New species of Clytini from Vietnam and the Philippines (Coleoptera: Cerambycidae: Cerambycinae)

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Abstract. The new following species are described: Acrocyrta francescoi sp. nov. from Vietnam (Lam Dong), Demonax attritus sp. nov., Demonax miser sp. nov., Demonax oblongus sp. nov., Demonax pollens sp. nov. and Petraphuma pictura sp. nov. from Vietnam (Kon Tum), Demonax navus sp. nov. from the Philippines (Mindanao - Lanao del Sur, Agusan del Sur), Demonax opertus sp. nov. from the Philippines (Luzon - Ifugao, Aurora, Quirino), Demonax hortator sp. nov. from the Philippines (Mindanao - Lanao del Sur, Cotabato), and Rhaphuma taenia sp. nov. from Vietnam (Gia Lai). 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 1550 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 genera Acrocyrta, Demonax, Petraphuma and Rhaphuma from materials which were recently collected in Vietnam and the Philippines. Descriptions of the following ten new Clytini species are given: Acrocyrta francescoi sp. nov. from Vietnam (Lam Dong), Demonax attritus sp. nov., Demonax miser sp. nov., Demonax oblongus sp. nov., Demonax pollens sp. nov. and Petraphuma pictura sp. nov. from Vietnam (Kon Tum), Demonax navus sp. nov. from the Philippines (Mindanao - Lanao del Sur, Agusan del Sur), Demonax opertus sp. nov. from the Philippines (Luzon - Ifugao, Aurora, Quirino), Demonax hortator sp. nov. from the Philippines (Mindanao - Lanao del Sur, Cotabato), and Rhaphuma taenia sp. nov. from Vietnam (Gia Lai). All the habitus and male genitalia are illustrated.

The new species are compared to the congeners (Acrocyrta fabula Viktora & Tichý, 2017, Demonax albinotus Holzschuh, 2016, Demonax albotrifasciatus Pic, 1925, Demonax angulifascia Aurivillius, 1922, Demonax desolatus Viktora, 2022, Demonax dirangensis Viktora, 2021, Demonax gunjii Holzschuh, 1983, Demonax inglorius Viktora, 2020, Demonax vescus Viktora, 2020, Petraphuma boreovietnamica (Viktora & Tichý, 2017), Petraphuma meridiovietnamica (Viktora & Tichý, 2017) and Rhaphuma rybniceki Holzschuh, 1992), 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:

CFR collection of Francesco Ruggiero, Viterbo, Italy;

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 Acrocyrta Pascoe, 1857

Type species: Acrocyrta clytoides Pascoe, 1857.

Acrocyrta francescoi sp. nov.

(Fig. 1)

Type locality. Vietnam, Lam Dong province, Bao Lam, Dambri.

Type material. Holotype (♀): 'Dambri, Bao Lam' / 'Lam Dong, Vietnam' / 'v. 2017', (CPV). The type is provided with a printed red label: 'Acrocyrta francescoi sp. nov.' / 'HOLOTYPUS' / 'P. Viktora det., 2022'.

Description. Habitus of female holotype as in Fig. 1. Body from dark brown to black, elongate, relatively robust, punctate, with pubescence. Body length from head to elytral apex 14.4 mm, the widest at humeral part of elytra (3.82 mm), 3.77 times longer than wide.

Head from blackish brown in anterior margin to black, narrow, the widest through eyes, distinctly narrower than pronotum at the widest point. Dorsal surface punctured by irregular punctation (frons and anterior part largely with irregular granulation and wrinkled, posterior margin with coarse punctation. Head covered by short, sparse whitish pubescence. Interspace between antennal insertions very narrow, antennal insertions elevated on inner side. Eyes dark brown, emarginate. Clypeus and labrum brown, shiny, partly with irregular punctation in margins, with long yellowish setation in edges. Mandibles black, shiny, with whitish pubescence and colorless setae in edges.

Maxillary palpus dirty pale brown, matte. Palpomeres short, widened apically, covered with a few indistinct pale setae. Last palpomere the longest and the largest, distinctly widened apically with narrowly paler rounded apex.

Antennae narrow, reaching seven eighths elytral length (as in Fig. 1). Antennomeres blackish, widened apically, punctured by shallow small-sized punctation, covered by sparse and indistinct whitish pubescence (sparser in antennomeres 1-4, the longest in antennal scape), antennomeres 2-7 with long yellowish setation in inner side. Antennomeres 3-6 with sharp spine in inner side of apex (the longest in antennomere 4, the shortest in antennomere 6, spines in antennomeres 3 and 5 approximately the same length). Antennomeres 1-6 rounded apically in outer side, antennomeres 7-10 slightly serrate in outer side of apex, antennomere 11 distinctly narrowed in four fifths of its length. Antennal scape very long, antennomere 2 the shortest, antennomere 5 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.86 : 0.18 : 1.00 : 0.79 : 1.13 : 1.07 : 1.01 : 0.77 : 0.74 : 0.64 : 0.72.

Pronotum black, elongate, narrower than elytra at humeri, the narrowest at anterior margin (shape of pronotum as in Fig. 1). Pronotum 1.4 times longer than wide at base and 1.17 times

longer than wide at the widest point (two fifths pronotal length from base to apex). Lateral margins arcuate and undulate, anterior margin indistinctly arcuate, base slightly undulate. Dorsal surface with distinct reticulation, cells of reticulation with micropunctation inside, anterior margin and base narrowly almost without punctation. Pronotum covered by very short whitish and indistinct dark pubescence, pale pubescence the densest in basal angles (as in Fig. 1), pale pubescence continues from basal angles to bottom lateral side of pronotum (invisible from dorsal view). Pronotum with a few colorless erect setae in basal quarter.



Fig. 1. Acrocyrta francescoi sp. nov.: female holotype. Fig. 2. Acrocyrta fabula Viktora & Tichý, 2017: female from Vietnam (Kon Tum), (CPV).

Scutellum black, widely shield-shaped, completely covered by dense white pubescence.

Elytra 8.45 mm long and 3.82 mm wide (2.21 times longer than wide), black. Elytra robust, narrowing apically, punctured by dense small-sized granulate punctation in basal two thirds, apical third punctured by dense small-sized punctation. Basal part with three depressions (in humeri and smaller on suture below scutellum). Elytra covered by blackish (with distinct goldenish lustre) and white pubescence (as in Fig. 1). Apical margin distinctly rounded on sutural side, lateral angle with distinct, long sharp spine. Each elytron the longest in lateral apical angle. Apical margin with long yellowish setae.

Pygidium blackish, semi-gloss, punctured by shallow small-sized punctation, covered by indistinct, sparse pale pubescence, margins with long yellowish setae. Apical angles rounded.

Legs long and narrow, from blackish brown to black, punctured by small-sized shallow punctation, largely covered by short, very sparse whitish pubescence and long yellowish setation (the densest in apical part 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, blackish (claws and tibial spurs brown), punctured by dense, small-sized shallow punctation, protarsi covered by greyish pubescence with yellowish setation, meso- and metatarsi covered by yellowish setation. Metatarsi the longest and the narrowest, metatarsomere 1 1.78 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from blackish brown (in coxae) to black (largely black), punctured by smallsized irregular punctation, partly covered by dense white pubescence (in apical part of prosternum, mesocoxae, apical quarter of mesepisternum, metepisternum, apical part of metasternum and ventrites 1-2), rest of ventral surface largely covered by sparse and indistinct pale pubescence. Ventral side with distinct, long, erect colorless setae (mainly in ventrites). Elytral epipleura blackish, distinctly undulate, wide in base, narrow and almost invisible in apex, covered by short, sparse whitish pubescence.

Male. Unknown.

Differential diagnosis. The most similar species is *Acrocyrta fabula* Viktora & Tichý, 2017 (Fig. 2), described from Vietnam (Thua Thien-Hue).

Acrocyrta francescoi sp. nov. (based on comparison of females) differs from the similar species A. fabula by more elongate body, by more elongate elytra (2.21 times longer than wide, while 2.05 times longer than wide in A. fabula), by different colour of dark pubescence on elytra (almost completely blackish with distinct goldenish lustre, while blackish with only partly indistinct goldenish lustre in A. fabula), by distinctly goldenish lustre at apical third of elytra (missing in A. fabula), by larger and longer spines at lateral angles of elytral apex, by different shape of pale pubescence on elytra (white stripe in basal third of elytra less curved and reaching closer to scutellum, white pubescence at elytral apex is sparser and expanded on larger area in A. francescoi, while denser white pubescence only narrowly at apical margin in A. fabula), by shorter antennae (reaching seven eighths elytral length, while antennae exceeding elytral apex in A. fabula), and by different shape of scutellum (distinctly wider in A. francescoi, as in Figs. 1 and 2).

Etymology. This new species is dedicated to Francesco Ruggiero (Viterbo, Italy), my friend and a collector of the family Cerambycidae.

