



New species and new records of *Xylosandrus* Reitter, 1913 (Coleoptera: Curculionidae: Scolytinae: Xyleborini) from China

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Abstract

Two new species of ambrosia beetles *Xylosandrus* Reitter, 1913 (Scolytinae: Xyleborini), *Xylosandrus luokengensis* Lin & Gao **sp. nov.** and *Xylosandrus nanlingensis* Lin & Gao **sp. nov.**, from Guangdong Province, South China are described. *Xylosandrus trunculus* Park & Smith, 2020 is reported from China for the first time, and provincial records of all known *Xylosandrus* are provided.

Key words: xyleborine, ambrosia beetle, new records, taxonomy

Introduction

Xylosandrus Reitter (Coleoptera: Curculionidae: Scolytinae: Xyleborini) is a large genus of ambrosia beetles with a broad distribution mainly in tropical and temperate regions of the world. It was erected with *Xyleborus morigerus* Blandford as a monotypic genus by Reitter in 1913, afterwards, many species have been described or transferred to *Xylosandrus* (Reitter 1913; Dole & Cognato 2010). Dole & Cognato (2010) further reviewed the genus based on morphological and molecular data and provided a key to 39 species of *Xylosandrus* worldwide, with one species, *X. nanus* Blandford, 1896, considered a *nomen dubium*. After this review, seven species, *X. cubensis* Bright, 2019, *X. aurinegro* Gomez & Hulcr, 2020, *X. dentipennis* Park & Smith, 2020, *X. trunculus* Park & Smith, 2020, *X. bellinsulanus* Smith *et al.*, 2020, *X. spinifer* Smith *et al.*, 2020, *X. geduensis* Smith & Beaver, 2022 have been described (Bright 2019; Gomez *et al.* 2020; Park *et al.* 2020; Smith *et al.* 2020; Beaver & Smith 2022), two species, *X. cancellatus* (Eggers, 1936), and *X. formosae* (Wood, 1992), was transferred to *Xylosandrus* (Smith *et al.* 2020; Smith *et al.* 2022b) and two species, *X. declivigranulatus* (Schedl, 1936), and *X. ramulorum* (Schedl, 1957) was restored (Sittichaya *et al.* 2019; Smith *et al.* 2022c). *Xylosandrus* is currently comprised of 51 valid species, with one doubtful species (*X. nanus*) (Ruzzier *et al.* 2023).

In China, seven species of *Xylosandrus* were recorded by Tsai & Li (1959) and Yin *et al.* (1984). Subsequently, Smith *et al.* (2020; 2022a) recorded 21 species from China, including two new species. To date, 21 *Xylosandrus* species have been recorded in mainland China.

In this paper, we describe and photograph two new species, *Xylosandrus luokengensis* Lin & Gao **sp. nov.** and *Xylosandrus nanlingensis* Lin & Gao **sp. nov.** Meanwhile, *Xylosandrus trunculus* is reported from China for the first time and provincial distribution records of all known *Xylosandrus* are provided from mainland China.

Material and Methods

Total length was measured from apex of the pronotum to the apex of the elytra and width was measured at the widest point of the specimen. Pronotal length was measured from the apex to base and width from the widest point. Types of antennal club and pronotum are derived from Hulcr *et al.* (2007) and elaborated upon by Smith *et al.* (2020).

Specimens were collected from several provinces of China. Images (Fig.1A–E, Fig.2A–F, Fig.3A/B/C/D/F, Fig.4 A/B/D/E and Fig.5 A/B/D/E) were taken using a Leica Dvm6A (Leica, Germany). Scanning electron micrograph (SEM) (Fig.1F, Fig.3E/G and Fig.4C/F and Fig.5C/F) were taken with tabletop microscope TM4000 (Hitachi, Japan).

New provincial distribution records are denoted with an asterisk.

Specimens involved in the study are being deposited in the following institutions:

IOZ Chinese National Zoological Museum of China, Academy of Sciences, Institute of Zoology, Beijing, China;

MSUC Albert J. Cook Arthropod Research Collection, Michigan State University, Michigan USA;

SYSBM The Museum of Biology, Sun Yat-sen University, Guangzhou, China;

WLC Private collection of Wei Lin, Zhuhai, China.

SALASP Shanghai Academy of Landscape Architecture Science and Planning, Shanghai, China.

Xylosandrus luokengensis Lin & Gao, **sp. nov.**

Chinese common name: 罗坑足距小蠹

(Figs 1, 2)

Type material. HOLOTYPE: CHINA: female, CHINA. Guangdong, Shaoguan City, Qujiang District, Luokeng Town, Chayanding (广东韶关市曲江区罗坑镇茶岩顶), 24.4715°N, 113.3239°E, 7. VI. 2023, alt. 1140m, Wei Lin ex *Cinnamomum* sp. (SYSBM, 1). **PARATYPES: CHINA:** 6 female, as holotype (SYSBM, 1; IOZ, 2; WLC, 3); 1 male, as holotype (WLC, 1); 6 female, Guangdong, Shaoguan City, Qujiang District, Luokeng Town, Guangdong Luokeng Chinese crocodile lizard national nature reserve, 24.49311°N, 113.31424°E, alt. 520 m, 07.VI.2023, Yonglin Liao ex Lauraceae sp. (WLC, 6).

Diagnosis. *Xylosandrus luokengensis* can be distinguished from the Chinese *Xylosandrus* by the combination of its moderate size (3.0–3.1mm); by the declivital face steep, abruptly separated from disc, elytra obliquely truncate; by the posterolateral margin forming a circumdeclivital costa, costa granulate and setose; declivital face feebly convex, strongly shagreened, alutaceous and dull; by the four apparent striae present (striae 5 short, converging with striae 4 forming a loop), and by the declivital interstriae with 3–4 confused rows of punctures.

This species is similar to *X. jaintianus* and *X. subsimiliformis* but differs by the declivital interstriae (*X. luokengensis*: the declivital interstriae punctate, with 3–4 confused rows of punctures, versus *X. jaintianus* and *X. subsimiliformis*: the declivital interstriae granulate, granules multiserial and confused).

