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Overcoming Linnean and Wallacean shortfall in a biodiversity hotspot—a taxonomic study of *Tribasodites* Jeannel and allied genera (Coleoptera: Staphylinidae: Pselaphinae) from Nanling Mountain Area, China

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Abstract

This paper presents the result of a taxonomic study of the genus *Tribasodites* Jeannel and related genera (Staphylinidae: Pselaphinae: Batrisitae) from Nanling Mountain Area, with 55 species placed in 10 genera being recognized. Forty-one species are described as new, with illustrations of the habitus and diagnostic characters for reliable identifications: *Anama angulata* **sp. nov.**, *Anama horridula* **sp. nov.**, *Anama reticulata* **sp. nov.**, *Araneibatrus breviceps* **sp. nov.**, *Araneibatrus gigas* **sp. nov.**, *Araneibatrus leigong* **sp. nov.**, *Araneibatrus maoermontis* **sp. nov.**, *Batrisodes amphion* **sp. nov.**, *Batrisodes breviventris* **sp. nov.**, *Batrisodes capreolus* **sp. nov.**, *Batrisodes latilobus* **sp. nov.**, *Batrisodes microceps* **sp. nov.**, *Batrisodes shun* **sp. nov.**, *Batrisodes streptoaedeagus* **sp. nov.**, *Batrisodes titanius* **sp. nov.**, *Batrisodes tribasoditiformis* **sp. nov.**, *Coryphomodes jiangxiensis* **sp. nov.**, *Coryphomodes parvipunctatus* **sp. nov.**, *Coryphomodes simplex* **sp. nov.**, *Hypochraeus complanatus* **sp. nov.**, *Hypochraeus robustus* **sp. nov.**, *Intestinarius guangxiensis* **sp. nov.**, *Intestinarius paralongiceps* **sp. nov.**, *Tribasodites barbipes* **sp. nov.**, *Tribasodites cavipes* **sp. nov.**, *Tribasodites clavatus* **sp. nov.**, *Tribasodites corniceps* **sp. nov.**, *Tribasodites fortunatus* **sp. nov.**, *Tribasodites furca* **sp. nov.**, *Tribasodites jiulianmontis* **sp. nov.**, *Tribasodites jiuwanmontis* **sp. nov.**, *Tribasodites loki* **sp. nov.**, *Tribasodites longipes* **sp. nov.**, *Tribasodites mangshanensis* **sp. nov.**, *Tribasodites paraspinatus* **sp. nov.**, *Tribasodites pengi* **sp. nov.**, *Tribasodites ruyuanensis* **sp. nov.**, *Tribasodites spinatus* **sp. nov.**, *Tribasodites turgipes* **sp. nov.**, *Tribasodites xinningensis* **sp. nov.**, and *Tribasodites yangi* **sp. nov.** *Tribasodites chinensis* (Yin, Zhao & Li, 2010) **comb. nov.** is transferred from *Tribasodes*. *Anama* Newton & Chandler and *Hypochraeus* Raffray are newly recorded from China. New provincial records and additional collecting data are provided for *Batrisodes bamian* Yin, Shen & Li, *Batrisodes grossus* Jiang & Yin, *Dendrolasiophilus wenhsini* Yin & Li, *Intestinarius guangdongensis* Yin & Li, *Intestinarius longiceps* Yin & Li, *Tribasodites chinensis*, and *Tribasodites hubeiensis* Yin, Nomura & Li. Keys for identification of the genera and species are presented. A checklist of Batrisini from Nanling Mountain Area is provided, for a total of 64 species.

Key words: ant-loving beetles, taxonomy, Batrisitae, diversity, new species, new combination, distribution, aedeagus isomerism, Nanling Mountain Area

Introduction

In 2015, five years after the announcement of China's National Biodiversity Conservation Strategy and Action Plan (2011–2030), the Ministry of Ecology and Environment released the verified range of the nation's 33 priority areas for biodiversity conservation (MEE 2010, 2015). One of these is the Nanling Mountain Area (Fig. 1A), a vast mountainous region spanning the provinces of Guizhou, Guangxi, Hunan, Guangdong and Jiangxi, and home to 25 national nature reserves. Five major mountain ranges, namely Yuecheng Mountain Range (越城岭), Dupang Mountain Range (都庞岭), Mengzhu Mountain Range (萌渚岭), Qitian Mountain Range (骑田岭) and Dayu Mountain Range (大庾岭), form the main body of Nanling. Recognized as a native biodiversity hotspot for endemic plant, bird, and mammal species (Tang *et al*. 2006; Xu *et al*. 2015; Wang *et al*. 2024), the east-west Nanling Mountain Area acts as both a barrier and a refuge (Wang & Dong 2018; Wang *et al*. 2023), profoundly influencing the evolution of the local biota.

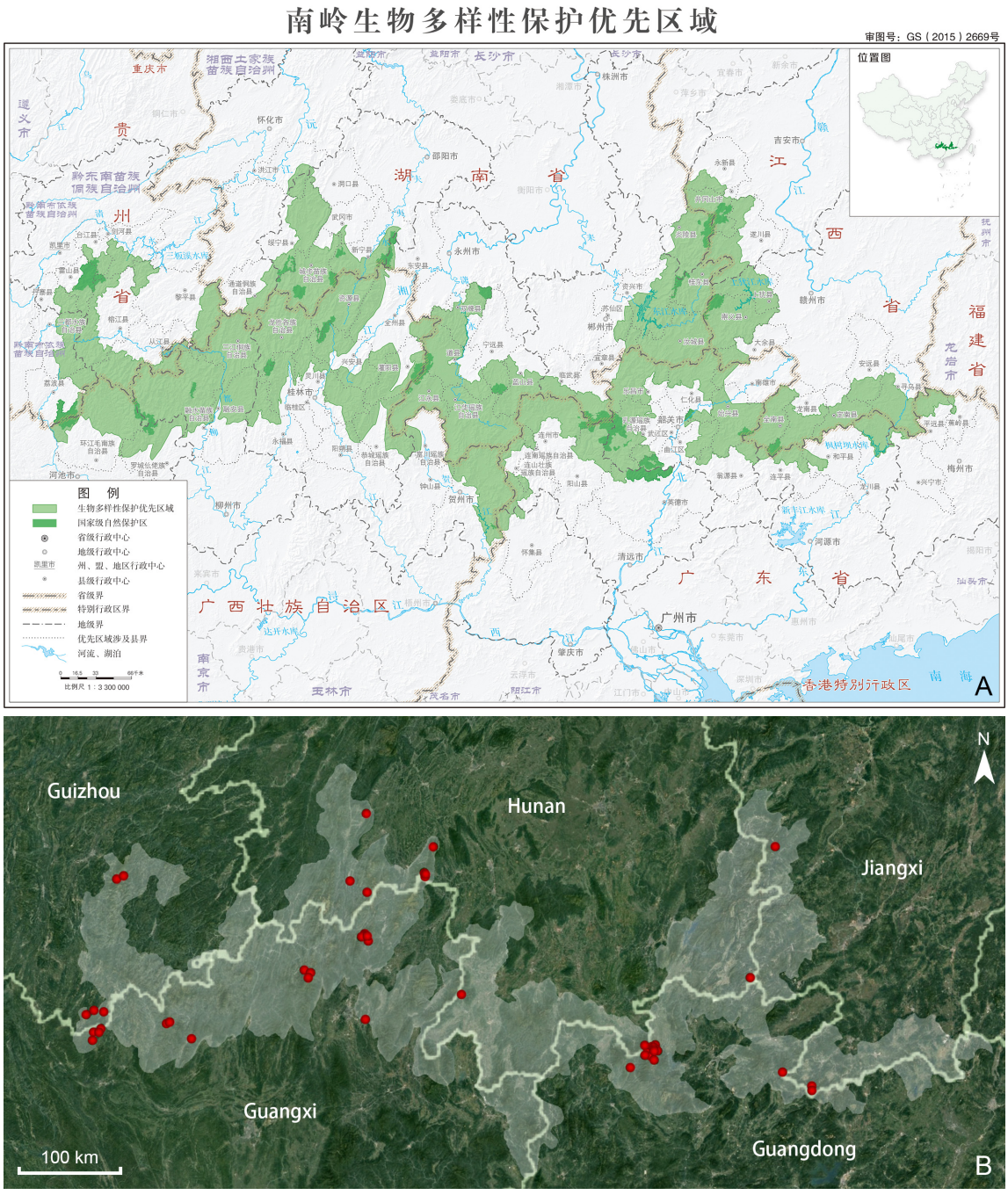

FIGURE 1. A. Range of Nanling Mountain Area (= Nanling Priority Area for Biodiversity Conservation), issued by the Ministry of Ecology and Environment, China; map available at https://www.mee.gov.cn/gkml/hbb/bgg/201601/t20160105_321061.htm. **B.** Summarized collection sites at Nanling Mountain Area.

As the most diverse of all animal groups, little data is available on the status of insect biodiversity of Nanling. As a part of an ongoing collaborative project to study Nanling's insect fauna, more than 4500 adult pselaphine beetles have been collected. The collection sites cover most of the local forest areas (Fig. 1B). Approximately 68% of the sampled material belongs to Batrisini, a major group of the subfamily Pselaphinae represented by *ca*. 240 genera worldwide (Nomura 1991; Chandler 2001; Newton 2022). Prior to this study, only 18 species belonging in 11 genera of the tribe from Nanling had been described (e.g., Nomura & Wang 1991; Yin *et al*. 2010a, b, 2011a, b, 2015a, b; Yin & Li 2011a, b, 2013, 2015c, d; Jiang & Yin 2016, 2017a, b; Yin & Zhou 2018; Shen & Yin 2020; Yin & Shen 2020; Zhang & Yin 2022), suggesting that a large part of the local pselaphine fauna likely remains undiscovered or undescribed. A recent work on the Tibetan fauna of Batrisini describing two new genera and 68 new species (Yin 2022) indicated inadequate knowledge of pselaphine diversity in all parts of China. In this study, we present the result of a taxonomic study dealing with the genus *Tribasodites* Jeannel and related genera (*sensu* Nomura & Idris 2003). A total of ten genera and 55 species were identified, 41 of which are described as new. Accompanying the descriptions, identification keys to known genera and species of the *Tribasodites* group, and a checklist of batrisine species from Nanling is provided. The other pselaphine groups of Nanling Mountain Area are to be dealt with separately.

Material and methods

All materials treated in the present paper are housed in the Insect Collection of Shanghai Normal University, Shanghai, China (SNUC).

This study was based on over 3,000 adult specimens of tribe Batrisini collected from the Nanling Mountain Area (Fig. 1A, B). Dried specimens were relaxed in 95°C water for 1–2 minutes, then transferred to a culture dish with 70% ethanol and dissected. A 1-ml syringe with an apically bent needle was used to open the tip of abdomen, and another injector with an unmodified needle was used to cut off the terminal tergite/sternite, to which the genital structures were attached by membranes or muscles. Dissected parts were cleared in boiling 5% KOH solution for 1–2 minutes to remove most muscles and air. The aedeagus, male sternite 7 (IX) and female genitalia were dehydrated in isopropanol, and transferred to Euparal on plastic slides for photographing. The slides were later placed on the same pin as the specimens for permeant storage. Other dissected parts (e.g., tergite 5 (VIII), sternite 6 (VIII)) were dry-mounted and glued beside the corresponding specimens. The label data of the material is quoted verbatim, with supplementary notes placed in parentheses. An abbreviation is used in the text, i.e., 'FIT', means 'flight intercept trap'. All holotypes bear a red label printed as 'HOLOTYPE, ♂, *species name* sp. nov., det. Zhang & Yin, 2023, SNUC', with the species name, author of species, year, and depository being handwritten. Each paratype bears a yellow, printed label similar to that of the holotype, except for 'PARATYPE, ♂ (or ♀),'.

The habitus images were taken using a Canon 5D Mark III camera in conjunction with a Canon MP-E 65 mm f/2.8 1-5X Macro Lens, and a Canon MT-24 EX Macro Twin Lite Flash was 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. Zerene Stacker (version 1.04) was used for image stacking. Lines on the pictures highlighting the structures were done using Adobe Illustrator 27.3.1. All images were modified and grouped into plates using Adobe Photoshop CS5 Extended.

Measurements were taken as the following: the total body length is measured from the anterior margin of the clypeus to apex of the abdomen; the head length is measured from the anterior margin of the clypeus to head base, excluding cervical constriction; the head width is measured across the eyes; the length of the pronotum is measured along the midline, the width equals its maximum width; the length of the elytra is measured along the suture; the width is the maximum width across both elytra; the length of the abdomen is the length of dorsally exposed part of the abdomen along the midline, the width is abdomen's maximum width.

The terminology largely follows that proposed by Chandler (2001), with slight modifications when describing thoracic structures. The abdominal segments 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 structures in species descriptions and keys, except for foveae, are treated as singular, which are in telegraphic text; paired structures are treated as plural in the comparative notes. The genera and the species of each genus are organized alphabetically.

Taxonomy

Family Staphylinidae Latreille, 1802
Subfamily Pselaphinae Latreille, 1802
Supertribe Batrisitae Reitter, 1882
Tribe Batrisini Reitter, 1882

Key to *Tribasodites* and allied genera from Nanling Mountain Area

1	Pronotum lacking spines on lateral margins	2
-	Pronotum with spines on lateral margins	7
2	Elytra lacking basal foveae	***Megabatrus*** **Löbl**
-	Elytra each with one to three basal foveae	3
3	Elytra each with one basal fovea	***Dendrolasiophilus*** **Nomura**
-	Elytra each with three basal foveae	4
4	Postgenae covered by tufted setae; pronotum nearly trapezoidal	***Songius*** **Yin & Li**
-	Postgenae lacking tufted setae; pronotum various in shape, but never trapezoidal	5
5	Body, antenna and legs conspicuously elongate	***Araneibatrus*** **Yin & Li**
-	Body thick and stout; antenna and legs normally elongate	6
6	Frons greatly impressed between antennal tubercles; pronotal disc with five longitudinal sulci	***Intestinarius*** **Kurbatov**
-	Frons slightly to moderately concave between antennal tubercles; pronotal disc with three longitudinal sulci	***Batrisodes*** **Reitter**
7	Pronotum with two pairs of basolateral foveae	8
-	Pronotum lacking basolateral foveae or with one pair of basolateral foveae	9
8	Head rounded triangular; pronotum with small marginal spines; inner two basal foveae of the elytra close or fused	***Coryphomodes*** **Jeannel**
-	Head sub-rectangular; pronotum with distinct marginal spines; each elytron with three large, asetose basal foveae	***Tribasodites*** **Jeannel**
9	Pronotum much wider than long, with thin median longitudinal sulcus	***Anama*** **Newton & Chandler**
-	Pronotum slightly wider than long, with broad median longitudinal sulcus margined by carinae	***Hypochraeus*** **Raffray**

Anama Newton & Chandler, 1989

Chinese common name: 艾蚁甲属

Amana Raffray, 1890a: 113. Type species: *Amana crassicornis* Raffray, 1890 (subsequent monotypy by Raffray 1890b: 203).
Anama Newton & Chandler, 1989: 6; replacement name for *Amana*, nec. Walker 1855.

The genus *Anama* has only two species distributed in Singapore and Indonesia (Sumatra) (Newton 2022). The members externally resemble those of *Batrisoplatus* Raffray, but possess a distinct transverse antebasal sulcus on the pronotum. Three additional species are described here.

Key to species of *Anama* from Nanling Mountain Area (males)

1	Vertex with single mediobasal longitudinal carina; abdomen with tergite 1 (IV) slightly longer than 2 (V)	2
-	Vertex with Y-shaped carinae (Fig. 4B); abdomen with tergite 1 (IV) longer than 2–4 (V–VII) combined	***A. reticulata*** **sp. nov.**
2	Body and legs with scattered exceptionally long setae (Fig. 3A); pronotum with shallow M-shaped transverse antebasal sulcus (Fig. 2A); elytra with subtriangular tufts of setae on posterior margins	***A. horridula*** **sp. nov.**
-	Body and legs with uniform long setae (Fig. 2A); pronotum with deep M-shaped transverse .antebasal sulcus (Fig. 2B); elytra lacking tufts of setae on posterior margins	***A. angulata*** **sp. nov.**

Anama angulata sp. nov.
(Fig. 2)

Chinese common name: 尖腹艾蚁甲

Type material (2 exx.)**. HOLOTYPE: CHINA:** ♂, 'China: Guangdong, Shaoguan, Ruyuan County, Nanling N. R., 24°55'42.9"N, 113°0'59.05"E, 1180–1250 m, 6.v.2021, sifting, Hu, Lin, Zhou & Li leg. [广东韶关市乳源县南岭]' (SNUC). **PARATYPE: CHINA:** 1♀, same collectors and also from Nanling N. R., except 'Xiaohuangshan, 24°53'44.7"N, 113°1'26.9"E, 1270–1570 m, 2.v.2021, [广东南岭小黄山]' (SNUC).

Diagnosis. *Male*. Body length 1.99 mm; head rounded triangular, slightly narrower than pronotum, frontal rostrum strongly raised, vertex with round, disc-like protuberance near anterior margin of triangular vertexal sulcus; compound eyes greatly prominent, antenna lacking modifications. Pronotum with laterally carinate median longitudinal sulci and M-shaped transverse antebasal sulcus, with small marginal spines. Elytron roughly punctate, with inner two basal foveae close, discal stria shallow and short, extending posteriorly from outer basal fovea to approximately 1/4 of elytral length. Legs simple. Abdomen slightly curved ventrally, lacking mediobasal foveae, posterior margin of tergite 4 (VII) angularly expanded at middle. Aedeagus asymmetric; median lobe with large basal capsule and subtriangular foramen, ventral stalk protruding apically, dorsal lobe plate-like, with long, curved spine at basal margin, parameres membranous. *Female*. Body length 1.87 mm. Head lacking disc-like protuberance, compound eyes smaller than males. Genital complex as in Fig. 2I.

Description. *Male*. Body (Fig. 2A) length 1.99 mm, dorsal surface of body roughly punctate, covered with relatively dense pubescence; color reddish-brown, tarsi and mouthparts lighter.

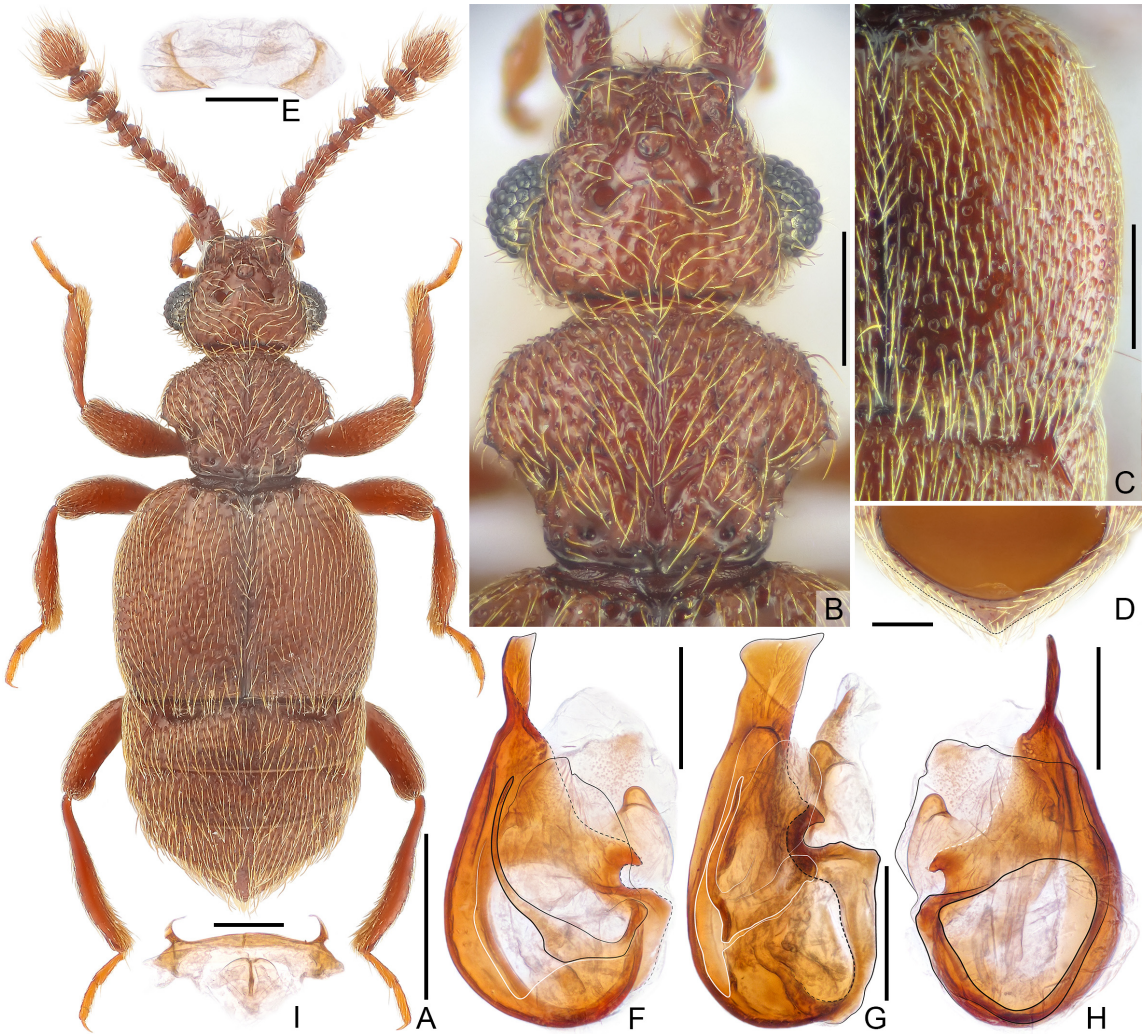

FIGURE 2. Morphology of *Anama angulata* **sp. nov.** (A–H. Male. I. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Right elytron. **D.** Tergite 4 (VII). **E.** Sternite 7 (IX). **F–H.** Aedeagus, in dorsal (F), lateral (G) and ventral (H) view. **I.** Genitalia. Scale bars: 0.5 mm in A; 0.2 mm in B, C; 0.1 mm in D–I.

Head (Fig. 2B) rounded triangular, broader than long, length 0.34 mm, width across eyes 0.49 mm; frontal rostrum strongly raised between antennal tubercles; clypeus short, with longitudinal carina at middle, anterior margin carinate; antennal tubercle moderately flattened, posteriorly with lateral postantennal pit; vertex with triangular sulcus connecting asetose vertexal foveae (dorsal tentorial pits), with round, disc-like protuberance near anterior margin, with two small pits at base of protuberance; mediobasal carina long, extending anteriorly from head base to posterior margin of vertexal sulcus; posterolateral margin weakly angulate; ocular-mandibular carina present, fused with ventral margin of antennal socket. Venter with small gular foveae (posterior tentorial pits) originating from shared opening, thin median carina extending from opening anteriorly to mouthparts. Compound eyes greatly

prominent, each composed of approximately 70 ommatidia. Antenna lacking modifications, club loosely formed by three apical enlarged antennomeres, length 0.81 mm; antennomere 1 thick, subcylindrical, 2 slightly longer than wide, 3–5 moniliform, 6–8 moderately transverse, 9–10 each enlarged, much wider than 8, 11 largest, greatly narrowing towards apex.

Pronotum (Fig. 2B) moderately transverse, length 0.39 mm, width 0.52 mm, widest at middle, margins rounded at apical 1/2, basally subparallel; disc slightly convex, narrow median longitudinal sulcus with prominent carinate margins, posteriorly confluent with reduced median antebasal fovea and short mediobasal carina, with pair of shallow lateral longitudinal sulci and short discal carinae; with small marginal spines; with M-shaped transverse antebasal sulcus connecting nude lateral antebasal foveae; with distinct inner pair of basolateral foveae, lacking outer pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part longer than procoxal rests, with small but deep lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra (Fig. 2C) roughly punctate, wider than long, length 0.63 mm, width 0.78 mm; each elytron with three moderately large, asetose basal foveae, inner two close; discal stria shallow and short, extending posteriorly from outer basal fovea to approximately 1/4 of elytral length; humerus weakly and roundly prominent, lacking subhumeral fovea, marginal stria extending from basal 4/5 to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by oblique carinae lateral to mesocoxal cavity; median mesoventral foveae widely separated, originating from shared transverse opening, lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite moderately projecting admesally, with longitudinal sulcus at middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with narrow slit at middle.

Legs short; lacking distinct modifications.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.71 mm, width 0.71 mm. Tergite 1 (IV) approximately 1.2 times as long as 2 (V), with transverse basal sulcus connecting two basolateral foveae, lacking mediobasal foveae and discal carinae, inner marginal carina oblique, complete, outer one thicker, complete; tergite 2 approximately slightly longer than 3 (VI), 4 (VII) moderately elongate, narrowing apically, 2–4 (V–VII) lacking foveae, posterior margin of tergite 4 (Fig. 2D) angularly expanded at middle; tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of basolateral foveae, lacking mediobasal foveae; midlength of sternites 2–5 (IV–VII) gradually shorter, lacking foveae; sternite 6 (VIII) transverse, posterior margin sinuate; sternite 7 (IX) (Fig. 2E) composed of pair of triangular, membranous structures.

Aedeagus (Fig. 2F–H) 0.32 mm long, asymmetric, stout; median lobe with large basal capsule and subtriangular foramen, lacking obvious basoventral projection; ventral stalk apically expanded, truncate at apex; flattened dorsal lobe weakly sclerotized, with long, curved spine at basal margin; parameres reduced to single membranous structure, with sclerotized projection near left edge in ventral view.

Female. Similar to male in external morphology. Head lacking round, disc-like protuberance in triangular vertexal sulcus. Antenna slightly shorter. Each compound eye composed of approximately 50 ommatidia. Measurements (as for male): body length 1.87 mm; length/width of head 0.31/0.44 mm, pronotum 0.37/0.50 mm, elytra 0.51/0.70 mm; abdomen 0.66/0.68 mm; length of antenna 0.73 mm; maximum width of genital complex (Fig. 2I) 0.27 mm.

Comparative notes. This species is morphologically similar to *A. horridula* in sharing similar external morphology, and the male with a disc-like protuberance on the anterior margin of triangular vertexal sulcus. The male of *A. angulata* can be separated by the much larger body size (1.99 mm vs. 1.68 mm), and angulate posterior margin of tergite 4 (VII).

Distribution. South China: Guangdong.

Etymology. The epithet *angulâtus* (-a, -um), meaning 'cornered' or 'angular', is a Latin participle, referring to the angulate posterior margin of the abdomen.

Anama horridula sp. nov.

(Fig. 3)

Chinese common name: 簇毛艾蚁甲

Type material (1 ex.)**. HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Guilin City, Xingan County, Maoer shan, 25°51'28"N, 110°29'04"E, 450–650 m, mixed litter, sifted, 25.vii.2012, Hu & Song leg. [广西桂林猫儿山]' (SNUC).

Diagnosis. *Male*. Body length 1.68 mm; head rounded triangular, as broad as pronotum, frontal rostrum strongly raised, vertex with round, disc-like protuberance near anterior margin of triangular vertexal sulcus; compound eyes large, antenna lacking modifications. Pronotum with laterally carinate median longitudinal sulci and shallow M-shaped transverse antebasal sulcus, with small marginal spines. Elytron roughly punctate, with inner two basal foveae close, discal stria shallow and short, extending posteriorly from outer basal fovea to approximately 1/5 of elytral length, posterolateral margins with subtriangular tufts of setae. Legs simple. Abdomen slightly curved ventrally, lacking mediobasal foveae. Aedeagus asymmetric; median lobe with large basal capsule and oval foramen, ventral stalk protruding apically, dorsal lobe and parameres membranous.

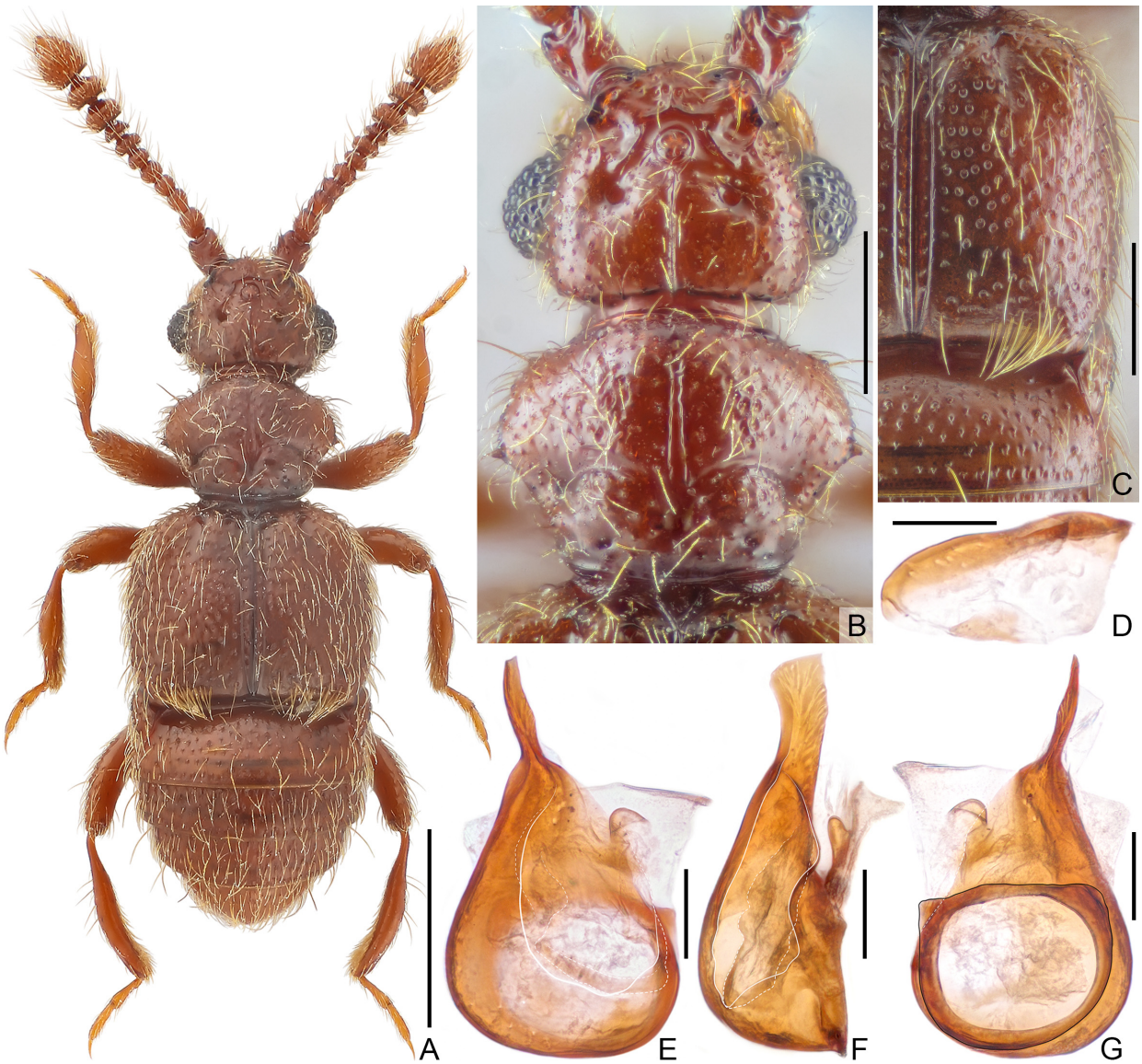

FIGURE 3. Morphology of *Anama horridula* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Right elytron. **D.** Dorsal lobe of aedeagus. **E–G.** Aedeagus, in dorsal (E), lateral (F) and ventral (G) view. Scale bars: 0.5 mm in A; 0.2 mm in B, C; 0.05 mm in D–G.

Description. *Male*. Body (Fig. 3A) length 1.68 mm, dorsal surface of body and legs covered with relatively dense pubescence, with few elongate setae along lateral margin; color reddish-brown, tarsi and mouthparts lighter.

Head (Fig. 3B) rounded triangular, broader than long, length 0.29 mm, width across eyes 0.43 mm; frontal rostrum strongly raised between antennal tubercles; clypeus short, with longitudinal carina at middle, anterior margin carinate; antennal tubercle moderately flattened, posterior margin with lateral postantennal pit; vertex with triangular sulcus connecting asetose vertexal foveae (dorsal tentorial pits), with round, disc-like protuberance near anterior margin, with two small pits at base of protuberance; mediobasal carina long, extending anteriorly from head base to posterior margin of vertexal sulcus; posterolateral margin weakly angulate; ocular-mandibular carina present, fused

with ventral margin of antennal socket. Venter with small gular foveae (posterior tentorial pits) originating from shared opening, thin median carina extending from opening anteriorly to mouthparts. Compound eyes large, each composed of approximately 50 ommatidia. Antenna lacking modifications, length 0.72 mm; antennomere 1 thick, subcylindrical, 2 approximately as long as wide, 3 slightly longer than wide, narrowing basally, 4–6 moniliform, 7–8 moderately transverse, narrowing apically, 9–10 each enlarged, much wider than 8, 11 largest, greatly narrowing towards apex.

Pronotum (Fig. 3B) moderately transverse, length 0.33 mm, width 0.45 mm, widest at middle, margins rounded at apical 1/2, narrowing basally; disc slightly convex, finely punctate, thin median longitudinal sulcus with prominent carinate margins, posteriorly confluent with reduced median antebasal fovea and short mediobasal carina, lacking lateral longitudinal sulci and discal carinae; with small marginal spines; with shallow M-shaped transverse antebasal sulcus connecting nude lateral antebasal foveae; with small inner pair of basolateral foveae, lacking outer pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part longer than procoxal rests, with small but deep lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra (Fig. 3C) roughly punctate, wider than long, length 0.45 mm, width 0.61 mm; each elytron with three small, asetose basal foveae, inner two close; discal stria shallow and short, extending posteriorly from outer basal fovea to approximately 1/5 of elytral length, posterior margin with subtriangular tufts of setae; humerus weakly and roundly prominent, lacking subhumeral fovea, marginal stria extending from basal 4/5 to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by oblique carinae lateral to mesocoxal cavity; median mesoventral foveae widely separated, originating from shared transverse opening, lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite moderately projecting admesally, with longitudinal sulcus at middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with narrow slit at middle.

Legs short; lacking distinct modifications.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.62 mm, width 0.61 mm. Tergite 1 (IV) approximately 1.3 times as long as 2 (V), with transverse basal sulcus connecting two basolateral foveae, lacking mediobasal foveae and discal carinae, inner marginal carina oblique, complete, outer one thicker, complete; tergite 2 slightly shorter than 3 (VI), 4 (VII) elongate, narrowing apically, 2–4 (V–VII) lacking foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of basolateral foveae, lacking mediobasal foveae; midlength of sternites 2–5 (IV–VII) gradually shorter, lacking foveae; sternite 6 (VIII) transverse, posterior margin sinuate; sternite 7 (IX) membranous, consisting of pair of subtriangular lateral plates.

Aedeagus (Fig. 3D–G) 0.23 mm long, asymmetric, stout; median lobe with large basal capsule and slightly oval foramen, basoventral projection short; ventral stalk apically expanded, truncate at apex; flattened dorsal lobe (Fig. 3D) membranous, with weakly sclerotized basal margin; parameres reduced to single membranous structure, with sclerotized projection near left edge in ventral view.

Female. Unknown.

Comparative notes. This species is morphologically similar to *A. angulata* described above, but can be readily separated by the much smaller body size (1.68 mm vs. 1.99 mm), exceptionally long setae on sides of the body and the legs, and posterior margin of the elytra with subtriangular tufts of setae.

Distribution. Southwest China: Guangxi.

Etymology. The specific epithet is combined from '*horridus*' (rough) and '*-ula*', referring to the setose posterior margin of the elytra.

***Anama reticulata* sp. nov.**
(Fig. 4)

Chinese common name: 网纹艾蚁甲

Type material (1 ex.)**. HOLOTYPE: CHINA:** ♂, 'China: Guangdong, Shixing County, Chebaling N. R., 24°40'41.82"N, 114°10'20.42"E, 1067m, 20.vii.2020, Liang Tang leg. [广东省始兴县车八岭自然保护区]' (SNUC).

Diagnosis. *Male*. Body length 1.83 mm; head rounded triangular, slightly narrower than pronotum, rostrum strongly raised, vertex with Y-shaped carinae; compound eyes greatly prominent, extending to head base, antenna short, lacking modifications. Pronotum with deep median longitudinal sulci and shallow M-shaped transverse antebasal sulcus, with distinct marginal spines. Elytron finely punctate, with inner two basal foveae close, discal stria shallow and broad, extending posteriorly from outer basal fovea to approximately 1/3 of elytral length. Legs simple. Abdomen slightly curved ventrally, lacking mediobasal foveae. Aedeagus asymmetric; median lobe with large basal capsule and semicircular foramen, ventral stalk apically expanded and deeply forked, with row of spines near apex, elongate dorsal lobe strongly curved, parameres membranous.

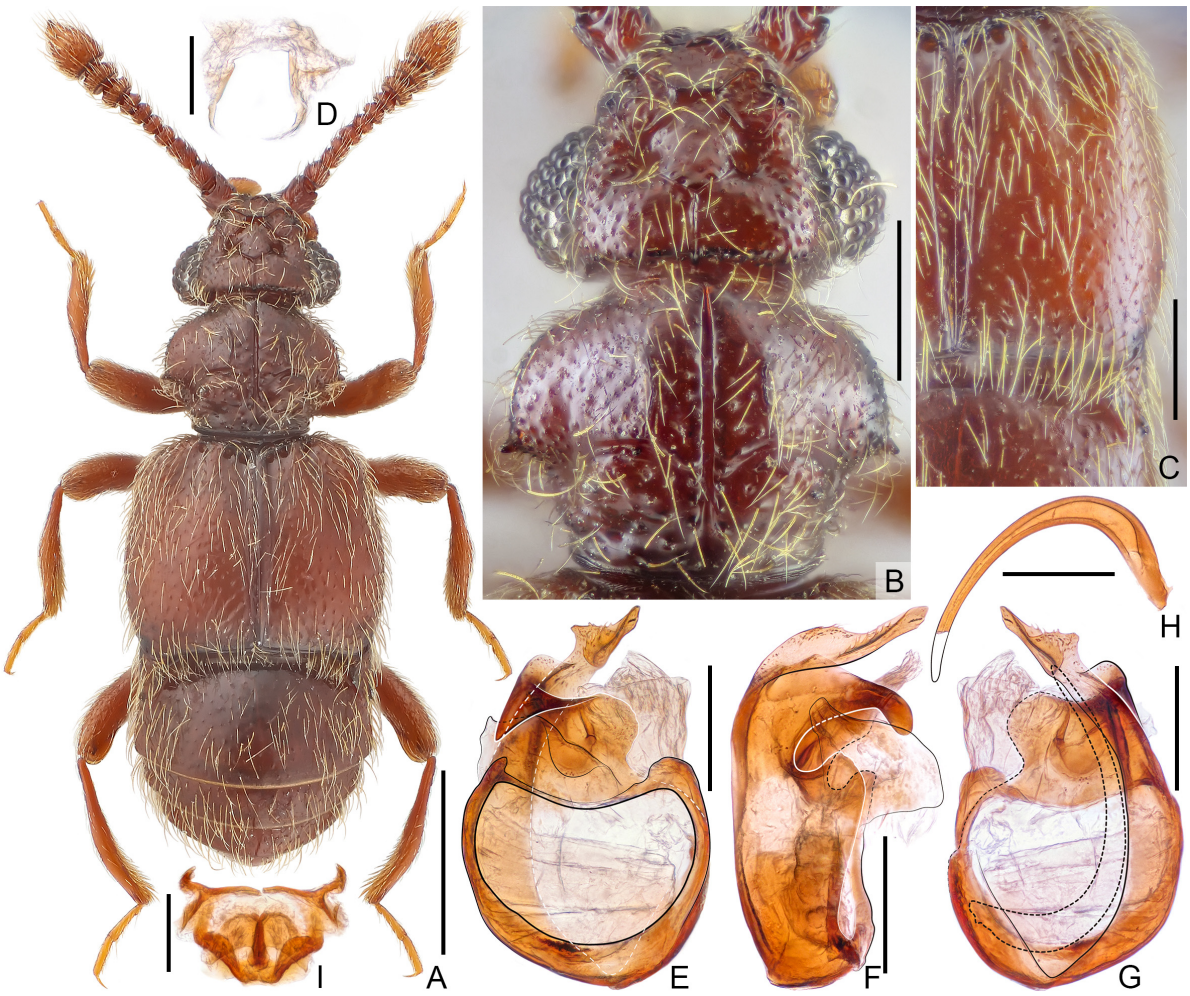

FIGURE 4. Morphology of *Anama reticulata* **sp. nov.** (A–H. Male. I. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Right elytron. **D.** Sternite 7 (IX). **E–G.** Aedeagus, in ventral (E), lateral (F) and dorsal (G) view. **H.** Dorsal lobe of aedeagus. **I.** Genitalia. Scale bars: 0.5 mm in A; 0.2 mm in B, C; 0.1 mm in D.

Description. *Male*. Body (Fig. 4A) length 1.83 mm, dorsal surface of body and legs covered with relatively dense pubescence; color reddish-brown, tarsi and mouthparts lighter.

Head (Fig. 4B) rounded triangular, broader than long, length 0.31 mm, width across eyes 0.46 mm; frontal rostrum strongly raised between antennal tubercles; clypeus short, with longitudinal carina at middle, anterior margin carinate; antennal tubercle moderately flattened, posterior margin with lateral postantennal pit; vertex with Y-shaped carinae connecting large, asetose vertexal foveae (dorsal tentorial pits) and short mediobasal carina; posterolateral margin roundly angulate; ocular-mandibular carina present, fused with ventral margin of antennal socket. Venter with small gular foveae (posterior tentorial pits) originating from shared opening, thin median carina extending from opening anteriorly to mouthparts. Compound eyes greatly prominent, extending to head base, each composed of approximately 55 ommatidia. Antenna short, lacking modifications, length 0.68 mm; antennomere 1 thick, subcylindrical, 2–6 moniliform, 7–8 moderately transverse, narrowing apically, 9–10 each enlarged, much wider than 8, 11 largest, greatly narrowing towards apex.

Pronotum (Fig. 4B) moderately transverse, length 0.39 mm, width 0.50 mm, widest at middle, margins rounded at apical 1/2, basally subparallel; disc slightly convex, finely punctate, median longitudinal sulcus thin but deep, lacking median antebasal fovea and mediobasal carina, discal carinae short, lacking lateral longitudinal sulci; with pair of small antebasal and distinct marginal spines; with shallow M-shaped transverse antebasal sulcus connecting nude lateral antebasal foveae; lacking inner and outer pairs of basolateral foveae. Prosternum with basisternal (precoxal) part longer than procoxal rests, with small but deep lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra (Fig. 4C) finely punctate, wider than long, length 0.55 mm, width 0.71 mm; each elytron with three large, asetose basal foveae, inner two close; broad discal stria shallow and short, extending posteriorly from outer basal fovea to approximately 1/3 of elytral length; humerus weakly and roundly prominent, lacking subhumeral fovea, marginal stria extending from basal 4/5 to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by oblique carinae lateral to mesocoxal cavity; median mesoventral foveae widely separated, originating from shared transverse opening, lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite moderately projecting admesally, with longitudinal sulcus at middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with narrow slit at middle.

Legs short; lacking distinct modifications.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.64 mm, width 0.66 mm. Tergite 1 (IV) greatly elongate, approximately 1.6 times as long as 2 (V) and 3 (VI) combined, with transverse basal sulcus connecting two basolateral foveae, lacking mediobasal foveae and discal carinae, inner marginal carina oblique and short, extending posteriorly to apical 3/7 of tergite 1; outer one thicker, complete; tergite 2 approximately as long as 3, 4 (VII) slightly elongate, narrowing apically, 2–4 (V–VII) lacking foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of basolateral foveae, lacking mediobasal foveae; midlength of sternites 2–5 (IV–VII) gradually shorter, lacking foveae; sternite 6 (VIII) transverse, posterior margin sinuate; sternite 7 (IX) (Fig. 4D) membranous, consisting of pair of subtriangular lateral plates.

Aedeagus (Fig. 4E–H) 0.31 mm long, asymmetric, stout; median lobe with large basal capsule and semicircular foramen, basoventral projection reduced; ventral stalk apically expanded and forked in lateral view, with row of spines near apex; long and curved dorsal lobe (Fig. 4H) strongly sclerotized; parameres reduced to single membranous structure.

Female. Unknown.

Comparative notes. This species is morphologically similar to *A. cephalotes* (Raffray, 1893) from Indonesia in sharing similar Y-shaped carinae on the vertex as well as the long tergite 1 (IV). Only one specimen of *A. cephalotes* is known, and we are unable to determine the sex of the holotype. In addition to the different distributions, they may be separated by the larger body size (1.83 mm vs. 1.50 mm), and the much broader pronotum of the new species.

Distribution. South China: Guangdong.

Etymology. The specific epithet is taken from the Latin adjective '*rçticulâtus* (*-a*, *-um*)' (reticulated, net-like), referring to the Y-shaped carinae of the vertex.

Araneibatrus Yin & Li, 2010

Chinese common name: 蛛蚁甲属

Araneibatrus Yin & Li, 2010 in Yin, Li & Zhao 2010b: 54. Type species: *Araneibatrus gracilipes* Yin & Li, 2010 (original designation).

Tribasodellus Nomura & Yin, 2011 in Yin, Nomura & Zhao 2011b: 37. Type species: *Batrisodellus callissimus* Nomura & Wang, 1991 (original designation). Synonymized by Yin, Jiang & Steiner 2016: 476.

Seven cavernicolous and one epigean species have been described for this genus (Yin *et al*. 2010b; Nomura & Wang 1991; Yin *et al*. 2016; Yin & Zhou 2018), and three of them are distributed in the range of the Nanling Mountain Area. Four new species collected by sifting leaf litter or by FIT are described below.

Key to species of *Araneibatrus* from Nanling Mountain Area (males)

1 Metaventrite modified, with sub-median projection or tubercles 2
- Metaventrite unmodified, prominent admesally, inclined towards middle 4
2 Metaventrite with one distinct spinous projection behind mesocoxal cavity (Fig. 5D), lacking lateral metaventral foveae . . . . . ***A. breviceps* sp. nov.**
- Metaventrite with two sub-median protuberances, with one pair of small lateral metaventral foveae 3
3 Male with strongly modified apical three antennomeres; tergite 1 (IV) lacking mediobasal foveae and discal carinae . . . . . ***A. callissimus* (Nomura & Wang, 1991)**
- Male with elongate apical three antennomeres; tergite 1 (IV) with one pair of small mediobasal . . .foveae and short triangular discal carinae . . . . . ***A. cellulanus* Yin, Jiang & Steiner, 2016**
4 Metatibia with short pencil-like apical tuft of setae 5
- Legs extremely elongate, lacking modifications, metatibia lacking pencil-like apical tuft of . . . . . setae . . . . . ***A. gigas* sp. nov.**
5 Head with complete lateral carinae; compound eyes prominent 6
- Head lacking lateral carinae; compound eyes small . . . . . ***A. gracilipes* Yin & Li, 2010**
6 Head with short mediobasal carina (Fig. 7B); pronotum with dorsal spines longer than antebasal spines (Fig. 7D), aedeagus with reduced ventral stalk (Fig. 7F, G) . . . . . ***A. leigong* sp. nov.**
- Head lacking mediobasal carina (Fig. 8B); pronotum with dorsal spines shorter than antebasal . spines (Fig. 7D), ventral stalk of aedeagus abruptly narrowed at apex (Fig. 8F, G) . . . . . ***A. maoermontis* sp. nov.**

***Araneibatrus breviceps* sp. nov.**
(Fig. 5)

Chinese common name: 短额蛛蚁甲

Type material (2 exx.)**. HOLOTYPE: CHINA:** ♂, 'China: Guangdong, Shaoguan, Ruyuan County, Nanling N. R., 24°55'42.9"N, 113°0'59.05"E, 1020–1250 m, 4.v.2021, sifting, Hu, Lin, Zhou & Li leg. [广东乳源县南岭管理站附近]' (SNUC). **PARATYPE: CHINA:** 1 ♂, same locality, except 'Walkway, 24°55'57"N, 113°00'18"E, mixed forest, leaf litter, wood, sifted, 1220 m, 28.iv.2015, Peng, Tu, Zhou leg.' (SNUC).

Diagnosis. *Male*. Body length approximately 2 mm; head sub-rounded at base, approximately as wide as pronotum; vertex lacking sulcus, with apically forked mediobasal carina extending from head base anteriorly to level of posterior margin of eyes; with pair of small spinose ocular canthi below compound eyes; antenna moderately elongate, lacking distinct modification. Pronotum with shallow median and lateral longitudinal sulci, with short longitudinal discal carinae connecting large discal and antebasal spines. Elytron finely punctate, discal stria reduced. Metaventrite with distinct spinous projection behind the mesocoxal cavities. Mesotibia with small triangular apical spine; metatrochanter with long, apically curved ventral protuberance. Abdomen slightly curved ventrally, with greatly elongate tergite 1 (IV). Aedeagus asymmetric; median lobe with subtriangular foramen; ventral stalk broad at middle and abruptly narrowing apically; dorsal lobe broad, largely membranous near apex; parameres membranous.

Description. *Male*. Body (Fig. 5A) length 1.99–2.02 mm, dorsal surface of body and legs covered with relatively sparse pubescence; color reddish-brown, elytra, tarsi and mouthparts lighter.

Head (Fig. 5B) sub-rounded at base, approximately as long as wide, length 0.43–0.45 mm, width across eyes 0.45–0.48 mm; vertex smooth, slightly convex between antennal tubercles, distinct vertexal foveae (dorsal tentorial pits) asetose, mediobasal carina extending from head base anteriorly to level of posterior margin of eyes, shallowly forked at apex, lateral carina thin, faint, posterolateral margin rounded; frons anteriorly demarcated from clypeus by thin frontal-clypeal ridge, which merged at middle and extending anteriorly to apex of clypeus; clypeus relatively elongate, anterior margin carinate and raised; antennal tubercles moderately raised, posterior margin with small dorsal postantennal pit; ocular-mandibular carina complete, carina branched before eye, extended ventrally and then anteriorly to posteroventral articulation of mandible, with one pair of small spinose ocular canthi below eyes. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, median carina shallow, indistinct. Compound eyes each composed of approximately 40 ommatidia. Antenna relatively elongate, lacking modifications, length 1.18–1.23 mm; antennomere 1 thick, subcylindrical, 2–6 each slightly elongate, 7–8 as long as wide, 9–11 each enlarged, much wider and longer than 8, 11 largest, as long as 9 and 10 combined, sub-fusiform.

FIGURE 5. Morphology of *Araneibatrus breviceps* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Pronotum, in dorsolateral view. **D.** Metaventrite, in lateral view. **E.** Metatrochanter. **F.** Sternite 7 (IX). **G, H.** Aedeagus, in lateral (G) and ventral (H) view. Scale bars: 0.5 mm in A; 0.2 mm in B; 0.1 mm in C–E; 0.05 mm in F–H.

Pronotum (Fig. 5B) slightly longer than wide, length 0.44–0.46 mm, width 0.41–0.44 mm, widest at middle; lateral margins rounded and with small denticles at apical 1/2, convergent apically and parallel at basal 1/4; disc slightly convex, finely punctate, broad median longitudinal sulcus shallow, posteriorly confluent with oval antebasal

impression and short mediobasal carina, with pair of discal longitudinal carinae connecting large discal and antebasal spines (Fig. 5C); lateral longitudinal sulci shallow; lacking marginal spines; lateral antebasal foveae small and asetose; small outer and inner pair of basolateral foveae present. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra finely punctate, wider than long, length 0.65–0.67 mm, width 0.72–0.74 mm; each elytron with three moderately large, asetose basal foveae; discal stria reduced; humerus denticulate, lacking subhumeral fovea, marginal stria extending from nearly basal 1/2 to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by oblique carinae lateral to mesocoxal cavity; median mesoventral foveae widely separated, originating from shared transverse opening, lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite prominent admesally, with distinct spinous projection (Fig. 5D) behind the mesocoxal cavities, lacking lateral metaventral foveae, with well-developed lateral mesocoxal foveae, posterior margin roundly emarginate and with narrow slit at middle.

Legs elongate; mesotibia with small elongate triangular apical spine; metatrochanter (Fig. 5E) with long, apically curved ventral protuberance.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.61–0.63 mm, width 0.63–0.66 mm. Tergite 1 (IV) approximately three times as long as 2 (V), with shallow basal sulcus and setose basolateral foveae, lacking mediobasal foveae and discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), each with one pair of small basolateral foveae and thin marginal carinae, 4 (VII) shorter than tergites 2 and 3 combined, with one pair of small basolateral foveae, lacking marginal carinae; tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3 and 4 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 5F) composed of pair of triangular, membranous structures.

Aedeagus (Fig. 5G, H) 0.33 mm long, asymmetric, elongate; median lobe with large basal capsule and subtriangular foramen, basoventral projection short; ventral stalk in dorsal view broad at middle and abruptly narrowing apically; dorsal lobe broad and flattened, largely membranous near apex; parameres reduced to single membranous structure.

Female. Unknown.

Comparative notes. This species can be readily recognized and separated from all congeners by the relatively short antennae and legs as well as the male metaventrite with single elongate spinous projection behind the mesocoxal cavities.

Distribution. South China: Guangdong.

Etymology. The specific epithet is a combination of '*brevis*' (short, small) and '*-ceps*' (-headed), referring to the relatively short head of the species.

Araneibatrus callissimus (Nomura & Wang, 1991)

Chinese common name: 美蛛蚁甲

Batrisodellus callissimus Nomura & F.-X. Wang, 1991: 77. Type locality: Zhuyan Cave (= Liangyan Cave), Caoyangxiang, Guilin City.
Tribasodellus callissimus; Yin, Nomura & Zhao 2011b: 37.
Araneibatrus callissimus; Yin, Jiang & Steiner 2016: 481.

Distribution. Southwest China: Guangxi.

Remarks. *Araneibatrus callissimus* was often collected from the undersides of stones and beneath straw in several limestone caves in Guilin City (Nomura & Wang 1991: 82), and can be separated from all congeners by the abdominal tergite 1 (IV) with only four basolateral foveae (Yin *et al*. 2016: 486).

Araneibatrus cellulanus Yin, Jiang & Steiner, 2016

Chinese common name: 隐蛛蚁甲

Araneibatrus cellulanus Yin, Jiang & Steiner, 2016: 485. Type locality: China: Guangdong, Yangshan Hsien, Chengjia Town, Dabei Vill., Mine station cave, 24°46'27.85"N, 112°48'15.60"E, 138 m.

Distribution. South China: Guangdong.

Remarks. Adults were collected beside a pool inside a cave about 130 m from the entrance. This species has unmodified antennal clubs, the pronotum lacks discal and antebasal tubercles, the metaventrite has a pair of distinct sub-median protuberances, the mesotibia has a small apical spine, the metatrochanter has an apically broad ventral projection, and the aedeagus is relatively stout.