Distribution. Vietnam (Lam Dong).

Genus Demonax Thomson, 1861

Type species: Demonax nigrofasciatus J. Thomson, 1861.

Demonax attritus sp. nov.

(Figs. 3-4)

Type locality. Vietnam, Kon Tum Province, Ngoc Linh Mt.

 Type material.
 Holotype (\mathcal{J}): 'Vietnam' / 'Kon Tum' / 'Ngoc Linh' / '4/2021', (CPV); Paratype: (1 \mathcal{Q}): 'Vietnam' / 'Kon Tum' / 'Ngoc Linh' / '5/2022', (CPV).

 Tum' / 'Ngoc Linh' / '5/2022', (CPV).

The types are provided with a printed red label: 'Demonax attritus sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' / 'P. Viktora det., 2022'.

Description. Habitus of male holotype as in Fig. 3a. Body from brown to blackish brown, elongate, narrow, almost parallel, punctate, with pubescence. Body length from head to elytral apex 8.63 mm, the widest at humeral part of elytra (1.98 mm), 4.35 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 punctured by dense small-sized punctation (some punctures larger near posterior margin). Head covered by dense yellowish grey pubescence. Interspace between antennal insertions narrow, antennal insertions prolonged to thorn on inner side. Eyes dark brown, emarginate. Clypeus and labrum pale ochre yellow, shiny, partly punctured, with long yellowish setation in edges. Mandibles blackish brown with black tip, shiny, with yellowish grey pubescence and longer yellowish setae in edges.

Maxillary palpus dirty pale brown, semi-matt, wrinkled. Palpomeres short, widened apically, covered by indistinct pale setation. Last palpomere the longest and the largest, wide, distinctly widened apically, axe-shaped with narrowly paler apex.

Antennae narrow, reaching seven eighths elytral length. Antennomeres dark brown, widened apically, punctured by shallow small-sized punctation, covered by indistinct yellowish grey pubescence (longer in antennomeres 1-4), antennomeres 2-6 with long yellowish setation in inner side. Antennomeres 3 and 4 with long sharp spine in inner side of apex (spine in antennomere 3 shorter), antennomere 5 with short sharp spine in inner side of apex. Antennomere 2 the shortest, antennomere 5 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.80: 0.31: 1.00: 0.88: 1.08: 1.05: 0.88: 0.81: 0.76: 0.68: 0.70.

Pronotum blackish brown, elongate, slightly narrower than elytra at humeri (shape of pronotum as in Fig. 3a). Pronotum 1.56 times longer than wide at base and 1.08 times longer than wide at the widest point (approximately middle of pronotum). Lateral margins arcuate, anterior margin and base slightly undulate. Dorsal surface with dense granulate punctation with dense micropunctation between granules. Pronotum covered by short, relatively dense, recumbent yellowish grey pubescence (as in Fig. 3a). Pronotum with long, sparse colorless setation in basal part.

Scutellum black, shield-shaped with distinctly rounded apex, covered by dense yellowish grey pubescence.

Elytra 5.5 mm long and 1.98 mm wide (2.77 times longer than wide), black with narrowly brown apex, suture black. Elytra slightly narrowing apically, punctured by small-sized punctation, matte with glossy apical quarter. Elytra covered by yellowish grey and sparse black pubescence (black pubescence in small dark spot in humeral part of each elytron) (as in Fig. 3a). Apex cut, undulate, lateral angle with distinct sharp spine, sutural angle without spine. Apical margin with long yellowish setae.

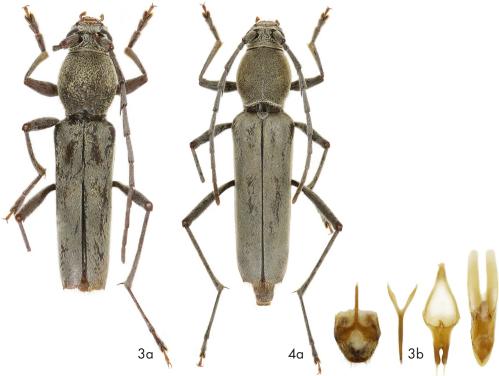


Fig. 3. Demonax attritus sp. nov.: a-male holotype; b-male genitalia. Fig. 4. Demonax attritus sp. nov.: female paratype.

Pygidium dirty ochre yellow, punctured by dense, shallow small-sized punctation, covered by sparse yellowish grey pubescence, margins with longer yellowish setae. Apex finely rounded.

Legs long and narrow, dark brown, punctured by small-sized shallow punctation, largely covered by short greyish pubescence (meso- and metafemora partly bald in inner side) and long yellowish setation (the densest in apical part 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), dark brown (claws and tibial spurs reddish brown), punctured by dense, small-sized shallow punctation, covered by yellowish grey pubescence and yellowish setation (the longest in protarsi). Metatarsi the longest and the narrowest, metatarsomere 1 2.18 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from blackish brown to black, punctured by small-sized punctation, almost completely covered by dense yellowish grey pubescence (pubescence distinctly denser than in dorsal surface). Ventrites with long, erect colorless setae. Elytral epipleura black, undulate, punctured by dense small-sized punctation, covered by yellowish grey pubescence.

Genitalia as in Fig. 3b.

Female. Habitus of female paratype as in Fig. 4. Body length from head to elytral apex 12.1 mm. Colour of female similar to male. Female without distinct differences, antennae shorter than in male.



Fig. 5. Demonax desolatus Viktora, 2022: a- male holotype, (CPV); b- male genitalia. Fig. 6. Demonax inglorius Viktora, 2020: female holotype, (CPV).

Differential diagnosis. The most similar species are *Demonax desolatus* Viktora, 2022 (Fig. 5), described from China (Yunnan) and *Demonax inglorius* Viktora, 2020 (Fig. 6), described from the same locality as *Demonax attritus* sp. nov.

D. attritus (based on comparison of males) differs from the similar species *D. desolatus* by less distinct pubescence on scutellum (pubescence of similar colour and density as in elytra in *D. attritus*, while distinctly denser and paler than in elytra in *D. desolatus*), by distinctly shorter metatarsomere 1 (length ratio metatarsomere 1 / metatarsomeres 2 and 3 together 2.18 in *D. attritus*, while 3.0 in *D. desolatus*) (as in Figs. 3a and 5a), and by different shape of abdominal segment 8 and tegmen (as in Figs. 3b and 5b).

D. attritus (based on comparison of females) differs from the similar species *D. inglorius* mainly by less elongate elytra, by wider pronotum of different shape, and by distinctly longer metatarsi (as in Figs. 4 and 6).

Etymology. From Latin attritus (it means "worn-out").

Distribution. Vietnam (Kon Tum).

Demonax oblongus sp. nov.

(Fig. 7)

Type locality. Vietnam, Kon Tum Province, Ngoc Linh Mt.

Type material. Holotype (♂): 'Vietnam' / 'Kon Tum' / 'Ngoc Linh' / '5/2021', (CPV). The type is provided with a printed red label: 'Demonax oblongus sp. nov.' / 'HOLOTYPUS' / 'P. Viktora det., 2022'.



Fig. 7. Demonax oblongus sp. nov.: a-male holotype; b-male genitalia.

Description. Habitus of male holotype as in Fig. 7a. Body from pale brown to black, elongate, narrow, parallel, punctate, with pubescence. Body length from head to elytral apex 10.32 mm, the widest at humeral part of elytra (2.13 mm), 4.84 times longer than wide.

Head from blackish brown in anterior margin to black, narrow, the widest through eyes, only indistinctly narrower than pronotum at the widest point. Dorsal surface punctured by dense smallsized punctation, punctures larger near posterior margin. Head partly covered by recumbent orange yellow pubescence. Interspace between antennal insertions narrow, antennal insertions prolonged to thorn on inner side. Eyes goldenish, emarginate. Clypeus and labrum pale ochre yellow, shiny, partly punctured, with long yellowish setation in edges. Mandibles blackish brown with black tip, shiny, with yellowish pubescence and longer yellowish setae in edges.

Maxillary palpus ochre yellow, semi-matt, wrinkled. Palpomeres short, widened apically, covered by indistinct pale setation. Last palpomere the longest and the largest, distinctly widened apically, drop-shaped with narrowly paler rounded apex.



Fig. 8. Demonax albinotus Holzschuh, 2016: a- male paratype, (CPV); b- male genitalia. Fig. 9. Demonax vescus Viktora, 2020: a- male holotype, (CPV); b- male genitalia.

Antennae narrow, almost reaching elytral apex (as in Fig. 7a). Antennomeres 1-6 blackish brown, antennomeres 7-11 brown, widened apically, punctured by shallow small-sized punctation, covered by sparse indistinct yellowish grey pubescence (the longest in antennomere 1), antennomeres 2-6 with long yellowish setation in inner side. Antennomeres without spines, antennomere 11 curved. Antennomere 2 the shortest, antennomere 7 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.53: 0.22: 1.00: 0.77: 1.07: 1.19: 1.27: 1.08: 1.03: 0.92: 1.07.

