



A new species of *Webbia* Hopkins, 1915 (Coleoptera: Curculionidae: Scolytinae: Xyleborini) from China

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The tribe Xyleborini of Scolytinae always has a high diversity occurring in the tropical and subtropical regions (Hulcr *et al.* 2015). The xyleborine ambrosia beetle genus *Webbia* Hopkins, 1915 contains more than 40 species distributed in the Oriental Region and New Guinea (Hopkins 1915; Smith *et al.* 2020; Ruzzier *et al.* 2023; Sittichaya *et al.* 2023). In China, only one species, *Webbia pabo* Sampson, 1922, has been recorded (Wood & Bright 1992). Here, we describe and photograph *Webbia yinae* sp. nov. from the provinces of Xizang and Yunnan. The type series is deposited in National Animal Collection Resource Center, Institute of Zoology, Chinese Academy of Sciences (IZCAS), Beijing, China (accession nos. IOZ (E) 844054–55, 987785–86). This material was identified by S.L. Wood and labeled as “*Webbia pabo* Sampson.”

Webbia yinae sp. nov.

Chinese common name: 殷氏桩截小蠹

(Fig. 1)

Type material. HOLOTYPE: CHINA: ♀, ‘Xizang, Medog, 1974.IX.2, Fusheng Huang; ex *Quercus glauca* (IOZ (E) 987786, 1)’ (IZCAS). **PARATYPES:** CHINA: 2 ♀♀, ‘Xizang, Medog, 1100m, 1974.IX.2, Fusheng Huang; ex *Quercus glauca* (IOZ (E) 844054, 55)’ (IZCAS); 1 ♀, ‘Yunnan, Xishuangbanna, Menglun, 1962.V.5, Shimei Song, ex *Senna siamea* (IOZ (E) 987785)’ (IZCAS).

Diagnosis. Body 2.60–2.70 mm long (mean = 2.65 mm, n = 4); 3.46–3.60× as long as wide (mean = 3.53×, n = 4). This species is distinguished by the elytral declivity face strongly shining, striae and interstriae impunctate, indistinguishable; the lower part of declivital face strongly impressed near apex; circumdeclivital margins armed with pointed denticles; declivital face bearing a large triangular spine that is moderately broader at apex than base; elytral apex with an acute spine arising from the sutural interstriae; posterolateral margin of declivity armed with an acute process from interstriae 8.

The species is similar to *Webbia diversicauda* Browne, 1972 but differs by the elytral declivity (*W. yinae*: acute spine at elytral apex arising from the sutural interstriae, versus *W. diversicauda*: acute spine at elytral apex arising from the second interstriae, distinctly separated from the suture), and by the much stronger posterolateral process on *W. yinae*.

This species is also similar to *W. pabo* but differs by the large spine on declivital face (*W. yinae*: spine triangular, moderately widened from base to apex, versus *W. pabo*: spine subparallel, as broad at apex as base).

Description. Female. 2.60–2.70 mm long (mean = 2.65 mm, n = 4); 3.46–3.60× as long as wide (mean = 3.53×, n = 4). Bicolored: head, pronotum, elytral apex, declivital face and processes dark brown; antennae, legs and elytral disc pale yellowish brown to brown.

Head: epistoma entire, transverse, with a row of hair-like setae, setae long. Frons convex to upper level of eyes; shining, with feebly elevated median line; reticulate, punctate; punctures sparse and fine. Eyes moderately emarginate just above antennal insertion, upper part slightly smaller than lower part. Submentum triangular, deeply impressed. Antennal scape short and thick, slightly longer than club. Pedicel narrower than scape, longer than funicle. Funicle 2-segmented.

Club flattened, circular, as broad as tall, type 2 (Hulcr *et al.* 2007), segment 1 corneous, corneous portion small, occupying approximately basal 1/4 of club, its anterior margin concave on anterior face.

Pronotum: 1.27–1.33× as long as wide, the base is slightly narrower than the apex. From dorsal view elongate, near rectangular, type a (Hulcr *et al.* 2007), sides parallel in basal 3/4; anterior margin feebly emarginate medially, anterior margin without serrations. In lateral view elongate, flattened and bulging frontally, type b (Hulcr *et al.* 2007), disc flat, summit inconspicuous. Anterior slope subshining, with transverse, fine, narrow asperities, becoming lower and smaller towards apical 1/3, bearing short, fine, semi-recumbent hair-like setae, setae longest at anterior margin becoming shorter posteriorly and ending at middle of anterior slope; disc subshining, alutaceous, glabrous, moderately densely, finely punctate, punctures with a very short, pale yellowish hair-like seta. Lateral margins weakly carinate. Base feebly bisinuate, posterior angles rounded.