Araneibatrus gigas sp. nov.

(Fig. 6)

Chinese common name: 巨蛛蚁甲

Type material (1 ex.). **HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Guilin City, Huaping N. R., Yunxi Valley, 25°33'44.76"N, 109°56'17.06"E, 1350 m, 21-22.iv.2021, FIT, Yin, Zhang, Pan & Shen leg. [广西花坪云溪谷飞阻]' (SNUC).

Diagnosis. *Male*. Body length approximately 2.5 mm; head elongate, approximately as wide as pronotum; vertex lacking sulcus, with indistinct, short mediobasal carina; with disconnected lateral carina; antenna extremely elongate, lacking distinct modification. Pronotum with shallow median and lateral longitudinal sulci, with elongate discal and antebasal spines and short discal longitudinal carinae. Discal stria and subhumeral fovea of elytron reduced. Legs simple, extremely elongate. Abdomen slightly curved ventrally, with greatly elongate tergite 1 (IV). Aedeagus asymmetric; median lobe stout, with large semicircular foramen; ventral stalk and dorsal lobe narrowing apically, deeply forked at apical portion; parameres membranous.

Description. *Male*. Body (Fig. 6A) length 2.52 mm, dorsal surface of body covered with sparse pubescence; color reddish-brown, elytra, tarsi and mouthparts lighter.

Head (Fig. 6B) gradually narrowing towards base, much longer than wide, length 0.56 mm, width across eyes 0.47 mm; vertex finely punctate, slightly convex between antennal tubercles, small but distinct vertexal foveae (dorsal tentorial pits) asetose, reduced mediobasal carina short, extending anteriorly from head base to approximately basal 1/7 head length; lateral carina distinct, disconnect at middle, posterolateral margin narrowing basally; frons anteriorly demarcated from clypeus by thin frontal-clypeal ridge, which merged at middle and extending anteriorly to near apex of clypeus; clypeus greatly elongate, anterior margin carinate and raised; antennal tubercles moderately raised, posterior margin with lateral postantennal pit; ocular-mandibular carina complete, carina branched before eye, extended ventrally and then anteriorly to posteroventral articulation of mandible, lacking ocular canthi. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, median carina shallow, indistinct. Compound eyes each composed of approximately 40 ommatidia. Antenna strongly elongate, lacking modifications, length 2.10–2.12 mm; antennomere 1 thick, subcylindrical, antennomeres each markedly elongate, 8 smallest, 9–11 (Fig. 6C) each enlarged, much wider and longer than 8, 10 slightly wider than 9, 11 largest, as long as 9 and 10 combined, asymmetrically narrowed at apex.

Pronotum (Fig. 6B) elongate, length 0.53 mm, width 0.45 mm, widest at middle; lateral margins rounded at middle, convergent apically and parallel at basal 1/4; disc slightly convex, smooth, broad median longitudinal sulcus shallow, posteriorly confluent with oval antebasal impression and short mediobasal carina, with one pair of large dorsal spines, discal longitudinal carinae short, posteriorly connecting long antebasal spines (Fig. 6D); lateral longitudinal sulci shallow; lacking marginal spines; lateral antebasal foveae small and asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

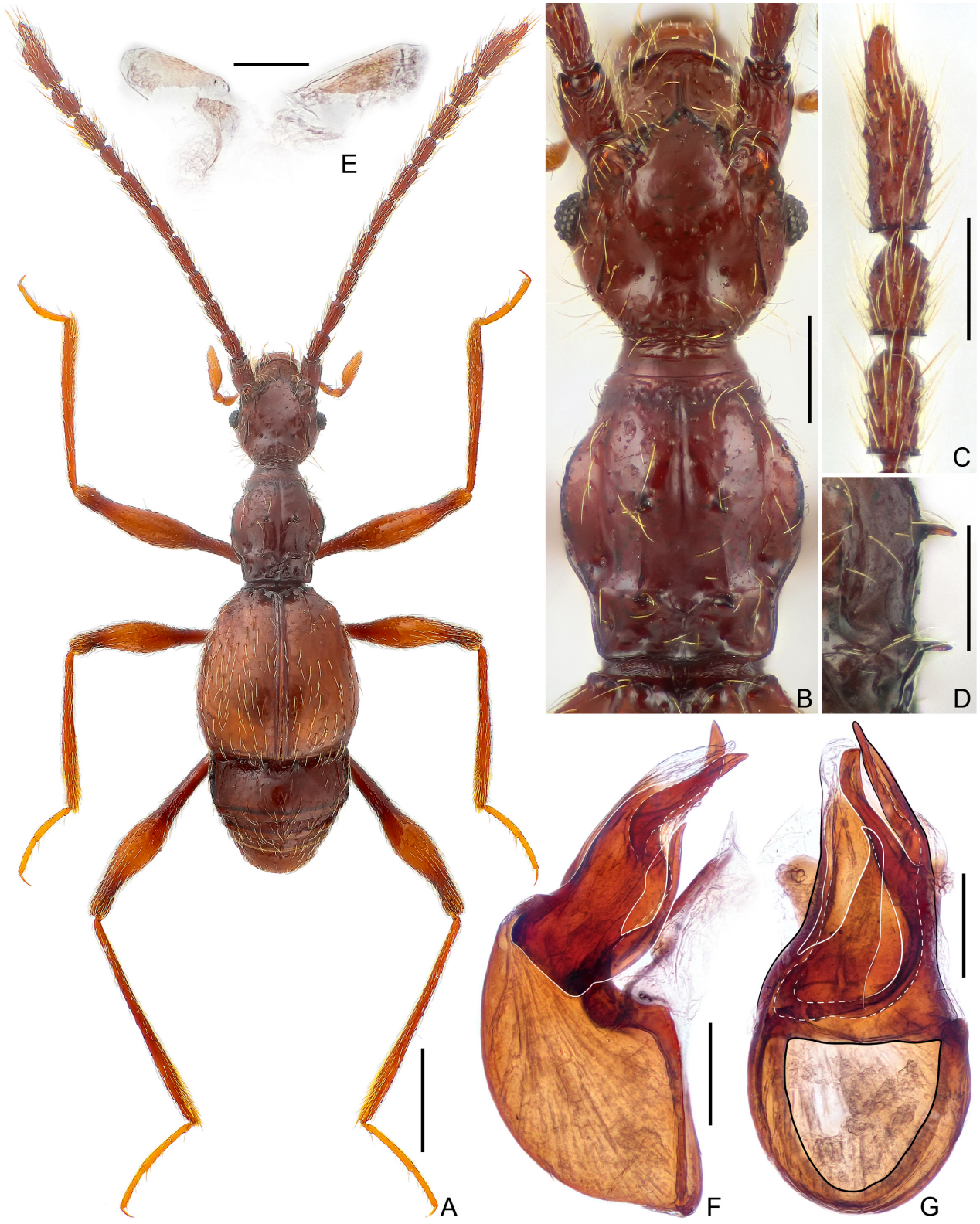

FIGURE 6. Morphology of *Araneibatrus gigas* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 9–11. **D.** Pronotum, in dorsolateral view. **E.** Sternite 7 (IX). **F, G.** Aedeagus, in lateral (F) and ventral (G) view. Scale bars: 0.5 mm in A; 0.2 mm in B–D; 0.1 mm in E–G.

Elytra approximately as long as wide, length 0.81 mm, width 0.79 mm; each elytron with three small but distinct, asetose basal foveae; discal stria reduced; humerus roundly prominent, lacking subhumeral fovea, marginal stria extending from nearly basal 1/2 to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by oblique carinae lateral to mesocoxal cavity; median mesoventral foveae widely separated, originating from shared transverse opening, lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and small lateral metaventral foveae, posterior margin roundly emarginate and with narrow slit at middle.

Legs extremely elongate, lacking modifications.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.71 mm, width 0.69 mm. Tergite 1 (IV) approximately 1.7 times as long as 2 (V) and 3 (VI) combined, with broad basal sulcus and two pairs of setose basolateral foveae, with one pair of mediobasal foveae and short, triangular discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), each with one pair of basolateral foveae and thin marginal carinae, 4 (VII) shorter than tergites 2 and 3 combined, with one pair of small basolateral foveae; tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3 and 4 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 6E) composed of pair of triangular, membranous structures.

Aedeagus (Fig. 6F, G) 0.48 mm long, asymmetric, elongate; median lobe with large basal capsule and semicircular foramen, basoventral projection reduced; ventral stalk narrowing apically and forked deeply; dorsal lobe stout, forked near base and narrowing apically, with membranous structure near apex; parameres reduced and forming single membranous structure.

Female. Unknown.

Comparative notes. *Araneibatrus gigas* has a relatively larger body size than the other species from Nanling, with body length over 2.5 mm. The aedeagus is most similar to that of *A. gracilipes* from Guangdong, but these two species are clearly separated by the larger body size (approximately 2.5 mm vs. 2.3 mm), and presence of a distinct median carina on the clypeus of *A. gigas*.

Distribution. South China: Guangxi.

Etymology. The epithet is taken from the Greek word 'Gígas' (giant), referring to the large body size of this species.

Araneibatrus gracilipes Yin & Li, 2010

Chinese common name: 长足蛛蚁甲

Araneibatrus gracilipes Z.-W. Yin & L.-Z. Li, 2010b: 55. Type locality: China: Guangdong Province, Nan'ling N. R., No. 6 Forest-Road, 24°56'34"N, 113°01'26"E, alt. 1388 m.

Additional material examined (6 exx.)**.** 4 ♂♂, 'China: Guangdong, Shaoguan, Ruyuan County, Nanling N. R., 24°55'42.9"N, 113°0'59.05"E, 1180–1250 m, 6.v.2021, sifting, Hu, Lin, Zhou & Li leg. [广东韶关市乳源县南岭]' (SNUC); 2 ♂♂, same collectors and locality except '24°56'16.20"N, 113°0'8.43"E, 980–1350 m, 1.v.2021,' (SNUC).

Distribution. South China: Guangdong.

Remarks. The new material was also collected from leaf litter at Nanling N. R., which suggests that this species may live an epigean lifestyle.

Araneibatrus leigong sp. nov.

(Fig. 7)

Chinese common name: 雷公蛛蚁甲

Type material (3 exx.)**. HOLOTYPE: CHINA:** ♂, 'China: Guizhou, Leishan, Leigong Mt., Getou Village, 26°23'52.26"N, 108°15'33.62"E, 1100 m, 2.v.2021, Tang, Peng, Cai & Song leg. [贵州雷山县雷公山格头村]' (SNUC). **PARATYPES: CHINA:** 2 ♂♂, same data as that of holotype (SNUC).

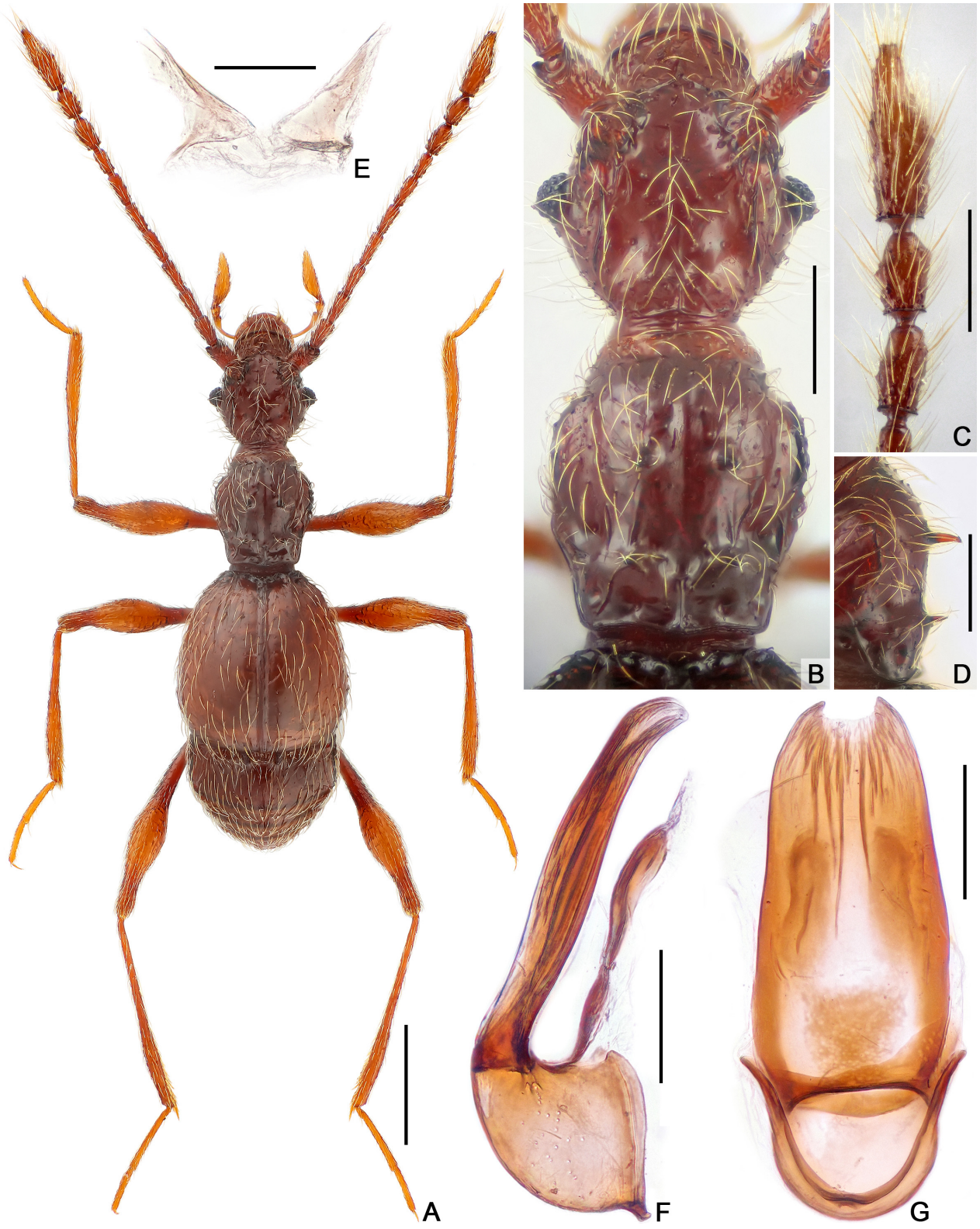

FIGURE 7. Morphology of *Araneibatrus leigong* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 9–11. **D.** Pronotum, in dorsolateral view. **E.** Sternite 7 (IX). **F, G.** Aedeagus, in lateral (F) and ventral (G) view. Scale bars: 0.5 mm in A; 0.2 mm in B–D; 0.1 mm in E–G.

Diagnosis. *Male*. Body length approximately 2.2 mm; head gradually narrowing towards base, slightly wider than pronotum; vertex lacking sulcus, with short, apically forked mediobasal carina; with pair of small spinose ocular canthi below compound eyes; antenna elongate, lacking distinct modification. Pronotum with shallow median

and lateral longitudinal sulci, with short longitudinal discal carinae fused with long antebasal spines, dorsal spines much longer than antebasal spines. Discal stria and subhumeral fovea of elytron reduced. Legs elongate, metatibia with short pencil-like apical tuft of setae. Abdomen slightly curved ventrally, with greatly elongate tergite 1 (IV). Aedeagus symmetric; median lobe with stout basal capsule, foramen with U-shaped posterior margin; ventral stalk reduced; dorsal lobe long, flattened, apex broadly emarginate; parameres membranous.

Description. *Male*. Body (Fig. 7A) length 2.16–2.23 mm, dorsal surface of body covered with sparse pubescence; color reddish-brown, legs and mouthparts lighter.

Head (Fig. 7B) gradually narrowing towards base, as long as wide, length 0.47 mm, width across eyes 0.46–0.47 mm; vertex finely punctate, slightly convex between antennal tubercles, small but distinct vertexal foveae (dorsal tentorial pits) asetose, apically forked mediobasal carina short, extending anteriorly from head base to approximately basal 1/10 head length; lateral carina distinct, disconnect at middle, posterolateral margin narrowing basally; frons anteriorly demarcated from clypeus by thin frontal-clypeal ridge, which merged at middle and slightly extending forward; clypeus moderately elongate, anterior margin carinate and raised; antennal tubercles raised, posterior margin with lateral postantennal pit; ocular-mandibular carina complete, carina branched before eye, extended ventrally and then anteriorly to posteroventral articulation of mandible, with one pair of small spinose ocular canthi below eyes. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, median carina shallow, indistinct. Compound eyes each composed of approximately 40 ommatidia. Antenna strongly elongate, lacking modifications, length 1.63–1.65 mm; antennomere 1 thick, subcylindrical, antennomeres each markedly elongate, 8 smallest, 9–11 (Fig. 7C) each enlarged, much wider and longer than 8, 10 slightly wider than 9, 11 largest, as long as 9 and 10 combined, asymmetrically narrowed at apex.

Pronotum (Fig. 7B) elongate, length 0.48–0.49 mm, width 0.41–0.43 mm, widest at middle; lateral margins rounded at middle, convergent apically and basally; disc slightly convex, smooth, broad median longitudinal sulcus shallow, posteriorly confluent with short mediobasal carina, with one pair of large dorsal spines, discal longitudinal carinae short, posteriorly connecting slightly smaller antebasal spines (Fig. 7D); lateral longitudinal sulci shallow; lacking marginal spines; lateral antebasal foveae small and asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to near apex of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra as long as wide, length 0.71 mm, width 0.71 mm; each elytron with three small, asetose basal foveae; discal stria reduced; humerus roundly prominent, lacking subhumeral fovea, marginal stria extending from nearly basal 1/2 to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by oblique carinae lateral to mesocoxal cavity; median mesoventral foveae widely separated, originating from shared transverse opening, lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and small lateral metaventral foveae, posterior margin roundly emarginate and with narrow slit at middle.

Legs extremely elongate, lacking modifications, metatibia with short pencil-like apical tuft of setae.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.65–0.68 mm, width 0.61–0.62 mm. Tergite 1 (IV) approximately 1.5 times as long as 2 (V) and 3 (VI) combined, with broad basal sulcus and two pairs of setose basolateral foveae, with one pair of mediobasal foveae and short , triangular discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), each with one pair of basolateral foveae and thin marginal carinae, 4 (VII) shorter than tergites 2 and 3 combined, with one pair of small basolateral foveae; tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3 and 4 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 7E) composed of pair of triangular, membranous structures.

Aedeagus (Fig. 7F, G) 0.39 mm long, dorso-ventrally symmetric, elongate; median lobe with large basal capsule, foramen with U-shaped posterior margin, basoventral projection short but distinct; ventral stalk reduced; dorsal lobe long and flattened, apex broadly emarginate, convex at middle; parameres reduced and forming single membranous structure.

Female. Unknown.

Comparative notes. This species is morphologically similar to *A. maoermontis* and *A. gigas* in sharing similar external morphology, and pronotum with one pair of discal spines and antebasal spines. *Araneibatrus leigong* can be separated by the small but distinct spinose ocular canthi below eyes (ocular canthi lacking in the other two species), pronotum with discal spines longer than antebasal spines (approximately same length in *A. gigas* and discal spines shorter than antebasal spines in *A. maoermontis*), and a reduced ventral stalk of the aedeagus (distinctly present in other two species).

Distribution. Southwest China: Guizhou.

Etymology. This species is named after Leigong Mountain, where its type locality is situated.

***Araneibatrus maoermontis* sp. nov.**
(Fig. 8)

Chinese common name: 猫儿山蛛蚁甲

Type material (5 exx.)**. HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Xingan County, Maoer Mt., Antangping. 25°54'44.07"N, 110°27'37.66"E, 1660 m, 6.v.2021, sifting. Yin, Zhang, Pan & Shen leg. [广西兴安县猫儿山庵堂坪]' (SNUC). **PARATYPES: CHINA:** 2 ♂♂, same collectors and also from Maoer Mt., except 'nr. Hong-jun-ting. 25°54'15.28"N, 110°28'03.66"E, 1400–1500 m, 7.v.2021, [广西兴安县猫儿山红军亭]'; 2 ♂♂, same collectors and also from Maoer Mt., except 'Watchtower. 25°53'43.90"N, 110°28'38.27"E, 1350 m, 8.v.2021, [广西兴安县猫儿山瞭望塔]' (SNUC).

Diagnosis. *Male*. Body length approximately 2.1 mm; head sub-rounded at base, slightly wider than pronotum; vertex lacking sulcus and mediobasal carina; lateral carina forked at middle, respectively extending to anterior and posterior margin of antennal tubercle; lacking ocular canthi; antenna moderately elongate, lacking distinct modification. Pronotum with shallow median and lateral longitudinal sulci, lacking longitudinal discal carinae; with distinct dorsal spines and much longer antebasal spines. Discal stria and subhumeral fovea of elytron reduced. Legs elongate, metatibia with short pencil-like apical tuft of setae. Abdomen slightly curved ventrally, with greatly elongate tergite 1 (IV). Aedeagus nearly asymmetric; median lobe with subtriangular foramen; ventral stalk abruptly narrowed at apex; dorsal lobe with roundly concave posterior margin, apical part protruding and curved; parameres membranous.

Description. *Male*. Body (Fig. 8A) length 2.06–2.09 mm, dorsal surface of body covered with sparse pubescence; color reddish-brown, elytra, tarsi and mouthparts lighter.

Head (Fig. 8B) sub-rounded at base, approximately as long as wide, length 0.45–0.46 mm, width across eyes 0.44–0.45 mm; vertex finely punctate, slightly convex between antennal tubercles, small but distinct vertexal foveae (dorsal tentorial pits) asetose, lacking mediobasal carina; lateral carina thin, forked at middle, respectively extending to anterior and posterior margin of antennal tubercle, posterolateral margin rounded; frons anteriorly demarcated from clypeus by thin frontal-clypeal ridge, which merged at middle and slightly extending forward; clypeus moderately elongate, anterior margin carinate and raised; antennal tubercles weakly raised, posterior margin with small lateral postantennal pit; ocular-mandibular carina complete, carina branched before eye, extended ventrally and then anteriorly to posteroventral articulation of mandible, lacking ocular canthi. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, median carina shallow, indistinct. Compound eyes each composed of approximately 35 ommatidia. Antenna strongly elongate, lacking modifications, length 1.46–1.49 mm; antennomere 1 thick, subcylindrical, antennomeres each markedly elongate, 8 smallest, 9–11 (Fig. 8C) each enlarged, much wider and longer than 8, 10 slightly wider than 9, 11 largest, as long as 9 and 10 combined, asymmetrically narrowed at apex.

Pronotum (Fig. 8B) elongate, length 0.45–0.47 mm, width 0.41–0.44 mm, widest at middle; lateral margins rounded and with small denticles at apical 1/2, convergent apically and basally; disc slightly convex, smooth, median longitudinal sulcus shallow, posteriorly confluent with short mediobasal carina, with one pair of distinct dorsal spines and much longer antebasal spines (Fig. 8D), lacking discal longitudinal carinae; lateral longitudinal sulci shallow; lacking marginal spines; lateral antebasal foveae small and asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

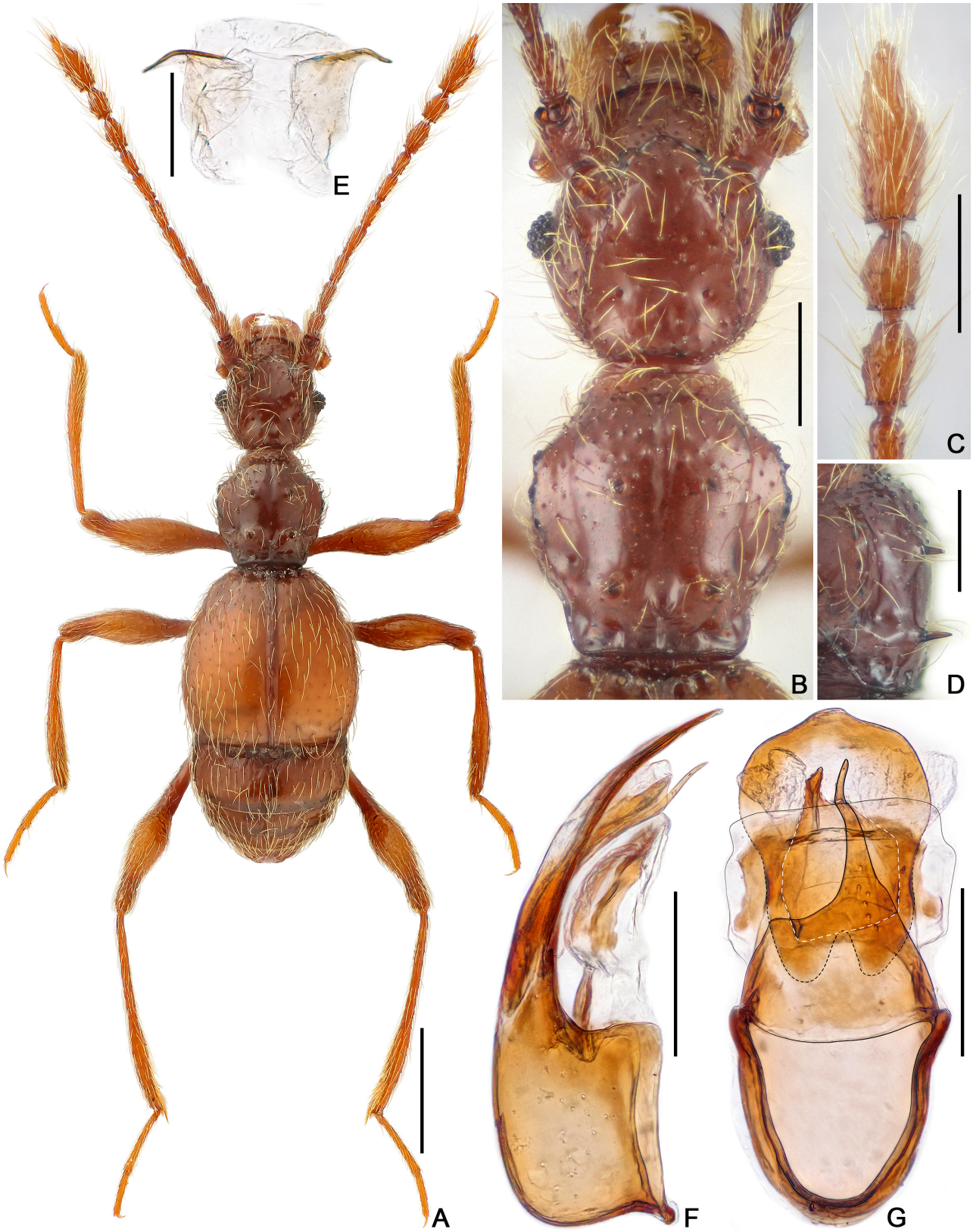

FIGURE 8. Morphology of *Araneibatrus maoermontis* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 9–11. **D.** Pronotum, in dorsolateral view. **E.** Sternite 7 (IX). **F, G.** Aedeagus, in lateral (F) and ventral (G) view. Scale bars: 0.5 mm in A; 0.2 mm in B–D; 0.1 mm in E–G.

Elytra as long as wide, length 0.69 mm, width 0.69 mm; each elytron with three moderately large, asetose basal foveae; discal stria reduced; humerus roundly prominent, lacking subhumeral fovea, marginal stria extending from nearly basal 1/2 to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by oblique carinae lateral to mesocoxal cavity; median mesoventral foveae widely separated, originating from shared transverse opening, lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and small lateral metaventral foveae, posterior margin roundly emarginate and with narrow slit at middle.

Legs extremely elongate, lacking modifications, metatibia with short pencil-like apical tuft of setae.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.6 mm, width 0.61 mm. Tergite 1 (IV) slightly longer than 2 (V) and 3 (VI) combined, with broad basal sulcus and two pairs of setose basolateral foveae, with one pair of mediobasal foveae and short , triangular discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), each with one pair of basolateral foveae and thin marginal carinae, 4 (VII) shorter than tergites 2 and 3 combined, with one pair of small basolateral foveae; tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3 and 4 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 8E) composed of pair of triangular, membranous structures.

Aedeagus (Fig. 8F, G) 0.32 mm long, dorso-ventrally nearly symmetric, elongate; median lobe with large basal capsule and subtriangular foramen, basoventral projection short but distinct; ventral stalk markedly expanded basally and abruptly narrowed at apex; dorsal lobe broad, posterior margin roundly concave and with deep split at middle, apical part protruding and curved; parameres reduced and forming single membranous structure.

Female. Unknown.

Comparative notes. This species is morphologically similar to *A. breviceps* from Guangdong in sharing similar relatively short head and pronotum. *Araneibatrus maoermontis* can be separated by the much longer antennae and legs (relatively shorter in *A. breviceps*), and the male metaventrite and metatrochanters lack modifications (metaventrite with single elongate spinous projection and metatrochanter with long, apically curved ventral protuberance in *A. breviceps*).

Distribution. Southwest China: Guangxi.

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

Batrisodes Reitter, 1882

Chinese common name: 鬼蚁甲属

Alytus Hampe, 1863: 285. Type species: *Trichonyx adnexus* Hampe, 1863: 285 (monotypy). Nomen oblitum, see discussion in Newton & Chandler 1989: 8.

Batrisodes Reitter, 1882: 134; Park 1947 (North American species), 1948 (checklist of world species); Chandler 1997 (catalog of North American species); Besuchet 1981 (Palaearctic species); Newton & Chandler 1989 (discussion of type species, catalog); Nomura 2007 (Japanese species). Type species: *Batrisus delaporti* Aubé, 1833 (subsequent designation by Lucas, 1920: 135).

Batrisodinus Jeannel, 1950: 357. Type species: *Batrisus oculatus* Aubé, 1833 (original designation). Synonymized by Besuchet 1981: 276.

Batrisodellus Jeannel, 1958: 37. Type species: *Batrisodes nipponensis* Raffray, 1909 (original designation). Synonymized by Yin *et al*. 2015a: 53.

The genus *Batrisodes* was placed in the *Batrisus* Aubé group according to Nomura and Idris (2003). Members can be separated from the *Tribasodes* Jeannel group by the pronotum lacking marginal spines, the metatrochanters lacking modifications, and simple aedeagus lacking a dorsal lobe. However, the aedeagi of two Tibetan species as well as two of the new species described below possess a distinct dorsal lobe, suggesting a close relationship between the *Batrisus* and *Tribasodes* group. Similarly well-developed aedeagi are also found in three Palaearctic species that were termed '*B. circassicus* Reitter group' by Besuchet (1981). This is a large genus with over 160 species mainly

found in the Holarctic Region, and penetrating into the northern Oriental realm. More than 20 species have been recently added to the Chinese fauna, and nine new species are described below.

Key to species of *Batrisodes* from Nanling Mountain Area (males)

1 Antennae and legs distinctly robust; femora greatly broadened to middle (Figs. 9A, 16A; Yin *et al*. 2015a: fig. 1B) 2
- Antennae and legs much less robust; femora normally broadened to middle 4
2 Abdomen strongly elongate, weakly narrowing towards apex (Fig. 16A); aedeagus extremely elongate and greatly curved ventrally (Fig. 16G, H) . . . . . ***B. titanius* sp. nov.**
- Abdomen gradually narrowing towards apex, aedeagus moderately elongate (Fig. 9I–K; Yin *et al*. 2015a: fig. 3E–G) 3
3 Dorsal surface of body covered with dense large punctures (Fig. 9A, B); protibia widely protruding at middle of ventral margin (Fig. 9F) . . . . . ***B. amphion* sp. nov.**
- Dorsal surface of body finely punctate; protibia simple . . . . . ***B. bamian* Yin, Shen & Li, 2015**
4 Tergite 1 (IV) lacking inner marginal carinae; sternite 7 (IX) with asymmetric, elongate basal part and semicircular, well-sclerotized apical part 5
- Tergite 1 (IV) with oblique inner marginal carinae; sternite 7 (IX) membranous or weakly sclerotized 6
5 Head with moderately elongate clypeus (Fig. 17B), ocular canthi indistinct; disc of pronotum -finely punctate . . . . . ***B. tribasoditiformis* sp. nov.**
- Head with transverse clypeus and spinose ocular canthi (Fig. 15B); disc of pronotum roughened . ***B. streptoaedeagus* sp. nov.**
6 Head with greatly modified frons and clypeus (Fig. 14B) . . . . . ***B. shun* sp. nov.**
- Head with simple frons and clypeus, lacking modifications 7
7 Antennae with distinctly expanded antennomeres 3–5, much wider than antennomeres 6–9, antennomere 11 lacking modification . . . . . ***B. grossus* Jiang & Yin, 2017**
- Antennae with normal antennomeres 3–5, antennomere 11 with projection at base 8
8 Antennomere 1 extremely elongate at apex of inner lateral margin (Fig. 11C); tergite 1 (IV) . . . . . lacking basal sulcus and basolateral foveae . . . . . ***B. capreolus* sp. nov.**
- Antennomere 1 subcylindrical, lacking modifications; tergite 1 (IV) with basal sulcus separated by one pair of mediobasal and two pairs of basolateral foveae 9
9 Antennomeres 7 and 9 protruding at lateral margin (Fig. 12C); pronotum with roundly angulate lateral margins at its widest point (Fig. 12B); aedeagus lacking endophallus . . . . . ***B. latilobus* sp. nov.**
- Antennomeres 7 and 9 lacking modifications, subcylindrical; pronotum with round lateral margins; aedeagus with endophallus 10
10 Head narrower than pronotum (Fig. 13B); pronotum lacking antebasal impression (Fig. 13B); abdomen longer than elytra . . . . . ***B. microceps* sp. nov.**
- Head slightly wider than pronotum (Fig. 10B); pronotum with large antebasal impression (Fig. 10B); abdomen much shorter than elytra . . . . . ***B. breviventris* sp. nov.**

Batrisodes amphion sp. nov.

(Fig. 9)

Chinese common name: 安氏鬼蚁甲

Type material (1 ex.). **HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Guilin City, Huaping N. R., Yunxi Valley, 25°34'00.62"N, 109°56'19.59"E, 1460–1550 m, 23.iv.2021, shifting, Yin,
Zhang, Pan & Shen leg. [广西花坪云溪谷]' (SNUC).

Diagnosis. *Male*. Body length approximately 3.0 mm, dorsal surface covered with dense punctures; head sub-rectangular at base, as wide as pronotum; vertex with short transverse impression at apex, asetose vertexal foveae large, lacking mediobasal carina and lateral carina; antenna with modified antennomeres 9–11, 9 strongly protruding at lateral margin, 11 with distinct longitudinal projection at base. Pronotum with thin median and shallow lateral longitudinal sulci, with large median antebasal fovea. Discal stria of elytron broadly and shallowly present for short distance posterior to outer basal fovea. Legs stout, protibia and mesotibia widely protruding at middle of ventral margin; mesofemur with curved, long projection at basal 1/3; mesotibia with another small, blunt spine at middle; metatibia slightly curved at apical 1/3. Abdomen slightly curved ventrally, with elongate tergite 1 (IV). Aedeagus asymmetric; median lobe stout, large foramen with lateral margin widely expanded; ventral stalk abruptly narrowed at middle and then narrowing towards apex, with dense setae on one side; dorsal lobe reduced; parameres membranous.

FIGURE 9. Morphology of *Batrisodes amphion* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 4–11, in lateral view. **D.** Antennomeres 9–11, in ventral view. **E.** Metaventrite. **F.** Protibia. **G.** Mesofemur. **H.** Mesotibia. **I–K.** Aedeagus, in ventral (I), lateral (J) and dorsal (K) view. Scale bars: 0.5 mm in A; 0.3 mm in B; 0.2 mm in C–K.

Description. *Male*. Body (Fig. 9A) length 3.02 mm, dorsal surface of body covered with short pubescence and dense large punctures; color dark reddish-brown, elytra, tarsi and mouthparts slightly lighter.

Head (Fig. 9B) sub-rectangular at base, as long as wide, length 0.65 mm, width across eyes 0.65 mm; vertex roughly punctate, slightly convex between antennal tubercles, with short and smooth transverse impression at apex, large vertexal foveae (dorsal tentorial pits) asetose, lateral vertexal carina and mediobasal carina reduced; antennal tubercles moderately raised; frons impressed at middle, confluent with clypeus; clypeus finely punctate, its anterior

margin carinate and raised; ocular-mandibular carina complete, carina branched before eye, extended ventrally and then anteriorly to posteroventral articulation of mandible, lacking ocular canthi. Venter with gular foveae (posterior tentorial pits) originating from shared oval opening, median carina extending from opening anteriorly to mouthparts. Compound eyes each composed of approximately 70 ommatidia. Antenna (Fig. 9C) length 1.58 mm; antennomere 1 thick, subcylindrical, 2–8 moniliform, 2 and 8 smaller than other antennomeres, 5–8 slightly curved, 9–11 (Fig. 9D) highly modified, 9 strongly protruding at lateral margin, 10 with long hair and short carina on ventral view, 11 largest, broad and weakly curved apically, with distinct longitudinal protuberance at base.

Pronotum (Fig. 9B) approximately as long as wide, length 0.68 mm, width 0.65 mm, widest at middle; lateral margins rounded; disc slightly convex, with dense large punctures, laterally carinate median longitudinal sulcus thin, posteriorly confluent with large median antebasal fovea and narrow mediobasal carina, lacking marginal, discal or antebasal spines; lateral longitudinal sulci shallow, with asetose lateral antebasal foveae; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra slightly wider than long, length 0.96 mm, width 1.09 mm; each elytron with three large, asetose basal foveae; discal stria only broadly and shallowly present for short distance posterior to outer basal fovea; humerus denticulate, subhumeral fovea present, marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by oblique carinae lateral to mesocoxal cavity; setose median mesoventral foveae slightly separated, originating from shared oval opening, setose lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, with dense, long setae between lateral mesocoxal and metaventral foveae (Fig. 9E), posterior margin lacking slit at middle.

Legs highly modified, distinctly robust. Protibia (Fig. 9F) widely protruding at middle of ventral margin and covered with dense, long setae at apical 1/2; mesofemur (Fig. 9G) with curved, long projection at basal 1/3; mesotibia (Fig. 9H) with small, blunt spine and broad projection at middle, with dense setae at apex; metatibia slightly curved at apical 1/3 and covered with dense setae.

Abdomen slightly wider than long, widest at lateral margins of tergite 1 (IV), length 0.94 mm, width 1.09 mm. Tergite 1 (IV) approximately 1.8 times as long as 2 (V), with pair of short, triangular discal carinae, basal sulcus separated by one pair of mediobasal and two pairs of basolateral foveae, with thin but distinct oblique inner carina and thick outer marginal carina; tergite 2 (V) slightly longer than 3 (VI), each with one pair of basolateral foveae and inner marginal carinae, 4 (VII) slightly longer than 3, with one pair of small basolateral foveae, oblique inner carina forming small denticle at lateral margin; tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3 and 4 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) membranous.

Aedeagus (Fig. 9I–K) 0.7 mm long, dorso-ventrally asymmetric, elongate; median lobe with stout basal capsule, large foramen with lateral margin widely expanded, basoventral projection thick and curved; ventral stalk abruptly narrowed at middle and then narrowing towards apex, with dense, long setae on left side in dorsal view; dorsal lobe reduced, parameres reduced and forming single membranous structure.

Female. Unknown.

Comparative notes. This species is morphologically similar to *B. zethus* Jiang & Yin from Hunan in sharing similar male sexual characters as well as an elongate aedeagus. The male of this species can be readily separated by the antennomere 11 with a distinct longitudinal projection at the base, the protibia and mesotibia are widely protruding at middle of the ventral margin, and sides of the foramen of the aedeagus are widely expanded.

Distribution. Southwest China: Guangxi.

Etymology. The new species is closely related to *B. zethus*, the specific epithet comes from Greek mythology, Amphion and Zethus, the twin sons of Zeus by Antiope.

***Batrisodes bamian* Yin, Shen & Li, 2015**

Chinese common name: 八面山鬼蚁甲

Batrisodes bamian Yin, Shen & Li, 2015a: 46. Type locality: China: Hunan, Guidong Co. [桂东县], Bamian Shan, 25°59’46’’N, 113°41’59’’E, 1825 m.

Additional material examined (6 exx.)**.** 2 ♂♂, ‘China: Guangxi, Guilin City, Huaping N. R., Yunxi Valley, 25°34’00.62”N, 109°56’19.59”E, 1460–1550 m, 23.iv.2021, sifting, Yin, Zhang, Pan & Shen leg. [广西花坪云溪谷]’ (SNUC); 1 ♂, same collectors and locality except ‘25°33’44.76”N, 109°56’17.08”E, 1350 m, 22-25.iv.2021, FIT,’ (SNUC).

Distribution. Central China: Hunan; Southwest China: Guangxi. **New provincial record for Guangxi**.

Remarks. *Batrisodes bamian* is reported to occur in Guangxi here, approximately 380 km west from the type locality. One of the new specimens was collected by ‘FIT’, suggesting this species may have strong flight and dispersal capability.

***Batrisodes breviventris* sp. nov.**
(Fig. 10)

Chinese common name: 短腹鬼蚁甲

Type material (2 exx.). **HOLOTYPE: CHINA:** ♂, ‘China: Guangxi, Guilin City, Huaping N. R., Yunxi Valley, 25°33’44.76”N, 109°56’17.06”E, 135 0 m, 21-22.iv.2021, FIT, Yin, Zhang, Pan & Shen leg. [广西花坪云溪谷飞阻]’ (SNUC). **PARATYPE: CHINA:** 1 ♀, same data as that of holotype (SNUC).

Diagnosis. *Male*. Body length approximately 2.4 mm, dorsal surface covered with sparse long pubescence; head sub-rounded at base, slightly wider than pronotum; vertex with shallow U-shaped sulcus connecting large, asetose vertexal foveae, lateral vertexal carina complete, abruptly faint at apical 1/2, mediobasal carina reduced; antenna with modified antennomere 11, with distinct longitudinal protuberance at base. Pronotum with thin median and shallow lateral longitudinal sulci, oblique discal carina short. Discal stria of elytron broadly and shallowly present for short distance posterior to outer basal fovea. Mesofemur with long spine at basal 1/3; mesotibia with blunt ventral tooth at apex; metatibia with elongate bunch of long setae at apex. Abdomen slightly curved ventrally, with obviously elongate tergite 1 (IV). Aedeagus elongate; with large median lobe and oval foramen; ventral stalk narrowing towards apex; dorsal lobe reduced; endophallus with two elongate, weakly sclerotized structures; parameres membranous. *Female*. Body length 2.5 mm, antenna shorter than male, antenna and legs lacking modifications, genitalia as in Fig. 10I.

Description. *Male*. Body (Fig. 10A) length 2.43 mm, dorsal surface of body covered with sparse long pubescence; color reddish-brown, legs and mouthparts slightly lighter.

Head (Fig. 10B) sub-rounded at base, length 0.52 mm, width across eyes 0.55 mm; vertex smooth, slightly convex between antennal tubercles, large vertexal foveae (dorsal tentorial pits) asetose, with shallow U-shaped sulcus connecting foveae, with sparse large punctures along outer margin of sulcus, lateral vertexal carina extending from head base to base of antennal tubercles, abruptly faint at apical 1/2, mediobasal carina reduced; antennal tubercles moderately raised, with large dorsal postantennal pit; frons slightly impressed medially, confluent with clypeus; clypeus with smooth surface, its anterior margin carinate and raised; ocular-mandibular carina complete, lacking ocular canthi. Venter with gular foveae (posterior tentorial pits) originating from shared oval opening, median carina distinct, extending from opening anteriorly to mouthparts. Compound eyes each composed of approximately 70 ommatidia. Antenna (Fig. 10C) length 1.23 mm; antennomere 1 thick, subcylindrical, 2–8 sub-moniliform, 2 slightly elongate, 9 much larger and wider than 8, 10 slightly broader than 9, 11 largest, much longer than 9 and 10 combined, with distinct longitudinal protuberance at base, subconical.

Pronotum (Fig. 10B) approximately as long as wide, length 0.52 mm, width 0.51 mm, widest at middle; lateral margins rounded, sub-parallel at basal 1/4; disc slightly convex, finely punctate, median longitudinal sulcus thin and shallow, posteriorly confluent with oval antebasal impression and short mediobasal carina; oblique discal carina short, lacking marginal, discal or antebasal spines; lateral longitudinal sulci shallow, with asetose lateral antebasal

FIGURE 10. Morphology of *Batrisodes breviventris* **sp. nov.** (A–H. Male. I. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 9–11, in lateral view. **D.** Mesofemur. **E.** Mesotibia. **F.** Sternite 7 (IX). **G, H.** Aedeagus, in lateral (G) and ventral (H) view. **I.** Genitalia. Scale bars: 0.5 mm in A; 0.2 mm in B–E; 0.1 mm in G–I; 0.05 mm in F.

foveae; outer and inner pair of basolateral foveae present. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra slightly wider than long, length 0.82 mm, width 0.88 mm; each elytron with three large, asetose basal foveae; discal stria only broadly and shallowly present for short distance posterior to outer basal fovea; humerus slightly prominent; subhumeral fovea present, marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by ridged anterior edges of impressed areas where lateral mesocoxal foveae situated at mesal margins; setose median mesoventral foveae separated, originating from shared transverse opening, lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite moderately impressed at middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs robust. Mesofemur (Fig. 10D) with long spine at basal 1/3; mesotibia (Fig. 10E) with blunt ventral tooth at apex; metatibia with elongate bunch of long setae at apex.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.63 mm, width 0.76 mm. Tergite 1 (IV) greatly elongate, approximately 3 times as long as 2 (V), with pair of broad, triangular discal carinae, lacking basal sulcus, with one pair of setose mediobasal and two pairs of basolateral foveae, with thin oblique inner carina and thick outer marginal carina; tergite 2 (V) slightly longer than 3 (VI), each with one pair of basolateral foveae, 4 (VII) as long as tergites 2 and 3 combined, with one pair of small basolateral foveae, inner carina forming small denticle at lateral margin; tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3 and 4 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 10F) semicircular, membranous.

Aedeagus (Fig. 10G, H) 0.46 mm long, dorso-ventrally slightly asymmetric; median lobe long, broad though entire length; with stout basal capsule and oval foramen, basoventral projection thick and curved; ventral stalk narrowing towards apex and weekly curved in lateral view; dorsal lobe reduced; endophallus with two elongate, weakly sclerotized structures; parameres short, membranous.

Female. Similar to male in external morphology; antenna slightly shorter than that for male; antenna and legs lacking modifications; abdomen much longer and wider than male; each compound eye composed of approximately 40 ommatidia. Measurements (as for male): body length 2.50 mm; length/width of head 0.56/0.56 mm, pronotum 0.58/0.57 mm, elytra 0.89/0.96 mm; abdomen 0.71/0.87 mm; length of antenna 1.16 mm; genitalia (Fig. 10I) weakly sclerotized, maximum width 0.28 mm.

Comparative notes. This species is morphologically similar to *B. abdominalis* Jiang & Yin from Zhejiang in sharing similar external morphology. The male of the new species can be separated by the stouter antennomere 11 (antennomere 11 distinctly impressed at middle in *B. abdominalis*), the metatibia with a bunch of long setae at the apex (lacking in *B. abdominalis*), and a relatively much broader aedeagus.

Distribution. Southwest China: Guangxi.

Etymology. The specific epithet is combined from Latin adjective '*brevis*' (short) and noun '*ventris*' (venter), referring to the short abdomen of this species.

***Batrisodes capreolus* sp. nov.**
(Fig. 11)

Chinese common name: 鹿角鬼蚁甲

Type material (1 ex.). **HOLOTYPE: CHINA:** ♂, 'China: Hunan, Xinning County, Shunhuang Mt., Yangheping, 26°23'41.58"N, 111°00'08.16"E, 820 m, 2.v.2021, Yin, Zhang, Pan & Shen [湖南舜皇山羊和坪]' (SNUC).

Diagnosis. *Male*. Body length approximately 2.2 mm, dorsal surface covered with relatively dense pubescence; head sub-rectangular at base, as wide as pronotum; vertex with narrow U-shaped sulcus connecting large, asetose vertexal foveae, lateral vertexal carina extending from head base anteriorly to beyond level of eye midpoint, lacking mediobasal carina; antennomere 1 extremely elongate at apex of inner lateral margin, antennomere 11 with small longitudinal protuberance at base. Pronotum with thin median and shallow lateral longitudinal sulci, with pair of

short discal carinae and distinct antebasal spines. Discal stria of elytron broadly and shallowly present for short distance posterior to outer basal fovea, lacking subhumeral fovea. Legs robust; mesofemur with long spine at middle; mesotibia with small apical spine and dense golden setae along mesal margin from basal 1/2 to apex; metatibia with elongate bunch of long setae at apex. Abdomen slightly curved ventrally, with greatly elongate tergite 1 (IV); tergite 5 (VIII) with one pair of triangular denticle near posterior margin. Aedeagus asymmetric; median lobe long, abruptly narrowing and strongly twisted at apex; ventral stalk gradually narrowing at apical 1/3 and with small denticle at base; dorsal lobe reduced; endophallus with one hook-like structure; parameres membranous.

Description. *Male*. Body (Fig. 11A) length 2.23 mm, dorsal surface of body covered with relatively dense pubescence; color reddish-brown, tarsi and mouthparts slightly lighter.

Head (Fig. 11B) sub-rectangular at base, length 0.47 mm, width across eyes 0.49 mm; vertex smooth, slightly convex between antennal tubercles, large vertexal foveae (dorsal tentorial pits) asetose, with thin U-shaped sulcus connecting foveae, with sparse large punctures along outer margin of sulcus, lateral vertexal carina extending from head base anteriorly to beyond level of eye midpoint, mediobasal carina reduced; antennal tubercles moderately raised, with large dorsal postantennal pit; frons slightly impressed medially, confluent with clypeus; clypeus with smooth surface, its anterior margin carinate and raised; ocular-mandibular carina complete, lacking ocular canthi. Venter with gular foveae (posterior tentorial pits) originating from shared oval opening, median carina distinct, extending from opening anteriorly to mouthparts. Compound eyes each composed of approximately 70 ommatidia. Antenna length 1.23 mm; antennomere 1 (Fig. 11C) thick, extremely elongate at apex of inner lateral margin, 2–10 each moniliform, 3 and 7 slightly elongate, 8 smallest, 9 slightly larger than 8, 10 much broader than 9, 11 (Fig. 11D) largest, approximately 1.5 times as long as 9 and 10 combined, sub-fusiform, with small elongate protuberance at base.

Pronotum (Fig. 11B) as long as wide, length 0.50 mm, width 0.50 mm, widest at middle; lateral margins rounded, sub-parallel at basal 1/4; disc slightly convex, finely punctate, median longitudinal sulcus thin and shallow, posteriorly confluent with oval antebasal impression and short mediobasal carina; with pair of short discal carinae and distinct antebasal spines; lateral longitudinal sulci shallow, with asetose lateral antebasal foveae; outer and inner pair of basolateral foveae present. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra covered with moderately large punctures, wider than long, length 0.73 mm, width 0.85 mm; each elytron with three large, asetose basal foveae; discal stria only broadly and shallowly present for short distance posterior to outer basal fovea; humerus slightly prominent; lacking subhumeral fovea, marginal stria complete.

Mesoventrite short, demarcated from metaventrite by ridged anterior edges of impressed areas where lateral mesocoxal foveae situated at mesal margins; median mesoventral foveae separated, originating from shared transverse opening, lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite moderately impressed at middle, with well-developed lateral mesocoxal and two large, setose lateral metaventral foveae (Fig. 11E), posterior margin with small and narrow slit at middle.

Legs robust. Mesotrochanter with dense ventral setae at middle, mesofemur (Fig. 11F) with long spine at middle; mesotibia (Fig. 11G) with small apical spine and dense golden setae along mesal margin from basal 1/2 to apex; metatibia with elongate bunch of long setae at apex.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.65 mm, width 0.76 mm. Tergite 1 (IV) greatly elongate, approximately twice as long as 2 (V) and 3 (VI) combined, with pair of short discal carinae, lacking basal sulcus and basolateral foveae, with one pair of setose mediobasal foveae originating from shared transverse opening, with thin oblique inner carina and thick outer marginal carina; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) moderately elongate, as long as 2 and 3 combined, each with one pair of small basolateral foveae; tergite 5 (VIII) (Fig. 11H) semicircular, with one pair of triangular denticle near posterior margin. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3 and 4 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 11I) composed of two semi-membranous, basally sclerotized structures.

Aedeagus (Fig. 11J, K) 0.24 mm long, dorso-ventrally asymmetric; median lobe long, abruptly narrowing and strongly twisted at apex, with large basal capsule and oval foramen, basoventral projection thick; ventral stalk gradually narrowing at apical 1/3 and with truncate apex in dorso-ventral view, with small denticle at base; dorsal lobe reduced; endophallus with one hook-like, strongly sclerotized structure; parameres membranous, indistinct.

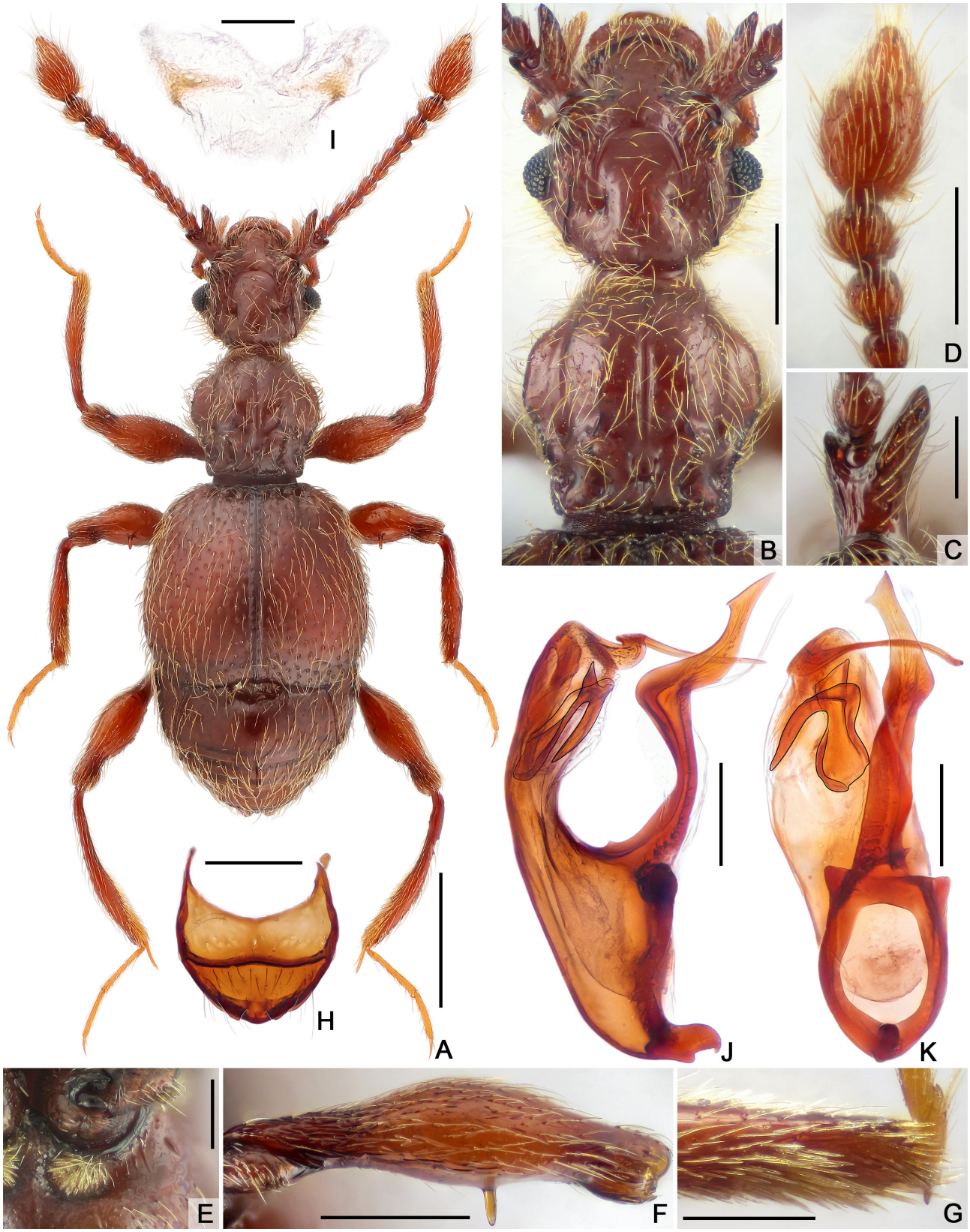

FIGURE 11. Morphology of *Batrisodes capreolus* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomere 1. **D.** Antennomeres 9–11. **E.** Right lateral metaventral fovea. **F.** Mesofemur. **G.** Apex of mesotibia. **H.** Tergite 5 (VIII). **I.** Sternite 7 (IX). **J, K.** Aedeagus, in lateral (J) and ventral (K) view. Scale bars: 0.5 mm in A; 0.2 mm in B, D, F, H; 0.1 mm in C, E, G, J, K; 0.05 mm in I.