Pronotum black, elongate, narrow, narrower than elytra at humeri (shape of pronotum as in Fig. 7a). Pronotum 1.68 times longer than wide at base and 1.35 times longer than wide at the widest point (approximately one third of pronotal length from base to apex). Lateral margins indistinctly

arcuate (more or less only in lateral angles), anterior margin and base straight. Dorsal surface with dense granulate punctation with dense micropunctation between granules. Pronotum covered by short, relatively sparse, recumbent yellowish grey pubescence, the densest in base (as in Fig. 7a). Pronotum with long, sparse colorless setation near base.

Scutellum black, semi-circular, covered by dense yellowish grey pubescence.

Elytra 6.82 mm long and 2.13 mm wide (3.2 times longer than wide), black with narrowly brown apex, suture black. Elytra long and narrow, almost parallel, punctured by small-sized punctation, matte with narrowly semi-gloss apex. Elytra completely covered by short yellowish grey pubescence (as in Fig. 7a). Apex cut, undulate, lateral angle with distinct sharp spine, sutural angle with short sharp spine. Apical margin with long yellowish setae.

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

Legs long and narrow, from dark brown to blackish brown, punctured by small-sized shallow punctation, largely covered by short yellowish grey pubescence (meso- and metafemora partly bald in inner side) and long yellowish setation (the densest in apical part of tibiae). Tibiae widened apically, profemora the widest, metatibiae and metafemora distinctly longer than pro- and mesofemora. Tarsi very long and narrow (protarsi the widest), dark brown (claws and tibial spurs reddish brown), punctured by dense, small-sized shallow punctation, covered by yellowish grey pubescence and yellowish setation (the longest in protarsi). Metatarsi the longest and the narrowest, metatarsomere 1 2.3 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from brown to black (largely dark brown), punctured by small-sized punctation, largely covered by pale yellowish pubescence (very dense in apical half of mesepisternum and metepisternum), ventrites covered by relatively dense pale yellowish pubescence and long, erect colorless setae. Elytral epipleura blackish, undulate, covered by short, sparse yellowish grey pubescence.

Genitalia as in Fig. 7b.

Female. Unknown.

Differential diagnosis. The most similar species are *Demonax albinotus* Holzschuh, 2016 (Fig. 8), described from Laos (Houaphanh) and *Demonax vescus* Viktora, 2020 (Fig. 9), described from the same locality as *Demonax oblongus* sp. nov.

D. oblongus differs from the similar species *D. albinotus* mainly by different colour and density of pubescence on elytra and pronotum, by shorter antennae and by different shape of pronotum with distinctly less arcuate lateral margins (as in Figs. 7a and 8a), and by different shape of abdominal segment 8 and tegmen (as in Figs. 7b and 8b).

D. oblongus differs from the similar species *D. vescus* mainly by different shape of pronotum (more elongate in *D. oblongus*), by less elongate elytra (3.2 times longer than wide, while 3.39 times longer than wide in *D. vescus*), by shorter legs with distinctly wider tarsi, by antennomeres without spines (antennomeres 3-4 with short spine in inner side of apex in *D. vescus*), by distinctly shorter metatarsomere 1 (length ratio metatarsomere 1 / metatarsomeres 2 and 3 together 2.3 in *D. oblongus*, while 2.63 in *D. vescus*) (as in Figs. 7a and 9a), and by different shape of abdominal segment 8 and tegmen (as in Figs. 7b and 9b).

Etymology. From Latin *oblongus* (it means "oblong").

Distribution. Vietnam (Kon Tum).

Demonax pollens sp. nov.

(Figs. 10-11)

Type locality. Vietnam, Kon Tum Province, Ngoc Linh Mt.

Type material. Holotype (3): 'Vietnam' / 'Kon Tum' / 'Ngoc Linh' / '1900m, 3/2022', (CPV); Paratypes: (7 33, 1 9): same data as holotype, (CPV); (1 $^\circ$): 'Vietnam' / 'Kon Tum' / 'Ngoc Linh Mt.' / '1900m, 5/2021', (CPV). The types are provided with a printed red label: 'Demonax pollens sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' / 'P. Viktora det., 2022'.



Fig. 10. Demonax pollens sp. nov.: a-male holotype; b-male genitalia. Fig. 11. Demonax pollens sp. nov.: female paratype.

Description. Habitus of male holotype as in Fig. 10a. Body from blackish brown to black, elongate, relatively robust, almost parallel, punctate, with pubescence. Body length from head to elytral apex 6.4 mm (male paratypes from 6.2 to 6.8 mm), the widest at humeral part of elytra (1.7 mm), 3.76 times longer than wide.

Head from blackish brown in anterior margin to black, the widest through eyes, narrower than pronotum at the widest point. Dorsal surface punctured by dense small-sized punctation (some punctures larger behind eyes and near posterior margin). Head covered by whitish pubescence (more distinct in frons and anterior part). Interspace between antennal insertions narrow, antennal insertions prolonged to thorn on inner side. Eyes large, goldenish, emarginate. Clypeus and labrum pale brown, shiny, with long yellowish setation in edges. Mandibles brown with black tip, shiny, with whitish pubescence and longer yellowish setae in edges.

Maxillary palpus brown, semi-matt. Palpomeres short, widened apically, covered by pale indistinct setation. Last palpomere the longest and the largest, distinctly widened apically, axeshaped with rounded apex.

Antennae narrow, reaching three quarters elytral length. Antennomeres blackish brown, widened apically, punctured by shallow small-sized punctation, covered by indistinct pale pubescence (the longest in antennal scape), antennomeres 1-5 semi-gloss, antennomeres 2-5 with long yellowish setation in inner side. Antennomeres without spines. Antennomere 2 the shortest, antennomere 3 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.71:0.35:1.00:0.74:0.96:0.81:0.76:0.71:0.66:0.63:0.76.

Pronotum black, wide, narrower than elytra at humeri (shape of pronotum as in Fig. 10a). Pronotum 1.45 times longer than wide at base and 1.12 times longer than wide at the widest point (middle of pronotum). Lateral margins slightly arcuate, anterior margin indistinctly arcuate, base almost straight. Dorsal surface with very dense, small-sized granulate punctation. Pronotum covered by recumbent whitish and short sparser blackish pubescence, whitish pubescence creates distinct stripe around entire pronotum, from dorsal view visible only in base and anterior margin (as in Fig. 10a).

Scutellum black, shield-shaped with distinctly rounded apex, completely covered by dense whitish pubescence.

Elytra 4.1 mm long and 1.7 mm wide (2.41 times longer than wide), black. Elytra slightly narrowing apically, punctured by small-sized punctation, basal two thirds matte, apical third glossy. Elytra covered by black (with lustre) and whitish pubescence (as in Fig. 10a). Apex cut, undulate, lateral angle with short sharp spine, sutural angle rounded.

Pygidium reddish brown, punctured by dense, shallow small-sized punctation, covered by sparse indistinct pubescence, apical margin with longer yellowish setae, apex rounded.

Legs long and narrow, from blackish brown to black, punctured by small-sized shallow punctation, largely covered by sparse whitish pubescence (meso- and metafemora partly bald in inner side) and long yellowish setation (the densest in apical part of tibiae). Tibiae distinctly widened apically, profemora the widest, metatibiae and metafemora distinctly longer than proand mesotibiae and pro- and mesofemora. Tarsi dark brown (claws and tibial spurs pale reddish brown), punctured by dense, small-sized shallow punctation, covered by pale pubescence and yellowish setation. Metatarsi the longest, metatarsomere 1 1.95 times longer than metatarsomeres 2 and 3 together.

Ventral side of body largely black, punctured by small-sized punctation, partly covered by dense white pubescence (in apical half of mesepisternum, metepisternum, metasternum in apical part and largely ventrites 1-2), rest of ventral side covered by sparser pale yellowish setation

(mainly in ventrites 3-5). Ventral side with a few erect colorless setae. Elytral epipleura black, undulate, covered by short, indistinct shiny pubescence.

Genitalia as in Fig. 10b.

Female. Habitus of female paratype as in Fig. 11. Body length from head to elytral apex (female paratypes) from 7.2 to 7.5 mm. Colour of female similar to male. Female without distinct differences, body more robust, protarsi narrower and shorter, antennae shorter than in male.

Differential diagnosis. Based on shape of pronotum with distinct white stripe around entire pronotum is the most similar species *Demonax albotrifasciatus* Pic, 1925, described from Vietnam (Hoa Binh).

Demonax pollens sp. nov. differs from the similar species *D. albotrifasciatus* by different stripes of white pubescence in basal elytral third (distinctly kinked and continuing along suture almost to scutellum in *D. pollens*, while slightly curved and almost transverse in basal elytral quarter in *D. albotrifasciatus*), and by other location of white stripe in elytral apex (white stripe placed at apical margin in *D. pollens*, while preapically in *D. albotrifasciatus* - each elytron with stripe without white pubescence at apical margin).

