

New species of the Clytini Mulsant, 1839 from China (Coleoptera, Cerambycidae, Cerambycinae)

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Taxonomy, new species, Coleoptera, Cerambycidae, Clytini, Clytus, Demonax, Perissus, Petraphuma, Rhaphuma, Xylotrechus, China

Abstract. *Perissus divinus* sp. nov. and *Xylotrechus inflexus* sp. nov. from China (Guangxi), *Clytus famosus* sp. nov., *Demonax vendibilis* sp. nov., *Petraphuma pompa* sp. nov. and *Rhaphuma jianfenglingensis* sp. nov. from China (Hainan), *Rhaphuma caraganicola* sp. nov. from China (Xizang), *Perissus expletus* sp. nov., *Perissus tunicatus* sp. nov., *Petraphuma huangjianbini* sp. nov., *Rhaphuma liyinghuii* sp. nov., *Xylotrechus marketae* sp. nov. and *Xylotrechus zhouchaoi* sp. nov. from China (Yunnan) are described. All the habitus and male genitalia are illustrated.

INTRODUCTION

The present paper offers results of examination of a large material of Cerambycidae, collected in China in several last years. Descriptions of thirteen new species of Clytini in six genera are given as follows: *Perissus divinus* sp. nov. and *Xylotrechus inflexus* sp. nov. from China (Guangxi), *Clytus famosus* sp. nov., *Demonax vendibilis* sp. nov., *Petraphuma pompa* sp. nov. and *Rhaphuma jianfenglingensis* sp. nov. from China (Hainan), *Rhaphuma caraganicola* sp. nov. from China (Xizang), *Perissus expletus* sp. nov., *Perissus tunicatus* sp. nov., *Petraphuma huangjianbini* sp. nov., *Rhaphuma liyinghuii* sp. nov., *Xylotrechus marketae* sp. nov. and *Xylotrechus zhouchaoi* sp. nov. from China (Yunnan) are described and illustrated. The new species are compared to the congeners (*Clytus bellus* Holzschuh, 1998, *Demonax macilentus* (Chevrolat, 1858), *Demonax petrae* Viktora, 2016, *Demonax vitalii* Gouverneur, 2015, *Perissus copei* Viktora & Tichý, 2017, *Perissus declaratus* Holzschuh, 2003, *Perissus filipes* Holzschuh, 2016, *Perissus luteonotatus* Pic, 1943, *Perissus multifenestratus* (Pic, 1926), *Petraphuma allegoria* (Viktora & Tichý, 2017), *Petraphuma boreolaosica* (Viktora & Tichý, 2017), *Petraphuma boreovietnamica* (Viktora & Tichý, 2017), *Petraphuma meridiosinica* (Viktora & Tichý, 2017), *Petraphuma meridiovietnamica* (Viktora & Tichý, 2017), *Petraphuma sulphurea* (Gressitt, 1941), *Rhaphuma comosella* Holzschuh, 2006, *Rhaphuma grisescens* Pic, 1928, *Rhaphuma luteopubens* Pic, 1937, *Rhaphuma marialaurae* Gouverneur, 2015, *Rhaphuma quercus* Gardner, 1940, *Rhaphuma suturalis* Gahan, 1906, *Rhaphuma virens* Matsushita, 1931, *Xylotrechus bilyi* Holzschuh, 2003, *Xylotrechus klapperichi* Gressitt, 1951, *Xylotrechus liciatulus* Holzschuh, 2006, *Xylotrechus pyrroderus* Bates, 1873, *Xylotrechus rufilius* Bates, 1884 and *Xylotrechus sciamai* Gressitt & Rondon, 1970).

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. Microstructures of dissected parts were observed under the DNT DigiMicro Profi USB microscope. Composite images were created using

the software Image Stacking Software Combine ZP. The photographs were modified using Adobe Photoshop CC.

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

BITS	Collection of Bin Insect Taxonomy Studio (Bin Liu), Beijing, China;
CLD	Collection of Luboš Dembický, Brno, Czech Republic;
CPK	Collection of Petr Kabátek, Prague, 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 *Clytus* Laicharting, 1784

Type species. *Leptura arietis* Linnaeus, 1758.

Clytus bellus Holzschuh, 1998 (Figs. 1-2)

Clytus bellus Holzschuh, 1998: 45.

Type locality. Vietnam, 70 km NW of Hanoi, Tam Dao.

Material examined. Paratype (♂): 'N Vietnam, 21°27'N, 105°39'E' / '70 km NW of Hanoi, Tam Dao' / '1-8.vi.1996, 900-1200 m' / 'Dembický & Pacholátko leg.' (CLD); Paratype (♀): 'N Vietnam, 21°27'N, 105°39'E' / '70 km NW of Hanoi, Tam Dao' / '1-8.vi.1996, 900-1200 m' / 'Dembický & Pacholátko leg.' (CLD).

Remark. Hua et al. 2009: 299 mentioned the species *Clytus bellus* Holzschuh, 1998 from China (Hainan). Based on comparison of habitus of *Clytus famosus* sp. nov. (Fig. 3-4) and figures 373 in plate XXXII (in Hua & al. 2009: 32) we are sure that these specimens belonging to newly described species *C. famosus*.

Northern Vietnam thus remains the only known occurrence of the species *C. bellus*.

Distribution. Vietnam (Vinh Phuc).

Clytus famosus sp. nov. (Figs. 3-4)

Type locality. China, Hainan, Mt. Jianfengling.

Type material. Holotype (♂): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 21. IV. 2017' / '18°43'0.85''N, 108°52'17.74''E' / 'Bin Liu coll.', (BITS); Paratypes: (1 ♂): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 18. IV. 2017' / '18°43'0.85''N, 108°52'17.74''E' / 'Yinghui LI coll.'; (1 ♀): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 21. IV. 2017' / '18°43'0.85''N, 108°52'17.74''E' / 'Bin Liu coll.'; (1 ♂): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '22. V. 2017' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'coll. Bin LIU'; (2 ♂♂, 1 ♀): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 26. IV. 2017' / '18°43'0.85''N, 108°52'17.74''E' / 'Yinghui LI coll.'; (1 ♂): 'Mt. Jianfengling, Main peak, Jianfeng Township' / 'Ledong Li Autonomous County, Hainan, China' / '3. V. 2017, 1412m, 18°43'0.85''N, / '108°52'17.74''E, coll. Yinghui LI'; (1 ♂): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 11. V. 2017' / '18°43'0.85''N, 108°52'17.74''E' / 'Yinghui LI coll.'; (1 ♀): 'Mt. Jianfengling, Main peak, Jianfeng Township' / 'Ledong Li Autonomous County, Hainan, China' / '23. V. 2017, 1412m,

18°43'0.85"N, / 108°52'17.74"E, coll. Bin LIU; (2 ♂♂): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 3. IV. 2018' / '18°43'0.85"N, 108°52'17.74"E' / 'Yufeng WU & Yinghui LI coll.'; (1 ♀): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 20. IV. 2018' / '18°43'0.85"N, 108°52'17.74"E' / 'Yinghui LI coll.'; (1 ♀): 'Mt. Jianfengling, Main peak, Jianfeng Township' / 'Ledong Li Autonomous County, Hainan, China' / '20-IV-2018, 1412m, 18°43'0.85"N, / 108°52'17.74"E, coll. Yufeng WU; (1 ♂): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 23. IV. 2018' / '18°43'0.85"N, 108°52'17.74"E' / 'Yinghui LI coll.'; (1 ♀): 'Mt. Jianfengling, Main peak, Jianfeng Township' / 'Ledong Li Autonomous County, Hainan, China' / '30-IV-2018, 1412m, 18°43'0.85"N, / 108°52'17.74"E, coll. Yufeng WU; (2 ♂♂): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 1. V. 2018' / '18°43'0.85"N, 108°52'17.74"E' / 'Yinghui LI coll.'; (1 ♀): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 2. V. 2018' / '18°43'0.85"N, 108°52'17.74"E' / 'Yinghui LI coll.'; (1 ♂): 'Mt. Jianfengling, Main peak, Jianfeng Township' / 'Ledong Li Autonomous County, Hainan, China' / '3. V. 2018, 1412m, 18°43'0.85"N, / 108°52'17.74"E, coll. Yinghui LI; (1 ♀): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 4. V. 2018' / '18°43'0.85"N, 108°52'17.74"E' / 'Yinghui LI coll.'; (1 ♀): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 5. V. 2018' / '18°43'0.85"N, 108°52'17.74"E' / 'Yinghui LI coll.'; (1 ♀): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 6. V. 2018' / '18°43'0.85"N, 108°52'17.74"E' / 'Yinghui LI coll.'; (1 ♂): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 18. V. 2018' / '18°43'0.85"N, 108°52'17.74"E' / 'Yinghui LI coll.'; (1 ♀): 'Mt. Jianfengling, Main peak, Jianfeng Township' / 'Ledong Li Autonomous County, Hainan, China' / '19-V-2018, 1412m, 18°43'0.85"N, / 108°52'17.74"E, coll. Yinghui LI; (1 ♂): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 21. V. 2018' / '18°43'0.85"N, 108°52'17.74"E' / 'Yinghui LI coll.'; (1 ♂): 'CHINA, Hainan Island' / 'Mt. JianFengLing, LeDong County' / '1412 m, 3. VI. 2018' / '18°43'0.85"N, 108°52'17.74"E' / 'Yinghui LI coll.' All paratypes in BITS or CPV.

The types are provided with a printed red label: 'Clytus famosus sp. nov.' / 'HOLOTYPUS (respective PARATYPUS)' / 'P. Viktora et B. Liu det., 2018'.

Description. Habitus of male holotype as in Fig. 3a. Body from pale brown to black, elongate, narrowing apically, punctuate, with pubescence. Body length from head to elytral apex 11.75 mm (male paratypes from 9.35 to 14.2 mm), widest in humeral part of elytra (2.92 mm), 4 times longer than wide.

Head black, short, widest through the eyes, distinctly narrower than pronotum, with coarse reticulation, covered by long yellow pubescence and long yellow setation. Frons with longitudinal furrow with coarse reticulate punctation (as in Fig. 3c). Eyes dark, distinctly emarginate. Clypeus brown, shiny, with long yellow setation. Mandibles brown with black apex, shiny, with yellow setation in edges.

Maxillary palpus pale brown with yellow setation, palpomeres short. Ultimate palpomere longest, widened apically, axe-shaped.

Antennae short, widened apically. Antennomeres 1-5 pale brown with sparse yellow pubescence and black pubescence in inner side. Antennomeres 6-11 blackish brown, covered by dense short dark pubescence. Antennomeres 2-5 with very long yellow setae in inner side. Antennae with distinct punctation. Antennae reaching only base of elytra (one sixth of elytral length from base to apex). Antennomeres 2 and 10 shortest, antennomere 1 longest. Ratios of relative lengths of antennomeres 1-11 equal to: 1.24 : 0.47 : 1.00 : 0.74 : 0.60 : 0.54 : 0.55 : 0.51 : 0.52 : 0.44 : 0.66.

Pronotum convex, semicircular with distinctly arcuate lateral margins, 1.41 times longer than wide at base and 1.09 times longer than wide at widest point (near middle of pronotum). Anterior margin only slightly arcuate, base almost straight. Pronotum reddish brown with blackish brown anterior and posterior margin. Dorsal surface with distinct granulation, covered by erected shorter and longer yellowish setation, in posterior, anterior and lateral margins with stripes of dense yellow recumbent pubescence (as in Fig. 3a). Yellow stripes in lateral margins invisible from dorsal view.

Scutellum roundly triangular, completely covered by dense recumbent yellow pubescence.

Elytra 7.57 mm long and 2.92 mm wide (2.6 times longer than wide); narrowing apically, with

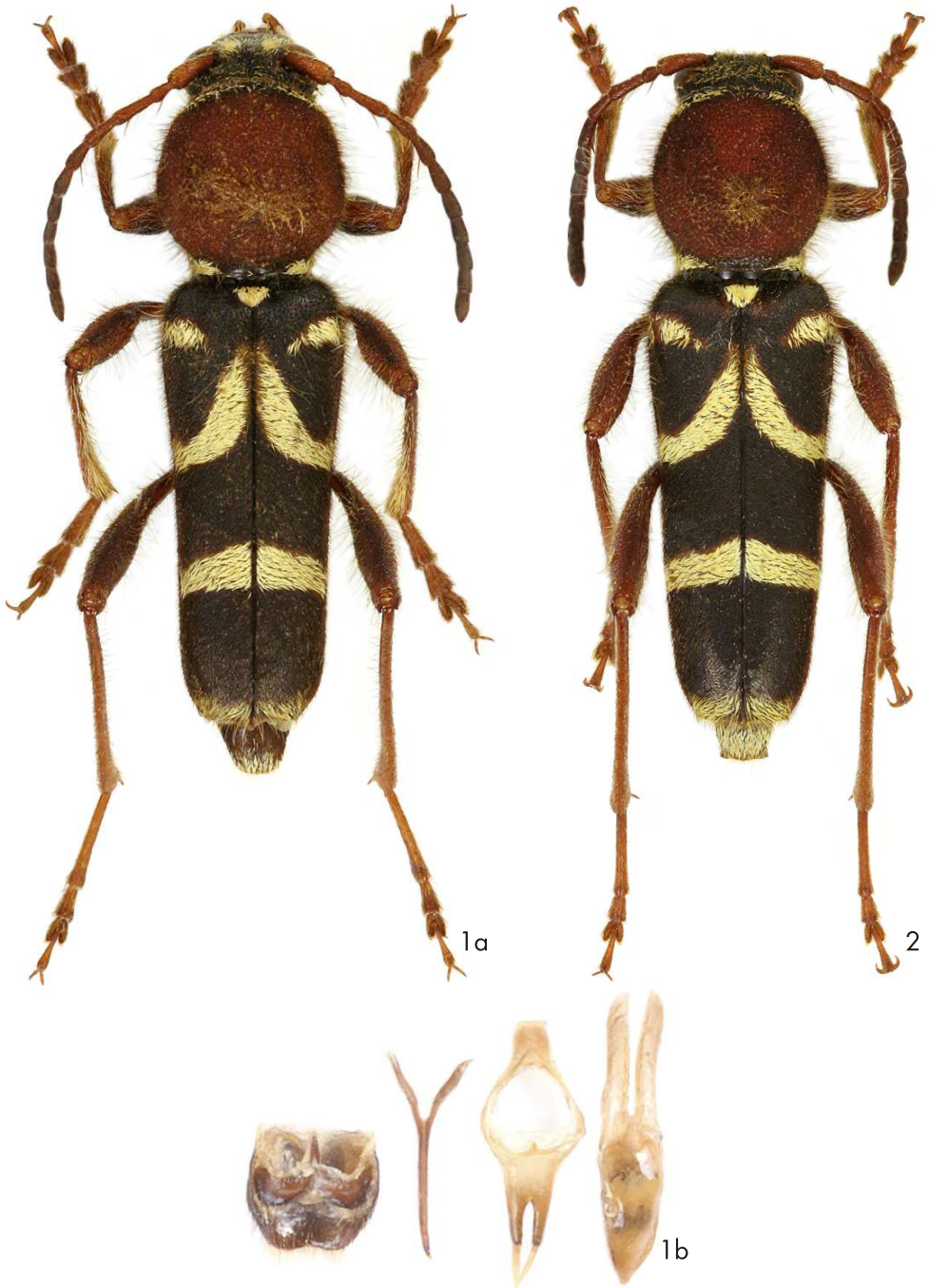


Fig. 1. *Clytus bellus* Holzschuh, 1998: a- male paratype (dorsal view); b- male genitalia.
Fig. 2. *Clytus bellus* Holzschuh, 1998: female paratype (dorsal view).

