



Three new species of Tmesiphorini (Coleoptera: Staphylinidae: Pselaphinae) from the Nanling Mountains, China

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Abstract

Three new tmesiphorine species from the Nanling Mountains, *Raphitreus septuacarinatus* **sp. nov.**, *Tmesiphorus huapingensis* **sp. nov.**, and *Tmesiphorus maoermontis* **sp. nov.**, are described, with illustrations of the habitus and diagnostic features. All species can be readily separated from congeners by the unique male characters as well as structure of the aedeagus. A key to genera of Tmesiphorini from Nanling is provided.

Key words: taxonomy, *Raphitreus*, *Tmesiphorus*, distribution, Guangxi, southern China

Introduction

The tmesiphorine fauna of the Nanling Mountains is poorly documented and is represented merely by three recently described species of *Pseudophanias* Raffray, 1890 (Zhang & Yin 2023). Here we describe three new species of the genera *Raphitreus* Sharp, 1883 and *Tmesiphorus* LeConte, 1849 from Guangxi, southern China. *Raphitreus* is a small group with three known species distributed in northeastern China, Japan, and Australia (Jeannel 1958; Li, J.-K. 1992; Chandler 2001), while *Tmesiphorus* is much more diverse (Newton 2022), and the species from eastern Asia were subject of recent taxonomic efforts (e.g., Inoue *et al.* 2019; Li & Yin 2021; Yin 2022a). These two genera are readily separable by the form of the fourth maxillary palpus: lateral margin with an elongate pencil-like projection in *Raphitreus*, and lateral margin being roundly or angularly expanded, but lacking such a projection in *Tmesiphorus*. A key to the three known tmesiphorine genera from the Nanling Mountains is provided below.

Material and methods

The material treated in this paper is deposited in the Insect Collection of Shanghai Normal University, Shanghai, China (SNUC). The label data of the material are quoted verbatim. Dissected parts were mounted in Euparal on plastic slides pinned with the specimen. The habitus images of the beetles were taken using a Canon EOS R5 camera, equipped with a 5× Mitutoyo M Plan Apo lens, and three 10W LED bulbs (5500 k) were used as the light source. Images of morphological details were produced using a Canon G9 camera mounted to an Olympus CX31 microscope under reflected or transmitted light. Helicon Focus v. 8.2.0 Pro was used for image stacking. All images were modified and grouped into plates using Adobe Photoshop CC 2020.

Measurements were taken as follows: total body length was measured from the anterior margin of the rostrum to the apex of the abdomen; head length was measured from the anterior margin of the clypeus to the head base, excluding the cervical constriction; head width was measured across the eyes; the length of the pronotum was measured along the midline, the width of the pronotum equals the maximum width; the length of the elytra was measured along the suture; the width of the elytra was measured as the maximum width across both elytra; the

length of the abdomen is the length of the dorsally exposed part of the abdomen along its midline, the width is the maximum width. The terminology follows Chandler (2001) and Yin (2022b). Abdominal tergites and sternites are numbered in Arabic (starting from the first visible segment) and Roman (reflecting true morphological position) numerals, e.g., tergite 1 (IV), or sternite 1 (III). Paired appendages in the description are treated as singular.

Taxonomy

Key to tmesiphorine genera from the Nanling Mountains

- 1 Maxillary palpus greatly reduced (Yin & Zhao 2022: fig. 2B; Yin & Zhang 2023: figs 1A, 2A, 3A), less than half length of head, lateral margins of palpomeres 2–4 lacking spines or projections *Pseudophanias* Raffray
- Maxillary palpus (Figs 1C, 2C) well-developed, more than half length of head, lateral margins of palpomeres 2, 3 and/or 4 with spines or projections
- 2 Lateral margin of maxillary palpomere 2 and 3 (Figs 2C, 3C) with long pencil-like projection, 4 often laterally protuberant, but lacking elongate projection
- Lateral margin of maxillary palpomeres 2–4 (Fig. 1C) with long pencil-like projection *Raphitreus* Sharp

Raphitreus septuacarinatus sp. nov.

Chinese common name: 七脊笔须蚁甲

(Fig. 1)

Type material (2 exx.). **HOLOTYPE: CHINA:** ♂: ‘China: Guangxi, Guilin City, Longsheng County, Tianping Mt., 25°37'44.7"N, 109°54'31.2"E, 900–1100 m, 03.vi.2023, Peng, Zhou & Duan leg., 广西龙胜天平山保护区彭中等’ (SNUC). **PARATYPE: CHINA:** 1 ♀, same collecting data as for holotype (SNUC).

