum, metasternum and ventrites 1-2), ventrites 3-5 covered with long yellowish setation. Ventral side with a few long, erect pale setae (mainly on ventrites). Elytral epipleura blackish, slightly undulate, narrow, covered with short pale pubescence on basal half and indistinct pale setation on apical half.

Genitalia as in Fig. 11b.

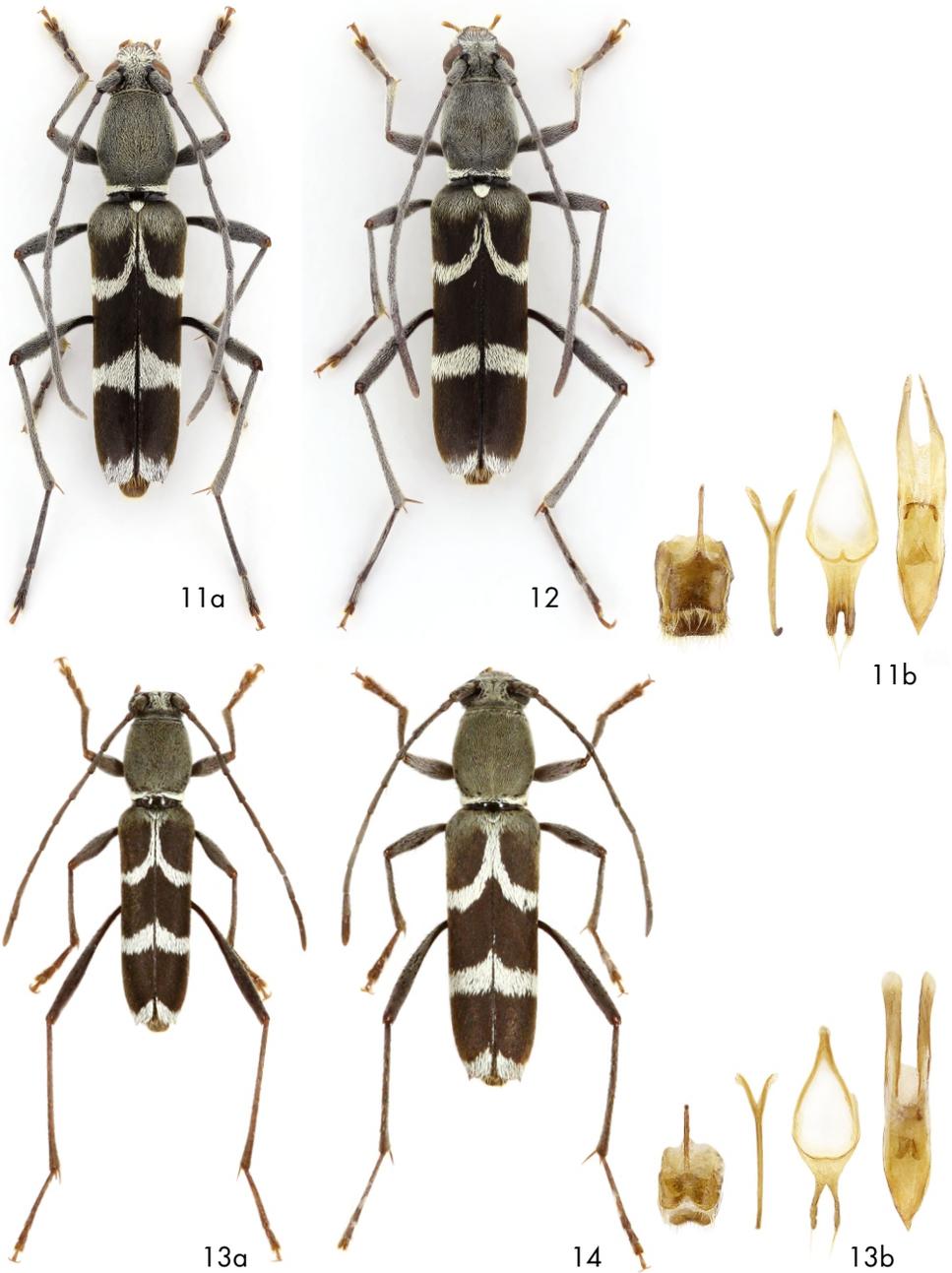


Fig. 11. *Demonax lii* sp. nov.: a- male holotype; b- male genitalia.

Fig. 12. *Demonax lii* sp. nov.: female paratype.

Fig. 13. *Demonax parilis* Holzschuh, 1995: a- male from China (Yunnan), (CPV); b- male genitalia.

Fig. 14. *Demonax parilis* Holzschuh, 1995: female from China (Yunnan), (CPV).

**Female.** Habitus of female paratype as in Fig. 12. Body length from head to elytral apex 7.2 mm. Colour of female similar to male. Female without distinct differences, protarsi shorter and narrower, antennae shorter than in male.

**Differential diagnosis.** The most similar species is *Demonax parilis* Holzschuh, 1995 (Figs. 13-14).

*Demonax lii* sp. nov. (based on comparison of males) differs from the similar species *D. parilis* by larger body, by more distinct scutellum covered with denser whitish pubescence, by distinctly longer tarsi, by shape of pronotum (distinctly narrower at anterior margin in *D. lii*) (as in Figs. 11a and 13a), and by shape of abdominal segment 8 and tegmen (as in Figs. 11b and 13b).

**Etymology.** This new species is dedicated to Yinghui Li, an excellent insect collector, who collected this species.

**Distribution.** China (Yunnan).

***Demonax paululus* sp. nov.**

(Fig. 15)

**Type locality.** China, Hainan, Ledong Li Autonomous County, Jianfeng Township, Mt. Jianfengling (main peak), 18°43'0.85''N, 108°52'17.74''E.

**Type material.** Holotype (♂): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '3-11-V-2018' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'Stop flying, coll. Yinghui Li', (CPV).

The type is provided with a printed red label: '*Demonax paululus* sp. nov.' / 'HOLOTYPE' / 'P. Viktora det., 2023'.

**Description.** Habitus of male holotype as in Fig. 15a. Body from brown to black, elongate, parallel, punctate, with pubescence. Body length from head to elytral apex 4.86 mm, the widest at humeral part of elytra (0.97 mm), 5 times longer than wide.

Head from dark brown in anterior margin to black, narrow, the widest through eyes, narrower than pronotum at the widest point. Dorsal surface with dense, irregular, small-sized granulate punctation. Head covered with whitish pubescence on frons, anterior part and below eyes. Head with a few long colorless setae on anterior part. Interspace between antennal insertions narrow, antennal insertions prolonged into a sharp spine on inner side. Eyes goldenish, emarginate. Clypeus and labrum pale yellowish, shiny, partly punctured, with long yellowish setation on edges. Mandibles ochre yellow with narrowly blackish tip, shiny, with whitish pubescence and long colorless setae on edges.

Maxillary palpus pale ochre yellow, semi-glossy, with micropunctuation and sparse yellowish setation. Palpomeres short, widened apically, last palpomere the longest and the largest, distinctly widened apically, widely axe-shaped with rounded apex.

Antennae narrow, reaching two thirds elytral length. Antennomeres reddish brown, widened apically, with small-sized punctation (more distinct on antennal scape), covered with indistinct, sparse pale pubescence, antennomeres without distinct lustre. Antennomeres partly with yellowish setation on inner side. Antennomeres 3-4 with short wide spine on inner side of apex (both similar lengths), antennomeres 9-11 are significantly wider than previous antennomeres 2-8. Antennomere 2 the shortest, antennomere 3 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.55 : 0.26 : 1.00 : 0.68 : 0.84 : 0.68 : 0.69 : 0.54 : 0.50 : 0.42 : 0.49.

Pronotum black, only indistinctly elongate (almost symmetrical), slightly narrower than elytra at humeri (shape of pronotum as in Fig. 15a). Pronotum 1.65 times longer than wide at base and 1.16 times longer than wide at the widest point (middle of pronotum), the narrowest at base. Lateral margins arcuate, anterior margin and base almost straight. Dorsal surface reticulated (cells with micropunctuation inside), covered with very short pubescence with lustre (essentially invisible) and dense white pubescence in distinct basal stripe (as in Fig. 15a), white stripe continues along entire lateral sides (invisible from dorsal view).



15a



16a



15b



16b

Fig. 15. *Demonax paululus* sp. nov.: a- male holotype; b- male genitalia.

Fig. 16. *Demonax vilis* Holzschuh, 1991: a- male from Thailand (Chiang Mai), (CPV); b- male genitalia.

Scutellum black, small, shield-shaped, covered with white pubescence.

Elytra 3.23 mm long and 0.97 mm wide (3.33 times longer than wide), parallel (only shortly narrowing apically), blackish with narrowly pale ochre apex. Basal two thirds elytral length semi-matte, apical third semi-glossy. Elytra with dense small-sized punctation, covered with very short dark pubescence with lustre and stripes of dense white pubescence (as in Fig. 15a). Apex truncate, lateral and sutural angle with indistinct short spine. Apical margin with pale setation.

Pygidium brown with narrowly paler apex, with dense, shallow small-sized punctation, covered with sparse whitish pubescence, margins with pale setae. Apex rounded.

Legs very long and narrow, dark reddish brown, with shallow punctation, partly covered with very sparse, short, indistinct pale pubescence and longer yellowish setation (the densest on apex of tibiae). Tibiae widened apically, femora narrowly club-shaped, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi narrow, reddish brown (including claws), metatarsi the longest. Tibial spurs pale ochre yellow, protibial spurs short and not sharp, meso- and metatibial spurs long, narrow and sharp. Tarsi with dense, small-sized punctation, covered with pale setation. Metatarsomere 1 2.16 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from brown (coxae) to black (largely dark brown), with small-sized irregular punctation, partly covered with large spots of dense white pubescence (in mesepisternum, metepisternum, metasternum and ventrites 1-2), ventrites 3-5 covered with sparse pale yellowish setation. Elytral epipleura narrow, blackish in basal part, brown in apical half, slightly undulate, covered with short, indistinct shiny pubescence.

Genitalia as in Fig. 15b.

**Female.** Unknown.

**Differential diagnosis.** The most similar species are *Demonax vilis* Holzschuh, 1991 (Fig. 16) and *Demonax perturbatus* sp. nov. (Figs. 17-18).

*Demonax paululus* sp. nov. (based on comparison of males) differs from the similar species *D. vilis* mainly by smaller, narrower and more elongate body, by narrower pronotum, by darker antennomeres 1-4, by scutellum covered with denser white pubescence, by shape and placement of white pubescent stripes on elytra (transverse white stripe at basal elytral third which reaching lateral margins and preapical transverse stripe in *D. paululus* while transverse white stripe at basal elytral third which distinctly not reaching lateral margins and elytral apex without white stripe in *D. vilis*) (as in Figs. 15a and 16a), and by shape of abdominal segment 8, tegmen and median lobe (as in Figs. 15b and 16b).

*D. paululus* (based on comparison of males) differs from the similar species *D. perturbatus* mainly by smaller, narrower and more elongate body, by narrower pronotum, by darker antennae, by shorter metatarsi, by shape and placement of white pubescent spots and stripes on elytra (transverse white stripe at basal elytral third which reaching lateral margins and preapical transverse stripe in *D. paululus* while transverse white stripe at basal elytral third which not reaching lateral margins and white spot at elytral apical margin in *D. perturbatus*) (as in Figs. 15a and 17a), and by shape of abdominal segment 8, tegmen and median lobe (as in Figs. 15b and 17b).

**Etymology.** From Latin *paululus* (it means "tiny").

**Distribution.** China (Hainan).

***Demonax perturbatus* sp. nov.**

(Figs. 17-18)

**Type locality.** Cambodia, 25 km SE of Sen Monorom, 12°21.23093' N, 107°17.59453' E.**Type material.** Holotype (♂): 'E Cambodia' / '25 km SE of Sen Monorom' / 'N 12°21.23093', E 107°17.59453'' / '840 m, 13. V. 2019' / 'P. Viktora lgt.', (CPV); Paratypes: (1 ♂, 4 ♀♀): same data as holotype, (CPV); (2 ♂♂, 1 ♀): 'E Cambodia' / '25 km SE of Sen Monorom' / 'N 12°21.23093', E 107°17.59453'' / '840 m, 19. - 21. V. 2019' / 'P. Viktora lgt.', (CPV); (1 ♂, 1 ♀): 'E Cambodia, 25 km SE of' / 'Sen Monorom, 840 m, N 12°' / '21.23093' E 107°17.59453'' / '7. - 13. and 19. - 21. V.' / '2019, leg. P. Kabátek', (CPK); (1 ♀): 'E Cambodia, 13 km N of' / 'Sen Monorom, 600 m, N 12°' / '31.117', E 107°15.23450'' / '9. - 14. and 22. - 24. V.' / '2019, leg. P. Kabátek', (CPK). The types are provided with a printed red label: '*Demonax perturbatus* sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' / 'P. Viktora det., 2023'.**Description.** Habitus of male holotype as in Fig. 17a. Body from brown to black, elongate, parallel, punctate, with pubescence. Body length from head to elytral apex 4.72 mm (male paratypes from 4.35 to 5.7 mm), the widest at humeral part of elytra (1.0 mm), 4.72 times longer than wide.

Head from brown in anterior margin to black, narrow, the widest through eyes, narrower than pronotum at the widest point. Dorsal surface with dense, irregular, small-sized granulate punctation. Head covered with white pubescence on frons, anterior part and below eyes. Interspace between antennal insertions narrow, antennal insertions prolonged into a spine on inner side. Eyes goldenish, emarginate. Clypeus and labrum pale yellowish, shiny, partly punctured, with long yellowish setation on edges. Mandibles ochre yellow with narrowly blackish tip, shiny, with white pubescence and long colorless setae on edges.

Maxillary palpus pale ochre yellow, semi-matte, with micropunctation and short yellowish setation. Palpomeres short, slightly widened apically, last palpomere the longest and the largest, distinctly widened apically, axe-shaped with rounded apex.