Description. Female. 3.0–3.1 mm long (mean = 3.05 mm; n = 5); 2.04× as long as wide. Head, antennae, pronotum, elytral disc and legs light brown, declivital face dark brown. **Head:** epistoma entire, transverse, with a row of hair-like setae. Frons weakly convex to upper level of eyes; median carina present; surface shagreened, impunctate, alutaceous, asperate; asperities longitudinal, larger, denser above epistoma, decreasing in density and height dorsally, becoming more weakly raised and sparse by upper level of eyes. Eyes deeply emarginate just above antennal insertion, upper part smaller than lower part. Submentum narrow, triangular, moderately impressed, with several long setae. Antennal scape regularly thick, approximately as long as club. Pedicel slightly wider than scape, much shorter than funicle. Funicle 4-segmented, segment 1 shorter than pedicel. Club longer than wide, obliquely truncate, type 1; segment 1 corneous, encircling anterior face; segment 2 narrow, concave, corneous on anterior face only; sutures absent on posterior face. **Pronotum:** 0.92× as long as wide. In dorsal view rounded, type 1, sides

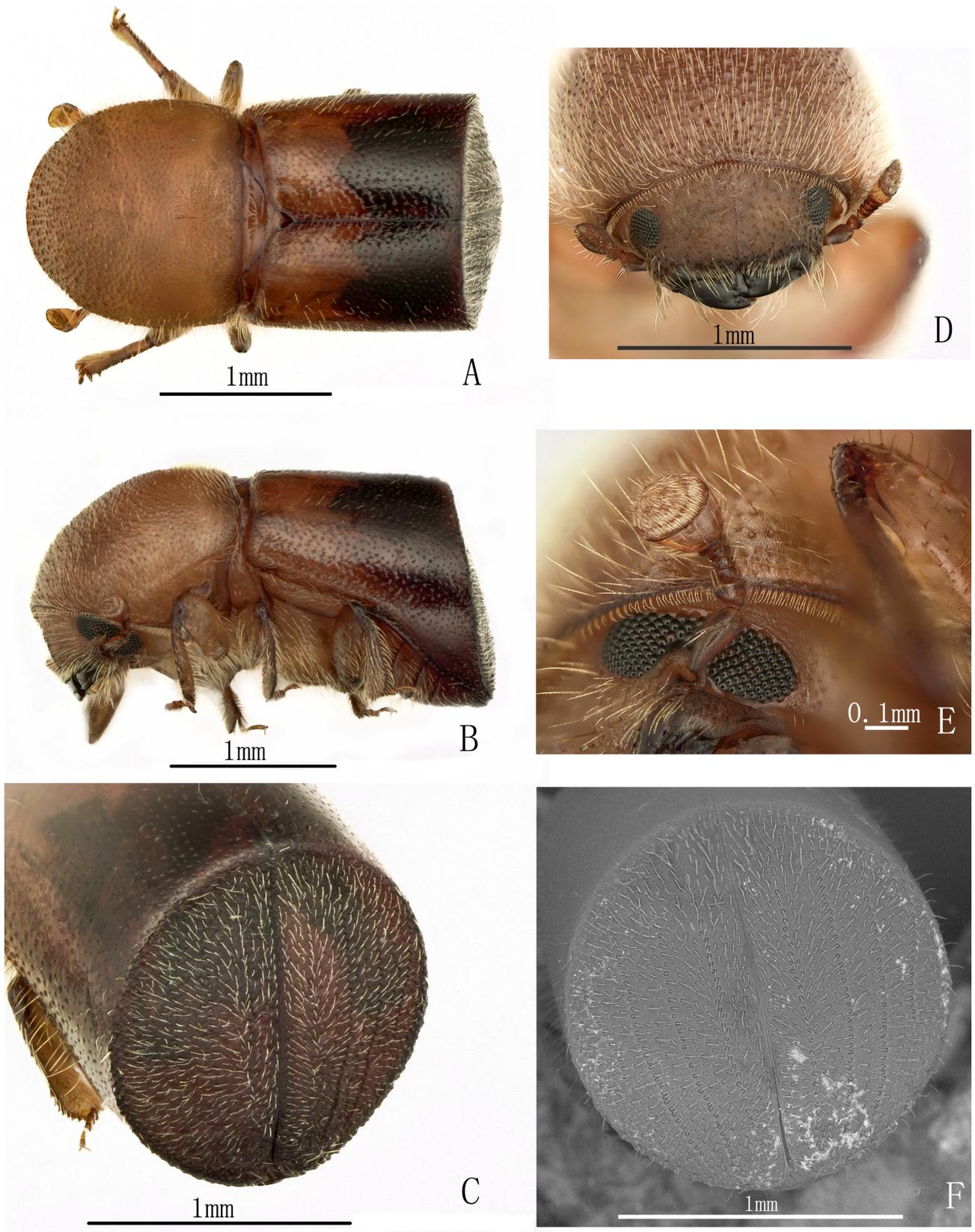


FIGURE 1. *Xylosandrus luokengensis* holotype, female. **A.** Dorsal view. **B.** Lateral view. **C.** Elytral declivity. **D.** Front. **E.** Antenna. **F.** SEM of elytral declivity.