Diagnosis. *Male.* Relatively large-sized tmesiphorine, body elongate, approximately 2.9 mm long. Head, pronotum, elytra and abdomen with large punctures and short setae. Vertex and frons with areas surrounding foveae broadly impressed, smooth and glabrous; ocular canthi well developed, forming broad and short projections. Antennomeres 9–11 enlarged to form distinct club; ventral surfaces of antennomeres 10 and 11 impressed. Elytra with broad longitudinal impressions on disc. Abdominal tergite 1 (IV) and 2 (V) subequal in length, each with one median and two lateral longitudinal carinae extended through entire tergal length, tergite 3 (VI) only with thin median carina extended on whole length of tergite. Aedeagus with median lobe dorso-ventrally nearly symmetric, apically split into two widely separated lobes; endophallus composed of single plate; parameres elongate, each with three long subapical setae. *Female.* Body length approximately 2.8 mm; antennal club unmodified.

Description. *Male.* Body (Fig. 1A) 2.87 mm long, reddish-brown, with tarsi and mouthparts lighter; dorsum coarsely punctate and with short, thick setae.

Head (Fig. 1B) much wider than long, length 0.56 mm, width across eyes 0.60 mm, sub-hexagonal; vertex with moderately separated, small asetose foveae (dorsal tentorial pits), areas surrounding foveae broadly smooth and impressed, edges of impressions forming ridges and with roughened surface; thin mediobasal carina extended posteriorly to cervical constriction; tempora inclined; ocular canthi forming short and broad prominence; frons with small asetose fovea and longitudinally impressed between antennal tubercles, impressed area smooth and glabrous, similar to those of vertex; surface of antennal tubercles roughly punctate and setose; clypeus sharply descending, anterior margin carinate and rounded; area between antennal tubercles and eyes with broad setose C-shaped sulci visible in dorsal view. Eyes prominent, each composed of approximately 65 ommatidia. Maxillary palpus (Fig. 1C) with palpomere 1 minute, 2 pedunculate in basal half, apical half expanded, 3 subtriangular; 4 subfusiform, broadest at basal 1/5, from broadest point gradually narrowed apically towards pointed apex, 2–4 each with lateral prolonged pencil-like process. Antenna elongate, length 1.57 mm, club formed by enlarged antennomeres 9–11 (Fig. 1D); antennomere 1 thick and elongate, subcylindrical, 2–8 moniliform, similar in size and shape, 9 much larger than 8, subglobose, 10 similar to 9 in size and shape, ventral surface broadly impressed, 11 distinctly smaller than 10, deeply impressed in basal half of ventral surface.

Pronotum (Fig. 1B) slightly longer than wide, length 0.58 mm, width 0.52 mm, widest at approximately apical 1/3; lateral margins rounded at widest point and subparallel posteriorly; anterior margin slightly emarginate; posterior margin slightly convex; disc strongly convex medially, forming distinct spine; disc with asetose median

and setose lateral antebasal foveae, lacking carinae or sulci; areas posterior to foveae smooth, glabrous. Prosternite with basisternal (precoxal) portion longer than procoxal portion; with setose lateral procoxal foveae; hypomera fused with sternum, smooth; hypomeral grooves absent; hypomeral carinae close to coxal cavities.

Elytra much wider than long, length 0.75 mm, width 1.17 mm; transversely sub-trapezoidal; each elytron with two moderately large, setose basal foveae; discal striae formed by broad longitudinal impressions; humeral denticles absent; humeri roundly prominent, lacking subhumeral foveae or marginal striae. Metathoracic wings fully developed.

Mesoventrite short, laterally fused with metaventrite; with densely setose mediobasal impression; median foveae absent; anterolateral and lateral mesoventral foveae setose, straight, not forked internally; prepectus laterally demarcated by oblique thick carinae; mesoventral intercoxal process short and apically blunt. Metaventrite coarsely punctate; area anterior to posterior margin roundly and shallowly impressed in middle; posterior margin in middle roundly and deeply emarginate.

All legs elongate and slender; ventral margin of profemur with row of stiff setae; each tarsus with two subequal pretarsal claws.