Antennae narrow, reaching three quarters elytral length. Antennomeres 1-2 pale reddish brown (antennal scape slightly darker on dorsal side), antennomeres 3-8 annulate (pale reddish brown with brown apex), antennomeres 9-11 brown. Antennomeres widened apically, with dense small-sized punctation, covered with indistinct, very short pale pubescence, antennomeres 1-4 semi-glossy. Antennomeres 2-4 partly with yellowish setation on inner side. Antennomeres 3 and 5 with short wide spine on inner side of apex (both similar lengths), antennomere 4 with twice as long sharp spine on inner side of apex. Antennomere 2 the shortest, antennomere 3 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.48 : 0.33 : 1.00 : 0.73 : 0.92 : 0.78 : 0.72 : 0.58 : 0.54 : 0.48 : 0.61.

Pronotum black, indistinctly elongate, slightly narrower than elytra at humeri (shape of pronotum as in Fig. 17a). Pronotum 1.71 times longer than wide at base and 1.19 times longer than wide at the widest point (approximately middle of pronotum), the narrowest at base. Lateral margins arcuate, anterior margin and base almost straight. Dorsal surface reticulated (cells with micropunctation inside), covered with very short pubescence with lustre (essentially invisible) and dense white pubescence in distinct basal stripe (as in Fig. 17a), white stripe continues along entire lateral sides as more vague stripe (invisible from dorsal view).

Scutellum black, small, triangular, covered with white pubescence.

Elytra 3.1 mm long and 1.0 mm wide (3.1 times longer than wide), shortly narrowing apically, blackish with paler apex. Basal two thirds elytral length semi-matte, apical third semi-glossy. Elytra punctured with dense small-sized punctation, with very short dark pubescence with lustre and stripes of dense white pubescence (as in Fig. 17a). Apex truncate, lateral and sutural angle with short spine.

Pygidium pale ochre yellow, shiny, with dense, shallow small-sized punctation, covered with sparse pale pubescence. Apex rounded.



17a



18



17b

Fig. 17. *Demonax perturbatus* sp. nov.: a- male holotype; b- male genitalia.

Fig. 18. *Demonax perturbatus* sp. nov.: female paratype.

Legs very long and narrow, from pale reddish brown to dark brown meso- and metafemora, with shallow small-sized punctation, partly covered with short pale yellowish pubescence with lustre and longer yellowish setation (the densest on apex of tibiae). Tibiae widened apically (meso- and metatibiae distinctly curved), femora narrowly club-shaped, metatibiae and

metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi narrow, pale reddish brown (including claws), metatarsi the longest. Tibial spurs pale ochre yellow, protibial spurs shorter with semi-rounded apex, meso- and metatibial spurs long, narrow and sharp. Tarsi with dense, small-sized punctation, covered with pale setation. Metatarsomere 1 2.27 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from brown (coxae) to black (largely blackish), with small-sized irregular punctation, partly covered with large spots of dense white pubescence (apical four fifths of mesepisternum, apical halves of metepisternum and metasternum, and apical three fifths of ventrites 1), remainder of ventrites covered with indistinct, short pale setation. Elytral epipleura brown, distinctly undulate, covered with short, indistinct shiny pubescence.

Genitalia as in Fig. 17b.

**Female.** Habitus of female paratype as in Fig. 18. Body length from head to elytral apex (female paratypes) from 4.75 to 6.0 mm. Colour of female similar to male. Differences are in pubescence of head. Male has distinct, dense white pubescence on frons, anterior part of head and below eyes, while female has only indistinct, very sparse, pale yellowish recumbent pubescence on anterior part of head and below eyes. Female has pronotum less elongate, antennae shorter than in male.

**Differential diagnosis.** The most similar species are *Demonax paululus* sp. nov. (Fig. 15) and *Demonax vilis* Holzschuh, 1991 (Fig. 16).

*D. perturbatus* (based on comparison of males) differs from the similar species *D. paululus* mainly by larger, wider and less elongate body, by wider pronotum, by paler, distinctly annulate antennomeres (pale reddish brown with brown apex), by longer metatarsi, by shape and placement of white pubescent spots and stripes on elytra (transverse white stripe at basal elytral third which not reaching lateral margins and white spot at elytral apical margin in *D. perturbatus* while transverse white stripe at basal elytral third which reaching lateral margins and preapical transverse stripe in *D. paululus*) (as in Figs. 15a and 17a), and by shape of abdominal segment 8, tegmen and median lobe (as in Figs. 15b and 17b).

*D. perturbatus* sp. nov. (based on comparison of males) differs from the similar species *D. vilis* mainly by longer antennae, by shape of last palpomere, by scutellum covered with denser white pubescence, by shape of protibial spurs (wider with differently shaped tip in *D. perturbatus*), by shape and placement of white pubescent stripes on elytra (transverse white stripe at basal elytral third which not reaching lateral margins and white spot at elytral apical margin in *D. perturbatus* while transverse white stripe at basal elytral third which distinctly not reaching lateral margins and elytral apex without white spot in *D. vilis*) (as in Figs. 16a and 17a), and by shape of abdominal segment 8, tegmen and median lobe (as in Figs. 16b and 17b).

**Etymology.** From Latin *perturbatus* (it means "confused").

**Distribution.** Cambodia (Mondulhiri).

***Demonax dongensis* sp. nov.**

(Figs. 19-20)

**Type locality.** W Malaysia, Pahang, Benom Mts., 15 km E Kampong Dong, 3°53' N, 102°01' E.

**Type material.** Holotype (♂): 'W MALAYSIA; PAHANG' / 'Benom Mts; 3,53N 102,01E;' / '15km E Kampong Dong;' / '24.iii.-15.iv. 1998; 300-1000m;' / 'Dembický & Pacholátko leg.', (CLD); Paratype: (1 ♀): same data as holotype, (CPV). The types are provided with a printed red label: 'Demonax dongensis sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' / 'P. Viktora det., 2023'.

**Description.** Habitus of male holotype as in Fig. 19a. Body largely brown, elongate, narrow, almost parallel, punctate, with pubescence. Body length from head to elytral apex 5.8 mm, the widest at humeral part of elytra (1.32 mm), 4.4 times longer than wide.

Head brown (anterior margin and antennal insertions partly pale brown), narrow, the widest through eyes, narrower than pronotum at the widest point. Dorsal surface with shallow, small-sized, partly granulate irregular punctation, frons with narrow longitudinal furrow in middle. Head covered with sparse, recumbent yellowish grey pubescence. Interspace between antennal insertions relatively wide within the genus *Demonax*, antennal insertions prolonged into a small spine on inner side. Eyes goldenish, strongly emarginate. Clypeus and labrum pale ochre yellow, shiny, partly punctured, with long yellowish setation on edges. Mandibles pale ochre yellow with blackish outer margin and tip, shiny, with long yellowish setation on edges.

Maxillary palpus dirty pale yellow, semi-matte. Palpomeres short, widened apically, partly covered with indistinct pale setation. Last palpomere the longest and the largest, widened apically, axe-shaped with rounded apex.

Antennae narrow, reaching three quarters elytral length. Antennomeres brown (antennomeres 1-2 paler than remainder of antennomeres), slightly widened apically, with dense small-sized punctation, covered with pale yellowish pubescence (the longest on antennal scape, pubescence on antennomeres 6-11 very short and indistinct), antennomeres 2-4 with long yellowish setation on inner side. Antennomeres 3-4 with very long, not entirely sharp spine on inner side of apex (spines approximately equal in length). Antennomere 2 the shortest, antennomere 5 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.66 : 0.35 : 1.00 : 0.98 : 1.13 : 0.98 : 0.86 : 0.65 : 0.64 : 0.57 : 0.92.

Pronotum dark brown, elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 19a). Pronotum 1.78 times longer than wide at base and 1.24 times longer than wide at the widest point (before middle of pronotum from base to apex). Lateral margins slightly arcuate, anterior margin indistinctly arcuate, base almost straight. Dorsal surface with small-sized irregular granulate punctation (partly with larger granules arranged in longitudinal strips) with microgranulation in interspaces. Pronotum partly covered with short, recumbent yellowish grey pubescence (the densest in basal angles) and by darker pubescence with goldenish lustre (darker transverse spot on pronotal disc - as in Fig. 19a).

Scutellum dark brown, roundly triangular, covered with recumbent pale pubescence.

Elytra 3.7 mm long and 1.32 mm wide (2.8 times longer than wide), brown. Elytra only slightly narrowing apically, with small-sized punctation, humeral quarter matte, remainder of elytral surface semi-glossy. Elytra covered with whitish and blackish pubescence with goldenish lustre (as in Fig. 19a). Apex truncate, slightly undulate, lateral and sutral angle with short sharp spine. Apical margin with a few long yellowish setae.

Pygidium pale yellowish, semi-glossy, with dense shallow micropunctation, covered with very sparse, recumbent yellowish pubescence, margins with longer yellowish setae. Apex rounded.

Legs long and narrow, brown, with dense, shallow small-sized punctation, partly covered with indistinct goldenish pubescence and long yellowish setation (the densest on apex of tibiae). Meso- and metatibiae and meso- and metafemora with distinct, long, erect ochre yellow setae. Tibiae

widened apically, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi long and narrow, pale brown (first tarsomeres slightly darker basally), claws and tibial spurs pale ochre yellow. Tarsi with dense, small-sized punctation, covered with yellowish setation. Metatarsi the longest, metatarsomere 1 2.52 times longer than metatarsomeres 2 and 3 together.



Fig. 19. *Demonax dongensis* sp. nov.: a- male holotype; b- male genitalia.  
 Fig. 20. *Demonax dongensis* sp. nov.: female paratype.

Ventral side of body largely brown, with irregular, partly granulate small-sized punctation, partly covered with spots of dense whitish pubescence (in mesepisternum, metepisternum, metasternum and ventrite 1), remainder of ventrites covered with sparser, pale shiny setation. Elytral epipleura brown, narrow, slightly undulate, with very short, almost invisible shiny pubescence.

Genitalia as in Fig. 19b.

**Female.** Habitus of female paratype as in Fig. 20. Body length from head to elytral apex 6.65 mm. Colour of female similar to male. Female without distinct differences, protarsi shorter and narrower, antennae shorter than in male.

**Differential diagnosis.** The most similar species are *Demonax bakerioides* Dauber, 2006 (Fig. 23) and *Demonax analogicus* sp. nov. (Figs. 21-22).

*Demonax dongensis* sp. nov. (based on comparison of males) differs from the similar species *D. bakerioides* by less elongate body, by more robust pronotum, by shape and placement of pale pubescent stripes and spots on elytra (missing pale transversal stripe at elytral base and smaller pale spot at elytral apex in *D. dongensis*), by distinctly longer spines on antennomeres 3-4 (not entirely sharp spines in *D. dongensis* while sharp spines in *D. bakerioides*) (as in Figs. 19a and 23a), and by shape of abdominal segment 8, tegmen and median lobe (as in Figs. 19b and 23b). *D. dongensis* (based on comparison of males) differs from the similar species *D. analogicus* by less elongate body, by shape of pronotum (more elongate in *D. dongensis*), by shape and placement of pale pubescent stripes and spots on elytra, by distinctly longer spines on antennomeres 3-4 (not entirely sharp spines in *D. dongensis* while sharp spines in *D. analogicus*), by distinctly shorter metatarsi (as in Figs. 19a and 21a), and by distinctly shape of abdominal segment 8, tegmen and median lobe (as in Figs. 19b and 21b).

**Etymology.** Toponymic, named after the type locality, Dong village.

**Distribution.** Malaysia (Pahang).

***Demonax analogicus* sp. nov.**  
(Figs. 21-22)

**Type locality.** W Malaysia, Pahang, Cameron Highlands, Tanah Rata, Robinson Waterfall env., 4°27'52,06'' N, 101°23'30,16'' E.

**Type material.** Holotype (♂): 'W MALAYSIA, Pahang, 1500m' / 'Cameron Highlands, Tanah Rata' / 'Robinson Waterfall env.' / '4°27'52,06''N 101°23'30,16''E' / 'L. Dembický leg., 7.-28.iv.2013', (CLD); Paratype: (1 ♀): 'MALAYSIA; PAHANG;' / 'Cameron Highlands; 1500-1800m' / 'Tanah Rata; 4°28'N 101°23'E;' / 'P. Pacholátko leg.; 10.-20.ii.2000', (CPV).

The types are provided with a printed red label: '*Demonax analogicus* sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' / 'P. Viktora det., 2023'.

**Description.** Habitus of male holotype as in Fig. 21a. Body from brown to blackish brown (largely brown), elongate, narrow, almost parallel, punctate, with pubescence. Body length from head to elytral apex 7.22 mm, the widest at humeral part of elytra (1.57 mm), 4.6 times longer than wide.

Head from brown near anterior margin to black, narrow, the widest through eyes, narrower than pronotum at the widest point. Dorsal surface with shallow, small-sized irregular punctation

(stripe of more distinct granulate punctation near posterior margin). Head covered with sparse, recumbent whitish pubescence. Interspace between antennal insertions narrow, antennal insertions prolonged into a small sharp spine on inner side. Eyes brown, emarginate. Clypeus and labrum pale ochre yellow, shiny, partly punctured, with long yellowish setation on edges. Mandibles brown with narrowly blackish tip, shiny, with sparse whitish pubescence and long yellowish setation on edges.