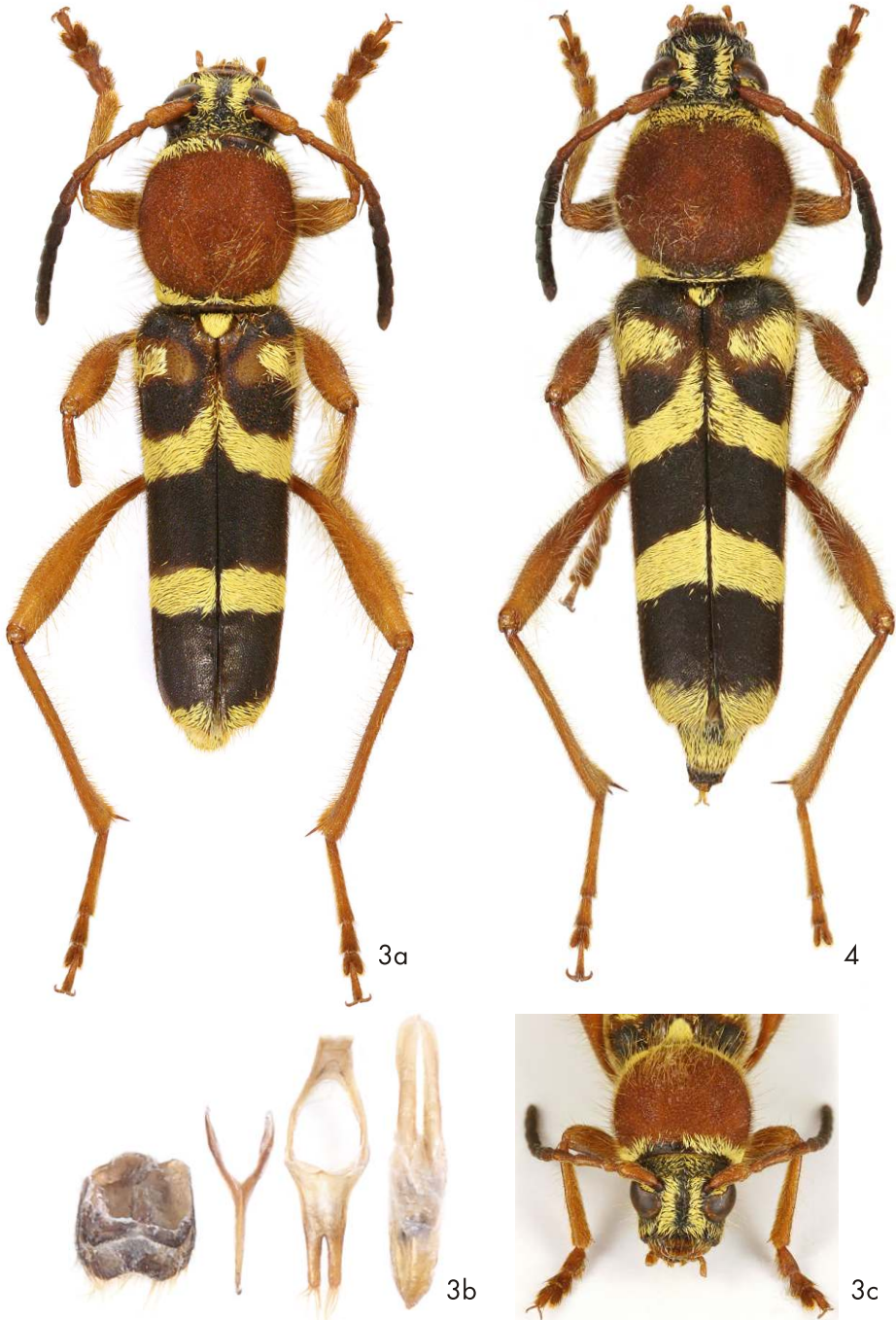


Fig. 3. *Clytus famosus* sp. nov.: a- male holotype (dorsal view); b- male genitalia; c- male holotype (front view in perspective).
Fig. 4. *Clytus famosus* sp. nov.: female paratype (dorsal view).

punctuation. Punctuation in apical third small-sized, in middle third punctures larger, in basal third of elytra punctures largest. Punctuation in basal third sparser than in rest of elytra. Elytra black with pale brown spots. Pale brown spots in base, near scutellum, in transverse stripes of yellow pubescence in first and second elytral thirds. Elytral apex under stripe of yellow pubescence black. Elytra covered by black sparser pubescence in black places and stripes of dense recumbent yellow pubescence (as in Fig. 3a). Elytral apex roundly angled in outer side, each elytron terminated to distinct thorn on inner side of apex. Elytral apex with long yellowish setation.

Pygidium with rounded apex, covered by yellow pubescence and pale setation.

Legs long and narrow, pale brown, with large-sized shallow punctuation, covered by very long recumbent yellowish setation. Profemora with sparse yellowish pubescence and pale setation, meso- and metafemora only with long setation. Setation in profemora and protibiae shorter than in meso- and metafemora and meso- and metatibiae. Tarsi covered by bicolor setation, darker than rest of legs. Metatarsomere 1 1.5 times longer than metatarsomeres 2 and 3 together.

Ventral side of body black, with distinct punctuation, covered by stripes of dense yellow pubescence. Ventrites 1-2 with wide stripes of yellow pubescence and black margins without pubescence, ventrite 3 covered by yellow pubescence only in apical half, ventrite 4 with yellow pubescence only in apical quarter. Elytral epipleura black, with dark pubescence.

Genitalia as in Fig. 3b.

Female. Habitus of female paratype as in Fig. 4. Body length from head to elytral apex (female paratypes) from 9.8 to 14.8 mm. Colour of female the same as in male. Female without distinct differences.

Differential diagnosis. The most similar species is *Clytus bellus* Holzschuh, 1998 (Figs. 1-2), described from northern Vietnam. *Clytus famosus* sp. nov. distinctly differs from similar species *C. bellus* by more elongate body and elytra (ratio elytral length / elytral width at humeri 2.6), by paler legs (pale brown), by wider stripes of yellow pubescence on elytra, by wider stripe of yellow pubescence near anterior margin of pronotum and by different shape of male genitalia (as in Figs. 1b, 3b), especially by different shape of tegmen; while *C. bellus* has shorter body, ratio elytral length / elytral width in humeri 2.42, darker legs (dark reddish brown with blackish stripes), different shape of stripes of yellow pubescence on elytra and narrower stripe of yellow pubescence near anterior part of pronotum.

Etymology. From Latin *famosus* (it means „famous“).

Distribution. China (Hainan).

Genus *Demonax* Thomson, 1861

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

Demonax vendibilis sp. nov.

(Figs. 5-6)

Type locality. China, Hainan, Mt. Jianfengling.

Type material. Holotype (♂): 'CHINA, Hainan Island' / 'Mt. Jianfengling, Ledong County' / '1412 m, 21. IV. 2017' / '18°43'0.85''N, 108°52'17.74''E' / 'Bin Liu coll.', (BITS); Paratypes: (1 ♂, 1 ♀): 'Hainan, CHINA' / 'Mt. Jianfengling,

Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '13-VII-2017' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'coll. Bin LIU'; (1 ♂): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '23-V-2017' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'coll. Bin LIU'; (1 ♀): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '15-V-2017' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'coll. Bin LIU'; (1 ♀): 'Mt. Jianfengling, Main peak, Jianfeng Township,' / 'Ledong Li Autonomous County, Hainan, China' / '22-VI-2018, 1412 m, 18°43'0.85''N' / '108°52'17.74''E, coll. Bin LIU'; (2 ♂♂): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '22-V-2017' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'coll. Bin LIU'; (2 ♂♂, 2 ♀♀): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '31-V-2017' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'coll. Bin LIU'; (1 ♂): '[CHINA: Hainan] The peak of' / 'Jianfengling (Mt.), Jianfeng' / 'Township, Ledong County' / '18°43'3''N / 108°52'17''E,' / 'Alt. ca. 1,300 m' / '21. VII, 2017, Native leg.'; (1 ♀): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '3-V-2018' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'coll. Yinghui LI'; (1 ♀): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '14-V-2018' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'coll. Yinghui LI'; (1 ♀): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '25-V-2018' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'coll. Bin LIU'; (1 ♀): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '26-V-2018' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'coll. Yinghui LI'; (1 ♀): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '28-V-2018' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'coll. Yinghui LI'; (1 ♂): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '2-VI-2018' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'coll. Yinghui LI'; (2 ♀♀): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '3-VI-2018' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'coll. Yinghui LI'; (2 ♂♂): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '8-VI-2018' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'coll. Bin LIU'; (1 ♂, 1 ♀): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '8. - 9. VI. 2018' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'P. Viktora lgt.'; (1 ♀): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '19-VI-2018' / '1412 m, 18°43'0.85''N, 108°52'17.74''E' / 'coll. Bin LIU'; (1 ♂): 'CHINA, Hainan isl.' / 'Jianfengling forest park, peak' / '7. - 22. VI. 2018, 1400 m' / '18°43'1.98''N 108°52'18.83''E' / 'leg. P. Kabátek'. All paratypes in BITS, CPK and CPV.
The types are provided with a printed red label: 'Demonax vendibilis sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' / 'P. Viktora et B. Liu det., 2018'.

Description. Habitus of male holotype as in Fig. 5a. Body black, elongate, narrow, parallel, punctate, with pubescence. Body length from head to elytral apex 16.45 mm (male paratypes from 13.4 to 17.5 mm), widest in humeral part of elytra (3.66 mm), 4.5 times longer than wide.

Head black, relatively short, widest through the eyes, narrower than pronotum, with punctuation and yellowish gray pubescence. Clypeus partly pale brown, shiny, with a few pale setae. Mandibles black. Eyes dark, distinctly emarginate.

Maxillary palpus from pale brown to black, ultimate palpomere longest.

Antennae from blackish brown to black (antennomeres 8-11 slightly paler), with distinct punctuation. Antennomeres 1-6 with long yellowish gray pubescence, antennomeres 7-11 with short and darker dense pubescence. Antennomeres 3-6 with long pale setae in inner side. Antennomeres 3-5 with distinct spines on inner side of apex, spine of antennomere 5 shorter than those in antennomeres 3 and 4. Antennae distinctly longer than body (as in Fig. 5a). Antennomere 2 shortest, antennomeres 5 and 6 longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.79 : 0.27 : 1.00 : 0.92 : 1.23 : 1.22 : 1.19 : 1.05 : 0.97 : 0.86 : 0.88.

Pronotum black, narrower than elytra in base, 1.72 times longer than wide at base and 1.37 times longer than wide at widest point (near middle of pronotum). Pronotum with punctuation, granulation, and dense short yellowish gray pubescence. Disc of pronotum with two black spots with black pubescence and one glabrous tubercle with distinct granulation in middle near base (as in Fig. 5a). Base and anterior margin almost straight, lateral margins only slightly arcuate.

Scutellum black, semielliptical, completely covered by dense yellowish gray pubescence.

Elytra 10.6 mm long and 3.66 mm wide (2.9 times longer than wide); elongate, narrowing



Fig. 5. *Demonax vendibilis* sp. nov.: a- male holotype (dorsal view); b- male genitalia.

Fig. 6. *Demonax vendibilis* sp. nov.: female paratype (dorsal view).

Fig. 7. Shape of male protarsi: a- *Demonax vendibilis* sp. nov.; b- *Demonax petrae* Viktora, 2016.

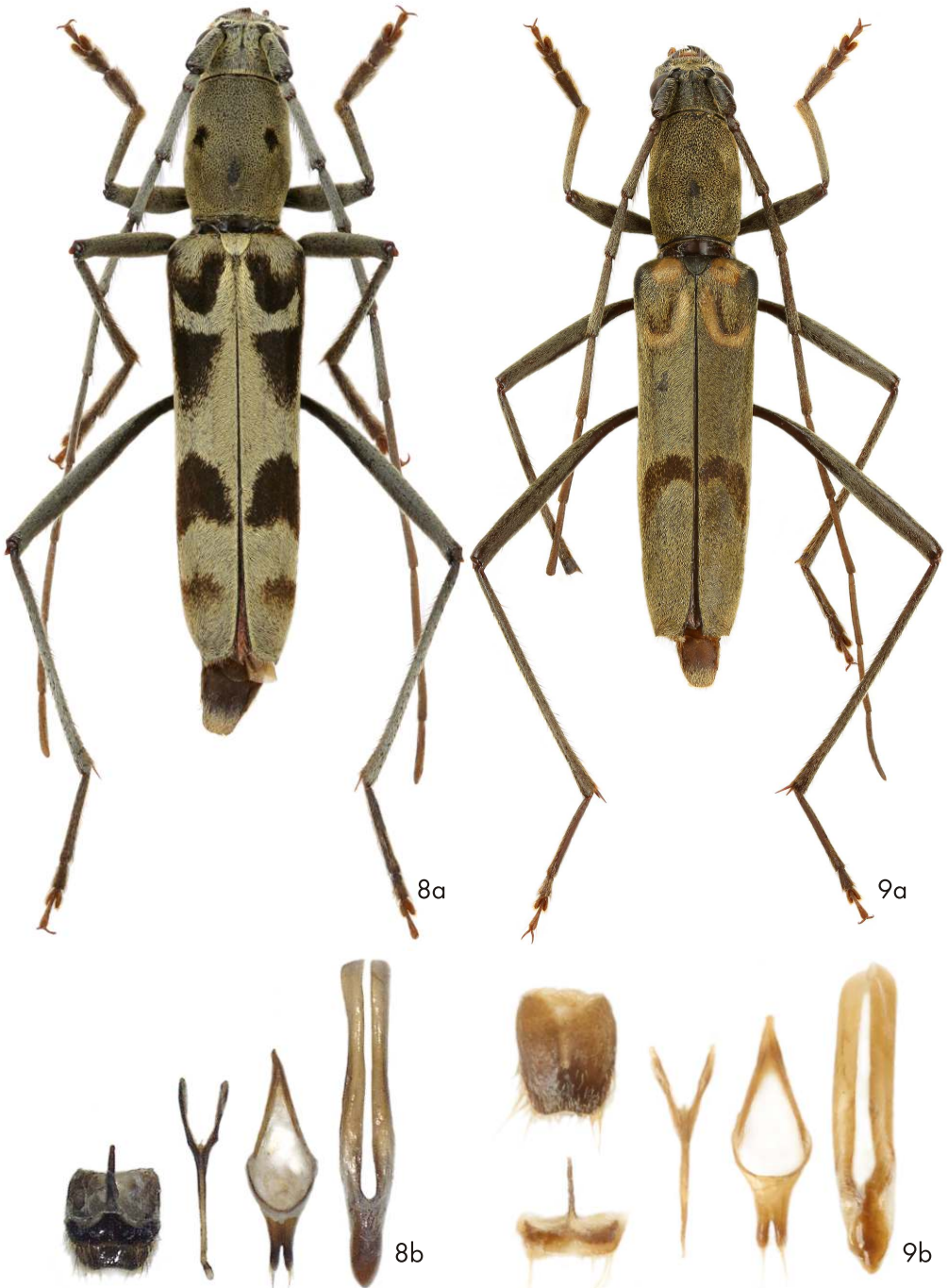


Fig. 8. *Demonax petrae* Viktora, 2016: a- male holotype (dorsal view); b- male genitalia.
Fig. 9. *Demonax vitalii* Gouverneur, 2015: a- male (dorsal view); b- male genitalia (Laos, Hua Phan; CPV).

apically, with fine dense punctuation, covered by yellowish gray and black pubescence (as in Fig. 5a). Elytra black except pale brown spot in base of each elytron and under stripe of dense yellowish gray pubescence in basal part. Elytral apex cut, each elytron with short thorn in outer side of apex.