Female. Unknown.

Comparative notes. This species is morphologically similar to the species in the genus *Basitrodes* Jeannel from Japan in sharing similar male sexual characters, especially the elongate inner lateral margin of antennomere 1. Members of *Basitrodes* can be distinguished from *Batrisodes* by the median lobe of the aedeagus being widely split at the middle, with two large apicolateral processes (Nomura 2002), which are not present in *B*. *capreolus*. This species can be readily separated from the other similar congeners by the lack of a basal sulcus and basolateral foveae of tergite 1 (IV).

Distribution. Central China: Hunan.

Etymology. The Latin noun '*capreolus*' (roebuck, or a small goat) refers to the modified antennomeres 1 of this species.

Batrisodes grossus Jiang & Yin, 2017

Chinese common name: 粗糙鬼蚁甲

Batrisodes grossus Jiang & Yin, 2017a: 14. Type locality: China: Guangxi, Jinxiu County, Dayao Mountain, 16 km, 24°08'11"N, 110°14'28"E, 1100 m.

Additional material examined (21 exx.)**.** 7 ♂♂, 11 ♀♀, 'China: Hunan, Xinning County, Shunhuang Mt., 26°22'36.58"N, 111°00'42.02"E, 1525m, 1.v.2021, Yin, Zhang, Pan, Shen [湖南舜皇山山腰]' (SNUC); 2 ♀♀, same locality except 'Shunhuangshan N. R., 26°23'17"N, 111°00'51"E, 1133 m, 23.viii.2020, mixed leaf litter, sifted, Li Chong leg. [湖南省新宁县舜皇山自然保护区]' (SNUC); 1 ♀ same locality and collector, except '24. viii.2020,' (SNUC).

Distribution. Central China: Hunan; Southwest China: Guangxi. **New provincial record for Hunan**.

Remarks. *Batrisodes grossus* was collected from an *Odontomachus* colony in a tree hole according to the original study (Yin *et al*. 2017a). The new material was collected by sifting leaf litter. This species can be readily distinguished by the moderately expanded male antennomeres 3–5 being much wider than antennomeres 6–9.

Batrisodes latilobus sp. nov.

(Fig. 12)

Chinese common name: 宽茎鬼蚁甲

Type material (1 ex.). **HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Guilin City, Huaping N. R., nr. Guangfu Peak, 25°33'46.57"N, 109°55'40.81"E, ca. 1800 m, 22.iv.2021, sifting, Yin, Zhang, Pan & Shen leg. [广西花坪广福顶山顶]' (SNUC).

Diagnosis. *Male*. Body length approximately 2.7 mm, dorsal surface covered with dense pubescence; head sub-rectangular at base, as wide as pronotum; vertex with shallow, anteriorly open reversed U-shaped impression connecting large, asetose vertexal foveae, lateral vertexal carina complete, with large lateral postantennal pit, lacking mediobasal carina; antenna moniliform, antennomeres 7 and 9 protruding at lateral margin, antennomere 11 with distinct longitudinal protuberance at base. Pronotum with long, laterally carinate median and shallow lateral longitudinal sulci, with pair of small discal denticles and distinct antebasal spines. Discal stria of elytron broadly and shallowly present for short distance posterior to outer basal fovea, lacking subhumeral fovea. Legs robust; mesofemur with long spine at basal 1/3; mesotibia with distinct apical spine and dense golden setae along mesal margin from basal 1/2 to apex; metatibia with tiny elongate bunch of long setae at apex. Abdomen slightly curved ventrally, with elongate tergite 1 (IV). Aedeagus nearly symmetric; median lobe with greatly elongate and flattened apical part, ventral stalk and dorsal lobe reduced; parameres membranous.

Description. *Male*. Body (Fig. 12A) length 2.74 mm, dorsal surface of body covered with dense pubescence; color dark reddish-brown, tarsi and mouthparts slightly lighter.

Head (Fig. 12B) sub-rectangular at base, length 0.61 mm, width across eyes 0.63 mm; vertex finely punctate, slightly convex between antennal tubercles, large vertexal foveae (dorsal tentorial pits) asetose, with broad and

shallow, anteriorly open reversed U-shaped impression connecting foveae, with dense large punctures along outer margin of impression, lateral vertexal carina distinct, extending from head base anteriorly to posterior margin of antennal tubercle, mediobasal carina reduced; antennal tubercles moderately raised, with large lateral postantennal pit; frons moderately impressed medially, confluent with clypeus; clypeus finely punctate, its anterior margin carinate and angulate at middle; ocular-mandibular carina complete, distinct, lacking ocular canthi. Venter with gular foveae (posterior tentorial pits) originating from shared oval opening, median carina distinct, extending from opening anteriorly to mouthparts. Compound eyes each composed of approximately 40 ommatidia. Antenna (Fig. 12C) length 1.31 mm; antennomere 1 thick, subcylindrical, 2 as long as wide, 2–8 each moniliform, 7 slightly protruding at lateral margin, 8 smallest, 9 much broader than 8 and 10, strongly protruding at lateral margin, 10 moderately transverse, 11 largest, 1.5 times as long as 9 and 10 combined, with distinct, elongate protuberance at base.

FIGURE 12. Morphology of *Batrisodes latilobus* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 7–11. **D.** Right lateral metaventral fovea. **E.** Mesofemur. **F.** Mesotibia. **G.** Sternite 7 (IX). **H, I.** Aedeagus, in ventral (H) and lateral (I) view. Scale bars: 0.5 mm in A; 0.2 mm in B–F, H, I; 0.1 mm in G.

Pronotum (Fig. 12B) approximately as long as wide, length 0.61 mm, width 0.63 mm, widest at middle; lateral margins roundly angulate at its widest point; disc slightly convex, finely punctate, laterally carinate median longitudinal sulcus thin and long, posteriorly confluent with oval antebasal impression and short mediobasal carina; with pair of thin discal carinae connecting small discal denticle and distinct antebasal spine; lateral longitudinal sulci shallow, with asetose lateral antebasal foveae; outer and inner pair of basolateral foveae present. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra covered with moderately large punctures, wider than long, length 0.81 mm, width 0.94 mm; each elytron with three large, asetose basal foveae, inner two close; discal stria only broadly and shallowly present for short distance posterior to outer basal fovea; humerus indistinct; lacking subhumeral fovea, marginal stria complete.

Mesoventrite short, demarcated from metaventrite by ridged anterior edges of impressed areas where lateral mesocoxal foveae situated at mesal margins; median mesoventral foveae separated, originating from shared transverse opening, lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite moderately impressed at middle, with well-developed lateral mesocoxal and two large, setose lateral metaventral foveae (Fig. 12D), posterior margin with small slit at middle.

Legs robust. Mesofemur (Fig. 12E) with long spine at basal 1/3; mesotibia (Fig. 12F) with distinct apical spine and dense golden setae along mesal margin from basal 1/2 to apex; metatibia with tiny elongate bunch of long setae at apex.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.84 mm, width 0.92 mm. Tergite 1 (IV) greatly elongate, approximately as long as 2 (V) and 3 (VI) combined, with pair of short, triangular discal carinae, lacking basal sulcus, with one pair of setose mediobasal and two pairs of basolateral foveae, with thin oblique inner carina and thick outer marginal carina; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) as long as tergite 2, each with one pair of small basolateral foveae; tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3 and 4 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 12G) semicircular, membranous, weakly sclerotized at lateral margin.

Aedeagus (Fig. 12H, I) 0.67 mm long, dorso-ventrally nearly symmetric; median lobe flat, with extremely elongate and gradually widening apical part, covered in lateral view, with truncate apex in dorsal view, with moderately small basal capsule and foramen, basoventral projection thick and curved; lacking ventral stalk and dorsal lobe; parameres reduced to single long membranous structure.

Female. Unknown.

Comparative notes. This species is morphologically similar to *B. simianshanus* Jiang & Yin from Chongqing in sharing similar external morphology. The male of this species can be separated by the antennomere 9 strongly protruding at lateral margin (simple in *B. simianshanus*), laterally carinate median longitudinal sulcus of the pronotum (reduced in *B. simianshanus*), relatively narrower distance between the inner and outer marginal carinae of tergite 1 (IV), and extremely elongate and dorso-ventrally flattened aedeagus.

Distribution. Southwest China: Guangxi.

Etymology. The Latin noun is combined from *lato* (broad) and *lobus* (lobe), referring to the greatly elongate and flattened median lobe of this species.

***Batrisodes microceps* sp. nov.**
(Fig. 13)

Chinese common name: 小头鬼蚁甲

Type material (1 ex.). **HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Xingan County, Maoer Mt., Lijiangyuan. 25°53'32.64"N, 110°25'41.68"E, 2030 m, 9.v.2021, FIT, Yin, Zhang, Pan & Shen leg. [广西兴安县猫儿山漓江源飞阻]' (SNUC).

Diagnosis. *Male*. Body length approximately 2.4 mm, dorsal surface covered with dense short pubescence; head sub-rectangular at base, narrower than pronotum; vertex with shallow U-shaped impression connecting large,

asetose vertexal foveae, lateral vertexal carina extending from head base anteriorly to slightly posterior to level of anterior margin of eyes, lacking mediobasal carina; antenna moniliform, antennomeres 9 and 10 moderately transverse, antennomere 11 with curved, elongate protuberance at base. Pronotum with thin but long median and shallow lateral longitudinal sulci, with pair of long discal carinae and four distinct antebasal spines. Discal stria of elytron broadly and shallowly present for short distance posterior to outer basal fovea, lacking subhumeral fovea. Legs robust; mesofemur with long spine at middle; mesotibia widely protruding at middle, with distinct apical spine; metatibia with elongate bunch of long setae at apex. Abdomen slightly curved ventrally, with moderately elongate tergite 1 (IV). Aedeagus nearly symmetric; median lobe stout, with elongate apical part, slightly curved and abruptly narrowing towards apex in lateral view; ventral stalk and dorsal lobe reduced; endophallus composed of one broad and one elongate sclerotized structure; parameres reduced.

Description. *Male*. Body (Fig. 13A) length 2.44 mm, dorsal surface of body covered with dense short pubescence; color reddish-brown, tarsi and mouthparts slightly lighter.

Head (Fig. 13B) sub-rectangular at base, length 0.44 mm, width across eyes 0.50 mm; vertex finely punctate, slightly convex between antennal tubercles, large vertexal foveae (dorsal tentorial pits) asetose, with shallow U-shaped impression connecting foveae, lateral vertexal carina distinct, extending from head base anteriorly to slightly posterior to level of anterior margin of eyes, lacking mediobasal carina; antennal tubercles moderately raised, with large dorsal postantennal pit; frons moderately impressed medially, confluent with clypeus; clypeus finely punctate, its anterior margin strongly carinate and moderately raised; ocular-mandibular carina complete, carina branched before eye, extended ventrally and then anteriorly to posteroventral articulation of mandible, lacking ocular canthi. Venter with gular foveae (posterior tentorial pits) originating from shared oval opening, median carina distinct, extending from opening anteriorly to mouthparts. Compound eyes each composed of approximately 80 ommatidia. Antenna (Fig. 13C) length 1.07 mm; antennomere 1 thick, subcylindrical, 2 and 3 elongate, 4–8 each moniliform, 8 smallest, 9 and 10 moderately transverse, broadly protruding at lateral margin, 11 largest, 1.4 times as long as 9 and 10 combined, with curved, elongate protuberance at base.

Pronotum (Fig. 13B) approximately as long as wide, length 0.51 mm, width 0.54 mm, widest at middle; lateral margins moderately expanded and rounded; disc slightly convex, finely punctate, carinate median longitudinal sulcus thin and long, posteriorly confluent with short mediobasal carina, antebasal impression reduced; discal longitudinal carinae thin but long, with two pairs of short antebasal spines; lateral longitudinal sulci shallow, with carinate inner lateral margin and asetose lateral antebasal foveae; outer and inner pair of basolateral foveae present. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra finely punctate, length 0.77 mm, width 0.84 mm; each elytron with three large, asetose basal foveae, inner two close; discal stria only broadly and shallowly present for short distance posterior to outer basal fovea; humerus denticulate; lacking subhumeral fovea, marginal stria complete.

Mesoventrite short, demarcated from metaventrite by ridged anterior edges of impressed areas where lateral mesocoxal foveae situated at mesal margins; median mesoventral foveae separated, originating from shared transverse opening, lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite moderately impressed at middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small slit at middle.

Legs robust. Mesofemur (Fig. 13D) with long spine at middle; mesotibia (Fig. 13E) widely protruding at middle, with distinct apical spine and dense golden setae along mesal margin from basal 1/2 to apex; metatibia with elongate bunch of long setae at apex.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.81 mm, width 0.75 mm. Tergite 1 (IV) greatly elongate, approximately 1.2 times as long as 2 (V) and 3 (VI) combined, with pair of short, triangular discal carinae, basal sulcus separated by one pair of setose mediobasal and two pairs of basolateral foveae, with thin oblique inner carina and thick outer marginal carina; tergite 2 (V) longer than 3 (VI), 4 (VII) moderately elongate, as long as tergite 2 and 3 combined, each with one pair of small basolateral foveae; tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3 and 4 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) membranous, indistinct.

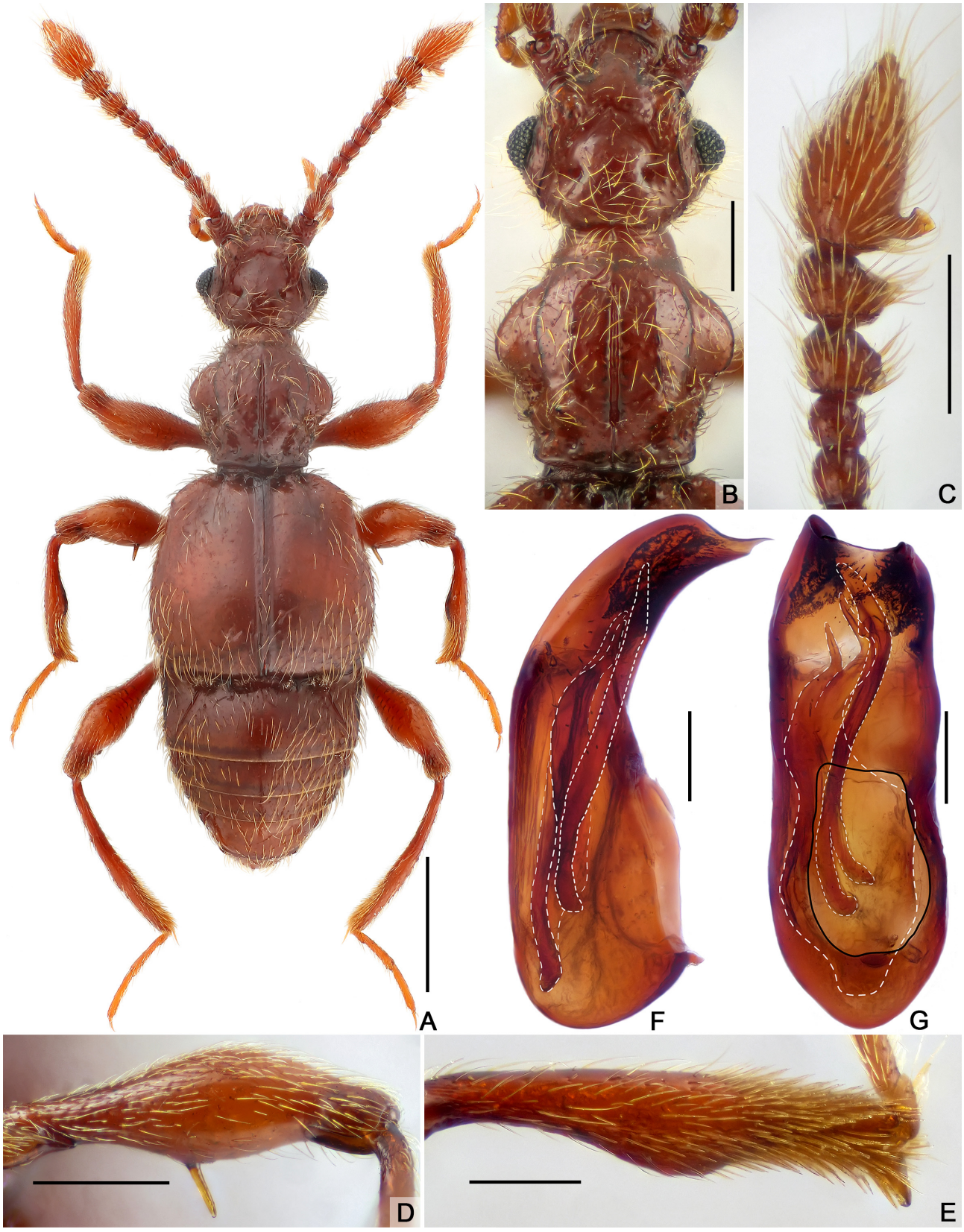

FIGURE 13. Morphology of *Batrisodes microceps* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 9–11. **D.** Mesofemur. **E.** Mesotibia. **F, G.** Aedeagus, in lateral (F) and ventral (G) view. Scale bars: 0.5 mm in A; 0.2 mm in B–D; 0.1 mm in E–G.

Aedeagus (Fig. 13F, G) 0.57 mm long, dorso-ventrally nearly symmetric; median lobe with elongate apical part, slightly curved and abruptly narrowing towards apex in lateral view, with truncate apex in dorsal view, basal capsule and foramen elongate, basoventral projection tiny; lacking ventral stalk and dorsal lobe; endophallus composed of one broad sclerotized structure, which deeply forked and narrowed at apex and one elongate sclerotized structure, which slightly covered and with deep split at base; parameres reduced.

Female. Unknown.

Comparative notes. This species is morphologically similar to *B. zhouchaoi* Jiang & Yin from Sichuan in sharing similar male sexual characters as well as a transverse pronotum. The male of this species can be separated by the antennomere 11 with curved, elongate protuberance at the base (with small denticle at the base in *B. zhouchaoi*), the mesotibia is widely protruding to middle (with distinct ventral denticle spine in *B. zhouchaoi*), and a reduced ventral stalk of the aedeagus (with elongate and apically forked ventral stalk in *B. zhouchaoi*).

Distribution. Southwest China: Guangxi.

Etymology. The specific comes from *micro-* (small) and *-ceps* (-headed), reminding the moderately small head size of this species.

***Batrisodes shun* sp. nov.**
(Fig. 14)

Chinese common name: 舜皇鬼蚁甲

Type material (2 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Hunan, Xinning County, Shunhuang Mt., 26°22'36.58"N, 111°00'42.02"E, 1525 m, 1.v.2021, Yin, Zhang, Pan, Shen [湖南舜皇山山腰]' (SNUC); **PARATYPE: CHINA:** 1 ♀, same data as that of holotype (SNUC).

Diagnosis. *Male*. Body length approximately 2.1 mm, dorsal surface covered with relatively sparse pubescence; head sub-rectangular at base, slightly narrower than pronotum; vertex with broad V-shaped sulcus connecting large, asetose vertexal foveae, lateral vertexal carina extending from head base anteriorly to level of eye midpoint, mediobasal carina extending from head base anteriorly to level of posterior margin of eyes; frons greatly protruding forward, clypeus strongly concave towards middle, with dense golden setae between frontal-clypeal ridge and clypeus; antenna moniliform, lacking distinct modification. Pronotum with thin median and shallow lateral longitudinal sulci, with pair of long discal carinae and four short antebasal spines. Discal stria of elytron shallowly present for short distance posterior to outer basal fovea, lacking subhumeral fovea. Legs robust, simple; metatibia with elongate bunch of long setae at apex. Abdomen slightly curved ventrally, with elongate tergite 1 (IV). Aedeagus symmetric; median lobe with large foramen, broadened throughout entire length, with apex slightly wider than base; endophallus with pair of spoon-shaped structures; parameres reduced. *Female*. Body length 2.07 mm; frons lacking modifications; antenna with slightly shorter antennomere 1; genitalia as in Fig. 14H.

Description. *Male*. Body (Fig. 14A) length 2.09 mm, dorsal surface of body covered with relatively sparse pubescence; color dark reddish-brown, legs and mouthparts slightly lighter.

Head (Fig. 14B) sub-rectangular at base, length 0.38 mm, width across eyes 0.47 mm; vertex smooth at apical 1/2, finely punctate at latter part, slightly convex between antennal tubercles, large vertexal foveae (dorsal tentorial pits) asetose, with broad V-shaped sulcus connecting foveae, with sparse large punctures along outer margin of sulcus, lateral vertexal carina extending from head base anteriorly to level of eye midpoint, mediobasal carina present, extending from head base anteriorly to level of posterior margin of eyes; antennal tubercles weakly raised, with large dorsal postantennal pit; frons (Fig. 14C) greatly modified, frontal-clypeal ridge greatly protruding forward and emarginate at middle; clypeus with carinate and raised anterior margin, strongly concave towards middle and with thin median longitudinal sulcus, with dense golden setae between frontal-clypeal ridge and clypeus; ocular-mandibular carina complete, lacking ocular canthi. Venter with gular foveae (posterior tentorial pits) originating from shared oval opening, median carina distinct, extending from opening anteriorly to mouthparts. Compound eyes each composed of approximately 45 ommatidia. Antenna length 0.99 mm, lacking distinct modification; antennomere 1 (Fig. 14D) thick, subcylindrical, slightly elongate at apex of inner lateral margin, 2–10 each moniliform, 6 and 8 slightly smaller than other antennomeres, 9 and 10 much broader and longer than 8, 11 largest, approximately 1.25 times as long as 9 and 10 combined, sub-fusiform.

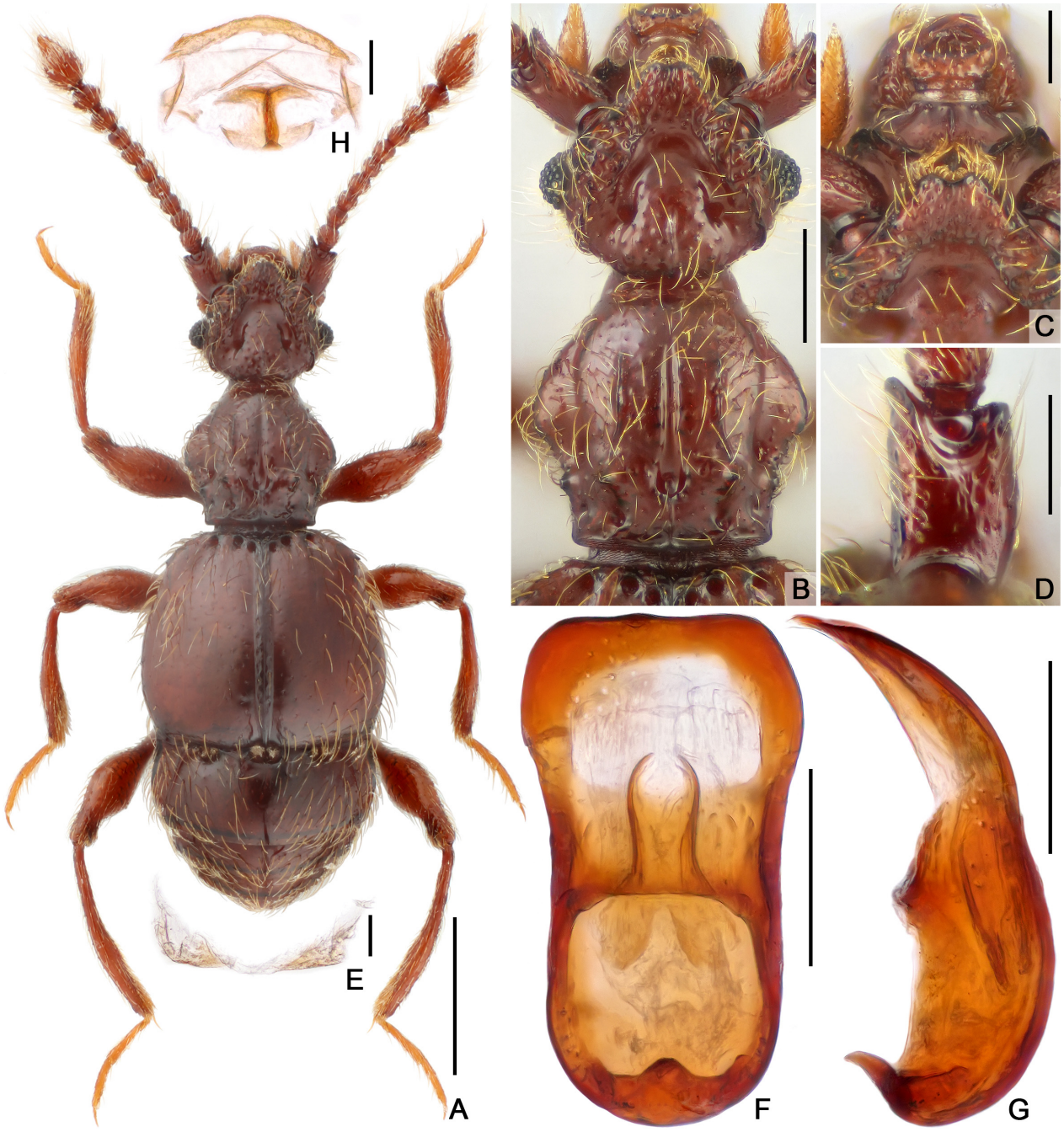

FIGURE 14. Morphology of *Batrisodes shun* **sp. nov.** (A–G. Male. H. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Frons. **D.** Antennomeres 1. **E.** Sternite 7 (IX). **F, G.** Aedeagus, in ventral (F) and lateral (G) view. **H.** Genitalia. Scale bars: 0.5 mm in A; 0.2 mm in B; 0.1 mm in C, D, F, G; 0.05 mm in E, H.

Pronotum (Fig. 14B) as long as wide, length 0.47 mm, width 0.49 mm, widest at middle; lateral margins rounded, sub-parallel at basal 1/3; disc slightly convex, finely punctate, median longitudinal sulcus distinct, posteriorly confluent with oval antebasal impression and short mediobasal carina; with pair of long discal carinae and two pairs of short antebasal spines; lateral longitudinal sulci shallow, with asetose lateral antebasal foveae; outer and inner pair of basolateral foveae present. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra finely punctate, wider than long, length 0.68 mm, width 0.79 mm; each elytron with three large, asetose basal foveae; discal stria only shallowly present for short distance posterior to outer basal fovea; humerus denticulate; lacking subhumeral fovea, marginal stria complete.

Mesoventrite short, demarcated from metaventrite by ridged anterior edges of impressed areas where lateral mesocoxal foveae situated at mesal margins; median mesoventral foveae separated, originating from shared transverse opening, lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite moderately impressed at middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs robust, lacking modifications. Metatibia with elongate bunch of long setae at apex.

Abdomen wider than long, widest at lateral margins of tergite 1 (IV), length 0.62 mm, width 0.73 mm. Tergite 1 (IV) elongate, approximately 1.4 times as long as 2 (V) and 3 (VI) combined, with pair of short discal carinae, lacking basal sulcus, with one pair of setose mediobasal and two pairs of basolateral foveae close to each other, originating from shared oval opening, with pair of short discal carinae, with thin oblique inner carina and thick outer marginal carina; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) moderately elongate, each with one pair of small basolateral foveae; tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3 and 4 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 14E) composed of two semi-membranous, basally sclerotized triangular structures.

Aedeagus (Fig. 14F, G) 0.26 mm long, dorso-ventrally symmetric, plate-like; median lobe with large foramen, broadened throughout entire length, with apex slightly wider than base, apical margin slightly protuberant near middle; endophallus with pair of spoon-shaped, sclerotized structures; parameres reduced.

Female. Similar to male in external morphology. Frons lacking modification. Antenna with slightly shorter antennomere 1. Each compound eye composed of approximately 45 ommatidia. Measurements (as for male): body length 2.07 mm; length/width of head 0.42/0.47 mm, pronotum 0.46/0.47 mm, elytra 0.67/0.78 mm; abdomen 0.60/0.72 mm; length of antenna 0.97 mm; maximum width of genital complex (Fig. 14H) 0.18 mm.

Comparative notes. This species is morphologically similar to *B. sennin* Nomura from Japan in sharing similar male sexual characters on the head as well as a symmetric aedeagus. The new species can be readily separated by the male mesofemur lacking a ventral spine near the middle.

Distribution. Central China: Hunan.

Etymology. This species is named after Emperor Shun. Literally, 'Shunhuang Mt.' means 'Shun Emperor Mountain'.

***Batrisodes streptoaedeagus* sp. nov.**
(Fig. 15)

Chinese common name: 曲茎鬼蚁甲

Type material (42 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Guizhou, Leishan, Leigong Mt., Xiannutang, 26°22'22.11"N, 108°11'52.12"E, 1550 m, 6.v.2021, Tang, Peng, Cai & Song leg. [贵州雷山县雷公山仙女塘]' (SNUC); **PARATYPES: CHINA:** 13 ♂♂, 6 ♀♀, same data as that of holotype; 9 ♂♂, 6 ♀♀, same data as that of holotype, except '3.v.2021,'; 6 ♀♀, same data as that of holotype, except '4.v.2021,'; 1 ♀ same locality and collector, except 'Getou Village, 26°23'52.26"N, 108°15'33.62"E, 1100 m, 2.v.2021,' (SNUC).

Diagnosis. *Male*. Body length approximately 2.6 mm, dorsal surface covered with dense pubescence; head sub-rectangular at base, as wide as pronotum; clypeus moderately transverse; vertex with shallow U-shaped impression connecting asetose vertexal foveae, lateral vertexal carina complete, with distinct lateral postantennal pit, mediobasal carina extending from head base anteriorly to level of anterior margin of eyes; antenna moniliform, lacking modifications. Pronotum with long, deep median sulcus and pairs of shallow discal and lateral longitudinal sulci, antebasal spines indistinct. Discal stria of elytron broadly and shallowly present for short distance posterior to outer basal fovea, subhumeral fovea present. Legs robust; mesotrochanter with ventral denticle; metatrochanter with curved ventral projection at apex; metatibia with elongate bunch of long setae at apex. Abdomen slightly curved ventrally, with elongate tergite 1 (IV). Aedeagus strongly asymmetric; median lobe extremely elongate and deeply forked at apex, abruptly narrowed and bent at middle, with large basal capsule and foramen; ventral stalk plate-like; dorsal lobe slender and curved; parameres membranous. *Female*. Body length approximately 2.5 mm, legs lacking modifications, genitalia as in Fig. 15H.

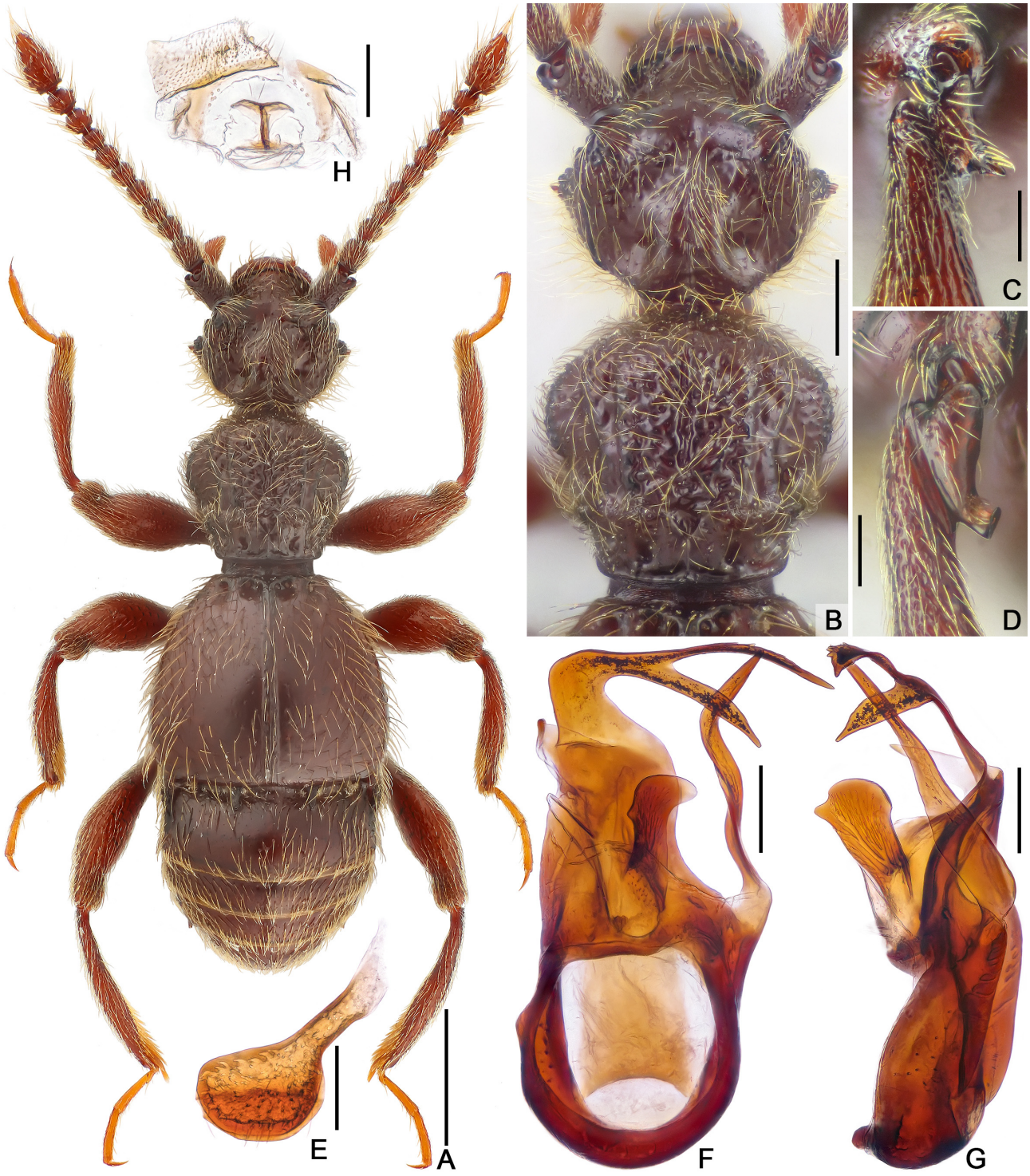

FIGURE 15. Morphology of *Batrisodes streptoaedeagus* **sp. nov.** (A–G. Male. H. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Mesotrochanter. **D.** Metatrochanter. **E.** Sternite 7 (IX). **F, G.** Aedeagus, in ventral (F) and lateral (G) view. **H.** Genitalia. Scale bars: 0.5 mm in A; 0.2 mm in B; 0.1 mm in C–H.

Description. *Male*. Body (Fig. 15A) length 2.55–2.57 mm, dorsal surface of body covered with dense pubescence; color reddish-brown, legs and mouthparts slightly lighter.

Head (Fig. 15B) slightly transverse, sub-rectangular at base, length 0.52–0.53 mm, width across eyes 0.61–0.62 mm; vertex finely punctate, slightly convex between antennal tubercles, vertexal foveae (dorsal tentorial pits) asetose, with broad U-shaped impression connecting foveae, lateral vertexal carina complete, extending from head base anteriorly to posterior margin of antennal tubercle, mediobasal carina thin and long, extending from head base

anteriorly to level of anterior margin of eyes; antennal tubercles moderately raised, with distinct lateral postantennal pit; frons moderately impressed medially, confluent with clypeus; clypeus moderately transverse, smooth at middle, its anterior margin carinate and raised; ocular-mandibular carina complete, distinct, with blunt spinose ocular canthi. Venter with gular foveae (posterior tentorial pits) originating from shared oval opening, median carina extending from opening anteriorly to mouthparts. Compound eyes small, each composed of approximately 15 ommatidia, with small ocular canthi. Antenna simple, length 1.23–1.27 mm; antennomere 1 thick, subcylindrical, 2 longer than wide, 3–10 each moniliform, 8 smallest, 11 largest, approximately 1.4 times as long as 9 and 10 combined, subfusiform.

Pronotum (Fig. 15B) approximately as long as wide, length 0.57–0.59 mm, width 0.61–0.63 mm, widest at middle; lateral margins rounded at middle; disc slightly convex, with dense large punctures, median longitudinal sulcus deep, posteriorly confluent with indistinct oval antebasal impression and short mediobasal carina; with pair of shallow discal longitudinal and lateral longitudinal sulci; antebasal spines weakly raised, indistinct; with large, asetose lateral antebasal foveae; outer and inner pair of basolateral foveae present. Prosternum with basisternal (precoxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to anterior margin of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra narrowing towards base, wider than long, length 0.77–0.78 mm, width 0.82–0.85 mm; each elytron with three large, asetose basal foveae, inner two close; discal stria only broadly and shallowly present for short distance posterior to outer basal fovea; humerus indistinct; subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by ridged anterior edges of impressed areas where lateral mesocoxal foveae situated at mesal margins; median mesoventral foveae separated, originating from shared transverse opening, lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite moderately impressed at middle, with well-developed lateral mesocoxal and two large, setose lateral metaventral foveae, posterior margin with small slit at middle.

Legs robust. Mesotrochanter (Fig. 15C) with long ventral spine; metatrochanter (Fig. 15D) with long ventral projection strongly curved at apex; metatibia with elongate bunch of long setae at apex.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.85–0.89 mm, width 0.82–0.85 mm. Tergite 1 (IV) moderately elongate, slightly shorter than 2 (V) and 3 (VI) combined, with pair of short discal carinae, basal sulcus separated by one pair of setose mediobasal and two pairs of basolateral foveae, lacking inner carina, with thick outer marginal carina; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined, each with one pair of small basolateral foveae; tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3 and 4 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 15E) with asymmetric, elongate basal part and semicircular, well-sclerotized apical part.

Aedeagus (Fig. 15F, G) 0.60 mm long, dorso-ventrally strongly asymmetric; median lobe with extremely elongate and narrowed apical part, bent at middle, deeply forked at apex and with many small denticles on lateral margin, with large basal capsule and foramen, basoventral projection thick and short; ventral stalk plate-like, slightly curved towards right in ventral view; dorsal lobe well-developed, present on the right edge in ventral view, slender and curved; parameres reduced to single membranous structure.

Female. Similar to male in external morphology. Legs lacking modification. Each compound eye composed of approximately 15 ommatidia. Measurements (as for male): body length 2.43–2.54 mm; length/width of head 0.51–0.53 / 0.59–0.63 mm, pronotum 0.54–0.55/ 0.54–0.58 mm, elytra 0.72–0.76/ 0.85–0.88 mm; abdomen 0.82–0.87/ 0.78–0.81 mm; length of antenna 1.19–1.24 mm; maximum width of genital complex (Fig. 15H) 0.31 mm.

Comparative notes. This species is morphologically similar to *B. tribasoditiformis* described below from Guangxi in sharing similar external morphology. The male of this species can be separated only by the disc of pronotum with dense large punctures, and the mesotibia lacking a distinct denticle at the apex.

Distribution. Southwest China: Guizhou.

Etymology. The specific epithet comes from the Greek *streptós* (twisted) and Latin *aedeagus*.

***Batrisodes titanius* sp. nov.**
(Fig. 16)

Chinese common name: 泰坦鬼蚁甲

Type material (1 ex.)**. HOLOTYPE: China:** ♂, 'China: Guizhou, Leishan, summit of Leigong Mt., 26°23'13.78"N, 106°12'11.87"E, 1700–2150 m, 1.v.2021, Tang, Peng, Cai & Song leg. [贵州雷山县雷公山顶峰]' (SNUC).

Diagnosis. *Male*. Body length slightly over 4 mm. Head sub-rounded at base; vertex coarsely punctate, with smooth transverse impression between antennal tubercles, vertexal foveae large; with short spinose ocular canthi; antenna moniliform, with modified antennomeres 9–11, antennomere 11 with distinct denticle near base. Pronotum coarsely punctate, with large median antebasal fovea. Discal stria of elytron shallowly present for short distance posterior to outer basal fovea. Fore and hind legs simple, mesotrochanter with tiny ventral tooth, mesofemur with small ventral spine near base. Abdomen large, elongate, tergites 1–4 with complete marginal carinae. Aedeagus asymmetrical, extremely elongate and strongly curved to ventral side.

Description. *Male*. Body (Fig. 16A) length 4.09 mm; color reddish-brown, tarsi and mouthparts lighter. Dorsal surface of body covered with sparse, curled pubescence.

Head (Fig. 16B) sub-rounded at base, broader than long, length from anterior margin of clypeus to head base 0.65 mm, width across eyes 0.77 mm; vertex coarsely punctate, with large, nude vertexal foveae (dorsal tentorial pits), with smooth, weakly curved transverse impression between antennal tubercles; short mediobasal carina extending from head base anteriorly to level of posterior margin of vertexal foveae, antennal tubercles moderately raised; frons broadly and shallowly impressed medially, confluent with clypeus; clypeus coarsely punctate; ocular-mandibular carina complete, with short spinose ocular canthi. Venter coarsely punctate; two small gular foveae (posterior tentorial pits) in shared round opening, with faint median carina extending from opening anteriorly to mouthpart. Compound eyes prominent, each composed of approximately 60 large ommatidia. Antenna elongate, length 1.57–1.59 mm, distinct club (Fig. 16C) formed by slightly enlarged apical three antennomeres; antennomere 1 thick, subcylindrical, 2–8 moniliform, 2 smallest, 3–8 slightly transverse, 8 smaller than 7, 9 and 10 protruding at mesal margins, 10 much narrower than 9, 11 largest, with distinct denticle near basal 2/5, longer than 9 and 10 combined, sub-fusiform. Mouthparts normal; maxillary palpi with segment I small, II elongate, widest at apex, III small and triangular, IV (Fig. 17D) enlarged, sub-fusiform, lateral margins subparallel at apical 1/2, with tiny palpal cone at apices.

Pronotum (Fig. 16B) wider than long, length 0.7 mm, width 0.79 mm, widest at middle; lateral margins rounded, convergent apically and sub-parallel at basal 1/4; disc slightly convex, coarsely punctate, with shallow median longitudinal sulcus and large median antebasal fovea, mediobasal carina thin; lateral longitudinal sulcus present, lateral antebasal foveae large and nude, with distinct outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves absent, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra much wider than long, length 1.33 mm, width 1.08 mm; each elytron with three large, nude basal foveae, lacking subbasal fovea; humerus roundly prominent; discal stria shallowly extending to apical 1/4 of elytral length; subhumeral fovea absent, marginal stria shallow and short.

Mesoventrite short, demarcated from metaventrite by ridged anterior edges of impressed areas where large, setose lateral mesocoxal foveae situated at mesal ends, with pair of admesal carinae; setose median mesoventral foveae moderately separated, originating from shared transverse opening; lateral mesoventral foveae large and setose, not forked (straight) internally. Metaventrite prominent admesally, inclined towards middle, with pair of setose lateral metaventral foveae, posterior margin with short slit at middle.

Legs distinctly robust, fore and hind legs simple. Mesotrochanter (Fig. 16E) with tiny ventral tooth, mesofemur with thin but distinct ventral spine near base.

Abdomen widest at basolateral margins of tergite 1 (IV), length 1.6 mm, width 1.32 mm. Tergite 1 (IV) approximately twice as long as 2 (V), basal sulcus separated by one pair of mediobasal and two pairs of basolateral foveae, thick marginal carinae complete; tergite 2 (V) as long as than 3 (VI), 4 (VII) 1.5 times as long as tergite 3 (VI); tergites 2–4 (V–VII) each with one pair of basolateral foveae and complete marginal carinae, tergite 5 (VIII) semicircular. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae, thin median carina absent; midlength of sternites 2–5 (IV–VII) gradually shorter, 3–5 (V–VII) each with three pairs of small basolateral

foveae and short triangular median carina, sternite 6 (VIII) transverse, posterior margin broadly concave, sternite 7 (IX) (Fig. 16F) membranous, consisting of pair of C-shaped lateral plates.

Aedeagus (Fig. 16G–I) 1.28 mm long, dorso-ventrally asymmetrical; median lobe extremely elongate and strongly curved near apex, left half with long hook-shaped projection in dorsal view, with small basal capsule, basoventral projection distinct; lacking ventral stalk; dorsal lobe membranous, strongly sclerotized and forked at apex; parameres curved, fused to single membranous structure.

Female. Unknown.

Comparative notes. *Batrisodes titanius* can be readily separated from all congeners by the huge body size (over 4 mm), the long and stout abdomen, and the extremely elongate and curved aedeagus.

Distribution. Southwest China: Guizhou.

Etymology. The Latin adjective *Titânius* (*-a*, *-um*), meaning, 'Titanic', is a Latin adjective referring to the large body size of this species.

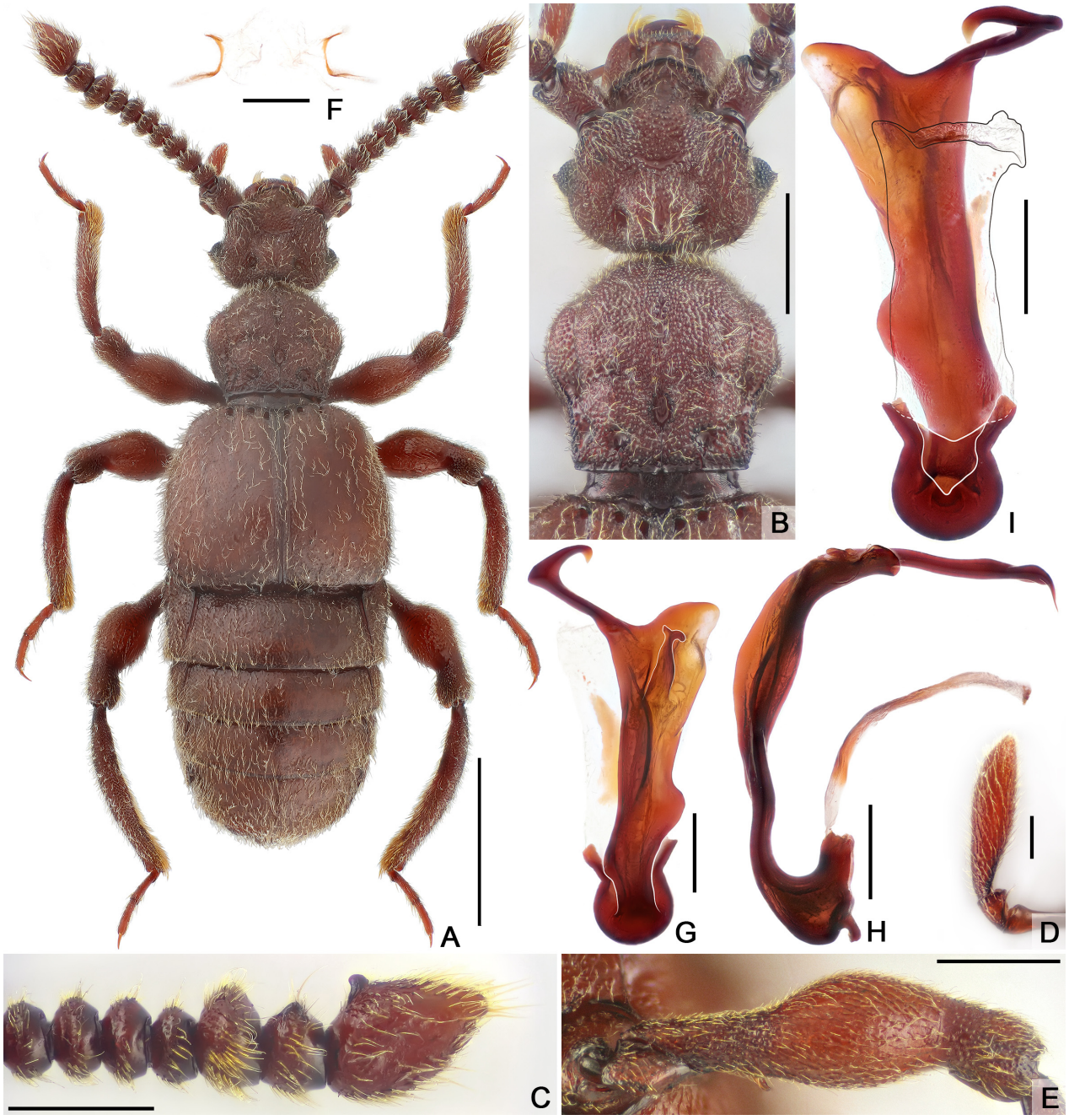

FIGURE 16. Morphology of *Batrisodes titanius* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 6–11. **D.** maxillary palpus IV. **E.** Mesofemur. **F.** Sternite 7 (IX). **G–I.** Aedeagus, in dorsal (G), lateral (H) and ventral (I) view. Scale bars: 1 mm in A; 0.4 mm in B, F; 0.3 mm in C, E, G–I; 0.1 mm in D.

***Batrisodes tribasoditiformis* sp. nov.**
(Fig. 17)

Chinese common name: 拟脊胸鬼蚁甲

Type material (36 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Huanjiang, Jiuwan Mt., Yangmeiao, 25°12'22.15"N, 108°40'32.01"E, 1250 m, 23.iv.2021, Tang, Peng, Cai & Song leg. [广西环江县九万山杨梅坳]' (SNUC); **PARATYPES: CHINA:** 16 ♂♂, 6 ♀♀, same data as that of holotype; 6 ♂♂, same data as that of holotype, except '25.iv.2021,'; 3 ♂♂, 4 ♀♀, same data as that of holotype, except '8.iv.2021,' (SNUC).

Diagnosis. *Male*. Body length approximately 2.4 mm, dorsal surface covered with relatively dense pubescence; head sub-rectangular at base, wider than pronotum; clypeus moderately elongate; vertex with broad U-shaped impression connecting large, asetose vertexal foveae, lateral vertexal carina complete, with large dorsal postantennal pit, mediobasal carina extending from head base anteriorly to level of anterior margin of eyes; antenna moniliform, lacking modifications. Pronotum with long, deep median sulcus and pairs of shallow discal and lateral longitudinal sulci, with two pairs of short antebasal spines. Discal stria of elytron broadly and shallowly present for short distance posterior to outer basal fovea, subhumeral fovea present. Legs robust; mesotrochanter with ventral denticle; mesotibia with small blunt apical spine; metatrochanter with curved ventral projection at apex; metatibia with elongate bunch of long setae at apex. Abdomen slightly curved ventrally, with elongate tergite 1 (IV). Aedeagus asymmetric; median lobe with extremely elongate and curved apical part, which deeply forked at apex, with large basal capsule and foramen; ventral stalk narrowing towards apex; dorsal lobe present, flat; parameres membranous. *Female*. Body length approximately 2.3–2.4 mm, legs lacking modifications, genitalia as in Fig. 17I.

Description. *Male*. Body (Fig. 17A) length 2.36–2.38 mm, dorsal surface of body covered with relatively dense pubescence; color dark reddish-brown, legs and mouthparts slightly lighter.

Head (Fig. 17B) slightly transverse, sub-rectangular at base, length 0.50–0.53 mm, width across eyes 0.57–0.59 mm; vertex finely punctate, slightly convex between antennal tubercles, large vertexal foveae (dorsal tentorial pits) asetose, with broad and shallow U-shaped impression connecting foveae, with dense large punctures along weakly carinate outer margin of impression, lateral vertexal carina complete, extending from head base anteriorly to posterior margin of antennal tubercle, mediobasal carina long, extending from head base anteriorly to level of anterior margin of eyes; antennal tubercles moderately raised, with large dorsal postantennal pit; frons moderately impressed medially, confluent with clypeus; clypeus moderately elongate, smooth at middle, its anterior margin carinate and raised; ocular-mandibular carina complete, distinct, ocular canthi indistinct. Venter with gular foveae (posterior tentorial pits) originating from shared oval opening, median carina extending from opening anteriorly to mouthparts. Compound eyes small, each composed of approximately 15 ommatidia. Antenna simple, length 1.24–1.27 mm; antennomere 1 thick, subcylindrical, 2 longer than wide, 3–8 each moniliform, 8 smallest, 9 and 10 much broader and longer than 8, 11 largest, as long as 9 and 10 combined, sub-fusiform.

Pronotum (Fig. 17B) as long as wide, length 0.52–0.55 mm, width 0.52–0.55 mm, widest at middle; lateral margins rounded at middle; disc slightly convex, finely punctate, laterally carinate median longitudinal sulcus deep and long, posteriorly confluent with oval antebasal impression and short mediobasal carina; with pair of shallow discal longitudinal and lateral longitudinal sulci; with two pairs of short antebasal spines; with large, asetose lateral antebasal foveae; outer and inner pair of basolateral foveae present. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to anterior margin of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra finely punctate, narrowing towards base, wider than long, length 0.71–0.72 mm, width 0.80–0.82 mm; each elytron with three large, asetose basal foveae, inner two close; discal stria only broadly and shallowly present for short distance posterior to outer basal fovea; humerus denticulate; subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by ridged anterior edges of impressed areas where lateral mesocoxal foveae situated at mesal margins; median mesoventral foveae separated, originating from shared transverse opening, lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite moderately impressed at middle, with well-developed lateral mesocoxal and two large, setose lateral metaventral foveae, posterior margin with small slit at middle.