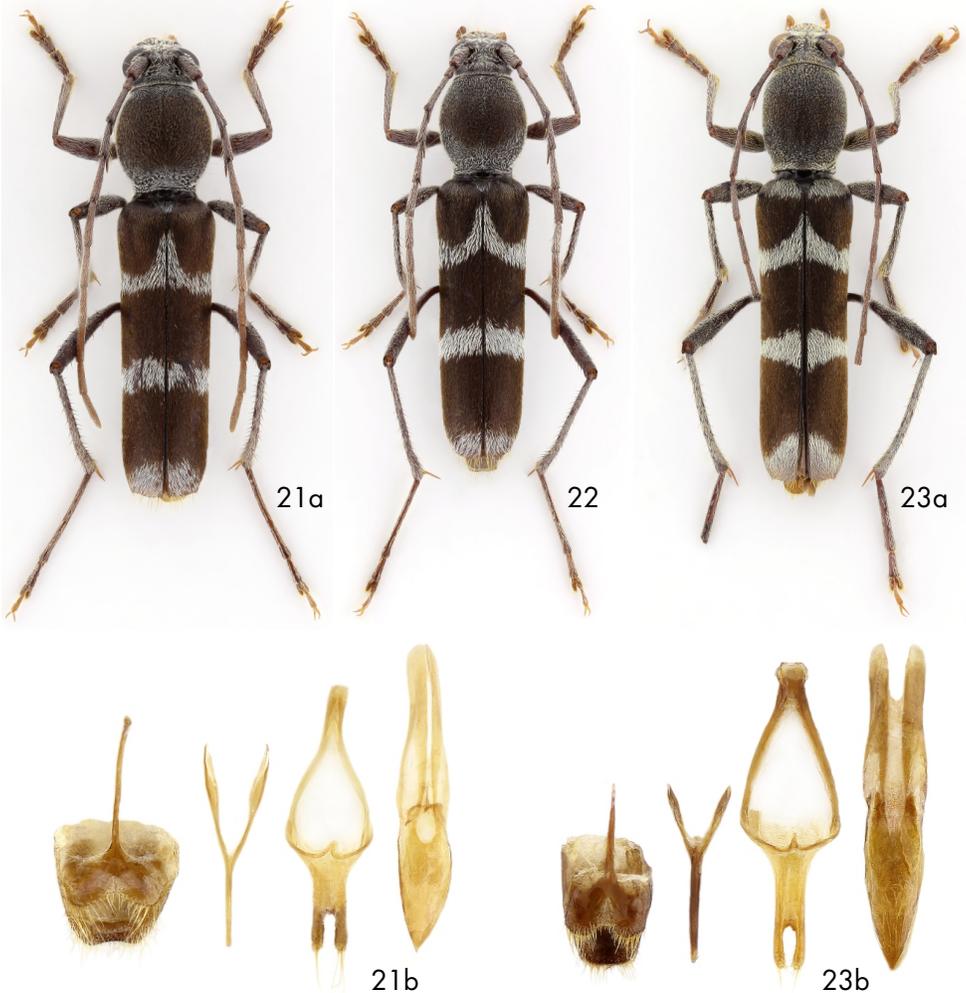


Fig. 21. *Demonax analogicus* sp. nov.: a- male holotype; b- male genitalia.

Fig. 22. *Demonax analogicus* sp. nov.: female paratype.

Fig. 23. *Demonax bakerioides* Dauber, 2006: a- male from Malaysia (Pahang), (CPV); b- male genitalia.

Maxillary palpus pale yellowish. Palpomeres short, widened apically, covered with yellowish setation. Last palpomere the longest and the largest, widened apically, axe-shaped with rounded apex.

Antennae narrow, reaching four fifths elytral length. Antennomeres brown (antennomeres 1-4

slightly darker than remainder of antennomeres), widened apically, with small-sized punctation, covered with short pale pubescence (the longest on antennal scape, pubescence on antennomeres 8-11 very short and indistinct), antennomeres 2-6 with long yellowish setation on inner side. Antennomeres 3-4 with long sharp spine on inner side of apex (spines approximately equal in length). Antennomere 2 the shortest, antennomere 5 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.72 : 0.31 : 1.00 : 0.83 : 1.07 : 1.04 : 1.00 : 0.82 : 0.87 : 0.75 : 0.99.

Pronotum blackish, only slightly elongate, indistinctly narrower than elytra at humeri (shape of pronotum as in Fig. 21a). Pronotum 1.62 times longer than wide at base and 1.1 times longer than wide at the widest point (middle of pronotum). Lateral margins arcuate, anterior margin and base almost straight. Dorsal surface with irregular granulate punctation in combinations with larger punctures, interspaces with microgranulation. Pronotum partly covered with short, recumbent whitish pubescence (the densest in basal angles) and by darker pubescence with goldenish lustre (forming large dark spot on pronotal disc - as in Fig. 21a). Pronotum with a few long, erect colorless setae in basal third.

Scutellum dark brown, roundly triangular, covered with sparse, recumbent whitish pubescence.

Elytra 4.72 mm long and 1.57 mm wide (3.0 times longer than wide), brown. Elytra only slightly narrowing apically, with small-sized punctation, humeral quarter matte, remainder of elytral surface semi-glossy. Elytra covered with whitish and dark pubescence with goldenish lustre (as in Fig. 21a). Apex truncate, slightly undulate, lateral and sutral angle with very short sharp spine. Apical margin with a few long yellowish setae.

Pygidium pale yellowish, semi-glossy, with dense shallow micropunctation, covered with very sparse, recumbent yellowish pubescence, margins with longer yellowish setae. Apex rounded.

Legs long and narrow, brown, with dense, shallow small-sized punctation, partly covered with whitish pubescence and long yellowish setation (the densest on apex of tibiae). Meso- and metatibiae and meso- and metafemora with distinct, long, erect ochre yellow setae. Tibiae widened apically, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi long and narrow, brown, claws and tibial spurs pale ochre yellow. Tarsi with dense small-sized punctation, partly covered with sparse pale pubescence and yellowish setation. Metatarsi the longest, very long and narrow, metatarsomere 1 2.54 times longer than metatarsomeres 2 and 3 together.

Ventral side of body largely brown, with irregular small-sized punctation, partly covered with spots of dense whitish pubescence (in mesepisternum, metepisternum, metasternum and ventrites 1-2), remainder of ventrites covered with goldenish setation. Elytral epipleura brown, narrow, slightly undulate, with very short, almost invisible pubescence.

Genitalia as in Fig. 21b.

**Female.** Habitus of female paratype as in Fig. 22. Body length from head to elytral apex 6.5 mm. Colour of female similar to male. Female without distinct differences, dark spot on pronotal disc smaller than in male (probably just variability), antennae shorter than in male.

**Differential diagnosis.** The most similar species are *Demonax bakerioides* Dauber, 2006 (Fig. 23) and *Demonax dongensis* sp. nov. (Figs. 19-20).

*Demonax analogicus* sp. nov. (based on comparison of males) differs from the similar species *D. bakerioides* by less elongate body, by shape of pronotum (wider and less elongate pronotum with more arcuate lateral margins in *D. analogicus*), by shape and placement of pale pubescent stripes and spots on elytra (missing pale transversal stripe at elytral base and smaller pale spot

at elytral apex in *D. analogicus*), by distinctly longer metatarsi (as in Figs. 21a and 23a), and by shape of abdominal segment 8, tegmen and median lobe (as in Figs. 21b and 23b).

*D. analogicus* (based on comparison of males) differs from the similar species *D. dongensis* by more elongate body, by shape of pronotum (less elongate with more arcuate lateral margins in *D. analogicus*), by shape and placement of pale pubescent stripes and spots on elytra, by distinctly shorter spines on antennomeres 3-4 (sharp spines in *D. analogicus* while not entirely sharp spines in *D. dongensis*), by distinctly longer metatarsi (as in Figs. 19a and 21a), and by shape of abdominal segment 8, tegmen and median lobe (as in Figs. 19b and 21b).

**Etymology.** From Latin *analogicus* (it means "analogical").

**Distribution.** Malaysia (Pahang).

***Demonax silvanus* sp. nov.**

(Fig. 24)

**Type locality.** Thailand, Chiang Mai province, Mae On district.

**Type material.** Holotype (♂): 'Thailand' / 'Chiang Mai' / 'Mae On District' / 'III. 2023, h=500m' / 'coll. I. Uchevatov', (CPV).

The type is provided with a printed red label: 'Demonax silvanus sp. nov.' / 'HOLOTYPUS' / 'P. Viktora det., 2023'.

**Description.** Habitus of male holotype as in Fig. 24a. Body from pale ochre yellow to black, elongate, almost parallel, punctate, with pubescence. Body length from head to elytral apex 8.38 mm, the widest at humeral part of elytra (1.8 mm), 4.65 times longer than wide.

Head from ochre yellow anterior margin to black (largely black), narrow, the widest through eyes, narrower than pronotum at the widest point. Dorsal surface with dense small-sized punctation and granulation (mainly in stripe of transverse wrinkling near posterior margin). Head partly covered with yellow recumbent pubescence. Interspace between antennal insertions narrow, antennal insertions prolonged into a spine on inner side. Eyes goldenish, emarginate. Clypeus and labrum pale ochre yellow, shiny, partly punctured, with yellowish setation on edges. Mandibles ochre yellow with blackish tip, shiny, with yellowish pubescence and longer pale setae on edges.

Maxillary palpus pale ochre yellow, semi-matte. Palpomeres short, widened apically, covered with sparse pale setation. Last palpomere the longest and the largest, distinctly widened apically, axe-shaped with rounded apex.

Antennae narrow, filiform, slightly exceeding elytral apex (as in Fig. 24a). Antennomeres 1-4 pale ochre yellow, remainder of antennomeres darker. Antennae with shallow, dense small-sized punctation, covered with indistinct, very short yellowish pubescence (the longest and more distinct on antennal scape), antennomeres 1-4 semi-glossy, antennomeres 5-11 semi-matte, antennomeres 2-4 with long yellowish setation on inner side. Antennomeres without spines, rounded apically, last five antennomeres indistinctly curved. Antennomere 2 the shortest, antennomere 5 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.57 : 0.25 : 1.00 : 0.86 : 1.21 : 1.19 : 1.14 : 1.07 : 0.94 : 0.84 : 0.88.

Pronotum black, elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 24a). Pronotum 1.66 times longer than wide at base and 1.35 times longer than wide at the widest point (middle of pronotum). Lateral margins slightly arcuate, anterior margin and base almost straight. Dorsal surface with dense, small-sized granulate punctation with micropunctation inside. Pronotum covered with recumbent yellow pubescence (the densest at basal angles), pronotal disc

with three elevated dark spots, covered with indistinct dark pubescence. (as in Fig. 24a).  
Pronotum with a few long yellowish setae in basal third.



Fig. 24. *Demonax silvanus* sp. nov.: a- male holotype; b- male genitalia.

Fig. 25. *Demonax manifestus* Viktora, 2020: a- male holotype, (CPV); b- male genitalia.

Scutellum black, widely shield-shaped, covered with dense yellow pubescence.

Elytra 5.26 mm long and 1.8 mm wide (2.92 times longer than wide), black. Elytra slightly narrowing apically, with small-sized punctation (interspaces between punctures microwrinkled), elytra largely semi-glossy. Elytra covered with black (with lustre) and yellow pubescence (as in Fig. 24a). Apex truncate, slightly undulate, lateral and sutural angle with short sharp spine. Apical margin with long yellowish setae.

Pygidium brown with narrowly ochre yellow apex, with dense, shallow small-sized punctation, covered with sparse yellow pubescence, margins with longer yellowish setae. Apex gently rounded.

Legs very long and narrow, from pale ochre yellow to blackish in metafemora, with small-sized shallow punctation, largely covered with short yellowish pubescence and long yellowish setation (the densest on apex of tibiae). Tibiae slightly widened apically, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi long and narrow, largely pale ochre yellow (metatarsi darker), claws and tibial spurs pale yellowish. Tarsi with dense, small-sized shallow punctation, covered with yellowish setation. Metatarsi the longest, metatarsomere 1 1.94 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from pale ochre yellow (in coxae) to black (largely black), with small-sized punctation, almost completely covered with dense pale yellow pubescence (paler than pubescence on dorsal surface). Ventral side of head and prosternum with long, colorless erect setae. Elytral epipleura black, very narrow, slightly undulate, covered with indistinct, dark short pubescence with lustre.

Genitalia as in Fig. 24b.

**Female.** Unknown.

**Differential diagnosis.** The most similar species is *Demonax manifestus* Viktora, 2020 (Fig. 25). *Demonax silvanus* sp. nov. (based on comparison of males) differs from the similar species *D. manifestus* mainly by distinctly more elongate body with more elongate elytra and pronotum, by pronotal disc with distinct dark spots (completely missing in *D. manifestus*), by shape of scutellum (lower and wider in *D. manifestus*), by shape of pubescent spots on elytra (as in Figs. 24a and 25a) and by shape of abdominal segment 8 and tegmen (as in Figs. 24b and 25b).

**Etymology.** From Latin *Silvanus* (it means "god of the forest").

**Distribution.** Thailand (Chiang Mai).

***Demonax spurcus* sp. nov.**

(Fig. 26)

**Type locality.** Vietnam, Kon Tum province, Ngoc Linh Mt.

**Type material.** Holotype (♂): 'Vietnam' / 'Kon Tum' / 'Ngoc Ling' / '5/2022', (CPV).

The type is provided with a printed red label: 'Demonax spurcus sp. nov.' / 'HOLOTYPUS' / 'P. Viktora det., 2023'.

**Description.** Habitus of male holotype as in Fig. 26a. Body from pale brown to black, elongate, narrow, almost parallel (slightly narrowing apically), punctate, with pubescence. Body length from head to elytral apex 7.89 mm, the widest at humeral part of elytra and at middle of pronotum

(1.62 mm), 4.87 times longer than wide.

Head from brown in anterior margin to black, narrow, the widest through eyes, distinctly narrower than pronotum at the widest point. Dorsal surface with dense, small-sized irregular punctation (punctures larger near posterior margin). Head covered with relatively long, pale yellowish grey pubescence. Interspace between antennal insertions narrow, antennal insertions prolonged into a sharp spine on inner side. Eyes goldenish, emarginate. Clypeus and labrum pale ochre yellow, shiny, partly punctured, with long yellowish setation on edges. Mandibles brown with blackish tip, shiny, with pale yellowish grey pubescence and long yellowish setae on edges.



Fig. 26. *Demonax spurcus* sp. nov.: a- male holotype; b- male genitalia.

Fig. 27. *Demonax nuntius* Viktora, 2023: a- male holotype, (CPV); b- male genitalia.

Maxillary palpus pale ochre yellow, semi-glossy. Palpomeres short, slightly widened apically, covered with sparse pale setation. Last palpomere the longest and the largest, drop-shaped, widened apically with rounded apex.

Antennae narrow, reaching five sevenths elytral length (as in Fig. 26a). Antennomeres 1-4 brown, antennomeres 5-11 yellowish. Antennomeres widened apically, with dense small-sized punctation, covered with pale yellowish grey pubescence (the longest on antennomeres 1-4), antennomeres 1-7 with long yellowish setation on inner side. Antennomeres 3-4 with very long not sharp spine on inner side of apex (approximately the same length), each spine exceeds half length of following antennomere. Antennomere 2 the shortest, antennomere 5 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.71 : 0.30 : 1.00 : 0.90 : 1.09 : 1.00 : 0.95 : 0.82 : 0.74 : 0.65 : 0.85.