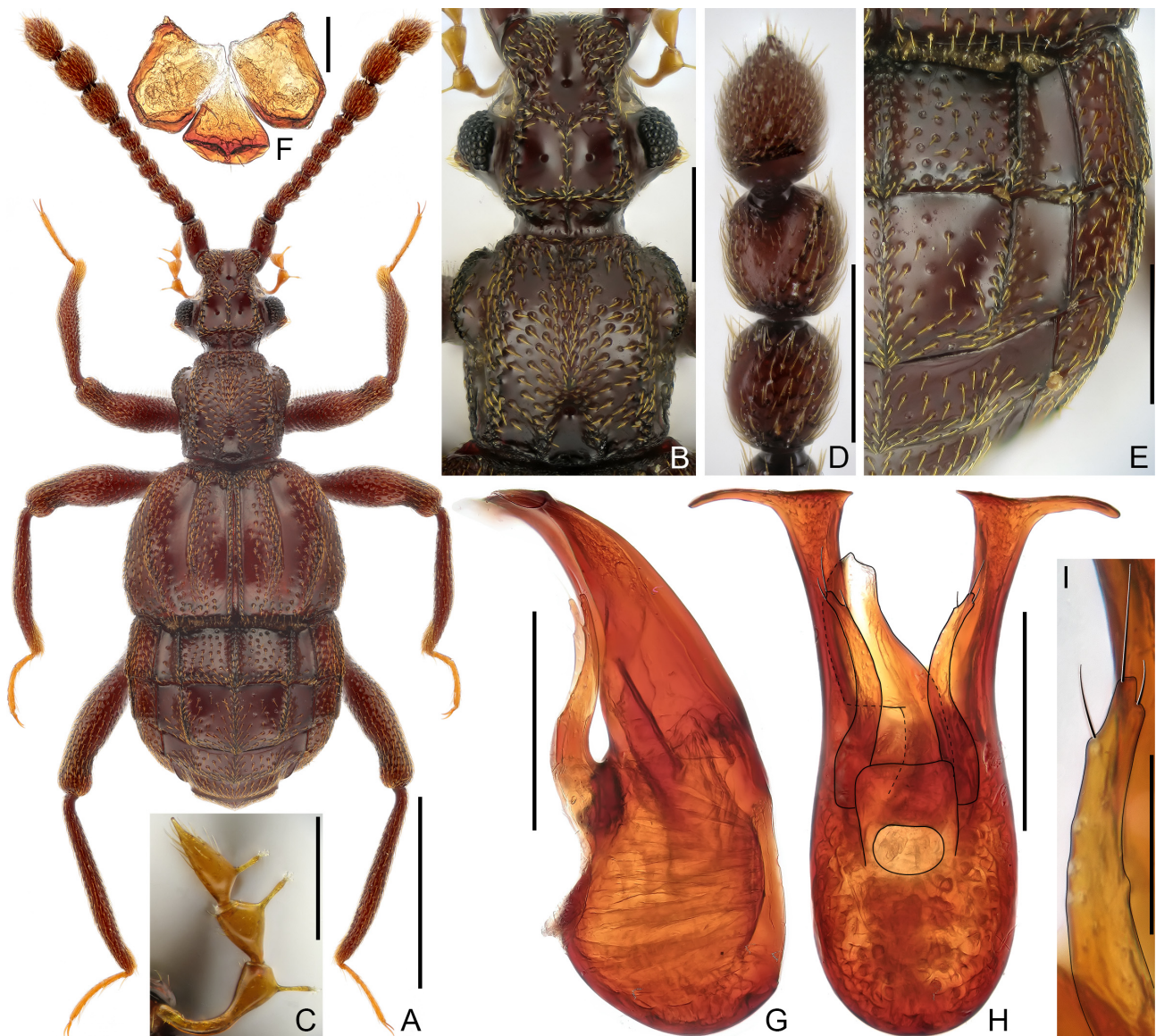


FIGURE 1. Morphology of *Raphitreus septuacarinatus* sp. nov., male. **A.** Dorsal habitus. **B.** Head and pronotum. **C.** Maxillary palpus. **D.** Antennal club. **E.** Abdomen, showing carinae. **F.** Sternite 7 (IX). **G–I.** Aedeagus, lateral (G), ventral (H), and apex of paramere (I). Scale bars: 1.0 mm in A; 0.3 mm in B, D, E; 0.2 mm in C, G, H; 0.1 mm in F; 0.05 mm in I.