Legs long and narrow, from blackish brown to black, with punctuation, yellowish gray pubescence and pale setation. Each apical half of tibiae and tarsi with distinctly longer pubescence. Metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Metatarsomere 1 2.7 times longer than metatarsomeres 2 and 3 together.

Ventral side of body black, with spots and stripes of dense yellowish gray pubescence. Elytral epipleura black, narrow.

Genitalia as in Fig. 5b.

Female. Habitus of female paratype as in Fig. 6. Body length from head to elytral apex (female paratypes) from 14.3 to 19.4 mm. Female without distinct differences, protarsomeres narrower than in male, antennae shorter than in male (as in Fig. 6).

Differential diagnosis. The most similar species are *Demonax macilentus* (Chevrolat, 1858), described from Singapore, *Demonax petrae* Viktora, 2016 (Fig. 8), described from China (Yunnan) and *Demonax vitalii* Gouverneur, 2015 (Fig. 9), described from Laos.

Males of *Demonax vendibilis* sp. nov. clearly differ from males of *D. macilentus* by shorter and wider antennomeres, by shorter antennae, by shorter scutellum, by elytral apex on outer sides with short thorns, by apical margin of tergite 8 significantly excised and by different shape of spots on elytra; while *D. macilentus* has longer antennae with narrower antennomeres, elytral apex in outer sides with long thorns, apical margin of tergite 8 indistinctly undulate.

Males of *Demonax vendibilis* sp. nov. clearly differ from males of *D. petrae* by distinctly longer tarsi (metatarsomere 1 2.7 times longer than metatarsomeres 2 and 3 together), different shape of protarsi (as in Fig. 7), by elytra narrowing apically, by distinctly longer spine in apex of antennomere 3 and by apical margin of tergite 8 significantly excised; while *D. petrae* has shorter tarsi (metatarsomere 1 2.06 times longer than metatarsomeres 2 and 3 together), elytra more parallel, antennomere 3 with distinctly shorter spine in apex and apical margin of tergite 8 indistinctly undulate.

Males of *Demonax vendibilis* sp. nov. clearly differ from males of *Demonax vitalii* Gouverneur, 2015 by wider pronotum with black spots, by antennomeres 3-5 with distinct long spines in inner side of apex, by antennomeres 10 and 11 distinctly wider and shorter than in *D. vitalii* and by apical margin of tergite 8 significantly excised; while *D. vitalii* has narrower pronotum without black spots, antennomeres 3 and 4 with very short spines in apex and apical margin of tergite 8 indistinctly undulate.

Etymology. From Latin *vendibilis* (it means „enjoyable“).

Distribution. China (Hainan).

Genus *Perissus* Chevrolat, 1863

Type species. *Perissus x-littera* Chevrolat, 1863.

***Perissus divinus* sp. nov.**

(Fig. 10)

Type locality. China, Guangxi, Liuzhou County, Rongshui Miao Autonomous County, Wangdong Township, Luodong Village.

Type material. Holotype (♂): 'Guangxi, CHINA' / 'Liuzhou County,' / 'Rongshui Miao Autonomous County' / 'Wangdong Township, Luodong Village' / '5-IV-2018, 412 m,' / '25°13'50.72"N, 108°44'9.68"E' / 'Sweep flower - *Castanopsis* sp., coll. Yinghui Li', (BITS).

The type is provided with a printed red label: 'Perissus divinus sp. nov.' / 'HOLOTYPE' / 'P. Viktora et B. Liu det., 2018'.

Description. Habitus of male holotype as in Fig. 10a. Body black, elongate, parallel, punctate, with pubescence. Body length from head to elytral apex 10.85 mm, widest in humeral part of elytra (2.95 mm), 3.68 times longer than wide.

Head black, relatively short, widest through the eyes, distinctly narrower than pronotum at widest point, with dense coarse punctuation. Head covered by yellowish green pubescence and long pale setation, denser in anterior part, frons with shiny place with very sparse pubescence in the middle and longitudinal furrow between eyes. Eyes dark, distinctly emarginate. Mandibles blackish brown, partly glabrous, partly with long yellowish setation. Clypeus brown, shiny.

Maxillary palpus brown, with a few pale setae, palpomeres short. Ultimate palpomere longest, slightly widened and rounded apically.

Antennae blackish brown, antennomeres widened apically, with indistinct punctuation. Antennomeres 1-5 with longer yellowish green pubescence, antennomeres 6-11 with very short and dense pale pubescence. Antennomeres 1-5 with long pale setation in inner side. Antennae short, reaching one quarter of elytral length from base to apex. Antennomere 1 longest, antennomere 10 shortest. Ratios of relative lengths of antennomeres 1-11 equal to: 1.19 : 0.54 : 1.00 : 0.96 : 1.12 : 0.91 : 0.71 : 0.54 : 0.60 : 0.63 : 0.78.

Pronotum black, convex, with distinctly arcuate lateral margins, 1.49 times longer than wide at base and 1.12 times longer than wide at widest point (at two thirds of pronotal length from base to apex). Anterior margin slightly arcuate, base almost straight. Dorsal surface with granulation, partly covered by yellowish green pubescence, partly without yellowish green pubescence (four crescent-shaped spots and one small spot in middle near base) (as in Fig. 10a). Dorsal surface with long and dense pale erect setation.

Scutellum black, semielliptical, completely covered by dense yellowish green pubescence.

Elytra 6.95 mm long and 2.95 mm wide, 2.35 times longer than wide; slightly narrowing apically, black, with dense medium-sized punctuation, partly covered by long yellowish green pubescence, partly with black pubescence in black places (as in Fig. 10a). Elytral apex cut, only slightly undulate, with sharp edge in outer side. Elytral apex with long pale setation.

Legs long and narrow, black, with indistinct punctuation. Legs covered by long pale pubescence, in profemora pubescence denser than in mesofemora and metafemora. Metatibiae and metafemora longer than pro- and mesotibiae and pro- and mesofemora. Protarsi and mesotarsi distinctly wider than metatarsi. Metatarsomere 1 2.0 times longer than metatarsomeres 2 and 3 together.

Ventral side of body black, almost completely covered by yellowish pubescence, pubescence distinctly paler and denser than those on elytra.

Genitalia as in Fig. 10b.

Female. Unknown.

Differential diagnosis. The most similar species are *Perissus declaratus* Holzschuh, 2003 and *Perissus multifenestratus* (Pic, 1926).

Perissus divinus sp. nov. distinctly differs from *P. declaratus* by narrower scutellum, by pronotum with four crescent-shaped black spots and one small black spot in the middle near base, and by different shape of spots on elytra; while *P. declaratus* has wider scutellum and pronotum with only one circular black spot in the middle.

Perissus divinus sp. nov. distinctly differs from *P. multifenestratus* by more robust body, by elytral apex with sharp edge in outer side, by pronotum with four crescent-shaped black spots and one small black spot in the middle near base, and by different shape of spots on elytra; while *P. multifenestratus* has narrower body, longer elytra, elytral apex with rounded edge on outer side, pronotum semicircular with different black spots.

Etymology. From Latin *divinus* (it means „divine“).

Distribution. China (Guangxi).

***Perissus expletus* sp. nov.**

(Figs. 11-12)

Type locality. China, Yunnan, Mt. Gaoligongshan, Qinlangdang Village.

Type material. Holotype (♂): ‘Yunnan, CHINA’ / ‘Mt. Gaoligongshan’ / ‘Qinlangdang Village, Dulongjiang Township’ / ‘Gongshan County, 24-VIII-2017’ / ‘1268 m, 27°41’18.56’’N, 98°16’31.05’’E’ / ‘Sweep Flower, coll. Yinghui Li’, (BITS); Paratypes: (1 ♀): same data as holotype; (1 ♂): ‘CHINA, Yunnan prov.’ / ‘Mt. Gaoligongshan, Bapo Village’ / ‘Dulongjiang Township, Gongshan County’ / ‘23-25-VI-2017’ / ‘1523 m, 27°41’18.22’’N, 98°20’59.80’’E’ / ‘sweep flower, coll. Yinghui Li’, (BITS, CPV).

The types are provided with a printed red label: ‘*Perissus expletus* sp. nov.’ / ‘HOLOTYPUS (respective PARATYPUS)’ / ‘P. Viktora et B. Liu det., 2018’.

Description. Habitus of male holotype as in Fig. 11a. Body elongate, parallel, from pale yellow to black, punctuate, with pubescence. Body length from head to elytral apex 7.9 mm (male paratype 8.1 mm), widest in pronotum and the major part of elytra (1.9 mm), 4.15 times longer than wide.

Head black, short, widest through the eyes, narrower than pronotum at widest point (before middle of pronotum from base to apex). Antennal insertions with sharp edge. Head with punctuation, covered by yellow pubescence, in anterior part with pale setation. Frons in middle with indistinct longitudinal line without pubescence. Clypeus brown, shiny, with yellowish setation. Mandibles blackish brown, shiny, with yellow pubescence in edges. Eyes blackish brown, emarginate.

Maxillary palpus pale brown with slightly darker margins, palpomeres short, with pale setae. Ultimate palpomere longest, almost parallel, with slightly rounded apex.

Antennae ochre yellow, short (reaching two sevenths of elytral length from base to apex), filiform, widened apically, punctured. Antennomeres narrowly only slightly darker in apex. Antennomeres 1-5 with longer yellow pubescence and long yellow setae in inner side. Antennomeres 6-11 covered by very short pale pubescence. Antennomeres without spines. Antennomere 2 shortest, antennomere 1 longest. Ratios of relative lengths of antennomeres 1-11 equal to: 1.09 : 0.41 : 1.00 : 0.86 : 0.91 : 0.68 : 0.66 : 0.45 : 0.51 : 0.51 : 0.82.

Pronotum black, its sides slightly arcuate. Dorsal surface with dense punctuation, completely covered by yellow pubescence. Disc and lateral margins with a few erect setae. Anterior margin

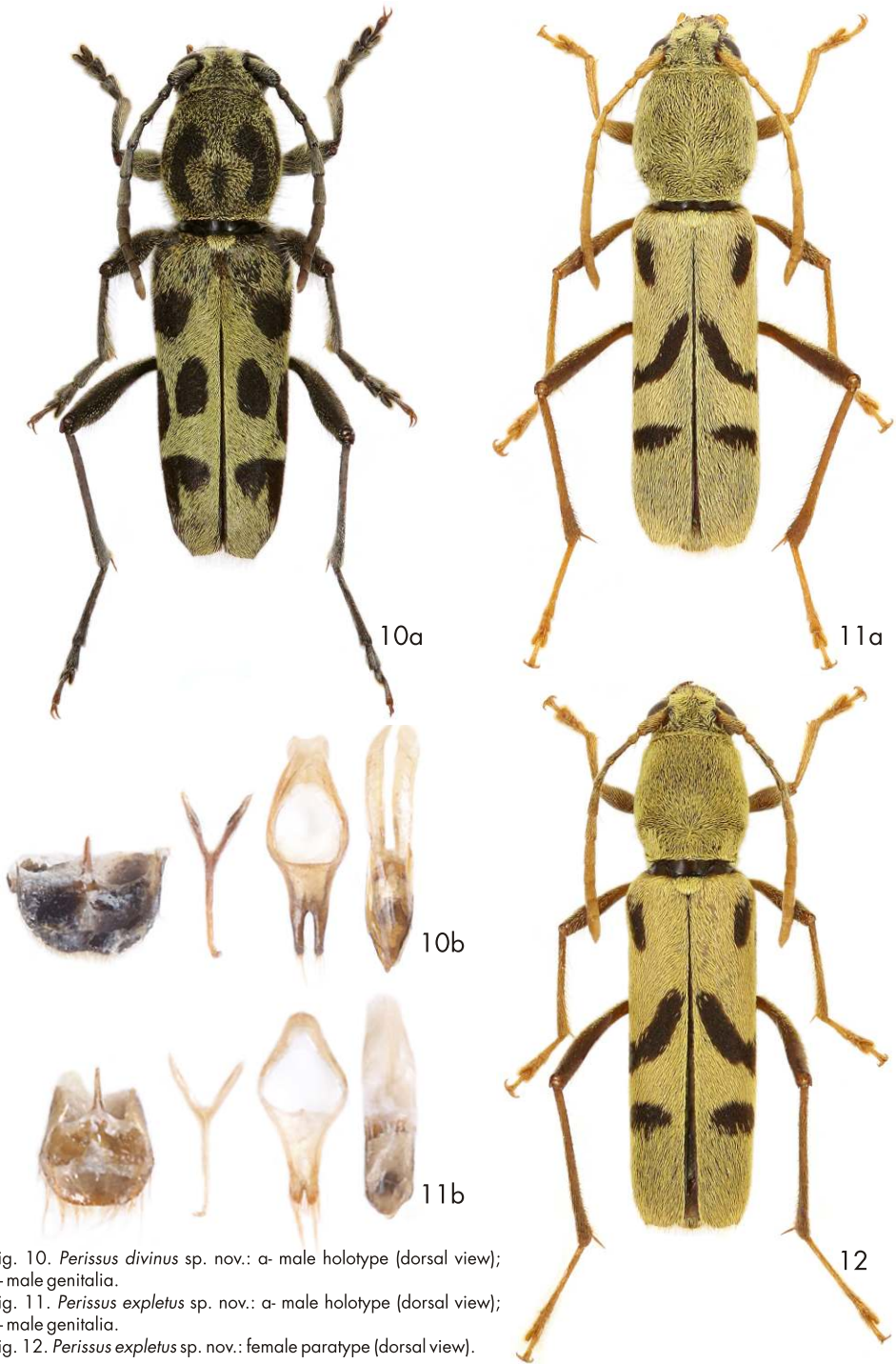


Fig. 10. *Perissus divinus* sp. nov.: a- male holotype (dorsal view); b- male genitalia.
Fig. 11. *Perissus expletus* sp. nov.: a- male holotype (dorsal view); b- male genitalia.
Fig. 12. *Perissus expletus* sp. nov.: female paratype (dorsal view).

and base almost straight. Pronotum 1.48 times longer than wide at base and 1.05 times longer than wide at widest point (near middle of pronotum).

Scutellum black, semielliptical, completely covered by yellow pubescence.

Elytra 5.1 mm long and 1.9 mm wide (approximately 2.7 times longer than wide); pale yellow except black spots and darker (brown) last third, suture also black (as in Fig. 11a). Elytra with medium-sized punctuation, covered by yellow pubescence, in black areas with black pubescence. Elytra almost parallel, with undulated apex, apex in inner and outer side with very short thorn. Elytral apex with long pale setation.

Legs long and narrow, ochre yellow, femora and apex of tibiae distinctly darker (as in Fig. 11a). Legs with shallow punctuation, covered by yellowish pubescence and ochre setation. Mesotibiae and metatibiae distinctly widened apically. Metatibiae and metafemora longer than pro- and mesotibiae and pro- and mesofemora. Metatarsomere 1 2.8 times longer than metatarsomeres 2 and 3 together.