Pronotum blackish, elongate, the same width as elytra at humeri (shape of pronotum as in Fig. 26a). Pronotum 1.75 times longer than wide at base and 1.2 times longer than wide at the widest point (middle of pronotum). Lateral margins only slightly arcuate, anterior margin and base almost straight. Dorsal surface with dense, small-sized irregular punctation with micropunctation between punctures, pronotal disc with indistinct, longitudinal granular wrinkling. Pronotum covered with short, recumbent yellowish grey pubescence (as in Fig. 26a).

Scutellum black, triangular, covered with yellowish grey pubescence.

Elytra 5.13 mm long and 1.62 mm wide (3.16 times longer than wide), largely black or blackish. Elytra slightly narrowing apically, with small-sized punctation, basal half matte, apical half semi-glossy. Elytra covered with dark (with goldenish lustre) and greyish pubescence (as in Fig. 26a). Apex truncate, distinctly undulate, sutural and lateral angle with distinct sharp spine (longer on lateral angle). Apical margin with long yellowish setae.

Pygidium pale ochre yellow, with shallow small-sized micropunctation, covered with indistinct pale pubescence, margins with longer yellowish setae. Apex rounded.

Legs long and narrow, from brown to blackish brown, with small-sized shallow punctation, largely covered with short, relatively sparse greyish pubescence and long yellowish setation (the densest on apex of tibiae). Tibiae slightly widened apically, profemora the widest, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi narrow, brown (claws and tibial spurs pale ochre yellow). Tarsi with dense, small-sized shallow punctation, covered with sparse pale pubescence and yellowish setation. Metatarsi the longest, metatarsomere 1 4.0 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from brown to black (largely blackish brown), with small-sized punctation, largely covered with recumbent greyish pubescence and long, erect colorless setation (mainly in ventrites). Elytral epipleura blackish, distinctly undulate, covered with indistinct pale pubescence.

Genitalia as in Fig. 26b.

**Female.** Unknown.

**Differential diagnosis.** The most similar species is *Demonax nuntius* Viktora, 2023 (Fig. 27). *Demonax spurcus* sp. nov. (based on comparison of males) differs from the similar species *D. nuntius* mainly by shape of pronotum (distinctly wider in *D. spurcus*), by paler antennomeres 5-11, by distinctly shorter antennae and protarsi (as in Figs. 26a and 27a) and by shape of abdominal segment 8, tegmen and median lobe (as in Figs. 26b and 27b).

**Etymology.** From Latin *spurcus* (it means "impure").

**Distribution.** Vietnam (Kon Tum).

***Demonax repentinus* sp. nov.**

(Fig. 28)

**Type locality.** Vietnam, Nghe An province.

**Type material.** Holotype (♂): 'Vietnam' / 'Nghe An' / '6/2022', (CPV).

The type is provided with a printed red label: 'Demonax repentinus sp. nov.' / 'HOLOTYPUS' / 'P. Viktora det., 2023'.

**Description.** Habitus of male holotype as in Fig. 28a. Body from dark brown to black, elongate, punctate, with pubescence. Body length from head to elytral apex 11.5 mm, the widest at humeral part of elytra (2.95 mm), 3.9 times longer than wide.

Head from blackish brown in anterior margin to black, narrow, the widest through eyes, narrower than pronotum at the widest point. Dorsal surface with dense small-sized punctation with micropunctation inside punctures (some punctures larger behind eyes, punctation partly granulate near posterior margin). Head covered with recumbent yellowish pubescence. Interspace between antennal insertions narrow, antennal insertions prolonged into a sharp spine on inner side. Eyes goldenish brown, emarginate. Clypeus and labrum pale ochre yellow, shiny, partly punctured, with long yellowish setation on edges. Mandibles blackish brown, shiny, partly with micropunctation, with yellowish pubescence and longer pale setae on edges.

Maxillary palpus brown, semi-matte, palpomeres narrowly pale yellowish apically. Palpomeres short, widened apically, partly covered with indistinct pale setation. Last palpomere the longest and the largest, drop-shaped, widened apically with rounded apex. Last palpomeres with shallow, longitudinal oval depression.

Antennae narrow, reaching four fifths elytral length. Antennomeres dark brown, distinctly widened apically, with shallow small-sized punctation, covered with yellowish grey pubescence (longer and sparser on antennomeres 1-4, pubescence on antennomeres 9-11 very short and indistinct), antennomeres 2-6 with long yellowish setation on inner side. Antennomeres 1-2 rounded apically, antennomeres 3-6 with sharp spine on inner side of apex (spine on antennomere 6 the shortest, spine on antennomere 3 the longest). Antennomeres 7-10 serrate on outer side. Antennomere 2 the shortest, antennomere 3 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.65 : 0.28 : 1.00 : 0.78 : 0.90 : 0.91 : 0.90 : 0.84 : 0.77 : 0.70 : 0.91.

Pronotum black, slightly elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 28a). Pronotum 1.6 times longer than wide at base and 1.15 times longer than wide at the widest point (approximately middle of pronotum). Lateral margins arcuate, anterior margin and base almost straight. Dorsal surface with dense, small-sized granulation with microgranulation between granules. Pronotum covered with short, recumbent yellowish pubescence, pubescence in basal angles paler (as in Fig. 28a). Pronotal disc with sparse, long, erect colorless setation.

Scutellum black, shield-shaped with rounded apex, with micropunctation, covered with sparse, recumbent yellowish pubescence.

Elytra 7.46 mm long and 2.95 mm wide (2.52 times longer than wide), black with blackish brown apical quarter. Elytra slightly narrowing apically, with small-sized punctation, humeral part matte, apex semi-glossy. Elytra covered with yellowish, ochre yellowish and blackish pubescence with goldenish lustre in dark places (as in Fig. 28a). Apex truncate, distinctly undulate, lateral and

sutral angle with sharp spine (spine on lateral angle longer). Apical margin with very long yellowish setae.

Pygidium blackish brown with ochre yellow apex, with dense, shallow small-sized punctation, covered with recumbent yellowish pubescence, margins with longer yellowish setae. Apex rounded.



28a



29a



28b



29b

Fig. 28. *Demonax repentinus* sp. nov.: a- male holotype; b- male genitalia.

Fig. 29. *Demonax bimaculicollis* (Schwarzer, 1925): a- male from Taiwan, (CPV); b- male genitalia.

Legs long and narrow, from dark brown to black, with small-sized shallow punctation, largely covered with relatively sparse, recumbent yellowish pubescence (meso- and metafemora partly glabrous on inner side) and long yellowish setation (the densest on apex of tibiae). Tibiae widened apically, profemora the widest, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi long and narrow (protarsi the widest), blackish brown (claws and tibial spurs reddish brown), with dense, small-sized punctation, covered with yellowish pubescence and yellowish setation. Metatarsi the longest and the narrowest, metatarsomere 1 2.13 times longer than metatarsomeres 2 and 3 together.

Ventral side of body largely black, partly with irregular small-sized punctation. Mesepisternum covered with dense whitish pubescence in apical two thirds, metepisternum and metasternum almost completely covered with dense whitish pubescence, ventrites 1-2 covered with dense pale yellowish pubescence, ventrites 3-5 covered with very long yellowish setation. Ventral side completely with relatively many erect colorless setae. Elytral epipleura blackish, undulate, very narrow in apical half, with sparse, indistinct small-sized punctation, covered with sparse yellowish pubescence.

Genitalia as in Fig. 28b.

**Female.** Unknown.

**Differential diagnosis.** The most similar species are *Demonax bimaculicollis* (Schwarzer, 1925) (Fig. 29) and *Demonax simillimus* Gressitt, 1939.

*Demonax repentinus* sp. nov. (based on comparison of males) differs from the similar species *D. bimaculicollis* mainly by significantly larger body (body length from head to elytral apex 11.5 mm in *D. repentinus* while usually from 6 to 9 mm in *D. bimaculicollis*), by longer tarsi, by narrower pronotum with pronotal disc without distinct spots of pale pubescence (two distinct pale spots on anterior half of pronotal disc in *D. bimaculicollis*), by distinctly narrower dark transverse stripe at middle of elytra, by shape and placement of dark spots at basal third of elytra (as in Figs. 28a and 29a). Differences can also be found in shape of tegmen and median lobe (as in Figs. 28b and 29b).

*D. repentinus* (based on comparison of males) differs from the similar species *D. simillimus* mainly by shape and pubescence of pronotum (less elongate and almost circular pronotum with shorter and denser unicolored pubescence in *D. simillimus*), by antennomeres 3-6 with spines on inner side of apex in *D. repentinus* while antennomeres 3-4 only with long spines in *D. simillimus*, and by shape of abdominal segment 8 (distinctly longer and more elongate in *D. repentinus*). Differences can also be found in shape of tegmen and median lobe.

**Etymology.** From Latin *repentinus* (it means "sudden").

**Distribution.** Vietnam (Nghe An).

***Demonax blanditus* sp. nov.**

(Fig. 30)

**Type locality.** Malaysia, Sabah, Trus Madi Mt.

**Type material.** Holotype (♂): 'MALAYSIA, Borneo' / 'N-Sabah, Trus Madi' / '1500m, May - June' / '2011, loc. Collector', (CPV).

The type is provided with a printed red label: '*Demonax blanditus* sp. nov.' / 'HOLOTYPE' / 'P. Viktora det., 2023'.

**Description.** Habitus of male holotype as in Fig. 30a. Body from brown to black, elongate, slightly narrowing apically, punctate, with pubescence. Body length from head to elytral apex 9.0 mm, the widest at humeral part of elytra and at middle of pronotum (2.15 mm), 4.18 times longer than wide.

Head from pale reddish brown in anterior margin to black, narrow, the widest through eyes, narrower than pronotum at the widest point. Dorsal surface with dense small-sized punctation and irregular granulation near posterior margin. Head covered with greyish, sparse recumbent pubescence. Interspace between antennal insertions narrow, antennal insertions prolonged into a spine on inner side. Eyes goldenish, strongly emarginate. Clypeus and labrum pale yellowish, shiny, partly punctured, with long yellowish setation on edges. Mandibles brown with blackish tip, shiny, with whitish pubescence and longer colorless setae on edges.

Maxillary palpus pale ochre yellow, semi-matte. Palpomeres short, widened apically, covered with indistinct pale setation. Last palpomere the longest and the largest, widened apically with rounded apex.

Antennae narrow, reaching four sevenths elytral length. Antennomeres brown (antennomeres 7-11 slightly paler), widened apically, with shallow small-sized punctation, covered with indistinct pale yellowish grey pubescence (the longest on antennal scape), antennomeres 1-4 semi-glossy, remainder of antennomeres semi-matte. Antennomeres 2-6 with long yellowish setation on inner side. Antennomeres 3-4 with very long, almost sharp spine on inner side of apex (both similar lengths), antennomere 5 with shorter, wide curved spine on inner side of apex, antennomere 6 with very short wide spine, antennomeres 6-8 slightly serrate on outer side of apex. Antennomere 2 the shortest, antennomere 3 the longest, antennal scape long. Ratios of relative lengths of antennomeres 1-11 equal to: 0.64 : 0.27 : 1.00 : 0.92 : 0.94 : 0.91 : 0.84 : 0.74 : 0.65 : 0.60 : 0.67.

Pronotum blackish brown, circular, almost as long as wide, the same width as elytra at humeri (shape of pronotum as in Fig. 30a). Pronotum 1.55 times longer than wide at base and 1.04 times longer than wide at the widest point (middle of pronotum). Lateral margins distinctly arcuate, anterior margin and base almost straight. Dorsal surface with irregular structure (partly reticulated with relative large places with indistinct microwrinkling), covered with very short yellowish grey pubescence and darker pubescence with lustre (dark transverse spot on pronotal disc - as in Fig. 30a).

Scutellum blackish, widely roundly triangular, almost without pubescence.

Elytra 5.9 mm long and 2.15 mm wide (2.74 times longer than wide), blackish brown (apex pale brown). Elytra narrowing apically, largely semi-glossy, with small-sized punctation, covered with greyish and darker goldenish pubescence with lustre (as in Fig. 30a). Apex truncate, only slightly undulate, lateral angle with short but distinct sharp spine, sutural angle with very small indistinct spine. Apical margin with long yellowish setae.

Pygidium pale brown, with dense, shallow small-sized punctation, covered with sparse, indistinct pale pubescence, margins with yellowish setae. Apex rounded.

Legs very long and narrow, from brown to dark brown, with small-sized shallow punctation, largely covered with relatively sparse greyish pubescence (meso- and metafemora partly glabrous on inner side) and long yellowish setation (the densest on apex of tibiae). Tibiae widened apically, profemora the widest, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi long and narrow (metatarsi the longest, extremely long), pro- and mesotarsi pale brown, metatarsi pale yellowish with narrowly darker metatarsomere 1 basally. Claws and tibial spurs pale ochre yellow. Tarsi with dense, small-sized shallow punctation, covered with sparse greyish pubescence and denser yellowish setation. Metatarsomere 1 2.58 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from brown to dark brown, partly with small-sized irregular punctation, partly covered with large spots of dense whitish pubescence (in mesepisternum, metepisternum, metasternum and ventrites 1-2), ventrites 3-5 covered with long goldenish setation. Elytral epipleura brown, undulate, covered with short, indistinct shiny pubescence.

Genitalia as in Fig. 30b.

**Female.** Unknown.

**Differential diagnosis.** The most similar species are *Demonax triaculeatus* Aurivillius, 1922, *Demonax venustus* Dauber, 2014, *Demonax globicollis* Dauber, 2016 and *Demonax necopinatus* sp. nov. (Fig. 31).

*Demonax blanditus* sp. nov. (based on comparison of males) differs from the similar species *D. triaculeatus* mainly by distinctly wider pronotum of different shape, by shorter antennae, by distinctly longer and paler metatarsi, and by shape of abdominal segment 8, tegmen and median lobe.

*D. blanditus* (based on comparison of males) differs from the similar species *D. venustus* mainly by distinctly more robust and by shape of pronotum, by distinctly longer metatarsi, by large, dark transverse spot on pronotal disc (two separate spots on pronotal disc in *D. venustus*), and by shape and placement of pubescent spots on elytra (mainly narrower pale spot at elytral apex in *D. blanditus*).

*D. blanditus* (based on comparison of males) differs from the similar species *D. globicollis* mainly by distinctly longer and paler metatarsi, by large, dark transverse spot on pronotal disc (two separate spots on pronotal disc in *D. globicollis*), by shape and placement of pubescent spots on elytra (mainly narrower pale spot at elytral apex in *D. blanditus*), and by shape of abdominal segment 8, tegmen and median lobe.