FIGURE 17. Morphology of *Batrisodes tribasoditiformis* **sp. nov.** (A–H. Male. I. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Mesotrochanter. **D.** Apex of mesotibia. **E.** Metatrochanter. **F.** Sternite 7 (IX). **G, H.** Aedeagus, in ventral (G) and lateral (H) view. **I.** Genitalia. Scale bars: 0.5 mm in A; 0.2 mm in B; 0.1 mm in C–E, G–I; 0.05 mm in F.

Legs robust. Mesotrochanter (Fig. 17C) with distinct ventral denticle; mesotibia (Fig. 17D) with small blunt apical spine; metatrochanter (Fig. 17E) with long ventral projection strongly curved at apex; metatibia with elongate bunch of long setae at apex.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.75–0.76 mm, width 0.72–0.76 mm. Tergite 1 (IV) greatly elongate, approximately as long as 2 (V) and 3 (VI) combined, with pair of short, triangular discal carinae, basal sulcus separated by one pair of setose mediobasal and two pairs of basolateral foveae, lacking inner carina, with thick but short outer marginal carina; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and

3 combined, each with one pair of small basolateral foveae; tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3 and 4 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 17F) with asymmetric, elongate basal part and semicircular, well-sclerotized apical part.

Aedeagus (Fig. 17G, H) 0.48 mm long, dorso-ventrally asymmetric; median lobe stout, with extremely elongate and curved apical part, which deeply forked at apex and with many small denticles on lateral margin, with large basal capsule and foramen, basoventral projection thick and curved; ventral stalk narrowing towards apex, with two membranous long spines on right side in ventral view; dorsal lobe flat, slightly curved at apical 2/5 in lateral view; parameres reduced to single membranous structure.

Female. Similar to male in external morphology. Legs lacking modification. Each compound eye composed of approximately 15 ommatidia. Measurements (as for male): body length 2.34–2.41 mm; length/width of head 0.50/ 0.58–0.60 mm, pronotum 0.53–0.55/ 0.54–0.56 mm, elytra 0.68–0.70/ 0.80–0.81 mm; abdomen 0.78–0.81/ 0.75 mm; length of antenna 1.21–1.25 mm; maximum width of genital complex (Fig. 17I) 0.63 mm.

Comparative notes. This species possesses sexual characters commonly found in *Tribasodites* (e.g., metatrochanter with a long curved ventral projection, and the aedeagus with a dorsal lobe). However, the lack of spines on lateral margins of the pronotum and presence of an elongate bunch of setae at the apex of metatibia indicate the new species is a member of *Batrisodes*.

Distribution. Southwest China: Guangxi.

Etymology. The name reminds that this species bears characters that often occur in the genus *Tribasodites*.

Coryphomodes Jeannel, 1960

Chinese common name: 邻窝蚁甲属

Coryphomodes Jeannel, 1960: 416; Newton & Chandler 1989 (catalog); Chandler 2001 (redescription); Löbl & Kurbatov 2001 (discussion of relationship). Type species: *Coryphomodes cristatus* Jeannel, 1960 (original designation).

In China the genus contains three species from Xizang (Yin 2022). All of them have three basal elytral foveae, with the inner two foveae close, coarsely punctate elytra, and a stout, asymmetric aedeagus. Two of the new species described here are similar to those from Xizang in external morphology and aedeagal form, and the other one, *C. jiangxiensis*, has a relatively more slender body and aedeagus, and the elytra have only two basal foveae, with inner two foveae completely fused.

Key to species of *Coryphomodes* from Nanling Mountain Area (males)

1 Head lacking lateral vertexal carina; pronotum with thin, laterally carinate median longitudinal sulcus; elytra with three basal foveae 2

\- Head with complete lateral vertexal carina (Fig. 18B); pronotum with broad, shallow median .longitudinal sulcus (Fig. 18B); elytra with only two basal foveae . . . . . ***C. jiangxiensis* sp. nov.**

2 Head with lateral impressed areas and one pair of large mediobasal cavities (Fig. 19B); elytra with sparse but distinct punctures, and three widely separated basal foveae (Fig. 19A) . . . . . ***C. parvipunctatus* sp. nov.**

\- Head lacking observable sexual characters; elytra with dense, large punctures, inner two basal foveae close (Fig. 20A, C) . . . . . ***C. simplex* sp. nov.**

Coryphomodes jiangxiensis sp. nov.

(Fig. 18)

Chinese common name: 江西邻窝蚁甲

Type material (1 ex.). **HOLOTYPE: CHINA:** ♂, 'China: Jiangxi, Longnan, Jiulianshan N. R., Hengkengshui, 24°33'11"N, 114°26'5.6"E, 500–600 m, 7.v.2021, sifting, Hu, Lin, Zhou & Li leg. [江西九连山横坑水]' (SNUC).

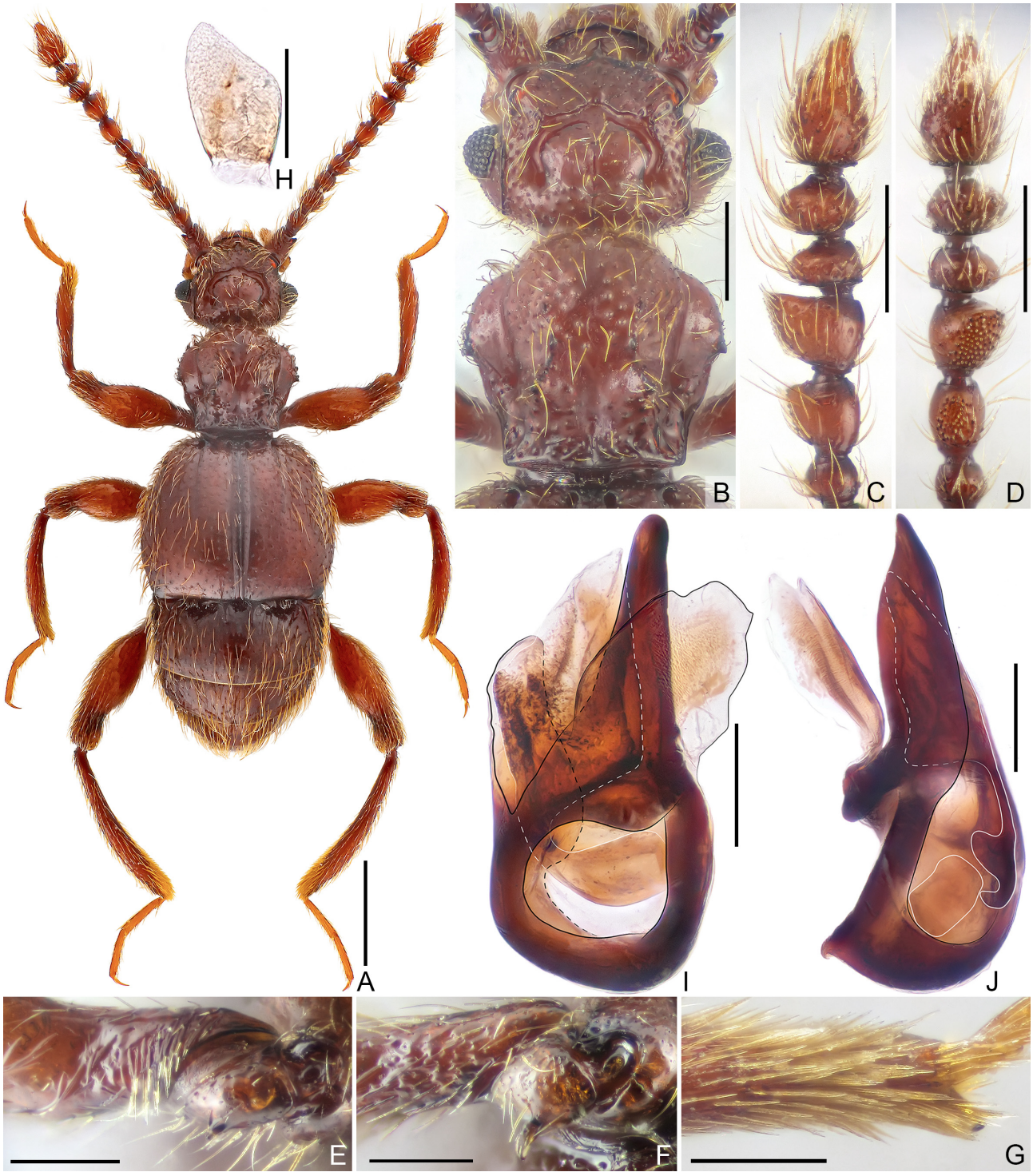

FIGURE 18. Morphology of *Coryphomodes jiangxiensis* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 6–11, in lateral view. **D.** Antennomeres 6–11, in dorsal view. **E.** Protrochanter. **F.** Mesotrochanter. **G.** Apex of mesotibia. **H.** Sternite 7 (IX). **I, J.** Aedeagus, in ventral (I) and lateral (J) view. Scale bars: 0.5 mm in A; 0.2 mm in B–D; 0.1 mm in E–J.

Diagnosis. *Male*. Body length approximately 2.3 mm, dorsal surface covered with dense pubescence; head transverse, sub-rectangular at base, as wide as pronotum; vertex with deep U-shaped sulcus connecting large, asetose vertexal foveae, lateral vertexal carina complete, mediobasal carina thin and long; antenna moniliform, antennomeres 7 and 8 strongly protruding on ventral margins, ventral side with dense short setae. Pronotum with shallow median and lateral longitudinal sulci, with pair of weakly curved discal carinae and pair of distinct antebasal

spines. Elytra with two basal foveae, discal stria extending posteriorly from outer basal fovea to apical 1/2 of elytral length, lacking subhumeral fovea. Legs elongate; protrochanter with tiny ventral spine; mesotrochanter with large, triangular ventral spine; mesotibia with distinct apical tubercle. Abdomen slightly curved ventrally. Aedeagus asymmetric; median lobe with large basal capsule and foramen, ventral stalk long, narrowing towards apex; dorsal lobe abruptly narrowed and curved near base; parameres membranous at lateral margin.

Description. *Male*. Body (Fig. 18A) length 2.31 mm, dorsal surface of body covered with dense pubescence; color reddish-brown, legs and mouthparts slightly lighter.

Head (Fig. 18B) much wider than long, sub-rectangular at base, length 0.44 mm, width across eyes 0.57 mm; vertex finely punctate, slightly convex between antennal tubercles, large vertexal foveae (dorsal tentorial pits) asetose, with deep, laterally carinate U-shaped sulcus connecting foveae, lateral vertexal carina distinct, extending from head base anteriorly to base of antennal tubercle, mediobasal carina faint, extending from head base anteriorly to level of eye midpoint; antennal tubercles weakly raised, with large lateral postantennal pit; frons shallowly impressed medially, frons anteriorly demarcated from clypeus by complete frontal-clypeal ridge, which merges at middle and extends anteriorly to apex of clypeus; clypeus transverse, its anterior margin strongly carinate and raised; ocular-mandibular carina complete, carina branched before eye, extended ventrally and then anteriorly to posteroventral articulation of mandible, lacking ocular canthi. Venter with small gular foveae (posterior tentorial pits) originating from shared oval opening, median carina thin, extending from opening anteriorly to mouthparts. Compound eyes each composed of approximately 60 ommatidia. Antenna (Fig. 18C, D) length 1.30 mm; antennomere 1 thick, subcylindrical, 2 and 7 elongate, 3–6 each moniliform, 6 smallest, 7 and 8 strongly protruding on ventral margins and with dense short setae on ventral side, 9 and 10 transverse, 11 largest, 1.2 times as long as 9 and 10 combined, sub-fusiform.

Pronotum (Fig. 18B) approximately as long as wide, length 0.52 mm, width 0.55 mm, widest at middle; lateral margins rounded at apical 1/2, sub-parallel at basal 1/4; disc moderately convex, finely punctate, median longitudinal sulcus broad, indistinct, with pair of shallow lateral longitudinal sulci, discal carinae slightly curved, posteriorly confluent with large antebasal spine; lateral margin with pair of large marginal spines; large lateral antebasal foveae asetose; with indistinct outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra finely punctate, length 0.74 mm, width 0.90 mm; each elytron with two large, asetose basal foveae; discal stria shallow and long, extending posteriorly from outer basal fovea to apical 1/2 of elytral length; humerus denticulate; lacking subhumeral fovea, marginal stria complete.

Mesoventrite short, demarcated from metaventrite by ridged anterior edges of impressed areas where lateral mesocoxal foveae situated at mesal margins; median mesoventral foveae widely separated, originating from shared transverse opening, lateral mesoventral foveae forked internally, with short mesoventral process, with complete marginal stria. Metaventrite moderately impressed at middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small slit at middle.

Legs elongate; protrochanter (Fig. 18E) with tiny spine on ventral margin; mesotrochanter (Fig. 18F) with large, triangular spine on ventral margin; mesotibia (Fig. 18G) with distinct apical tubercle.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.86 mm, width 0.79 mm. Tergite 1 (IV) elongate, approximately 1.8 times as long as 2 (V), with pair of short discal carinae, lacking basal sulcus, with one pair of close mediobasal and two pairs of setose basolateral foveae, with thin oblique inner carina and thick outer marginal carina; tergite 2 (V) longer than 3 (VI), 4 (VII) as long as 3, each with one pair of small basolateral foveae; tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and two pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3 and 4 each with two pairs of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 18H) weakly sclerotized, sub-trapezoidal.

Aedeagus (Fig. 18I, J) 0.39 mm long, dorso-ventrally asymmetric; median lobe with large basal capsule and foramen, ventral stalk long, gradually narrowing towards apex, basoventral projection tiny, indistinct; dorsal lobe large, abruptly narrowed and curved near base, weakly sclerotized; parameres fused, broad and flattened, membranous at lateral margin.

Female. Unknown.

Comparative notes. *Coryphomodes jiangxiensis* has only two pair of basal foveae on each elytron, which best suits the original definition of this genus. The male of this species can be separated by the modified antennomeres 7 and 8, the vertex with a deep, carinate U-shaped sulcus as well as an elongate aedeagus.

Distribution. East China: Jiangxi.

Etymology. This species is named after Jiangxi Province, where its type locality is situated.

***Coryphomodes parvipunctatus* sp. nov.**
(Fig. 19)

Chinese common name: 细点邻窝蚁甲

Type material (19 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Guilin, Huaping N. R., 25°37'39.83"N, 109°54'20.23"E, 780 m, 18.viii.2020, streamside, Qiu Lu leg. [广西省桂林市花坪自然保护区]' (SNUC); **PARATYPES: CHINA:** 3 ♂♂, 6 ♀♀, same data as that of holotype; 1 ♀, same locality as that of holotype, except 'Hongtan, 25°36'15"N, 109°57'35"E, 820–950 m, 24.iv.2021, sifting, Yin, Zhang, Pan & Shen leg. [广西花坪红滩]'; 1 ♂, 'China: Guangdong, Province, Ruyuan County, Nanling N. R., Babaoshan, station 24°55'43"N, 113°00'58"E, decaying log, 1030 m, 06.v.2015, Z Peng, YY Tu, ZD Zhou leg.'; 2 ♀♀, same collectors and also from Nanling N. R., except 'Disilindao, 24°55'47"N, 112°59'50"E, mixed forest, leaf litter, wood, sifted 1500 m, 05.v.2015,'; 1 ♂, 'China: Guangdong, Shaoguan, Ruyuan, Nanling, Qinshuigu, 24°55'42.9"N, 113°0'59.06"E, 680–780 m, 5.v.2021, sifting, Hu, Lin, Zhou & Li leg. [广东南岭亲水谷]'; 1 ♀, same locality and collector, except 'Pubuqun, 24°54'9"N, 113°2'53.8"E, 660–850 m,

3.v.2021,'; 1 ♂, 'China: Hunan, Chenzhou Yizhang County, Mangshan N. R., 24°56'26"N, 112°59'18"E, mixed forest, leaf litter, wood, sifted & beating, 1400 m, 26.iv.2015, Peng, Tu, Zhou leg.'; 1 ♀, 'China: Hunan, Chenzhou City, Ruchen County, Sishui Mt., 25°27'47.45"N, 113°54'47.99"E, 550–650 m, 10.v.2021, Hu, & Lin. [湖南郴州汜水山]'; 1 ♀, same collectors and also from Sishui Mt., except '650 m, 12.v.2021,' (SNUC).

Diagnosis. *Male*. Body length approximately 1.7–1.8 mm, dorsal surface covered with sparse long pubescence; head rounded triangular, as broad as pronotum, vertex highly modified, vertex with lateral impressed areas and one pair of large mediobasal cavities; antenna lacking modifications. Pronotum with laterally carinate median sulcus and shallow lateral longitudinal sulci, with small antebasal and marginal spines. Elytron with three separated basal foveae, discal stria shallow and short, lacking subhumeral fovea; disc with sparse, small punctures. Mesotrochanter with tiny ventral spine, metatrochanter with curved ventral projection. Abdomen with elongate tergite 1 (IV), lacking mediobasal foveae or discal carinae. Aedeagus strongly asymmetric, stout; median lobe protruding at apex, ventral stalk expanded apically, dorsal lobe plate-like, parameres membranous. *Female*. Body length approximately 1.85 mm, head and legs lacking modifications, genitalia as in Fig. 19K.

Description. *Male*. Body (Fig. 19A) length 1.65–1.76 mm, dorsal surface of body covered with sparse long pubescence; color reddish-brown, legs and mouthparts slightly lighter.

Head (Fig. 19B, C) rounded triangular, wider than long, length 0.34–0.36 mm, width across eyes 0.43 mm; vertex smooth, two large mediobasal cavities distinctly ridged posteriorly, weakly carinate anteriorly, with tufts of setae at middle of posterior margin; areas lateral to cavity with pair of round, rough impressions, with one thick, hook-like median protuberance between two cavities, lacking lateral vertexal carina; antennal tubercles weakly raised, with small dorsal postantennal pit; frons shallowly impressed medially, frons anteriorly demarcated from clypeus by complete frontal-clypeal ridge, which merges at middle and extends anteriorly to apex of clypeus; clypeus transverse, its anterior margin strongly carinate and raised; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared oval opening, median carina thin, extending from opening anteriorly to mouthparts. Compound eyes each composed of approximately 50 ommatidia. Antenna lacking modifications, length 0.78–0.80 mm; antennomere 1 thick, subcylindrical, 2–10 each moniliform, 2 and 3 slightly elongate, 4–9 short, each approximately as long as wide, 8 smallest, 9 much larger than 8, 10 slightly broader than 9, 11 largest, slightly longer than 9 and 10 combined, subconical.

Pronotum (Fig. 19B) slightly wider than long, length 0.38–0.39 mm, width 0.42–0.44 mm, widest at anterior middle; lateral margins rounded at apical 1/2, basally evenly convergent; disc moderately convex, with sparse but distinct punctures, median longitudinal sulcus with carinate sides at middle, with pair of shallow lateral longitudinal sulci, with small antebasal and marginal spines; lateral antebasal foveae asetose; with indistinct outer and inner pair

of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra finely punctate, length 0.56–0.58 mm, width 0.70–0.72 mm; each elytron with three large, asetose basal foveae; discal stria only broadly and shallowly present for short distance posterior to outer basal fovea; humerus weakly and broadly prominent, lacking subhumeral fovea, carinate marginal stria extending from basal 1/4 to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae widely separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle. Marginal carina complete, extending from anterior margin of mesoventrite to posterior margin of metaventrite.

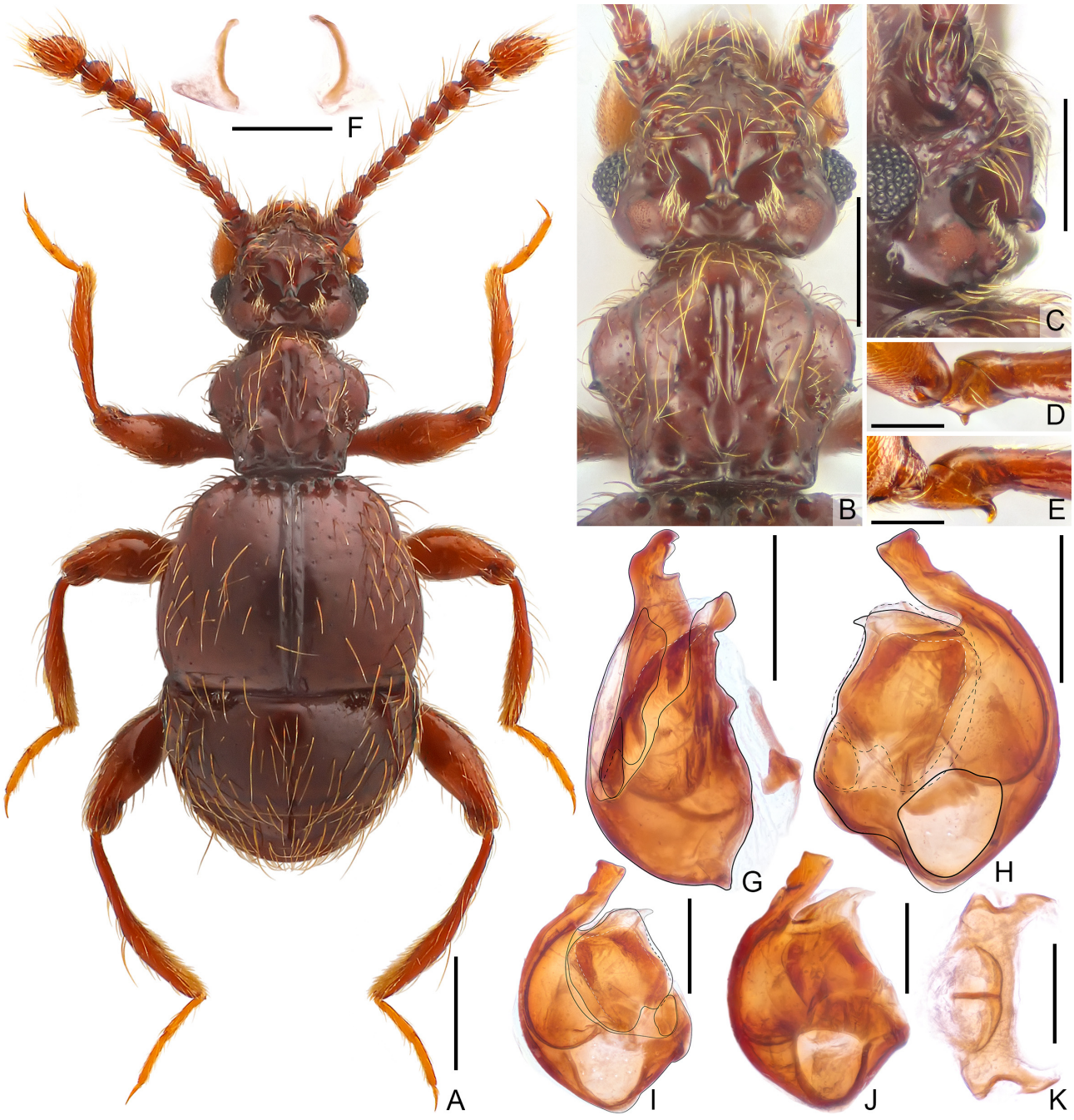

FIGURE 19. Morphology of *Coryphomodes parvipunctatus* **sp. nov.** (A–J. Male. K. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Head, in lateral view. **D.** Mesotrochanter. **E.** Metatrochanter. **F.** Sternite 7 (IX). **G–J.** Aedeagus, in lateral (G) ventral (H, J) and dorsal (I) view. **K.** Genitalia. Scale bars: 0.3 mm in A; 0.2 mm in B, C; 0.1 mm in D–K.

Legs slightly elongate; foreleg simple, mesotrochanter (Fig. 19D) with small spine on ventral margin; metatrochanter (Fig. 19E) with large, apically curved ventral projection.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.56–0.57 mm, width 0.66–0.69 mm. Tergite 1 (IV) elongate, approximately 3 times as long as 2 (V), lacking mediobasal foveae or discal carinae, basal sulcus thin and shallow, with large basolateral foveae at lateral margins of sulcus, inner marginal carina slightly oblique, complete, outer one thicker, complete; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined; tergites 2–4 (V–VII) each with one pair of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3–5 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 19F) membranous, weakly sclerotized laterally.

Aedeagus (Fig. 19G–J) 0.26 mm long, dorso-ventrally strongly asymmetric, stout; median lobe strongly protruding at apex on one side, truncate at apex, with broad basal capsule and rounded triangular foramen, basoventral projection short, ventral stalk apically expanded; non-articulated dorsal lobe flattened, weakly sclerotized; parameres membranous.

Female. Similar to male in external morphology. Head lacking large mediobasal cavities and modifications, with distinct vertexal foveae (dorsal tentorial pits); mesotrochanter and metatrochanter lacking ventral projection. Each compound eye composed of approximately 20 ommatidia. Measurements (as for male): body length 1.83–1.86 mm; length/width of head 0.36 / 0.44–0.47 mm, pronotum 0.38–0.40 / 0.45 mm, elytra 0.54–0.56 / 0.69–0.72 mm; abdomen 0.58–0.62 / 0.67–0.71 mm; length of antenna 0.79–0.82 mm; maximum width of genital complex (Fig. 19K) 0.21 mm.

Comparative notes. This species is morphologically most similar to the Tibetan *C. cephalicus* Yin and *C. budda* Yin, and can be readily separated from both by the small punctures that cover the dorsal surface of the elytra, and the characteristic cephalic modifications of male. One male has a "mirrored" aedeagus (Fig. 19J).

Distribution. Central China: Hunan; South China: Guangdong; Southwest China: Guangxi.

Etymology. The specific epithet is combined from the Latin '*parvus*' (small) and '*pűnctâtus*' (punctate), referring to the sparse and small punctures on the dorsal surface.

***Coryphomodes simplex* sp. nov.**
(Fig. 20)

Chinese common name: 素邻窝蚁甲

Type material (2 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Guangdong, Shaoguan, Ruyuan, Nanling, Qinshuigu, 24°55'42.9"N, 113°0'59.06"E, 680–780 m, 5.v.2021, sifting, Hu, Lin, Zhou & Li leg. [广东南岭亲水谷]' (SNUC); **PARATYPES: CHINA:** 1 ♀, same data as that of holotype (SNUC).

Diagnosis. *Male*. Body length approximately 2.3 mm, dorsal surface covered with moderately dense pubescence; elytra and abdomen with dense large punctures. Head rounded triangular, slightly wider than pronotum, vertex smooth, with indistinct U-shaped impression connecting asetose foveae, mediobasal carina faint, extending from head base anteriorly to level of eye midpoint, dorsal postantennal pit large. Pronotum with long median sulcus and shallow lateral longitudinal sulci, with distinct antebasal and tiny marginal spines. Elytron with three large, asetose basal foveae, inner two close, discal stria shallow and short, lacking subhumeral fovea. Fore legs simple, mesotrochanter and mesotibia with tiny spine, metatrochanter with curved ventral projection. Abdomen with elongate tergite 1 (IV), lacking mediobasal foveae or discal carinae. Aedeagus strongly asymmetric, stout; median lobe weakly protruding at apex, ventral stalk with two small notches near apex, dorsal lobe plate-like, parameres membranous, with one weakly sclerotized sclerite near lateral margin. *Female*. Body length 2.14 mm, legs lacking modifications, genitalia as in Fig. 20J.

Description. *Male*. Body (Fig. 20A) length 2.26 mm, dorsal surface of body covered with moderately dense pubescence; color reddish-brown, legs and mouthparts slightly lighter.

Head (Fig. 20B) rounded triangular, wider than long, length 0.40 mm, width across eyes 0.50 mm; vertex smooth, with large, asetose vertexal foveae (dorsal tentorial pits), with shallow U-shaped impression connecting foveae, lacking lateral vertexal carina, mediobasal carina faint, weakly extending from head base anteriorly to level

of eye midpoint; antennal tubercles weakly raised, with large dorsal postantennal pit; frons shallowly impressed medially, frons anteriorly demarcated from clypeus by complete frontal-clypeal ridge, which merged at middle and extending anteriorly to apex of clypeus; clypeus with rough surface, its anterior margin strongly carinate and raised; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared oval opening, median carina thin, extending from opening anteriorly to mouthparts. Compound eyes each composed of approximately 55 ommatidia. Antenna lacking modifications, length 1.06 mm; antennomere 1 thick, subcylindrical, 2–5 longer than wide, 6–10 each moniliform, 8 smallest, 9 much larger than 8, 10 slightly broader than 9, 11 largest, as long as 9 and 10 combined, subconical.

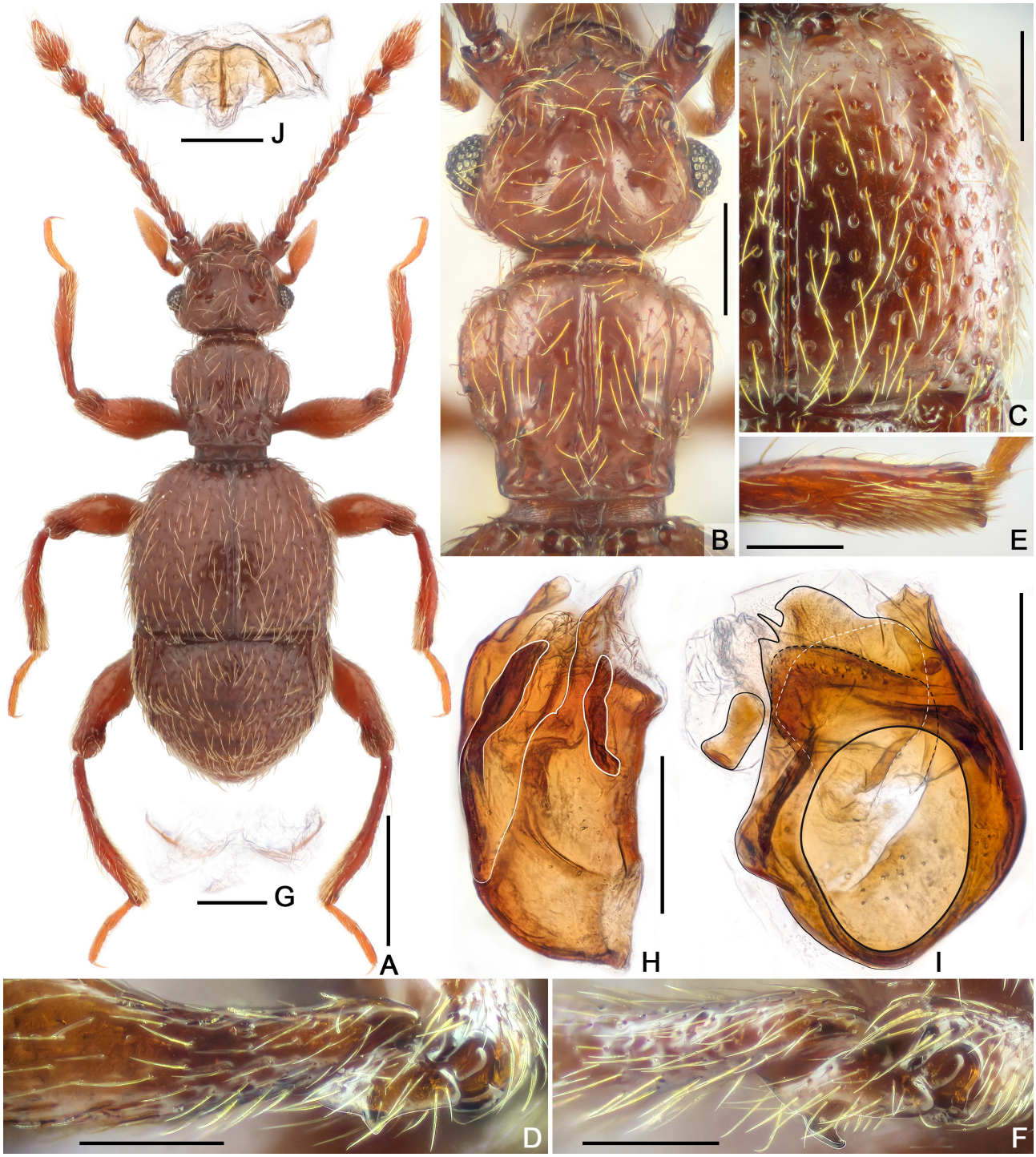

FIGURE 20. Morphology of *Coryphomodes simplex* **sp. nov.** (A–I. Male. J. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Right elytron. **D.** Mesotrochanter. **E.** Apex of mesotibia. **F.** Metatrochanter. **G.** Sternite 7 (IX). **H, I.** Aedeagus, in lateral (H) and ventral (I) view. **J.** Genitalia. Scale bars: 0.5 mm in A; 0.2 mm in B, C; 0.1 mm in D–J.

Pronotum (Fig. 20B) approximately as long as wide, length 0.44 mm, width 0.46 mm, widest at anterior middle; lateral margins rounded at apical 1/2, basally evenly convergent; disc moderately convex, finely punctate, laterally carinate median longitudinal sulcus thin and long, with pair of shallow lateral longitudinal sulci, with distinct antebasal and tiny marginal spines; small lateral antebasal foveae asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra (Fig. 20C) with dense large punctures, length 0.68 mm, width 0.79 mm; each elytron with three large, asetose basal foveae, inner two close; discal stria only broadly and shallowly present for short distance posterior to outer basal fovea; humerus weakly and broadly prominent, lacking subhumeral fovea, carinate marginal stria extending from basal 1/4 to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae widely separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle. Marginal carina complete, extending from anterior margin of mesoventrite to posterior margin of metaventrite.

Legs slightly elongate; foreleg simple, mesotrochanter (Fig. 20D) with small spine on ventral margin, mesotibia (Fig. 20E) with tiny apical denticle; metatrochanter (Fig. 20F) with large, apically curved ventral projection.

Abdomen with dense large punctures, widest at lateral margins of tergite 1 (IV), length 0.80 mm, width 0.76 mm. Tergite 1 (IV) elongate, approximately twice as long as 2 (V), lacking mediobasal foveae or discal carinae, basal sulcus thin, with large basolateral foveae at lateral margins of sulcus, inner marginal carina slightly oblique, complete, outer one thicker, complete; tergite 2 (V) as long as 3 (VI), 4 (VII) slightly shorter than 3; tergites 2–4 (V–VII) each with one pair of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3–5 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 20G) membranous, weakly sclerotized laterally.

Aedeagus (Fig. 20H, I) 0.26 mm long, dorso-ventrally strongly asymmetric, stout; median lobe weakly protruding at apex on one side, with broad basal capsule and oval foramen, basoventral projection short, ventral stalk broad, with two small notches near apex; non-articulated dorsal lobe flattened, weakly sclerotized; parameres membranous, with small weakly sclerotized sclerite near left margin in ventral view.

Female. Similar to male in external morphology. Legs lacking modifications. Each compound eye composed of approximately 40 ommatidia. Measurements (as for male): body length 2.14 mm; length/width of head 0.41 / 0.50 mm, pronotum 0.45 / 0.45 mm, elytra 0.66 / 0.78 mm; abdomen 0.73 / 0.74 mm; length of antenna 1.06 mm; maximum width of genital complex (Fig. 20J) 0.26 mm.

Comparative notes. This species is morphologically similar to *C. chenzhilini* Yin from Xizang in sharing a similarly unmodified vertex, and elytra covered with dense, large punctures. The male of this species can be separated from *C. chenzhilini* by the smaller marginal spines of the pronotum, mesotrochanter with a tiny ventral spine (with large ventral spine in *C. chenzhilini*), as well as the characteristic form of the aedeagus.

Distribution. South China: Guangdong.

Etymology. The Latin adjective *simplex* (single, simple) suggests that the male of this species lacks distinct sexual characters.

Dendrolasiophilus Nomura, 2010

Chinese common name: 光蚁甲属

Dendrolasiophilus Nomura, 2010: 53 (invalid in Nomura, 2008). Type species: *Batrisus concolor* Sharp, 1883 (original designation).

This genus is represented by five species distributed in China (2 spp.), Japan (2 spp.) and Russia (2 sp.), all of the known species are inquilines of *Lasius* Fabricius ants, with a smooth, nearly glabrous dorsal surface, and can be

separated from *Songius* and *Tangius* Yin & Li by the elytra with only one pair of basal foveae (with another smaller fovea, probably an atavism of the second basal fovea in *D. subitus* Kurbatov & Kovalev 2022).

Dendrolasiophilus wenhsini Yin & Li, 2013

Chinese common name: 文信光蚁甲

Dendrolasiophilus wenhsini Yin & Li, 2013: 184. Type locality: China: Guangxi, Xing'an County, Maoer Shan N. R., pass near the checkpoint, 26°53′04″N, 110°29′16″E, ca. 1150 m.

Additional material examined (3 exx.)**.** 1 ♂, 'China: Guizhou, Leishan, Leigong Mt., Xiannutang, 26°22'22.11"N, 108°11'52.12"E, 1550 m, 3.v.2021, Tang, Peng, Cai & Song leg. [贵州雷山县雷公山仙女塘]'; 2 ♀♀, same data as that of holotype (SNUC).

Distribution. Southwest China: Guangxi; Guizhou. **New provincial record for Guizhou**.

Host ant. *Lasius* (*Dendrolasius*) *spathepus*.

Hypochraeus Raffray, 1904

Chinese common name: 宽腹蚁甲属

Hypochraeus Raffray, 1904:13. Type species: *Batrisoschema humeralis* Raffray (subsequent designation by Newton & Chandler 1989: 37).

The genus *Hypochraeus* previously comprised four species distributed in Indonesia (Raffray 1894, 1904; Chandler 2001). This genus is recorded from China for the first time. Morphologically, members of *Hypochraeus* shares a robust body as well as a round triangular head, the pronotum lacking the outer and inner pair of basolateral foveae, with a pair of marginal spines and a long laterally carinate median longitudinal sulcus almost through the length of the entire pronotum, and abdominal tergite 1 (IV) with a pair of large basolateral foveae near the oblique inner marginal carinae.

Key to species of *Hypochraeus* from Nanling Mountain Area (males)

1 Body flattened, sides posteriorly broadening (Fig. 22A); head with setose vertexal foveae (Fig. 22B); pronotum with one pair of short antebasal spines and marginal spines (Fig. 22B); elytron covered with large punctures . . . . . ***H. complanatus* sp. nov.**

\- Body stout, sides posteriorly sub-parallel (Fig. 21A); head with asetose vertexal foveae (Fig. 21B); pronotum with four hook-like discal spines and pair of marginal spines (Fig. 21B); elytron finely punctate . . . . . .***H. robustus* sp. nov.**

Hypochraeus complanatus sp. nov.

(Fig. 21)

Chinese common name: 异宽腹蚁甲

Type material (1 ex.). **HOLOTYPE: CHINA:** ♂, 'China: Jiangxi, Ji'an City, Jinggang Shan, Bijia Shan, 26°31'08"N, 114°11'22"E, mixed leaf litter, sifted 400–600 m, 23.vii.2014, Chen, Hu, Lü & Yu leg.' (SNUC).

Diagnosis. *Male*. Body length approximately 2.3 mm, dorsal surface flattened, covered with dense short pubescence. Head rounded triangular, transverse, narrower than pronotum, vertex with deep U-shaped sulcus connecting large, setose vertexal foveae, mediobasal carina indistinct, frons strongly raised, with thick frontal-clypeal ridge, antenna moderately short, lacking modifications. Pronotum with long laterally carinate median longitudinal sulcus and deep lateral longitudinal sulci, with pair of short but distinct antebasal spines and marginal spines. Elytron gradually narrowing towards base, covered with large punctures, discal stria shallow, extending

from outer basal fovea to apical 1/3 of elytral length, lacking subhumeral fovea. Metatrochanter with large, blunt ventral projection. Abdomen large, lacking mediobasal foveae or discal carinae, with thin but deep, laterally curved basal sulcus. Aedeagus asymmetric; median lobe with broad basal capsule and subtriangular foramen, ventral stalk elongate, dorsal lobe thin and long, strongly curved at middle and base, parameres membranous.

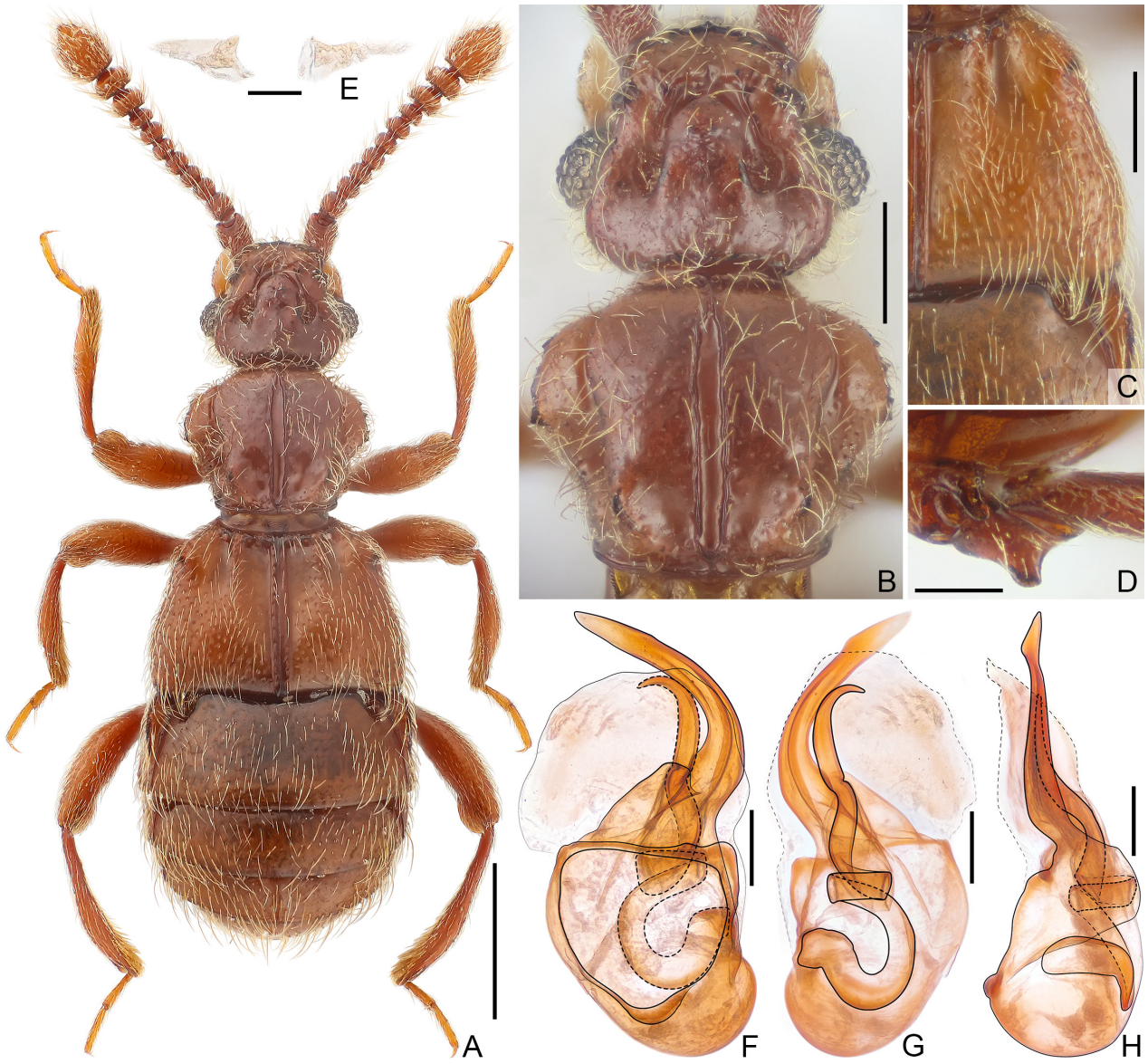

FIGURE 21. Morphology of *Hypochraeus complanatus* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Right elytron. **D.** Metatrochanter. **E.** Sternite 7 (IX). **F**–**H.** Aedeagus, in ventral (F), dorsal (G) and lateral (H) view. Scale bars: 0.5 mm in A; 0.4 mm in C; 0.2 mm in B, C; 0.1 mm in D–H.

Description. *Male*. Body (Fig. 21A) length 2.29 mm, dorsal surface of body covered with dense short pubescence; color light reddish-brown, tarsi and mouthparts slightly lighter.

Head (Fig. 21B) rounded triangular, wider than long, length 0.38 mm, width across eyes 0.51 mm; vertex smooth, setose vertexal foveae (dorsal tentorial pits) large, with deep U-shaped sulcus connecting foveae, lacking lateral vertexal carina, mediobasal carina faint, indistinct; antennal tubercles flattened, with distinct lateral postantennal pit; frons highly raised medially, demarcated from clypeus thick frontal-clypeal ridge; clypeus short, with median longitudinal carina, its anterior margin carinate; ocular-mandibular carina complete, branched before eye, extended to lateral margin of antennal socket. Venter with two gular foveae (posterior tentorial pits) closely separated, originating from shared oval opening, median carina short, present only posterior mouthparts for short distance. Compound eyes each composed of approximately 60 ommatidia. Antenna lacking modifications, length 0.94 mm; antennomere 1 thick, subcylindrical, 2 as long as wide, 3–10 each slightly transverse, 6 smallest, 7 and 8

narrowing towards apex, 9 much longer and broader than 8, 10 slightly broader than 9, 11 largest, as long as 8–10 combined, subconical.

Pronotum (Fig. 21B) wider than long, length 0.50 mm, width 0.59 mm, widest at anterior middle; lateral margins rounded at apical 1/2, basally evenly convergent; disc flattened, finely punctate, laterally carinate median longitudinal sulcus long, almost through entire pronotum, posteriorly confluent with extremely short mediobasal carina, with pair of deep, apically narrowed lateral longitudinal sulci, with pair of short but distinct antebasal spines and marginal spines; small lateral antebasal foveae asetose; lacking outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra (Fig. 21C) flat, covered with large but shallow punctures, gradually narrowing towards base, length 0.51 mm, width 0.81 mm; each elytron with three large, asetose basal foveae, inner two slightly close; discal stria only broadly extending from outer basal fovea to apical 1/3 of elytral length; humerus denticulate, lacking subhumeral fovea, carinate marginal stria only extending from posterior margin anteriorly for short distance.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae widely separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process. Metaventrite impressed at middle, with well-developed lateral mesocoxal foveae, two small lateral metaventral foveae close, posterior margin with small and narrow slit at middle. Marginal carina complete, extending from anterior margin of mesoventrite to posterior margin of metaventrite.

Legs robust, metatrochanter (Fig. 21D) with large, blunt ventral projection.

Abdomen finely punctate, widest at post-lateral margins of tergite 1 (IV), length 0.83 mm, width 0.88 mm. Tergite 1 (IV) approximately 1.6 times as long as 2 (V), lacking mediobasal foveae or discal carinae, with thin but deep, laterally curved basal sulcus connecting setose basolateral foveae, inner marginal carina oblique, outer one thicker, complete; tergites 2–4 (V–VII) gradually shorter, each with one pair of basolateral foveae and distinct inner marginal carina, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with two widely separated mediobasal foveae and two pairs of basolateral foveae originating from shared gourd-shaped opening; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3–5 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 21E) composed of pair of triangular, membranous structures.

Aedeagus (Fig. 21F–H) 0.59 mm long, dorso-ventrally strongly asymmetric; median lobe with broad basal capsule and large, subtriangular foramen, basoventral projection reduced, short, ventral stalk long, gradually narrowing towards apex and curved; dorsal lobe thin and long, strongly curved at base, spiraled at middle; parameres fused, broad and flattened, membranous.

Female. Unknown.

Comparative notes. The male of this species can be readily separated from those of all congeners by the flattened body, pair of setose vertexal foveae as well as abdominal tergite 1 (IV) with deep, laterally curved basal sulcus.

Distribution. East China: Jiangxi.

Etymology. The Latin participle *complânâtus* (*-a*, *-um*) refers to the flattened body of this species.

***Hypochraeus robustus* sp. nov.**
(Fig. 22)

Chinese common name: 壮宽腹蚁甲

Type material (1 ex.). **HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Guilin City, Xingan County Maoer shan, 25°54'52"N, 110°27'14"E, 1550–1750 m, mixed litter, sifted 24.vii.2012, Hu & Song.' (SNUC).

Diagnosis. *Male*. Body length approximately 2.7 mm, dorsal surface covered with long pubescence. Head rounded triangular, transverse, slightly narrower than pronotum, vertex with thick circular vertexal carina connecting large, asetose foveae, mediobasal carina extending from head base anteriorly to posterior margin of vertexal carina, frons highly raised, with short median longitudinal carina connecting vertexal carina and thick frontal-clypeal ridge, antenna lacking modifications. Pronotum with long laterally carinate median longitudinal sulcus and deep lateral

longitudinal sulci, with two pairs of hook-like discal spines and one pair of marginal spines. Elytron broad, with three large, asetose basal foveae, inner two close, discal stria shallow, extending from outer basal fovea to apical 1/2 of elytral length, lacking subhumeral fovea. Legs simple. Abdomen large, lacking mediobasal foveae or discal carinae. Aedeagus asymmetric, stout; median lobe with broad basal capsule and triangular foramen, ventral stalk broad, dorsal lobe thin and long, curved at base, parameres membranous.

Description. *Male*. Body (Fig. 22A) length 2.66 mm, dorsal surface of body covered with long pubescence; color reddish-brown, tarsi and mouthparts slightly lighter.

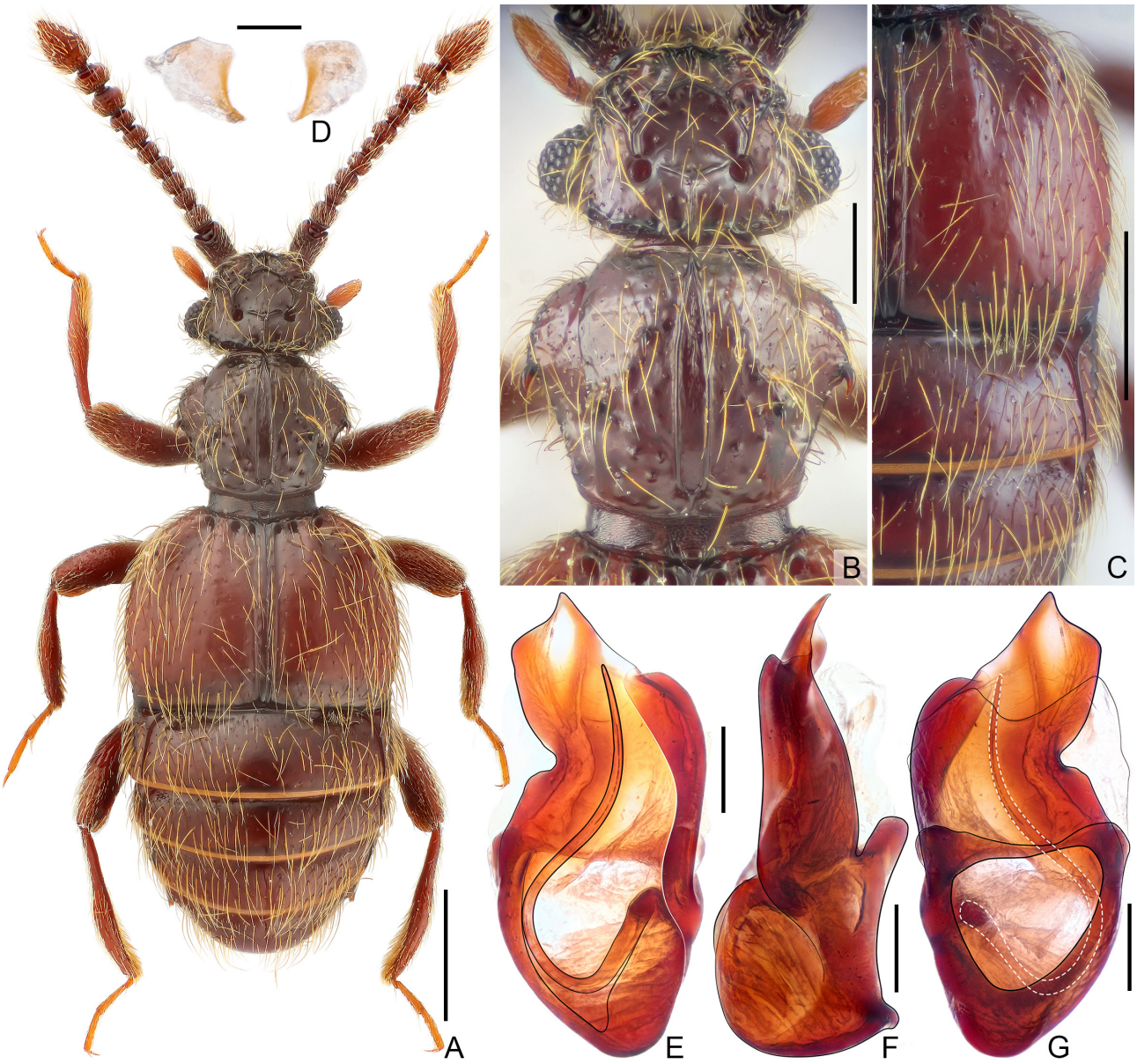

FIGURE 22. Morphology of *Hypochraeus robustus* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Right elytron. **D.** Sternite 7 (IX). **E**–**G.** Aedeagus, in dorsal (E), lateral (F) and ventral (G) view. Scale bars: 0.5 mm in A; 0.4 mm in C; 0.2 mm in B; 0.1 mm in D–G.

Head (Fig. 22B) rounded triangular, much wider than long, length 0.40 mm, width across eyes 0.60 mm; vertex with sparse small punctures, vertexal foveae (dorsal tentorial pits) large and asetose, with thick circular vertexal carina connecting foveae, with pair of smaller circular carinae fused at lateral margin, lateral vertexal carina reduced, mediobasal carina thin, extending from head base anteriorly to posterior margin of vertexal carina; antennal tubercles flattened, with dense large punctures along lateral posterior margin, lacking postantennal pit; frons highly raised medially, with short median longitudinal carina connecting vertexal carina and thick frontal-clypeal ridge, and extending anteriorly to clypeus; clypeus short, anterior margin carinate; ocular-mandibular carina

complete, branched before eye, extended to lateral margin of antennal socket. Venter with two gular foveae (posterior tentorial pits) widely separated, originating from shared transverse opening, median carina distinct, extending from opening anteriorly to mouthparts. Compound eyes each composed of approximately 55 ommatidia. Antenna lacking modifications, length 1.17 mm; antennomere 1 thick, subcylindrical, 2–8 each sub-moniliform, 2 as long as wide, 3–8 each slightly wider than long, 6 smallest, 9 much longer and broader than 8, 10 slightly broader than 9, 11 largest, longer than 9 and 10 combined, subconical.