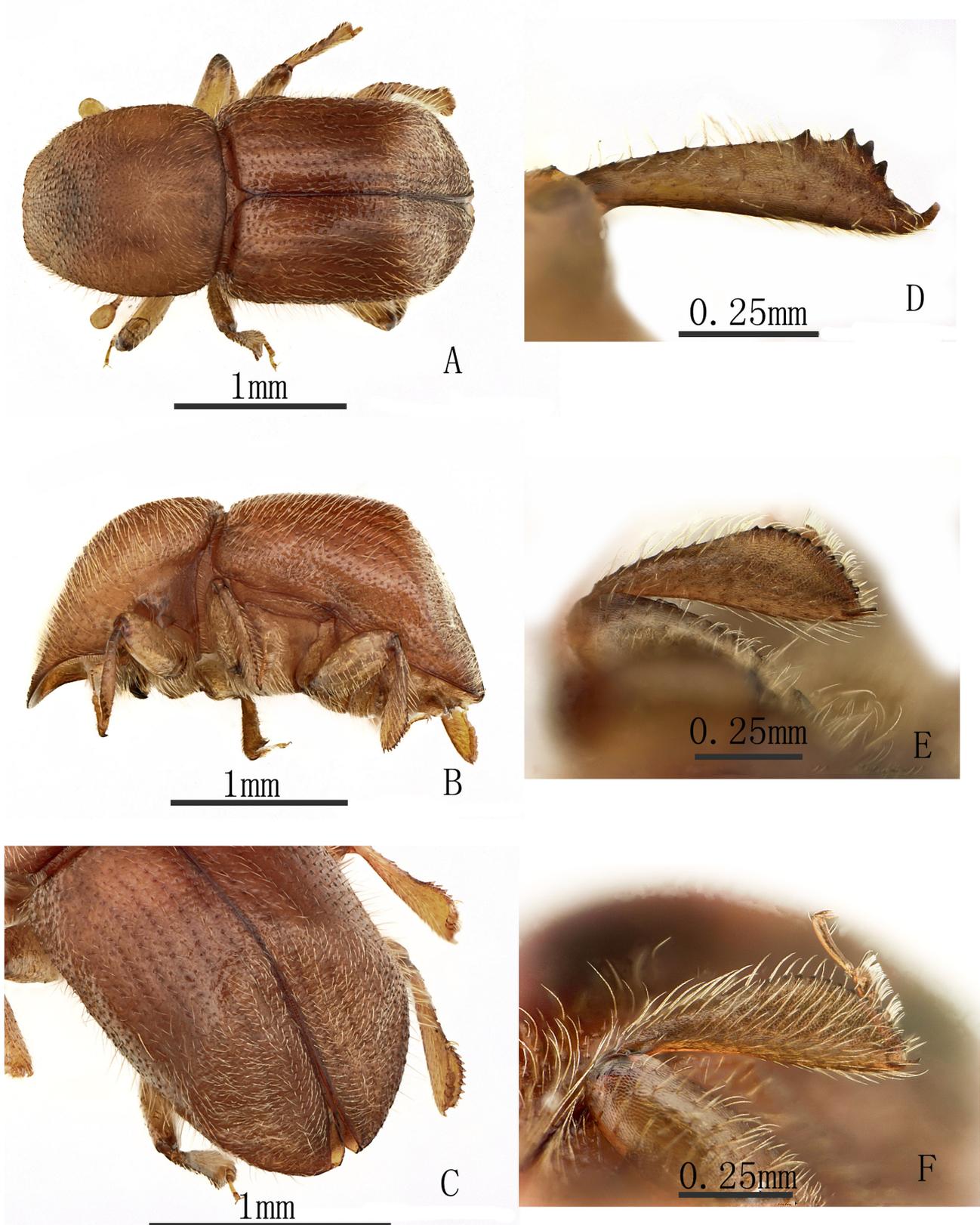


FIGURE 2. *Xylosandrus luokengensis*. A–C. Male (collecting information is the same as holotype). A. Dorsal view. B. Lateral view. C. Elytral declivity. D–F. Holotype, female. D. Protibia (posterior side). E. Mesotibia (anterior side). F. Metatibia (anterior side).

parallel in basal 1/2, rounded anteriorly; anterior margin with a row of 10–12 small serrations. In lateral view taller (type 2), summit at basal 1/4. Slope with densely spaced, moderate asperities, covered with moderately long, fine, erect hair-like setae. Disc shagreened, alutaceous, with very dense, fine punctures and long, fine, erect hair-like setae. Lateral margins obliquely costate. Base transverse, posterior angles broadly rounded. Mycangial tuft present along base, tuft broad, dense, laterally extending to striae 3, almost covering the entire disc. **Elytra:** 1.19× as long as wide, 1.27× as long as pronotum. Scutellum moderately sized, triangular, flush with elytra, flat, shiny. Elytral base transverse, edge oblique, humeral angles rounded, parallel-sided in basal 5/6, then sharply angulate to apex. Disc shiny, striae not impressed, punctures small, slightly shallow, punctures separated by 1–2 diameters of a puncture, moderately setose, setae erect, hair-like; interstriae flat, inconspicuously distinguishable with striae, finely punctate, punctures 2/3 size of strial punctures, strongly confused; interstriae 4–6 times as wide as adjacent striae, bearing 3 or 4 rows of confused punctures. Declivity obliquely truncate, face feebly convex, strongly shagreened, alutaceous, dull; four apparent striae present (striae 5 short, converging with striae 4 forming a loop), striae weakly impressed, strial punctures small, moderately deep, as large as on disc, punctures subcontiguous to spaced by 0.5–1 diameter of a puncture, each puncture bearing a recumbent hair-like seta; interstriae with 3–4 confused rows of punctures, interstitial punctures fine, slightly shallow, dense, confused, setose, each puncture bearing a recumbent hair-like seta, the setae on interstriae 1 obliquely point outward, the setae on interstriae 2–5 point to apical 3/10 of suture. Posterolateral margin forming a circumdeclivital costa, costa granulate, setose, setae medium sized, erect, fine, hair-like. **Legs:** procoxae widely separated; prosternal coxal piece flat. Protibiae distinctly triangular, broadest at apical 1/4; posterior face smooth; apical 1/3 of outer margin with four large socketed denticles, their length as long as basal width; apical mucro prominent, strongly incurved. Meso- and metatibiae flattened; outer margins evenly rounded with 11 or 12 small socketed denticles.

Male. 2.6 mm long (n=1); 2.03× as long as wide. Body light brown. **Head:** not visible in dorsal view; epistoma entire, transverse, with a row of hair-like setae. Frons weakly convex to upper level of eyes; median carina absent. Eyes much smaller than female. Antennae similar to female. **Pronotum:** 1.1× as long as wide. In dorsal view subquadrate, anterior elongate. Slope with densely spaced, small asperities, bearing long, fine, erect hair-like setae. Disc flat, bearing long, fine, semi-erect hair-like setae. Lateral margins obliquely costate. Base transverse, posterior angles broadly rounded. Mycangial tuft absent. **Elytra:** 1.08× as long as wide, 1.17× as long as pronotum. Scutellum triangular. Elytral base transverse, humeral angles rounded, parallel-sided in basal 5/7, then sharply angulate to apex. Disc shiny, striae not impressed, punctures small, slightly shallow, punctures separated by 1–2 diameters of a puncture, moderately setose, setae semi-erect, hair-like; interstriae flat, finely punctate. Declivity similar to female, except declivital posterolateral costa extending to interstriae 7. **Legs:** similar to female, Meso- and metatibiae outer margins evenly rounded with 11 small socketed denticles.