*D. blanditus* (based on comparison of males) differs from the similar species *D. necopinatus* mainly by shorter antennae of different colour (more or less unicolorous in *D. blanditus* while antennomeres 1-7 brown and antennomeres 8-11 pale yellowish in *D. necopinatus*) (as in Figs. 30a and 31a), and by shape of abdominal segment 8, tegmen and median lobe (as in Figs. 30b and 31b).

**Etymology.** From Latin *blanditus* (it means "flattered").

**Distribution.** Malaysia (Sabah).

***Demonax necopinatus* sp. nov.**

(Fig. 31)

**Type locality.** Malaysia, Sabah, Trus Madi Mt.

**Type material.** Holotype (♂): 'Malaysia, Sabah, Mt.' / 'Trus Madi 14-VI-2012' / 'Cope Collection', (CPV).

The type is provided with a printed red label: '*Demonax necopinatus* sp. nov.' / 'HOLOTYPUS' / 'P. Viktora det., 2023'.

**Description.** Habitus of male holotype as in Fig. 31a. Body from dark brown to black, elongate, only slightly narrowing apically, punctate, with pubescence. Body length from head to elytral apex 8.25 mm, the widest at humeral part of elytra and at middle of pronotum (1.93 mm), 4.27 times longer than wide.



30a



31a



30b



31b

Fig. 30. *Demonax blanditus* sp. nov.: a- male holotype; b- male genitalia.

Fig. 31. *Demonax necopinatus* sp. nov.: a- male holotype; b- male genitalia.

Head from brown in anterior margin to black, narrow, the widest through eyes, narrower than pronotum at the widest point. Dorsal surface with irregular small-sized punctation (rather micropunctation) with a few larger punctures between eyes. Head covered with yellowish grey recumbent pubescence. Interspace between antennal insertions narrow, antennal insertions prolonged into a spine on inner side. Eyes goldenish, emarginate. Clypeus and labrum pale yellowish, shiny, partly punctured, with long yellowish setation on edges. Mandibles brown with blackish tip, shiny, with whitish pubescence and longer colorless setae on edges.

Maxillary palpus pale brown, semi-glossy, with micropunctuation and sparse yellowish setation. Palpomeres short, slightly widened apically, last palpomere the longest and the largest, widened apically, axe-shaped with narrowly paler rounded apex.

Antennae narrow, reaching two thirds elytral length. Antennomeres 1-7 brown, antennomeres 8-11 pale yellowish. Antennomeres widened apically, with shallow small-sized punctuation, covered with indistinct pale yellowish grey pubescence (the longest on antennal scape), antennomeres 1-4 semi-glossy, remainder of antennomeres semi-matte. Antennomeres 2-7 with long yellowish setation on inner side. Antennomeres 3-4 with very long, slightly curved sharp spine on inner side of apex (both similar lengths). Antennomere 2 the shortest, antennomere 5 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.80 : 0.26 : 1.00 : 0.90 : 1.02 : 0.87 : 0.84 : 0.68 : 0.66 : 0.58 : 0.74.

Pronotum black, only slightly elongate, the same width as elytra at humeri (shape of pronotum as in Fig. 31a). Pronotum 1.7 times longer than wide at base and 1.09 times longer than wide at the widest point (approximately middle of pronotum). Lateral margins distinctly arcuate, anterior margin slightly arcuate, base almost straight. Dorsal surface with irregular structure (partly reticulated, partly with granulate punctuation with micropunctuation in interspaces), covered with short yellowish grey and black pubescence with lustre (large, dark transverse spot on pronotal disc - as in Fig. 31a).

Scutellum black, roundly triangular, with very sparse, almost invisible pale pubescence.

Elytra 5.17 mm long and 1.93 mm wide (2.67 times longer than wide), black with narrowly brown apex. Elytra only slightly narrowing apically, basal half semi-matte, apical half semi-glossy, with small-sized punctuation, covered with greyish, yellowish grey and black pubescence with lustre (as in Fig. 31a). Apex truncate, lateral and sutural angle with short but distinct sharp spine. Apical margin with long yellowish setae.

Pygidium pale ochre yellow, with dense, shallow small-sized punctuation, covered with sparse, indistinct pale pubescence, margins with yellowish setae. Apex rounded.

Legs long and narrow, from brown to blackish brown, with shallow punctuation, largely covered with relatively sparse yellowish grey pubescence (meso- and metafemora partly glabrous on inner side) and long yellowish setation (the densest on apex of tibiae). Meso- and metatibiae and meso- and metafemora with distinct, long, erect ochre yellow setae. Tibiae widened apically, profemora the widest, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi long and narrow (metatarsi the longest), pro- and mesotarsi brown, metatarsi pale yellowish with narrowly darker metatarsomere 1 basally. Claws and tibial spurs pale ochre yellow. Tarsi with dense, small-sized shallow punctuation, covered with sparse yellowish setation (on metatarsomeres with admixture of pale greyish pubescence). Metatarsomere 1 2.52 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from brown (coxae) to black, partly with small-sized irregular punctuation, partly covered with large spots of dense whitish pubescence (in mesepisternum, metepisternum, metasternum and ventrites 1-2), ventrites 3-5 covered with long goldenish setation. Elytral epipleura black, undulate, covered with short, indistinct shiny pubescence.

Genitalia as in Fig. 31b.

**Female.** Unknown.

**Differential diagnosis.** The most similar species are *Demonax triaculeatus* Aurivillius, 1922, *Demonax venustus* Dauber, 2014, *Demonax globicollis* Dauber, 2016 and *Demonax blanditus* sp. nov. (Fig. 30).

*Demonax necopinatus* sp. nov. (based on comparison of males) differs from the similar species *D. triaculetus* mainly by distinctly wider pronotum of different shape, by distinctly longer and paler metatarsi, by colour of antennae (antennomeres 1-7 brown and antennomeres 8-11 pale yellowish in *D. necopinatus* while antennae more or less unicolored in *D. triaculeatus*), and by shape of tegmen.

*D. necopinatus* (based on comparison of males) differs from the similar species *D. venustus* mainly by shape of more robust pronotum, by longer metatarsi, by large, dark transverse spot on pronotal disc (two separate spots on pronotal disc in *D. venustus*), and by shape and placement of pubescent spots on elytra (mainly narrower pale spot at elytral apex in *D. necopinatus*).

*D. necopinatus* (based on comparison of males) differs from the similar species *D. globicollis* mainly by distinctly paler metatarsi, by large, dark transverse spot on pronotal disc (two separate spots on pronotal disc in *D. globicollis*), by scutellum with very sparse, almost invisible pale pubescence (scutellum covered with distinct, relatively dense grey pubescence in *D. globicollis*), by shape and placement of pubescent spots on elytra (mainly narrower pale spot at elytral apex in *D. necopinatus*), and by shape of tegmen and median lobe.

*D. necopinatus* (based on comparison of males) differs from the similar species *D. blanditus* mainly by longer antennae of different colour (more or less unicolored in *D. blanditus* while antennomeres 1-7 brown and antennomeres 8-11 pale yellowish in *D. necopinatus*) (as in Figs. 30a and 31a), and by shape of abdominal segment 8, tegmen and median lobe (as in Figs. 30b and 31b).

**Etymology.** From Latin *necopinatus* (it means "unexpected").

**Distribution.** Malaysia (Sabah).

### Genus *Rhaphuma* Pascoe, 1858

**Type species:** *Clytus quadricolor* Castelnau & Gory, 1841.

#### *Rhaphuma poema* sp. nov.

(Fig. 32)

**Type locality.** Vietnam, Nghe An Province.

**Type material.** Holotype (♂): 'Vietnam' / 'Nghe An' / '5/2022', (CPV).

The type is provided with a printed red label: 'Rhaphuma poema sp. nov.' / 'HOLOTYPUS' / 'P. Viktora det., 2023'.

**Description.** Habitus of male holotype as in Fig. 32a. Body from pale brown to black, elongate, narrow, almost parallel, punctate, with pubescence. Body length from head to elytral apex 10.35 mm, the widest at humeral part of elytra (2.42 mm), 4.27 times longer than wide.

Head black (blackish brown in anterior margin), short, the widest through eyes, narrower than pronotum at the widest point. Head with irregular small-sized punctation (punctures larger in basal part), covered with relatively dense, distinct pale yellow pubescence. Interspace between antennal insertions narrow, antennal insertions prolonged into a spine on inner side. Eyes goldenish brown, distinctly emarginate. Clypeus and labrum yellowish, shiny, partly with indistinct punctation and long yellowish setation. Mandibles blackish brown with black tip, shiny, margins with dense pale yellow pubescence and longer yellowish setation.

Maxillary palpus pale ochre yellow, palpomeres short, with indistinct short setation. Last

palpomere the longest and the largest, distinctly widened apically with distinctly rounded lower edge.

Antennae narrow, filiform, reaching elytral apical margin (as in Fig. 32a). Antennomeres blackish brown (narrowly paler - brown on apex). Antennomeres indistinctly widened apically, with shallow micropunctuation, covered with short pale yellowish pubescence (the longest on antennal scape), antennomeres 1-4 semi-glossy, remainder of antennomeres semi-matte. Antennomeres 2-4 with longer yellowish setation on inner side. Antennomeres without spines, antennomeres 3-4 with sharp end without spine on inner side of apex. Antennomere 2 the shortest, antennomere 3 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.43 : 0.18 : 1.00 : 0.71 : 0.99 : 0.97 : 0.97 : 0.86 : 0.79 : 0.69 : 0.77.

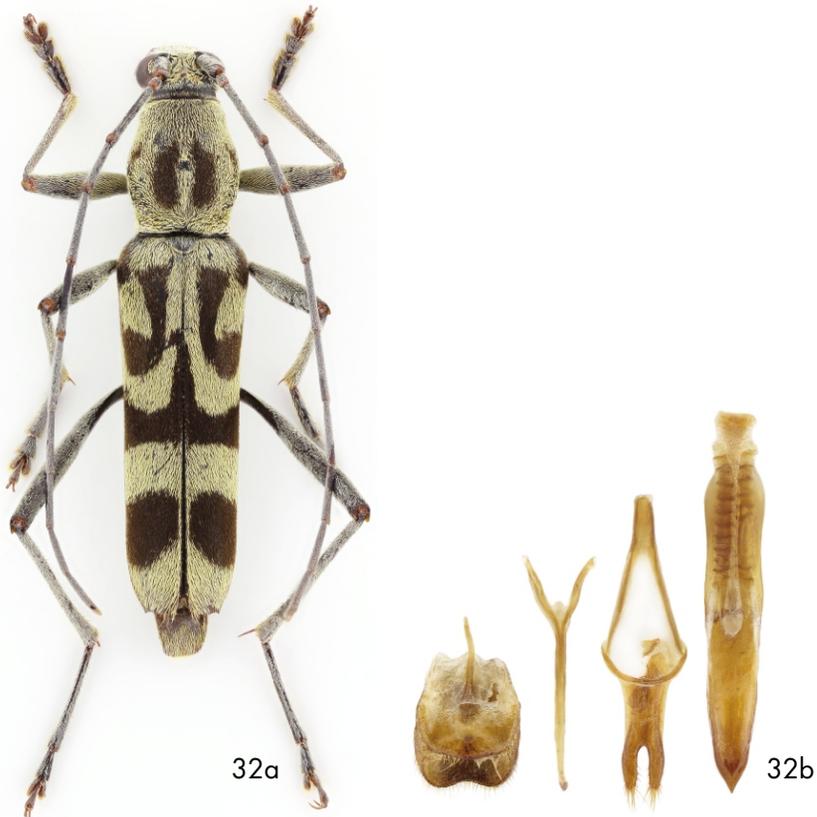


Fig. 32. *Rhaphuma poema* sp. nov.: a- male holotype; b- male genitalia.

Pronotum black, slightly elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 32a). Pronotum 1.43 times longer than wide at base and 1.2 times longer than wide at the widest point (before middle of pronotum from base to apex). Lateral margins arcuate and slightly undulate, anterior margin only indistinctly arcuate, base slightly undulate (gently excised in middle). Dorsal surface with coarse granulation (with microgranulation between granules), covered with pale yellow pubescence and short blackish pubescence in two large crescent-shaped and two small dark spots (as in Fig. 32a).

Scutellum blackish, widely shield-shaped, with dense micropunctuation, covered with pale yellow recumbent pubescence.

Elytra 6.88 mm long and 2.42 mm wide (2.84 times longer than wide), blackish brown with narrowly brown apex and partly with pale ochre yellow spots (in some places under yellow pubescence in basal elytral half). Elytral surface in basal quarter corrugated with distinct depression below scutellum and in humeri. Elytra slightly narrowing apically, basal fifth semi-matte, apical four fifths semi-glossy, with small-sized punctuation, covered with pale yellow and blackish pubescence with goldenish lustre (as in Fig. 32a). Apex truncate, distinctly undulate, lateral and sutural angle with short but distinct spine. Apical margin near suture with very long yellowish setae.

Pygidium dirty brown, with dense shallow micropunctuation, covered with relatively sparse yellow pubescence, margins with yellowish setae. Apex rounded.

Legs very long and narrow, largely blackish brown, with shallow small-sized punctuation, largely covered with yellowish pubescence (meso- and metafemora partly glabrous on inner side) and long yellowish setation (the densest on apex of tibiae). Meso- and metatibiae and meso- and metafemora with longer, erect yellowish setae on ventral side. Tibiae slightly widened apically, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi long and narrow (metatarsi the longest), dark brown, claws and tibial spurs reddish brown. Tarsi with very dense micropunctuation/microgranulation, covered with pale yellowish pubescence and pale setation. Metatarsomere 1 2.29 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from brown (coxae, margins in ventrites) to black (largely black), with micropunctuation, almost completely covered with dense pale yellowish pubescence (significantly paler than on dorsal side), ventrites 3-5 covered with long goldenish setation. Elytral epipleura from blackish in basal part to brown (largely brown), slightly undulate, with micropunctuation, covered with short, indistinct pale yellowish pubescence.

Genitalia as in Fig. 32b.

**Female.** Unknown.

**Differential diagnosis.** The most similar species is *Rhaphuma sharmai* Holzschuh, 1990, described from Central Nepal.