Pronotum (Fig. 22B) wider than long, length 0.55 mm, width 0.67 mm, widest at anterior middle; lateral margins rounded at apical 1/2, basally evenly convergent; disc moderately convex, finely punctate, laterally carinate median longitudinal sulcus long, almost through entire pronotum, posteriorly confluent with extremely short mediobasal carina, with pair of deep lateral longitudinal sulci, with four distinct hook-like discal spines and one pair of long curved marginal spines; small lateral antebasal foveae asetose; lacking outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra (Fig. 22C) with finely punctate, strongly transverse, length 0.68 mm, width 1.04 mm; each elytron with three large, asetose basal foveae, inner two close; discal stria only broadly and shallowly extending from outer basal fovea to apical 1/2 of elytral length; humerus denticulate, lacking subhumeral fovea, carinate marginal stria extending from basal 1/4 to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae widely separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process. Metaventrite impressed at middle, with well-developed lateral mesocoxal foveae, two small lateral metaventral foveae close, originating from shared circular opening, posterior margin with small and narrow slit at middle. Marginal carina complete, extending from anterior margin of mesoventrite to posterior margin of metaventrite.

Legs robust, simple.

Abdomen finely punctate, widest at lateral margins of tergite 1 (IV), length 1.04 mm, width 0.98 mm. Tergite 1 (IV) approximately 1.25 times as long as 2 (V), lacking mediobasal foveae or discal carinae, basal sulcus reduced, with large basolateral foveae near oblique inner marginal carina, outer one thicker, complete; tergites 2–4 (V–VII) about same length, each with one pair of basolateral foveae and distinct inner marginal carina, which turn into small denticle at lateral margin of tergite 4, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with two close mediobasal foveae and two pairs of basolateral foveae originating from shared gourd-shaped opening; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3–5 each with one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 22D) composed of pair of triangular, membranous structures.

Aedeagus (Fig. 22E–G) 0.54 mm long, dorso-ventrally strongly asymmetric, stout; median lobe with broad basal capsule and triangular foramen, basoventral projection short, ventral stalk broad, concave at lateral margin and abruptly narrowing apically; dorsal lobe thin and long, curved at base; parameres fused, broad and flattened, membranous.

Female. Unknown.

Comparative notes. This species is morphologically similar to *H. humeralis* Raffray and *H. granosus* Raffray from Southeast Asia in sharing a similar robust body and modified vertexal carina. The male of this species can be readily separated from these two species by the sub-rectangular carina of the vertex (with a 'ϕ'-shaped vertexal carina in other two species).

Distribution. Southwest China: Guangxi.

Etymology. The Latin adjective *rôbustus* (*-a*, *-um*) (firm, solid, robust) refers to the stout elytron and abdomen of this species.

Intestinarius Kurbatov, 2007

Chinese common name: 川纹蚁甲属

Intestinarius Kurbatov, 2007: 281. Type species: *Batrisus quinquesulcatus* Raffray, 1894 (original designation).

The genus is represented in China by three species distributed in Yunnan, Guangdong, and Guizhou (Kurbatov 2007; Yin *et al*. 2011c), This genus has a highly conservative external morphology and the correct identification must be based on the study of the male sexual characters and the aedeagus. Members of this genus shares an elongate, rectangular head, the vertex with three longitudinal sulci, a globular pronotum with five longitudinal sulci and one relatively short antebasal sulcus, and the abdomen with an elongate tergite 1 (IV). Two additional species are described here.

Key to species of *Intestinarius* from Nanling Mountain Area (males)

1 Metatrochanter with short setae on ventral margin 2
- Metatrochanter with smooth ventral margin 3
2 Mesotibia with small apical denticle (Fig. 23D) . . . . . ***I. guangxiensis* sp. nov.**
- Mesotibia simple, lacking apical denticle . . . . . ***I. guangdongensis* Yin & Li, 2011**
3 Aedeagus broad, dorsal lobe flat, membranous (Fig. 24H, I) . . . . . ***I. paralongiceps* sp. nov.**
- Aedeagus long, dorsal lobe with two elongate sclerotized sclerites . . . . . ***I. longiceps* Yin & Li, 2011**

Intestinarius guangdongensis Yin & Li, 2011

Chinese common name: 广东川纹蚁甲

Intestinarius guangdongensis Yin & Li in Yin *et al*. 2011c: 17. Type locality: China: Guangdong Prov., Shaoguan City, Nanling National N. R.

Additional material examined (109 exx.)**.** 3 ♂♂, 2 ♀♀, 'China: Hunan, Yongzhou city, Dupangling N. R., 25°24'33.74"N, 111°18'41.03"E, 600 m, 29.viii.2020, Qiu, Lu, leg. [湖南省永州市都庞岭自然保护区]' (SNUC); 1 ♂, 1 ♀, 'China: Guangdong Province Ruyuan County, Nanling N. R., Disilindao, 24°55'47"N, 112°59'50"E, mixed forest, leaf litter, wood, sifted, 1500 m, 05.v.2021, Peng, Tu, Zhou leg.' (SNUC); 4 ♂♂, 4 ♀♀, same collector and also from Nanling N. R., except 'Laopengkeng, 24°56'29"N, 113°00'27"E, mixed forest, leaf litter, wood, sifted, 1360 m, 29.iv.2015,' (SNUC); 8 ♂♂, 14 ♀♀, same collector and also from Nanling N. R., except 'Walkway, 24°55'57"N, 113°00'18"E, mixed forest, leaf litter, wood, sifted, 1220 m, 28.iv.2015,' (SNUC); 1 ♂, 'China: Guangdong, Prov, Ruyuan, County Nanling, N. R., alt. 1100 m, 14.viii.2008, QI N & YIN Z-W leg.' (SNUC); 11 ♂♂, 10 ♀♀, 'China: Guangdong, Shaoguan, Ruyuan County, Nanling N. R., 24°55'42.9"N, 113°0'59.05"E, 1020–1250 m, 4.v.2021, sifting, Hu, Lin, Zhou & Li leg. [广东乳源县南岭管理站附近]' (SNUC); 4 ♂♂, 9 ♀♀, same collector and also from Nanling N. R., except 'Qinshuigu, 24°55'42.9"N, 113°0'59.06"E, 680–780 m, 5.v.2021, [广东省南岭亲水谷]' (SNUC); 1 ♂, 2 ♀♀, same collector and also from Nanling N. R., except 'Pubuqun, 24°54'9"N, 113°2'53.8"E, 660–850 m, 3.v.2021, [广东南岭瀑布群]' (SNUC); 15 ♂♂, 19 ♀♀, 'China: Guangdong, Shaoguan, Nanling nature reserve, 24°55'43"N, 113°0'58"E, 1020 m, 27.vi.2020, Xia, Zhang, Yin, & Lin leg., [广东省韶关市南岭保护区]' (SNUC).

Distribution. Central China: Hunan; South China: Guangdong. **New provincial record for Hunan**.

Remarks. *Intestinarius guangdongensis* was described based on material from Nanling National Nature Reserve, the new material extends the range of this species to southern Hunan.

Intestinarius guangxiensis sp. nov.

(Fig. 23)

Chinese common name: 广西川纹蚁甲

Type material (93 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Guilin City, Xingan County, Maoer shan, 25°51'28"N, 110°29'04"E, 450–650 m, mixed litter, sifted, 25.vii.2012, Hu & Song leg.' (SNUC); **PARATYPES: CHINA:** 30 ♂♂, 34 ♀♀, same data as that of holotype; 7 ♂♂, 6 ♀♀, same locality as that of holotype, except 'Lijiangyuan, 25°52'04"N, 110°26'27"E, beech forest, mixed leaf litter, sifted, 1020 m, 28.vii.2014, Peng, Song,

Yu & Yan leg.'; 1 ♀, same locality as that of holotype, except '25°53'11"N, 110°28'13"E, beech forest, mixed leaf litter, humus sifted, 810 m, 28.vii.2014, Peng, Song, Yu & Yan leg.'; 9 ♂♂, 2 ♀♀, same locality as that of holotype, except 'Watchtower. 25°53'43.90"N, 110°28'38.27"E, 1350 m, 8.v.2021, sifting. Yin, Zhang, Pan & Shen leg. [广西兴安县猫儿山瞭望塔]'; 1 ♂, same locality as that of holotype, except 'Botanical Garden, 25°53'03.83"N, 110°29'13.53"E, 1160 m, 9.v.2021, FIT, Yin, Zhang, Pan & Shen leg. [广西兴安县猫儿山植物园 飞阻]'; 1 ♀, 'China: Guangxi, Guilin City, Huaping N. R., Hongtan, 25°36'15"N, 109°57'35"E, 820–950 m, 24.iv.2021, sifting, Yin, Zhang, Pan & Shen leg. [广西花坪红滩]'; 1 ♂, also from Huaping N. R., except 'Anjiangping alt, 1200 m, 13.vii.2011, HE & TANG leg.' (SNUC).

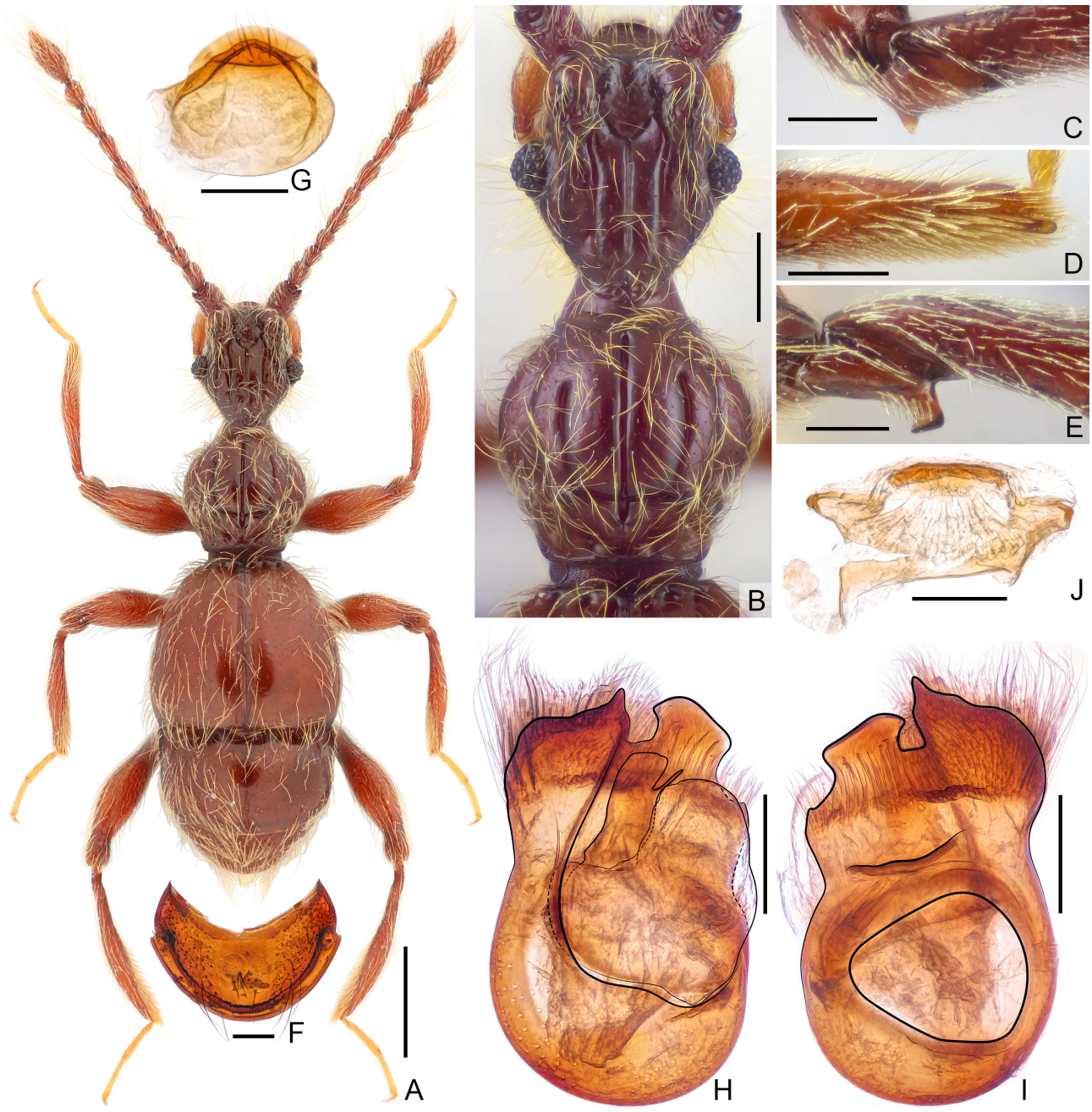

FIGURE 23. Morphology of *Intestinarius guangxiensis* **sp. nov.** (A–I. Male. J. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Mesotrochanter. **D.** Apex of mesotibia. **E.** Metatrochanter. **F.** Tergite 4 (VII). **G.** Sternite 7 (IX). **H, I.** Aedeagus, in dorsal (H) and ventral (I) view. **J.** Genitalia. Scale bars: 0.5 mm in A; 0.2 mm in B; 0.1 mm in C–J.

Diagnosis. *Male*. Body length approximately 2.5–2.6 mm, dorsal surface covered with dense pubescence. Head elongate, lateral margins subparallel, evenly convergent basally, narrower than pronotum, vertex with one pair of deep longitudinal sulci connecting small vertexal foveae, mediobasal carina long and distinct, lateral vertexal carina

complete, frons with deep impression at middle, antenna moderately elongate, lacking modifications. Pronotum with five long and deep sulci and relatively short antebasal sulcus, with pair of small antebasal spines. Elytron covered with tiny punctures, discal stria shallow, extending from outer basal fovea to apical 1/4 of elytral length, lacking subhumeral fovea. Mesotrochanter with triangular ventral projection; mesotibia with tiny apical denticle; metatrochanter with broad, curved ventral projection, with short setae on ventral margin. Abdomen with strongly elongate tergite 1 (IV), tergite 4 with tuft of short setae at middle. Aedeagus asymmetric; median lobe with dense, long setae at apex, basal capsule and foramen stout, ventral stalk short, slightly expanded at apex; dorsal lobe flat, membranous; parameres reduced. *Female*. Body length approximately 2.5 mm, legs and abdomen lacking modifications, genitalia as in Fig. 23J.

Description. *Male*. Body (Fig. 23A) length 2.48–2.58 mm, dorsal surface of body covered with dense pubescence; color reddish-brown, legs and mouthparts slightly lighter.

Head (Fig. 23B) elongate, lateral margins subparallel, evenly convergent basally, length 0.54–0.57 mm, width across eyes 0.52 mm; vertex smooth, flat, with small asetose vertexal foveae (dorsal tentorial pits) small at base, with pair of deep longitudinal lateral sulci connecting foveae, lateral vertexal carina complete, mediobasal carina thin but distinct, extending from head base anteriorly to level of anterior margin of eyes; antennal tubercles raised, with distinct lateral postantennal pit; frons with large, deep impression at middle, posterior margin confluent with mediobasal carina; clypeus with smooth surface, moderately short, its anterior margin slightly carinate and raised; ocular-mandibular carina complete, branched below eye, extended ventrally and then anteriorly to posteroventral articulation of mandible. Venter with two gular foveae (posterior tentorial pits) closely separated, originating from shared oval opening, median carina extending from mouthparts posteriorly to near apex of gular foveae. Compound eyes each composed of approximately 25 ommatidia. Antenna long, lacking modifications, length 1.49–1.52 mm; antennomere 1 thick, subcylindrical, 2 slightly smaller than 1, 3 and 4 approximately as long as wide, 5–11 each elongate, 6 smallest, 7 much longer than 6, 9 as long, but slightly wider than 7, 10 slightly shorter and broader than 9, 11 largest, as long as 9 and 10 combined, sub-fusiform.

Pronotum (Fig. 23B) as long as wide, length 0.54–0.56 mm, width 0.56 mm, widest at middle; lateral margins rounded; disc convex, smooth, median longitudinal sulcus deep and long, with one pair of shorter discal longitudinal sulci, connecting with deep antebasal sulcus and small antebasal spines at base, with lateral longitudinal sulcus slightly longer than discal sulcus and connecting lateral antebasal foveae; outer and inner pair of basolateral foveae present. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra wider than long, covered with small punctures, length 0.74–0.79 mm, width 0.85–0.87 mm; each elytron with three large, asetose basal foveae; discal stria only shallowly extending from outer basal fovea to apical 1/4 of elytral length; humerus indistinct, lacking subhumeral fovea, carinate marginal stria approximately extending from basal 1/3 to apex.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae widely separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process. Metaventrite impressed at middle, with well-developed lateral mesocoxal and lateral metaventral foveae, posterior margin with small and narrow slit at middle. Marginal carina complete, extending from anterior margin of mesoventrite to posterior margin of metaventrite.

Legs elongate, mesotrochanter (Fig. 23C) with triangular ventral projection; mesotibia (Fig. 23D) with tiny apical denticle; metatrochanter (Fig. 23E) with broad, curved ventral projection, with short setae on ventral margin.

Abdomen finely punctate, widest at post-lateral margins of tergite 1 (IV), length 0.79–0.81 mm, width 0.78–0.79 mm. Tergite 1 (IV) strongly elongate, approximately as long as 2–4 (V–VII) combined, with short triangular discal carinae, with thin basal sulcus separated by one pair of mediobasal and two pair of basolateral foveae, inner marginal carina oblique, complete, outer one much thicker, complete; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) (Fig. 23F) shorter than tergites 2 and 3 combined, with tuft of short setae at middle and with moderately elongate setae at lateral sides, 2–4 each with one pair of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with two mediobasal foveae and two pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3–5 lacking basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 23G) with weakly sclerotized, round apical part and membranous basal part.

Aedeagus (Fig. 23H, I) 0.35 mm long, stout, dorso-ventrally asymmetric; median lobe distinctly protruding at left side and with dense, long setae at apex in dorsal view, with large basal capsule and foramen, basoventral projection reduced, ventral stalk short and broad, slightly expanded at apex; dorsal lobe flat, membranous; parameres reduced.

Female. Similar to male in external morphology; legs and tergite 4 (VII) lacking modifications; each compound eye composed of approximately 15 ommatidia; genitalia flat, transverse. Measurements (as for male): body length 2.41–2.48 mm; length/width of head 0.53–0.57/0.49 mm, pronotum 0.53–0.54/0.53 mm, elytra 0.73–0.74/0.84 mm; abdomen 0.76–0.83/0.78–0.80 mm; length of antenna 1.47 mm; maximum width of genitalia (Fig. 23J) 0.28 mm.

Comparative notes. *Intestinarius guangxiensis* is close to *I. guangdongensis* by sharing a similar external morphology, a sexually modified tergite VII, and a relatively short aedeagus. The male of this species can be separated by the mesotibia with a small apical denticle (lacking in *I. guangdongensis*) and median lobe of the aedeagus with a much broader sclerite on the left side (orientation as in Fig. 23H) in dorsal view.

Distribution. Southwest China: Guangxi.

Etymology. This species is named after Guangxi Province, where its type locality is situated.

Intestinarius longiceps Yin & Li, 2011

Chinese common name: 长颊川纹蚁甲

Intestinarius longiceps Yin & Li in Yin *et al*. 2011c: 22. Type locality: China: Guizhou, Zunyi City, Kuankuoshui N. R., alt. 700 m.

Additional material examined (16 exx.)**.** 2 ♂♂, 2 ♀♀, 'China: Guangxi, Huanjiang, Jiuwan Mt., Yangmeiao, 25°12'22.15"N, 108°40'32.01"E, 1250 m, 23.iv.2021, Tang, Peng, Cai & Song leg. [广西环江县九万山杨梅坳]' (SNUC); 2 ♀♀, 'China: Guangxi, Huanjiang, Mulun N. R, Hongdong, 25°07'08.42"N, 107°58'33.63"E, 550 m, 27.iv.2021, Tang, Peng, Cai &Song leg. [广西环江县木伦红峒]' (SNUC); 1 ♂, 'China: Guizhou, Leishan, Leigong Mt., Getou Village, 26°23'52.26"N, 108°15'33.62"E, 1100 m, 2.v.2021, Tang, Peng, Cai & Song leg. [贵州雷山县雷公山格头村]' (SNUC); 3 ♂♂, 6 ♀♀, 'China: Guangxi, Liuzhou City, Jiuwan Shan N. R., Yangmeiao 25°11'42"N, 108°38'51"E, mixed leaf litter, sifted, 1200 m, 24-26.vii.2015, Li & Zhao leg.' (SNUC).

Distribution. Southwest China: Guizhou; Guangxi. **New provincial record for Guangxi**.

Remarks. *Intestinarius longiceps* was described based on material from Kuankuoshui Nature Reserve in Guizhou Province, the new material extends the range of this species to northern Guangxi.

Intestinarius paralongiceps sp. nov.
(Fig. 24)

Chinese common name: 拟长颊川纹蚁甲

Type material (123 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Guizhou, Libo, county, Maolan N. R., 25°15'49"N, 107°54'26"E, mixed leaf litter, sifted, 750–850 m, 20.vii.2015, He, Hu & Wang leg.' (SNUC); **PARATYPES: CHINA:** 7 ♂♂, 15 ♀♀, same data as that of holotype; 3 ♂♂,1 ♀, same collector and locality as that of holotype, except '25°16'38"N, 107°55'29"E, mixed leaf litter, sifted, 800 m,19.vii.2015,'; 3 ♂♂, 9 ♀♀, same locality as that of holotype, except '25°16'52"N, 107°54'18"E, mixed leaf litter, sifted, 850–890 m, 20.vii.2015, Chen, & Zhao leg.'; 5 ♂♂, 3 ♀♀, same collector and locality as preceding, except '25°13'57"N, 107°54'50"E, mixed leaf litter, sifted, 800–870 m, 21.vii.2015,'; 2 ♂♂,1 ♀, same locality as that of holotype, except '25°15'03"N, 107°53'41"E, mixed leaf litter, sifted, 830 m, 18.vii.2015, Chen, He, Hu & Wang leg.'; 2 ♂♂, 8 ♀♀, also from Maolan N. R., except '25°13'00"N, 107°54'43"E, mixed leaf litter, sifted, 750–800 m, 21.vii.2015,'; 1 ♂, 2 ♀♀, 'China: Guizhou, Libo County, Maolan N. R., Bizuo(必左), 25°16'59"N, 108°03'18"E, 587m, 28.iv.2017, mixed leaf litter, sifted, Jiang, Jiang, Hu, Liu & Zhang leg.'; 5 ♂♂, 8 ♀♀, also from Maolan N. R., except 'Dongdai Station, 25°17'54.01"N, 107°58'52.39"E, 750 m, 29.iv.2021, Tang, Peng, Cai, & Song leg. [贵州荔波县董歹科研平台]'; 7 ♂♂, 3 ♀♀, 'China: Guangxi, Hechi City Mulun N. R., 25°3'12"N, 107°57'59"E, mixed leaf litter, sifted, 450–600

m, humus sifted, 26.vii.2015, Chen, He, & Hu leg.'; 15 ♂♂, 21 ♀♀, same locality as preceding, except '25°8'54"N, 108°2'37"E, mixed leaf litter, sifted, 350–450 m, 24.vii.2015, Chen, He, Hu & Wang leg.'; 1 ♀, same collector and locality as preceding, except '25°7'20"N, 108°2'8"E, mixed leaf litter, sifted, 350–400 m, 25.vii.2015,' (SNUC).

Diagnosis. *Male*. Body length approximately 2.5–2.6 mm, dorsal surface covered with dense pubescence. Head elongate, lateral margins subparallel, evenly convergent basally, narrower than pronotum, vertex with one pair of deep longitudinal sulci connecting small vertexal foveae, mediobasal carina long and distinct, lateral vertexal carina complete, frons greatly impressed at middle, posterior margin angulate, antenna moderately elongate, lacking modifications. Pronotum with five long and deep sulci and relatively short antebasal sulcus, with pair of distinct antebasal spines. Elytron covered with sparse, small punctures, discal stria shallow, extending from outer basal fovea to apical 1/3 of elytral length, lacking subhumeral fovea. Mesotrochanter with triangular ventral projection; mesotibia with tiny apical denticle; metatrochanter with broad, curved ventral projection. Abdomen with strongly elongate tergite 1 (IV), tergite 4 angularly expanded at middle. Aedeagus asymmetric; median lobe with dense, long setae at apex, basal capsule and foramen stout, ventral stalk moderately elongate; dorsal lobe membranous, narrowing towards apex and with small spines along anterior margin; parameres reduced. *Female*. Body length approximately 2.45 mm, legs and abdomen lacking modifications, genitalia as in Fig. 24J

Description. *Male*. Body (Fig. 24A) length 2.43–2.56 mm, dorsal surface of body covered with dense pubescence; color reddish-brown, legs and mouthparts slightly lighter.

Head (Fig. 24B) elongate, lateral margins subparallel, evenly convergent basally, length 0.55–0.56 mm, width across eyes 0.48–0.49 mm; vertex smooth, flat, with small asetose vertexal foveae (dorsal tentorial pits) small at base, with pair of deep longitudinal lateral sulci connecting foveae, lateral vertexal carina complete, mediobasal carina thin but distinct, extending from head base anteriorly to no more than level of anterior margin of eyes; antennal tubercles distinctly raised, with large lateral postantennal pit; frons greatly impressed at middle, posterior margin angulate, confluent with mediobasal carina; clypeus with smooth surface, moderately short, its anterior margin slightly carinate and raised; ocular-mandibular carina complete, branched below eye, extended ventrally and then anteriorly to posteroventral articulation of mandible. Venter with two gular foveae (posterior tentorial pits) closely separated, originating from shared oval opening, median carina extending from mouthparts posteriorly to near apex of gular foveae. Compound eyes each composed of approximately 20 ommatidia. Antenna long, lacking modifications, length 1.48–1.49 mm; antennomere 1 thick, subcylindrical, 2 slightly smaller than 1, 3 and 4 approximately as long as wide, 5–11 each elongate, 6 smallest, 7 and 8 much longer than 6, 9 as long, but slightly wider than 7, 10 slightly shorter and broader than 9, 11 largest, as long as 9 and 10 combined, fusiform.

Pronotum (Fig. 24B) as long as wide, length 0.51–0.54 mm, width 0.52–0.53 mm, widest at middle; lateral margins rounded; disc convex, smooth, median longitudinal sulcus deep and long, with one pair of shorter discal longitudinal sulci, connecting with deep antebasal sulcus and distinct antebasal spines at base, with lateral longitudinal sulcus slightly longer than discal sulcus and connecting lateral antebasal foveae; outer and inner pair of basolateral foveae present. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra wider than long, covered with sparse, small punctures, length 0.72–0.76 mm, width 0.81–0.84 mm; each elytron with three large, asetose basal foveae; discal stria only shallowly extending from outer basal fovea to apical 1/3 of elytral length; humerus indistinct, lacking subhumeral fovea, carinate marginal stria approximately extending from basal 1/3 to apex.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae widely separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process. Metaventrite impressed at middle, with well-developed lateral mesocoxal and lateral metaventral foveae, posterior margin with small and narrow slit at middle. Marginal carina complete, extending from anterior margin of mesoventrite to posterior margin of metaventrite.

Legs elongate, mesotrochanter (Fig. 24C) with large, triangular ventral projection; mesotibia (Fig. 24D) with tiny apical denticle; metatrochanter (Fig. 24E) with broad, curved ventral projection, lacking setae on ventral margin.

Abdomen finely punctate, widest at post-lateral margins of tergite 1 (IV), length 0.76–0.83 mm, width 0.76–0.77 mm. Tergite 1 (IV) strongly elongate, approximately as long as 2–4 (V–VII) combined, with short triangular discal carinae, with thin basal sulcus separated by one pair of mediobasal and two pair of basolateral foveae, inner marginal carina oblique, complete, outer one much thicker, complete; tergite 2 (V) slightly longer than 3 (VI), 4

(VII) (Fig. 24F) shorter than tergites 2 and 3 combined, angularly expanded at middle, 2–4 each with one pair of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal foveae and two pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, sternites 3–5 lacking basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, roundly convex at middle, sternite 7 (IX) (Fig. 24G) with weakly sclerotized, round apical part and membranous basal part.

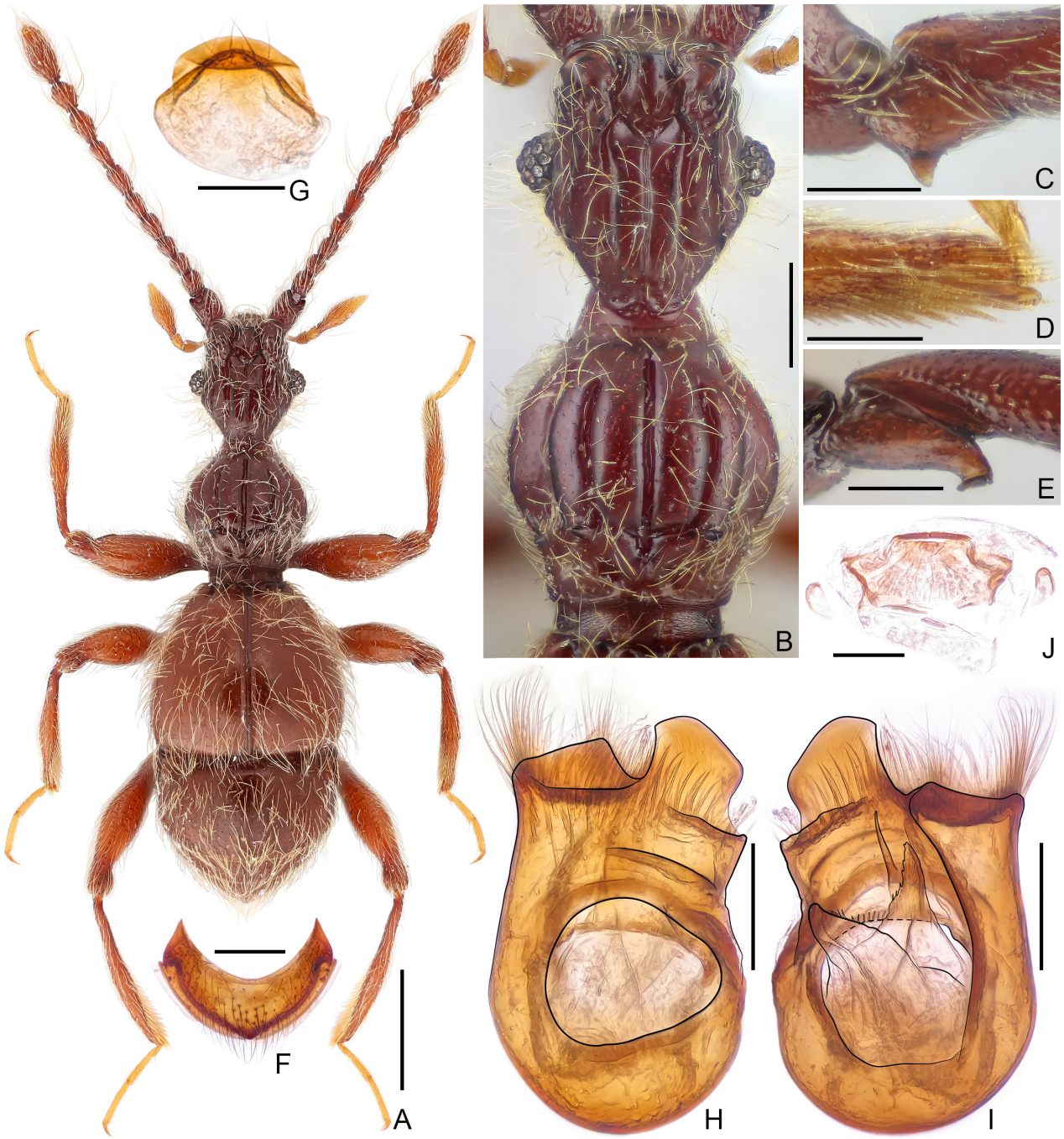

FIGURE 24. Morphology of *Intestinarius paralongiceps* **sp. nov.** (A–I. Male. J. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Mesotrochanter. **D.** Apex of mesotibia. **E.** Metatrochanter. **F.** Tergite 4 (VII). **G.** Sternite 7 (IX). **H, I.** Aedeagus, in ventral (H) and dorsal (I) view. **J.** Genitalia. Scale bars: 0.5 mm in A; 0.2 mm in B, F; 0.1 mm in C–E, G–J.

Aedeagus (Fig. 24H, I) 0.33 mm long, stout, dorso-ventrally asymmetric; median lobe weakly protruding at right side and with dense, long setae at apex in dorsal view, with large basal capsule and foramen, basoventral projection reduced, ventral stalk broad, moderately elongate; dorsal lobe flat, narrowing towards apex and with small spines along anterior margin, membranous; parameres reduced.

Female. Similar to male in external morphology; legs and tergite 4 (VII) lacking modifications; each compound eye composed of approximately 15 ommatidia; genitalia flat, transverse. Measurements (as for male): body length 2.42–2.48 mm; length/width of head 0.55–0.56/0.48–0.49 mm, pronotum 0.52–0.53/0.53–0.54 mm, elytra 0.72–0.73/0.83–0.84 mm; abdomen 0.77–0.80/0.75–0.76 mm; length of antenna 1.44–1.48 mm; maximum width of genitalia (Fig. 24J) 0.22 mm.

Comparative notes. This species is morphologically similar to *I. longiceps* by sharing most of its male external characters, such as the glabrous ventral projection on the metatrochanter, and small apical denticle of the mesotibia. They can be separated by the male abdominal tergite 4 (VII) angularly expanded at the middle (Fig. 24F) as well as the relatively short aedeagus of *I. paralongiceps*.

Distribution. Southwest China: Guizhou; Guangxi.

Etymology. The epithet suggests the new species is morphologically similar to *Intestinarius longiceps*.

Megabatrus Löbl, 1979

Chinese common name: 巨蚁甲属

Megabatrus Löbl, 1979: 193. Type species: *Megabatrus caviceps* Löbl, 1979 (original designation).

Megabatrus is a monospecific genus composed of only *Megabatrus caviceps*. This species is only distributed in Guangdong and Fujian according to available collection data (Löbl 1979; Yin & Li 2015d), with a huge body size of over 4 mm, placing it as one of the largest Batrisitae in China.

Megabatrus caviceps Löbl, 1979

Chinese common name: 陷首巨蚁甲

Megabatrus caviceps Löbl, 1979: 196. Type locality: Chine, Fou-kien, Kuatun, 19.IV.1946.

Additional material examined (10 exx.)**.** 10 ♂♂, 'China: Guangdong, Shaoguan, Nanling nature reserve, 24°55'43"N, 113°0'58"E, 1020 m, 27.vi.2020, Xia, Zhang, Yin & Lin leg. [广东省韶关市南岭保护区]' (SNUC).

Distribution. East China: Fujian; South China: Guangdong.

Remarks. Most of additional material was collected from a cabin's windowsill at Nanling Protection Station, which indicates that this species has strong flight capability and is phototactic.

Songius Yin & Li, 2010

Chinese common name: 梯胸蚁甲属

Songius Yin & Li in Yin *et al*. 2010a: 244. Type species: *Songius lasiuohospes* Yin & Li, 2010 (original designation).

Songius is a highly specialized myrmecophilous genus with five known species in the province of Zhejiang, Hunan, Fujian, Guangxi, Chongqing, and Guizhou (Yin *et al*. 2010a; Yin & Li 2015c; Yin & Hu 2023). One of the defining characters making the genus readily recognizable is the sub-trapezoidal pronotum.

Songius kiwi Yin & Li, 2010

Chinese common name: 几维梯胸蚁甲

Songius kiwi Yin & Li, 2015c: 294; Yin & Hu 2023: 304 (identification key). Type locality: China: Guangxi, Xing'an County, Maoer Shan, Jiuniutang, 25°53'07''N, 110°29'14''E, 1150 m.

Additional material examined (1 ex.)**.** 1 ♀, 'China: Guangxi, Xing'an County, Maoer Mt., Lijiangyuan, 25°53'32.64"N, 110°25'41.66"E, 1990–2030 m, 6.v.2021, sifting, Yin, Zhang, Pan & Shen leg. [广西兴安县猫儿山漓江源-野人湖]' (SNUC).

Distribution. Southwest China: Guangxi.

Remarks. This species, plus *S. brevisetus* Yin & Hu and *S. lasiuohospes* Yin & Li, has a setose dorsal surface of the body. *Songius kiwi* can be easily separated from these species by the posteriorly divergent sides of the elytra, while the elytra of the other two species are sub-parallel.

Tribasodites Jeannel, 1960

Chinese common name: 脊胸蚁甲属

Tribasodites Jeannel, 1960: 411; Newton & Chandler 1989 (catalog); Sugaya & Maruyama 2003 (biological notes); Yin *et al*. 2011d, 2015b (cave species); Nomura & Aung 2020 (first record from Myanmar). Type species: *Tribasodites antennalis* Jeannel, 1960 (original designation).

The genus *Tribasodites* is represented by 38 species. A few of these are known inquilines of ants, and another large portion of the species are associated with cave habitats. Several different forms of the habitus and aedeagus have been found within this possibly heterogenous genus, leading to the five species-groups defined below, and differences among the species of each group are discussed.

Bedosae group

Diagnostic features. Antennae and legs extremely elongate; body size usually large; apical three antennomeres of male often greatly modified; male metaventrite usually with prominently raised projections; aedeagus with long basal capsule and foramen, ventral stalk elongate, apically modified; species generally associated with cave habitats.

Included species (15 spp.): *T. abnormalis* Yin, Nomura & Li, *T. bama* Yin, Nomura & Li, *T. bedosae* Yin & Li, *T. biyun* Yin & Zhou, *T. cehengensis* Yin, Nomura & Li, *T. deharvengi* Yin & Li, *T. hubeiensis* Yin, Nomura & Li, *T. kawadai* Yin, Nomura & Li, *T. liboensis* Yin, Nomura & Li, *T. setosiventris* Yin, Nomura & Li, *T. thailandicus* Yin, Nomura & Li, *T. tiani* Yin & Li, *T. uenoi* Yin, Nomura & Li, *T. xingyiensis* Yin, Nomura & Li, *T. fortunatus* **sp. nov.**

Antennalis group

Diagnostic features. Antennae and legs normally elongate; body size relatively smaller; apical three antennomeres, mesotrochanter, and metatrochanter of male often modified; pronotum with discal carinae and lacking discal spines; abdominal tergite 1 (IV) with pair of internally forked basolateral foveae; aedeagus with subtriangular foramen, plate-like dorsal lobe and elongate ventral stalk.

Included species (14 spp.): *T. antennalis* Jeannel, *T. barbipes* **sp. nov.**, *T. bari* Yin; *T. cellulanus* Yin, *T. coiffaiti* (Jeannel), *T. constrictus* Yin, *T. denticornis* Nomura & Aung, *T. elongatus* Yin, *T. gyirong* Yin, *T. paraspinatus* **sp. nov.**, *T. picticornis* Nomura, *T. pugiunculus* Yin, *T. spinatus* **sp. nov.**, *T. yangi* **sp. nov.**

Frontalis group

Diagnostic features. Body form robust; head rounded at base; pronotum with rounded lateral margins, each discal carina connecting two discal spines and large antebasal spine; male with simple antennae and modified vertex; aedeagus with globular basal capsule and elongate, relatively smaller dorsal lobe.

Included species (8 spp.): *T. cavipes* **sp. nov.**, *T. corniceps* **sp. nov.**, *T. frontalis* Jeannel, *T. jiulianmontis* **sp. nov.**, *T. pengi* **sp. nov.**, *T. sugayai* Inoue & Maruyama, *T. turbericeps* Li & Yin, *T. vertexalis* Yin.

Spinacaritus group

Diagnostic features. Body form slender; vertex sometimes with reversed 'Ψ'-shaped mediobasal carina (only present in members from Nanling Mountain Area); pronotum with multiple spines along discal carina; male antennomere 11 with indistinct projection at base; aedeagus with elongate ventral stalk and dorsal lobe.

Included species (13 spp.): *T. dilophus* Yin, *T. grandiceps* Yin, *T. furca* **sp. nov.**, *T. jiuwanmontis* **sp. nov.**, *T. kiypu* Yin, *T. loki* **sp. nov.**, *T. mangshanensis* **sp. nov.**, *T. mirabilis* Yin, *T. prolixicornis* Yin, *T. spinacaritus* Yin, Li & Zhao, *T. tianmuensis* Yin, Zhao & Li, *T. xinningensis* **sp. nov.**, *T. yatung* Yin.

Clavatus group

Diagnostic features. Antennae relatively thick; pronotum with only one pair of discal spines at apex of short discal carinae; male with much thicker apical three antennomeres; metatibia widely expanded at apex; aedeagus transverse, with triangular dorsal lobe.

Included species (5 spp.): *T. chinensis* (Zhao, Yin & Li), *T. clavatus* **sp. nov.**, *T. longipes* **sp. nov.**, *T. ruyuanensis* **sp. nov.**, *T. turgipes* **sp. nov.**

An additional species, *T. pengzhouensis* Yin & He from cave habitats, is morphologically close to members of the *T. frontalis* group, but only has one pair of discal spines at the apices of discal carinae. *Tribasodites semipunctatus* (Raffray) from Taiwan is likely a member of *Coryphomodes* and is not placed here.

Key to species of *Tribasodites* from Nanling Mountain Area (males)

1 Vertex with forked, reversed 'Ψ'-shaped mediobasal carina 2
- Vertex with single longitudinal mediobasal carina, sometimes carina reduced 6
2 Tergite 1 (IV) lacking mediobasal foveae, only with one pair of widely separated basolateral foveae 3
- Tergite 1 (IV) with two close mediobasal foveae originating from shared oval opening 4
3 Vertex with long transverse carina at level of anterior margin of eyes (Fig. 32B); constriction between elytra and abdomen moderate (Fig. 32A) . . . . . ***T. jiuwanmontis* sp. nov.**
- Vertex with short and faint transverse carina at level of anterior margin of eyes (Fig. 35B); constriction between elytra and abdomen distinct (Fig. 35A) . . . . . ***T. mangshanensis* sp. nov.**
4 Vertex with short but distinct transverse carina slightly beyond level of anterior margin of eyes (Fig. 30B); antennomere 11 and mesotibia simple, lacking modifications . . . . . ***T. furca* sp. nov.**
- Vertex lacking transverse carina; 11 protruding basally, with long impression at lateral margin; . .mesotibia with large, forked projection at apex 5
5 Antennomere 10 with large, broad impression on ventral side, with tuft of long setae along lateral margin of impression (Fig. 33C); mesotrochanter simple . . . . . ***T. loki* sp. nov.**
- Antennomere 10 with deep cavity on ventral side, with short setae along strongly carinate, triangular opening (Fig. 41C); mesotrochanter (Fig. 41D) with short ventral spine . . . . . ***T. xinningensis* sp. nov.**
6 Pronotum with multiple spines along discal carina 7
- Pronotum lacking spines along discal carina 15
7 Head with distinct modification on vertex; pronotum with two pairs of obvious spines at apices and middle of discal carinae 8
- Vertex simple, pronotum with one pair of spines at apices of discal carinae 11
8 Dorsal lobe of aedeagus fused with median lobe at base (Fig. 28G, H) . . . . . ***T. corniceps* sp. nov.**
- Dorsal lobe of aedeagus distinctly separated from median lobe 9
9 Vertex with smooth, broad U-shaped impression at middle (Fig. 26B); pronotum with deep laterally carinate median sulcus (Fig. 26B) . . . . . ***T. cavipes* sp. nov.**
- Vertex with pair of large, blunt projections at middle; pronotum with shallow longitudinal impression instead of median sulcus 10
10 Ventral stalk of aedeagus elongate, with three short projections near apex and one large, extended projection at base (Fig. 31H, I) . . . . . ***T. jiulianmontis* sp. nov.**
- Ventral stalk of aedeagus elongate, only with one thick and one much smaller projection near apex (Fig. 37H, I) . . . . . ***T. pengi* sp. nov.**
11 Metatibia gradually expanding towards apex or abruptly expanded at apex 12
- Metatibia lacking distinct modification . . . . . ***T. chinensis* (Zhao, Yin & Li, 2010)**

12 Pronotum with thin median longitudinal carina instead of median sulcus (Fig. 34B); antenna and legs relatively elongate (Fig. 34A) . . . . . ***T. longipes* sp. nov.**
- Pronotum with laterally carinate median sulcus, antenna and legs robust 13
13 Frons, antennal tubercles and lateral margin of head covered with large punctures, asetose vertexal foveae moderately large (Fig. 38B) . . . . . ***T. ruyuanensis* sp. nov.**
- Head finely punctate, only areas near antennal tubercles covered with large punctures, asetose vertexal foveae relatively small 14
14 Antennomere 11 broadly expanded at lateral margin (Fig. 40C); mesotrochanter with long and curved ventral spine (Fig. 40D), mesotibia with large spine near apex (Fig. 40E) . . . . . ***T. turgipes* sp. nov.**
- Antennomere 11 sub-conical (Fig. 27C); mesotrochanter with long and straight ventral spine (Fig. 27D), mesotibia with small apical denticle (Fig. 27A) . . . . . ***T. clavatus* sp. nov.**
15 Body size large, approximately 3 mm; antennae and legs extremely elongate 16
- Body size relatively small, approximately 2–2.5 mm; antennae and legs normally elongate 19
16 Pronotum widest at apical 1/4, lateral margins angulate at widest point and convergent basally, parallel at basal 1/5 17
- Pronotum with rounded lateral margins 18
17 Metaventrite with pair of short longitudinal projections at middle, posterior margins of projections not reaching metacoxal cavities (Fig. 29D) . . . . . ***T. fortunatus* sp. nov.**
- Metaventrite with pair of long longitudinal projections at middle, posterior margins of projections distinctly beyond anterior margin of metacoxal cavities . . . . . ***T. hubeiensis* Yin, Nomura & Li, 2015**
18 Pronotum parallel at basal 1/3; tergite 1 (IV) with parallel lateral margins (female) . . . . . ***T. tiani* Yin & Li, 2011**
- Pronotum parallel at basal 1/5; tergite 1 (IV) slightly convergent towards apex . . . . . ***T. biyun* Yin & Zhou, 2018**
19 Vertex with reduced mediobasal carina (Fig. 42B); elytra short, as wide as tergite 1 (IV) (Fig. 42A) . . . . . ***T. yangi* sp. nov.**
- Vertex with thin but distinct mediobasal carina; elytra slightly wider than abdomen 20
20 Mesofemur modified near base 21
- Mesofemur lacking modifications near base . . . . . ***T. barbipes* sp. nov.**
21 Antennomere 10 with large, transverse impression on ventral surface (Fig. 36C); mesofemur . . . with broad ventral projection near base (Fig. 36E) . . . . . ***T. paraspinatus* sp. nov.**
- Antennomere 10 with oval impression at base (Fig. 39C); mesofemur with small ventral spine at basal 1/3 (Fig. 39E) . . . . . ***T. spinatus* sp. nov.**

Tribasodites barbipes sp. nov.

(Fig. 25)

Chinese common name: 毛足脊胸蚁甲

Type material (1 ex.). **HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Huanjiang, Jiuwan Mt., Yangmeiao, 25°12'22.15"N, 108°40'32.01"E, 1250 m, 23.iv.2021, Tang, Peng, Cai & Song leg. [广西环江县九万山杨梅坳]' (SNUC).

Diagnosis. *Male.* Body length approximately 2.4 mm. Head subtruncate at base, as wide as pronotum, vertex impressed at apex, with relatively large, setose vertexal foveae, with distinct mediobasal carina extending from head base anteriorly to slightly beyond level of middle length of eyes, with distinct lateral carina from base to posterior margin of antennal tubercle; antenna with modified antennomeres 9–11, antennomere 10 elongate, with oval impression at base, 11 with long basal projection extended posteriorly from mesal margin of basal cavity. Pronotum with laterally carinate median and lateral longitudinal sulci, with pair of discal carinae, with two pairs of short antebasal and distinct marginal spines. Discal stria of elytron long, extending posteriorly to apical 3/4 of elytral length; disc finely punctate. Mesotrochanter with long ventral spine; mesotibia with tiny apical denticle; metatrochanter with broad, curved ventral projection at apex; metatibia distinctly expanded at apical 3/5, with dense, short setae on ventral side. Abdomen slightly curved ventrally, with greatly elongate tergite 1 (IV). Aedeagus strongly asymmetric; median lobe with extended basal capsule and triangular foramen, ventral stalk elongate and strongly curved, dorsal lobe large, plate-like, narrowing towards apex.

Description. *Male*. Body (Fig. 25A) length 2.43 mm, dorsal surface of body covered with short pubescence; color reddish-brown, legs and mouthparts slightly lighter.

Head (Fig. 25B) sub-rectangular at base, much wider than long, length 0.43 mm, width across eyes 0.54 mm; vertex smooth, weakly impressed at apex, lacking sulcus, vertexal foveae (dorsal tentorial pits) asetose, relatively large, mediobasal carina thin, extending from head base anteriorly to slightly beyond level of eye midpoint, lateral carina distinct, extending from base to posterior margin of antennal tubercle; dorsal postantennal pit large; posterolateral angle angulate; frons weakly impressed between large, moderately raised antennal tubercles, anteriorly

demarcated from clypeus by frontal-clypeal ridge, which merged at middle and extending anteriorly to near apex of clypeus; clypeus short, with smooth surface, its entire anterior margin carinate and moderately raised; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 55 ommatidia. Antenna length 1.17 mm, distinct club (Fig. 25C) formed by enlarged apical three antennomeres; antennomere 1 thick, subcylindrical, 2–7 each moniliform, 8 smallest, slightly transverse, 9 much wider than 8, impressed at ventral surface, 10 much broader and longer than 9, anterior margin weakly inclined, ventral surface with oval impression at base, 11 (Fig. 25D) largest, as long as 9 and 10 combined, with large basal projection extended posteriorly from mesal margin of deep basal cavity.

Pronotum (Fig. 25B) wider than long, length 0.47 mm, width 0.51 mm, widest at middle; lateral margins rounded at apical 1/2, convergent basally and parallel at basal 1/3; disc slightly convex, moderately smooth, median longitudinal sulcus with carinate sides, posteriorly confluent with oval antebasal impression and short mediobasal carina, with pair of discal carinae and lateral longitudinal sulci; with distinct antebasal and marginal spines; lateral antebasal foveae small and asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra wider than long, length 0.68 mm, width 0.85 mm; each elytron with three large, asetose basal foveae; shallow discal stria extending posteriorly from outer basal fovea to basal 3/4 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent and flattened at middle, with deep median longitudinal impression, with well-developed lateral mesocoxal and two setose lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs robust. Mesotrochanter (Fig. 25E) with long ventral spine; mesotibia with tiny apical denticle; metatrochanter (Fig. 25F) with broad, curved ventral projection at apex; metatibia distinctly expanded at apical 3/5, with dense, short setae on ventral side.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.72 mm, width 0.74 mm. Tergite 1 (IV) approximately 2.3 times as long as 2 (V), lacking basal sulcus, with widely separated mediobasal and one pair of internal forked basolateral foveae, lacking discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined; tergites 2–4 (V–VII) each with two pairs of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and two pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3 and 4 each with three and 5 with two pairs of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 25G) weakly sclerotized, slightly oval.

Aedeagus (Fig. 25H, I) 0.50 mm long, dorso-ventrally strongly asymmetric, elongate; median lobe with large extended basal capsule and triangular foramen, ventral stalk broadest at base, abruptly narrowed apically and strongly curved; dorsal lobe large, plate-like, narrowing towards apex and moderately curved; parameres reduced to single membranous structure.

Female. Unknown.

Comparative notes. This species is placed as a member of the *T. antennalis* group and can be readily separated from the other species of the group by the male antennomere 10 with an oval impression at the base, antennomere 11 with a long, apically narrowing basal projection, mesotibia with a small apical denticle as well as the elongate ventral stalk and dorsal lobe of the aedeagus curved to one side.

Distribution. Southwest China: Guangxi.

Etymology. The specific epithet comes from '*barba*' (beard) and '*pes*' (foot), referring to the dense, golden setae on the ventral margin of metatrochanter.

FIGURE 25. Morphology of *Tribasodites barbipes* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 9–11. **D.** Antennomere 11, in ventral view. **E.** Mesotrochanter. **F.** Metatrochanter. **G.** Sternite 7 (IX). **H, I.** Aedeagus, in lateral (H) and ventral (I) view. Scale bars: 0.5 mm in A; 0.2 mm in B, C, H, I; 0.1 mm in D–F; 0.05 mm in G.

Tribasodites biyun Yin & Zhou, 2018

Chinese common name: 碧云脊胸蚁甲

Tribasodites biyun Z.-W. Yin & G.-C. Zhou, 2018: 592. Type locality: China: Hunan, Shaoyang City, Chengbu Miao autonomous county, Leng-shui-ping Village, Biyun Cave, 26°20'33.84"N, 110°19'45.39"E, 473 m.

Distribution. Central China: Hunan.

Remarks. This species is morphologically similar to *T. bama* and can be readily separated by the unmodified antennomere 8, lateral projection of antennomere 9 short and not curved, antennomere 10 less expanded and lacking a large excavation at the base, and the much longer dorsal branch of the apical fork of the aedeagal median lobe.

Tribasodites cavipes sp. nov.

(Fig. 26)

Chinese common name: 陷足脊胸蚁甲

Type material (2 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Xingan County, Maoer Mt., nr. Hongjunting. 25°54'15.28"N, 110°28'03.66"E, 1400–1500 m, 7.v.2021, Yin, Zhang, Pan & Shen leg. [广西兴安县猫儿山红军亭]' (SNUC); **PARATYPES: CHINA:** 1 ♂, 'China: Guizhou, Libo County, Maolan N. R., Bizuo (必左), 25°17'16"N, 108°04'18"E, 478m–507m, 26.iv.2017, mixed leaf litter, sifted, Jiang, Jiang, Hu, Liu, & Zhang leg.' (SNUC).

Diagnosis. *Male.* Body length approximately 2.7 mm. Head rounded at base, as wide as pronotum, vertex with smooth, broad U-shaped impression at middle, with relatively large, setose vertexal foveae, with thin mediobasal carina extending from head base anteriorly to posterior margin of vertexal impression, with shallow lateral carina extending from posterior margin of antennal tubercle to near head base; antenna lacking modifications, moniliform. Pronotum with thin median and lateral longitudinal sulci, with pair of longitudinal discal carinae connecting several spines, with pair of distinct antebasal and marginal spines. Discal stria of elytron long, extending posteriorly to apical 1/2 of elytral length; disc finely punctate. Legs robust, mesotrochanter with long ventral denticle; mesotibia with large apical spine; metatrochanter with long, curved ventral projection at apex; metafemur impressed at middle, with tuft of long setae along anterior and posterior margin of impression. Abdomen slightly curved ventrally, with slightly elongate tergite 1 (IV). Aedeagus asymmetric; median lobe deeply split laterally, with extended basal capsule and oval foramen, ventral stalk elongate, dorsal lobe short and transverse, attached to basal part of median lobe, endophallus with one elongate, branched membranous structure; parameres membranous.

Description. *Male*. Body (Fig. 26A) length 2.66–2.76 mm, dorsal surface of body covered with dense, short pubescence; color reddish-brown, tarsi and mouthparts slightly lighter.