Etymology. The specific name refers to the location where it was collected. Latinized adjective.

Xylosandrus nanlingensis Lin & Gao, sp. nov.

Chinese common name: 南岭足距小蠹

(Fig. 3)

Type material. HOLOTYPE: CHINA: female, CHINA. Guangdong, Shaoguan City, Nanling National Nature Reserve (南岭国家级自然保护区), 24.9364°N, 113.0102°E, 5-7.VI. 2021, Yali Yu, ex Flight interception trap (SYSBM, 1).

Diagnosis. *Xylosandrus nanlingensis* can be distinguished from the Chinese *Xylosandrus* by the combination of the size (1.75mm); by the elytra obliquely truncate; by the posterolateral margin forming a circumdeclivital costa and costa granulate; by the declivital face strongly shagreened; by the declivital striae and interstriae granulate, four granulate striae present, granules finely reticulate; by the summit of pronotum at basal 4/7; and by the mycangial tuft narrow, laterally extending to striae 2, longitudinally extending to basal 1/3.

This species is very similar to *X. trunculus* but differs by the base of pronotum (*X. nanlingensis*: entire, without medially triangularly emarginate and mycangial tuft with hair-like setae, versus *X. trunculus*: with medially triangularly emarginate and mycangial tuft with some long, scale-like setae), by the declivital costa (*X. nanlingensis*: entire, without emargination, versus *X. trunculus*: with emargination at the suture at the top of the declivity), by the granules of declivital interstriae (*X. nanlingensis*: similar to the granules on declivital striae, versus *X. trunculus* much smaller than the granules on declivital striae).

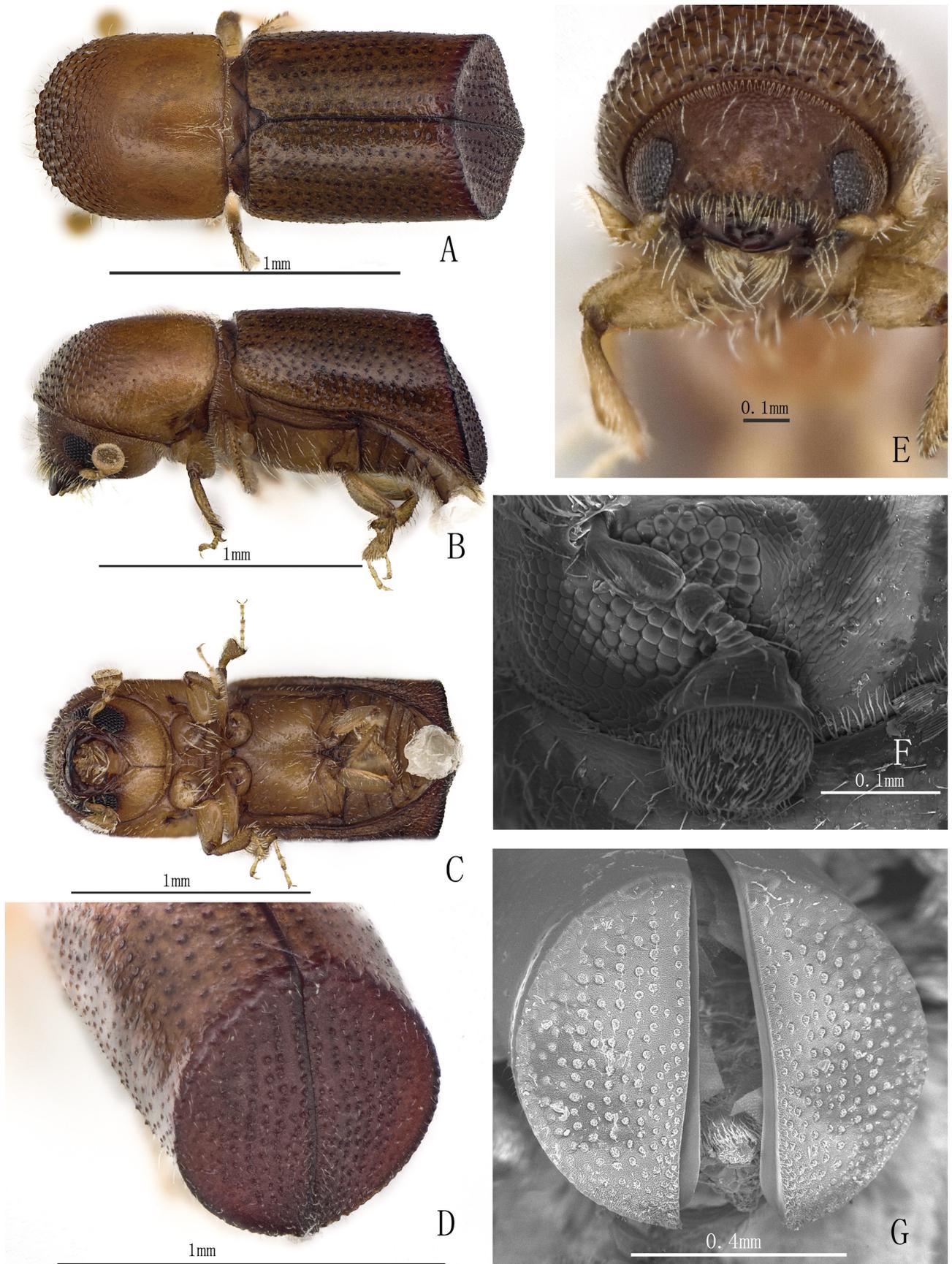


FIGURE 3. *Xylosandrus nanlingensis* holotype, female. **A.** Dorsal view. **B.** Lateral view. **C.** Ventral view. **D.** Elytral declivity. **E.** Front. **F.** Antenna. **G.** SEM of elytral declivity.