*Rhaphuma poema* sp. nov. differs from the similar species *R. sharmai* by more elongate body, by shape of pronotum (distinctly more elongate with less arcuate lateral margins in *R. poema*), by shape of dark spots on pronotal disc, by largely darker (blackish brown) elytra, antennae and legs in *R. poema* (pale brown in *R. sharmai*), and by shape and placement of pubescent spots on elytra (mainly large, uninterrupted dark spot across suture in middle part of elytra in *R. poema*).

**Etymology.** From Latin *poema* (it means "poem").

**Distribution.** Vietnam (Nghe An).

***Rhaphuma lupa* sp. nov.**

(Figs. 33-34)

**Type locality.** Vietnam, Lang Son Province, 52 km SW of Lang Son, 21°35' N, 106°30' E.

**Type material.** Holotype (♂): 'N VIETNAM; 21,35N, 106,35E; / '52 km SW of Lang Son; / '27.iv.-6.v.1996; 370m; / 'Pacholátko & Dembický leg.', (CLD); Paratypes: (4 ♂♂, 4 ♀♀): same data as holotype, (CLD, CPV). The types are provided with a printed red label: 'Rhaphuma lupa sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' / 'P. Viktora det., 2023'.

**Description.** Habitus of male holotype as in Fig. 33a. Body from pale brown to black, elongate, narrow, almost parallel, punctate, with pubescence. Body length from head to elytral apex 8.12 mm (male paratypes from 6.5 to 7.7 mm), the widest at humeral part of elytra (1.65 mm), 4.92 times longer than wide.

Head black (blackish brown in anterior margin), short, the widest through eyes, narrower than pronotum at the widest point. Head with irregular small-sized granulate punctation (punctures larger in basal part), covered with pale yellowish pubescence. Head with a few long, erect colorless setae (mainly below eyes). Interspace between antennal insertions narrow, antennal insertions prolonged into a spine on inner side. Eyes goldenish brown, distinctly emarginate. Clypeus and labrum dirty ochre yellow, shiny, partly with indistinct punctation and yellowish setation on edges. Mandibles pale brown with blackish tip, shiny, margins with pale yellowish pubescence and longer yellowish setation.

Maxillary palpus pale ochre yellow, palpomeres short, with indistinct short setation. Last palpomere the longest and the largest, widened apically with rounded apical lower edge.

Antennae narrow, filiform, exceeding elytral apical margin (as in Fig. 33a). Antennomeres largely pale ochre yellow, indistinctly widened apically, with shallow micropunctation, covered with short pale yellowish pubescence (the longest on antennal scape), antennomeres 1-4 semi-glossy, remainder of antennomeres semi-matte. Antennomeres 2-6 with longer yellowish setation on inner side. Antennomeres without spines. Antennomere 2 the shortest, antennomere 5 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.50 : 0.18 : 1.00 : 0.80 : 1.07 : 1.06 : 1.00 : 0.86 : 0.88 : 0.80 : 1.02.

Pronotum blackish, elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 33a). Pronotum 1.56 times longer than wide at base and 1.31 times longer than wide at the widest point (before middle of pronotum from base to apex). Lateral margins slightly arcuate, anterior margin only indistinctly arcuate, base almost straight. Dorsal surface with distinct small-sized granulation (with micropunctation/microgranulation in granules), covered with pale yellowish pubescence and indistinct short dark pubescence with lustre in dark places (as in Fig. 33a).

Scutellum dirty pale brown, widely shield-shaped, covered with indistinct, pale recumbent pubescence.

Elytra 5.4 mm long and 1.65 mm wide (3.27 times longer than wide), from pale ochre yellow (mainly in places under pale pubescence) to dark brown. Elytral surface with distinct small-sized punctation. Elytra only slightly narrowing apically, largely semi-matte, covered with pale yellowish and dark pubescence with goldenish lustre (as in Fig. 33a). Apex truncate, apical margin with long yellowish setae.

Pygidium dirty brown, with dense shallow micropunctation, partly covered with sparse pale yellowish pubescence, margins with yellowish setae. Apex rounded.

Legs very long and narrow, from pale ochre yellow to brown, with shallow small-sized punctation, partly covered with pale yellowish pubescence (on femora) and long yellowish setation (the densest on apex of tibiae). Tibiae slightly widened apically, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi long and narrow (metatarsi the longest), ochre yellow including claws and tibial spurs. Tarsi with very dense micropunctation, covered with long yellowish setation. Metatarsomere 1 2.0 times longer than metatarsomeres 2 and 3 together.



33a



34



33b

Fig. 33. *Rhaphuma lupa* sp. nov.: a- male holotype; b- male genitalia.

Fig. 34. *Rhaphuma lupa* sp. nov.: female paratype.

Ventral side of body from brown (coxae) to dark brown, with small-sized punctation, largely covered with dense whitish pubescence (ventrites 1-4 with large spots of whitish pubescence, ventrite 5 largely covered with yellowish setation). Elytral epipleura pale ochre yellow with narrowly darker apex, undulate, covered with pale shiny pubescence.

Genitalia as in Fig. 33b.

**Female.** Habitus of female paratype as in Fig. 34. Body length from head to elytral apex (female paratypes) from 7.1 to 8.5 mm. Colour of female similar to male. Female without distinct differences, elytra and pronotum less elongate, tarsi and antennae shorter than in male (antennae not reaching elytral apex) (as in Figs. 33a and 34).

**Differential diagnosis.** The most similar species are *Rhaphuma inusta* Holzschuh, 1991 (Fig. 35), *Rhaphuma rufobasalis* Pic, 1924 (Fig. 36) and *Rhaphuma vidua* sp. nov. (Fig. 37).

*Rhaphuma lupa* sp. nov. (based on comparison of females) differs from the similar species *R. inusta* by distinctly paler body including legs and antennae, by shape of pronotum (wider with more arcuate lateral margins in *R. lupa*), by placement of pale pubescence on pronotum and elytra, by longer antennae and by shorter and wider metatarsomere 1 in *R. lupa* (as in Figs. 34 and 35).

*R. lupa* (based on comparison of females) differs from the similar species *R. rufobasalis* by smaller, narrower and more elongate body (distinctly more elongate elytra in *R. lupa*), by distinctly paler meso- and metafemora and by placement of pale pubescence on pronotum and elytra (as in Figs. 34 and 36).

*R. lupa* (based on comparison of females) differs from the similar species *R. vidua* by smaller, narrower and more elongate body (distinctly more elongate elytra in *R. lupa*), by distinctly paler meso- and metafemora, by placement of pale pubescence on pronotum and elytra (pubescence distinctly paler in *R. lupa*), and by distinctly longer antennae in *R. lupa* (as in Figs. 34 and 37).

**Etymology.** From Latin *lupa* (it means "harlot").

**Distribution.** Vietnam (Lang Son).

### ***Rhaphuma vidua* sp. nov.**

(Fig. 37)

**Type locality.** Vietnam, Ha Giang Province.

**Type material.** Holotype (♀): 'Vietnam' / 'Ha Giang' / '5/2021', (CPV); Paratypes: (2 ♀♀): 'Vietnam' / 'Ha Giang' / '7/2021', (CPV).

The types are provided with a printed red label: 'Rhaphuma vidua sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' / 'P. Viktora det., 2023'.

**Description.** Habitus of female holotype as in Fig. 37. Body from brown to black, elongate, narrow, almost parallel, punctate, with pubescence. Body length from head to elytral apex 11.8 mm (female paratypes from 10.3 to 13.8 mm), the widest at humeral part of elytra (2.65 mm), 4.45 times longer than wide.

Head black, short, the widest through eyes, narrower than pronotum at the widest point. Head with irregular small-sized granulate punctation (granules distinctly larger in basal part), frons with distinct, narrow, longitudinal almost glabrous ridge. Head partly covered with relatively sparse pale yellow pubescence. Interspace between antennal insertions narrow, antennal insertions prolonged into a spine on inner side. Eyes goldenish brown, emarginate. Clypeus and labrum ochre yellow, shiny, partly with indistinct punctation and long yellowish setation on edges. Mandibles brown with blackish margins and black tip, shiny, margins with pale yellowish pubescence and longer yellowish setation.

Maxillary palpus pale ochre yellow, palpomeres short, with indistinct short setation. Last palpomere the longest and the largest, widened apically with rounded apex.

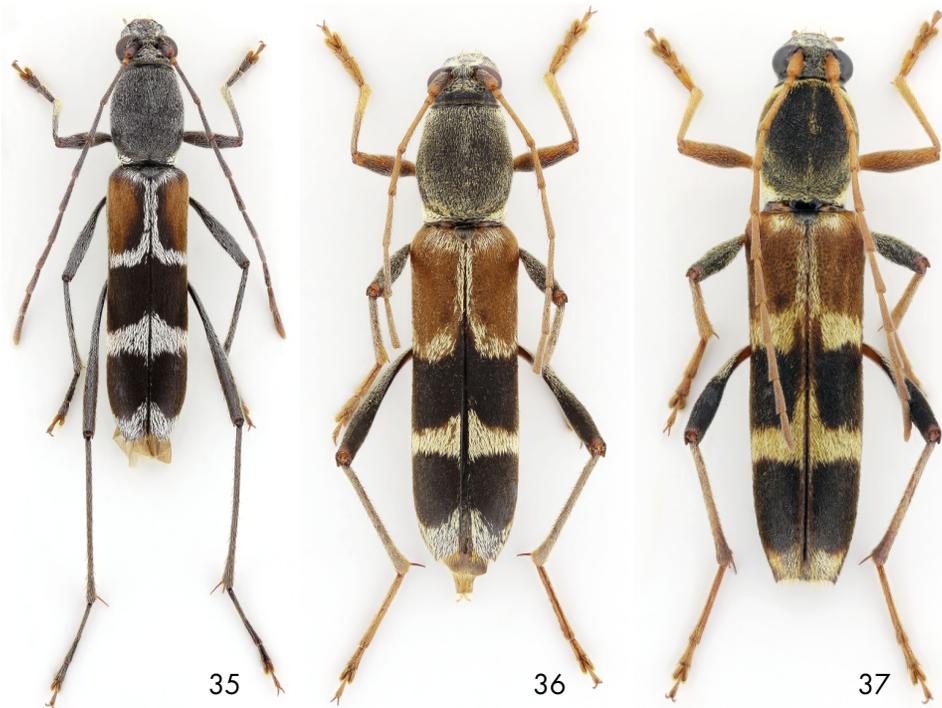


Fig. 35. *Rhaphuma inusta* Holzschuh, 1991: female from Thailand (Mae Hong Son), (CPV).

Fig. 36. *Rhaphuma rufobasalis* Pic, 1924: female from Vietnam (Nghe An), (CPV).

Fig. 37. *Rhaphuma vidua* sp. nov.: female holotype.

Antennae narrow, reaching two thirds elytral length (as in Fig. 37). Antennomeres pale ochre yellow, widened apically, antennomeres 6-11 distinctly serrate on outer side. Antennae with shallow micropunctuation, covered with short pale yellowish pubescence (longer on antennomeres 1-4), antennomeres 1-4 semi-glossy, remainder of antennomeres semi-matte. Antennomeres 2-8 partly with longer yellowish setation on inner side. Antennomeres without spines. Antennomere 2 the shortest, antennomere 3 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.59 : 0.23 : 1.00 : 0.79 : 0.89 : 0.85 : 0.91 : 0.85 : 0.80 : 0.70 : 0.93.

Pronotum blackish, elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 37). Pronotum 1.5 times longer than wide at base and 1.2 times longer than wide at the widest point (middle of pronotum). Lateral margins slightly arcuate, anterior margin only indistinctly arcuate, base almost straight. Dorsal surface with distinct small-sized granulation (with micropunctuation/microgranulation in granules), covered with pale yellow pubescence (the densest in basal angles) and indistinct short dark pubescence with lustre in dark places (as in Fig. 37).

Scutellum blackish, widely shield-shaped, with micropunctuation, covered with indistinct, pale recumbent pubescence.

Elytra 8.0 mm long and 2.65 mm wide (3 times longer than wide), from pale brown (mainly in places under pale pubescence) to dark brown. Elytral surface with small-sized punctuation. Elytra only slightly narrowing apically, partly semi-glossy on apex, covered with pale yellow and

darker pubescence with distinct lustre (as in Fig. 37). Apex truncate, indistinctly undulate, sutural and lateral angle with sharp spine, apical margin with long yellowish setae.

Pygidium ochre with narrowly darker apical margin, with shallow punctation, covered with sparse, long pale yellowish pubescence, margins with yellowish setae. Apex rounded.

Legs long and narrow, from ochre yellow to blackish brown in meso- and metafemora, with shallow small-sized punctation, partly covered with pale yellowish pubescence (on femora) and long yellowish setation (the densest on apex of tibiae). Tibiae slightly widened apically, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi long and narrow (metatarsi the longest), pale reddish brown including claws and tibial spurs. Tarsi with very dense micropunctation, covered with long yellowish setation. Metatarsomere 1 2.05 times longer than metatarsomeres 2 and 3 together.

Ventral side of body largely black, with small-sized punctation, partly covered with pale yellowish pubescence (metepisternum completely covered with dense pale yellowish pubescence, mesepisternum, metasternum and ventrites 1-4 with spots of pale yellowish pubescence, ventrite 5 largely covered with yellowish setation). Elytral epipleura ochre yellow with narrowly darker apex, undulate, covered with relatively dense pale yellowish and slightly darker pubescence.

**Male.** Unknown.

**Differential diagnosis.** The most similar species are *Rhaphuma inusta* Holzschuh, 1991 (Fig. 35), *Rhaphuma rufobasalis* Pic, 1924 (Fig. 36) and *Rhaphuma lupa* sp. nov. (Figs. 33-34).

*Rhaphuma vidua* sp. nov. (based on comparison of females) differs from the similar species *R. inusta* by distinctly larger and more robust body, by shape of pronotum (wider with more arcuate lateral margins in *R. vidua*), by placement of pale pubescence on pronotum and elytra (pubescence distinctly paler in *R. inusta*), and by distinctly paler legs and antennae in *R. vidua* (as in Figs. 35 and 37).

*R. vidua* (based on comparison of females) differs from the similar species *R. rufobasalis* by larger and more robust body, by placement of pale pubescence on pronotum and elytra and mainly by shape of more robust pronotum with more arcuate lateral margins in *R. vidua* (as in Figs. 36 and 37).