Head (Fig. 26B, C) rounded at base, wider than long, length 0.53–0.56 mm, width across eyes 0.61–0.65 mm; vertex with smooth, broad U-shaped impression at middle, connecting large, asetose vertexal foveae (dorsal tentorial pits), posterior margin highly raised, covered with small punctures and relatively dense setae, mediobasal carina extremely thin, extending from head base anteriorly to posterior margin of vertexal impression, lateral carina shallowly extending from posterior margin of antennal tubercle to near head base; lacking dorsal postantennal pit; frons weakly raised between antennal tubercles, anteriorly demarcated from clypeus by frontal-clypeal ridge, which merged at middle and extending anteriorly to apex of clypeus; clypeus short, with smooth surface, its entire anterior margin carinate and angulate at middle; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 70 ommatidia. Antenna length 1.32–1.40 mm, lacking modifications, antennomere 1 thick, subcylindrical, 2–10 each moniliform, 6 much broader and longer than 5 and 7, 8 smallest, 9 as wide as 6, 10 slightly broader than 9, 11 largest, slightly longer than 9 and 10 combined, sub-conical.

Pronotum (Fig. 26B) approximately as long as wide, length 0.59–0.60 mm, width 0.62 mm, widest at middle; lateral margins rounded at apical 1/2, convergent basally; disc slightly convex, finely punctate, median longitudinal sulcus thin but deep, posteriorly confluent with oval antebasal impression and short mediobasal carina, pair of

discal longitudinal carinae (Fig. 26C) each composed of two or three distinct spines, posteriorly confluent with large antebasal spines, with thin lateral longitudinal sulci; with distinct marginal spines; large lateral antebasal foveae asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

FIGURE 26. Morphology of *Tribasodites cavipes* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Head and pronotum, in dorsolateral view. **D.** Mesotrochanter. **E.** Metatrochanter. **F.** Metafemur. **G.** Sternite 7 (IX). **H, I.** Aedeagus, in lateral (H) and ventral (I) view. Scale bars: 0.5 mm in A; 0.4 mm in B, C; 0.2 mm in E, F, H, I; 0.1 mm in D, G.

Elytra much wider than long, length 0.75–0.82 mm, width 0.95–1.03 mm; each elytron with three large, asetose basal foveae, inner two slightly close; shallow discal stria extending posteriorly from outer basal fovea to basal 1/2 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs robust. Mesotrochanter (Fig. 26D) with long ventral denticle; mesotibia with large apical spine; metatrochanter (Fig. 26E) with long, curved ventral projection at apex, with dense setae on ventral margin; metafemur (Fig. 26F) impressed at middle, with tuft of long setae along anterior and posterior margin of impression.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.90 mm, width 0.86–0.91 mm. Tergite 1 (IV) approximately 1.4 times as long as 2 (V), lacking basal sulcus, with closely separated mediobasal foveae originating from shared oval opening, two pairs of setose basolateral foveae close, originating from shared transverse opening, with thin and short discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined; tergites 2–4 (V–VII) each with one pair of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and two pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3–5 each with two pairs of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 26G) weakly sclerotized, elongate.

Aedeagus (Fig. 26H, I) 0.47 mm long, dorso-ventrally asymmetric, stout; median lobe deeply split in ventral view; with large extended basal capsule and oval foramen, basoventral projection thick and short; ventral stalk broadest at base, narrowing towards apex, truncate at apex in ventral view; dorsal lobe present at base of capsule in lateral view, plate-like, short and slightly curved; endophallus with one elongate, flat membranous structure, shortly branch at middle and truncate at apex; parameres membranous, widely split at anterior margin.

Female. Unknown.

Comparative notes. This species is morphologically similar to *T. corniceps* from Hunan, but can be readily separated from the latter by the male vertex with a smooth, broad U-shaped impression at the middle, mesotibia with a large apical spine, metafemur impressed at the middle, with a tuft of long setae along the anterior and posterior margin of the impression as well as the aedeagus with a transverse, elongate dorsal lobe at the base.

Distribution. Southwest China: Guangxi; Guizhou.

Etymology. The epithet (*cavus* + *pes*) refers to the large impression on the dorsal surface of the metafemur.

Tribasodites chinensis (Yin, Zhao & Li, 2010), comb. nov.

Chinese common name: 中华脊胸蚁甲

Tribasodes chinensis Yin, Zhao & Li in Zhao *et al*. 2010b: 528. Type locality: China: Zhejiang, Linan City, Qingliangfeng Mountain (N30°06’19”; E118°52’00”), alt. 1000 m.

Additional material examined (8 exx.)**.** 2 ♂♂, 2 ♀♀, ‘China: Hunan, Shaoyang, Chengbu county, Jintongshan N. R., 26°15’01”N, 110°28’56”E, 800 m, 21.viii.2020, streamside sifted, Li Chong leg.
湖南省邵阳市金童山自然保护区’ (SNUC); 1 ♂, ‘China: Guangxi, Xingan County, Maoer Mt., nr. Hongjunting. 25°54’15.28”N, 110°28’03.66”E, 1400–1500 m, 7.v.2021, Yin, Zhang, Pan & Shen leg., [广西兴安县猫儿山红军亭]’; 1 ♂, also from Maoer Mt., except ‘Lijiangyuan. 25°52’15.04”N, 110°26’27”E, beech forest mixed leaf litter, sifted 1020 m, 28.vii.2014, Peng, Song, Yu, & Yan leg.’; 1 ♂, 1♀, also from Maoer Mt., except ‘25°51’28”N, 110°29’04”E, 450–650 m, mixed litter, sifted, 25.vii.2012, Hu & Song leg.’ (SNUC).

Distribution. East China: Zhejiang; Central China: Hunan; South China: Guangxi. **New provincial record for Hunan and Guangxi**.

Remarks. This species was first described as a member of the genus *Tribasodes*, which is closely allied to *Tribasodites* and mainly defined by the head and antennae lacking sexual characters as well as tergite 1 (IV) broadly impressed at the base. However, it is not sufficient to define a genus solely by male sexual characters. There are

other species that are externally similar to *T. chinensis* but with modified male antennae, and the tergal impression of this species is not as deep as the type species of *Tribasodes* from Japan. Therefore, in this study this species is moved to *Tribasodites* and placed in the Clavatus group.

***Tribasodites clavatus* sp. nov.**
(Fig. 27)

Chinese common name: 棒角脊胸蚁甲

Type material (63 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Huanjiang, Jiuwan Mt., Yangmeiao, 25°12'22.15"N, 108°40'32.01"E, 1250 m, 8.v.2021, Tang, Peng, Cai & Song leg. [广西环江县九万山杨梅坳]' (SNUC); **PARATYPES: CHINA:** 7 ♂♂, 20 ♀♀, same data as that of holotype; 7 ♂♂, 17 ♀♀, same locality and collector, except '23.iv.2021,'; 1 ♀, same locality and collector, except '25.iv.2021,'; 5 ♂♂, 5 ♀♀, also from Jiuwan Mt., except '25°11'42"N, 108°38'51"E, mixed leaf litter, sifted, 1200 m, 24-26.vii.2015, Li & Zhao leg.' (SNUC).

Diagnosis. *Male.* Body length approximately 2.5 mm. Head sub-rounded at base, as wide as pronotum, vertex finely punctate, with small, asetose vertexal foveae at base, with thin mediobasal carina extending from head base anteriorly to near level of anterior margin of eyes, lateral carina complete; antenna thick, with moderately enlarged apical three antennomeres. Pronotum with laterally carinate median and lateral longitudinal sulci, with pair of short discal carinae connecting small discal spines and much larger antebasal spines, with pair of distinct marginal spines. Discal stria of elytron extending posteriorly to apical 1/2 of elytral length; disc smooth. Mesotrochanter with large ventral spine; mesotibia with small apical denticle; metatibia gradually expanding towards apex. Abdomen slightly curved ventrally, with slightly elongate tergite 1 (IV). Aedeagus asymmetric; median lobe strongly elongate at lateral margin, with large, transverse basal capsule and foramen, basoventral projection long; ventral stalk composed of one thick and two smaller projections; dorsal lobe plate-like, subtriangular; parameres membranous. *Female*. Body length approximately 2.4 mm; antenna and legs lacking modifications, genitalia as in Fig. 27I.

Description. *Male*. Body (Fig. 27A) length 2.49–2.50 mm, dorsal surface of body covered with dense, short pubescence; color dark reddish-brown, tarsi and mouthparts slightly lighter.

Head (Fig. 27B) sub-rounded at base, slightly wider than long, length 0.52–0.55 mm, width across eyes 0.59 mm; vertex finely punctate, anterior margin carinate, with sparse large punctures along outer margin of carina, asetose vertexal foveae (dorsal tentorial pits) relatively small, mediobasal carina thin, extending from head base anteriorly to near level of anterior margin of eyes, lateral carinae extending from head base to base of antennal tubercles; with distinct lateral postantennal pit; frons weakly impressed between antennal tubercles, anteriorly demarcated from clypeus by frontal-clypeal ridge, which merged at middle and extending anteriorly to apex of clypeus; clypeus moderately long, with smooth surface, its entire anterior margin carinate and angulate at middle; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 45 ommatidia. Antenna (Fig. 27C) thick, length 1.31–1.35 mm, antennomere 1 elongate, subcylindrical, 2 as long as wide, 3 transverse, 4 and 5 as long as wide, 6–8 each slightly transverse, 9 much broader and longer than 8, 10 slightly smaller than 9, 11 longest, slightly shorter than 9 and 10 combined, sub-conical.

Pronotum (Fig. 27B) approximately as long as wide, length 0.54–0.57 mm, width 0.57–0.61 mm, widest at middle; lateral margins rounded; disc slightly convex, with sparse, small punctures, median longitudinal sulcus with carinate sides, posteriorly confluent with short mediobasal carina, with pair of relatively short discal carinae connecting pair of small discal spines and much larger antebasal spines, lateral longitudinal sulcus long, inner sides strongly carinate; with pair of distinct marginal spines; lateral antebasal foveae asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra slightly wider than long, length 0.77–0.81 mm, width 0.85–0.90 mm; each elytron with three small, asetose basal foveae, inner two slightly close; disc smooth, shallow discal stria extending posteriorly from outer basal fovea to basal 1/2 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

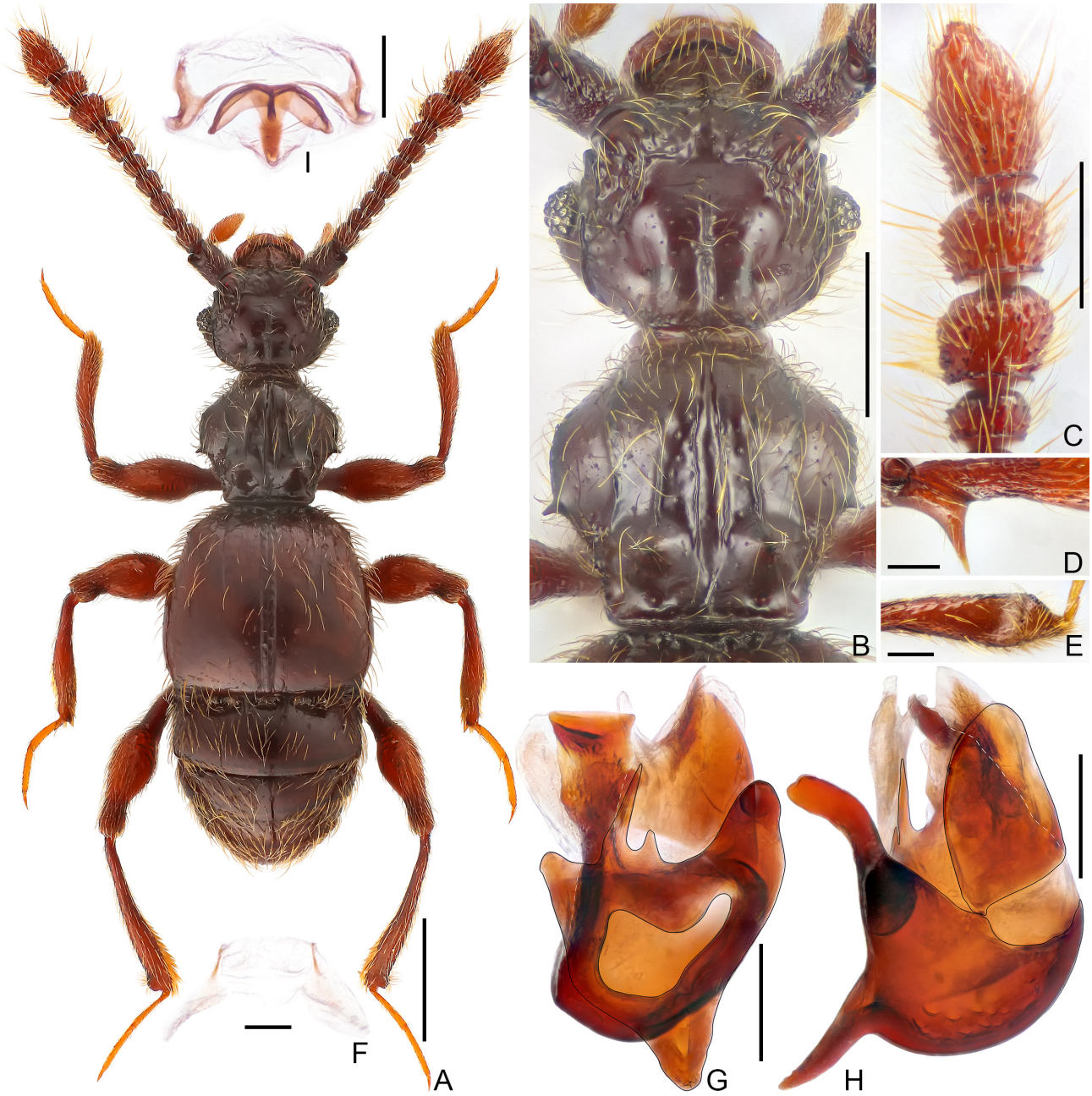

FIGURE 27. Morphology of *Tribasodites clavatus* **sp. nov.** (A–H. Male. I. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 9–11. **D.** Mesotrochanter. **E.** Apex of metatibia. **F.** Sternite 7 (IX). **G, H.** Aedeagus, in ventral (G) and lateral (H) view. **I.** Genitalia. Scale bars: 0.5 mm in A; 0.3 mm in B; 0.2 mm in C; 0.1 mm in D–I.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs elongate. Mesotrochanter (Fig. 27D) with large ventral spine; mesotibia with small apical denticle; metatibia (Fig. 27E) gradually expanding towards apex, slightly impressed before apex, with dense, golden setae on ventral side.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.82–0.85 mm, width 0.77–0.81 mm. Tergite 1 (IV) approximately 1.5 times as long as 2 (V), lacking basal sulcus, with closely separated mediobasal foveae originating from shared oval opening, two pairs of setose basolateral foveae close, originating from shared transverse opening, with thin and short discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2

(V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined; tergites 2–4 (V–VII) each with one pair of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3–5 each with two pairs of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 27F) membranous, weakly sclerotized at lateral sides.

Aedeagus (Fig. 27G, H) 0.36 mm long, dorso-ventrally asymmetric, stout; median lobe with strongly elongate apical part at left margin in ventral view, which truncate at apex and narrowing towards base, with large, transverse basal capsule and foramen, basoventral projection long; ventral stalk composed of one thick, weakly curved projection and two distinct protrusions with varying degrees of elongation; dorsal lobe plate-like, subtriangular; parameres membranous, widely split at apical margin.

Female. Similar to male in external morphology; antenna lacking distinctly enlarged apical three antennomeres, legs lacking modifications; each compound eye composed of approximately 15 ommatidia. Measurements (as for male): body length 2.40–2.41 mm; length/width of head 0.51–0.52/0.58–0.59 mm, pronotum 0.51–0.53/0.56–0.57 mm, elytra 0.70–0.74/0.82 mm; abdomen 0.77–0.79/0.75–0.76 mm; length of antenna 1.18–1.20 mm; maximum width of genitalia (Fig. 27I) 0.26 mm.

Comparative notes. This species is central in the Clavatus group and can be readily separated from the other species by the slightly oblique discal carinae of the pronotum (parallel in other species), the large ventral spine of the mesotrochanter, and the configuration of the aedeagus.

Distribution. Southwest China: Guangxi.

Etymology. The name *clâvâtus* is a Latin adjective, meaning, 'clavate, nailed', referring to the thick antennae of this species.

***Tribasodites corniceps* sp. nov.**
(Fig. 28)

Chinese common name: 角头脊胸蚁甲

Type material (7 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Hunan, Xinning County, Shunhuang Mt., Yangheping, 26°23'41.58"N, 111°00'08.16"E, 820 m, 30.iv.2021, sifting, Yin, Zhang, Pan & Shen leg. [湖南舜皇山羊和坪]' (SNUC); **PARATYPES: CHINA:** 2 ♀♀, same data as that of holotype; 3 ♀♀, same data as that of holotype, except '2.v.2021,'; 1 ♂, also from Shunhuang Mt., except 'Shunhuang N. R., 26°23'17"N, 111°00'51"E, 1133 m, 23.viii.2020, mixed leaf litter, sifted, Li Chong leg.' (SNUC).

Diagnosis. *Male.* Body length 2.8–2.9 mm. Head sub-rectangular at base, as wide as pronotum, vertex moderately impressed, with large triangular projection at middle, small vertexal foveae asetose, with complete lateral carina extending from head base to posterior margin of antennal tubercle; antenna lacking modifications, moniliform. Pronotum with laterally carinate median and lateral longitudinal sulci, with pair of longitudinal discal carinae connecting two discal spines and large antebasal spines, marginal spines large and curved. Discal stria of elytron long, extending posteriorly to apical 1/2 of elytral length; disc finely punctate. Mesotrochanter with long ventral spine; mesotibia with small apical denticle; metatrochanter with long ventral projection at apex. Abdomen slightly curved ventrally, with slightly elongate tergite 1 (IV). Aedeagus strongly asymmetric; median lobe with large extended basal capsule and subtriangular foramen, basoventral projection extremely elongate; ventral stalk and dorsal lobe across each other, strongly curved; parameres membranous. *Female*. Body length approximately 2.7 mm; vertex with deep U-shaped sulcus connecting large vertexal foveae, mediobasal carina forked at apex, extending from head base anteriorly to posterior margin of vertexal sulcus; legs lacking modifications, genitalia as in Fig. 28I.

Description. *Male*. Body (Fig. 28A) length 2.82–2.87 mm, dorsal surface of body covered with dense, short pubescence; color reddish-brown, tarsi and mouthparts slightly lighter.

Head (Fig. 28B, C) sub-rectangular at base, wider than long, length 0.55–0.57 mm, width across eyes 0.66–0.67 mm; vertex distinctly impressed, with small, asetose vertexal foveae (dorsal tentorial pits) at base, posterior margin highly raised at middle, covered with relatively dense, thick setae, with large, triangular projection in center of impression, lacking mediobasal carina, lateral carina extending from base to posterior margin of antennal tubercle;

lacking dorsal postantennal pit; frons weakly impressed between antennal tubercles, anteriorly demarcated from clypeus by frontal-clypeal ridge, which faintly merged at middle and extending anteriorly to apex of clypeus; clypeus short, its entire anterior margin carinate and slightly angulate at middle; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 60 ommatidia. Antenna length 1.33–1.35 mm, lacking modifications, antennomere 1 thick, subcylindrical, 2 slightly longer than wide, 3–8 each moniliform, 5 slightly longer than wide, 8 smallest, 9 much broader and longer than 8, 10 slightly broader than 9, 11 largest, as long as 9 and 10 combined, sub-conical.

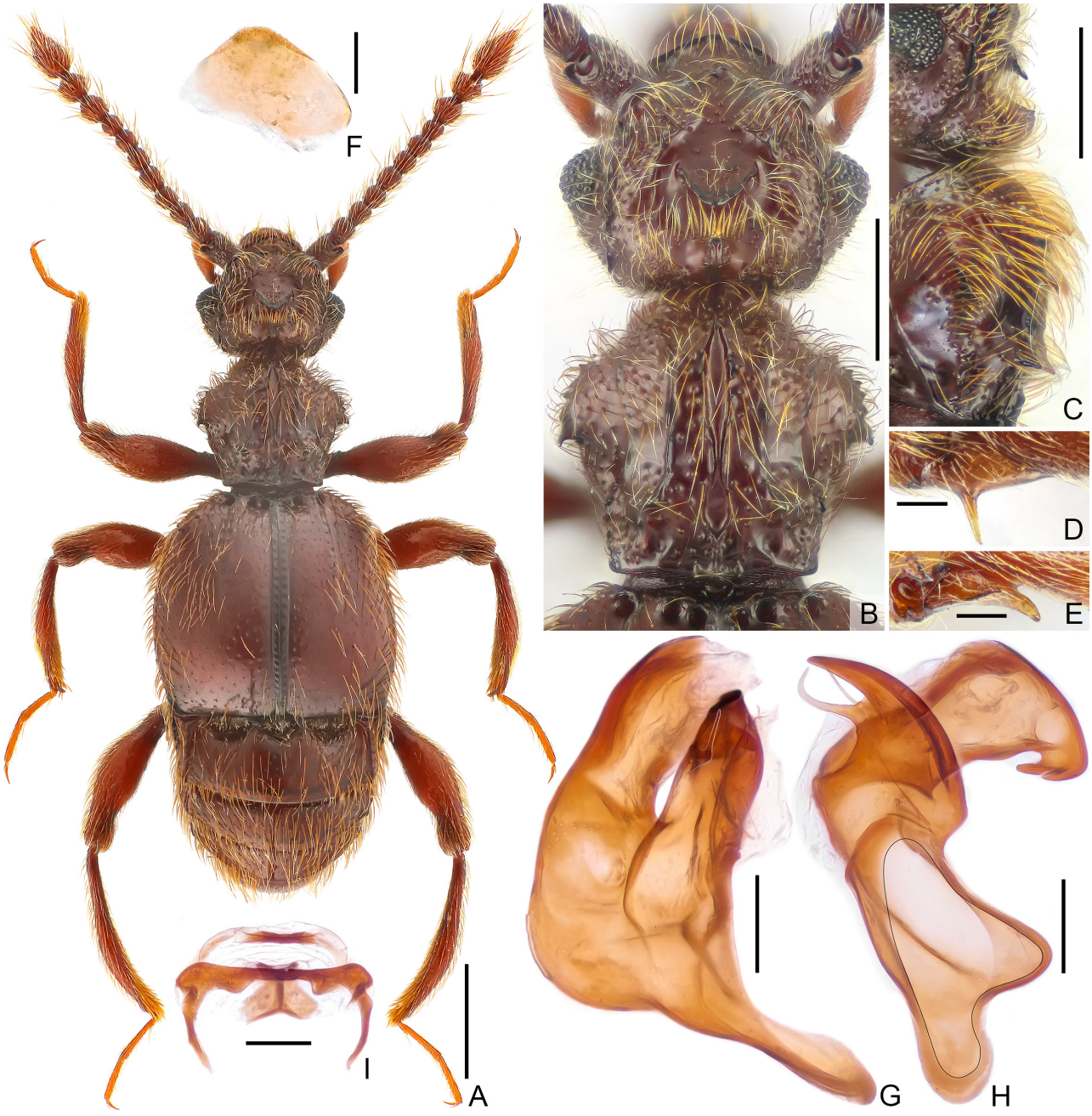

FIGURE 28. Morphology of *Tribasodites corniceps* **sp. nov.** (A–H. Male. I. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Head and pronotum, in dorsolateral view. **D.** Mesotrochanter. **E.** Metatrochanter. **F.** Sternite 7 (IX). **G, H.** Aedeagus, in lateral (G) and ventral (H) view. **I.** Genitalia. Scale bars: 0.5 mm in A; 0.3 mm in B, C; 0.1 mm in D, E, G–I; 0.05 mm in F.

Pronotum (Fig. 28B, C) length 0.61–0.62 mm, width 0.65–0.66 mm, widest at middle; lateral margins rounded at apical 1/2, convergent basally; disc slightly convex, finely punctate, median longitudinal sulcus with carinate sides, posteriorly confluent with oval antebasal impression and short mediobasal carina, pair of discal longitudinal

carinae each composed of two long, hook-like spines and one large antebasal spine, with slightly curved lateral longitudinal sulci; with distinct marginal spines; lateral antebasal foveae asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra finely punctate, length 0.90–0.97 mm, width 1.01–1.11 mm; each elytron with three large, asetose basal foveae, inner two close; shallow discal stria extending posteriorly from outer basal fovea to basal 1/2 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs elongate. Mesotrochanter (Fig. 28D) with long ventral spine; mesotibia with large apical denticle; metatrochanter (Fig. 28E) with long, weakly curved ventral projection at apex.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.95–0.98 mm, width 0.94–0.95 mm. Tergite 1 (IV) approximately 1.5 times as long as 2 (V), lacking basal sulcus, with closely separated mediobasal foveae originating from shared oval opening, two pairs of setose basolateral foveae close, originating from shared transverse opening, with broad and short discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined; tergites 2–4 (V–VII) each with one pair of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and two pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3–5 each with two pairs of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 28F) weakly sclerotized, slightly oval.

Aedeagus (Fig. 28G, H) 0.51 mm long, dorso-ventrally strongly asymmetric; median lobe with large extended basal capsule and subtriangular foramen, basoventral projection extremely elongate; ventral stalk broadest at base, narrowing and forked at apex, with one long at base of split; dorsal lobe fused with median lobe at base, strongly curved and with narrow split at apex; parameres membranous, flat.

Female. Similar to male in external morphology; vertex lacking triangular projection, with deep U-shaped sulcus connecting large vertexal foveae, mediobasal carina shortly forked at apex, extending from head base anteriorly to posterior margin of vertexal sulcus; legs lacking modifications; each compound eye composed of approximately 55 ommatidia. Measurements (as for male): body length 2.68–2.72 mm; length/width of head 0.54–0.57/0.65–0.66 mm, pronotum 0.57–0.59/0.59–0.61 mm, elytra 0.85–0.90/1.01 mm; abdomen 0.87–0.96/0.89 mm; length of antenna 1.26–1.31 mm; maximum width of genitalia (Fig. 28I) 0.31 mm.

Comparative notes. *Tribasodites corniceps* is placed as a member of the Frontalis group. The male can be separated by the large triangular projection on the vertex, the elytra with close inner two basal foveae, and the dorsal lobe of the aedeagus fused with the median lobe.

Distribution. Central China: Hunan.

Etymology. The name (*cornis* + *-ceps*) refers to the large, triangular cephalic projection of this species.

***Tribasodites fortunatus* sp. nov.**
(Fig. 29)

Chinese common name: 幸运脊胸蚁甲

Type material (1 ex.). **HOLOTYPE: CHINA:** ♂, 'China: Guizhou, Leishan, Leigong Mt., Xiannutang, 26°22'22.11"N, 108°11'52.12"E, 1550 m, 3.v.2021, Tang, Peng, Cai & Song leg. [贵州雷山县雷公山仙女塘]' (SNUC).

Diagnosis. *Male.* Body length approximately 3.1 mm. Head subtruncate at base, narrower than pronotum, vertex with shallow reversed U-shaped impression connecting small, asetose vertexal foveae, with distinct mediobasal carina extending from head base anteriorly to level of anterior margin of eyes, lateral carina complete, slightly

curved near base; antenna with highly modified antennomeres 8–11, antennomere 8 with small ventral spine, 9 narrowing and protruding on ventral side, 10 with deep impression at base, 11 largest, posterior margin inclined and deeply split internally. Pronotum with laterally carinate median and lateral longitudinal sulci, with pair of long discal carinae, with pair of distinct antebasal and marginal spines. Discal stria of elytron long, extending posteriorly to apical 4/5 of elytral length. Legs simple, tarsus 2 gradually expanding towards apex; mesotibia and metatibia with short pencil-like apical tuft of setae. Abdomen slightly curved ventrally, with elongate tergite 1 (IV). Aedeagus asymmetric, elongate; median lobe with extended basal capsule and triangular foramen, ventral stalk deeply split into two elongate lobes; dorsal lobe large, plate-like; parameres weakly sclerotized.

Description. *Male*. Body (Fig. 29A) length 3.11 mm, dorsal surface of body covered with dense pubescence; color dark reddish-brown, legs and mouthparts slightly lighter.

FIGURE 29. Morphology of *Tribasodites fortunatus* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 8–11. **D.** Mesoventrite and metaventrite. **E.** Sternite 7 (IX). **F, G.** Aedeagus, in lateral (F) and ventral (G) view. Scale bars: 1 mm in A; 0.5 mm in D; 0.3 mm in B, C; 0.2 mm in F, G; 0.1 mm in E.

Head (Fig. 29B) sub-rectangular at base, wider than long, length 0.60 mm, width across eyes 0.65 mm; vertex finely punctate, with shallow reversed U-shaped impression, vertexal foveae (dorsal tentorial pits) asetose, relatively small, mediobasal carina thin, extending from head base anteriorly to level of anterior margin of eyes, lateral carina complete, extending from base to posterior margin of antennal tubercle; lateral postantennal pit small; posterolateral

angle angulate; frons weakly impressed between large, moderately raised antennal tubercles, anteriorly demarcated from clypeus by shallow frontal-clypeal ridge; clypeus short, its entire anterior margin carinate and moderately raised; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 50 ommatidia. Antenna elongate, length 2.29 mm, distinct club (Fig. 29C) formed by enlarged apical four antennomeres; antennomere 1 thick, subcylindrical, 2–7 each elongate, 8 smallest, as long as wide, with small ventral spine, 9 transverse, anterior margin inclined, narrowing and protruding on ventral side, moderately curved, 10 slightly transverse, with deep impression at base, 11 largest, longer than 9 and 10 combined, narrowing towards apex, posterior margin inclined and deeply split internally.

Pronotum (Fig. 29B) wider than long, length 0.67 mm, width 0.73 mm, widest at apical 1/4; lateral margins angulate at apical 1/4, convergent apically and basally and parallel at basal 1/5; disc slightly convex, finely punctate, shallow median longitudinal sulcus with carinate sides, posteriorly confluent with small antebasal impression and short mediobasal carina, with pair of discal carinae and lateral longitudinal sulci; with distinct antebasal and marginal spines; lateral antebasal foveae small and setose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra as long as wide, length 0.99 mm, width 1.03 mm; each elytron with three large, asetose basal foveae; shallow discal stria extending posteriorly from outer basal fovea to basal 4/5 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite (Fig. 29D) short, demarcated from metaventrite by transverse carinae; median mesoventral foveae closely separated, originating from shared oval opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite broadly impressed at middle, with pair of short longitudinal projections at lateral margin of impression. with well-developed lateral mesocoxal and two small, setose lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs strongly elongate; foreleg with tarsus 2 gradually expanding towards apex; mesotibia and metatibia with short pencil-like apical tuft of setae.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.90 mm, width 0.86 mm. Tergite 1 (IV) approximately twice as long as 2 (V), lacking basal sulcus, with widely separated mediobasal and one pair of internal forked basolateral foveae, with thick but short, triangular discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) as long as tergite 2; tergites 2–4 (V–VII) each with one pair of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and two pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3 and 4 each with three pairs of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 29E) weakly sclerotized, slightly oval.

Aedeagus (Fig. 29F, G) 0.64 mm long, dorso-ventrally slightly asymmetric, elongate; median lobe with large extended basal capsule and triangular foramen, ventral stalk deeply split into two elongate lobes, ventral one axe-shaped at apex in lateral view; dorsal lobe large, plate-like, moderately curved at apex; parameres reduced to single weakly sclerotized structure, shallowly and broadly split at middle of apical margin.

Female. Unknown.

Comparative notes. This new species is a typical member of the Bedosae group, but it was collected from a leaf litter sample rather than from a cave habitat. *Tribasodites fortunatus* is morphologically similar to *T. hubeiensis* in sharing similar male sexual characters as well as the generally form of the aedeagus, but can be readily separated by the pair of shorter longitudinal projections at the middle of male metaventrite (posterior margins of projections not reaching anterior margin of metacoxal cavities in male of *T. hubeiensis*), and the unique shape of the deeply forked ventral stalk of the aedeagus.

Distribution. Southwest China: Guizhou.

Etymology. The name *fortűnâtus* (*-a*, *-um*) is a Latin adjective meaning ‘lucky, fortunate’. This species shares characters with typical cavernicolous members, but the only specimen collected was in a leaf litter sample.

***Tribasodites furca* sp. nov.**
(Fig. 30)

Chinese common name: 叉茎脊胸蚁甲

Type material (7 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Xingan County, Maoer Mt., Watchtower. 25°53'43.90"N, 110°28'38.27"E, 1350 m,8.v.2021, sifting. Yin, Zhang, Pan & Shen leg. [广西兴安县猫儿山瞭望塔]' (SNUC); **PARATYPES: CHINA:** 1 ♂, 1 ♀, same data as that of holotype; 2 ♂♂, same locality and collector, except 'nr. Hongjunting. 25°54'15.28"N, 110°28'03.66"E, 1400–1500 m, 7.v.2021, [广西兴安县猫儿山红军亭]'; 1 ♂, same locality and collector, except 'Antangping, 25°54'44.07"N, 110°27'37.68"E, 1660 m, 6.v.2021, [广西兴安县猫儿山庵堂坪]'; 1 ♂, 'China: Guangxi, Huanjiang, Mulun N. R., Hongdong, 25°07'08.42"N, 107°58'33.63"E, 550 m, 27.iv.2021, Tang, Peng, Cai & Song leg., [广西环江县木伦红峒]' (SNUC).

Diagnosis. *Male.* Body length approximately 2.0–2.1 mm. Head sub-rectangular at base, as wide as pronotum, vertex finely punctate, with short transverse carina between antennal tubercles, mediobasal carina long, branched near middle and then extended posteriorly to lateral head base; asetose vertexal foveae relatively small, lateral carina complete; antenna moniliform, antennomere 10 with large, deep impression at base. Pronotum with laterally carinate median and lateral longitudinal sulci, with pair of short antebasal carinae connecting median sulcus and long discal carinae, with pair of small antebasal and marginal spines. Discal stria of elytron extending posteriorly to apical 2/5 of elytral length. Mesotrochanter with large ventral spine, metatibia weakly expanded at middle. Abdomen slightly curved ventrally, with slightly elongate tergite 1 (IV). Aedeagus asymmetric; median lobe with large basal capsule and foramen; ventral stalk composed of two long and curved protrusions; dorsal lobe elongate, curved; parameres membranous. *Female*. Body length approximately 2.11 mm; antenna and legs lacking modifications, genitalia as in Fig. 30H.

Description. *Male*. Body (Fig. 30A) length 2.0–2.1 mm, dorsal surface of body covered with dense, moderately long pubescence; color reddish-brown, elytron, legs and mouthparts slightly lighter.

Head (Fig. 30B) sub-rectangular at base, slightly wider than long, length 0.43–0.44 mm, width across eyes 0.50–0.51 mm; vertex finely punctate, with small, asetose vertexal foveae (dorsal tentorial pits), with short transverse carina between antennal tubercles, mediobasal carina extending from head base anteriorly to level of anterior margin of eyes, branched near middle and then extended posteriorly to lateral head base; lateral carinae extending from head base to base of antennal tubercles; with small lateral postantennal pit; frons weakly impressed between antennal tubercles, anteriorly demarcated from clypeus by angulate frontal-clypeal ridge, which merged at middle; clypeus with smooth surface, its entire anterior margin carinate and moderately raised; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 40 ommatidia. Antenna (Fig. 30C) length 1.06–1.09 mm, antennomere 1 thick, subcylindrical, 2 slightly elongate, 3–8 each moniliform, 8 smallest, 9 transverse, 10 much longer than 9, with large, deep impression at base, 11 longest, approximately 1.5 times as long as 9 and 10 combined, sub-fusiform.

Pronotum (Fig. 30B) slightly wider than long, length 0.44–0.45 mm, width 0.51–0.52 mm, distinctly transverse and widest at middle; lateral margins rounded; disc slightly convex, with sparse, small punctures, median longitudinal sulcus with carinate sides, posteriorly confluent with short mediobasal carina, with pair of short antebasal carinae connecting median sulcus and long discal carinae, pair of lateral longitudinal sulci with strongly carinate inner sides; with pair of small antebasal spines and marginal spines; lateral antebasal foveae asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra slightly wider than long, length 0.65–0.66 mm, width 0.78–0.79 mm; each elytron with three large, asetose basal foveae; disc smooth, shallow discal stria extending posteriorly from outer basal fovea to basal 2/5 of elytral length; humerus weakly denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle.

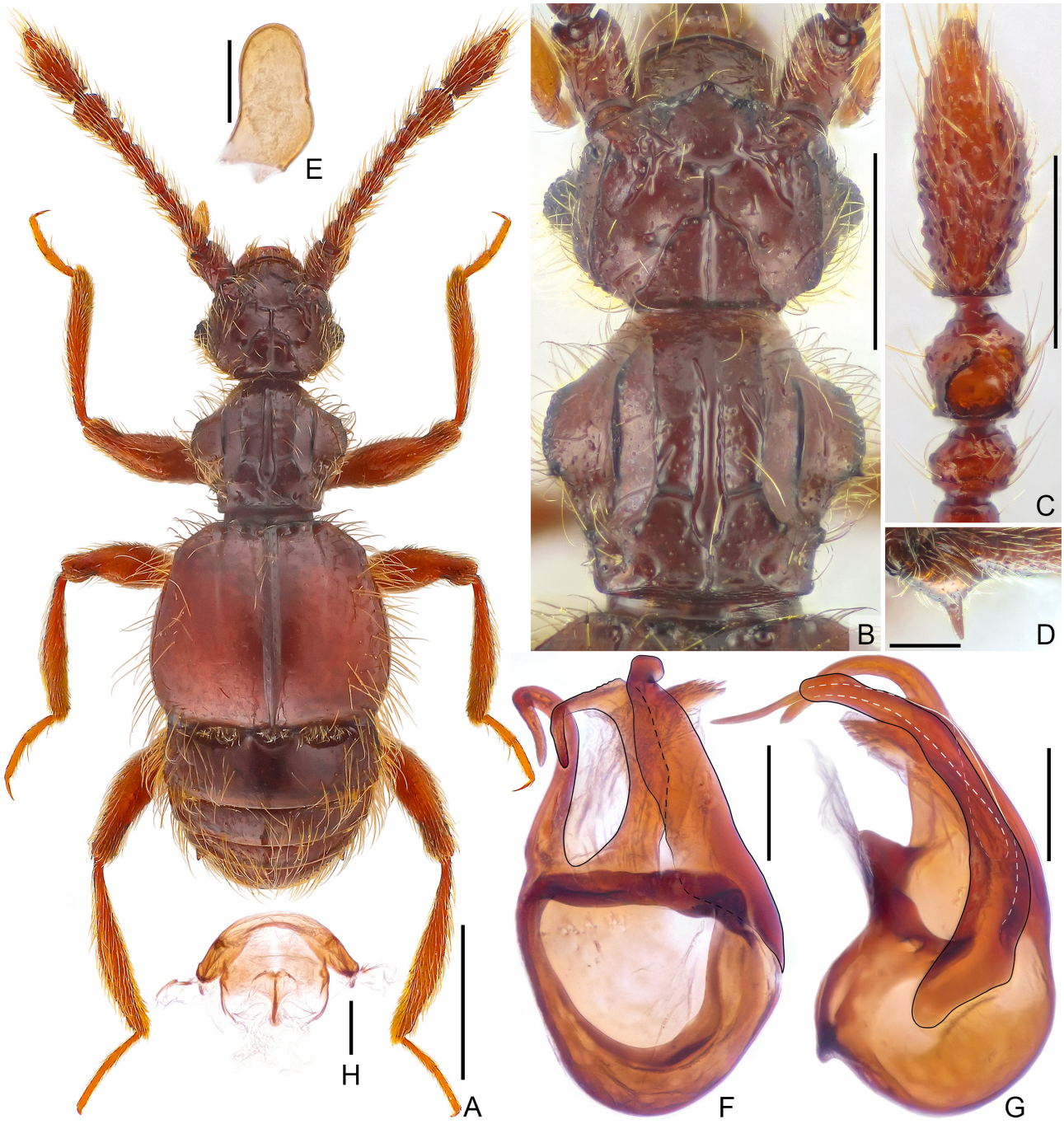

FIGURE 30. Morphology of *Tribasodites furca* **sp. nov.** (A–G. Male. H. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 9–11. **D.** Mesotrochanter. **E.** Sternite 7 (IX). **F, G.** Aedeagus, in ventral (F) and lateral (G) view. **H.** Genitalia. Scale bars: 0.5 mm in A; 0.3 mm in B; 0.2 mm in C; 0.1 mm in D–H.

Legs moderately elongate. Mesotrochanter (Fig. 30D) with large ventral spine; metatibia slightly expanded at middle, with dense, golden setae along mesal margin from basal 1/2 to apex.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.64–0.67 mm, width 0.71–0.73 mm. Tergite 1 (IV) approximately twice as long as 2 (V), lacking basal sulcus, with closely separated mediobasal foveae originating from shared oval opening, two pairs of setose basolateral foveae close, originating from shared transverse opening, with tiny and subtriangular discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined; tergites 2–3 (V–VI) each with one pair of large, setose and one pair of tiny basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae;

midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3 and 4 each with three pairs of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 30E) elongate, weakly sclerotized, rounded at apex.

Aedeagus (Fig. 30F, G) 0.40 mm long, dorso-ventrally greatly asymmetric, stout; median lobe with large basal capsule and foramen, basoventral projection short; ventral stalk split at base, composed of two long and curved lobes; dorsal lobe elongate, narrowing apically and basally; parameres membranous.

Female. Similar to male in external morphology; antenna and legs lacking modifications; each compound eye composed of approximately 15 ommatidia. Measurements (as for male): body length 2.11 mm; length/width of head 0.45/0.52 mm, pronotum 0.44/0.51 mm, elytra 0.61/0.78 mm; abdomen 0.68/0.77 mm; length of antenna 1.05 mm; maximum width of genitalia (Fig. 30H) 0.30 mm.

Comparative notes. This species belongs to the Spinacaritus group, the members of which always have more than three spines along the discal carinae of the pronotum. *Tribasodites furca* can be readily separated from the other species by the lack of additional spines along the discal carinae (also lacking in *T. grandiceps* and *T. prolixicornis*) and the unique form of the aedeagus, which has the ventral stalk deeply split into two elongate lobes at the base.

Distribution. Southwest China: Guangxi.

Etymology. The specific epithet is a Latin noun, meaning, 'a fork', referring to the forked ventral stalk of the aedeagus.

Tribasodites hubeiensis Yin, Nomura & Li, 2015

Chinese common name: 湖北脊胸蚁甲

Tribasodes hubeiensis Z.-W. Yin, Nomura & L.-Z. Li, 2015b: 108. Type locality: Qingrenquan Dong (180 m), Xingping Cun, Huanghua Xian g, Yichang Shi, [Hubei, CHINA].

Additional material examined (2 exx.)**.** 2 ♂♂ 'China: Guangxi, Xingan County, Maoer Mt., Watchtower. 25°53'43.90"N, 110°28'38.27"E, 1350 m, 8.v.2021, sifting, Yin, Zhang, Pan & Shen leg. [广西兴安县猫儿山瞭望塔] (SNUC).

Distribution. Central China: Hubei; SW China: Guangxi. **New provincial record for Guangxi**.

Remarks. *Tribasodites hubeiensis* was originally described from material collected in two caves in southern Hubei, but was found in leaf litter at Maoer Mountain of Guangxi in this study, some 500 km south from the type locality. It is inferred that at least some of the cavernicolous *Tribasodites* are only loosely associated with caves.

Tribasodites jiulianmontis sp. nov.

(Fig. 31)

Chinese common name: 九连山脊胸蚁甲

Type material (7 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Jiangxi, Longnan County, Jiulianshan, summit of Huangniushi, 24°30'53"N, 114°26'6.72"E, 1000–1230 m, 12.v.2021, Pt, Zhou & Li leg. [江西九连山黄牛石顶]' (SNUC); **PARATYPES: CHINA:** 3 ♂♂, 3 ♀♀, same data as that of holotype (SNUC).

Diagnosis. *Male.* Body length approximately 3.0–3.2 mm. Head rounded at base, as wide as pronotum, vertex with pair of large, blunt projections at middle, vertexal foveae asetose, relatively small, with complete lateral carina extending from head base to posterior margin of antennal tubercle; antenna elongate, lacking modifications. Pronotum with shallow longitudinal impression at middle, with pair of discal carinae connecting two short discal spines and large antebasal spines, marginal spines small, indistinct. Discal stria of elytron long, extending posteriorly to apical 1/2 of elytral length; disc finely punctate. Protrochanter with small ventral spine; mesotrochanter and metatrochanter with broad apical projection, mesotibia and metatibia with small denticle at apex. Aedeagus asymmetric; median lobe with large basal capsule and oval foramen, ventral stalk elongate, strongly forked near apex, dorsal lobe with one short and one much longer, curved sclerites, endophallus weakly sclerotized, with long curved projection at apex in lateral view. *Female*. Body length approximately 3 mm; head and legs lacking modifications, genitalia as in Fig. 31J.

FIGURE 31. Morphology of *Tribasodites jiulianmontis* **sp. nov.** (A–I. Male. J. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Head and pronotum, in dorsolateral view. **D.** Protrochanter. **E.** Mesotrochanter. **F.** Metatrochanter. **G.** Sternite 7 (IX). **H, I.** Aedeagus, in lateral (H) and ventral (I) view. **J.** Genitalia. Scale bars: 0.5 mm in A; 0.4 mm in B, C; 0.2 mm in H, I; 0.1 mm in D–G, J.

Description. *Male*. Body (Fig. 31A) length 3.0–3.2 mm, dorsal surface of body covered with dense pubescence; color dark reddish-brown, tarsi and mouthparts slightly lighter.

Head (Fig. 31B, C) rounded at base, slightly wider than long, length 0.58–0.62 mm, width across eyes 0.65–0.66 mm; vertex with pair of large, blunt projections at middle, vertexal foveae (dorsal tentorial pits) asetose, relatively small, mediobasal carina with shortly forked apex connecting two projections, extending from head base anteriorly to level of posterior margin of eyes, lateral carina extending from base to posterior margin of antennal

tubercle; lacking dorsal postantennal pit; frons weakly impressed between antennal tubercles, anteriorly demarcated from clypeus by frontal-clypeal ridge, which faintly merged at middle and extending anteriorly to near apex of clypeus; clypeus with rough surface, its entire anterior margin moderately carinate and raised; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 50 ommatidia. Antenna length 1.59–1.78 mm, lacking modifications, antennomere 1 thick, subcylindrical, 2–8 each moderately elongate, 8 smallest, 9 much broader and longer than 8, 10 slightly broader than 9, 11 largest, as long as 9 and 10 combined, sub-conical.

Pronotum (Fig. 31B, C) length 0.63–0.65 mm, width 0.65–0.69 mm, widest at middle; lateral margins rounded at apical 1/2, convergent basally and sub-parallel at basal 1/4; disc convex, finely punctate, median sulcus reduced, with shallow longitudinal impression at middle, posteriorly confluent with short mediobasal carina, pair of discal longitudinal carinae each composed of two short spines and one large antebasal spine, with pair of lateral longitudinal sulci connecting lateral antebasal foveae; with small marginal spines; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra finely punctate, length 0.90–0.98 mm, width 1.07–1.13 mm; each elytron with three large, asetose basal foveae; shallow discal stria extending posteriorly from outer basal fovea to basal 1/2 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs elongate. Protrochanter (Fig. 31D) with small ventral spine; mesotrochanter (Fig. 31E) with broad ventral projection, mesotibia with small apical denticle; metatrochanter (Fig. 31F) with apically curved ventral projection, metatibia with short spine at apex.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.99–1.08 mm, width 0.93–1.03 mm. Tergite 1 (IV) approximately 1.5 times as long as 2 (V), lacking basal sulcus, with closely separated mediobasal foveae originating from shared oval opening, two pairs of setose basolateral foveae close, originating from shared transverse opening, with thin and short discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined; tergites 2–4 (V–VII) each with one pair of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3 and 4 each with two pairs of distinct basolateral foveae and one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 31G) composed of pair of subtriangular, membranous structures.

Aedeagus (Fig. 31H, I) 0.64 mm long, dorso-ventrally greatly asymmetric; median lobe with large basal capsule and oval foramen, basoventral projection tiny; ventral stalk elongate, strongly forked near apex, with broad protrusion at middle; dorsal lobe with one short and one much longer, curved sclerites; endophallus weakly sclerotized, with long curved projection at apex in lateral view; parameres membranous, flat.

Female. Similar to male in external morphology; vertex lacking projections; legs lacking modifications; each compound eye composed of approximately 55 ommatidia. Measurements (as for male): body length 3.02–3.07 mm; length/width of head 0.60/0.66–0.68 mm, pronotum 0.63–0.64/0.66–0.67 mm, elytra 0.90–0.91/1.05 mm; abdomen 0.98–1.05/ 0.96–0.99 mm; length of antenna 1.58–1.63 mm; maximum width of genitalia (Fig. 31J) 0.46 mm.

Comparative notes. *Tribasodites jiulianmontis* is apparently close to *T. sugayai* from Fujian and Taiwan by sharing a similar external morphology and general form of the aedeagus. They can be separated by the male with a pair of much shorter and thicker projections of the vertex (with pair of large, curved carina extending from anterolateral side to posterior base to form a crown in *T. sugayai*), the protrochanter, mesotrochanter and metatrochanter with ventral projections (legs simple in *T. sugayai*), as well as ventral stalk of the aedeagus strongly forked near the apex.

Distribution. East China: Jiangxi.

Etymology. This species is named after Jiulianshan, where its type locality is situated.

***Tribasodites jiuwanmontis* sp. nov.**
(Fig. 32)

Chinese common name: 九万山脊胸蚁甲

Type material (1 ex.). **HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Huanjiang, Jiuwan Mt., Yangmeiao, 25°12'22.15"N, 108°40'32.01"E, 1250 m, 8.v.2021, Tang, Peng, Cai & Song leg. [广西环江县九万山杨梅坳]' (SNUC).

Diagnosis. *Male.* Body length approximately 2.1 mm. Head sub-rectangular at base, as wide as pronotum, vertex with long transverse carina between antennal tubercles, with reversed 'Ψ'-shaped mediobasal carina extending from head base anteriorly to transverse carina; asetose vertexal foveae relatively large, lateral carina complete; antenna elongate, antennomere 11 with small, short protuberance at base. Pronotum with laterally carinate median and lateral longitudinal sulci, pair of discal carinae composed of spines, with shallow, short antebasal carinae connecting median sulcus and discal carinae, with pair of large antebasal and much smaller marginal spines. Discal stria of elytron extending posteriorly to apical 2/5 of elytral length. Legs elongate, metafemur with long tufted setae at middle of dorsal surface. Abdomen slightly curved ventrally, with slightly elongate tergite 1 (IV). Aedeagus asymmetric; median lobe with large basal capsule and foramen; ventral stalk elongate, with one long projection at middle and one much broader, apically forked projection at apex; curved dorsal lobe narrowing towards apex; parameres membranous.

Description. *Male*. Body (Fig. 32A) length 2.08 mm, dorsal surface of body covered with relatively dense, short pubescence; color reddish-brown, elytron, legs and mouthparts slightly lighter.

Head (Fig. 32B) sub-rectangular at base, wider than long, length 0.44 mm, width across eyes 0.51 mm; vertex finely punctate, with thin but distinct, transverse carina between antennal tubercles; asetose vertexal foveae (dorsal tentorial pits) moderately large, with reversed 'Ψ'-shaped mediobasal carina extending from head base anteriorly to level of anterior margin of eyes and then connect transverse carina at apex; lateral carinae extending from head base to base of antennal tubercles; with small lateral postantennal pit; frons weakly impressed between antennal tubercles, anteriorly demarcated from clypeus by angulate frontal-clypeal ridge, which merged at middle and extending anteriorly to near apex of clypeus; clypeus with carinate and moderately raised anterior margin; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 45 ommatidia. Antenna (Fig. 32C) elongate, length 1.56 mm, antennomere 1 thick, subcylindrical, 2–8 each slightly elongate, 8 smallest, 9 and 10 with round anterior margin, much longer and broader than 8, 11 largest, slightly longer than 9 and 10 combined, with small, short protuberance at base, sub-fusiform.

Pronotum (Fig. 32B) wider than long, length 0.43 mm, width 0.51 mm, widest at middle, convergent apically and basally; disc slightly convex, with sparse, small punctures, median longitudinal sulcus with carinate sides, posteriorly confluent with oval antebasal impression and short mediobasal carina, pair of discal longitudinal carinae (Fig. 32D) each composed of six distinct spines, with short and shallow antebasal carinae connecting median sulcus and discal carinae, pair of lateral longitudinal sulci with strongly carinate inner sides; with pair of large antebasal spines and much smaller marginal spines; lateral antebasal foveae asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra slightly wider than long, length 0.69 mm, width 0.77 mm; each elytron with three large, asetose basal foveae, inner two close; shallow discal stria extending posteriorly from outer basal fovea to basal 2/5 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs distinctly elongate, simple. Metafemur (Fig. 32E) with long tufted golden setae at middle of dorsal surface.