Etymology. From Latin *pollens* (it means "mighty").

Distribution. Vietnam (Kon Tum).

Demonax miser sp. nov.

(Figs. 12-13)

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

Type material. Holotype (♂): 'Vietnam' / 'Kon Tum prov.' / 'Ngoc Linh' / '1900m, 5/2021', (CPV); Paratype: (1 ♀): 'Vietnam' / 'Kontum prov.' / 'Ngoc Linh Mt.' / '1900m, 4/2020', (CPV).

The types are provided with a printed red label: 'Demonax miser sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' / 'P. Viktora det., 2022'.

Description. Habitus of male holotype as in Fig. 12a. Body from pale brown to black, elongate, narrow, almost parallel, punctate, with pubescence. Body length from head to elytral apex 6.05 mm, the widest at humeral part of elytra (1.34 mm), 4.51 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 punctured by dense small-sized punctation (some punctures larger near posterior margin). Head covered by greyish pubescence. Interspace between antennal insertions narrow, antennal insertions prolonged to thorn on inner side. Eyes dark brown, emarginate. Clypeus and labrum pale ochre yellow, shiny, partly punctured, with long yellowish setation in edges. Mandibles brown with black tip, shiny, with greyish pubescence and longer yellowish setae in edges.

Maxillary palpus pale ochre yellow, semi-gloss, punctured. Palpomeres short, widened apically, covered by indistinct pale setation. Last palpomere the longest and the largest, wide, distinctly widened apically, axe-shaped with rounded apex.

Antennae narrow, reaching seven eighths elytral length. Antennomeres dark brown, widened apically, punctured by shallow small-sized punctation, covered by sparse greyish pubescence (longer in antennomeres 1-4), antennomeres 2-6 with long yellowish setation in inner side.



Fig. 12. *Demonax miser* sp. nov.: a-male holotype; b-male genitalia. Fig. 13. *Demonax miser* sp. nov.: female paratype.

Antennomeres 3 and 4 with long sharp spine in inner side of apex (spine in antennomere 3 shorter), antennomere 5 with very short, indistinct sharp spine in inner side of apex. Antennomere 2 the shortest, antennomere 3 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.58: 0.28: 1.00: 0.70: 0.97: 0.79: 0.72: 0.59: 0.58: 0.53: 0.62.

Pronotum black, slightly narrower than elytra at humeri (shape of pronotum as in Fig. 12a). Pronotum 1.46 times longer than wide at base and 1.13 times longer than wide at the widest point (before middle of pronotum from base to apex). Lateral margins arcuate, anterior margin almost straight, base slightly undulate (excised in middle). Dorsal surface with dense granulate punctation with dense microgranulation between granules. Pronotum covered by relatively sparse, recumbent greyish pubescence (as in Fig. 12a). Pronotum with long, sparse colorless setation in basal part.

Scutellum black, widely roundly triangular, covered by recumbent greyish pubescence.

Elytra 4.03 mm long and 1.34 mm wide (3.0 times longer than wide), black with narrowly brown apex, suture black. Elytra almost parallel, punctured by small-sized punctation, largely semi-matt. Elytra covered by sparse greyish pubescence (as in Fig. 12a). Apex cut, undulate, lateral and sutural angle with short sharp spine. Apical margin with long yellowish setae.

Pygidium ochre yellow, shiny, punctured by dense, shallow small-sized punctation, covered by sparse pale pubescence, margins with longer yellowish setae. Apical angles rounded.

Legs long and narrow, dark brown, punctured by small-sized shallow punctation, largely covered by short greyish pubescence (meso- and metafemora partly bald in inner side) and long yellowish setation (the densest in apical part 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), dark brown (claws and tibial spurs reddish brown), punctured by dense, small-sized shallow punctation, covered by greyish pubescence and yellowish setation. Metatarsi the longest and the narrowest, metatarsomere 1 2.5 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from blackish brown to black (largely black), punctured by small-sized punctation, almost completely covered by dense greyish pubescence (pubescence distinctly denser than in dorsal surface). Ventrites with a few long, erect colorless setae. Elytral epipleura black, undulate, punctured by small-sized punctation, covered by greyish pubescence.

Genitalia as in Fig. 12b.

Female. Habitus of female paratype as in Fig. 13. Body length from head to elytral apex 6.95 mm. Colour of female similar to male. Female without distinct differences, body less elongate, antennae shorter than in male.

Differential diagnosis. The most similar species are *Demonax gunjii* Holzschuh, 1983, described from Nepal and *Demonax dirangensis* Viktora, 2021, described from India (Arunachal Pradesh).

Demonax miser sp. nov. differs from the similar species *D. gunjii* mainly by darker body (largely blackish, while pale brown in *D. gunjii*), by different colour of pubescence on pronotum and elytra (greyish in *D. miser*, while yellowish in *D. gunjii*), by elytra unicolored without spots of darker pubescence (elytra usually with darker spots in three quarters elytral length in *D. gunjii*) (as in Figs. 12a and 13, for comparison see Viktora, 2021: 135, Figs. 15a and 16), and by different shape of abdominal segment 8, tegmen and median lobe (as in Fig. 12b, for comparison see Viktora, 2021: 135, Fig. 15b).

D. miser differs from the similar species *D. dirangensis* mainly by distinctly wider pronotum of different shape (as in Figs. 12a and 13, for comparison see Viktora, 2021: 135, Figs. 13a and 14), and by different shape of abdominal segment 8, tegmen and median lobe (as in Fig. 12b, for comparison see Viktora, 2021: 135, Fig. 13b).

Etymology. From Latin *miser* (it means "poor").

Distribution. Vietnam (Kon Tum).

Demonax navus sp. nov.

(Figs. 14-15)

Type locality. The Philippines, Mindanao Island, Lanao del Sur Province, Wao.

Type material. Holotype (♂): 'Wao, Lanao del Sur' / 'MINDANAO' / 'IX 2016' / 'Rep. PILIPINAS', (CPV); Paratypes: (1 ♀): 'Wao, Lanao del Sur' / 'MINDANAO' / 'XII 2016' / 'Rep. PILIPINAS', (CFR); (1 ♀): 'PHILIPPINES' / 'Esperanza, Agusan Del Sur' / 'Mindanao' / 'IX. 2018, local collector leg.', (CPV).

The types are provided with a printed red label: 'Demonax navus sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' / 'P. Viktora det., 2022'.

Description. Habitus of male holotype as in Fig. 14a. Body from brown to black, elongate, narrow, parallel, punctate, with pubescence. Body length from head to elytral apex 12.8 mm, the widest at humeral part of elytra (2.63 mm), 4.86 times longer than wide.

Head from blackish brown in anterior margin to black, narrow, the widest through eyes, indistinctly narrower than pronotum at the widest point. Dorsal surface punctured by dense smallsized punctation (some punctures larger behind eyes and near posterior margin). Dorsal surface of head largely with narrow longitudinal furrow in middle. Head covered by grey pubescence (densest in frons). Interspace between antennal insertions narrow, antennal insertions prolonged to thorn on inner side. Eyes goldenish, emarginate. Clypeus and labrum dirty pale brown, shiny, partly punctured, with long yellowish setation in edges. Mandibles blackish, shiny, with grey pubescence and longer pale setae in edges.

Maxillary palpus dirty pale brown, semi-gloss. Palpomeres short, widened apically, covered by pale setation. Last palpomere the longest and the largest, wrinkled with depressions, distinctly widened apically, drop-shaped with rounded apex.

Antennae narrow, reaching four fifths elytral length. Antennomeres from pale brown in last antennomere to dark brown antennal scape, widened apically, punctured by shallow small-sized punctation, covered by greyish pubescence (sparser and longer in antennomeres 1-3), antennomeres 1-5 semi-gloss, antennomeres 2-7 with long yellowish setation in inner side. Antennomeres 3 and 4 with very long not sharp spine in inner side of apex (spine in antennomere 3 longer). Antennomere 2 the shortest, antennomere 6 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.79: 0.32: 1.00: 1.08: 1.31: 1.36: 1.25: 1.11: 1.03: 0.98: 0.99.

Pronotum blackish brown, elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 14a). Pronotum 1.59 times longer than wide at base and 1.29 times longer than wide at the widest point (before middle of pronotum from base to apex). Lateral margins indistinctly arcuate, anterior margin and base slightly undulate. Dorsal surface with irregular, dense, small-sized granulate punctation with microgranulation inside. Pronotal disc with distinct elevation in middle in one third pronotal length from base. Pronotum covered by short, recumbent grey and

dark pubescence with goldenish lustre in dark transverse stripe in middle of pronotal disc (as in Fig. 14a).

Scutellum black, roundly triangular, punctured, partly covered by sparse grey pubescence.