Ventral side of body black, almost completely covered by yellow pubescence (pubescence denser than those on elytra) and pale setation. Elytral epipleura dark, with punctuation and yellow pubescence.

Genitalia as in Fig. 11b.

Female. Habitus of female paratype as in Fig. 12. Body length from head to elytral apex 8.95 mm. Colour of female the same as in male. Female without distinct differences, only elytra and pronotum slightly narrower and longer than those in male.

Differential diagnosis. The most similar species are *Perissus filipes* Holzschuh, 2016 and *Perissus luteonotatus* Pic, 1943.

Perissus expletus sp. nov. differs from similar species *P. filipes* by shorter and wider body, by distinctly shorter and wider elytra (ratio elytral length / elytral width at humeri 2.7), by paler antennae (all antennomeres ochre yellow) and by black stripes on elytral humeri; while *P. filipes* has more elongate body, ratio elytral length / elytral width at humeri 2.9-3.1, darker antennae (antennomeres dark reddish brown), elytral humeri without black stripes.

Perissus expletus sp. nov. differs from similar species *P. luteonotatus* by paler antennae (all antennomeres ochre yellow), by paler legs (ochre yellow with darker femora and apex of tibiae), and by different shape of black spots in base of each elytron (black narrow oblique stripe near lateral margin); while *P. luteonotatus* has distinctly darker legs and antennae (dark reddish brown) and different shape of black spot at base of each elytron (large semicircular black spot close to scutellum).

Etymology. From Latin *expletus* (it means „perfect“).

Distribution. China (Yunnan).

***Perissus tunicatus* sp. nov.**

(Fig. 13)

Type locality. China, Yunnan, Mt. Gaoligongshan, Xiong dang Village.

Type material. Holotype (♂): ‘Yunnan, CHINA’ / ‘Mt. Gaoligongshan, Xiong dang Village’ / ‘Dulongjiang Township, Gongshan County’ / ‘2-VIII-2017’ / ‘2060 m, 28°8’55.58’’N, 98°17’42.75’’E’ / ‘Sweep Flower - *Aralia* sp., coll. Bin

LIU', (BITS); Paratypes: (1 ♂): same data as holotype; (3 ♂♂): 'Yunnan, CHINA' / 'Mt. Gaoligongshan, Xiongdang Village' / 'Dulongjiang Township, Gongshan County' / '23-VIII-2017' / '2060 m, 28°8'55.58"N, 98°17'42.75"E' / 'Sweep Flower - *Aralia* sp., coll. Bin LIU'; (3 ♂♂): 'Yunnan, CHINA' / 'Mt. Gaoligongshan, Xiongdang Village' / 'Dulongjiang Township, Gongshan County' / '25-VIII-2017' / '2060 m, 28°8'55.58"N, 98°17'42.75"E' / 'Sweep Flower - *Aralia* sp., coll. Bin LIU'; (2 ♂♂): 'Yunnan, CHINA' / 'Mt. Gaoligongshan, Xiongdang Village' / 'Dulongjiang Township, Gongshan County' / '7-IX-2017' / '1766 m, 28°25'53.67"N, 98°27'33.33"E' / 'Sweep Flower - *Aralia* sp., coll. Yinghui LI'. All paratypes in BITS and CPV.

The types are provided with a printed red label: '*Perissus tunicatus* sp. nov.' / 'HOLOTYPUS (respective PARATYPUS)' / 'P. Viktora et B. Liu det., 2018'.

Description. Habitus of male holotype as in Fig. 13a. Body black, elongate, parallel, punctuate, with pubescence. Body length from head to elytral apex 7.80 mm (male paratypes from 6.25 to 8.65 mm), widest in humeral part of elytra (2.15 mm), approximately 3.6 times longer than wide.

Head black, relatively short, widest through the eyes, narrower than pronotum at widest point, with coarse reticulation, long sparse yellowish pubescence and pale setation. Eyes distinctly emarginate. Clypeus brown, shiny, with pale setae. Mandibles black, glabrous.

Maxillary palpus blackish brown, ultimate palpomere longest, widened apically.

Antennae black, filiform, with small punctuation. Antennomeres without spines. Antennomeres 8-11 distinctly wider than antennomeres 2-7. Antennomeres 1-4 with sparse longer gray pubescence, antennomeres 5-11 with dense gray pubescence. Antennomeres 2-8 with long yellowish setae in inner side. Antennae short, reaching two fifths of elytral length from base to apex. Antennomere 2 shortest, antennomeres 3 and 5 longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.98 : 0.38 : 1.00 : 0.90 : 1.00 : 0.87 : 0.73 : 0.76 : 0.70 : 0.69 : 0.53.

Pronotum black, with distinctly arcuate lateral margins, 1.48 times longer than wide at base and 1.15 times longer than wide at widest point (near middle of pronotum). Dorsal surface with distinct reticulation, long, relatively sparse yellowish pubescence, completely covered by long pale erect setae. Anterior and posterior margins finely arcuate.

Scutellum black, semicircular, completely covered by dense yellowish pubescence.

Elytra 5.00 mm long and 2.15 mm wide (2.3 times longer than wide); black with black pubescence and pale stripes (first stripe oblique in basal part, reaching scutellum; second stripe transverse behind the middle of elytra), both stripes with long yellowish pubescence, apex of elytra with long yellowish pubescence (as in Fig. 13a). Elytral apex finely undulate, each elytron terminated with one short thorn in outer side.

Legs long and narrow, black, slightly shiny, with long sparse yellowish pubescence, inner side of protibiae and apex of mesotibiae with denser pubescence. Femora and tibiae with long erect pale setae. Metatibiae and metafemora longer than pro- and mesotibiae and pro- and mesofemora. Metatarsomere 1 1.8 times longer than metatarsomeres 2 and 3 together.

Ventral side of body black, with sparse yellowish pubescence and stripes of dense yellowish pubescence (first stripe in prothorax, second stripe in meso- and metathorax, third stripe in apex of ventrite 1, fourth stripe in apex of ventrite 2), ventrites 3-5 with relatively dense yellow pubescence (sparser than those in ventrites 1-2).

Genitalia as in Fig. 13b.

Female. Unknown.

Differential diagnosis. The most similar species is *Perissus copei* Viktora & Tichý, 2017, described from Tibet. *Perissus tunicatus* sp. nov. distinctly differs from *P. copei* by smaller body,

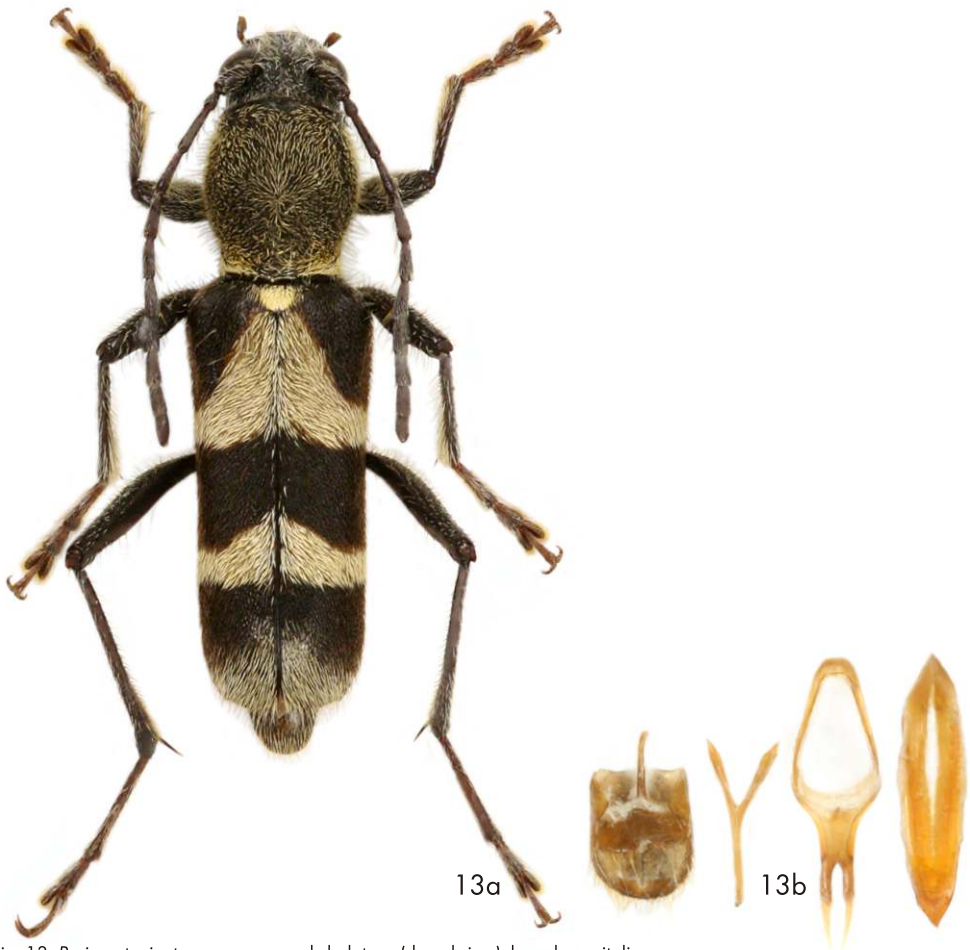


Fig. 13. *Perissus tunicatus* sp. nov.: a- male holotype (dorsal view); b- male genitalia.

shorter elytra, pronotum shorter and distinctly arcuate in lateral margins, dorsal surface of pronotum with long yellowish pubescence, elytra with sparser punctuation, pale oblique stripe in basal part of elytra reaching scutellum, tarsi distinctly narrower than in *P. copei*, ventrites 3-5 covered by relatively dense yellowish pubescence; while *P. copei* is larger species with distinctly longer elytra, pronotum longer with only slightly arcuate lateral margins, dorsal surface of pronotum with short pale pubescence, elytra with denser punctuation, pale oblique stripe in basal part of elytra not reaching to scutellum, ventrites 3-5 without pale pubescence (shiny with long sparse setation).

Etymology. From Latin *tunicatus* (it means „poor“).

Distribution. China (Yunnan).

Genus *Petraphuma* Viktora, 2018

Type species. *Rhaphuma sulphurea* Gressitt, 1941.

Petraphuma huangjianbini sp. nov.

(Figs. 14-15)

Type locality. China, Yunnan, Mt. Gaoligongshan, Xiongdang Village.

Type material. Holotype (♂): 'CHINA, Yunnan prov.' / 'Mt. Gaoligongshan, Xiongdang Village' / 'Dulongjiang Township, Gongshan County' / '23-25-VIII-2017, 2060m' / '28°8'55.58''N, 98°17'52.75''E' / 'sweep flower - *Aralia* sp., coll. Bin LIU', (BITS); Paratypes: (1 ♀): same data as holotype; (1 ♂): 'Yunnan, CHINA' / 'Mt. Gaoligongshan, Xiongdang Village' / 'Dulongjiang Township, Gongshan County' / '23-VIII-2017' / '2060 m, 28°8'55.58''N, 98°17'42.75''E' / 'Sweep Flower - *Aralia* sp., coll. Bin LIU'; (1 ♂, 1 ♀): 'Yunnan, CHINA' / 'Mt. Gaoligongshan, Xiongdang Village' / 'Dulongjiang Township, Gongshan County' / '23-VIII-2017' / '2285 m, 28°11'33.37''N, 98°14'16.43''E' / 'Sweep Flower - *Aralia* sp., coll. Bin LIU'; (1 ♂): 'Yunnan, CHINA' / 'Mt. Gaoligongshan, Xiongdang Village' / 'Dulongjiang Township, Gongshan County' / '7-IX-2017' / '1766 m, 28°25'53.67''N, 98°27'33.33''E' / 'Sweep Flower - *Aralia* sp., coll. Yinghui LI'; (3 ♂♂, 1 ♀): 'Yunnan, CHINA' / 'Mt. Gaoligongshan, Xiongdang Village' / 'Dulongjiang Township, Gongshan County' / '25-VIII-2017' / '2060 m, 28°8'55.58''N, 98°17'42.75''E' / 'Sweep Flower - *Aralia* sp., coll. Bin LIU'; (1 ♀): 'Yunnan, CHINA' / 'Mt. Gaoligongshan, Dizhengdang Village' / 'Dulongjiang Township, Gongshan County' / '7-VII-2017' / '2270 m, 28°10'53.60''N, 98°14'41.66''E' / 'Sweep Flower - *Aralia* sp., coll. Yinghui LI'. All paratypes in BITS and CPV.

The types are provided with a printed red label: '*Petraphuma huangjianbini* sp. nov.' / 'HOLOTYPUS (respective PARATYPUS)' / 'P. Viktora et B. Liu det., 2018'.

Description. Habitus of male holotype as in Fig. 14a. Body black, rather stout, relatively short, punctuate, with pubescence. Body length from head to elytral apex 10.05 mm (male paratypes from 8.4 to 10.8 mm), widest in humeral part of elytra (2.7 mm), approximately 3.7 times longer than wide.

Head black, relatively short, widest through the eyes, approximately as wide as pronotum at widest point (near middle), with distinct punctuation, with long and recumbent yellow pubescence and a few long pale setae. Frons with longitudinal stripe without punctuation in middle. Clypeus ochre yellow with blackish lateral margins, glabrous, shiny. Mandibles black, with long pale setae, partly glabrous. Eyes strongly emarginate, between roots of antennae with one distinct tubercle on each side.

Maxillary palpus ochre yellow, palpomeres with long pale setae. Ultimate palpomere longest, widest at apex, axe-shaped.

Antennae filiform, antennomeres reddish brown with blackish lateral margins, with fine punctuation. Antennomeres 1-5 with sparser yellowish recumbent pubescence, antennomeres 6-11 with dense short pale pubescence. Antennomeres 1-8 with long pale setae in inner side. Antennomeres without spines. Antennomere 2 shortest, antennomere 3 longest. Antennae reaching to elytral apex. Ratios of relative lengths of antennomeres 1-11 equal to: 0.60 : 0.27 : 1.00 : 0.75 : 0.78 : 0.96 : 0.87 : 0.74 : 0.65 : 0.55 : 0.62.

Pronotum black, slightly convex, with arcuate lateral margins, 1.31 times longer than wide at base and 1.09 times longer than wide at widest point (near middle of pronotum). Dorsal surface with distinct reticulated punctuation, punctures medium-sized and coarse, with long and recumbent yellow pubescence (as in Fig. 14a). Disc with a few long pale setae. Anterior and posterior margins almost straight.

Scutellum black, widely triangular with rounded apex, with long and recumbent yellow pubescence.