Scutellum: not visible from above.

Elytra: 2.13–2.27× as long as wide, 1.60–1.74× as long as pronotum. Elytral bases concave, with fringe of mycangial setae extending laterally from the scutellum to striae 3, humeral angles rounded, sides subparallel in basal 4/5, then sharply angled to apex. Disc convex, glabrous, shining, subtransparent; striae punctate, punctures moderately sized, separated by about 1–2× their diameter; interstriae flat, glabrous, 3–5× as wide as striae. Declivity abruptly truncate, circumdeclivital margins armed with pointed denticles, each denticle with several long, brownish hair-like setae; the

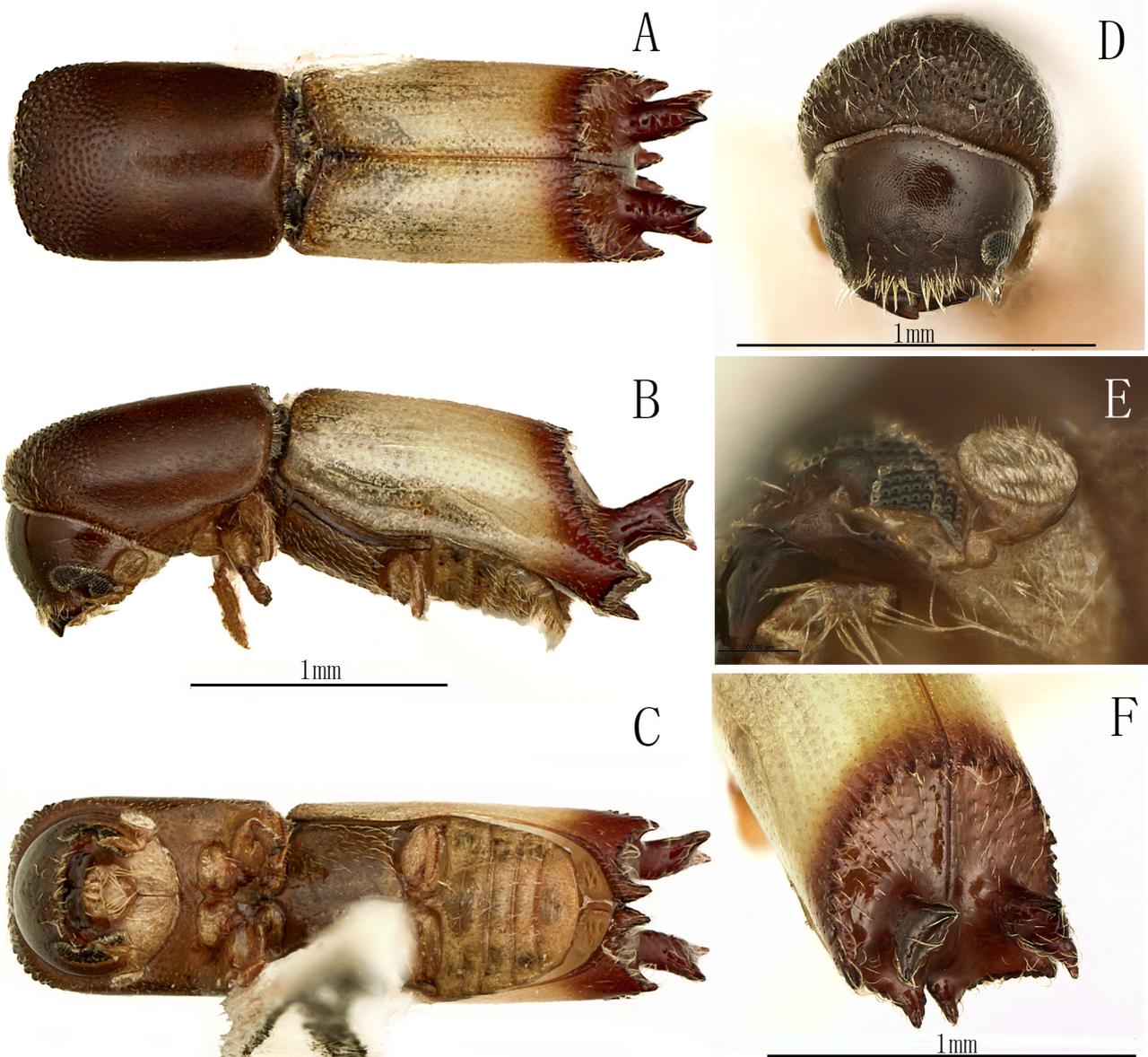


FIGURE 1. Habitus and morphological details of *Webbia yinae* sp. nov. holotype. **A.** Dorsal view. **B.** Lateral view. **C.** Ventral view. **D.** Front view. **E.** Antenna. **F.** Declivity.

upper part of declivital face flat, not impressed, rather smooth and strongly shining, bearing widely spaced setae; striae and interstriae impunctate, indistinguishable; the lower part of declivital face strongly impressed near apex, rather smooth and strongly shining, impunctate, glabrous at depression; declivital face bearing a large triangular spine at about the lower third of the declivity; the spine is slender at the base but slightly expanded apically, and with two pointed process at its concave apical margin; elytral apex with an acute spine arising from the sutural interstriae; posterolateral margin of declivity armed with an acute process from interstriae 8.

Legs: procoxae contiguous. Protibiae slender, broadest at middle; outer margin with 11 small socketed denticles. Mesotibiae flattened, outer margins evenly rounded with 12 small socketed denticles. Metatibiae flattened, outer margins evenly rounded with 12–14 small socketed denticles.

Male. Unknown.

Etymology. The new species is named in honor of Prof. Hui-Fen Yin (殷蕙芬), an outstanding Chinese taxonomist of Scolytinae. Noun in genitive.

Distribution. Southwest China (Xizang, Yunnan).