Abdomen broadest at posterolateral margins of tergite 1 (IV), length 0.95 mm, width 1.15 mm. Tergite 1 (IV) and 2 (V) (Fig. 1E) subequal in length, 3 (VI) and 4 (VII) each slightly shorter than 2; tergite 1 with complete basal sulcus, 1 and 2 each with median and two lateral longitudinal carinae extended through entire tergal length, 3 with only median carina, the latter much thinner than that on tergites 1 and 2, tergite 5 (VIII) shallowly and narrowly emarginate in middle. Sternite 2 (IV) slightly longer than 3 (V), longitudinally impressed in middle, with complete basal sulcus and one pair of basolateral foveae in that sulcus, 3 (V) much longer than 4 (VI) and 5 (VII), 3 with two pairs, and 4 and 5 each with one pair of basolateral foveae, 6 (VIII) distinctly transverse, posterior margin broadly emarginate, 7 (IX) (Fig. 1F) semi-sclerotized, composed of one median and two lateral plates.

Aedeagus (Fig. 1G, H) elongate, length 0.51 mm, strongly sclerotized, dorso-ventrally nearly symmetrical; median lobe with bulbous basal capsule and large, oval diaphragm, apical part of median lobe split into two broadly separated lobes, each lobe greatly laterally expanded at apex, endophallus composed of single weakly sclerotized, axe-shaped plate, parameres (Fig. 1I) elongate and curved, each with three long subapical setae.

Female. Similar to male in external morphology. Antenna almost as long as in male, but with much smaller club; each compound eye composed of approximately 55 ommatidia; metathoracic wings well-developed. Measurements (as for male): body length 2.83 mm; length/width of head 0.53/0.58 mm, pronotum 0.56/0.58 mm, elytra 0.75/1.13 mm and abdomen 0.85/1.11 mm; length of antenna 1.50 mm.

Comparative notes. This small genus contains three species distributed in northern China, Japan, and Australia, and one of them (*R. heilongjiangensis* Li, J.-K.) was insufficiently described. The new species can be confidently placed in *Raphitreus* by the form of the maxillary palpi, with palpomeres 2–4 each with a pencil-like projection on the lateral margin. This species is the only member of the genus that possesses seven carinae on the abdomen, hence its name, while both *R. speratus* (Sharp) and *R. australis* Chandler, and probably *R. heilongjiangensis*, only have one pair of complete lateral carinae on the abdominal tergite 1, and another pair of short carinae at the base of tergite 2. Otherwise, the characteristic modification of the male antennal club as well as the aedeagus also readily separates *R. septuacarinatus* **sp. nov.** from congeners.

Distribution. Southwestern China: Guangxi.

Etymology. The epithet is a combination of Latin prefix ‘septua-’ (seven), and adjective ‘carinatus (-a, -um)’ (carinate), referring to the presence of seven carinae of the abdomen.

***Tmesiphorus huapingensis* sp. nov.**

Chinese common name: 花坪沟额蚁甲
(Fig. 2)

Type material (1 ex.). **HOLOTYPE:** CHINA: ♂: ‘China: Guangxi Prov, Longsheng County, Huaping N. R., 920 m, 109°54.451'E, 25°36.241'N, 7.iii.2022, FIT-2, Ming Bai Team, 广西龙胜花坪保护区白明组采’ (SNUC).

Diagnosis. *Male.* Body elongate, approximately 2.6 mm long. Vertex coarsely punctate, with punctiform vertexal and setose frontal fovea. Antennomeres 9–11 greatly enlarged, much wider than other antennomeres, 9 much longer than wide, 10 much narrower and shorter than 9, 11 subconical, broadly truncate at base, oblique in apical half. Pronotum with coarsely punctate disc. Abdominal tergite 2 (V) longest, approximately 1.8× longer than 1 (IV), tergites 1 (IV) and 2 laterally carinate. Aedeagus dorso-ventrally symmetric; median lobe protruding ventrally at apex in lateral view; endophallus composed of single sclerite; parameres each with three long setae at apex.

Description. *Male.* Body (Fig. 2A) 2.64 mm long; color dark reddish-brown, with tarsi and mouthpart lighter. Head and pronotum with dense, large punctures, those of elytra and abdomen much sparser; cuticle with short setae.