Elytra 6.82 mm long and 2.7 mm wide (2.52 times longer than wide); black, rather stout, with

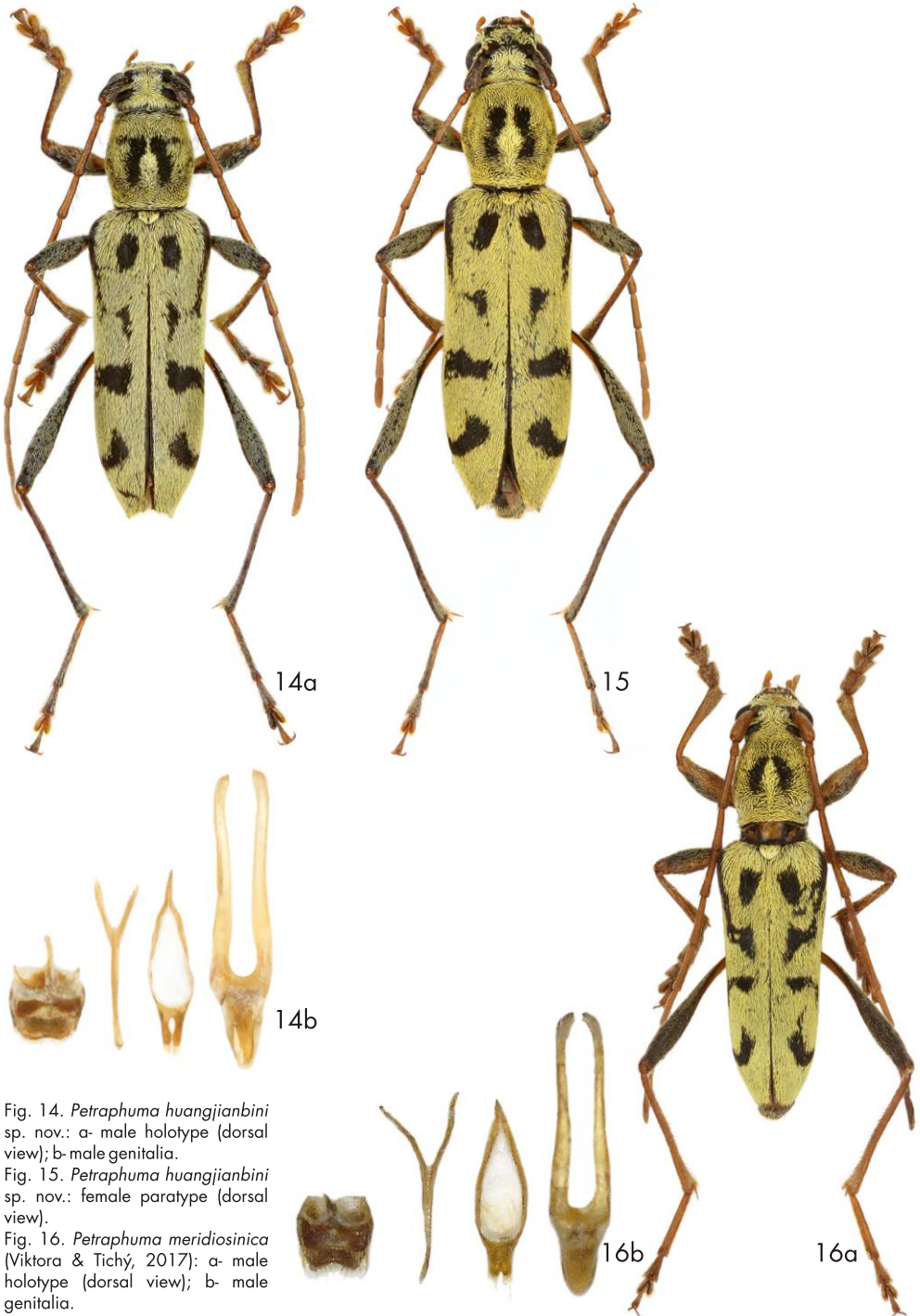


Fig. 14. *Petraphuma huangjianbini* sp. nov.: a- male holotype (dorsal view); b- male genitalia.

Fig. 15. *Petraphuma huangjianbini* sp. nov.: female paratype (dorsal view).

Fig. 16. *Petraphuma meridiosinica* (Viktora & Tichý, 2017): a- male holotype (dorsal view); b- male genitalia.

fine dense punctuation, covered by long and recumbent yellow pubescence and shorter dark pubescence in black spots (as in Fig. 14a). Apex slightly undulate, each elytron terminated by distinct thorn in outer side of apex.

Legs long and narrow, with punctuation, from reddish brown to black (as in Fig. 14a). Femora partly black with reddish brown base. Tibiae and tarsi partly reddish brown, partly black. Femora with long and recumbent yellowish pubescence and pale setation, tibiae with denser yellowish pubescence and pale setation, tarsi with long yellowish pubescence and setation. Metatibiae and metafemora longer than pro- and mesotibiae and pro- and mesofemora. Protarsi and mesotarsi wide, distinctly wider than metatarsi. Metatarsomere 1 1.49 times longer than metatarsomeres 2 and 3 together.

Ventral side of body black, with punctuation, almost completely covered by dense yellow pubescence. Elytral epipleura blackish brown, with punctuation and yellow 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 10.6 to 12.4 mm. Females without distinct differences, body more robust, antennae shorter than in males (reaching three quarters of elytral length), protarsi slightly narrower than in male.

Differential diagnosis. The most similar species is *Petraphuma meridiosinica* (Viktora & Tichý, 2017) (Fig. 16). *Petraphuma huangjianbini* sp. nov. distinctly differs from the species *P. meridiosinica* mainly by longer elytra (ratio elytral length / elytral width in humeri 2.52); *P. meridiosinica* has shorter elytra (ratio elytral length / elytral width in humeri 2.41). *P. huangjianbini* has distinctly longer metatarsomere 2, antennomeres reddish brown with blackish lateral margins; while *P. meridiosinica* has shorter metatarsomere 2 and antennomeres pale reddish brown without blackish margins (as in Figs. 14a, 16a). *P. huangjianbini* has different shape of tegmen (as in Figs. 14b, 16b).

Etymology. This new species is dedicated to the second author's best friend Jianbin Huang (Nanping, Fujian, China), who helps second author in various ways.

Distribution. China (Yunnan).

Petraphuma pompa sp. nov.

(Figs. 17-18)

Type locality. China, Hainan, Mt. Jianfengling.

Type material. Holotype (♂): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '23-V-2017' / '1412 m, 18°43'0.85"N, 108°52'17.74"E' / 'coll. Bin LIU', (BITS); Paratypes: (1 ♀): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '20-IV-2018' / '1412 m, 18°43'0.85"N, 108°52'17.74"E' / 'Stop flying, coll. Bin LIU'; (2 ♂♂): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '21-V-2018' / '1412 m, 18°43'0.85"N, 108°52'17.74"E' / 'Sweep flower, coll. Yufeng WU'; (2 ♂♂): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '25-V-2018' / '1412 m, 18°43'0.85"N, 108°52'17.74"E' / 'Sweep flower, coll. Yufeng WU'; (1 ♂): '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'; (1 ♂): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '4-V-2018' / '1412 m, 18°43'0.85"N, 108°52'17.74"E' / 'Stop flying, coll. Yinghui LI'; (1 ♂): 'CHINA, Hainan isl.' / 'Jianfengling forest park, peak' / '7. - 22. VI. 2018, 1400 m' / '18°43'1.98"N, 108°52'18.83"E' / 'ex larve, *Quercus* sp., leg.

P. Kabátek'; (1 ♂): 'Mt. Jianfengling, Main peak, Jianfeng Township' / 'Ledong Li Autonomous County, Hainan, China' / '17-V-2018, 1412m, 18°43'0.85"N, / '108°52'17.74"E, coll. Bin LIU'; (1 ♂, 1 ♀): 'Mt. Jianfengling, Main peak, Jianfeng Township' / 'Ledong Li Autonomous County, Hainan, China' / '21-V-2018, 1412m, 18°43'0.85"N, / '108°52'17.74"E, coll. Bin LIU'; (1 ♂): 'Hainan, CHINA' / 'Mt. Jianfengling, starting point for' / 'Mt. Jianfengling climbing, light trap' / 'Jianfeng Township, Ledong Li Autonomous County' / '14-VI-2018, P. Viktora lgt.'; (1 ♀): 'Mt. Jianfengling, Main peak, Jianfeng Township' / 'Ledong Li Autonomous County, Hainan, China' / '12-V-2018, 1412m, 18°43'0.85"N, / '108°52'17.74"E, coll. Bin LIU'; (1 ♀): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '26-V-2018' / '1412 m, 18°43'0.85"N, 108°52'17.74"E' / 'Sweep flower, coll. Yufeng WU'; (1 ♀): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '22-VI-2018' / '1412 m, 18°43'0.85"N, 108°52'17.74"E' / 'P. Viktora lgt.'. All paratypes in BITS, CPK and CPV.

The types are provided with a printed red label: 'Petraphuma pompa sp. nov.' / 'HOLOTYPE (respective PARATYPE)' / 'P. Viktora et B. Liu det., 2018'.

Description. Habitus of male holotype as in Fig. 17a. Body black, rather stout, relatively short, punctate, with pubescence. Body length from head to elytral apex 9.02 mm (male paratypes from 6.25 to 9.1 mm), widest in humeral part of elytra (2.15 mm), approximately 4.2 times longer than wide.

Head black, relatively short, widest through the eyes, approximately as wide as pronotum at widest point (near middle), with distinct punctuation, with long and recumbent yellow pubescence. Clypeus dark brown, partly glabrous, shiny. Mandibles blackish brown, dorsal surface partly glabrous, partly with long yellow pubescence. Eyes strongly emarginate, between roots of antennae with one tubercle from both sides.

Maxillary palpus dark brown, with dark setation. Ultimate palpomere longest, widest at apex.

Antennae filiform, blackish brown, with fine punctuation. Antennomeres 1-4 with sparse pale pubescence, antennomeres 5-11 with short and denser darker pubescence. Antennomeres 2-8 with long pale setae on inner side. Antennomeres without spines. Antennomere 2 shortest, antennomere 7 longest. Antennae slightly exceed elytral apex. Ratios of relative lengths of antennomeres 1-11 equal to: 0.87 : 0.27 : 1.00 : 0.86 : 1.04 : 1.14 : 1.20 : 1.06 : 1.06 : 0.87 : 0.89.

Pronotum black, slightly convex, distinctly longer than wide, 1.54 times longer than wide at base and 1.28 times longer than wide at widest point (before middle of pronotum from base to apex). Dorsal surface with distinct punctuation, punctures medium-sized, with long and recumbent yellow pubescence (as in Fig. 17a). Disc with long erect pale setae. Lateral margins only slightly arcuate, anterior margin arcuate, base straight.

Scutellum black, widely triangular with rounded apex, with long and recumbent yellow pubescence.

Elytra 5.53 mm long and 2.15 mm wide (2.57 times longer than wide); black, rather stout, with fine dense punctuation, covered by long and recumbent yellow pubescence and shorter dark pubescence in black spots (as in Fig. 17a). Apex slightly undulate, without spines.

Legs long and narrow, with punctuation, blackish brown, femora with paler base (as in Fig. 17a). Legs with yellowish pubescence and long pale setation in inner side. Metatibiae and metafemora longer than pro- and mesotibiae and pro- and mesofemora. Protarsi wider than meso- and metatarsi. Metatarsomere 1 1.6 times longer than metatarsomeres 2 and 3 together.

Ventral side of body black, completely covered by dense yellowish pubescence, distinctly paler than those on elytra.

Genitalia as in Fig. 17b.

Female. Habitus of female paratype as in Fig. 18. Body length from head to elytral apex (female paratypes) from 8.2 to 10.3 mm. Females without distinct differences, antennae slightly shorter than in males (reaching six sevenths of elytral length).

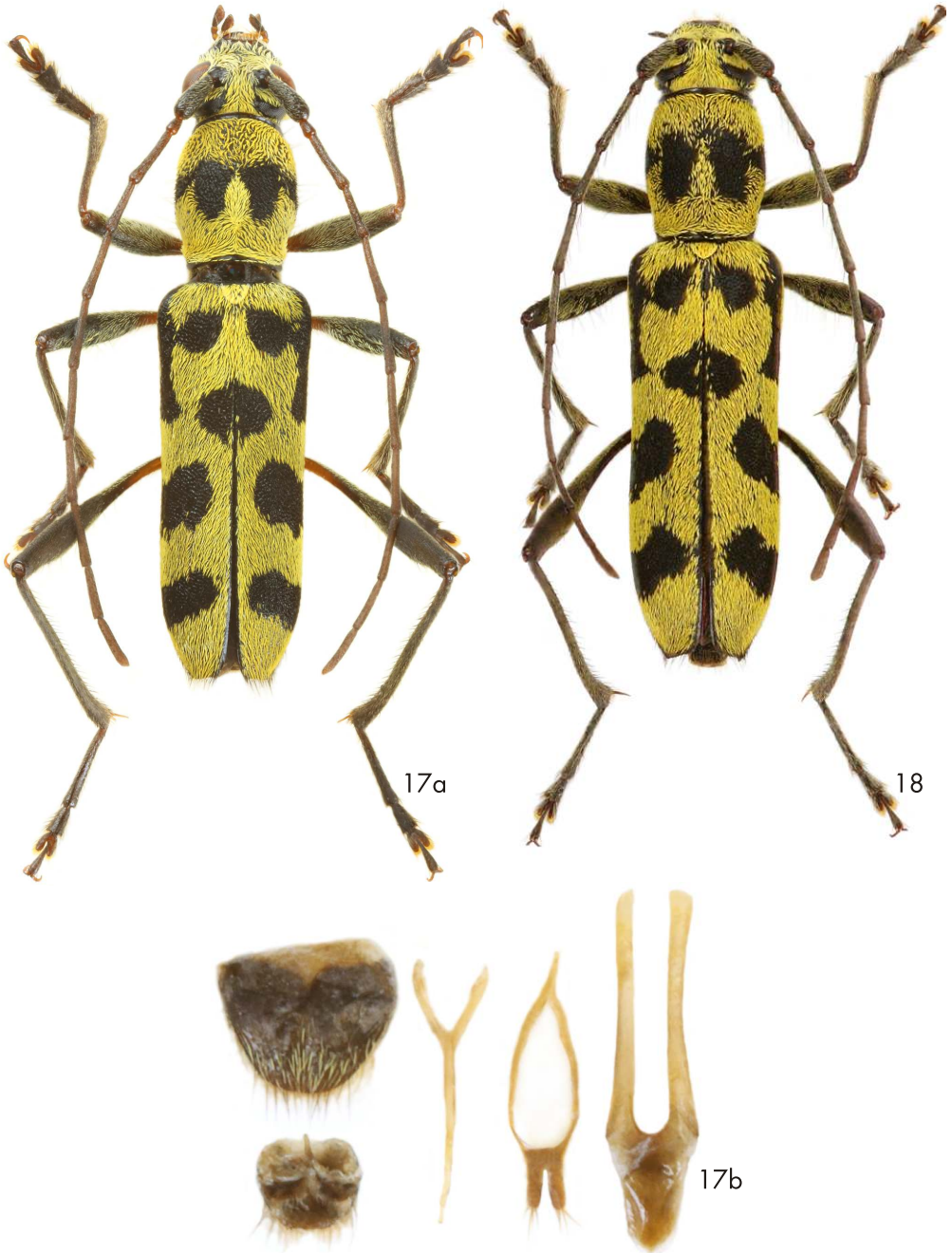


Fig. 17. *Petraphuma pompa* sp. nov.: a- male holotype (dorsal view); b- male genitalia.
Fig. 18. *Petraphuma pompa* sp. nov.: female paratype (dorsal view).

Differential diagnosis. *Petraphuma pompa* sp. nov. distinctly differs from other members of the genus *Petraphuma* by different shape of colour pattern of dorsal surface of elytra and pronotum. *P. pompa* has longer and narrower pronotum than other *Petraphuma* members (pronotum 1.28 times longer than wide at widest point); while other members have this ratio: *Petraphuma allegoria* (Viktora & Tichý, 2017) 1.2, *Petraphuma boreolaosica* (Viktora & Tichý, 2017) 1.21, *Petraphuma boreovietnamica* (Viktora & Tichý, 2017) 1.12, *Petraphuma huangjianbini* sp. nov. 1.09, *Petraphuma meridiosinica* (Viktora & Tichý, 2017) 1.12, *Petraphuma meridiovietnamica* (Viktora & Tichý, 2017) 1.12, *Petraphuma sulphurea* (Gressitt, 1941) 1.15.