Host plants. *Quercus glauca* and *Senna siamea*.

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References

- Hopkins, A.D. (1915) Contributions toward a monograph of the scolytid beetles, Part II Preliminary classification of the superfamily Scolytoidea. *United States Department of Agriculture, Bureau of Entomology, Technical Bulletin*, 17, 165–232, pls. 9–15.
- Hulcr, J., Atkinson, T.H., Cognato, A.I., Jordal, B.H. & McKenna, D.D. (2015) Morphology, taxonomy, and phylogenetics of bark beetles. In: Vega, F.E. & Hofstetter, R.W. (Eds.), *Bark Beetles. Biology and ecology of native and Invasive Species*. Academic Press, London, pp. 41–84.
<https://doi.org/10.1016/B978-0-12-417156-5.00002-2>
- Hulcr, J., Dole, S.A., Beaver, R.A. & Cognato, A.I. (2007) Cladistic review of generic taxonomic characters in Xyleborini (Coleoptera: Curculionidae: Scolytinae). *Systematic entomology*, 32, 568–584.
<https://doi.org/10.1111/j.1365-3113.2007.00386.x>
- Ruzzier, E., Ortis, G., Vallotto, D., Faccoli, M., Martinez-Sañudo, I. & Marchioro, M. (2023) The first full host plant dataset of Curculionidae Scolytinae of the world: tribe Xyleborini LeConte, 1876. *Scientific Data*, 10, 1–5.
<https://doi.org/10.1038/s41597-023-02083-5>
- Sittichaya W., Smith S.M. & Beaver R.A. (2023) New species, taxonomic changes and newly recorded species of *Webbia* Hopkins, ambrosia beetles from Thailand and neighbouring countries (Coleoptera: Curculionidae: Scolytinae: Xyleborini). *Zootaxa*, 5264 (1): 47–63.
<https://doi.org/10.11646/zootaxa.5264.1.3>
- Smith, S.M., Beaver, R.A. & Cognato, A.I. (2020) A monograph of the Xyleborini (Coleoptera, Curculionidae, Scolytinae) of the Indochinese Peninsula (except Malaysia) and China. *ZooKeys*, 983, 1–442.
<https://doi.org/10.3897/zookeys.983.52630>
- Wood S.L. & Bright D.E. (1992) A catalog of Scolytidae and Platypodidae (Coleoptera), Part 2: Taxonomic index. *Great Basin Naturalist Memoirs*, 13, 1–1553.

中国桩截小蠹属 *Webbia* 一新种 (鞘翅目: 象甲科: 小蠹亚科: 材小蠹族)

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