This species is also similar to *X. amputatus* but differs by the size (*X. nanlingensis*: approximately 1.75mm, versus *X. amputatus*: approximately 2.8 mm), by the declivital striae (*X. nanlingensis*: the declivital striae granulate, versus *X. amputatus*: the declivital striae punctate).

Description (female). 1.75mm long (n = 1); 2.73× as long as wide. Head, antennae, pronotum, and legs light brown, elytral disc and declivital face dark brown. **Head:** epistoma entire, transverse, with a row of hair-like setae. Frons weakly convex to upper level of eyes; median carina absent; surface alutaceous, impunctate, bearing long, erect, hair-like setae. Eyes shallowly emarginate just above antennal insertion, upper part smaller than lower part. Submentum narrow, triangular, slightly impressed. Antennal scape regularly thick, shorter than club. Pedicel narrower than scape, shorter than funicle. Funicle 4-segmented, segment 1 much shorter than pedicel. Club approximately as long as wide, obliquely truncate, type 1; segment 1 corneous, encircling anterior face; segment 2 narrow, concave, corneous on anterior face only; sutures absent on posterior face. **Pronotum:** 0.96× as long as wide. In dorsal view basic and parallel-sided, type 2, sides parallel in basal 2/3, rounded anteriorly; anterior margin with a row of ten small serrations. In lateral view disc as long or slightly longer than anterior slope, type 7, disc flat, summit at basal 4/7. Anterior slope with densely spaced, moderate asperities, becoming lower and more strongly transverse towards summit, bearing moderate, semi-erect, hair-like setae. Disc shiny, alutaceous, with sparse, fine punctures. Lateral margins obliquely costate. Base transverse, posterior angles broadly rounded. Mycangial tuft present along base, tuft narrow, laterally extending to striae 2, longitudinally extending to basal 1/3. **Elytra:** 1.73× as long as wide, 1.8 × as long as pronotum. Scutellum moderately sized, subtriangular, flush with elytra, flat, shiny. Elytral base transverse, edge oblique, humeral angles rounded, parallel-sided in basal 4/5, then sharply angulate to apex. Disc shiny, striae not impressed, punctures moderate, shallow, punctures separated by 1–3 diameters of a puncture, each puncture bearing a fine, short, semi-erect hair-like seta; interstriae flat, finely uniseriate punctate, punctures 1/2 size of striae punctures, each puncture bearing a fine, short, semi-erect hair-like seta, interstriae 2–3 times as wide as adjacent striae. Declivity obliquely truncate, face convex, impunctate, finely reticulate, strongly shagreened, bearing short, semi-recumbent, hair-like setae, denser near suture; striae and interstriae inconspicuously distinguishable, punctures replaced by granules, granules vary in size; four granulate striae present, granules finely reticulate, small and variably sized. Posterolateral margin forming a circumdeclivital costa, costa granulate, setose, setae medium sized, erect, fine, hair-like. **Legs:** procoxae moderately separated; prosternal coxal piece flat. Protibiae triangular, broadest at apical 1/3; posterior face smooth; apical 1/3 of outer margin with four socketed denticles, their length longer than basal width. Meso- and metatibiae flattened; outer margins evenly rounded with eight socketed denticles.

Male. Unknown.

Etymology. The specific name refers to the location where it was collected. Latinized adjective.

New country record

Xylosandrus trunculus Park & Smith, 2020

Chinese common name: 鳞胸足距小蠹

(Fig. 4)

Diagnosis. Female. 1.65–1.87mm long (mean 1.77; n = 5); 2.2–2.5× as long as wide (mean 2.36×; n = 5). Small size, cylindrical form; body dark brown. Pronotum in dorsal view basic and parallel-sided, type 2, rounded anteriorly; anterior margin with a row of 6–8 large serrations; disc shiny, with sparse, small punctures, each puncture bearing a fine, moderate, erect hair-like seta; base straight, medially triangularly emarginate; mycangial tuft roughly equal in width to scutellum, with some long, sparse, scale-like setae. Elytral declivity truncate, face convex, shining; four apparent granulate striae present (striae 5 short, converging with striae 4 forming a loop; striae 6 short), striae and interstriae punctures replaced by granules; posterolateral declivital costa and almost forming a circumdeclivital ring (emarginate at suture); interstriae 1 granules multiseriate and confused. Procoxae moderately separated; protibiae triangular, apical 1/3 of outer margin with four or five socketed denticles; meso- and metatibiae flattened; outer margins with 6–8 socketed denticles.

New records. CHINA. Shanghai, Fengxian District, Jinhui Town, VII–IX.2017, Lei Gao ex trap (WLC, 3♀); Shandong, Tai'an City, Mt. Taishan 36.321263°N, 117.126633°E, 24. VIII. 2022, Yufeng Wang, ex trap (WLC, 2♀); Zhejiang, Shaoxing City, Shangyu District, VII. 1991, Rongfeng Zhang ex *Castanea mollissima* (IOZ, 6♀).