Etymology. From Latin *pompa* (it means „splendor“).

Distribution. China (Hainan).

Genus *Rhaphuma* Pascoe, 1858

Type species. *Clytus quadricolor* Castelnau et Gory, 1835.

Rhaphuma caraganicola sp. nov.

(Figs. 19-20)

Type locality. China, Xizang, Chayu County, Daliusha.

Type material. Holotype (♂): ‘Daliusha, Chawalong Township, Chayu County’ / ‘Xizang, China’ / ‘17-VIII-2017 (Larva), / 16-21-VI-2018 (Adult)’ / ‘1760m / Host: *Caragana erinacea* Kom.’ / ‘28°25'53.71"N, 98°27'33.20"E / coll. Bin LIU’, (BITS); Paratypes: (4 ♂♂, 3 ♀♀): same data as holotype, (BITS, CPV).

The types are provided with a printed red label: ‘*Rhaphuma caraganicola* sp. nov.’ / ‘HOLOTYPE (respective PARATYPE)’ / ‘P. Viktora et B. Liu det., 2018’.

Description. Habitus of male holotype as in Fig. 19a. Body elongate, parallel, punctuate, black with whitish gray pubescence. Body length from head to elytral apex 9.3 mm (male paratypes from 7.75 to 9.1 mm), widest in humeral part of elytra (2.1 mm), 4.4 times longer than wide.

Head black, widest through the eyes, narrower than pronotum at widest point, with dense granulated punctuation, covered by whitish gray pubescence, with long pale setation in lateral margins and anterior part. Eyes large, blackish brown, transversally emarginate from inner sides. Clypeus pale brown, shiny, with long yellowish setation. Ultimate palpomere very large, axe-shaped with rounded apex.

Antennae filiform, with indistinct punctuation, short pale pubescence and pale setation, longer in apex of antennomeres. Antennomeres 1-5 blackish brown with narrowly brown apex, antennomeres 6-11 blackish brown. Antennomeres without spines. Antennomere 2 shortest, antennomeres 6 and 7 longest. Antennae reaching seven eighths of elytral length. Ratios of relative lengths of antennomeres 1-11 equal to: 0.68 : 0.28 : 1.00 : 1.06 : 1.11 : 1.17 : 1.16 : 1.03 : 0.92 : 0.86 : 1.01.

Pronotum black, elongate, finely arcuate on lateral margins. Pronotum 1.46 times longer than wide at base and 1.18 times longer than wide at widest point (near middle of pronotum). Dorsal surface with dense small-sized granulated punctuation, covered by whitish gray pubescence (as in Fig. 19a). Lateral margins in basal third with long erect pale setation. Anterior margin and base almost straight.

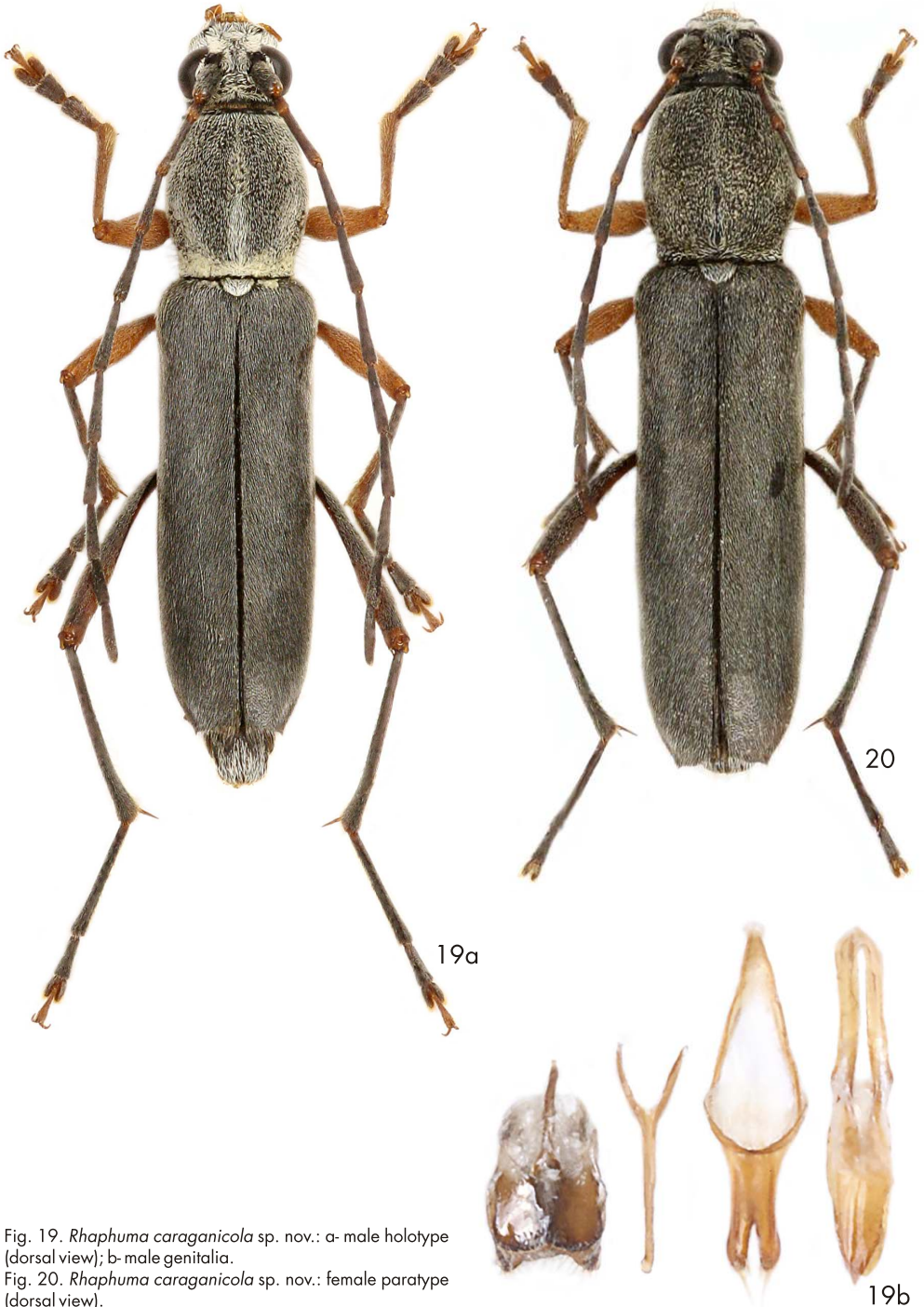


Fig. 19. *Rhaphuma caraganicola* sp. nov.: a- male holotype (dorsal view); b- male genitalia.
Fig. 20. *Rhaphuma caraganicola* sp. nov.: female paratype (dorsal view).



Fig. 21. China, Xizang, Chayu County, Daliusha: type locality of *Rhaphuma caraganicola* sp. nov. (photo by Bin Liu).



Fig. 22. *Caragana erinacea* Komarov, 1909, host plant of *Rhaphuma caraganicola* sp. nov. (photo by Bin Liu).



Fig. 23. The second author in finding larvae of *Rhaphuma caraganicola* sp. nov. (photo by Chengbin Wang).



Fig. 24. Gallery system created by larvae of *Rhaphuma caraganicola* sp. nov. in host plant branch. (photo by Bin Liu).

Scutellum triangular with rounded apex, completely covered by dense whitish gray pubescence.

Elytra 5.97 mm long and 2.1 mm wide (2.84 times longer than wide); black, parallel, narrowing apically. Elytra with dense, small-sized punctuation, covered by relatively sparse whitish gray pubescence. Suture without pubescence. Each elytron with distinctly excised apex, with distinct spines on outer side of apex.

Legs long and narrow, from pale brown to black (as in Fig. 19a). Metafemora and metatibiae distinctly darker and longer than pro- and mesofemora and pro- and mesotibiae. Legs covered by whitish gray pubescence and longer pale setation. Metatarsomere 1 1.8 times longer than metatarsomeres 2 and 3 together.

Ventral side of body black, completely covered by dense recumbent white pubescence and erect pale setation. Elytral epipleura black, narrow, with pale pubescence.

Genitalia as in Fig. 19b.

Female. Habitus of female paratype as in Fig. 20. Body length from head to elytral apex (female paratypes) from 8.3 to 10.0 mm. Colour of female the same as in male. Female without distinct differences, only antennae shorter than in male, reaching to four sevenths elytral length.

Differential diagnosis. The gray colour is relatively unusual for members of the genus *Rhaphuma*. The most similar species are *Rhaphuma grisescens* Pic, 1928, described from southern Vietnam and *Rhaphuma suturalis* Gahan, 1906, described from southern India.

Rhaphuma caraganicola sp. nov. distinctly differs from *R. grisescens* by more robust body, by wider and shorter elytra, and by wider pronotum with about the same broad base and apex; while *R. grisescens* has more subtle body, pronotum narrowing apically with distinctly wider base.

Rhaphuma caraganicola sp. nov. distinctly differs from *R. suturalis* by more robust body and by wider and shorter unicolorated gray elytra; while *R. suturalis* has elytra with black stripe near suture.

Rhaphuma caraganicola sp. nov. distinctly differs from *Rhaphuma comosella* Holzschuh, 2006, described from Tibet by more robust body, wider and shorter gray elytra and antennae not reaching to elytral apex; while *R. comosella* has narrower, dark reddish brown body, antennae distinctly reaching to elytral apex.

Bionomics. All specimens were reared from the wood of *Caragana erinacea* Komarov, 1909 (Fig. 22).

Etymology. Named after the host plant, *Caragana erinacea* Komarov, 1909.

Distribution. China (Xizang).

Rhaphuma jianfenglingensis sp. nov.

(Figs. 25-26)

Type locality. China, Hainan, Mt. Jianfengling.

Type material. Holotype (♂): 'CHINA, Hainan' / 'Mt. Jianfengling, Main peak of Jianfengling' / 'Jianfeng Township' / 'Ledong Li Autonomous County' / '13-VI-2017, 1412m' / '18°43'0.85"N, 108°52'17.74"E, coll. Bin LIU', (BITS); Paratypes: (1 ♂): '[CHINA: Hainan] The peak of' / 'Jianfengling (Mt.), Jianfeng' / 'Township, Ledong County' / '18°43'3"N / 108°52'17"E, / 'Alt. ca. 1,300 m' / '21. VII, 2017, Native leg.'; (1 ♀): 'Hainan, CHINA' / 'Mt. Jianfengling, Main peak' / 'Jianfeng Township, Ledong Li Autonomous County' / '15-VII-2017' / '1412 m, 18°43'0.85"N,

108°52'17.74''E' / 'coll. Bin LIU'; (2 ♂♂, 1 ♀): 'CHINA, Hainan isl.' / 'Jianfengling forest park, peak' / '7. - 22. VI. 2018, 1400 m' / '18°43'1.98''N / 108°52'18.83''E' / 'ex larva, leg. P. Kabátek', (BITS, CPK, CPV).

The types are provided with a printed red label: 'Rhaphuma jianfenglingensis sp. nov.' / 'HOLOTYPUS (respective PARATYPUS)' / 'P. Viktora et B. Liu det., 2018'.

Description. Habitus of male holotype as in Fig. 25a. Body black, elongate, narrow, parallel, punctuate, with pubescence. Body length from head to elytral apex 5.95 mm (male paratypes from 5.8 to 7.0 mm), widest in humeral part of elytra (1.33 mm), 4.47 times longer than wide.

Head black, short, broadest across the eyes, slightly narrower than pronotum, with dense yellow pubescence and long pale setae. Dorsal surface with dense fine punctation. Clypeus blackish brown, shiny. Eyes distinctly emarginate. Maxillary palpus blackish brown. Ultimate palpomere longest, axe-shaped, widest at apex.

Antennae black, filiform, with punctuation and yellowish pubescence. Pubescence of antennomeres 8-11 shorter and denser than those of antennomeres 1-7. Antennomeres 1-7 with longer pale setae in inner side. Antennomeres without spines. Antennomere 2 shortest, antennomeres 3 and 11 longest. Antennae reaching three quarters elytral length. Ratios of relative lengths of antennomeres 1-11 equal to: 0.68 : 0.33 : 1.00 : 0.73 : 0.75 : 0.70 : 0.76 : 0.71 : 0.79 : 0.74 : 0.99.

Pronotum black, elongate, only very slightly rounded, 1.45 times longer than wide at base and 1.21 times longer than wide at widest point (middle of pronotum). Pronotum with distinct punctuation, covered by long yellow pubescence except transverse black spot in the middle with very short dark pubescence (as in Fig. 25a) and long pale setae. Lateral margins only slightly arcuate, anterior margin and base almost straight.

Scutellum black, semielliptical, with very sparse short pale pubescence and longer pale pubescence in apex.

Elytra 3.97 mm long and 1.33 mm wide (3 times longer than wide); narrow, elongate, parallel, black, with dense punctuation. Each elytron covered by dense yellow pubescence, with three black spots with short dark pubescence (as in Fig. 25a). Two black spots in posterior part of elytra narrowly united with a black stripe on the lateral margin. Apex of each elytron undulate, with short thorn in inner side.

Legs long and narrow, from blackish brown to black, punctuate, with sparse yellowish pubescence. Mesofemora with a few long setae on inner side. Each apical half of tibia and tarsus with distinctly longer pale pubescence. Metatibiae and metafemora distinctly longer than pro- and mesotibiae and pro- and mesofemora. Metatarsomere 1 1.65 times longer than metatarsomeres 2 and 3 together.

Ventral side of body black, partly covered by stripes of dense yellowish pubescence, pubescence distinctly paler than those in elytra.

Male genitalia as in Fig. 25b.

Female. Habitus of female paratype as in Fig. 26. Body length from head to elytral apex (female paratypes) from 7.3 to 7.4 mm. Colour of female similar to male. Female without distinct differences, only pronotum slightly wider and antennae shorter than in male.