Head (Fig. 2B) slightly approximately as long as wide, length 0.50 mm long, width across eyes 0.47 mm, sub-hexagonal; vertex almost flat, with narrowly separated, asetose punctiform foveae (dorsal tentorial pits); tempora much longer than eyes, convergent posteriorly, with setose tufts on posterolateral margins; frons longitudinally impressed in middle, with moderately large, setose frontal fovea; rostrum approximately half of head width; clypeus sharply descending, smooth, anterior margin carinate and rounded; setose C-shaped sulci broad, clearly visible in dorsal view. Eyes greatly prominent, each composed of approximately 65 ommatidia. Maxillary palpus (Fig. 2C) with palpomere 1 minute, 2 pedunculate in basal half, apical half expanded, 3 subtriangular, 2 and 3 each with lateral prolonged pencil-like process, 4 broadest in basal 1/3, laterally expanded, gradually narrowing apically and pointed at apex. Antenna elongate, length 1.40 mm; club formed by enlarged antennomeres 9–11 (Fig. 2D); antennomere



FIGURE 2. Morphology of *Tmesiphorus huapingensis* sp. nov., male. **A.** Dorsal habitus. **B.** Head and pronotum. **C.** Maxillary palpus. **D.** Antennal club. **E.** Tergite 1 (IV) and 2 (V), showing carinae. **F.** Sternite 7 (IX). **G–I.** Aedeagus, lateral (G), ventral (H), and paramere (I). Scale bars: 0.5 mm in A; 0.3 mm in B, D, E; 0.1 mm in C, F–H; 0.05 mm in I.

1 thick and elongate, subcylindrical, 2 much shorter than and slightly narrower than 1, 2–8 moniliform, 8 shortest, transverse, 9 greatly enlarged and elongate, subquadrate, 10 much shorter and narrower than 9, 11 subconical, broadly truncate at base, oblique in apical half.

Pronotum (Fig. 2B) approximately as long as wide, length 0.50 mm, width 0.52 mm, widest at approximately apical 2/5; lateral margins rounded at widest point and subparallel posteriorly; anterior margin smoothly slightly emarginate, posterior margin slightly convex; disc greatly convex to form median ridge, with small, asetose median and lateral antebasal foveae, basal collar roughened. Prosternum with basisternal (precoxal) portion longer than procoxal rests; with small lateral procoxal foveae; hypomera fused with sternum, smooth and glabrous, hypomeral grooves absent, hypomeral carinae close to coxal cavities.

Elytra much wider than long, length 0.67 mm, width 0.99 mm; roundly trapezoidal; each elytron with two moderately large, setose basal foveae; discal striae broad, distinct, extended from outer basal foveae posteriorly, inner margins of striae defined by ridges. Humeri distinctly prominent, lacking subhumeral foveae or marginal striae; posterior margins with row of dense setae. Metathoracic wings fully developed.

Mesoventrite short, laterally fused with metaventrite; with densely setose mediobasal impression, lacking median foveae, setose lateral mesoventral foveae not forked (straight) internally; prepectus laterally demarcated by thick carinae, with long median carina posterior to impression; mesoventral intercoxal process short and apically blunt. Metaventrite finely punctate, convex medially, area anterior to posterior margin roundly and deeply impressed in middle; posterior margin with small and narrow slit in middle.

All legs elongate and slender; ventral margin of profemur with row of stiff setae; each tarsus with two subequal pretarsal claws.

Abdomen broadest at posterolateral margins of tergite 1 (IV), length 0.82 mm, width 0.98 mm. Tergite 2 (V) longest, 1.8× as long as 1 (IV); 1 and 2 (Fig. 2E) each with broad, setose basal impression; tergite 1 with two lateral longitudinal carinae extended through tergal length, 2 with lateral carinae extended for 4/5 of tergal length, 3–5 (VI–VIII) each with one pair of basolateral foveae, 3 (VI) approximately 2/3 length of 2, 4 (VII) as long as 3, roundly narrowing posteriorly, tergite 5 (VIII) transverse, posterior margin roundly emarginate in middle. Sternite 2 (IV) approximately as long as 3 (V), both 2 and 3 with broad, densely setose sulcus at base and covering basolateral foveae, 4 (VI) and 5 (VII) together slightly shorter than half length of 3 in middle, each with one pair of basolateral foveae, 6 (VIII) transverse, posterior margin slightly convex in middle, 7 (IX) (Fig. 2F) composed of two large lateral and one small, elongate median plate.