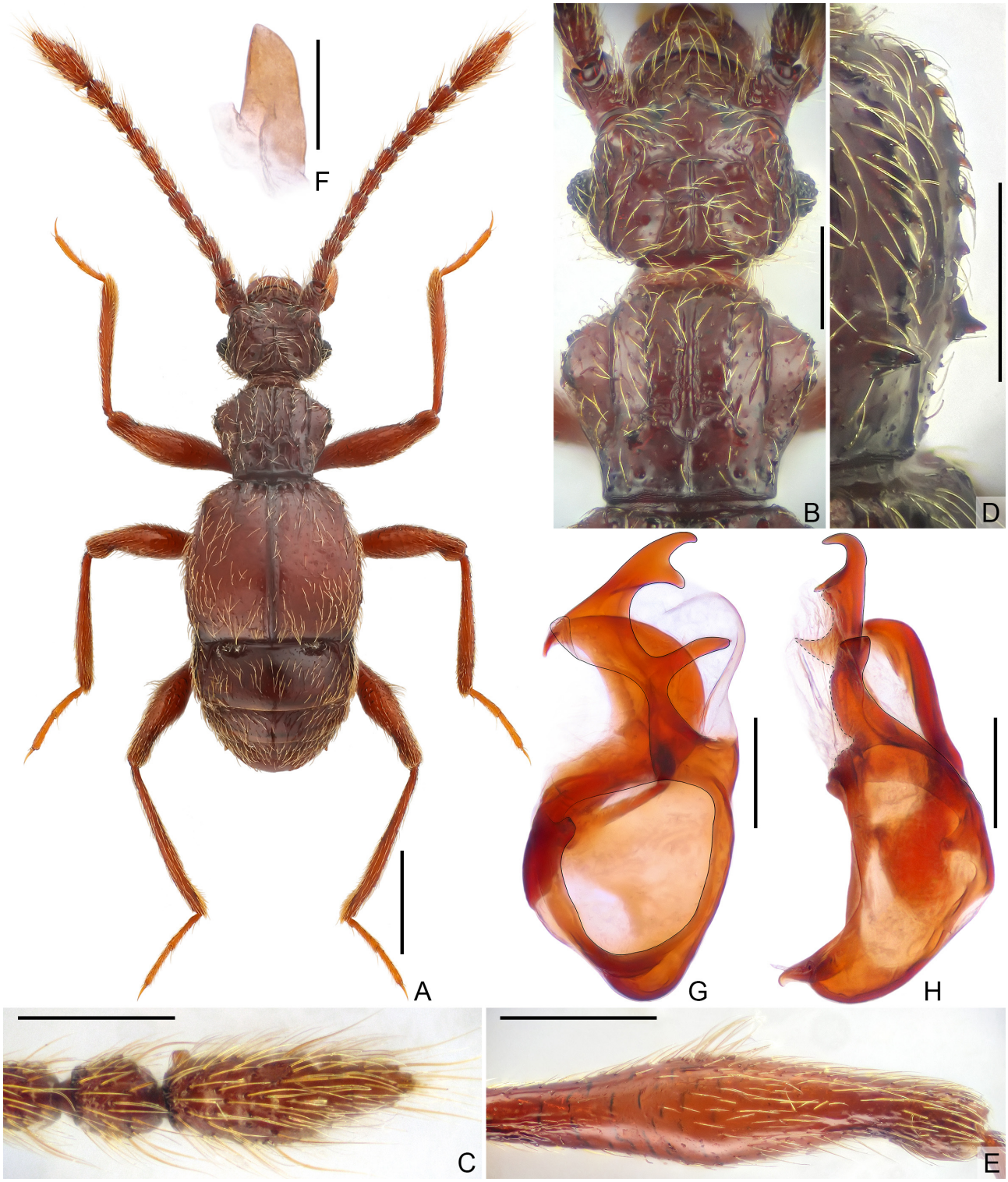

FIGURE 32. Morphology of *Tribasodites jiuwanmontis* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 10–11. **D.** Pronotum, in dorsolateral view. **E.** Metafemur. **F.** Sternite 7 (IX). **G, H.** Aedeagus, in ventral (G) and lateral (H) view. Scale bars: 0.5 mm in A; 0.2 mm in B–E; 0.1 mm in F–H.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.65 mm, width 0.70 mm. Tergite 1 (IV) approximately 1.7 times as long as 2 (V), with shallow and thin basal sulcus connecting pair of setose basolateral foveae, lacking discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined; tergites 2–3 (V–VI) each with one pair of small basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair

of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3 and 4 each with three pairs of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 32F) elongate, weakly sclerotized.

Aedeagus (Fig. 32G, H) 0.40 mm long, dorso-ventrally greatly asymmetric; median lobe with large basal capsule and foramen, basoventral projection short and thick; ventral stalk elongate, narrowed at middle, with one long projection at basal 1/2 and one much broader, apically forked projection at apex; dorsal lobe narrowing towards apex and strongly curved; parameres membranous.

Female. Unknown.

Comparative notes. This species is morphologically similar to *T. mangshanensis* from Hunan in sharing similar male sexual characters as well as the form of the aedeagus. It can be readily separated by the much longer transverse carina between the antennal tubercles, the pronotum with more spines along the discal carina, and a different shape of the ventral stalk of the aedeagus.

Distribution. Southwest China: Guangxi.

Etymology. This species is named after Jiuwanshan, where its type locality is situated.

***Tribasodites loki* sp. nov.**

(Fig. 33)

Chinese common name: 洛基脊胸蚁甲

Type material (3 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Guangdong, Shaoguan, Ruyuan, County Nanling N. R., 24°55'42.9"N, 113°0'59.06"E, 1180–1250 m, 6.v.2021, sifting, Hu, Lin, Zhou & Li leg. [广东韶关市乳源县南岭]' (SNUC); **PARATYPES: CHINA:** 1 ♂, 'China: Guangdong Province, Ruyuan Hsien, Nanling N. R., Laopengyidui, 24°56'21"N, 113°01'21"E, mixed forest, leaf litter, wood, sifted, 1260 m, 02.v.2015, Peng, Tu, Zhou leg.'; 1 ♂, 'China: Hunan, Chenzhou, Yizhang Hsien, Mangshan N. R., 24°56'26"N, 112°59'18"E, mixed forest, leaf litter, wood, sifted & beating, 1400 m, 26.iv.2015, Peng, Tu, Zhou leg.' (SNUC).

Diagnosis. *Male.* Body length approximately 2.2 mm. Head sub-rectangular at base, as wide as pronotum, vertex impressed at apex, asetose vertexal foveae (dorsal tentorial pits) large, with reversed 'Ψ'-shaped mediobasal carina extending from head base anteriorly to level of anterior margin of eyes; lateral carina complete; antenna moniliform, antennomere 10 with broad impression on ventral side, 11 protruding basally, posterior margin inclined, with shallow but long impression at lateral side. Pronotum with laterally carinate median and lateral longitudinal sulci, with shallow, short antebasal carinae connecting median sulcus and faint discal carinae, discal carinae each composed of three small but distinct spines, with pair of large antebasal and marginal spines. Discal stria of elytron extending posteriorly to apical 1/2 of elytral length. Legs simple, mesotibia with distinct, apically forked projection at apex. Abdomen slightly curved ventrally, with slightly elongate tergite 1 (IV). Aedeagus slightly asymmetric; median lobe with large basal capsule and foramen; ventral stalk broad, gradually narrowing towards apex; dorsal lobe and weakly sclerotized endophallus elongate, narrowing towards apex and curved; parameres reduced.

Description. *Male*. Body (Fig. 33A) length 2.22–2.23 mm, color reddish-brown, elytron, legs and mouthparts slightly lighter.

Head (Fig. 33B) sub-rectangular at base, much wider than long, length 0.43 mm, width across eyes 0.54 mm; vertex smooth, impressed at apex, its entire anterior margin carinate, with dense, large punctures along outer margin of carina; asetose vertexal foveae (dorsal tentorial pits) large, with reversed 'Ψ'-shaped mediobasal carina extending from head base anteriorly to slightly below level of anterior margin of eyes; lateral carinae extending from head base to base of antennal tubercles; lacking lateral postantennal pit; frons weakly impressed between antennal tubercles, anteriorly demarcated from clypeus by angulate frontal-clypeal ridge, which merged at middle and extending anteriorly to near apex of clypeus; clypeus moderately long, with carinate and slightly raised anterior margin; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 45 ommatidia. Antenna (Fig. 33C) length 1.18–1.19 mm, antennomere 1 thick, subcylindrical, 2 slightly longer than wide, 3–8 each moniliform, 8 smallest, 9 slightly transverse, 10 with large, deep impression on ventral side, 11 protruding basally, posterior margin inclined, approximately twice as long as 9 and 10 combined, with shallow but long impression extending from base anteriorly to apical 1/3.

FIGURE 33. Morphology of *Tribasodites loki* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 9–11. **D.** Apex of mesotibia. **E.** Sternite 7 (IX). **F, G.** Aedeagus, in lateral (F) and ventral (G) view. Scale bars: 0.5 mm in A; 0.3 mm in B; 0.2 mm in C; 0.1 mm in D–G.

Pronotum (Fig. 33B) wider than long, length 0.45–0.46 mm, width 0.51–0.54 mm, widest at middle; lateral margins rounded at apical 1/2, convergent basally; disc slightly convex, finely punctate, median longitudinal sulcus with carinate sides, posteriorly confluent with shallow antebasal impression and short mediobasal carina, with pair of faint discal carinae each composed of three small but distinct spines, with shallow, transverse antebasal carina connecting median sulcus and discal carinae, pair of lateral longitudinal sulci with strongly carinate inner sides; with pair of large antebasal spines and marginal spines; lateral antebasal foveae asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small

lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra wider than long, length 0.69–0.70 mm, width 0.81–0.84 mm; each elytron with three large, asetose basal foveae; shallow discal stria extending posteriorly from outer basal fovea to basal 1/2 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae large, originating from shared oval opening, with dentate protrusion at middle of opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs elongate, simple. Mesotibia (Fig. 33D) with distinct, apically forked projection at apex.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.71–0.72 mm, width 0.70–0.73 mm. Tergite 1 (IV) approximately 1.7 times as long as 2 (V), lacking basal sulcus, with closely separated mediobasal foveae originating from shared circular opening, two pairs of setose basolateral foveae close, originating from shared oval opening, with thin and long discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), with two pairs of basolateral foveae, 4 (VII) slightly longer than 3, but shorter than 2; tergites 3 and 4 each with one pair of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3 and 4 each with three pairs of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 33E) weakly sclerotized, slightly oval.

Aedeagus (Fig. 33F, G) 0.33 mm long, moderately flat, dorso-ventrally slightly asymmetric; median lobe with large basal capsule and subtriangular foramen, basoventral projection short; ventral stalk broadest at base, gradually narrowing towards apex; dorsal lobe and weakly sclerotized endophallus elongate, narrowing towards apex and curved; parameres reduced.

Female. Unknown.

Comparative notes. This species is closely similar to *T. spinacaritus* from Zhejiang in sharing an almost identical external morphology and aedeagus. The male of this species can be separated by the longer antennomere 11, slightly shorter apical projection of the mesotibia, and aedeagus narrower at the base.

Distribution. Central China: Hunan; South China: Guangdong.

Etymology. The species name refers to Loki in Norse mythology, who had the ability to change his shape to imitate other creatures.

***Tribasodites longipes* sp. nov.**
(Fig. 34)

Chinese common name: 长足脊胸蚁甲

Type material (4 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Guizhou, Libo County, Maolan N. R., Bizuo (必左), 25°17'16"N, 108°04'18"E, 478m–507m, 27.iv.2017, mixed leaf litter, sifted, Jiang, Jiang, Hu, Liu & Zhang leg.' (SNUC); **PARATYPES: CHINA:** 2 ♂♂, 1 ♀, same data as that of holotype (SNUC).

Diagnosis. *Male.* Body length approximately 2.6 mm. Head sub-rounded at base, as wide as pronotum, vertex smooth, with small, asetose vertexal foveae at base, with thin mediobasal carina extending from head base anteriorly to slightly below level of anterior margin of eyes, lateral carina complete; antenna elongate, with moderately enlarged antennomeres 9–11, 9 with thick, long ventral projection at apical 1/2, 10 strongly protruding on ventral margin, 11 much shorter than 9 and 10 combined. Pronotum lacking median longitudinal sulcus, with faint median longitudinal carina, with short discal carina connecting small discal spine and large antebasal spine; with pair of distinct marginal spines. Discal stria of elytron extending posteriorly to apical 1/2 of elytral length; lacking subhumeral fovea. Legs elongate, mesotrochanter and metatrochanter with elongate ventral spine, mesotibia with long apical spine, metatibia abruptly expanded at apex. Abdomen slightly elongate. Aedeagus broad; median lobe with large, transverse basal capsule and foramen, basoventral projection elongate; ventral stalk highly raised at

lateral sides; dorsal lobe broad, plate-like; parameres membranous. *Female*. Body length approximately 2.6 mm; antenna and legs lacking modifications, genitalia as in Fig. 34K.

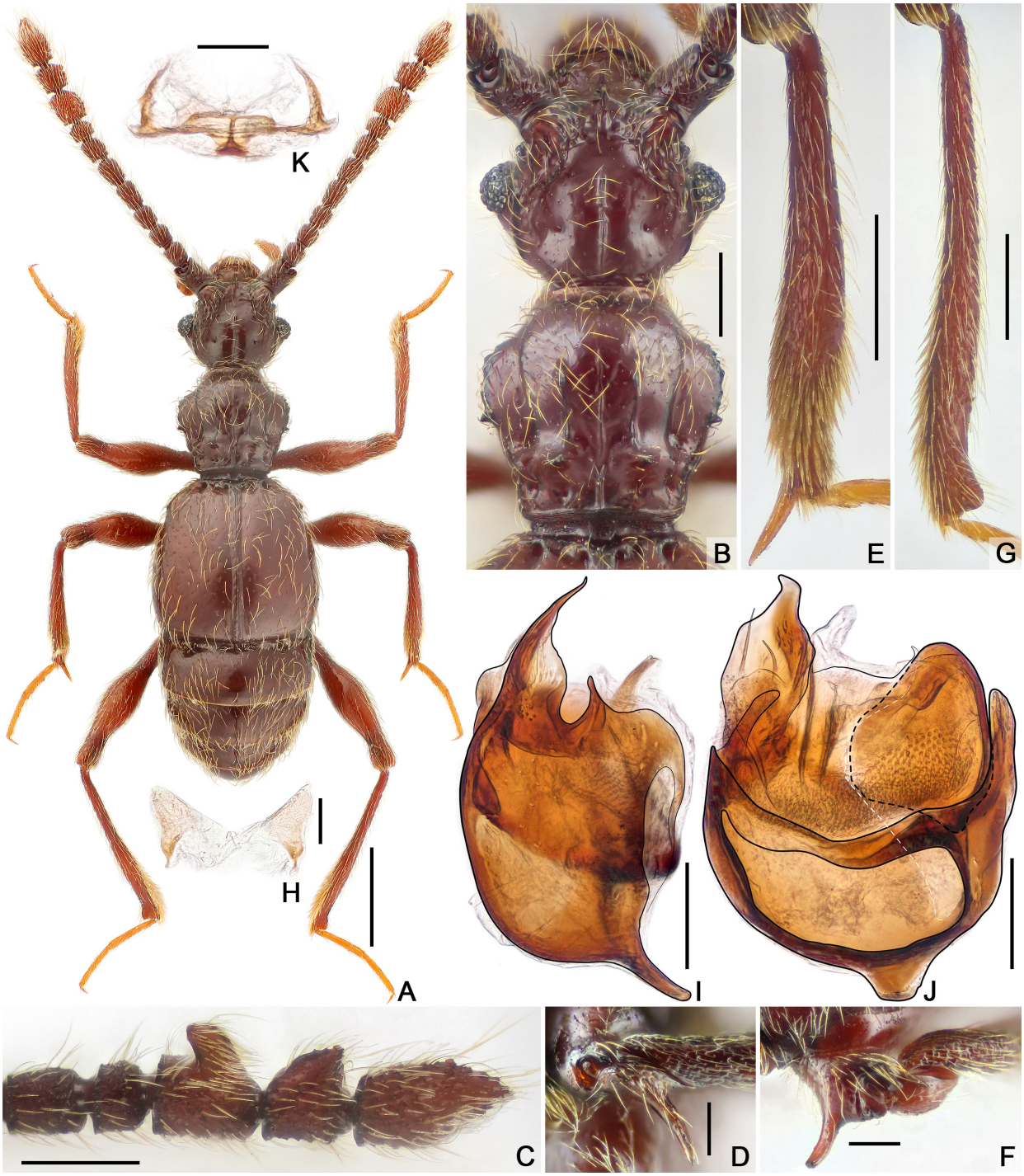

FIGURE 34. Morphology of *Tribasodites longipes* **sp. nov.** (A–J. Male. K. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 8–11. **D.** Mesotrochanter. **E.** Mesotibia. **F.** Metatrochanter. **G.** Metatibia. **H.** Sternite 7 (IX). **I, J.** Aedeagus, in lateral (I) and ventral (J) view. **K.** Genitalia. Scale bars: 0.5 mm in A; 0.2 mm in B, C, E, G; 0.1 mm in D, F, H–K.

Description. *Male*. Body (Fig. 34A) length 2.60–2.61 mm, dorsal surface of body covered with short pubescence; color reddish-brown, tarsi and mouthparts slightly lighter.

Head (Fig. 34B) sub-rounded at base, as long as wide, length 0.55–0.56 mm, width across eyes 0.57 mm; vertex relatively smooth, with relatively small, asetose vertexal foveae (dorsal tentorial pits), area between moderately raised antennal tubercles weakly impressed, anterior margin carinate, with large punctures along outer margin of carina, mediobasal carina thin, extending from head base anteriorly to slightly below level of anterior margin of

eyes, lateral carinae extending from head base to base of antennal tubercles; with large lateral postantennal pit; frons weakly impressed between antennal tubercles, anteriorly demarcated from clypeus by frontal-clypeal ridge, which merged at middle and extending anteriorly to near apex of clypeus; clypeus moderately long, its entire anterior margin carinate and slightly raised; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 45 ommatidia. Antenna elongate, length 1.63–1.67 mm, club (Fig. 34C) formed by apical three antennomeres; antennomere 1 elongate, subcylindrical, 2 as long as wide, 3 and 4 slightly longer than wide, 5–7 each elongate, 8 shortest, transverse, 9 much broader and longer than 8, with thick, long ventral projection at apical 1/2, 10 strongly protruding on ventral margin, 11 longest, much shorter than 9 and 10 combined, sub-conical, anteromesal margin impressed.

Pronotum (Fig. 34B) approximately as long as wide, length 0.53–0.54 mm, width 0.55–0.56 mm, widest at middle; lateral margins rounded at apical 1/2, convergent basally; disc slightly convex, with sparse, small punctures, lacking median longitudinal sulcus and mediobasal impression, with one faint median longitudinal carina; mediobasal carina short, shortly forked at apex; with relatively short discal carina connecting small discal spine and large antebasal spine, long lateral longitudinal sulci with strongly carinate inner side; with pair of distinct marginal spines; lateral antebasal foveae asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra length 0.82–0.83 mm, width 0.84–0.88 mm; each elytron with three large, asetose basal foveae, inner two slightly smaller; disc finely punctate, shallow discal stria extending posteriorly from outer basal fovea to basal 1/2 of elytral length; humerus denticulate, lacking subhumeral fovea, marginal stria extending posteriorly from basal 1/4 to apex.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs elongate. Mesotrochanter (Fig. 34D) with extremely elongate ventral spine; mesotibia (Fig. 34E) with long apical spine; metatrochanter (Fig. 34F) with long, slightly curved ventral projection, metatibia (Fig. 34G) elongate, abruptly expanded at apex, with dense, golden setae along ventral margin of apical 1/3.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.84 mm, width 0.76–0.80 mm. Tergite 1 (IV) slightly longer than 2 (V), lacking basal sulcus and discal carinae, with pair of tiny mediobasal foveae originating from shared transverse opening, with one pair of setose basolateral foveae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined; tergites 2–4 (V–VII) each with one pair of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3 and 4 each with two pairs of small basolateral foveae and one pair of tiny basolateral foveae at middle, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 34H) membranous, consisting of pair of subtriangular lateral plates.

Aedeagus (Fig. 34I, J) 0.40 mm long, dorso-ventrally greatly asymmetric, transverse; median lobe with large, transverse basal capsule and foramen, apical part weakly sclerotized and forked at left side in ventral view, with several long setae on dorsal surface, basoventral projection elongate; ventral stalk highly raised at lateral sides; dorsal lobe broad, plate-like, slightly narrowing towards apex; parameres membranous.

Female. Similar to male in external morphology; antenna and legs lacking modifications; each compound eye composed of approximately 35 ommatidia. Measurements (as for male): body length 2.59 mm; length/width of head 0.55/0.58 mm, pronotum 0.53/0.54 mm, elytra 0.78/0.84 mm; abdomen 0.84/0.78 mm; length of antenna 1.51 mm; maximum width of genitalia (Fig. 34K) 0.30 mm.

Comparative notes. *Tribasodites longipes* is placed as a member of the Clavatus group, and can be easily separated from all congeners of the group by the unique elongate antennae and legs, male antennomere 9 with a thick, long ventral projection, and the pronotum has a thin median longitudinal carina instead of a median sulcus.

Distribution. Southwest China: Guizhou.

Etymology. The specific epithet (*longus* + *pes*) refers to the elongate legs of this species.

***Tribasodites mangshanensis* sp. nov.**
(Fig. 35)

Chinese common name: 莽山脊胸蚁甲

Type material (2 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Hunan, Chenzhou, Yizhang Hsien, Mangshan N. R., 24°56'26"N, 112°59'18"E, mixed forest, leaf litter, wood, sifted & beating, 1400 m, 26.iv.2015, Peng, Tu, Zhou leg.' (SNUC); **PARATYPES: CHINA:** 1 ♂, same data as that of holotype (SNUC).

Diagnosis. *Male.* Body length approximately 2.1–2.2 mm. Head sub-rectangular at base, as wide as pronotum, vertex with short, faint transverse carina between antennal tubercles, with reversed 'Ψ'-shaped mediobasal carina extending from head base anteriorly to slightly beyond level of anterior margin of eyes; asetose vertexal foveae relatively large, lateral carina complete; antenna elongate, antennomere 10 with short projection near apex, 11 with small, short protuberance at base. Pronotum with laterally carinate median and lateral longitudinal sulci, pair of discal carinae composed of spines, with shallow, short antebasal carinae connecting median sulcus and discal carinae, with pair of large antebasal and much smaller marginal spines. Discal stria of elytron extending posteriorly to apical 2/5 of elytral length. Legs elongate, metafemur with long tufted setae at middle of dorsal surface. Abdomen convergent at base, with slightly elongate tergite 1 (IV). Aedeagus asymmetric; median lobe with large basal capsule and triangular foramen; ventral stalk elongate, abruptly widened at middle and then strongly protruding at left lateral margin in ventral view; dorsal lobe flat, abruptly narrowed at basal 1/2; parameres curved, membranous.

Description. *Male*. Body (Fig. 35A) length 2.12–2.16 mm, dorsal surface of body covered with relatively dense, short pubescence; color reddish-brown, elytron, legs and mouthparts slightly lighter.

Head (Fig. 35B) sub-rectangular at base, wider than long, length 0.44 mm, width across eyes 0.51 mm; vertex with faint and short, transverse carina between antennal tubercles; asetose vertexal foveae (dorsal tentorial pits) moderately large, with reversed 'Ψ'-shaped mediobasal carina extending from head base anteriorly to slightly beyond level of anterior margin of eyes and then connect transverse carina at apex; lateral carinae extending from head base to base of antennal tubercles; with small lateral postantennal pit; frons weakly impressed between antennal tubercles, anteriorly demarcated from clypeus by angulate frontal-clypeal ridge, which merged at middle and extending anteriorly for short distance; clypeus with carinate and moderately raised anterior margin; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 50 ommatidia. Antenna (Fig. 35C) elongate, length 1.44–1.47 mm, antennomere 1 thick, subcylindrical, 2–8 each slightly elongate, 8 smallest, 9 and 10 much longer and broader than 8, 10 with short projection near apex, 11 largest, 1.3 times as long as 9 and 10 combined, with small, short protuberance at base, sub-fusiform.

Pronotum (Fig. 35B) wider than long, length 0.45 mm, width 0.49–0.50 mm, widest at middle, lateral margins sub-parallel, then abruptly convergent apically and basally; disc slightly convex, smooth, median longitudinal sulcus with carinate sides, posteriorly confluent with shallow antebasal impression and short mediobasal carina, pair of discal longitudinal carinae (Fig. 35D) each composed of four to five distinct spines, with short and shallow antebasal carinae connecting median sulcus and discal carinae, pair of lateral longitudinal sulci with strongly carinate inner sides; with pair of large antebasal spines and much smaller marginal spines; lateral antebasal foveae asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra slightly wider than long, length 0.68–0.69 mm, width 0.73–0.74 mm; each elytron with three large, asetose basal foveae; shallow discal stria extending posteriorly from outer basal fovea to basal 2/5 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs distinctly elongate, simple. Metafemur (Fig. 35E) with long tufted golden setae at middle of dorsal surface.

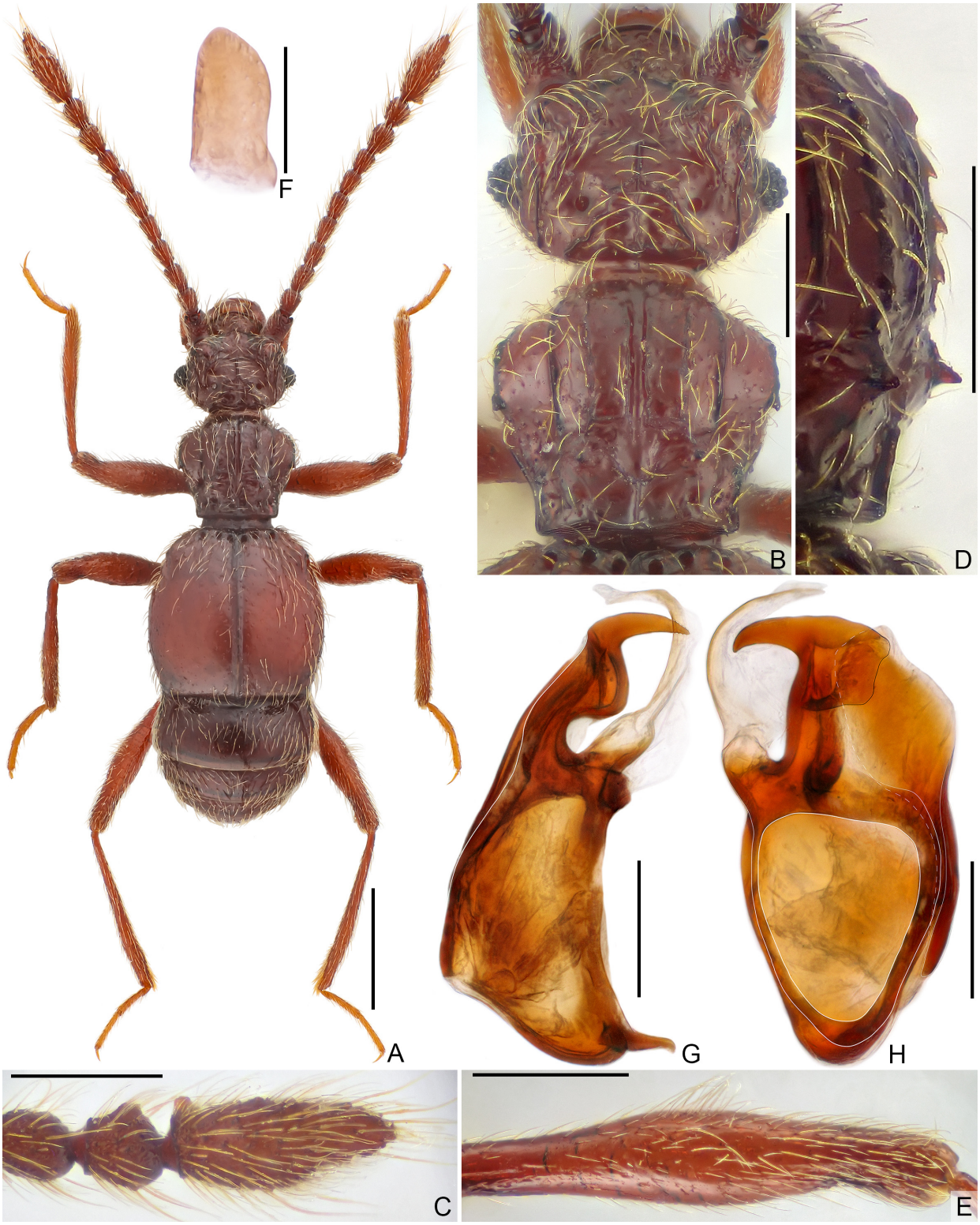

FIGURE 35. Morphology of *Tribasodites mangshanensis* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 10–11. **D.** Pronotum, in dorsolateral view. **E.** Metafemur. **F.** Sternite 7 (IX). **G, H.** Aedeagus, in lateral (G) and ventral (H) view. Scale bars: 0.5 mm in A; 0.2 mm in B–E; 0.1 mm in F–H.

Abdomen widest at lateral margins of tergite 1 (IV), convergent at base, length 0.63–0.66 mm, width 0.66–0.67 mm. Tergite 1 (IV) approximately 1.8 times as long as 2 (V), with shallow and thin basal sulcus connecting pair of setose basolateral foveae, lacking discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) slightly longer than tergite 3; tergites 2–3 (V–VI) each with

one pair of small basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3 and 4 each with three pairs of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 35F) elongate, weakly sclerotized.

Aedeagus (Fig. 35G, H) 0.35 mm long, dorso-ventrally asymmetric; median lobe with large basal capsule and triangular foramen, basoventral projection short and thick; ventral stalk elongate, abruptly widened at middle and then strongly protruding at left lateral margin in ventral view; dorsal lobe abruptly narrowed at basal 1/2, with plate-like apical part; parameres curved, membranous.

Female. Unknown.

Comparative notes. Then male of *Tribasodites mangshanensis* and *T. jiwanmontis* have distinctly elongate antennae and legs typical for the Spinacaritus group, both of them have a small, short protuberance at the base of antennomere 11, and the metafemur with long tufted golden setae at the middle of the dorsal surface. This new species can be separated from *T. jiwanmontis* by the much shorter transverse carina between the antennal tubercles, abdominal tergite 1 (IV) convergent at the base, and ventral stalk of the aedeagus lacking a long projection at the middle.

Distribution. Central China: Hunan.

Etymology. This species is named after Mangshan, where its type locality is situated.

Tribasodites paraspinatus sp. nov.

(Fig. 36)

Chinese common name: 拟多刺脊胸蚁甲

Type material (1 ex.). **HOLOTYPE: CHINA:** ♂, 'China: Guizhou, Libo County, Dongdai Station, 25°17'54.01"N, 107°58'52.39"E, 750 m, 29.iv.2021, Tang, Peng, Cai, & Song leg. [贵州荔波县董歹科研平台]' (SNUC).

Diagnosis. *Male.* Body length approximately 2.2 mm. Head subtruncate at base, as wide as pronotum, vertex impressed at apex, with relatively distinct, asetose vertexal foveae, with distinct mediobasal carina extending from head base anteriorly to level of middle length of eyes, with distinct lateral carina from base to posterior margin of antennal tubercle; antenna with modified antennomeres 9–11, antennomeres 9 and 10 with large, transverse impression at ventral surface, 11 with long, curved basal projection extended posteriorly from mesal margin of deep basal cavity. Pronotum with laterally carinate median and lateral longitudinal sulci, with pair of discal carinae, with two pairs of short antebasal and distinct marginal spines. Discal stria of elytron long, extending posteriorly to apical 4/5 of elytral length; disc finely punctate. Mesotrochanter with long ventral spine; mesofemur with broad ventral projection near base; metatrochanter with long, curved ventral projection at apex; metatibia slightly expanded at middle, with short apical spine. Abdomen slightly curved ventrally, with greatly elongate tergite 1 (IV). Aedeagus asymmetric; median lobe with extended basal capsule and subtriangular foramen, ventral stalk elongate, abruptly narrowed apically and strongly curved, dorsal lobe plate-like, narrowing towards apex, with round anterior margin.

Description. *Male*. Body (Fig. 36A) length 2.19 mm, dorsal surface of body covered with dense, short pubescence; color reddish-brown, legs and mouthparts slightly lighter.

Head (Fig. 36B) sub-rectangular at base, much wider than long, length 0.39 mm, width across eyes 0.52 mm; vertex smooth, weakly impressed at apex, lacking sulcus, vertexal foveae (dorsal tentorial pits) asetose, relatively large, mediobasal carina thin, extending from head base anteriorly to level of eye midpoint, lateral carina distinct, extending from base to posterior margin of antennal tubercle; dorsal postantennal pit large; frons weakly impressed between large, moderately raised antennal tubercles, anteriorly demarcated from clypeus by frontal-clypeal ridge, which merged at middle and extending anteriorly for short distance; clypeus short, with smooth surface, its entire anterior margin carinate and moderately raised; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 45 ommatidia. Antenna length 1.09 mm, distinct club (Fig. 36C) formed by enlarged apical three antennomeres; antennomere 1 thick, subcylindrical, 2 elongate, 3–7 each moniliform, 8 smallest, slightly transverse, 9 much wider than 8, with transverse impression at ventral surface, 10 much broader and longer than 9, ventral surface broadly impressed, 11

(Fig. 36D) largest, 1.5 times as long as 9 and 10 combined, with large, curved basal projection extended posteriorly from mesal margin of deep basal cavity.

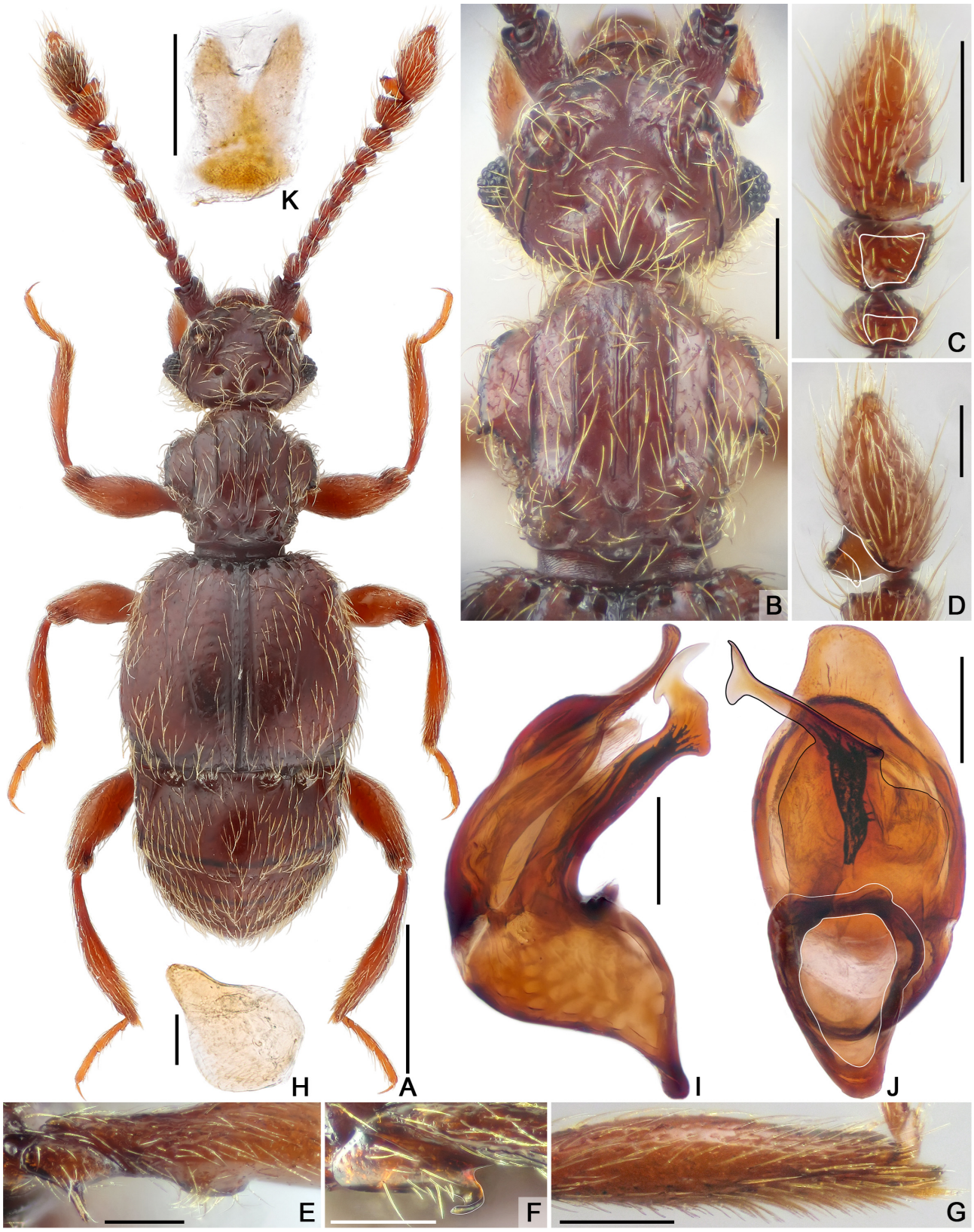

FIGURE 36. Morphology of *Tribasodites paraspinatus* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 9–11. **D.** Antennomere 11, in lateral view. **E.** Mesotrochanter and base of mesofemur. **F.** Metatrochanter. **G.** Metatibia. **H.** Sternite 7 (IX). **I, J.** Aedeagus, in lateral (I) and ventral (J) view. **K.** Parameres. Scale bars: 0.5 mm in A; 0.2 mm in B, C; 0.1 mm in D–G, I–K; 0.05 mm in H.

Pronotum (Fig. 36B) wider than long, length 0.46 mm, width 0.52 mm, widest at middle; lateral margins subparallel then abruptly convergent apically and basally; disc slightly convex, moderately smooth, median longitudinal sulcus with carinate sides, posteriorly confluent with oval antebasal impression and short mediobasal carina, with pair of discal carinae and lateral longitudinal sulci; with distinct antebasal and marginal spines; lateral antebasal foveae small and asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (precoxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra wider than long, length 0.71 mm, width 0.80 mm; each elytron with three large, asetose basal foveae; shallow discal stria extending posteriorly from outer basal fovea to basal 4/5 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent and flattened at middle, with deep median longitudinal impression, with well-developed lateral mesocoxal and two setose lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs moderately elongate. Mesotrochanter (Fig. 36E) with long ventral spine; mesofemur (Fig. 36E) with broad ventral projection near base, with setose tuft on ventral margin; metatrochanter (Fig. 36F) with long, curved ventral projection at apex; metatibia (Fig. 36G) slightly expanded at middle, with short apical spine.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.69 mm, width 0.71 mm. Tergite 1 (IV) approximately 2.3 times as long as 2 (V), lacking basal sulcus, with widely separated mediobasal and one pair of internal forked basolateral foveae, lacking discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined; tergites 2–4 (V–VII) each with two pairs of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and two pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3 and 4 each with three and 5 with two pairs of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 36H) weakly sclerotized, slightly oval, protruding at apex.

Aedeagus (Fig. 36I–K) 0.45 mm long, dorso-ventrally strongly asymmetric; median lobe with large extended basal capsule and subtriangular foramen, ventral stalk broadest at base, abruptly narrowed apically and strongly curved, slightly expanded at apex; dorsal lobe large, plate-like, gradually narrowing towards apex, with round anterior margin; parameres reduced to single membranous structure, apex widely split at middle.

Female. Unknown.

Comparative notes. This species is morphologically similar to *T. barbipes*, *T. bari* and *T. spinatus* by the similar form of the male antennal modifications and aedeagus. The new species can be readily separated by the male with antennomere 10 broadly impressed for entire ventral surface (only impressed at the base in other three species), mesofemur with a broad ventral projection near the base (simple in *T. barbipes* and *T. bari*, with a small ventral spine in *T. spinatus*), and a different shape of the elongate ventral stalk of aedeagus.

Distribution. Southwest China: Guizhou.

Etymology. The epithet refers to the morphological similarity of this species to *T. spinatus*.

Tribasodites pengi sp. nov.

(Fig. 37)

Chinese common name: 彭氏脊胸蚁甲

Type material (3 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Guangdong Province, Ruyuan Hsien, Nanling N. R., Qingshui Valley, 24°54'57"N, 113°01'55"E, mixed forest, leaf litter, sifted, 900 m, 04.v.2015, Peng, Tu, Zhou leg.' (SNUC); **PARATYPES: CHINA:** 1 ♀, same collectors and also from Nanling N. R., except 'Walkway, 24°55'57"N, 113°00'18"E, mixed forest, leaf litter, wood, sifted, 1220 m, 28.iv.2015,'; 1 ♂, also from Nanling N. R., except 'Pubuqun, 24°54'9"N, 113°2'53.8"E, 660–850 m, 3.v.2021, sifting, Hu, Lin, Zhou & Li leg. [广东南岭瀑布群]' (SNUC).

FIGURE 37. Morphology of *Tribasodites pengi* **sp. nov.** (A–I. Male. J. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Head and pronotum, in dorsolateral view. **D.** Protrochanter. **E.** Mesotrochanter. **F.** Metatrochanter. **G.** Sternite 7 (IX). **H, I.** Aedeagus, in ventral (H) and lateral (I) view. **J.** Genitalia. Scale bars: 0.5 mm in A; 0.4 mm in C; 0.2 mm in B, H, I; 0.1 mm in D–G, J.

Diagnosis. *Male.* Body length approximately 2.9–3.1 mm. Head rounded at base, as wide as pronotum, vertex with pair of thick, blunt projections at middle, vertexal foveae asetose, relatively small, with complete lateral carina extending from head base to posterior margin of antennal tubercle; antenna elongate, lacking modifications,

antennomere 11 fusiform. Pronotum with shallow longitudinal impression at middle, with pair of discal carinae connecting two short discal spines and large antebasal spines, marginal spines small, indistinct. Discal stria of elytron long, extending posteriorly to apical 1/2 of elytral length; disc finely punctate. Protrochanter with short ventral denticle; mesotrochanter and metatrochanter with broad apical projection, mesotibia and metatibia with small denticle at apex. Aedeagus asymmetric; median lobe with large basal capsule and oval foramen, ventral stalk elongate, forked near apex, dorsal lobe with one short and one much longer, curved sclerites, endophallus weakly sclerotized, plate-like. *Female*. Body length 2.94 mm; head and legs lacking modifications, genitalia as in Fig. 37J.

Description. *Male*. Body (Fig. 37A) length 2.92–3.08 mm, dorsal surface of body covered with dense pubescence; color dark reddish-brown, tarsi and mouthparts slightly lighter.

Head (Fig. 37B, C) rounded at base, slightly wider than long, length 0.61–0.62 mm, width across eyes 0.69 mm; vertex with pair of thick, blunt projections at middle, small vertexal foveae (dorsal tentorial pits) asetose, mediobasal carina with shortly forked apex connecting two projections, extending from head base anteriorly to level of posterior margin of eyes, lateral carina extending from base to posterior margin of antennal tubercle; lacking dorsal postantennal pit; frons weakly impressed between antennal tubercles, anteriorly demarcated from clypeus by frontal-clypeal ridge, which faintly merged at middle and extending anteriorly to near apex of clypeus; clypeus relatively short, with rough surface, its entire anterior margin moderately carinate and raised; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 50 ommatidia. Antenna length 1.66–1.76 mm, lacking modifications, antennomere 1 thick, subcylindrical, 2–8 each moderately elongate, 5 longest, 8 smallest, 9 much broader and longer than 8, 10 slightly broader than 9, 11 largest, as long as 9 and 10 combined, fusiform.

Pronotum (Fig. 37B, C) length 0.67–0.69 mm, width 0.70 mm, widest at middle; lateral margins rounded, convergent basally and sub-parallel at basal 1/4; disc convex, finely punctate, median sulcus reduced, with shallow longitudinal impression at middle, posteriorly confluent with small, oval antebasal impression short mediobasal carina, pair of discal longitudinal carinae each composed of two short spines and one large antebasal spine, with pair of lateral longitudinal sulci connecting lateral antebasal foveae; with small marginal spines; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra finely punctate, length 0.95–0.96 mm, width 1.11–1.12 mm; each elytron with three large, asetose basal foveae; shallow discal stria extending posteriorly from outer basal fovea to basal 1/2 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs elongate. Protrochanter (Fig. 37D) with small ventral denticle; mesotrochanter (Fig. 37E) with broad ventral projection, mesotibia with small, curved apical denticle; metatrochanter (Fig. 37F) with relatively elongate ventral projection, metatibia with short spine at apex.

Abdomen widest at lateral margins of tergite 1 (IV), length 1.00–1.02 mm, width 0.97–0.98 mm. Tergite 1 (IV) approximately 1.5 times as long as 2 (V), lacking basal sulcus, with closely separated mediobasal foveae originating from shared oval opening, two pairs of setose basolateral foveae close, originating from shared transverse opening, with thin and short discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined; tergites 2–4 (V–VII) each with one pair of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3 and 4 each with two pairs of distinct basolateral foveae and one pair of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 37G) composed of pair of subtriangular, membranous structures.

Aedeagus (Fig. 37H, I) 0.56 mm long, dorso-ventrally greatly asymmetric; median lobe with large basal capsule and slightly oval foramen, basoventral projection thick and short; ventral stalk elongate, forked near apex; dorsal

lobe with one short and one much longer, curved sclerites; endophallus plate-like, weakly sclerotized; parameres membranous, flat.

Female. Similar to male in external morphology; vertex lacking projections; legs lacking modifications; each compound eye composed of approximately 50 ommatidia. Measurements (as for male): body length 2.94 mm; length/width of head 0.60/0.67 mm, pronotum 0.66/0.67 mm, elytra 0.94/1.07 mm; abdomen 0.90/ 0.94 mm; length of antenna 1.68 mm; maximum width of genitalia (Fig. 37J) 0.46 mm.

Comparative notes. *Tribasodites pengi* is close to *T. jiulianmontis* from Jiangxi described above. It is not easy to separate these two species based on their external morphology. The aedeagi of the two species have a dorso-ventrally "mirrored" general structure, and the apices of each fork of the ventral lobe are differently structured.

Distribution. South China: Guangdong.

Etymology. The new species is named after our colleague Zhong Peng, who collected the holotype and one paratype.

***Tribasodites ruyuanensis* sp. nov.**
(Fig. 38)

Chinese common name: 乳源脊胸蚁甲

Type material (20 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Guangdong, Shaoguan, Ruyuan County, Nanling N. R., 24°56'16.20"N, 113°0'8.43"E, 980–1350 m, 1.v.2021, sifting, Hu, Lin, Zhou & Li leg. [广东南岭自然保护区]' (SNUC); **PARATYPES: CHINA:** 1 ♂, 3 ♀♀, same data as that of holotype; 3 ♂♂, 5 ♀♀, same locality and collector, except '24°55'42.9"N, 113°0'59.05"E, 1020–1250 m, 4.v.2021,'; 3 ♂♂, 1 ♀, same locality and collector, except 'Qinshuigu, 24°55'42.9"N, 113°0'59.06"E, 680–780 m, 5.v.2021,'; 1 ♂, 2 ♀♀, same locality and collector, except 'Pubuqun, 24°54'9"N, 113°2'53.8"E, 660–850 m, 3.v.2021,' (SNUC).

Diagnosis. *Male.* Body length approximately 2.2–2.3 mm. sub-rectangular at base, as wide as pronotum, vertex finely punctate, with reversed U-shaped impression connecting vertexal foveae, with thin mediobasal carina extending from head base anteriorly to near level of anterior margin of eyes, lateral carina complete; antenna thick, with moderately enlarged apical three antennomeres. Pronotum with laterally carinate median and lateral longitudinal sulci, with pair of short discal carinae connecting small discal spines and much larger antebasal spines, with short marginal spines. Discal stria of elytron extending posteriorly to apical 2/5 of elytral length. Mesotrochanter with large ventral spine; mesotibia with distinct spine near apex; metafemur robust, ventral surface slightly impressed at basal 1/2, metatibia gradually expanding towards apex, slightly impressed before apex. Abdomen slightly curved ventrally, with slightly elongate tergite 1 (IV). Aedeagus asymmetric; median lobe strongly elongate at lateral margin, with large extended basal capsule and much smaller foramen; ventral stalk composed of one elongate and two much shorter projections; dorsal lobe plate-like, subtriangular. *Female*. Body length approximately 2.1–2.2 mm; antenna and legs lacking modifications, genitalia as in Fig. 38J.

Description. *Male*. Body (Fig. 38A) length 2.17–2.33 mm, dorsal surface of body covered with relatively dense pubescence; color reddish-brown, legs and mouthparts slightly lighter.

Head (Fig. 38B) sub-rectangular at base, slightly wider than long, length 0.47–0.48 mm, width across eyes 0.53–0.55 mm; vertex finely punctate, with reversed U-shaped impression connecting relatively small, asetose vertexal foveae (dorsal tentorial pits), anterior margin carinate, with dense large punctures along outer margin of carina, mediobasal carina thin, extending from head base anteriorly to near level of anterior margin of eyes, lateral carinae extending from head base to base of antennal tubercles; with small lateral postantennal pit; frons weakly impressed between antennal tubercles, anteriorly demarcated from clypeus by frontal-clypeal ridge, which merged at middle and extending anteriorly to near apex of clypeus; clypeus moderately long, its entire anterior margin carinate and raised; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 20 ommatidia. Antenna thick, length 1.20–1.30 mm, antennomere 1 thick, subcylindrical, 2–7 each sub-moniliform, 5 slightly elongate, 8 transverse, 9 (Fig. 38C) much broader and longer than 8, with short tufted setae on ventral side, 10 slightly smaller than 9, 11 longest, slightly shorter than 9 and 10 combined, sub-conical.

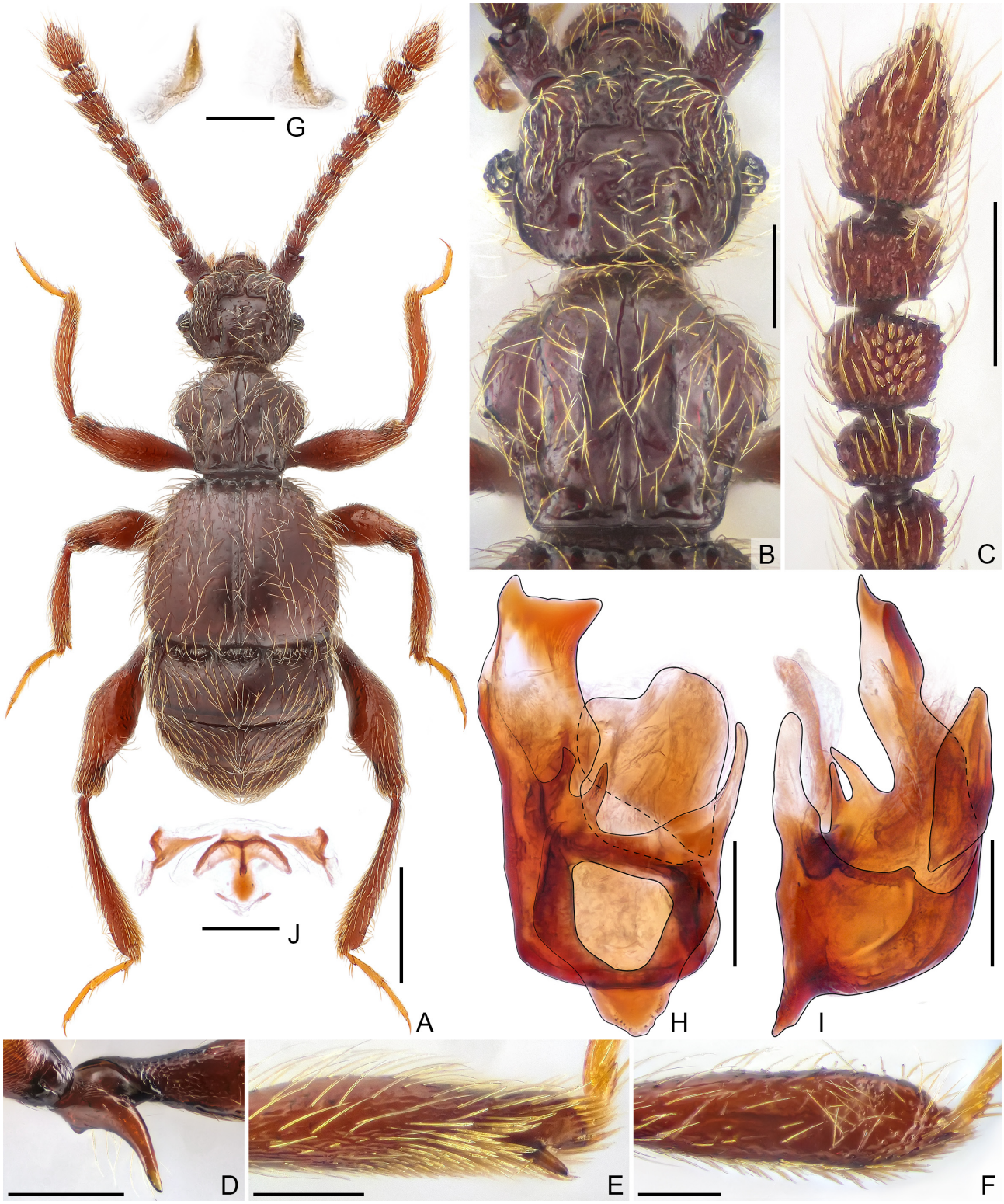

FIGURE 38. Morphology of *Tribasodites ruyuanensis* **sp. nov.** (A–I. Male. J. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 8–11. **D.** Mesotrochanter. **E.** Apex of mesotibia. **F.** Metatrochanter. **G.** Sternite 7 (IX). **H, I.** Aedeagus, in ventral (H) and lateral (I) view. **J.** Genitalia. Scale bars: 0.5 mm in A; 0.2 mm in B–D; 0.1 mm in E–J.

Pronotum (Fig. 38B) slightly wider than long, length 0.48–0.51 mm, width 0.55 mm, widest at middle; lateral margins rounded; disc slightly convex, smooth, median longitudinal sulcus with carinate sides, posteriorly confluent with short mediobasal carina, with pair of relatively short discal carinae connecting pair of small discal spines and much larger antebasal spines, lateral longitudinal sulcus long, inner sides strongly carinate; with pair of short

marginal spines; lateral antebasal foveae with dense, short setae near opening; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra slightly wider than long, length 0.67–0.69 mm, width 0.79–0.83 mm; each elytron with three small, asetose basal foveae; disc finely punctate, with shallow discal stria extending posteriorly from outer basal fovea to basal 2/5 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs robust. Mesotrochanter (Fig. 38D) with one small projection and one large spine on ventral margin; mesotibia (Fig. 38E) with distinct spine near apex; metafemur robust, ventral surface slightly impressed at basal 1/2, metatibia (Fig. 38F) gradually expanding towards apex, slightly impressed before apex.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.71–0.79 mm, width 0.74–0.79 mm. Tergite 1 (IV) approximately 1.25 times as long as 2 (V), lacking basal sulcus, with separated mediobasal foveae originating from shared transverse opening, two pairs of basolateral foveae close, setose, with thin and short discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined; tergites 2–4 (V–VII) each with one pair of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3 and 4 each with two pairs of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 38G) membranous, composed of pair of subtriangular structures.

Aedeagus (Fig. 38H, I) 0.37 mm long, dorso-ventrally greatly asymmetric, stout; median lobe with strongly elongate apical part at left margin in ventral view, truncate at apex, with large extended basal capsule and relatively small foramen, basoventral projection elongate; ventral stalk composed of one strongly elongate and two much shorter projections; dorsal lobe plate-like, subtriangular; parameres membranous.

Female. Similar to male in external morphology; antenna and legs lacking modifications, metafemur relatively slender; each compound eye composed of approximately 12 ommatidia. Measurements (as for male): body length 2.13–2.18 mm; length/width of head 0.51–0.52/0.58–0.59 mm, pronotum 0.51–0.53/0.56–0.57 mm, elytra 0.61–0.63/0.77–0.78 mm; abdomen 0.72–0.73/0.73–0.74 mm; length of antenna 1.04–1.10 mm; maximum width of genitalia (Fig. 38J) 0.22 mm.

Comparative notes. This species is most similar to *T. clavatus* from Guangxi in sharing similar male sexual characters as well as the aedeagal form. The new species can be readily separated by the smaller marginal spines of the pronotum, mesotibia with a small preapical spine before the apex (with small spine at apex of *T. clavatus*), and the male with much thicker metafemora and the foramen of the aedeagus not strongly twisted.