Differential diagnosis. The most similar species is *Rhaphuma marialaurae* Gouverneur, 2015, described from Laos. *Rhaphuma jianfenglingensis* sp. nov. distinctly differs from the species *R. marialaurae* mainly by its distinctly shorter antennae, pronotum with predominant yellow pubescence and different shape of yellow and black spots on elytra; while *R. marialaurae*

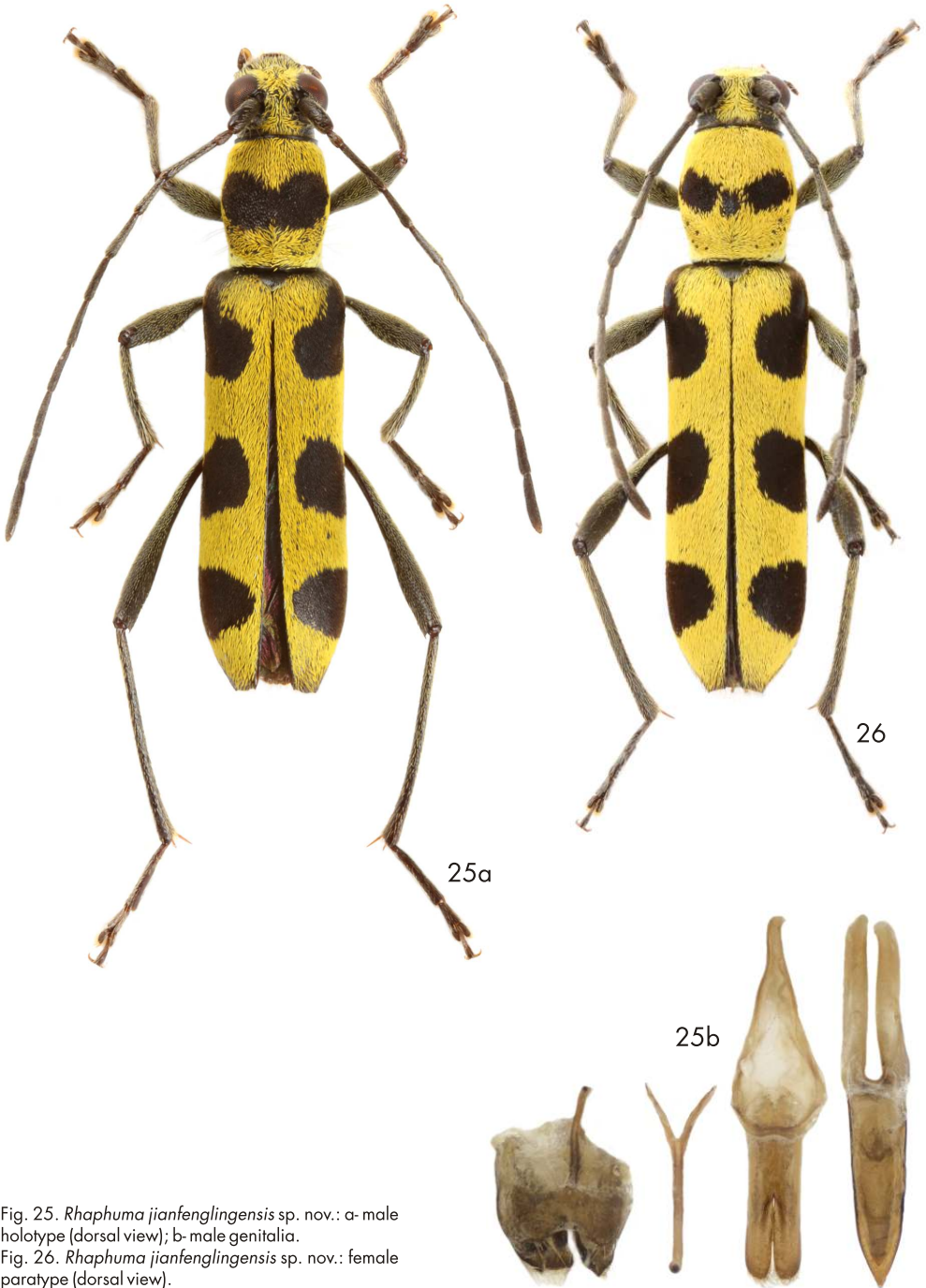


Fig. 25. *Rhaphuma jianfenglingensis* sp. nov.: a- male holotype (dorsal view); b- male genitalia.
Fig. 26. *Rhaphuma jianfenglingensis* sp. nov.: female paratype (dorsal view).

has longer antennae, pronotum with predominant circular black spot and only narrow yellow stripes near anterior and posterior margins.

Etymology. Named after the type locality, Mt. Jianfengling.

Distribution. China (Hainan).

***Rhaphuma liyinghuii* sp. nov.**

(Figs. 27-28)

Type locality. China, Yunnan, Mt. Gaoligongshan, Xiongdang Village.

Type material. Holotype (♂): 'CHINA, Yunnan prov.' / 'Mt. Gaoligongshan, Xiongdang Village' / 'Dulongjiang Township, Gongshan County' / '23-25-VIII-2017, 2060m' / '28°8'55.58''N, 98°17'52.75''E' / 'sweep flower - *Aralia* sp., coll. Bin LIU', (BITS); Paratypes: (2 ♂♂): same data as holotype; (4 ♂♂, 1 ♀): 'Yunnan, CHINA' / 'Mt. Gaoligongshan, Xiongdang Village' / 'Dulongjiang Township, Gongshan County' / '23-VIII-2017' / '2285 m, 28°11'33.37''N, 98°14'16.43''E' / 'Sweep Flower - *Aralia* sp., coll. Bin LIU'; (3 ♂♂): 'Yunnan, CHINA' / 'Mt. Gaoligongshan, Xiongdang Village' / 'Dulongjiang Township, Gongshan County' / '23-VIII-2017' / '2060 m, 28°8'55.58''N, 98°17'42.75''E' / 'Sweep Flower - *Aralia* sp., coll. Bin LIU'; (2 ♂♂): 'Yunnan, CHINA' / 'Mt. Gaoligongshan, Xiongdang Village' / 'Dulongjiang Township, Gongshan County' / '7-IX-2017' / '1766 m, 28°25'53.67''N, 98°27'33.33''E' / 'Sweep Flower - *Aralia* sp., coll. Yinghui LI'; (1 ♂, 2 ♀♀): 'Yunnan, CHINA' / 'Mt. Gaoligongshan, Xiongdang Village' / 'Dulongjiang Township, Gongshan County' / '25-VIII-2017' / '2060 m, 28°8'55.58''N, 98°17'42.75''E' / 'Sweep Flower - *Aralia* sp., coll. Bin LIU'. All paratypes in BITS and CPV.

The types are provided with a printed red label: '*Rhaphuma liyinghuii* sp. nov.' / 'HOLOTYPE (respective PARATYPE)' / 'P. Viktora et B. Liu det., 2018'.

Description. Habitus of male holotype as in Fig. 27a. Body black, elongate, narrow, parallel, punctuate, with pubescence. Body length from head to elytral apex 10.15 mm (male paratypes from 10.15 to 13.05 mm), widest in humeral part of elytra (2.12 mm), 4.78 times longer than wide.

Head black, widest across the eyes, narrower than pronotum at widest point, with dense yellowish pubescence and a few long pale setae. Dorsal surface with dense fine punctuation. Eyes distinctly emarginate. Clypeus and mandibles blackish brown, shiny, with yellowish pubescence.

Maxillary palpus brown, ultimate palpomere longest, axe-shaped, widest at apex, apex pale brown.

Antennae blackish brown, filiform, with punctuation and yellowish pubescence. Pubescence of antennomeres 6-11 shorter and denser than those in antennomeres 1-5. Antennomeres 2-6 with longer pale setae on inner side. Antennomeres without spines. Antennomere 2 shortest, antennomere 3 longest. Antennae reaching elytral apex (as in Fig. 27a). Ratios of relative lengths of antennomeres 1-11 equal to: 0.64 : 0.28 : 1.00 : 0.80 : 0.90 : 0.88 : 0.84 : 0.82 : 0.73 : 0.71 : 0.94.

Pronotum black, elongate, with dense fine punctuation, covered by yellowish pubescence. Pronotum 1.62 times longer than wide at base and 1.19 times longer than wide at widest point (middle of pronotum). Dorsal surface with a few long pale setae. Lateral margins arcuate, anterior margin and base only slightly arcuate, almost straight.

Scutellum black, semielliptical, covered by yellowish pubescence.

Elytra 6.72 mm long and 2.12 mm wide (3.17 times longer than wide); narrow, elongate, parallel, with dense small-sized punctuation. Dorsal surface covered by yellowish pubescence except black spots with black pubescence (as in Fig. 27a). Apex of each elytron slightly undulate,



27a



28



27b

Fig. 27. *Rhapsoma liyinghunii* sp. nov.: a- male holotype (dorsal view); b- male genitalia.

Fig. 28. *Rhapsoma liyinghunii* sp. nov.: female paratype (dorsal view).

with thorn in inner and outer sides.

Legs long and narrow, from blackish brown to black, punctuate, with yellowish pubescence. Each apical half of tibia and tarsus with distinctly longer and denser pubescence. Metatibiae and metafemora longer than pro- and mesotibiae and pro- and mesofemora. Metatarsomere 1 1.7 times longer than metatarsomeres 2 and 3 together.

Ventral side of body black, almost completely covered by dense yellowish pubescence. Elytral epipleura black with yellowish pubescence.

Genitalia as in Fig. 27b.

Female. Habitus of female paratype as in Fig. 28. Body length from head to elytral apex (female paratypes) from 11.5 to 12.75 mm. Colour of female the same as in male. Female without distinct differences, antennae shorter (reaching three quarters of elytral length), tarsomeres narrower than in male.

Differential diagnosis. The most similar species are *Rhaphuma luteopubens* Pic, 1937, described from Vietnam, *Rhaphuma quercus* Gardner, 1940, described from Myanmar and *Rhaphuma virens* Matsushita, 1931, described from Taiwan. *Rhaphuma liyinghuii* sp. nov. differs from these similar species by parallel elytra, by narrower pronotum without black spots, by shorter metatarsi and quite different shapes of tegmen and median lobe; while *R. luteopubens*, *R. quercus* and *R. virens* have elytra narrowing apically with distinctly wider humeri, wider pronotum with more or less pronounced black spots and distinctly longer metatarsi.

Etymology. This new species is dedicated to our best friend Yinghui Li (Nanning, Guangxi, China), who collected this species.

Distribution. China (Yunnan).

Genus *Xylotrechus* Chevrolat, 1860

Type species. *Clytus sartorii* Chevrolat, 1860.

Xylotrechus inflexus sp. nov.

(Fig. 29)

Type locality. China, Guangxi, Jinxiu, Mt. Dayaoshan.

Type material. Holotype (♂): 'CHINA, Guangxi prov.' / 'Jinxiu, Mt. Dayaoshan' / '1100m, IV. 2017' / 'local person leg.', (CPV).

The type is provided with a printed red label: 'Xylotrechus inflexus sp. nov.' / 'HOLOTYPUS' / 'P. Viktora et B. Liu det., 2018'.

Description. Habitus of male holotype as in Fig. 29a. Body from dark brown to black, elongate, slightly narrowing apically, punctuate, with pubescence. Body length from head to elytral apex 9.0 mm, widest in humeral part of elytra (2.35 mm), 3.83 times longer than wide.

Head black, short, widest through the eyes, slightly narrower than pronotum at widest point, with coarse punctuation and granulation, frons with longitudinal carina in middle. Head covered by yellow pubescence except middle of frons. Eyes brown, distinctly emarginate. Mandibles and clypeus dark brown.

Maxillary palpus pale brown, with pale setation, palpomeres short. Ultimate palpomere longest, widened and rounded apically.



Fig. 29. *Xylotrechus inflexus* sp. nov.: a- male holotype (dorsal view); b- male genitalia; c- male holotype (front view in perspective).

Antennae dark brown, antennomeres widened apically, with distinct punctuation. Antennomeres 1-5 with long yellow pubescence and pale setation in inner side, antennomeres 6-11 with dense short pale pubescence. Antennae short, reaching one third of elytral length from base to apex. Antennomere 2 shortest, antennomere 1 longest. Ratios of relative lengths of antennomeres 1-11 equal to: 1.14 : 0.62 : 1.00 : 0.77 : 0.83 : 0.74 : 0.83 : 0.71 : 0.72 : 0.65 : 0.92.

Pronotum black, slightly convex, elongate, with slightly arcuate lateral margins, 1.46 times longer than wide at base and 1.14 times longer than wide at widest point (in two fifths from base to apex). Anterior margin slightly arcuate, base straight. Dorsal surface with dense and relatively coarse punctuation, partly covered by yellow pubescence (as in Fig. 29a). Disc and lateral margins near base with a few pale erect setae.

Scutellum black, completely covered by yellow pubescence.

Elytra 6.06 mm long and 2.35 mm wide (2.57 times longer than wide); slightly narrowing apically, with dense punctuation. Elytra black, places with yellow pubescence and lateral edges brown. Elytra covered by yellow and black pubescence (as in Fig. 29a). Elytral apex cut, only slightly undulate, with long pale setation.

Legs long and narrow, from dark brown to black, with punctuation and pale setation. Femora with yellow pubescence, pubescence in pro- and mesofemora denser. Tarsomeres brown with darker apex. Metatibiae and metafemora longer than pro- and mesotibiae and pro- and mesofemora. Metatarsomere 1 1.93 times longer than metatarsomeres 2 and 3 together.

Ventral side of body black, covered by dense yellow pubescence, abdominal segments partly covered by dense yellow pubescence, partly by only sparse pale setation. Elytral epipleura brown, narrow, with black pubescence.

Genitalia as in Fig. 29b.

Female. Unknown.

Differential diagnosis. The most similar species are *Xylotrechus bilyi* Holzschuh, 2003 and *Xylotrechus sciamai* Gressitt & Rondon, 1970.

Xylotrechus inflexus sp. nov. distinctly differs from similar species *X. bilyi* by narrower pronotum, by distinctly narrower and longer elytra, by different shape of dark spot in basal part of elytra, by extra dark spots near lateral margins of elytral apex, by narrower and darker antennae, by distinctly narrower and shorter protarsi and by different shape of apical margin of ultimate tergite (distinctly arcuate in *X. inflexus*, almost straight in *X. bilyi*).

Xylotrechus inflexus sp. nov. distinctly differs from similar species *Xylotrechus sciamai* Gressitt & Rondon, 1970 mainly by narrower pronotum, by narrower elytra, and by different shape of spots on pronotum and basal half of elytra.

Etymology. From Latin *inflexus* (it means „curved“).

Distribution. China (Guangxi).

***Xylotrechus marketae* sp. nov.**

(Fig. 30)

Type locality. China, Yunnan, Mt. Gaoligongshan, Bapo Village.

Type material. Holotype (♂): ‘Yunnan, CHINA’ / ‘Mt. Gaoligongshan, Bapo Village’ / ‘Dulongjiang Township, Gongshan County’ / ‘23-25-VII-2017, 1523 m, 27°41’18.22’’N, / ‘98°20’59.80’’E, Sweep Flower - *Aralia* sp., coll. Yinghui Li and Zhaoning HUANG’, (BITS).

The type is provided with a printed red label: ‘*Xylotrechus marketae* sp. nov.’ / ‘HOLOTYPUS’ / ‘P. Viktora et B. Liu det., 2018’.

Description. Habitus of male holotype as in Fig. 30a. Body from pale brown to black, elongate, parallel, punctate, with pubescence. Body length 10.56 mm, widest in humeral part of elytra (2.82 mm), 3.74 times longer than wide.