Elytra 8.58 mm long and 2.63 mm wide (3.26 times longer than wide), from black in base to pale brown apical margin. Elytra only slightly narrowing apically, punctured by dense small-sized punctation, basal third matte, rest of elytral surface largely glossy. Elytra covered by black (with goldenish lustre) and grey pubescence (as in Fig. 14a). Apex cut, apical margin arcuate, lateral angle sharp without spine, sutural angle rounded. Apical margin with long yellowish setae.

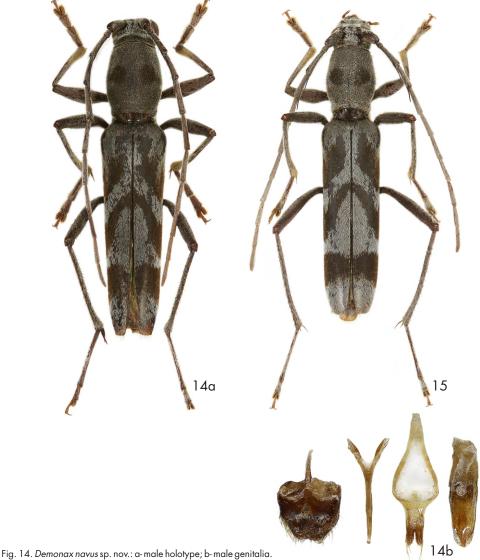


Fig. 14. *Demonax navus* sp. nov.: a- male holotype; b- male genita Fig. 15. *Demonax navus* sp. nov.: female paratype. Pygidium pale brown, punctured by dense, shallow small-sized punctation, covered by sparse pale pubescence, margins with longer yellowish setae. Apex rounded.

Legs long and narrow, from brown to blackish brown, punctured by small-sized shallow punctation, largely covered by short, relatively sparse grey pubescence (meso- and metafemora partly bald in inner side) and long yellowish setation (the densest in apical part of tibiae). Tibiae widened apically, profemora the widest, metatibiae and metafemora distinctly longer than pro- and mesofibiae and pro- and mesofemora. Tarsi long and narrow, brown including claws and tibial spurs, punctured by dense, small-sized shallow punctation, covered by greyish pubescence (in metatarsi) and yellowish setation. Metatarsi the longest and the narrowest, metatarsomere 1 2.75 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from blackish brown to black, punctured by small-sized punctation, largely covered by dense grey pubescence (denser than pale pubescence in elytra). Ventral side partly with admixture of pale yellowish setae (mainly in ventrites 3-5). Elytral epipleura blackish, undulate, covered by short indistinct pubescence.

Genitalia as in Fig. 14b.

Female. Habitus of female paratype as in Fig. 15. Body length from head to elytral apex (female paratypes) from 11.15 to 11.5 mm. Colour of female similar to male. Female without distinct differences, tarsi narrower and shorter than in male, antennae slightly shorter than in male, pronotal disc with partly reticulate punctation in basal quarter (granulate punctation in male).

Differential diagnosis. The most similar species are *Demonax angulifascia* Aurivillius, 1922, described from Luzon Island, *Demonax opertus* sp. nov. (Figs. 16-17) and *Demonax hortator* sp. nov. (Figs. 18-19).

Demonax navus sp. nov. (based on comparison with type specimen of Demonax angulifascia Aurivillius, 1922 - deposited in Naturhistoriska Riksmuseet, Stockholm, Sweden) differs from the similar species *D. angulifascia* by distinctly more elongate body, by distinctly more elongate elytra with different shape of dark pubescence spots (more vertically stretched in *D. navus*), by different shape of pronotum with less arcuate lateral margins, and by different shape of dark spots on pronotal disc (two distinct separated spots in *D. navus*, while two narrow curved stripes almost combined in lower part and forming stylized letter "v" in *D. angulifascia*).

D. navus differs from the similar species *D. opertus* by distinctly more elongate elytra with different shape of dark pubescence spots (more vertically stretched in *D. navus*), by different colour of pale pubescence on pronotum and elytra (grey in *D. navus*, while yellowish in *D. opertus*), by narrower pronotum of different shape, by more distinct dark spots on pronotal disc, and by different colour of antennomeres (antennomeres from pale brown in last antennomere to dark brown antennal scape in *D. navus*, while last four antennomeres pale ochre yellow in *D. opertus*) (as in Figs. 14a, 15, 16a, 17), and by different shape of abdominal segment 8, tegmen and median lobe (as in Figs. 14b and 16b).

D. navus (based on comparison of males) differs from the similar species *D. hortator* by different colour of pale pubescence on pronotum and elytra (grey in *D. navus*, while yellow in *D. hortator*), by shorter antennae (reaching four fifths elytral length in *D. navus*, while almost reaching elytral apical margin in *D. hortator*), by darker antennomeres 8-11 than in *D. hortator*, by larger and more distinct dark spots on pronotal disc, by different shape of dark pubescence spots in apical part of each elytron (large, transverse spot reaching suture in *D. navus*, while smaller, triangular spot not reaching suture in *D. hortator*) (as in Figs. 14a and 18a), and by different shape of abdominal segment 8, tegmen and median lobe (as in Figs. 14b and 18b).

Etymology. From Latin navus (it means "diligent").

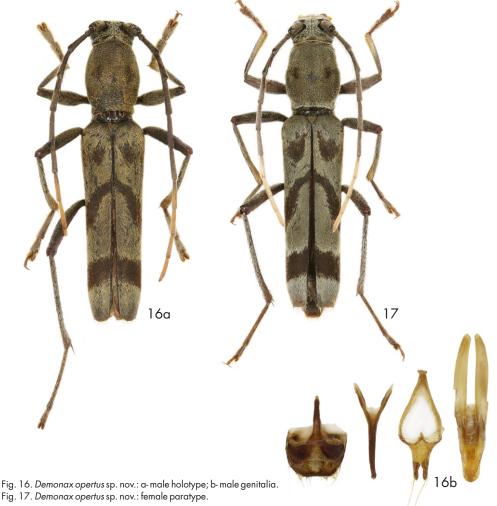
Distribution. The Philippines (Mindanao Island - Lanao del Sur Province, Agusan del Sur Province).

Demonax opertus sp. nov.

(Figs. 16-17)

Type locality. The Philippines, Luzon Island, Ifugao Province, Hungduan.

Type material. Holotype (♂): 'Philippines' / 'North Luzon' / Ifugao, Hungduan' / 'IV. 2020', (CPV); Paratypes: (1 ♂): 'PHILIPPINES' / 'Sierra Madre, Dingalan' / 'Aurora, Eastern Luzon' / 'III. 2018, local collecor leg.', (CPV); (1 ♀): 'PHILIPPINES' / 'Sierra Madre, Tapsoy, Nagtipunan' / 'Quirino, Eastern Luzon' / 'III. 2018, local collector leg.', (CPV). The types are provided with a printed red label: 'Demonax opertus sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' / 'P. Viktora det., 2022'.



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Description. Habitus of male holotype as in Fig. 16a. Body from dark brown to black, elongate, narrow, parallel, punctate, with pubescence. Body length from head to elytral apex 11.78 mm (male paratype 10.7 mm), the widest at humeral part of elytra (2.5 mm), 4.71 times longer than wide.

Head from blackish brown in anterior margin to black, narrow, the widest through eyes, indistinctly narrower than pronotum at the widest point. Dorsal surface punctured by dense smallsized punctation (some punctures larger behind eyes and near posterior margin). Head covered by yellowish pubescence (the densest in frons). Interspace between antennal insertions narrow, antennal insertions prolonged to thorn on inner side. Eyes dark goldenish brown, emarginate. Clypeus and labrum dirty pale brown, glossy, partly punctured, with long yellowish setation in edges. Mandibles blackish, shiny, with yellowish pubescence and longer pale setae in edges.

Maxillary palpus dirty pale brown, semi-gloss. Palpomeres short, widened apically, covered by pale setation. Last palpomere the longest and the largest, distinctly widened apically, axe-shaped with rounded apex.

Antennae narrow, reaching five sixths elytral length. Antennomeres from pale ochre yellow last four antennomeres to blackish brown antennal scape, widened apically, punctured by shallow small-sized punctation, covered by indistinct pale yellowish pubescence (longer and more distinct in antennal scape), antennomeres 1-5 semi-gloss, antennomeres 2-7 with long yellowish setation in inner side. Antennomeres 3 and 4 with very long not entirely sharp spine in inner side of apex, spine in antennomere 3 longer (exceeding one half length of antennomere 4). Antennomere 2 the shortest, antennomere 5 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.91:0.30:1.00:1.28:1.69:1.59:1.52:1.39:1.25:1.14:1.22.