Aedeagus (Fig. 2G–I) stout, length 0.28 mm, moderately sclerotized, dorso-ventrally symmetric; median lobe with large basal capsule and oval diaphragm, protruding ventrally, abruptly narrowed in apical part and forming pointed apex in lateral view, endophallus composed of single elongate sclerite, parameres (Fig. 2I) short, each with three macrosetae at apex.

Female. Unknown.

Comparative notes. The male of this species resembles *T. costatus* Weise from Honshu, Japan (Inoue *et al.* 2019), and *T. marani* Löbl distributed in Russian Far East and Korea (Löbl 1963) in the forms of the antennal clubs and the aedeagus. *Tmesiphorus huapingensis* differs from *T. costatus* by the relatively more elongate antennomeres 5, antennomeres 10 lacking an anteromedial angulation, and the endophallus is composed of only one sclerite; and from *T. marani* by the much smaller body size (2.6 mm vs. 3.4 mm), and markedly much longer antennomeres 9 in relation to antennomeres 10.

Distribution. Southwestern China: Guangxi.

Etymology. This species is named after its type locality, Huaping National Nature Reserve.

Tmesiphorus maoermontis sp. nov.

Chinese common name: 猫儿山沟额蚁甲
(Fig. 3)

Type material (1 ex.). **HOLOTYPE:** CHINA: ♂: ‘China: Guangxi Prov, Xing’an County, Maoershan Mountain, 2000 m, 11.vii.2011, W. J. He & L. Tang leg.’ (SNUC).

Diagnosis. *Male.* Body moderately elongate, approximately 2.1 mm long. Vertex coarsely punctate, with punctiform vertexal and setose frontal fovea. Antennomeres 9–11 enlarged, much wider than other antennomeres; 9 subquadrate; 10 greatly transverse; 11 subconical, broadly truncate at base. Pronotum with disc finely punctate

on anterior portion and coarsely punctate at base. Abdominal tergite 2 (V) approximately 2.4× longer than 1 (IV). Aedeagus with median lobe dorso-ventrally symmetric, curved ventrally at apex in lateral view; parameres each with two long apical setae.

Description. *Male.* Body (Fig. 3A) 2.14 mm long, reddish-brown, with tarsi and mouthparts lighter. Dorsum finely punctate, covered with relatively sparse, long pubescence.

Head (Fig. 3B) slightly wider than long, length 0.38 mm, width across eyes 0.40 mm, sub-hexagonal; vertex weakly convex, with narrowly separated, asetose punctiform foveae (dorsal tentorial pits); tempora slightly longer than eyes, moderately convergent posteriorly; frons broadly and shallowly impressed in middle, with large, setose frontal fovea; rostrum approximately half of head width; clypeus sharply descending, smooth, with anterior margin carinate and rounded; area between antennal tubercles and eyes with broad setose C-shaped sulci visible in dorsal view. Eyes prominent, each composed of approximately 45 ommatidia. Maxillary palpus (Fig. 3C) with palpomere 1 minute, 2 pedunculate in basal half, apical half expanded, 3 subtriangular, 2 and 3 each with lateral prolonged pencil-like process, 4 broadest in basal 1/3, laterally expanded, from broadest point gradually narrowed apically towards pointed apex. Antenna moderately elongate, length 0.98 mm, club formed by enlarged antennomeres 9–11 (Fig. 3D); antennomere 1 thick and slightly elongate, subcylindrical, 2 much shorter than 1, 2 and 3 subquadrate, slightly wider than long, 4–8 each distinctly wider than long, gradually shorter, with 8 shortest, 9 much larger than 8, subquadrate, 10 strongly transverse, 11 subconical, broadly truncate at base.

Pronotum (Fig. 3B) approximately as long as wide, length 0.41 mm, width 0.40 mm, widest at approximately apical 2/5; lateral margins rounded at widest point and subparallel posteriorly; anterior margin slightly emarginate; posterior margin slightly convex; disc moderately convex medially, finely punctate, with tiny, setose median and distinct lateral antebasal foveae; basal portion roughly punctate. Prosternite with basisternal (precoxal) portion longer than procoxal portion; with small lateral procoxal foveae; hypomera fused with sternum, smooth; hypomeral grooves absent; hypomeral carinae close to coxal cavities.