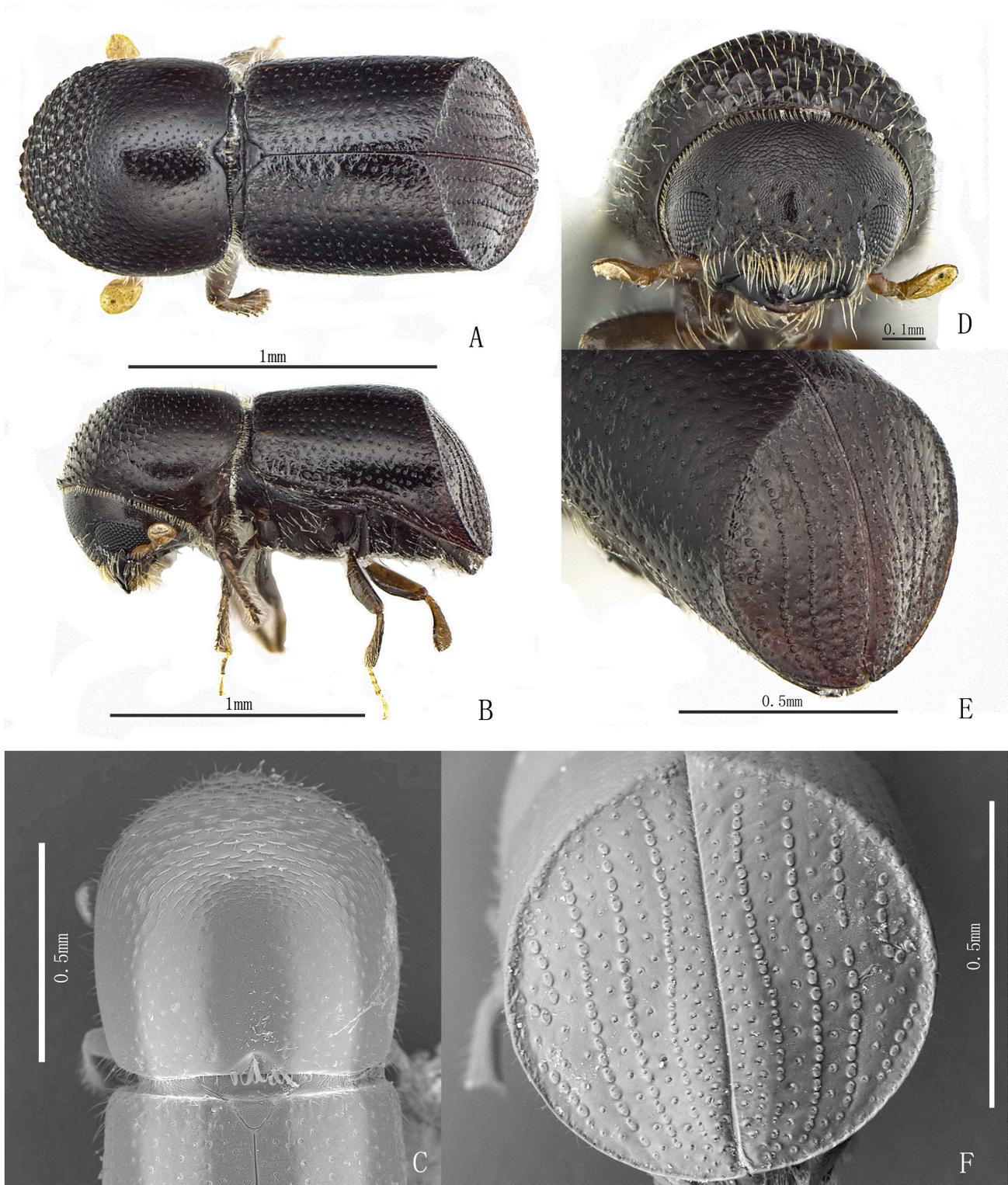


FIGURE 4. *Xylosandrus trunculus* Park & Smith, female (Shandong, Taian City, Mount Taishan). **A.** Dorsal view. **B.** Lateral view. **C.** SEM of pronotum. **D.** Front. **E.** Elytral declivity. **F.** SEM of elytral declivity.

Distribution. China* (Shandong, Shanghai, Zhejiang), Korea (South).

Remarks. One of the paratypes of *X. trunculus* (MSUC) was examined by SMS and found that the following features differ from the description by Park *et al.* (2020): elytral declivital striae and interstriae punctures replaced by granules; interstriae 1 granules multiseriate and confused.