Pronotum blackish brown, elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 16a). Pronotum 1.7 times longer than wide at base and 1.3 times longer than wide at the widest point (approximately middle of pronotum). Lateral margins indistinctly arcuate, anterior margin almost straight, base slightly excised. Dorsal surface with irregular, dense, small-sized granulate punctation with microgranulation inside. Pronotal disc with distinct elevation in middle in one third pronotal length from base. Pronotum covered by short, recumbent yellowish and darker pubescence with goldenish lustre in small vague dark spots on pronotal disc (as in Fig. 16a).

Scutellum black, roundly triangular, covered by sparse yellowish pubescence.

Elytra 7.83 mm long and 2.5 mm wide (3.13 times longer than wide), from black in base to dark brown apical margin. Elytra only slightly narrowing apically, punctured by dense small-sized punctation, basal two thirds matte, rest of elytral surface glossy. Elytra covered by black (with goldenish lustre) and yellowish pubescence (as in Fig. 16a). Apex cut, apical margin distinctly undulate, lateral angle with distinct sharp spine, sutural angle sharp without spine. Apical margin with long yellowish setae.

Pygidium pale brown, punctured by dense, shallow small-sized punctation, covered by sparse pale pubescence, margins with longer yellowish setae. Apical angles rounded.

Legs long and narrow, from dark brown to blackish brown, punctured by small-sized shallow punctation, largely covered by short, relatively sparse pale yellowish pubescence (meso- and metafemora partly bald in inner side) and long yellowish setation (the densest in apical part 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, brown including claws and tibial spurs, punctured by dense, small-sized shallow punctation, covered by pale yellowish pubescence (in metatarsi) and yellowish setation. Metatarsi the longest and the narrowest, metatarsomere 1 2.9 times longer than metatarsomeres 2 and 3 together. Ventral side of body from blackish brown to black, punctured by small-sized punctation, largely covered by dense yellowish pubescence (denser than pale pubescence in elytra). Ventral side partly with very long, erect colorless setae (mainly in ventrites). Elytral epipleura blackish, slightly undulate, covered by short, indistinct yellowish pubescence.

Genitalia as in Fig. 16b.

Female. Habitus of female paratype as in Fig. 17. Body length from head to elytral apex 12.0 mm. Colour of female similar to male. Female without distinct differences, tarsi narrower and shorter than in male, antennae slightly shorter, pronotum less elongate than in male, pronotal disc with partly reticulate punctation in basal quarter (granulate punctation in male).

Differential diagnosis. The most similar species are *Demonax angulifascia* Aurivillius, 1922, *Demonax navus* sp. nov. (Figs. 14-15) and *Demonax hortator* sp. nov. (Figs. 18-19).

Demonax opertus sp. nov. (based on comparison with type specimen of Demonax angulifascia Aurivillius, 1922 - deposited in Naturhistoriska Riksmuseet, Stockholm, Sweden) differs from the similar species *D. angulifascia* by distinctly more elongate body, by distinctly more elongate elytra, by different shape of pronotum with less arcuate lateral margins, by different shape of dark spots on pronotal disc (two vague separated spots in *D. opertus*, while two narrow curved stripes almost combined in lower part and forming stylized letter "v" in *D. angulifascia*), and by antennomeres 3 and 4 with very long not entirely sharp spine in inner side of apex, while with sharp spines in *D. angulifascia*.

D. opertus differs from the similar species *D. navus* by distinctly less elongate elytra with different shape of dark pubescence spots (more vertically stretched in *D. navus*), by different colour of pale pubescence on pronotum and elytra (yellowish in *D. opertus*, while grey in *D. navus*), by wider pronotum of different shape, by less distinct dark spots on pronotal disc, and by different colour of antennomeres (last four antennomeres pale ochre yellow in *D. opertus*, while antennomeres from pale brown in last antennomere to dark brown antennal scape in *D. navus*) (as in Figs. 14a, 15, 16a, 17), and by different shape of abdominal segment 8, tegmen and median lobe (as in Figs. 14b and 16b).

D. opertus (based on comparison of males) differs from the similar species *D. hortator* by different colour of pale pubescence on pronotum and elytra (yellowish in *D. opertus*, while yellow in *D. hortator*), by shorter antennae (reaching five sixths elytral length in *D. opertus*, while almost reaching elytral apical margin in *D. hortator*), by different shape of dark pubescence spots on elytra (more vertically stretched in *D. hortator*), by different shape of dark pubescence spots in apical part of each elytron (large, transverse spot reaching suture in *D. opertus*, while smaller, triangular spot not reaching suture in *D. hortator*) (as in Figs. 16a and 18a), and by different shape of abdominal segment 8, tegmen and median lobe (as in Figs. 16b and 18b).

Etymology. From Latin opertus (it means "secret").

Distribution. The Philippines (Luzon Island - Ifugao Province, Aurora Province, Quirino Province).

Demonax hortator sp. nov.

(Figs. 18-19)

Type locality. The Philippines, Mindanao Island, Lanao del Sur Province, Wao.

Type material. Holotype (♂): 'PHILIPPINES' / 'Mindanao, Wao' / 'Lanao del Sur' / 'VI. 2019', (CPV); Paratypes: (2 ♀♀): 'Philippines' / 'Mindanao' / 'North Cotaboto' / 'Alamada' / 'IX. 2020', (CPV); (1 ♀): 'PHILIPPINES' / 'Wao, Lanao del Sur' / 'Mindanao' / 'VII. 2017, local collector leg.', (CPV). The types are provided with a printed red label: 'Demonax hortator sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' /

'P. Viktora det., 2022'.

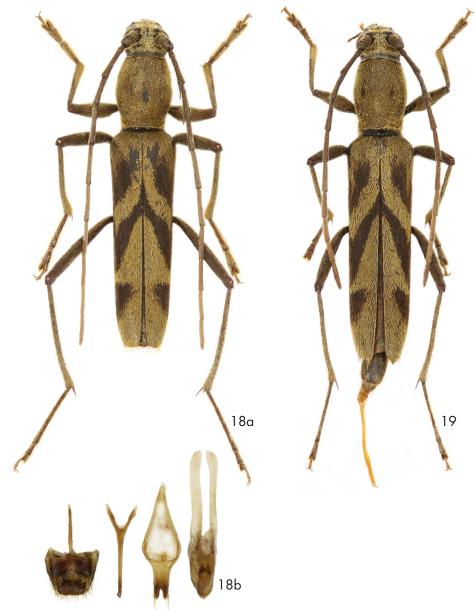


Fig. 18. Demonax hortator sp. nov.: a-male holotype; b-male genitalia. Fig. 19. Demonax hortator sp. nov.: female paratype.

Description. Habitus of male holotype as in Fig. 18a. Body from dark brown to black, elongate, narrow, parallel, punctate, with pubescence. Body length from head to elytral apex 10.9 mm, the widest at humeral part of elytra (2.21 mm), 4.93 times longer than wide.

Head from blackish brown in anterior margin to black, narrow, the widest through eyes, slightly narrower than pronotum at the widest point. Dorsal surface punctured by dense small-sized punctation (some punctures larger behind eyes and near posterior margin). Head almost completely covered by relatively dense yellow pubescence. Interspace between antennal insertions narrow, antennal insertions prolonged to thorn on inner side. Eyes goldenish, emarginate. Clypeus and labrum dirty pale brown, glossy, partly punctured, with long yellowish setation in edges. Mandibles blackish, semi-gloss, with yellow pubescence and longer pale setae in edges.

Maxillary palpus dirty pale brown. Palpomeres short, widened apically, punctured by indistinct punctation, covered by pale setation. Last palpomere the longest and the largest, widened apically, drop-shaped with rounded apex.

Antennae narrow, almost reaching elytral apical margin. Antennomeres 1-5 brown, antennomeres 6-11 pale brown, widened apically, punctured by shallow small-sized punctation, covered by indistinct pale yellow pubescence (longer and more distinct in antennal scape), antennomeres 1-5 semi-gloss, antennomeres 2-7 with long yellowish setation in inner side. Antennomeres 3 and 4 with very long spines in inner side of apex (spine in antennomere 3 longer and not entirely sharp, spine in antennomere 4 sharp). Antennomere 2 the shortest, antennomere 5 the longest. Antennomere 11 distinctly narrowed in apical quarter. Ratios of relative lengths of antennomeres 1-11 equal to: 0.81: 0.25: 1.00: 0.93: 1.37: 1.31: 1.30: 1.17: 1.06: 0.97: 1.06.

Pronotum blackish, elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 18a). Pronotum 1.7 times longer than wide at base and 1.29 times longer than wide at the widest point (middle of pronotum). Lateral margins indistinctly arcuate, anterior margin slightly undulate, base almost straight. Dorsal surface with irregular, dense, small-sized granulate punctation with microgranulation inside. Pronotal disc with distinct elevation in middle in approximately one third pronotal length from base. Pronotum covered by short, recumbent yellow pubescence and a few goldenish setae creating two small vague spots on pronotal disc (almost invisible in holotype specimen, slightly more visible in some paratype specimens).