*R. vidua* (based on comparison of females) differs from the similar species *R. lupa* by larger, wider and less elongate body (distinctly more elongate elytra in *R. lupa*), by distinctly darker meso- and metafemora, by placement of pale pubescence on pronotum and elytra (pubescence distinctly darker in *R. vidua*), and by distinctly shorter antennae in *R. vidua* (as in Figs. 34 and 37).

**Etymology.** From Latin *vidua* (it means "widow").

**Distribution.** Vietnam (Ha Giang).

### Genus *Xylotrechus* Chevrolat, 1860

**Type species:** *Clytus sartorii* Chevrolat, 1860.

#### *Xylotrechus lacer* sp. nov.

(Fig. 38)

**Type locality.** Philippines, Luzon, Nueva Vizcaya province, Santa Fe municipality.

**Type material.** Holotype (♀): 'Sta. Fe, Nueva Vizcaya' / 'North Luzon' / 'PHILIPPINES' / 'III. 2018'; (CPV). The type is provided with a printed red label: 'Xylotrechus lacer sp. nov.' / 'HOLOTYPUS' / 'P. Viktora det., 2023'.

**Description.** Habitus of female holotype as in Fig. 38. Body from brown to black, elongate, narrow, parallel, punctate, with pubescence. Body length from head to elytral apex 8.56 mm, the widest at humeral part of elytra (2.06 mm), 4.15 times longer than wide.

Head black, short, the widest through eyes, narrower than pronotum at the widest point. Head with irregular small-sized granulate punctation and microgranulation (punctures/granules larger in basal part), frons with three distinct longitudinal carinae (lateral carinae rounded, middle carina Y-shaped). Head largely covered with long, but relatively sparse yellow pubescence, partly with long, erect colorless setae (mainly below eyes). Interspace between antennal insertions broad, antennal insertions with raised edge on inner side. Eyes goldenish brown, strongly emarginate. Clypeus and labrum blackish, shiny, with a few yellowish setae on edges. Mandibles black (partly dark brown in middle), shiny, margins with yellow pubescence and yellowish setae.

Maxillary palpus pale ochre yellow, palpomeres short, with micropunctation, with very sparse, indistinct yellowish setation. Last palpomere the longest and the largest, widened apically with rounded apical margin.

Antennae relatively short, reaching two fifths elytral length (as in Fig. 38). Antennomeres 1-7 from brown to blackish brown, antennomeres 8-11 pale yellowish, slightly widened and rounded apically. Antennae with shallow dense punctation, covered with pale yellowish pubescence (longer and sparse on antennomeres 1-4, shorter and dense on antennomeres 5-11), antennomeres 1-4 semi-glossy. Antennomeres 2-5 with long yellowish setation on inner side. Antennomeres without spines. Antennomere 2 the shortest, antennomere 11 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 1.03 : 0.40 : 1.00 : 0.86 : 0.97 : 0.84 : 0.84 : 0.67 : 0.75 : 0.72 : 1.08.

Pronotum blackish, only slightly elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 38). Pronotum 1.36 times longer than wide at base and 1.1 times longer than wide at the widest point (middle of pronotum). Lateral margins only slightly arcuate, anterior margin indistinctly arcuate, base almost straight. Dorsal surface with distinct small-sized granulation (with micropunctation/microgranulation between granules), covered with pale yellow pubescence, the densest in basal angles (as in Fig. 38) and relatively dense, erect pale setation (the longest in basal half).

Scutellum blackish, widely shield-shaped, with micropunctation, covered with dense, pale yellow recumbent pubescence.

Elytra 5.66 mm long and 2.06 mm wide (2.74 times longer than wide), black. Elytral surface with small-sized punctation (punctures smaller under spots of yellow pubescence). Elytra indistinctly narrowing apically, matte in basal two thirds, semi-glossy in apical third, covered with pale yellow and darker pubescence with distinct lustre (as in Fig. 38). Apical margin rounded (apical lateral angle indistinctly angled), apical margin with long yellowish setae.

Pygidium dirty dark brown, with shallow small-sized punctation, covered with sparse yellowish pubescence, margins with yellowish setae. Apex significantly rounded.

Legs long and narrow, largely blackish, with shallow punctation, partly covered with pale yellowish pubescence (mainly on femora) and long yellowish setation (the densest on apex of tibiae), profemora with long, erect colorless setation. Tibiae slightly widened apically, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi short and narrow (metatarsi the longest), dark brown, claws and tibial spurs largely pale reddish

brown. Tarsi microwrinkled, covered with long yellowish setation. Metatarsomere 1 2.39 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from brown (coxae) to black (largely black), with irregular small-sized punctation, largely covered with dense, pale yellow pubescence and erect, long colorless setation. Elytral epipleura black, undulate, narrow, but shortly very wide at base. Epipleura covered with short, indistinct, sparse pale pubescence.

**Male.** Unknown.

**Differential diagnosis.** The most similar species are *Xylotrechus fluctuosus* (Pascoe, 1869) and *Xylotrechus ignavus* sp. nov. (Fig. 39).

*Xylotrechus lacer* sp. nov. (based on comparison of females) differs from the similar species *X. fluctuosus* mainly by more elongate body, by darker and shorter metatarsi, by colour of pale pubescence on head, pronotum and elytra (pale yellow in *X. lacer* while greyish in *X. fluctuosus*), by distinctly denser pubescence on head (mainly on frons), by scutellum covered with dense pale yellow pubescence (sparse, indistinct greyish pubescence in *X. fluctuosus*), and by shape of pale pubescent stripes on elytra.

*X. lacer* (based on comparison of females) differs from the similar species *X. ignavus* by longer antennae, by denser pubescence on head (mainly on frons), by scutellum longer in height, and by shape of pale pubescent stripes on elytra (as in Figs. 38 and 39).

**Etymology.** From Latin *lacer* (it means "ragged").

**Distribution.** Philippines (Luzon - Nueva Vizcaya).

### *Xylotrechus ignavus* sp. nov.

(Fig. 39)

**Type locality.** Malaysia, Pahang, 30 km NE Raub, Lata Lembik, 3°56'N, 101°38'E.

**Type material.** Holotype (♀): 'MALAYSIA, Pahang distr., / '30km NE RAUB, LATA LEMBIK' / '3°56'N; 101°38'E, 200-400 m' / '22.iv.-1.v., 8-15.v.2002' / 'E. Jendek & O. Šauša leg.', (CLD); Paratype: (1 ♀): same data as holotype, (CPV).

The types are provided with a printed red label: 'Xylotrechus ignavus sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' / 'P. Viktora det., 2023'.

**Description.** Habitus of female holotype as in Fig. 39. Body from brown to blackish brown, elongate, narrow, almost parallel, punctate, with pubescence. Body length from head to elytral apex 6.67 mm (female paratype 7.2 mm), the widest at humeral part of elytra (1.63 mm), 4.09 times longer than wide.

Head black, short, the widest through eyes, narrower than pronotum at the widest point. Head with irregular small-sized granulate punctation and microgranulation (punctures/granules larger in basal part), frons with three very narrow longitudinal carinae (lateral carinae rounded, middle carina Y-shaped). Head largely covered with long, sparse yellowish pubescence, partly with longer, erect colorless setae (mainly below eyes). Interspace between antennal insertions broad. Eyes goldenish brown, emarginate. Clypeus and labrum pale yellowish, shiny, with a few yellowish setae on edges. Mandibles brown with blackish tip, shiny, margins with pale yellowish pubescence and erect pale setae.

Maxillary palpus ochre yellow, palpomeres short, with micropunctation, with very sparse,

indistinct yellowish setation. Last palpomere the longest and the largest, widened apically with rounded apical margin.



Fig. 38. *Xylotrechus lacer* sp. nov.: female holotype.

Fig. 39. *Xylotrechus ignavus* sp. nov.: female holotype.

Antennae short, reaching two sevenths elytral length (as in Fig. 39). Antennal scape pale brown, antennomeres 2-7 dirty brown, antennomere 8 dirty brown with pale yellowish apical half, antennomeres 9-11 pale yellowish, slightly widened and rounded apically. Antennae with shallow, dense small-sized punctation, covered with pale yellowish pubescence (longer and sparse on antennomeres 1-4, shorter and dense on antennomeres 5-11), antennomeres partly semi-glossy. Antennomeres 2-5 with long yellowish setation on inner side. Antennomeres without spines. Antennomere 2 the shortest, antennomere 1 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 1.43 : 0.60 : 1.00 : 0.94 : 1.02 : 1.01 : 0.85 : 0.75 : 0.81 : 0.72 : 1.15.

Pronotum blackish, slightly elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 39). Pronotum 1.39 times longer than wide at base and 1.13 times longer than wide at the widest point (middle of pronotum). Lateral margins indistinctly arcuate, anterior margin indistinctly arcuate, base almost straight. Dorsal surface with dense small-sized granulation (with micropunctuation/microgranulation between granules), covered with pale yellow pubescence, the densest in basal angles (as in Fig. 39) and dense, erect pale setation.

Scutellum blackish, widely shield-shaped, with micropunctuation, covered with dense, pale yellow recumbent pubescence.

Elytra 4.38 mm long and 1.63 mm wide (2.68 times longer than wide), dark brown with pale yellowish stripes/spots (partly under yellowish pubescence). Elytral surface with small-sized punctuation. Elytra only slightly narrowing apically, matte in humeri, semi-glossy in remainder of elytral surface, covered with pale yellow and darker pubescence with lustre (as in Fig. 39). Apex truncate, indistinctly undulate with very shortspine in sutural and lateral angle. Apical margin with long yellowish setation.

Pygidium pale brown, matte in basal half, glossy in apical half, microwrinkled, covered with indistinct, sparse yellowish pubescence, margins with yellowish setation. Apex rounded.

Legs relatively long and narrow, largely dirty brown, with shallow punctuation, partly covered with sparse pale yellowish pubescence (on femora) and long yellowish setation (the densest on apex of tibiae), femora with long, erect colorless setation. Tibiae widened apically, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi short and narrow (metatarsi the longest), pale brown, claws and tibial spurs pale ochre yellow. Tarsi microwrinkled, covered with long yellowish setation. Metatarsomere 1 2.24 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from brown to blackish brown, with irregular small-sized punctuation, partly covered with spots of dense whitish pubescence (on mesepisternum, metepisternum, metasternum and ventrites 1-2), remainder of ventral surface covered with pale yellowish setation (the densest and the longest on ventrites 3-5). Elytral epipleura dark brown, very narrow, covered with short, indistinct pale pubescence.

**Male.** Unknown.

**Differential diagnosis.** The most similar species are *Xylotrechus fluctuosus* (Pascoe, 1869) and *Xylotrechus lacer* sp. nov. (Fig. 38).

*Xylotrechus ignavus* sp. nov. (based on comparison of females) differs from the similar species *X. fluctuosus* mainly by more elongate body, by darker and shorter metatarsi, by colour of pale pubescence on head, pronotum and elytra (pale yellow in *X. ignavus* while greyish in *X. fluctuosus*), by distinctly denser pubescence on head (mainly on frons), by scutellum covered with dense pale yellow pubescence (sparse, indistinct greyish pubescence in *X. fluctuosus*), and by shape of pale pubescent stripes on elytra.

*X. ignavus* (based on comparison of females) differs from the similar species *X. lacer* by shorter antennae, by sparser pubescence on head (mainly on frons), by scutellum shorter in height, and by shape of pale pubescent stripes on elytra (as in Figs. 38 and 39).

**Etymology.** From Latin *ignavus* (it means "lazy").

**Distribution.** Malaysia (Pahang).

***Xylotrechus mirus* sp. nov.**  
(Figs. 40-41)

**Type locality.** Philippines, Mindanao, Davao del Sur, Malita.

**Type material.** Holotype (♂): 'PHILIPPINES' / 'Malita, Davao del Sur' / 'Mindanao' / 'VIII. 2017, local collector leg.', (CPV); Paratypes: (1 ♂): 'PHILIPPINES' / 'Wao, Lanao del Sur' / 'Mindanao' / 'VIII. 2017, local collector leg.', (CPV); (1 ♀): 'Philippines' / 'Mindanao' / 'Wao' / 'Lanao del Sur' / 'IX. 2018', (CPV); (1 ♀): 'Philippines' / 'Mt. Apo Mindanao' / 'XI. 2013', (CPV); (1 ♀): 'PHILIPPINES' / 'Wao, Lanao del Sur' / 'Mindanao' / 'IX. 2016, local collector leg.', (CPV); (1 ♀): 'Philippines' / 'Mindanao' / 'Bukidnon' / 'Duminorog' / 'Mt. Kalatungan' / 'III. 2019', (CPV); (1 ♀): 'Philippines' / 'Mindanao' / 'Bukidnon' / 'Duminorog' / 'X. 2018', (CPV).

The types are provided with a printed red label: '*Xylotrechus mirus* sp. nov.' / 'HOLOTYPE [respective PARATYPE]' / 'P. Viktora det., 2023'.

**Description.** Habitus of male holotype as in Fig. 40a. Body from pale brown to black, elongate, narrow, parallel, punctate, with pubescence. Body length from head to elytral apex 7.55 mm (male paratype 8.5 mm), the widest at humeral part of elytra (1.66 mm), 4.55 times longer than wide.

Head black with blackish brown anterior margin, short, the widest through eyes, narrower than pronotum at the widest point. Head with irregular small-sized granulate punctation and microgranulation (punctures/granules larger in basal part), frons with three distinct longitudinal carinae (lateral carinae straight, longer middle carina Y-shaped). Head largely covered with long pale yellow pubescence, partly with long, erect colorless setae (mainly below eyes). Interspace between antennal insertions broad, antennal insertions with raised edge on inner side. Eyes goldenish brown, emarginate. Clypeus and labrum pale ochre yellow, shiny, with a few yellowish setae on edges. Mandibles blackish brown with black tip, shiny, margins with yellowish setation.

Maxillary palpus pale ochre yellow, palpomeres short, with micropunctation, with very sparse, indistinct yellowish setation. Last palpomere the longest and the largest, slightly widened apically, apex truncate with rounded apical angles.