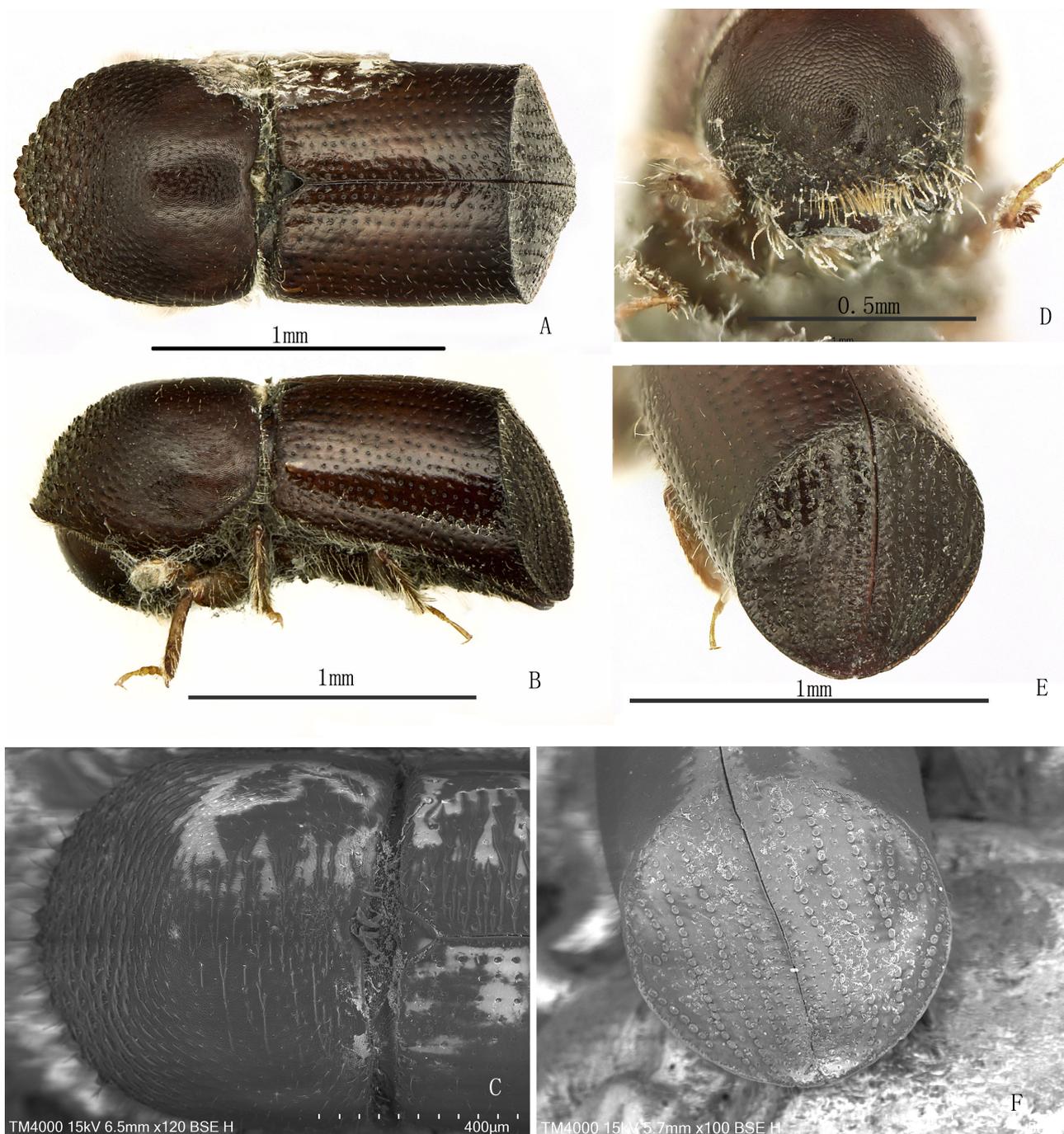


FIGURE 5. *Xylosandrus* aff. *trunculus* Park & Smith, female (IOZ (E) 1393923). **A.** Dorsal view. **B.** Lateral view. **C.** SEM of pronotum. **D.** Front. **E.** Elytral declivity. **F.** SEM of elytral declivity.

The name *Xylosandrus trunculus* was previously used by Song *et al.* (1998) in reference to a new species (*Xylosandrus trunculus* n. sp.). However, Song *et al.* (1998) presented a name without description or figure and deposited information of his species. Therefore, *Xylosandrus trunculus* Song *et al.*, 1998 is a *nomen nudum* and not a valid scientific name. After examination of the voucher specimens of ‘*Xylosandrus trunculus* Song *et al.*, 1998’ (IOZ (E) 1393923, CHINA. Liaoning Prov., Dalian City, VI.1994, Youwen Song ex *Ailanthus* sp.) (Fig. 5 A–F) by WL, it is similar but different from *Xylosandrus trunculus* Park & Smith, 2020 by the shape of the anterior part in its pronotum and the middle emargination on base of pronotum is not noticeable. ‘*Xylosandrus trunculus* Song *et al.*, 1998’ may be the same species as *Xylosandrus trunculus* Park & Smith and will be treated in a future work by the authors.

Faunal list and provincial distribution of *Xylosandrus* in the Chinese mainland

Xylosandrus amputatus (Blandford, 1894)

New record. Zhejiang, Fuyang, 26.X.1998, leg. Jinnian Zhao (IOZ (E) 841688).

Distribution. Chongqing, Fujian, Guangdong, Guangxi, Guizhou, Hunan, Hubei, Jiangxi, Shanghai, Sichuan, Zhejiang* (Chen *et al.* 2010; Smith *et al.* 2020).

Xylosandrus beelsoni Saha, Maiti & Chakraborti, 1992

Distribution. Yunnan (Smith *et al.* 2020).

Xylosandrus bellinsulanus Smith, Beaver & Cognato, 2020

New record. Guangdong, Shaoguan city, Nanling National Nature Reserve, 24°55'36.31"N, 113°1'27.84"E, 7-9.VI.2021, Yu Yali, ex Flight interception trap (WLC, 1♀); Yunnan, Honghe Hani and Yi Autonomous Prefecture, Jinping Miao Yao Dai Autonomous County, Jinping Fenshuiling National Nature Reserve, Maandi Township, Shidong Village, 22°45'53"N, 103°28'53"E, 04. V. 2021, alt. 1560m, leg. LZ Meng (WLC, 1♀).

Distribution. Guangdong*, Hainan, Yunnan* (Smith *et al.* 2020).

Xylosandrus borealis Nobuchi, 1981

New record. Fujian, Wuyishan City, 25.V.1979, Fusheng Huang, ex *Machilus thunbergii* (IOZ (E) 841580, 1♀); Guangxi, Xing'an, Mt. Mao'er, 5.VII.1985, leg. Shimei Song (IOZ (E) 841557, 1♀); Hunan, Yongshun, 5.VII.1988, leg. Xiaochun Zhang (IOZ (E) 841577, 1♀); Sichuan, Emeishan City, Mt. E'mei, 3.VI.1986, leg. Fusheng Huang, ex *Camphora officinarum* (IOZ (E) 841540, 1♀); Zhejiang, Kaihua, Mt. Gutian, 30.VII.1992, leg. Hong Wu (IOZ (E) 841585, 1♀).

Distribution. Fujian*, Guangdong, Guangxi*, Guizhou, Hunan*, Sichuan*, Zhejiang* (Smith *et al.* 2020; Smith *et al.* 2022a).

Xylosandrus brevis (Eichhoff, 1877)

New record. Fujian, Shanghang, 22.VII.1968, leg. Fusheng Huang, ex *Quercus × leana* (IOZ (E) 841847, 1♀); Guangxi, Xing'an, Mt. Mao'er, 5.VII.1985, leg. Shimei Song (IOZ (E) 841844, 1♀).

Distribution. Fujian*, Guangxi*, Xizang, Yunnan (Smith *et al.* 2020).

Xylosandrus compactus (Eichhoff, 1876)

New record. Henan, Zhengzhou, Zhengzhou Botanical Garden, 16.IX.2022, leg. Xueting Sun & Guangliang Lu, ex *Yulania denudata* (SALASP, 5♀).

Distribution. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Henan*, Hubei, Hunan, Jiangsu, Jiangxi, Shandong, Shanghai, Sichuan, Yunnan, Zhejiang (Gao *et al.* 2022; Smith *et al.* 2020).

Xylosandrus crassiusculus (Motschulsky, 1866)

Distribution. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hebei, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Shandong, Shanghai, Sichuan, Xizang, Yunnan, Zhejiang (Smith *et al.* 2020).

***Xylosandrus dentipennis* Park & Smith, 2020**

New record. Hunan, Changsha, Mt. Yuelu, 15.VII.2019, leg. You Li, ex *Choerospondias axillaris* (WLC, 1♀).