Distribution. South China: Guangdong.

Etymology. This species is named after Ruyuan County, where its type locality is situated.

***Tribasodites spinatus* sp. nov.**

(Fig. 39)

Chinese common name: 多刺脊胸蚁甲

Type material (1 ex.). **HOLOTYPE: CHINA:** ♂, 'China: Guangdong, Shaoguan, Ruyuan County, Nanling N. R., 24°55'42.9"N, 113°0'59.06"E, 1180–1250 m, 6.v.2021, sifting, Hu, Lin, Zhou & Li leg. [广东韶关市乳源县南岭]' (SNUC); **PARATYPES: CHINA:** 1 ♂, same data as that of holotype (SNUC).

Diagnosis. *Male.* Body length 2.0–2.2 mm. Head subtruncate at base, as wide as pronotum, vertex impressed anteriorly, with relatively large, setose vertexal foveae, with distinct mediobasal carina extending from head base anteriorly to level of middle length of eyes, lateral carina complete; antenna with modified antennomeres 9–11, 9

transverse, broadly impressed at ventral surface, 10 with oval impression at base, 11 with broad basal projection extended posteriorly from mesal margin of deep basal cavity. Pronotum with laterally carinate median and lateral longitudinal sulci, with pair of discal carinae, antebasal sulcus shallowly present, with two pairs of short antebasal and distinct marginal spines. Discal stria of elytron long, extending posteriorly to apical 4/5 of elytral length. Mesotrochanter with long ventral spine; mesofemur with short ventral spine at basal 1/3; mesotibia with small apical denticle; metatrochanter with long, curved ventral projection. Abdomen slightly curved ventrally, with greatly elongate tergite 1 (IV). Aedeagus asymmetric; median lobe with large extended basal capsule and elongate foramen, ventral stalk strongly forked and curved at apical 1/2; dorsal lobe plate-like, gradually narrowing towards apex; parameres reduced to single membranous structure.

Description. *Male*. Body (Fig. 39A) length 2.05–2.22 mm, dorsal surface of body covered with dense, short pubescence; color reddish-brown, legs and mouthparts slightly lighter.

Head (Fig. 39B) sub-rectangular at base, much wider than long, length 0.40–0.42 mm, width across eyes 0.47–0.50 mm; vertex smooth, weakly impressed at apex, anterior margin weakly carinate, lacking sulcus, vertexal foveae (dorsal tentorial pits) asetose, relatively large, mediobasal carina thin, extending from head base anteriorly to level of eye midpoint, lateral carina distinct, extending from base to posterior margin of antennal tubercle; dorsal postantennal pit large; frons weakly impressed between large, moderately raised antennal tubercles, anteriorly demarcated from clypeus by frontal-clypeal ridge, which merged at middle and extending anteriorly for short distance; clypeus short, with smooth surface, its entire anterior margin carinate and moderately raised; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 45 ommatidia. Antenna length 1.16–1.18 mm, distinct club (Fig. 39C) formed by enlarged apical three antennomeres; antennomere 1 thick, subcylindrical, 2–4 slightly elongate, 5–7 each much longer than wide, 8 smallest, sub-moniliform, 9 transverse, broadly impressed at ventral surface, 10 much longer than 9, ventral surface with oval impression at base, 11 (Fig. 39D) largest, longer than 9 and 10 combined, with broad basal projection extended posteriorly from mesal margin of deep basal cavity.

Pronotum (Fig. 39B) slightly wider than long, length 0.46–0.47 mm, width 0.50–0.51 mm, widest at middle; lateral margins rounded at apical 1/2, convergent basally; disc slightly convex, smooth, median longitudinal sulcus with carinate sides, posteriorly confluent with oval antebasal impression and short mediobasal carina, with pair of discal carinae and lateral longitudinal sulci; with distinct antebasal and marginal spines; antebasal sulcus shallowly present, curved at middle and confluent with antebasal impression, lateral antebasal foveae small and asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra wider than long, length 0.64–0.69 mm, width 0.77–0.80 mm; each elytron with two large, asetose basal foveae at lateral and one much smaller basal fovea at middle; shallow discal stria extending posteriorly from outer basal fovea to basal 4/5 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent and flattened at middle, with deep median longitudinal impression, with well-developed lateral mesocoxal and two setose lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs moderately elongate. Mesotrochanter (Fig. 39E) with long ventral spine; mesofemur (Fig. 39E) with short ventral spine at basal 1/3; mesotibia (Fig. 39F) with small apical denticle; metatrochanter (Fig. 39G) with long, curved ventral projection, with tuft of short setae at base of projection.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.66–0.72 mm, width 0.68–0.70 mm. Tergite 1 (IV) approximately twice as long as 2 (V), lacking basal sulcus, with widely separated mediobasal and one pair of internal forked basolateral foveae, with short, triangular discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined; tergites 2–4 (V–VII) each with two pairs of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and two pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3 and 4 each with three and 5 with two pairs

of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 39H) weakly sclerotized, slightly oval.

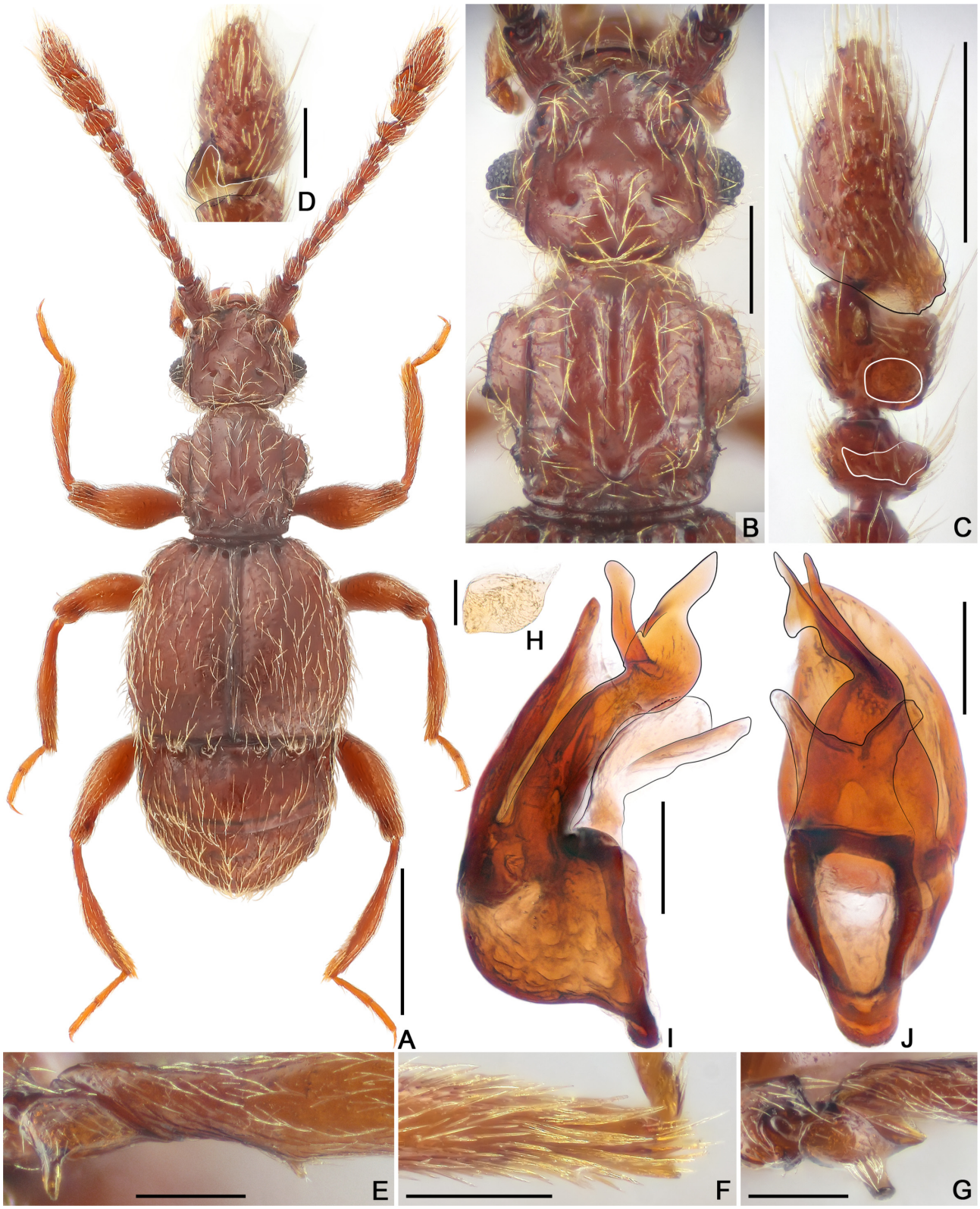

FIGURE 39. Morphology of *Tribasodites spinatus* **sp. nov.**, male. **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 9–11. **D.** Antennomere 11, in dorsolateral view. **E.** Mesotrochanter and base of mesofemur. **F.** Apex of mesotibia. **G.** Metatrochanter. **H.** Sternite 7 (IX). **I, J.** Aedeagus, in lateral (I) and ventral (J) view. Scale bars: 0.5 mm in A; 0.2 mm in B, C; 0.1 mm in D–G, I, J; 0.05 mm in H.

Aedeagus (Fig. 39I, J) 0.45 mm long, dorso-ventrally asymmetric; median lobe with large extended basal capsule and elongate, subtriangular foramen, ventral stalk elongate, broadest at base, narrowing towards apex and strongly forked and curved at apical 1/2; dorsal lobe large, plate-like, gradually narrowing towards apex; parameres reduced to single membranous structure, apex widely split at middle.

Female. Unknown.

Comparative notes. *Tribasodites spinatus* is placed as a member of the Antennalis group and appears to be morphologically similar to *T. constrictus* in the presence of a mesofemoral spine in the male as well as an apically forked ventral stalk of the aedeagus. The new species differs in the modification of male apical three antennomeres (only antennomere 11 with thin, long basal projection as in *T. constrictus*), the pronotum with a pair of marginal spines (lacking in *T. constrictus*), and the much shorter mesofemoral spines.

Distribution. South China: Guangdong.

Etymology. The epithet (*spina* + *-atus*) refers to the spinose mesotrochanters and mesofemora of the species.

Tribasodites tiani Yin & Li, 2011

Chinese common name: 田氏脊胸蚁甲

Tribasodes tiani Yin & Li in Yin *et al*. 2011d: 54. Type locality: China: Guangxi Prov., Hechi, Huanjiang Co., Mulun N. R., water cave.

Distribution. Southwest China: Guangxi.

Remarks. The male of *T. tiani* remains unknown, and a single female is known from the type locality.

Tribasodites turgipes sp. nov.

(Fig. 40)

Chinese common name: 肿足脊胸蚁甲

Type material (46 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Hechi City, Mulun N. R., 25°8'54"N, 108°2'37"E, mixed leaf litter, sifted, 350–450 m, 24.vii.2015, Chen, He, Hu & Wang leg.' (SNUC); **PARATYPES: CHINA:** 10 ♂♂, 13 ♀♀, same data as that of holotype; 1 ♂, same locality and collector, except '25°7'20"N, 108°2'8"E, 25.vii.2015,'; 1 ♂, 3 ♀♀, 'China: Guangxi, Huanjiang, Jiuwan Mt., Qingshuitang, 25°11'59.36"N, 106°47'46.55"E, 450 m, 24.iv.2021, Tang, Peng, Cai & Song leg. [广西环江县九万山清水塘].'; 7 ♂♂, 10 ♀♀, 'China: Guizhou, Libo County, Maolan N. R., Bizuo (必左), 25°17'16"N, 108°04'18"E, 478m–507m, 27.iv.2017, mixed leaf litter, sifted, Jiang, Jiang, Hu, Liu & Zhang leg.' (SNUC).

Diagnosis. *Male.* Body length approximately 2.3 mm. Head sub-rounded at base, as wide as pronotum, vertex finely punctate, anterior margin weakly carinate, with large punctures along lateral margin of carina, with small, asetose vertexal foveae at base, with thin mediobasal carina extending from head base anteriorly to slightly below level of anterior margin of eyes, lateral carina complete; antenna thick, with distinctly transverse apical three antennomeres, antennomere 11 broadly expanded at lateral margin. Pronotum with laterally carinate median and lateral longitudinal sulci, with pair of short discal carinae connecting small discal spines and much larger antebasal spines, with pair of distinct marginal spines. Discal stria of elytron extending posteriorly to apical 1/2 of elytral length; disc smooth. Mesotrochanter with elongate and curved ventral spine; mesotibia with large spine near apex; metatibia expanded at apex. Abdomen slightly curved ventrally, with slightly elongate tergite 1 (IV). Aedeagus asymmetric; median lobe with weakly sclerotized apical part, which narrowing towards apex, with long basoventral projection; ventral stalk composed of one thick and two slender projections; dorsal lobe plate-like, subtriangular; parameres membranous. *Female*. Body length approximately 2.1–2. 2 mm; antenna and legs lacking modifications, genitalia as in Fig. 40J.

Description. *Male*. Body (Fig. 40A) length 2.30–2.32 mm, dorsal surface of body covered with dense, short pubescence; color dark reddish-brown, tarsi and mouthparts slightly lighter.

Head (Fig. 40B) sub-rounded at base, slightly wider than long, length 0.45–0.47 mm, width across eyes 0.54–0.55 mm; vertex finely punctate, anterior margin weakly carinate, with large punctures along lateral margin of

carina, asetose vertexal foveae (dorsal tentorial pits) relatively small, mediobasal carina thin, extending from head base anteriorly to slightly below level of anterior margin of eyes, lateral carinae extending from head base to base of antennal tubercles; with distinct lateral postantennal pit; frons weakly impressed between antennal tubercles, anteriorly demarcated from clypeus by frontal-clypeal ridge, which merged at middle and extending anteriorly for short distance; clypeus moderately long, with smooth surface, its entire anterior margin carinate and moderately raised; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 50 ommatidia. Antenna (Fig. 40C) thick, length 1.21–1.25 mm, antennomere 1 elongate, subcylindrical, 2 slightly elongate, 3–6 sub-moniliform, 7 and 8 transverse, 9 wider than long, much broader and longer than 8, 10 smaller than 9, 11 longest, slightly longer than 9 and 10 combined, broadly expanded at lateral margin, narrowing towards apex.

Pronotum (Fig. 40B) approximately as long as wide, length 0.49–0.52 mm, width 0.53–0.55 mm, widest at middle; lateral margins rounded at apical 1/2, convergent basally; disc slightly convex, with sparse, small punctures, median longitudinal sulcus with carinate sides, posteriorly confluent with short mediobasal carina, with pair of relatively short discal carinae connecting pair of small discal spines and much larger antebasal spines, lateral longitudinal sulcus long, inner sides strongly carinate; with pair of distinct marginal spines; lateral antebasal foveae asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra slightly wider than long, length 0.73 mm, width 0.81–0.84 mm; each elytron with three small, asetose basal foveae; disc smooth, shallow discal stria extending posteriorly from outer basal fovea to basal 1/2 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent admesally, inclined towards middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs elongate. Mesotrochanter (Fig. 40D) with strongly elongate and weakly curved ventral spine; mesotibia (Fig. 40E) with large spine near apex; metatibia (Fig. 40F) expanded at apex, slightly impressed before apex, with dense, golden setae on ventral margin.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.77–0.81 mm, width 0.73–0.76 mm. Tergite 1 (IV) approximately 1.4 times as long as 2 (V), lacking basal sulcus, with closely separated mediobasal foveae originating from shared oval opening, two pairs of setose basolateral foveae close, originating from shared transverse opening, with thin and short discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined; tergites 2–4 (V–VII) each with one pair of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3 and 4 each with two pairs of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 40G) membranous, composed of pair of curved structures.

Aedeagus (Fig. 40H, I) 0.39 mm long, dorso-ventrally asymmetric, stout; median lobe with abruptly narrowed apical part at left margin in ventral view, which weakly sclerotized and narrowing towards apex, with large basal capsule and foramen, basoventral projection long; ventral stalk composed of one thick and two slender projections; dorsal lobe plate-like, subtriangular; parameres membranous, widely split at anterior margin.

Female. Similar to male in external morphology; antenna lacking distinctly enlarged apical three antennomeres, legs lacking modifications; each compound eye composed of approximately 15 ommatidia. Measurements (as for male): body length 2.13–2.21 mm; length/width of head 0.44–0.48/0.50–0.56 mm, pronotum 0.46–0.50/0.50–0.56 mm, elytra 0.64–0.67/0.73–0.81 mm; abdomen 0.61–0.71/0.68–0.77 mm; length of antenna 1.04–1.16 mm; maximum width of genitalia (Fig. 40J) 0.24 mm.

Comparative notes. *Tribasodites turgipes* is placed as a member of the Clavatus group and can be readily separated from the other species by the transverse male antennomeres 7–11, the mesotibia with a relatively large spine before the apex, and configuration of the aedeagus.

Distribution. Southwest China: Guangxi.

Etymology. The specific epithet (*turgeô* (swell out) + *pes*) refers to the apically expanded metatibiae of the species.

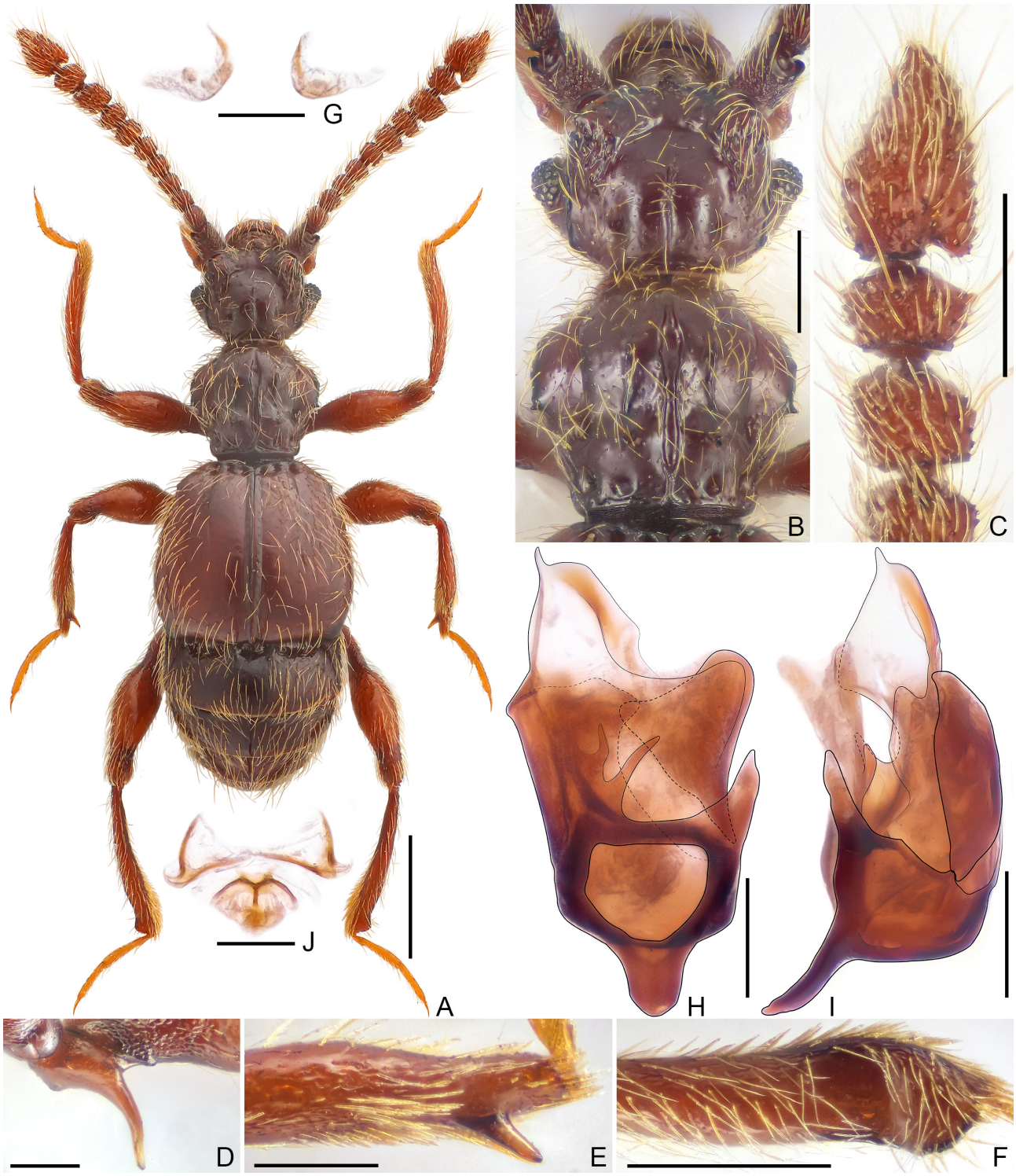

FIGURE 40. Morphology of *Tribasodites turgipes* **sp. nov.** (A–I. Male. J. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 9–11. **D.** Mesotrochanter. **E.** Apex of mesotibia. **F.** Metatrochanter. **G.** Sternite 7 (IX). **H, I.** Aedeagus, in ventral (H) and lateral (I) view. **J.** Genitalia. Scale bars: 0.5 mm in A; 0.2 mm in B, C, F; 0.1 mm in D, E, G–J.

***Tribasodites xinningensis* sp. nov.**
(Fig. 41)

Chinese common name: 新宁脊胸蚁甲

Type material (17 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Hunan, Xinning County, Shunhuangshan Peak, 26°22'01.58"N, 111°00'27.74"E, 1710-1870 m, 1.v.2021, sifting, Yin, Zhang. Pan & Shen leg. [湖南舜皇宫-顶峰]' (SNUC); **PARATYPES: CHINA:** 14 ♂♂, 1 ♀, same data as that of holotype; 1 ♂, 'China: Hunan, Xinning County, Ziyun Mt., Zhuancheping–Wuliting, 26°36'24.64"N, 111°04'59.84"E, 1185-1295m, 4.v.2021, Yin, Zhang. Pan & Shen leg. [湖南紫云山转车坪-五里亭]' (SNUC).

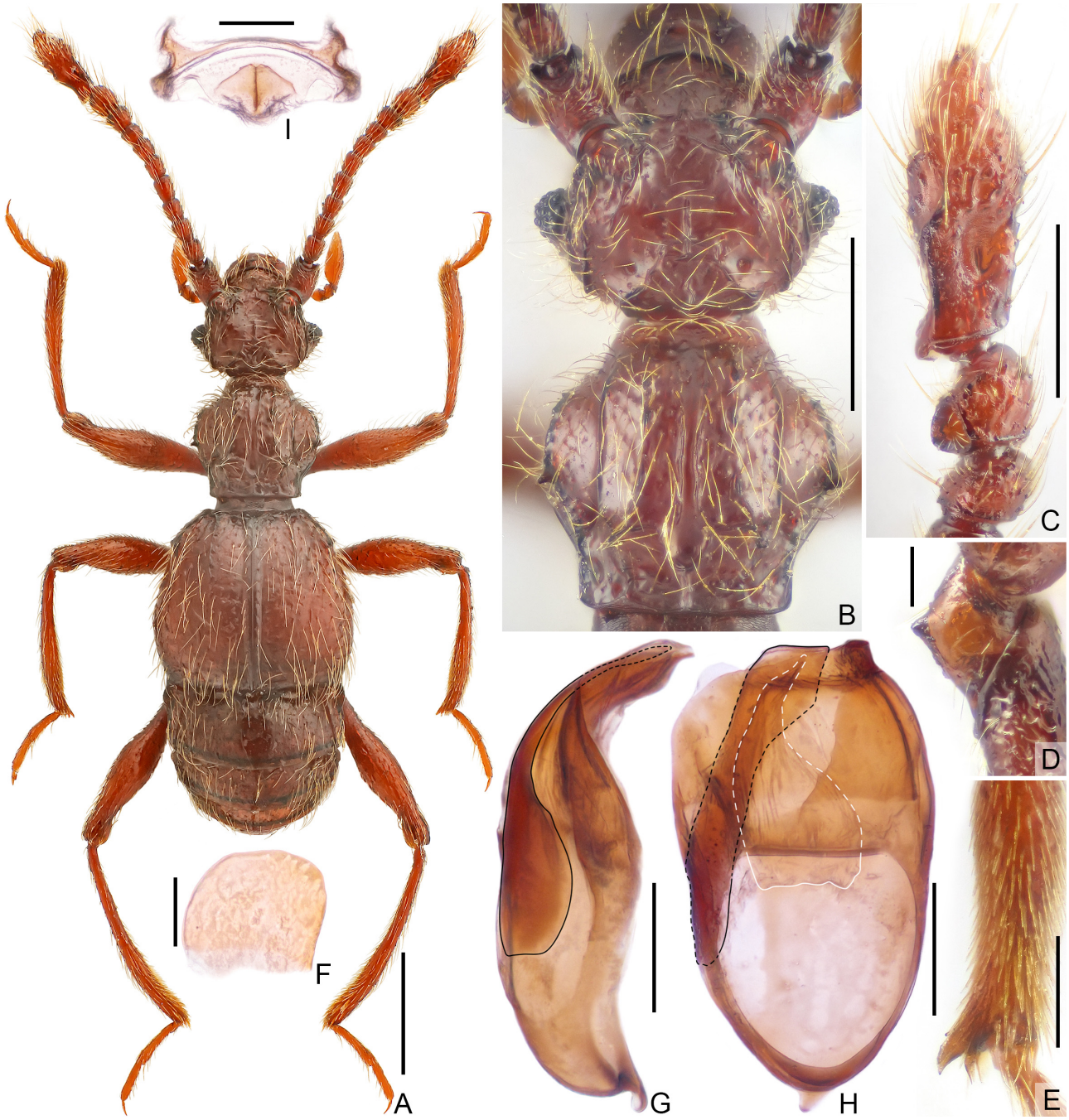

FIGURE 41. Morphology of *Tribasodites xinningensis* **sp. nov.** (A–H. Male. I. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 9–11. **D.** Mesotrochanter. **E.** Apex of mesotibia. **F.** Sternite 7 (IX). **G, H.** Aedeagus, in lateral (G) and ventral (H) view. **I.** Genitalia. Scale bars: 0.5 mm in A; 0.3 mm in B; 0.2 mm in C; 0.1 mm in E, G–I; 0.05 mm in D, F.

Diagnosis. *Male.* Body length approximately 2.3–2.4 mm. Head sub-rectangular at base, as wide as pronotum, weakly impressed, anterior margin slightly carinate, asetose vertexal foveae (dorsal tentorial pits) relatively small, with reversed 'Ψ'-shaped mediobasal carina extending from head base anteriorly to slightly below level of anterior margin of eyes; lateral carina complete; antenna moderately elongate, antennomere 10 with deep, triangular cavity on ventral side, 11 protruding basally, with one long impression and one smaller oval impression at lateral side. Pronotum with laterally carinate median and lateral longitudinal sulci, with pair of thin discal carinae each connecting three small discal spines and one much larger antebasal spine, with shallow, short antebasal carinae connecting antebasal spine and antebasal impression, with pair of distinct marginal spines. Discal stria of elytron extending posteriorly to apical 2/5 of elytral length. Legs elongate, mesotrochanter with short ventral spine; mesotibia with distinct, apically forked projection at apex. Abdomen slightly curved ventrally, with slightly elongate tergite 1 (IV). Aedeagus slightly asymmetric, median lobe with large basal capsule and foramen, ventral stalk broad, slightly protruded at apex, dorsal lobe elongate, slightly curved in lateral view, endophallus weakly sclerotized, narrowing towards apex. *Female*. Body length 2.33 mm; antenna and legs lacking modifications, genitalia as in Fig. 41I.

Description. *Male*. Body (Fig. 41A) length 2.35–2.38 mm, color reddish-brown, legs and mouthparts slightly lighter.

Head (Fig. 41B) sub-rectangular at base, much wider than long, length 0.48 mm, width across eyes 0.54–0.57 mm; vertex smooth, weakly impressed, anterior margin slightly carinate; asetose vertexal foveae (dorsal tentorial pits) relatively small, with reversed 'Ψ'-shaped mediobasal carina extending from head base anteriorly to slightly below level of anterior margin of eyes; lateral carinae extending from head base to base of antennal tubercles; lateral postantennal pit small; frons weakly impressed between antennal tubercles, anteriorly demarcated from clypeus by faint frontal-clypeal ridge, which merged at middle; clypeus moderately long, with carinate and slightly raised anterior margin; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 35 ommatidia. Antenna (Fig. 41C) length 1.34–1.36 mm, antennomere 1 thick, subcylindrical, 2–7 slightly longer than wide, 8 smallest, as long as wide, 9 slightly transverse, 10 with subtriangular cavity on ventral side, with short setae along strongly carinate, triangular opening, 11 protruding basally, posterior margin slightly inclined, approximately 1.7 times as long as 9 and 10 combined, with one longitudinal impression extending from base anteriorly to apical 1/3 and one smaller oval impression at lateral margin.

Pronotum (Fig. 41B) wider than long, length 0.52–0.54 mm, width 0.53–0.57 mm, widest at middle; lateral margins rounded, convergent apically and sub-parallel at basal 1/4; disc slightly convex, finely punctate, median longitudinal sulcus with carinate sides, posteriorly confluent with large antebasal impression and short mediobasal carina, with pair of faint discal carinae each connecting three small discal spines and one much larger antebasal spine, with short, transverse antebasal carina connecting antebasal spine and antebasal impression, pair of lateral longitudinal sulci with strongly carinate inner sides; with pair of distinct marginal spines; lateral antebasal foveae asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra wider than long, length 0.72–0.77 mm, width 0.83–0.87 mm; each elytron with three small, asetose basal foveae; shallow discal stria extending posteriorly from outer basal fovea to basal 2/5 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae large, originating from shared oval opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent admesally, inclined towards middle, with pair of longitudinal projections at middle, with well-developed lateral mesocoxal and two lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs elongate. Mesotrochanter (Fig. 41D) with short ventral spine; mesotibia (Fig. 41E) with distinct, apically forked projection at apex.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.72–0.78 mm, width 0.75–0.77 mm. Tergite 1 (IV) approximately 1.6 times as long as 2 (V), lacking basal sulcus, with closely separated mediobasal foveae originating from shared oval opening, two pairs of setose basolateral foveae close, originating from shared transverse opening, with pair of thin discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2

(V) slightly longer than 3 (VI), 4 (VII) slightly longer than 3, but shorter than 2; tergites 2–4 each with one pair of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and three pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3 and 4 each with three pairs of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 41F) weakly sclerotized, slightly oval.

Aedeagus (Fig. 41G, H) 0.36 mm long, moderately flat, dorso-ventrally slightly asymmetric; median lobe with large basal capsule and foramen, basoventral projection short and curved; ventral stalk broad, abruptly narrowed at apex and slightly protruding for short distance; dorsal lobe elongate, slightly curved in lateral view; endophallus weakly sclerotized, broadest at base, narrowing towards apex and weakly curved; parameres reduced.

Female. Similar to male in external morphology; antenna and legs lacking modifications; each compound eye composed of approximately 20 ommatidia. Measurements (as for male): body length 2.33 mm; length/width of head 0.46/0.55 mm, pronotum 0.51/0.54 mm, elytra 0.69/0.80 mm; abdomen 0.70/0.77 mm; length of antenna 1.29 mm; maximum width of genitalia (Fig. 41I) 0.28 mm.

Comparative notes. This species is morphologically similar to *T. loki* and *T. spinacaritus* in sharing similar male sexual characters as well as a flattened aedeagus. The new species can be readily separated by the slightly more slender body, male antennomere 10 with a deep, triangular cavity on the ventral side, and the aedeagus being much broader at the apex.

Distribution. Central China: Hunan.

Etymology. This species is named after Xinning County, where its type locality is situated.

***Tribasodites yangi* sp. nov.**
(Fig. 42)

Chinese common name: 杨氏脊胸蚁甲

Type material (37 exx.). **HOLOTYPE: CHINA:** ♂, 'China: Guangxi, Xingan County, Maoer Mt., Watchtower. 25°53'43.90"N, 110°28'38.27"E, 1350 m, 8.v.2021, sifting. Yin, Zhang, Pan & Shen leg. [广西兴安县猫儿山瞭望塔]' (SNUC); **PARATYPES: CHINA:** 5 ♂♂, 5 ♀♀, same data as that of holotype; 2 ♂♂, 3 ♀♀, 'China: Guangxi, Guilin City, Huaping N. R., Yunxi Valley, 25°34'00.62"N, 109°56'19.59"E, 1460–1550 m, 23.iv.2021, shifting, Yin, Zhang, Pan & Shen leg. [广西花坪云溪谷]';1 ♂, 2 ♀♀, 'China: Guangdong Province, Ruyuan Hsien, Nanling N. R., Laopengkeng, 24°56'29"N, 113°00'27"E, mixed forest, leaf litter, wood, sifted, 1360 m, 29.iv.2015, Peng, Tu, Zhou leg.'; 1 ♂, 3 ♀♀, same collector and also from Nanling N. R., except 'Disilindao, 24°55'47"N, 112°59'50"E, 1500 m, 05.v.2015,'; 1 ♀, same collector and also from Nanling N. R., except 'Laopengyidui, 24°56'21"N, 113°01'21"E, 1260 m, 02.v.2015,'; 2 ♂♂, 4 ♀♀, 'China: Guangdong, Shaoguan, Ruyuan County, Nanling N. R., 24°55'42.9"N, 113°0'59.05"E, 1020–1250 m, 4.v.2021, sifting, Hu, Lin, Zhou & Li leg. [广东乳源县南岭管理站附近]'; 1 ♂, 3 ♀♀, same data as preceding, except '24°56'16.20"N, 113°0'8.43"E, 980–1350 m, 1.v.2021,'; 3 ♀♀, also from Nanling N. R., except '24°56'33.04"N, 113°1'31.14"E, 1379m, 22.viii.2020, Peng Zhong leg.' (SNUC).

Diagnosis. *Male.* Body length approximately 2.2 mm. Head subtruncate at base, as wide as pronotum, vertex impressed anteriorly, with relatively large, setose vertexal foveae, lacking mediobasal carina and vertexal sulcus, lateral carina complete; antenna with modified antennomeres 9–11, 9 transverse, impressed at ventral surface, 10 with oval impression at base, 11 with thick, curved projection near base. Pronotum with laterally carinate median and lateral longitudinal sulci, with pair of discal carinae, antebasal sulcus reduced, only with shallow impression, with pair of distinct antebasal and marginal spines. Discal stria of elytron long, extending posteriorly to apical 4/5 of elytral length. Protrochanter and mesotrochanter with small ventral spine; metatrochanter with long, curved ventral projection; metatibia with short pencil-like apical tuft of setae. Abdomen slightly curved ventrally, with greatly elongate tergite 1 (IV). Aedeagus asymmetric; median lobe with large extended basal capsule and elongate, subtriangular foramen, ventral stalk elongate, narrowing towards apex; dorsal lobe plate-like; parameres reduced to single membranous structure. *Female*. Body length 2.07–2.18 mm; antenna and legs lacking modifications, genitalia as in Fig. 42J.

Description. *Male*. Body (Fig. 42A) length 2.20–2.23 mm, dorsal surface of body covered with dense, short pubescence; color dark reddish-brown, legs and mouthparts slightly lighter.

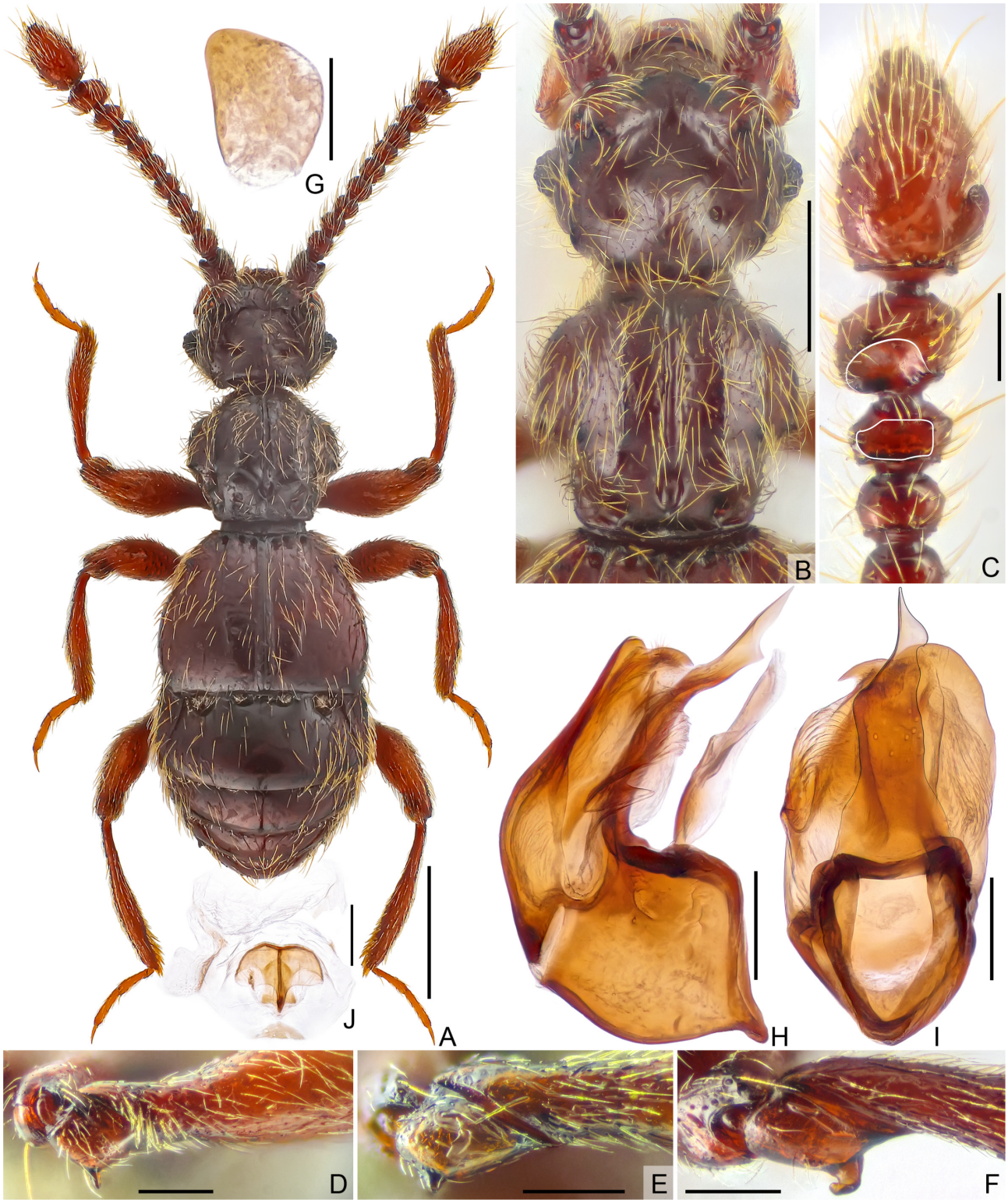

FIGURE 42. Morphology of *Tribasodites yangi* **sp. nov.** (A–I. Male. J. Female). **A.** Dorsal habitus. **B**. Head and pronotum. **C.** Antennomeres 9–11. **D.** Protrochanter. **E.** Mesotrochanter. **F.** Metatrochanter. **G.** Sternite 7 (IX). **H, I.** Aedeagus, in lateral (H) and ventral (I) view. **J.** Genitalia. Scale bars: 0.5 mm in A; 0.3 mm in B; 0.1 mm in C–J.

Head (Fig. 42B) sub-rectangular at base, much wider than long, length 0.48–0.50 mm, width across eyes 0.57–0.59 mm; vertex smooth, lacking sulcus, slightly impressed at apex, vertexal foveae (dorsal tentorial pits) asetose, relatively large, mediobasal carina reduced, only with shallow impression between two vertexal foveae, lateral carina distinct, extending from base to posterior margin of antennal tubercle; dorsal postantennal pit distinct;

frons weakly impressed between large, moderately raised antennal tubercles, anteriorly demarcated from clypeus by frontal-clypeal ridge, which merged at middle and extending anteriorly for short distance; clypeus relatively short, with smooth surface, its entire anterior margin carinate and moderately raised; ocular-mandibular carina complete, distinct. Venter with small gular foveae (posterior tentorial pits) originating from shared round opening, with faint median carina extending from opening anteriorly to mouthparts. Compound eyes prominent, composed of approximately 30 ommatidia. Antenna length 1.19–1.29 mm, distinct club (Fig. 42C) formed by enlarged apical three antennomeres; antennomere 1 thick, subcylindrical, 2 slightly elongate, 3–8 each moniliform, 9 transverse, broadly impressed at ventral surface, 10 much wider and longer than 9, ventral surface with oval impression at base, 11 largest, longer than 9 and 10 combined, with thick, curved projection extended anteriorly from base.

Pronotum (Fig. 42B) slightly wider than long, length 0.52–0.53 mm, width 0.55–0.57 mm, widest at middle; lateral margins rounded at apical 1/2, convergent basally; disc slightly convex, median longitudinal sulcus with carinate sides, posteriorly confluent with oval antebasal impression and short mediobasal carina, with pair of discal carinae and lateral longitudinal sulci; with small but distinct antebasal and marginal spines; antebasal sulcus reduced, only with shallow impression, lateral antebasal foveae small and asetose; with small outer and inner pair of basolateral foveae. Prosternum with basisternal (pre-coxal) part slightly longer than procoxal rests, with small lateral procoxal foveae; hypomeral grooves extending from base to middle of apical portion, with punctiform lateral antebasal hypomeral pit; hypomeral carinae close to coxal cavities.

Elytra wider than long, length 0.57–0.61 mm, width 0.78–0.81 mm; each elytron with three large, asetose basal foveae; shallow discal stria extending posteriorly from outer basal fovea to basal 4/5 of elytral length; humerus denticulate, subhumeral fovea present, carinate marginal stria extending from fovea to posterior margin of elytron.

Mesoventrite short, demarcated from metaventrite by transverse carinae; median mesoventral foveae separated, originating from shared transverse opening, large lateral mesoventral foveae forked internally, with short mesoventral process, marginal stria complete. Metaventrite prominent and flattened at middle, with deep median longitudinal impression, with well-developed lateral mesocoxal and two setose lateral metaventral foveae, posterior margin with small and narrow slit at middle.

Legs moderately elongate. Protrochanter (Fig. 42D) with small ventral spine; mesotrochanter (Fig. 42E) with short but thick ventral spine; metatrochanter (Fig. 42F) with long, curved ventral projection; metatibia with short pencil-like apical tuft of setae.

Abdomen widest at lateral margins of tergite 1 (IV), length 0.77–0.78 mm, width 0.77–0.79 mm. Tergite 1 (IV) approximately twice as long as 2 (V), lacking basal sulcus, with widely separated mediobasal and one pair of large, setose basolateral foveae, lacking discal carinae, marginal carinae complete, oblique inner carina thinner than outer one; tergite 2 (V) slightly longer than 3 (VI), 4 (VII) shorter than tergites 2 and 3 combined; tergites 2–4 (V–VII) each with two pairs of basolateral foveae, tergite 5 (VIII) semicircular, posterior margin roundly emarginate at middle. Sternite 2 (IV) with one pair of mediobasal and two pairs of basolateral foveae; midlength of sternites 2–4 (IV–VI) gradually shorter, 5 (VII) slightly longer than 4, 3 and 4 each with three and 5 with two pairs of small basolateral foveae, sternite 6 (VIII) transverse, posterior margin broadly emarginate, sternite 7 (IX) (Fig. 42G) weakly sclerotized, slightly oval.

Aedeagus (Fig. 42H, I) 0.42 mm long, dorso-ventrally greatly asymmetric; median lobe with large extended basal capsule and elongate, subtriangular foramen, ventral stalk elongate, broadest at base, narrowing towards apex; dorsal lobe large, plate-like, with weakly sclerotized spine-like structures near apex in ventral view; parameres reduced to single membranous structure.

Female. Similar to male in external morphology; antenna slightly shorter, lacking modifications, legs lacking spine or projection; each compound eye composed of approximately 12 ommatidia. Measurements (as for male): body length 2.07–2.18 mm; length/width of head 0.47/0.55–0.56 mm, pronotum 0.49–0.51/0.54–0.56 mm, elytra 0.56–0.57/0.78–0.79 mm; abdomen 0.78–0.82/0.75–0.78 mm; length of antenna 1.05–1.10 mm; maximum width of genitalia (Fig. 42J) 0.25 mm.

Comparative notes. The male of *Tribasodites yangi* has relatively short and basally constricted elytra which resembles that of *T. constrictus*, but differs by the uniquely thickened projection on the lateral margin of antennomere 11, and the aedeagus with an apically narrowed ventral stalk.

Distribution. South China: Guangdong; Southwest China: Guangxi.

Etymology. The new species is named after Yang Xing-Ke, lead investigator of the Nanling Projection.

Checklist of *Tribasodites* and allied genera from Nanling Mountain Area
[55 spp.]

Genus *Anama*	
1. *Anama angulata* **sp. nov.**	Guangdong
2. *Anama horridula* **sp. nov.**	Guangxi
3. *Anama reticulata* **sp. nov.**	Guangdong
Genus *Araneibatrus*	
4. *Araneibatrus breviceps* **sp. nov.**	Guangdong
5. *Araneibatrus callissimus* (Nomura & Wang, 1991)	Guangxi
6. *Araneibatrus cellulanus* Yin, Jiang & Steiner, 2016	Guangdong
7. *Araneibatrus gigas* **sp. nov.**	Guangxi
8. *Araneibatrus gracilipes* Yin & Li, 2010	Guangdong
9. *Araneibatrus leigong* **sp. nov.**	Guizhou
10. *Araneibatrus maoermontis* **sp. nov.**	Guangxi
Genus *Batrisodes*	
11. *Batrisodes amphion* **sp. nov.**	Guangxi
12. *Batrisodes bamian* Yin, Shen & Li, 2015	Guangxi; Hunan
13. *Batrisodes breviventris* **sp. nov.**	Guangxi
14. *Batrisodes capreolus* **sp. nov.**	Hunan
15. *Batrisodes grossus* Jiang & Yin, 2017	Guangxi; Hunan
16. *Batrisodes latilobus* **sp. nov.**	Guangxi
17. *Batrisodes microceps* **sp. nov.**	Guangxi
18. *Batrisodes shun* **sp. nov.**	Hunan
19. *Batrisodes tribasoditiformis* **sp. nov.**	Guangxi
20. *Batrisodes streptoaedeagus* **sp. nov.**	Guizhou
21. *Batrisodes titanius* **sp. nov.**	Guizhou
Genus *Coryphomodes*	
22. *Coryphomodes jiangxiensis* **sp. nov.**	Jiangxi
23. *Coryphomodes parvipunctatus* **sp. nov.**	Guangxi;Guangdong; Hunan
24. *Coryphomodes simplex* **sp. nov.**	Guangdong
Genus *Dendrolasiophilus*	
25. *Dendrolasiophilus wenhsini* Yin & Li, 2013	Guangxi; Guizhou
Genus *Hypochraeus*	
26. *Hypochraeus robustus* **sp. nov.**	Guangxi
27. *Hypochraeus complanatus* **sp. nov.**	Jiangxi
Genus *Intestinarius*	
28. *Intestinarius guangdongensis* Yin & Li, 2011	Guangdong; Hunan
29. *Intestinarius guangxiensis* **sp. nov.**	Guangxi
30. *Intestinarius longiceps* Yin & Li, 2011	Guangxi; Guizhou
31. *Intestinarius paralongiceps* **sp. nov.**	Guangxi; Guizhou
Genus *Megabatrus*	
32. *Megabatrus caviceps* Löbl, 1979	Guangdong; Fujian
Genus *Songius*	
33. *Songius kiwi* Yin & Li, 2010	Guangxi

Genus *Tribasodites*

34. *Tribasodites barbipes* **sp. nov.**	Guangxi
35. *Tribasodites biyun* Yin & Zhou, 2018	Hunan
36. *Tribasodites cavipes* **sp. nov.**	Guangxi; Guizhou
37. *Tribasodites chinensis* (Zhao, Yin & Li, 2010) **comb. nov.**	Zhejiang; Hunan; Guangxi
38. *Tribasodites clavatus* **sp. nov.**	Guangxi
39. *Tribasodites corniceps* **sp. nov.**	Hunan
40. *Tribasodites fortunatus* **sp. nov.**	Guizhou
41. *Tribasodites furca* **sp. nov.**	Guangxi
42. *Tribasodites hubeiensis* Yin, Nomura & Li, 2015	Guangxi; Hubei
43. *Tribasodites jiulianmontis* **sp. nov.**	Jiangxi
44. *Tribasodites jiuwanmontis* **sp. nov.**	Guangxi
45. *Tribasodites loki* **sp. nov.**	Guangdong; Hunan
46. *Tribasodites longipes* **sp. nov.**	Guizhou
47. *Tribasodites mangshanensis* **sp. nov.**	Hunan
48. *Tribasodites paraspinatus* **sp. nov.**	Guizhou
49. *Tribasodites pengi* **sp. nov.**	Guangdong
50. *Tribasodites ruyuanensis* **sp. nov.**	Guangdong
51. *Tribasodites spinatus* **sp. nov.**	Guangdong
52. *Tribasodites tiani* Yin & Li, 2011	Guangdong
53. *Tribasodites turgipes* **sp. nov.**	Guangdong
54. *Tribasodites xinningensis* **sp. nov.**	Hunan
55. *Tribasodites yangi* **sp. nov.**	Guangdong; Guangxi

Checklist of other Batrisini from Nanling Mountain Area not taken during this study
[9 spp.]

Genus *Batricavus*

1. *Batricavus tibialis* Yin & Li, 2011	Guangdong

Genus *Batriscenellus*

2. *Batriscenellus simplex* Jiang & Yin, 2017	Guangxi
3. *Batriscenellus xijiaogongyuan* Yin, Jiang & Chen, 2017	Jiangxi

Genus *Batrisceniola*

4. *Batrisceniola nanlingensis* Zhang & Yin, 2022	Guangdong

Genus *Physomerinus*

5. Physomerinus clavipes Zhang & Yin, 2022	Guangxi

Genus *Sathytes*

6. *Sathytes jinggang* Shen & Yin, 2020	Jiangxi
7. *Sathytes australis* Yin & Shen, 2020	Guangxi; Guangdong
8. *Sathytes huapingensis* Yin & Shen, 2020	Guangxi
9. *Sathytes maoershanus* Yin & Shen, 2020	Guangxi

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克服生物多样性热点地区林奈和华莱士短缺—南岭山区脊胸蚁甲*Tribasodites*及近缘属分类研究（鞘翅目： 隐翅虫科： 蚁甲亚科）

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摘要：对南岭生物多样性保护优先区域脊胸蚁甲*Tribasodites*及近缘属（隐翅虫科：蚁甲亚科：毛唇蚁甲族）分类开展研究，共鉴定10属55种，含41新种，即尖腹艾蚁甲*Anama angulata* **sp. nov.**、簇毛艾蚁甲*Anama horridula* **sp. nov.**、网纹艾蚁甲*Anama reticulata* **sp. nov.**、短额蛛蚁甲*Araneibatrus breviceps* **sp. nov.**、巨蛛蚁甲 *Araneibatrus gigas* **sp. nov.**、雷公蛛蚁甲*Araneibatrus leigong* **sp. nov.**、猫儿山蛛蚁甲*Araneibatrus maoermontis* **sp. nov.**、安氏鬼蚁甲*Batrisodes amphion* **sp. nov.**、短腹鬼蚁甲*Batrisodes breviventris* **sp. nov.**、鹿角鬼蚁甲*Batrisodes capreolus* **sp. nov.**、宽茎鬼蚁甲*Batrisodes latilobus* **sp. nov.**、小头鬼蚁甲*Batrisodes microceps* **sp. nov.**、舜皇鬼蚁甲*Batrisodes shun* **sp. nov.**、曲茎鬼蚁甲*Batrisodes streptoaedeagus* **sp. nov.**、泰坦鬼蚁甲*Batrisodes titanius* **sp. nov.**、拟脊胸鬼蚁甲*Batrisodes tribasoditiformis* **sp. nov.**、江西邻窝蚁甲*Coryphomodes jiangxiensis* **sp. nov.**、细点邻窝蚁甲*Coryphomodes parvipunctatus* **sp. nov.**、素邻窝蚁甲*Coryphomodes simplex* **sp. nov.**、异宽腹蚁甲*Hypochraeus complanatus* **sp. nov.**、壮宽腹蚁甲*Hypochraeus robustus* **sp. nov.**、广西川纹蚁甲*Intestinarius guangxiensis* **sp. nov.**、拟长颊川纹蚁甲*Intestinarius paralongiceps* **sp. nov.**、毛足脊胸蚁甲*Tribasodites barbipes* **sp. nov.**、陷足脊胸蚁甲*Tribasodites cavipes* **sp. nov.**、棒角脊胸蚁甲*Tribasodites clavatus* **sp. nov.**、角头脊胸蚁甲*Tribasodites corniceps* **sp. nov.**、幸运脊胸蚁甲*Tribasodites fortunatus* **sp. nov.**、叉茎脊胸蚁甲*Tribasodites furca* **sp. nov.**、九连山脊胸蚁甲*Tribasodites jiulianmontis* **sp. nov.**、九万山脊胸蚁甲*Tribasodites jiuwanmontis* **sp. nov.**、洛基脊胸蚁甲*Tribasodites loki* **sp. nov.**、长足脊胸蚁甲*Tribasodites longipes* **sp. nov.**、莽山脊胸蚁甲*Tribasodites mangshanensis* **sp. nov.**、拟多刺脊胸蚁甲*Tribasodites paraspinatus* **sp. nov.**、彭氏脊胸蚁甲*Tribasodites pengi* **sp. nov.**、乳源脊胸蚁甲*Tribasodites ruyuanensis* **sp. nov.**、多刺脊胸蚁甲*Tribasodites spinatus* **sp. nov.**、肿足脊胸蚁甲*Tribasodites turgipes* **sp. nov.**、新宁脊胸蚁甲*Tribasodites xinningensis* **sp. nov.**和杨氏脊胸蚁甲*Tribasodites yangi* **sp. nov.**；各新种附整体和特征图版；中华脊胸蚁甲*Tribasodites chinensis* **comb. nov.**从刺胸蚁甲属*Tribasodes*转移至脊胸蚁甲属；艾蚁甲属*Anama*和宽腹蚁甲属*Hypochraeus*为中国新纪录属；给出了八面山鬼蚁甲*Batrisodes bamian*、粗糙鬼蚁甲*Batrisodes grossus*、文信光蚁甲*Dendrolasiophilus wenhsini*、广东川纹蚁甲*Intestinarius guangdongensis*、长颊川纹蚁甲*Intestinarius longiceps*、中华脊胸蚁甲*Tribasodites chinensis*和湖北脊胸蚁甲*Tribasodites hubeiensis*等物种的新分布记录；提供了属、种检索表和南岭毛唇蚁甲族物种名录，共计记载64种。

关键词：蚁甲；分类；毛唇蚁甲超族；多样性；新种；新组合；分布；阳茎镜像；南岭山区