Elytra much wider than long, length 0.59 mm, width 0.76 mm; roundly trapezoidal; each elytron with two moderately large, setose basal foveae; discal striae shallow and wide, extended from outer basal foveae posteriorly onto 4/5 elytral length; humeral denticles absent; humeri weakly roundly prominent, lacking subhumeral foveae or marginal striae; posterior margins with row of dense setae. Metathoracic wings fully developed.

Mesoventrite short, laterally fused with metaventrite; with densely setose mediobasal impression; median fovea absent; setose lateral mesoventral foveae straight, not forked internally; prepectus laterally demarcated by thick carinae, with short median carina posterior to impression; mesoventral intercoxal process short and apically blunt. Metaventrite finely punctate, convex medially, area anterior to posterior margin roundly and shallowly impressed in middle; posterior margin with small and narrow slit in middle.

All legs elongate and slender; ventral margin of profemur with row of stiff setae; each tarsus with two subequal pretarsal claws.

Abdomen broadest at posterolateral margins of tergite 1 (IV), length 0.75 mm, width 0.78 mm. Tergite 2 (V) longer than 1, 2.4× as long as 1 (IV), 1 and 2 (Fig. 3E) each with broad, setose basal impression; tergite 1 with two lateral longitudinal carinae extended through entire tergal length, 2 with pair of short baso-lateral carinae, 3–5 (VI–VIII) each with one pair of basolateral foveae, 3 (VI) approximately half as long as 2, 4 (VII) as long as 3, roundly narrowed posteriorly, 5 (VIII) with posterior margin evenly rounded. Sternite 3 approximately 1.4× as long as 2 along midline, both 2 and 3 with broad, densely setose basal sulcus obscuring basolateral foveae, 4 (VI) and 5 (VII) together slightly shorter than half length of 3 along midline, each with pair of basolateral foveae, 6 (VIII) with posterior margin slightly convex in middle.

Aedeagus (Fig. 3F, G) stout, length 0.25 mm, moderately sclerotized, dorso-ventrally symmetrical; median lobe with large basal capsule and oval diaphragm, apical art curved ventrally, abruptly narrowed in apical part and forming pointed apex in lateral view, lacking sclerotized endophilic structures, parameres (Fig. 3H) elongate, broad at bases, each with two long apical macrosetae.

Female. Unknown.

Comparative notes. The male of this species is morphologically similar to *Tmesiphorus tanglimontis* Li & Yin from Yunnan by the similar form of the aedeagus, but they can be readily separated by the pronotal lateral margins being much less roundly expanded, by the much more elongate elytra (distinctly transverse in *T. tanglimontis*), and by the almost sexually unmodified antennae of *T. maoermontis*. *Tmesiphorus maoermontis* **sp. nov.** can be easily separated from its five Japanese congeners (Inoue *et al.* 2019) by the structure of the male antennae, and the shapes of the aedeagus and parameres are diagnostic.