Distribution. Fujian, Guizhou, Hunan*, Jiangxi, Shanghai, Yunnan (Smith *et al.* 2020).

***Xylosandrus derupteterminatus* (Schedl, 1951)**

Distribution. Yunnan (Smith *et al.* 2020).

***Xylosandrus discolor* (Blandford, 1898)**

New record. Guangxi, Cenxi, V.1984, leg. Xuxun Xian, ex *Acacia auriculiformis* (IOZ (E) 841616, 1♀); Hunan, Huaihua City, Huitong County, Tuanhe Town, Diaotang Village. 13. VII. 2023, leg. Jianhua Huang (WLC, 1♀).

Distribution. Chongqing, Fujian, Guangdong, Guangxi*, Guizhou, Hainan, Hunan*, Jiangxi, Shanghai, Sichuan, Yunnan (Smith *et al.* 2020; Smith *et al.* 2022a).

***Xylosandrus diversepilosus* (Eggers, 1941)**

Distribution. Fujian, Guangdong, Guizhou (Smith *et al.* 2020) .

***Xylosandrus eupatorii* (Eggers, 1940)**

New record. Guangdong, Zhuhai City, Mt. Fenghuangshan, 12.IV.2020, leg. Wei Lin (WLC, 5♀); Guangxi, Fangchenggang, Dongxing, Malu town, 28.III.2018, leg. You Li, ex *Cinnamomum cassia* (WLC, 2♀).

Distribution. Guangdong*, Guangxi*, Hainan, Yunnan (Smith *et al.* 2020).

***Xylosandrus formosae* (Wood, 1992)**

New record. Guangdong, Shaoguan city, Qujiang District, Luokeng Town, Chayanding, 24.4714608°N, 113.3238646°E, 7.VI.2023, alt. 1140m, leg. Wei Lin (WLC, 15♀); Hainan, Lingshui, Mt. Diaoluo, 02.IV.2024, leg. Wei Lin, ex *Ficus* sp. (WLC, 3♀).

Distribution. Fujian, Guangdong*, Hainan*, Jiangxi, Xizang (Smith *et al.* 2020).

***Xylosandrus germanus* (Blandford, 1894)**

New record. Jiangsu, Nanjing, Mt. Laoshan, 21.VIII.2017, leg. You Li, ex *Populus przewalskii* (WLC, 1♀).

Distribution. Anhui, Chongqing, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Heilongjiang, Henan, Hubei, Hunan, Jiangsu*, Jiangxi, Shaanxi, Shanxi, Sichuan, Xizang, Yunnan, Zhejiang (Smith *et al.* 2020).

***Xylosandrus jaintianus* (Schedl, 1967)**

New record. Xizang, Chayu, Shama, 21.VII.1973, Fusheng Huang, ex *Quercus × leana* (IOZ (E) 842045, 1♀).

Distribution. Fujian, Xizang*(Smith *et al.* 2022a).

Xylosandrus luokengensis sp. nov.

Distribution. Guangdong (this paper).

Xylosandrus mancus (Blandford, 1898)

New record. Fujian, Fuqing City, Dongzhang Town, 9.VIII. 2021, leg. You Li (WLC, 1♀); Guangdong, Zhaoqing City, Dinghu Mt., 15.VI.2021, leg. Yu Yali (WLC, 5♀); Guangxi, Ningming, 27.V.1984, leg. Shimei Song, ex *Mytilaria laosensis* (IOZ (E) 842031, 1♀).

Distribution. Chongqing, Fujian*, Gansu, Guangdong*, Guangxi*, Hainan, Xizang, Yunnan (Smith *et al.* 2020).

Xylosandrus mesuae (Eggers, 1930)

New record. Yunnan, Xishuangbanna, Jinghong City, Mt. Shenshi, 18.V.2022, leg. local villager (WLC, 1♀).

Distribution. Yunnan*.

Xylosandrus morigerus (Blandford, 1894)

Distribution. Yunnan (Smith *et al.* 2020).

Xylosandrus nanlingensis sp. nov.

Distribution. Guangdong (this paper).

Xylosandrus spinifer Smith, Beaver & Cognato, 2020

Distribution. Yunnan (Smith *et al.* 2022a).

Xylosandrus subsimiliformis (Eggers, 1939)

Distribution. Guizhou, Yunnan (Smith *et al.* 2020).

Xylosandrus subsimilis (Eggers, 1930)

Distribution. Hainan, Yunnan (Smith *et al.* 2020).

Xylosandrus trunculus Park & Smith, 2020

Distribution. Shandong*, Shanghai*, Zhejiang* (this paper).

Discussion

As with other Xyleborine ambrosia beetles, the diversity of *Xylosandrus* requires more research, and there are still a large number of new species to be discovered and described throughout the world (Smith *et al.* 2020). In China, the *Xylosandrus* fauna is undoubtedly far more diverse than currently reported. The lack of specifically targeted collection efforts and the paucity of scolytine taxonomists are two important factors leading to this situation. Traditionally, as a representative group of xyleborine ambrosia beetles, *Xylosandrus* species are thought to attack weakened and unthrifty trees, which are generally considered of little economic importance. However, several species, such as *X. compactus*, *X. germanus*, and *X. morigerus* can cause serious damage (Garonna *et al.* 2012), especially to urban ornamental and forest trees. Continued study of the Chinese Scolytinae fauna will promote a greater understanding of their diversity and ecological information.

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中国足距小蠹属*Xylosandrus*新种和新纪录种记述 (鞘翅目: 象甲科: 小蠹亚科: 材小蠹族)

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摘要: 记述广东足距小蠹属二新种, 分别为罗坑足距小蠹*Xylosandrus luokengensis* **sp. nov.**和南岭足距小蠹*Xylosandrus nanlingensis* **sp. nov.**; 首次在我国记录了鳞胸足距小蠹*Xylosandrus trunculus*的分布; 还对中国大陆所有已知足距小蠹属种类的省级行政区分布记录进行了整理和更新。

关键词: 材小蠹; 小蠹; 新记录; 分类学