Scutellum black, triangular, punctured, covered by sparse yellow pubescence.

Elytra 7.25 mm long and 2.21 mm wide (3.28 times longer than wide), from black in base to brown apical margin. Elytra only slightly narrowing apically, punctured by dense small-sized punctation, basal part matte, rest of elytral surface glossy. Elytra covered by black (with goldenish lustre) and yellow pubescence (as in Fig. 18a). Apex cut, apical margin slightly undulate, lateral and sutural angle with short indistinct spine. Apical margin with long yellowish setae.

Pygidium brown, punctured by dense, shallow small-sized punctation (in margins and apical third glossy), covered by sparse, long yellow pubescence, margins with very long yellowish setae. Apical angles rounded.

Legs long and narrow, from brown to blackish brown, punctured by small-sized shallow punctation, largely covered by short, relatively sparse pale yellowish pubescence (metafemora partly bald in inner side) and long yellowish setation (the densest in apical part 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 with pale reddish brown claws and tibial spurs, punctured by dense, small-sized shallow punctation, covered by pale yellowish pubescence and yellowish setation. Metatarsi the longest and the narrowest, metatarsomere 1 3.15 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from brown in coxae to black, punctured by small-sized punctation, largely covered by dense yellowish pubescence (denser than yellow pubescence in elytra). Ventral side partly with very long, erect colorless setae (mainly in ventrites). Elytral epipleura brown, slightly undulate, covered by sparse yellowish pubescence.

Genitalia as in Fig. 18b.

Female. Habitus of female paratype as in Fig. 19. Body length from head to elytral apex (female paratypes) from 10.9 to 14.15 mm. Colour of female similar to male. Female without distinct differences, tarsi narrower and shorter than in male, antennae shorter (antennae almost reaching elytral apex in male).

Differential diagnosis. The most similar species are *Demonax angulifascia* Aurivillius, 1922, described from Luzon Island, *Demonax navus* sp. nov. (Figs. 14-15) and *Demonax opertus* sp. nov. (Figs. 16-17).

Demonax hortator sp. nov. (based on comparison with type specimen of Demonax angulifascia Aurivillius, 1922 - deposited in Naturhistoriska Riksmuseet, Stockholm, Sweden) differs from the similar species *D. angulifascia* by distinctly more elongate body, by distinctly more elongate elytra, by different shape of dark pubescence spots on elytra (more vertically stretched in *D. hortator*), by different colour of pale pubescence on pronotum and elytra (yellow in *D. hortator*, while grey in *D. angulifascia*), by different shape of dark spots on pronotal disc (two small, vague, distinctly separated spots in *D. hortator*, while two narrow curved stripes almost combined in lower part and forming stylized letter "v" in *D. angulifascia*).

D. hortator (based on comparison of males) differs from the similar species *D. navus* by different colour of pale pubescence on pronotum and elytra (yellow in *D. hortator*, while grey in *D. navus*), by longer antennae (almost reaching elytral apical margin in *D. hortator*, while reaching four fifths elytral length in *D. navus*), by paler antennomeres 8-11 than in *D. navus*, by smaller and less distinct dark spots on pronotal disc, by different shape of dark pubescence spots in apical part of each elytron (smaller, triangular spot not reaching suture in *D. hortator*, while large, trasverse spot reaching suture in *D. navus*) (as in Figs. 14a and 18a), and by different shape of abdominal segment 8, tegmen and median lobe (as in Figs. 14b and 18b).

D. hortator (based on comparison of males) differs from the similar species *D. opertus* by different colour of pale pubescence on pronotum and elytra (yellow in *D. hortator*, while yellowish in *D. opertus*), by longer antennae (almost reaching elytral apical margin in *D. hortator*, while reaching five sixths elytral length in *D. opertus*), by different shape of dark pubescence spots on elytra (more vertically stretched in *D. hortator*), by different shape of dark pubescence spots in apical part of each elytron (smaller, triangular spot not reaching suture in *D. hortator*, while large, trasverse spot reaching suture in *D. opertus*) (as in Figs. 16a and 18a), and by different shape of abdominal segment 8, tegmen and median lobe (as in Figs. 16b and 18b).

Etymology. From Latin hortator (it means "abettor").

Distribution. The Philippines (Mindanao Island - Lanao del Sur Province, Cotabato Province).

Genus Petraphuma Viktora, 2018

Type species: Rhaphuma sulphurea Gressitt, 1941.

Petraphuma pictura sp. nov.

(Fig. 20)

Type locality. Vietnam, Kon Tum Province, Ngoc Linh Mt.

Type material. Holotype (3): 'Vietnam' / 'Kon Tum' / 'Ngoc Linh' / '1900m, 3/2022', (CPV).
The type is provided with a printed red label: 'Petraphuma pictura sp. nov.' / 'HOLOTYPUS' / 'P. Viktora det., 2022'.

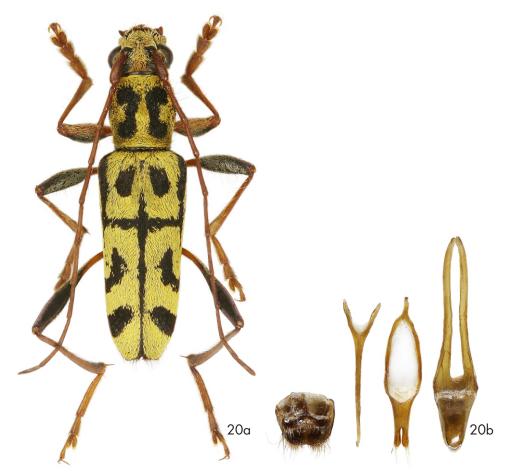


Fig. 20. Petraphuma pictura sp. nov.: a-male holotype; b-male genitalia.

Description. Habitus of male holotype as in Fig. 20a. Body from pale reddish brown to black, elongate, relatively robust, punctate, with pubescence. Body length from head to elytral apex 9.9 mm, the widest at humeral part of elytra (2.66 mm), 3.72 times longer than wide.

Head black with blackish brown margins, short, the widest through eyes, slightly narrower than pronotum at the widest point. Head punctured by irregular coarse granulation and irregular punctation, almost completely covered by dense, long yellow pubescence. Eyes large, goldenish brown, longitudinally emarginate. Antennal insertions prolonged to long thorn on inner side. Head partly covered by sparse, long, erect yellowish setation. Clypeus and labrum brown, shiny, with long yellowish setation in margins. Mandibles blackish, shiny, margins with yellow pubescence and yellowish setae.

Maxillary palpus dirty brown, semi-matt, palpomeres widened apically, punctured by indistinct micropunctation, covered by indistinct yellowish setation. Last palpomere the longest and the largest, distinctly widened apically, axe-shaped with cut, indistinctly rounded apical margin.

Antennae narrow, filiform, pale reddish brown, distinctly exceeding elytral apex (as in Fig. 20a). Antennomeres without spines, widened and rounded apically, antennomeres 1-8 semigloss, rest of antennomeres matte. Antennae punctured by small-sized punctation (more distinct in antennal scape), covered by short, sparse, indistinct pale pubescence and long, erect pale yellowish setation on inner side. Antennomere 2 the shortest, antennomere 6 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.91: 0.24: 1.00: 0.96: 1.07: 1.09: 1.04: 0.87: 0.79: 0.71: 0.66.

Pronotum black, elongate, distinctly narrower than elytra at humeri (shape of pronotum as in Fig. 20a). Pronotum 1.39 times longer than wide at base and 1.16 times longer than wide at the widest point (middle of pronotum). Lateral margins and anterior margin indistinctly arcuate, base almost straight. Dorsal surface with coarse granulate punctation, partly covered by dense yellow and partly by sparse black pubescence in dark places (as in Fig. 20a). Surface with very long, distinct erect setae.

Scutellum black, widely roundly triangular, completely covered by dense yellow pubescence.

Elytra 6.3 mm long and 2.66 mm wide (2.36 times longer than wide), black with narrowly paler apical margin, distinctly narrowing apically, elytra wide and massive at humeri. Elytra distinctly elevated in basal sixth below scutellum, punctured by dense, small-sized punctation (punctation partly granulate), covered by short blackish pubescence with lustre and dense yellow pubescence (as in Fig. 20a). Elytral surface with long, erect yellowish setae in basal quarter. Apex cut, lateral and sutural angles without spines. Apical margin with long yellowish setae, elytral apex narrowly with darker erect setae.

Pygidium ochre yellow, punctured by dense, shallow small-sized punctation, covered by short indistinct pubescence.

Legs long and narrow, from pale reddish brown to black (partly in femora), punctured by smallsized shallow punctation, partly covered by yellowish pubescence (in femora) and yellowish setation (the densest in apical part of tibiae). Tibiae distinctly widened apically, femora slightly club-shaped, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi pale reddish brown, punctured by dense, small-sized shallow punctation, covered by long yellowish setation. Metatarsi the longest, metatarsomere 1 1.44 times longer than metatarsomeres 2 and 3 together.