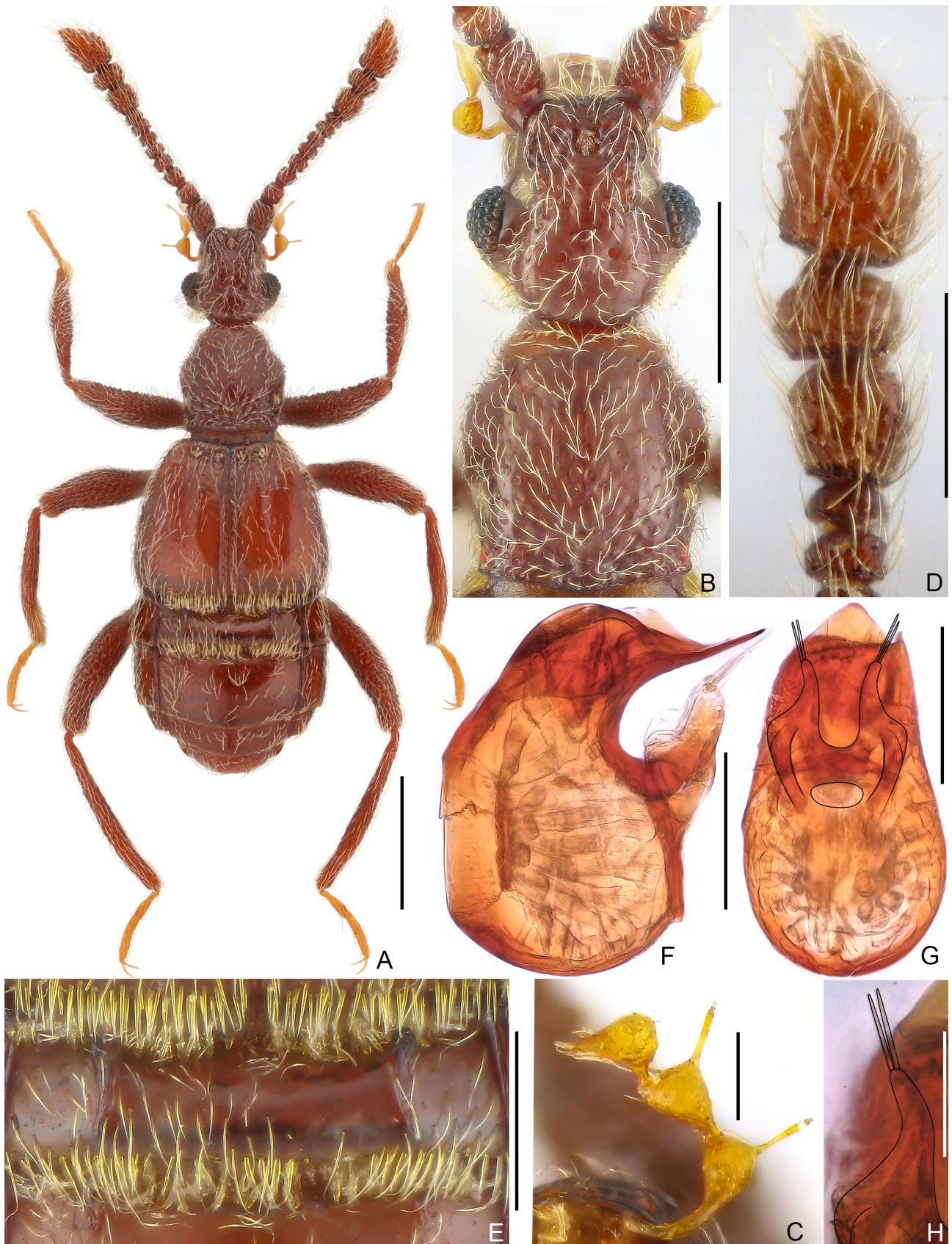


FIGURE 3. Morphology of *Tmesiphorus maoermontis* sp. nov., male. **A.** Dorsal habitus. **B.** Head and pronotum. **C.** Maxillary palpus. **D.** Antennal club. **E.** Tergite 1 (IV) and 2 (V), showing carinae. **F–H.** Aedeagus, lateral (F), ventral (G), and paramere (H). Scale bars: 0.5 mm in A; 0.3 mm in B; 0.1 mm in C, F, G; 0.2 mm in D, E; 0.05 mm in H.

Distribution. Southwestern China: Guangxi.

Etymology. This species is named after its type locality, Maoer Mountain.

Acknowledgments

Ming Bai (白明) (Institute of Zoology, Chinese Academy of Sciences, Beijing, China) gifted the single male of *T. huapingensis*. Zhi-Lin Chen (陈志林) (Guangxi Normal University, Guangxi, China) provided logistic support during the field work. Giulio Cuccodoro (Muséum d'histoire naturelle, Genève, Switzerland) and Rostislav Bekchiev (National Museum of Natural History, Sofia, Bulgaria) critically read and commented on the draft manuscript. Financial support was provided by the National Natural Science Foundation of China (No. 32370465), and GDAS Special Project of Science and Technology Development (2020GDASYL-20200102021, 2020GDASYL-20200301003).


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南岭山脉沟额蚁甲族Tmesiphorini三新种（鞘翅目：隐翅虫科：蚁甲亚科）

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摘要：记述南岭山脉沟额蚁甲族Tmesiphorini三新种，即七脊笔须蚁甲*Raphitreus septuacarinatus* **sp. nov.**、花坪沟额蚁甲*Tmesiphorus huapingensis* **sp. nov.**和猫儿山沟额蚁甲*Tmesiphorus maoermontis* **sp. nov.**，并附整体和形态特征图版。新种可通过独特的雄性特征和阳茎形态与同属物种区分。提供了南岭沟额蚁甲族分属检索表。

关键词：分类；笔须蚁甲属；沟额蚁甲属；分布；广西；中国南部