Head black, short, widest through the eyes, distinctly narrower than pronotum at widest point. Head with coarse irregular narrow carina between antennal insertions and frons in the middle. Each antennal insertion with distinct sharp longitudinal keel. Head covered by yellow pubescence except middle of frons and between antennae (as in Fig. 30c). Dorsal surface with longer pale

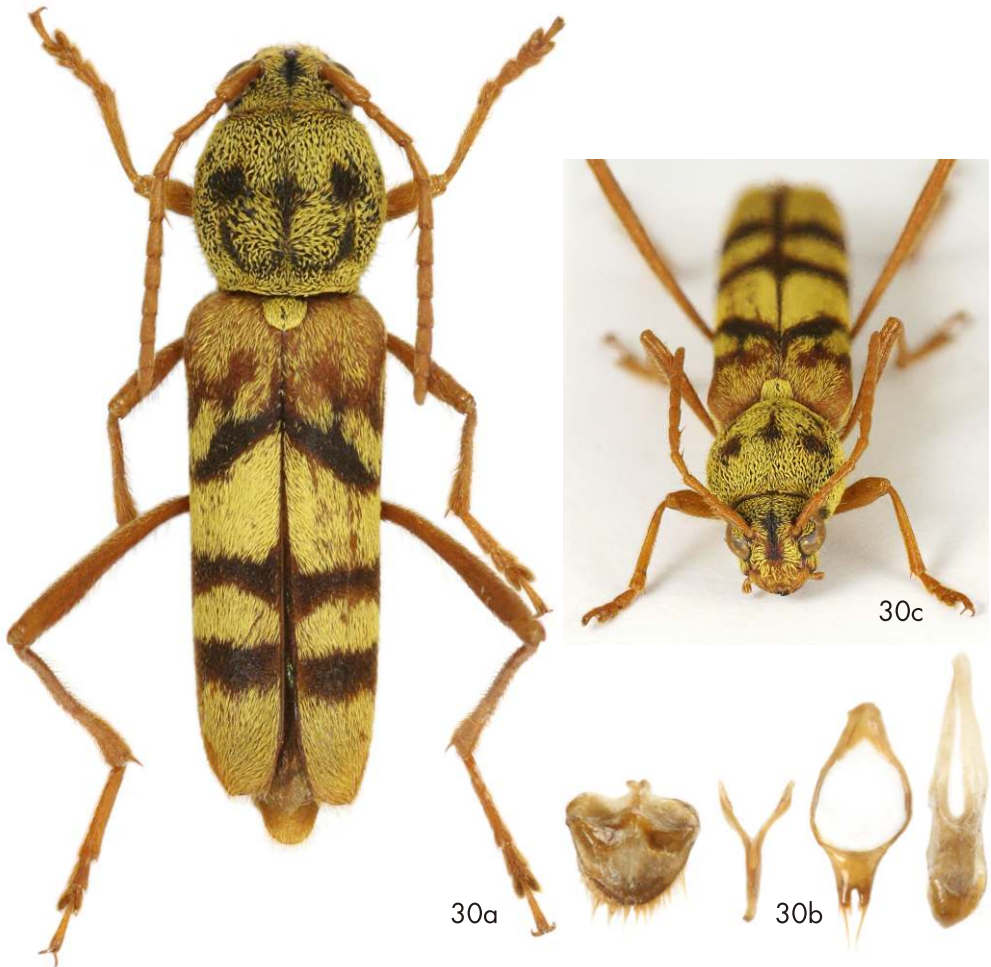


Fig. 30. *Xylotrechus marketae* sp. nov.: a- male holotype (dorsal view); b- male genitalia; c- male holotype (front view in perspective).

setation. Eyes goldenish, distinctly emarginate. Clypeus pale brown, shiny, with yellow setation. Mandibles brown with blackish apex.

Maxillary palpus pale brown. Palpomeres short, ultimate palpomere broadest, widened apically.

Antennae pale brown, short, reaching one quarter of elytral length. Antennomeres widened apically and shortened. Antennomere 2 shortest, antennomere 1 longest. Antennae with small-sized shallow punctuation and yellowish pubescence, pubescence in antennomeres 1-5 longer. Antennomeres 2-6 with long yellowish setae in inner side. Antennomeres without spines. Ratios of relative lengths of antennomeres 1-11 equal to: 1.27 : 0.44 : 1.00 : 1.03 : 1.06 : 0.92 : 0.77 : 0.74 : 0.62 : 0.53 : 0.74.

Pronotum large, black, with yellow and sparser dark pubescence (as in Fig. 30a). Pronotum 1.32 times longer than wide at base and 1.05 times wider than long at widest point (middle of

pronotum). Dorsal surface of pronotum with coarse granulate punctuation. Disc and lateral margins with longer pale setation. Pronotum slightly convex, lateral margins distinctly arcuate, anterior margin and base slightly undulate.

Scutellum wide, rounded, semicircular, completely covered by yellow pubescence.

Elytra 7.15 mm long and 2.82 mm wide (2.53 times longer than wide); from pale brown to blackish brown, with places of dense yellow pubescence, sparser yellow pubescence and blackish pubescence (as in Fig. 30a). Dorsal surface with dense punctuation, punctures small. Elytral apex angled, each elytron rounded in inner side.

Legs long and narrow, pale brown, meso- and metafemora indistinctly darker. Legs with shallow punctuation, covered by relatively long yellowish pubescence. Meso- and metafemora, meso- and metatibiae distinctly longer than profemora or protibiae. Tarsi short, metatarsomere 1 1.7 times longer than metatarsomeres 2 and 3 together.

Ventral side of body blackish brown, ventrites 4-5 pale brown with stripes of dense yellow pubescence and long pale setation. Elytral epipleura brown with yellowish pubescence.

Genitalia as in Fig. 30b.

Female. Unknown.

Differential diagnosis. The most similar species are *Xylotrechus klapperichi* Gressitt, 1951, described from Fujian province of China and *Xylotrechus liciatulus* Holzschuh, 2006, described from northern India.

Xylotrechus marketae sp. nov. differs from similar species *X. klapperichi* by wider transverse pronotum, by different shape of spots on elytra (one dark oblique strip moreover than in *X. klapperichi*), by tarsi of same color as rest of legs, and by elytral apex without spines; while *X. klapperichi* has more elongate pronotum, tarsi distinctly paler than rest of legs and elytral apex with distinct spine in outer side.

Xylotrechus marketae sp. nov. differs from similar species *X. liciatulus* by wider transverse pronotum without longitudinal elevation in middle, by different shape of spots on elytra, especially in basal part, and by elytral apex without spines; while *X. liciatulus* has more elongate pronotum with distinct longitudinal elevation without pubescence in middle and elytral apex with distinct spine in outer side.

Etymology. This new species is dedicated to the first author's wife Markéta.

Distribution. China (Yunnan).

***Xylotrechus zhouchaoi* sp. nov.**

(Fig. 31)

Type locality. China, Yunnan, Mt. Gaoligongshan, Xiong dang Village.

Type material. Holotype (♂): 'Yunnan, CHINA' / 'Mt. Gaoligongshan, Xiong dang Village' / 'Dulongjiang Township, Gongshan County' / '22-VIII-2017' / '2060 m, 28°8'55.58"N, 98°17'42.75"E' / 'Sweep Flower - *Aralia* sp., coll. Zhaoning HUANG', (BITS).

The type is provided with a printed red label: 'Xylotrechus zhouchaoi sp. nov.' / 'HOLOTYPUS' / 'P. Viktora et B. Liu det., 2018'.

Description. Habitus of male holotype as in Fig. 31a. Body from ochre yellow to black, elongate, slightly narrowing apically, punctate, with pubescence. Body length 12.3 mm, widest

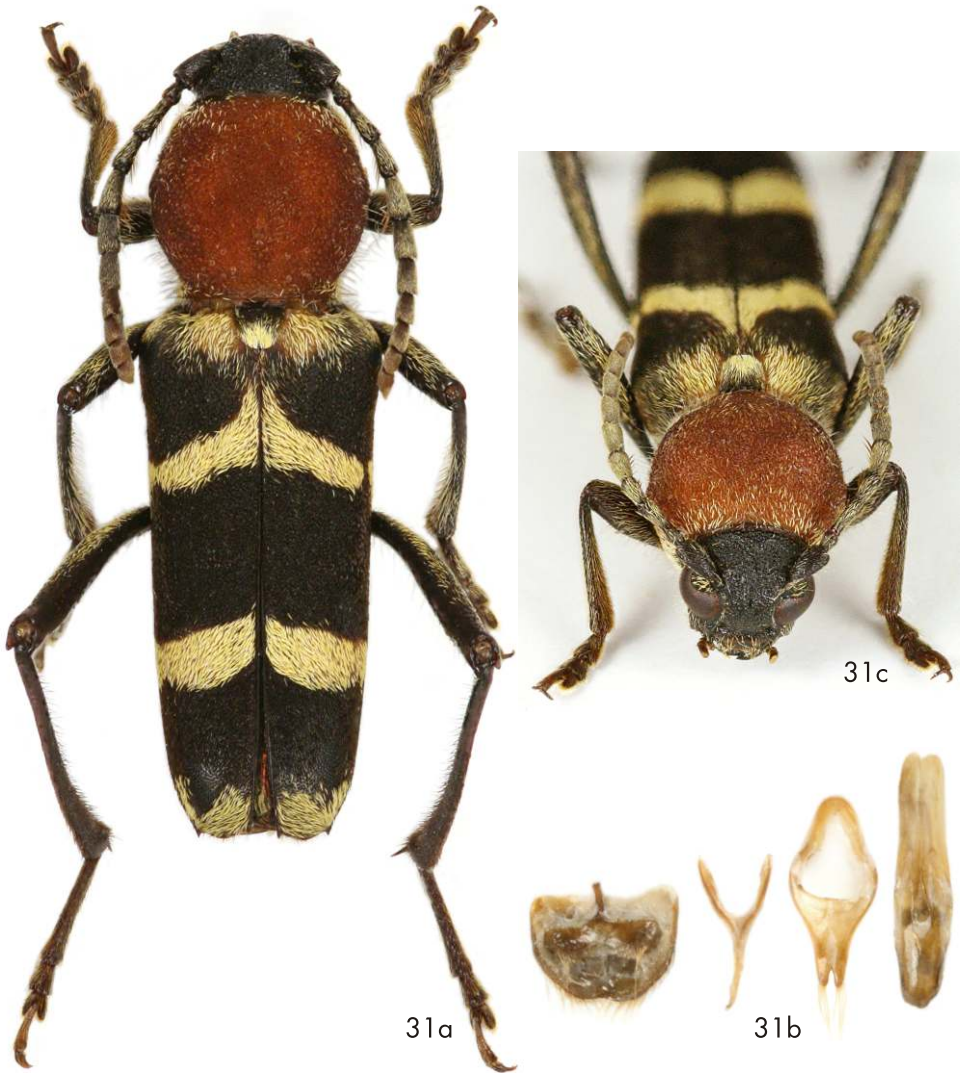


Fig. 31. *Xylotrechus zhouchaoi* sp. nov.: a- male holotype (dorsal view); b- male genitalia; c- male holotype (front view in perspective).

in humeral part of elytra (3.7 mm), 3.32 times longer than wide.

Head black, short, widest through the eyes, distinctly narrower than pronotum. Head with yellow pubescence in antennal insertions and yellowish setation in anterior part of head. Posterior part of head with dense and coarse punctuation, punctures large. Between apical part of eyes punctuation distinctly sparser than in posterior part. Head between antennal insertions with oblique keel prolonged between eyes. Eyes dark, excised. Clypeus from pale brown to black, shiny. Mandibles black with yellowish setation in edges.

Maxillary palpus brown, ultimate palpomere with pale yellow apex. Palpomeres short, ultimate palpomere broadest, with rounded apex.

Antennae short, reaching to one fifth elytral length. Antennomere 1 black, shiny, with coarse punctuation and sparse yellowish pubescence, antennomeres 2-5 from blackish brown to black, shiny, with yellow pubescence and long yellowish setation on inner side, antennomeres 6-11 matte, from brown to blackish brown (antennomeres 9-11 paler), with short pale pubescence. Antennomere 2 shortest, antennomere 1 longest. Antennomeres without spines. Ratios of relative lengths of antennomeres 1-11 equal to: 1.10 : 0.47 : 1.00 : 0.78 : 0.90 : 0.76 : 0.71 : 0.61 : 0.59 : 0.49 : 0.55.

Pronotum red, large, transverse, with distinctly arcuate lateral margins, anterior part and base straight. Pronotum 1.3 times longer than wide at base and 1.05 times wider than long at widest point (middle of pronotum). Dorsal surface with granulation and irregular punctuation. Disc with sparse and short dark pubescence, near base, anterior margin and lateral margins from ventral side with longer yellowish pubescence (as in Fig. 31a).

Scutellum black, triangular with cut apex with rounded edges, apical half with dense yellowish pubescence.

Elytra 8.05 mm long and 3.7 mm wide (2.17 times longer than wide); slightly narrowing apically, black with ochre yellow spots (each elytron with ochre yellow spot next to scutellum and under two transverse stripes of yellowish pubescence), apex of elytra under spot of yellowish pubescence black. Elytra with yellow pubescence and black pubescence in black parts of elytra (as in Fig. 31a), completely punctured by dense and relatively coarse punctuation. Elytral apex distinctly undulate, each elytron with distinct spines in inner and outer side.

Legs long and narrow, blackish brown, with distinct punctuation. Femora with stripes of yellowish pubescence and pale setation in ventral side, pro- and metatibiae with dense ochre setation, mesotibiae with yellowish setation, longer than in pro- and metatibiae. Metatibiae and metafemora longer than pro- and mesotibiae and pro- and mesofemora.

Tarsi short, metatarsomere 1 1.87 times longer than metatarsomeres 2 and 3 together.

Ventral side of body black with stripes of dense yellowish pubescence and long pale setation. Ventrites 1-3 with wide stripes of dense yellowish pubescence, in base black with long erect pale setation. Ventrites 4-5 without yellowish pubescence, only with long pale setation. Elytral epipleura blackish brown with dark pubescence.

Genitalia as in Fig. 31b.

Female. Unknown.

Differential diagnosis. The most similar species are *Xylotrechus pyrrhoderus* Bates, 1873 and *Xylotrechus rufilius* Bates, 1884.

Xylotrechus zhouchaoi sp. nov. distinctly differs from similar species *X. pyrrhoderus* by different shape of colour spots on elytra (*Xylotrechus zhouchaoi* sp. nov. has extra spot of yellow pubescence in elytral apex), by scutellum black, partly covered by dense yellowish pubescence, by elytral apex undulate with spines in sides and by antennomeres with yellowish pubescence; while *X. pyrrhoderus* has elytral apex black without stripe of yellow pubescence, scutellum reddish with sparse blackish pubescence, elytral apex rounded with spines on sides, antennomeres with dark pubescence.

Xylotrechus zhouchaoi sp. nov. distinctly differs from similar species *X. rufilius* by distinctly narrower elytra, by different shape of colour spots on elytra, by distinctly shorter and wider antennae, and by different structure of pronotal disc (dorsal surface with dense granulation and irregular punctuation); while *X. rufilius* has shorter and wider elytra, distinctly longer and narrower antennae, dorsal surface of pronotum with coarse granulation with narrow transverse keels.



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Fig. 32. China, Yunnan, Mt. Gaoligongshan, Dulongjiang Township, Gongshan County: locality of *Perissus expletus* sp. nov., *Perissus tunicatus* sp. nov., *Petraphuma huangjianbini* sp. nov., *Rhaphuma liyinghuii* sp. nov., *Xylotrechus marketae* sp. nov. and *Xylotrechus zhouchaoi* sp. nov. (photo by Bin Liu).



Fig. 33. *Aralia echinocalis* Handel-Mazzetti, 1933, the food flower of *Perissus expletus* sp. nov., *Perissus tunicatus* sp. nov., *Petraphuma huangjianbini* sp. nov., *Rhaphuma liyinghuii* sp. nov. and *Xylotrechus marketae* sp. nov. (photo by Bin Liu).

Fig. 34. Mr. Yinghui Li in collecting on blossom trees. (photo by Bin Liu).

Fig. 35. China, Hainan, Mt. Jianfengling. (photo by Petr Viktora).

Fig. 36. China, Hainan, top of Mt. Jianfengling: type locality of *Clytus famosus* sp. nov., *Demonax vendibilis* sp. nov., *Petraphuma pompa* sp. nov. and *Rhaphuma jianfenglingensis* sp. nov. (photo by Petr Viktora).



Etymology. This new species is dedicated to the second author's best friend Chao Zhou (Chengdu, Sichuan, China) who helps second author in various ways.

Distribution. China (Yunnan).

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