Ventral side of body from brown (in coxae) to black (largely blackish), punctured by small-sized punctation, largely covered by dense, recumbent yellowish pubescence and distinct, long, erect pale setation (very long and distinct mainly in ventrites). Elytral epipleura black, undulate, punctured by dense small-sized punctation, covered by short, pale shiny pubescence.

Genitalia as in Fig. 20b.

Female. Unknown.

Differential diagnosis. The most similar species are *Petraphuma boreovietnamica* (Viktora & Tichý, 2017) (Fig. 21), described from Vietnam (Vinh Phuc) and *Petraphuma meridiovietnamica* (Viktora & Tichý, 2017) (Fig. 22), described from Vietnam (Lam Dong).

Petraphuma pictura sp. nov. differs from the similar species *P. boreovietnamica* by distinctly different shape and placement of dark spots and stripes on elytra (as in Figs. 20a and 21), by darker meso- and metafemora, and by distinctly longer and narrower protarsi in *P. pictura* (the most distinct in protarsomere 1).

P. pictura differs from the similar species *P. meridiovietnamica* by distinctly different shape and placement of dark spots and stripes on elytra (as in Figs. 20a and 22), by more elongate elytra, by slightly narrower protarsi, and by profemora largely pale reddish brown in *P. pictura* (profemora largely black in *P. meridiovietnamica*).

Etymology. From Latin pictura (it means "picture").

Distribution. Vietnam (Kon Tum).

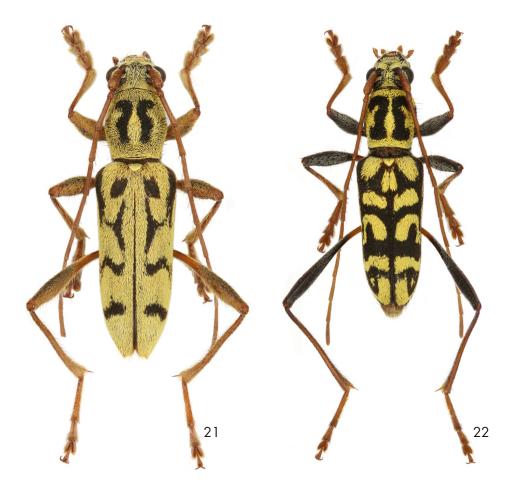


Fig. 21. Petraphuma boreovietnamica (Viktora & Tichý, 2017): male holotype, (CPV). Fig. 22. Petraphuma meridiovietnamica (Viktora & Tichý, 2017): male holotype, (CPV).

Genus Rhaphuma Pascoe, 1858

Type species: Clytus quadricolor Castelnau & Gory, 1841.

Rhaphuma taenia sp. nov.

(Fig. 23)

Type locality. Vietnam, Gia Lai Province.

Type material. Holotype (♂): 'Gia Lai, Viet Nam' / '6/2021', (CPV). The type is provided with a printed red label: 'Rhaphuma taenia sp. nov.' / 'HOLOTYPUS' / 'P. Viktora det., 2022'.

Description. Habitus of male holotype as in Fig. 23a. Body from pale brown to black, elongate, narrow, punctate, with pubescence. Body length from head to elytral apex 11.84 mm, the widest at humeral part of elytra (2.53 mm), 4.67 times longer than wide.

Head black (blackish brown in anterior margin), narrow, the widest through eyes, narrower than pronotum at the widest point. Head punctured by irregular coarse granulation with micropunctation and small-sized punctation in anterior margin, frons with distinct, irregular longitudinal carina in middle. Head covered by dense, distinct yellow pubescence, party with a few long pale setae. Eyes large, goldenish brown, strongly emarginate. Clypeus and labrum pale ochre yellow, shiny, partly with punctation and long yellowish setation. Mandibles blackish brown with black tip, shiny, margins with dense yellow pubescence and longer yellowish setation.

Maxillary palpus ochre yellow, palpomeres short, with yellowish short setation. Last palpomere the longest, knife-shaped with rounded apex.

Antennae narrow, filiform, pale reddish brown (antennomeres 7-11 darker), reaching six sevenths elytral length (as in Fig. 23a). Antennomeres slightly widened apically, antennomeres 3-5 with sharp angle (indistinct spine) in inner side of apex. Antennae punctured by small-sized indistinct punctation, covered by short, sparse, indistinct pale pubescence and long, erect pale yellowish setation in inner side (mainly in antennomeres 2-6). Antennomere 2 the shortest, antennomeres 5 and 6 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.51 : 0.23 : 1.00 : 0.80 : 1.03 : 1.03 : 0.99 : 0.87 : 0.67 : 0.67 : 0.81.

Pronotum black, elongate, narrower than elytra at humeri (shape of pronotum as in Fig. 23a). Pronotum 1.55 times longer than wide at base and 1.36 times longer than wide at the widest point (before middle of pronotum from base to apex). Lateral margins indistinctly arcuate, anterior margin and base almost straight. Dorsal surface with coarse granulate punctation with microgranulation inside, partly covered by dense yellow and partly by sparse blackish pubescence with goldenish lustre in dark places (as in Fig. 23a). Surface partly with long, distinct erect setae.

Scutellum widely shield-shaped, completely covered by dense yellow pubescence.

Elytra 7.8 mm long and 2.53 mm wide (3.08 times longer than wide), from pale ochre yellow (mainly under yellow pubescence in basal elytral half) to black, distinctly narrowing apically. Elytra with distinct longitudinal depression below scutellum, punctured by dense, small-sized punctation, covered by short blackish pubescence with lustre and dense yellow pubescence (as in Fig. 23a). Apex cut, undulate, lateral and sutural angles with short spines. Apical margin with long yellowish setae.

Pygidium ochre yellow, punctured by dense, shallow small-sized punctation, covered by sparse yellow pubescence. Apical angles rounded, apical margin with long yellowish setation.

Legs long and narrow, from pale reddish brown to blackish brown (partly in femora), punctured

by small-sized shallow punctation, partly covered by yellowish pubescence and yellowish setation (the densest in apical part of tibiae). Tibiae widened apically, metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Tarsi pale brown, punctured by dense, small-sized shallow punctation, covered by long and dense yellowish setation. Metatarsi the longest, metatarsomere 1 2.1 times longer than metatarsomeres 2 and 3 together.

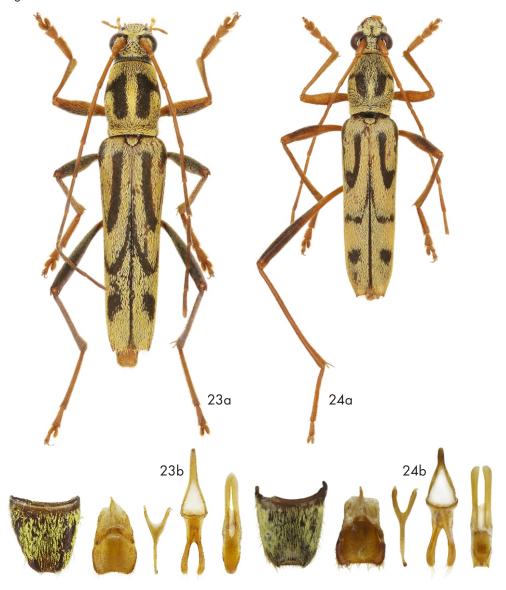


Fig. 23. *Rhaphuma taenia* sp. nov.: a- male holotype; b- male genitalia. Fig. 24. *Rhaphuma rybniceki* Holzschuh, 1992: a- male from Vietnam (Vinh Phuc), (CPV); b- male genitalia.

Ventral side of body largely black, partly punctured by small-sized punctation, largely covered by dense, recumbent yellow pubescence and long, colorless erect setation (mainly in ventrites). Elytral epipleura from pale brown to dark brown, undulate, punctured by dense small-sized punctation, covered by pale shiny pubescence.

Genitalia as in Fig. 23b.

Female. Unknown.

Differential diagnosis. The most similar species is *Rhaphuma rybniceki* Holzschuh, 1992 (Fig. 24), described from Vietnam (Vinh Phuc).

Rhaphuma taenia sp. nov. differs from the similar species *R. rybniceki* by more elongate body, by elytra more narrowing apically, by darker femora, and mainly by different shape and placement of dark stripes on elytra (distinctly longer longitudinal stripe in basal elytral half reaching closer half of elytral length in *R. taenia*, second stripe longer and round curved, reaching more closer to elytral apex in *R. taenia*, while shorter and kinked stripe, reaching less closer to elytral apex in *R. rybniceki*) (as in Figs. 23a and 24a). Both species significantly differ in shape of last visible ventrite, abdominal segment 8, tegmen and median lobe (as in Figs. 23b and 24b).

Etymology. From Latin taenia (it means "ribbon").

Distribution. Vietnam (Gia Lai).

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