Antennae relatively short, reaching two sevenths elytral length (as in Fig. 40a). Antennomeres 1-9 largely brown, antennomeres 10-11 pale yellowish, slightly widened and rounded apically. Antennae with shallow small-sized punctation, covered with pale yellowish pubescence (longer and sparse on antennomeres 1-4, shorter and denser on antennomeres 5-11), antennomeres 1-4 semi-glossy. Antennomeres 2-6 with long yellowish setation on inner side. Antennomeres without spines. Antennomere 2 the shortest, antennomere 1 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 1.20 : 0.54 : 1.00 : 0.88 : 0.87 : 0.73 : 0.73 : 0.66 : 0.76 : 0.69 : 1.04.

Pronotum blackish brown, only slightly elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 40a). Pronotum 1.4 times longer than wide at base and 1.12 times longer than wide at the widest point (middle of pronotum). Lateral margins indistinctly arcuate, anterior margin and base almost straight. Dorsal surface with small-sized granulation (with micropunctation/microgranulation between granules), covered with pale yellow pubescence, the densest in basal angles (as in Fig. 40a) and sparse, erect pale setation (the longest in basal half).

Scutellum blackish, semi-oval, covered with dense, pale yellowish recumbent pubescence.

Elytra 5.1 mm long and 1.66 mm wide (3.07 times longer than wide), blackish with brown margins and apex. Elytral surface with small-sized punctation (punctures smaller under spots of yellow pubescence). Elytra only indistinctly narrowing apically, largely semi-glossy, covered with pale yellow and dark pubescence with distinct goldenish lustre (as in Fig. 40a). Apical margin rounded, covered with long yellowish setae.

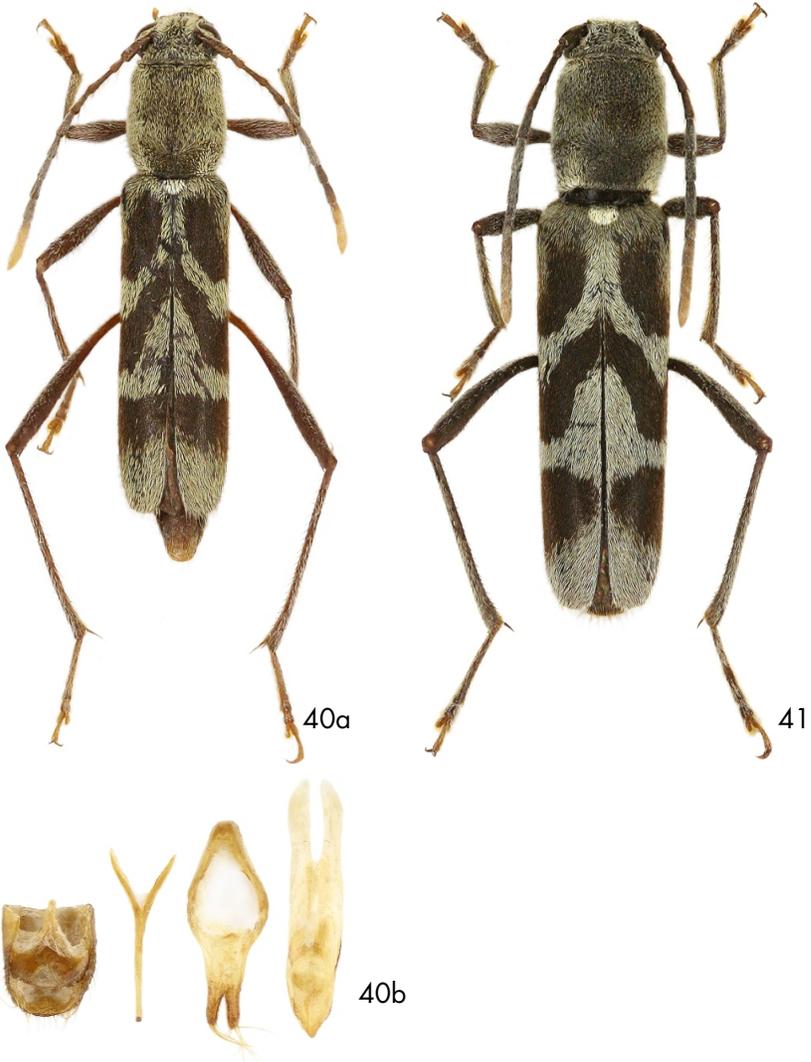


Fig. 40. *Xylotrechus mirus* sp. nov.: a- male holotype; b- male genitalia.  
Fig. 41. *Xylotrechus mirus* sp. nov.: female paratype.

Pygidium ochre yellow with darker lateral margins, with shallow micropunctuation, covered with indistinct, sparse yellowish pubescence, margins with yellowish setae. Apex rounded.

Legs long and narrow, brown with partly darker femora, with shallow punctuation, partly covered with pale yellowish pubescence (on femora) and long yellowish setation (the densest on apex of tibiae). Tibiae slightly widened apically, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi relatively short and narrow (metatarsi the longest), pale brown, claws and tibial spurs pale ochre yellow. Tarsi microwrinkled, covered with long yellowish setation. Metatarsomere 1 2.29 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from pale brown (coxae) to blackish (largely dark brown), with irregular small-sized punctation, largely covered with dense, pale yellowish pubescence and erect, long colorless setation. Elytral epipleura brown, narrow, with micropunctation and short, indistinct, sparse pale pubescence.

Genitalia as in Fig. 40b.

**Female.** Habitus of female paratype as in Fig. 41. Body length from head to elytral apex (female paratypes) from 9.4 to 10.4 mm. Colour of female similar to male. Female without distinct differences.

**Variability.** Individual type specimens differ in shade of pale pubescence (from greyish to yellowish), some specimens have more widespread pale pubescence on elytra.

**Differential diagnosis.** The most similar species are *Xylotrechus humeralis* Aurivillius, 1928 (Fig. 45), *Xylotrechus discors* Gahan, 1906 (Fig. 44) and *Xylotrechus pandus* sp. nov. (Figs. 42-43).

*Xylotrechus mirus* sp. nov. (based on comparison of males) differs from the similar species *X. humeralis* by narrower and more elongate body, by longer antennae, by shape of narrower scutellum, by paler and longer metatarsi, by shape of pale pubescent spots and stripes on elytra (as in Figs. 40a and 45a), and by shape of abdominal segment 8 and tegmen (as in Figs. 40b and 45b).

*X. mirus* (based on comparison of females) differs from the similar species *X. discors* by shorter legs and antennae, by shape of pronotum (uniformly cylindrical in *X. mirus* while more elongate and distinctly narrowing anteriorly in *X. discors*), and by shape of pale pubescent spots and stripes on elytra (as in Figs. 41 and 44).

*X. mirus* (based on comparison of males) differs from the similar species *X. pandus* by distinctly narrower and more elongate body, by shorter antennae, by shape of narrower scutellum with less arcuate lateral margins, by shape of pale pubescent spots and stripes on elytra (as in Figs. 40a and 42a), and by shape of abdominal segment 8 and tegmen (as in Figs. 40b and 42b).

**Etymology.** From Latin *mirus* (it means "strange").

**Distribution.** Philippines (Mindanao - Davao del Sur, Lanao del Sur, Bukidnon).

### ***Xylotrechus pandus* sp. nov.**

(Figs. 42-43)

**Type locality.** Philippines, Quirino, Sierra Madre, Tapsoy, Nagtipunan.

**Type material.** Holotype (♂): 'PHILIPPINES' / 'Eastern Luzon, Quirino' / 'Sierra Madre, Tapsoy' / 'Nagtipunan' / 'III. 2019', (CPV); Paratypes: (1 ♀): 'PHILIPPINES' / 'Ste. Fe, Nueva Viscaya' / 'North Luzon' / 'III. 2018, local collector leg.', (CPV); (1 ♀): 'PHILIPPINES' / 'Kayapa, Nueva Viscaya' / 'North Luzon, V.2009' / 'loc. collector', (CPV); (1 ♂): 'PHILIPPINES; N LUZON; 2000m;' / 'MOUNTAIN PROV.;Bontoc region' / 'NW of Barlig; 17°03'N 121°04'E;' / 'L. Dembický leg.; 9.iv.2000', (CLD).

The types are provided with a printed red label: '*Xylotrechus pandus* sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' / 'P. Viktora det., 2023'.

**Description.** Habitus of male holotype as in Fig. 42a. Body from brown to black, elongate, narrow, parallel, punctate, with pubescence. Body length from head to elytral apex 9.45 mm

(male paratype 13.8 mm), the widest at humeral part of elytra (2.26 mm), 4.18 times longer than wide.

Head black, short, the widest through eyes, narrower than pronotum at the widest point. Head with irregular small-sized granulate punctation and microgranulation (punctures/granules larger in basal part), head with irregular, longitudinal, narrow oval carina between antennal insertions, which continues on frons as a narrow longitudinal furrow. Head largely covered with long pale yellow pubescence, partly with long, erect pale yellowish setae (mainly below eyes). Interspace between antennal insertions broad, antennal insertions with raised edge on inner side. Eyes goldenish brown, strongly narrowly emarginate. Clypeus and labrum pale dirty yellowish, shiny, with a few yellowish setae on edges. Mandibles blackish brown with black tip, shiny, margins with yellowish setation.

Maxillary palpus brown (palpomeres with narrowly pale yellowish apex). Palpomeres short, with micropunctation, with very sparse, indistinct yellowish setation. Last palpomere the longest and the largest, cylindrical with narrowing at base, apex truncate and indistinctly rounded.

Antennae relatively long, reaching almost half elytral length (as in Fig. 42a). Antennomeres 1-7 largely brown, antennomeres 8-11 pale yellowish (antennomere 8 narrowly darker basally), slightly widened and rounded apically. Antennae with shallow small-sized punctation, covered with pale yellowish pubescence (longer and sparse on antennomeres 1-4, shorter and denser on antennomeres 5-11), antennomeres 1-4 semi-glossy. Antennomeres 2-6 with long yellowish setation on inner side. Antennomeres without spines. Antennomere 2 the shortest, antennomere 7 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 1.04 : 0.41 : 1.00 : 0.99 : 1.08 : 0.95 : 1.11 : 0.99 : 0.90 : 0.87 : 0.86.

Pronotum black, slightly elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 42a). Pronotum 1.51 times longer than wide at base and 1.16 times longer than wide at the widest point (two fifths pronotal length from base to apex). Lateral margins only slightly arcuate, anterior margin and base almost straight. Dorsal surface with small-sized granulation (with micropunctation/microgranulation between granules), largely covered with pale yellow pubescence (except two dark spots with indistinct, short dark pubescence) (as in Fig. 42a) and a few erect pale setae.

Scutellum blackish, semi-oval, covered with pale yellowish recumbent pubescence.

Elytra 6.35 mm long and 2.26 mm wide (2.8 times longer than wide), black. Elytral surface distinctly punctured (punctures larger and more distinct in basal half). Elytra slightly narrowing apically, largely glossy, covered with pale yellow and dark pubescence with distinct goldenish lustre (as in Fig. 42a). Apex truncate, apical margin slightly arcuate, sutural and lateral angle with indistinct, very short spine, apical margin covered with long yellowish setae.

Pygidium dirty pale brown, with shallow micropunctation, covered with sparse, long yellowish pubescence, margins with yellowish setae. Apex rounded.

Legs long and narrow, blackish brown, with shallow punctation, partly covered with pale yellowish pubescence (mainly on femora) and long yellowish setation (the densest on apex of tibiae). Tibiae slightly widened apically, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi relatively short and narrow (metatarsi the longest), dark brown, claws and tibial spurs pale reddish brown. Tarsi microwrinkled, covered with long yellowish/goldenish setation. Metatarsomere 1 2.65 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from dark brown (coxae) to black (largely black), with irregular small-sized punctation. Mesepisternum, metepisternum and ventrites 1-2 largely covered with dense pale yellowish pubescence, metasternum covered with distinctly sparser pale yellowish pubescence,

ventrites 3-5 largely covered with relatively sparse pale yellowish pubescence with admixture of longer goldenish setae. Ventral side partly with erect, long colorless setation (mainly in ventrites). Elytral epipleura black, narrow, covered with pale yellow pubescence.

Genitalia as in Fig. 42b.



42a



43



42b

Fig. 42. *Xylotrechus pandus* sp. nov.: a- male holotype; b- male genitalia.

Fig. 43. *Xylotrechus pandus* sp. nov.: female paratype.

**Female.** Habitus of female paratype as in Fig. 43. Body length from head to elytral apex (female paratypes) from 13.2 to 14.8 mm. Colour of female similar to male. Female without distinct differences, pronotum narrower and less robust than in male.



Fig. 44. *Xylotrechus discors* Gahan, 1906: female from Indonesia (North Sumatra), (CPV).

Fig. 45. *Xylotrechus humeralis* Aurivillius, 1928: a- male from Philippines (Mindanao - Davao del Sur), (CPV); b- male genitalia.

**Differential diagnosis.** The most similar species are *Xylotrechus humeralis* Aurivillius, 1928 (Fig. 45), *Xylotrechus discors* Gahan, 1906 (Fig. 44) and *Xylotrechus mirus* sp. nov. (Figs. 40-41). *Xylotrechus pandus* sp. nov. (based on comparison of males) differs from the similar species *X. humeralis* by more elongate body, by shape of pronotum with more arcuate lateral margins, by colour of pale pubescence on head, pronotum and elytra (pale yellow in *X. pandus* while greyish in *X. humeralis*), by distinctly longer antennae, by narrower scutellum of different shape, by longer metatarsi, by shape of pale pubescent spots and stripes on elytra (as in Figs. 42a and 45a), and by shape of abdominal segment 8 and tegmen (as in Figs. 42b and 45b).

*X. pandus* (based on comparison of females) differs from the similar species *X. discors* by more robust body, by colour of pale pubescence on head, pronotum and elytra (pale yellow in *X. pandus* while greyish in *X. discors*), by shape of pronotum (distinctly wider in *X. pandus*), by shape of dark spots on pronotal disc, and by shape of pale pubescent spots and stripes on elytra (as in Figs. 43 and 44).

*X. pandus* (based on comparison of males) differs from the similar species *X. mirus* by distinctly wider and less elongate body, by longer antennae, by shape of wider scutellum with more arcuate lateral margins, by shape of pale pubescent spots and stripes on elytra (as in Figs. 40a and 42a), and by shape of abdominal segment 8 and tegmen (as in Figs. 40b and 42b).

**Etymology.** From Latin *pandus* (it means "curved").

**Distribution.** Philippines (Luzon - Quirino, Nueva Vizcaya, Mountain Province).

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