



Discussion of four species of *Anomala* Samouelle from Mêdog, Xizang and description of one new species of *Melanopopillia* Lin from Guangxi, China (Coleoptera: Scarabaeidae: Rutelinae)

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Abstract

Four species comprising the so-called *Anomala cinderella* species-group are herein treated based on material recently collected from Mêdog and the contiguous Himalayan region. Members of this assemblage, including *Anomala cinderella* Arrow, 1917, *A. liuhaoyii* Zhao, 2025, *A. pemako* Zhao, 2025, and *A. piliscutella* Lin, 1981, are characterized by a distinctively testaceous to rufescent habitus and a pronotum densely clothed in elongate, yellowish setae. The present contribution provides a key to these species, detailed descriptions, differential diagnoses and distribution for each taxon. Furthermore, *Melanopopillia guangxiensis* **sp. nov.** is described from Guangxi Zhuang Autonomous Region.

Key words: taxonomy, key, *Anomala cinderella*, *Melanopopillia guangxiensis* **sp. nov.**

Introduction

The genus *Anomala* Samouelle, 1819 (Coleoptera: Scarabaeidae: Rutelinae) represents a cosmopolitan lineage and stands as one of the most speciose genera within the Rutelinae, presently encompassing a global diversity exceeding 1,100 species (Arrow 1917; Machatschke 1972; Krajčák 2007). Within the Chinese fauna, the recorded diversity surpasses 210 species; not withstanding this significant figure, the rate of discovery remains high, with frequent descriptions of novel taxa and new regional records in recent years (Filippini *et al.* 2016; Lu *et al.* 2023; Huang *et al.* 2024). Considering the complexity inherent to the genus, we discuss here four species that share the following characters which is easily separate from the other *Anomala* congeners in China and nearby countries: body length 10–14 mm, a reddish-brown body with metallic green luster, and a densely setose pronotum. *Anomala cinderella* Arrow, 1917, was the first species characterized by these features, originally described from Darjeeling (= Darjiling), India (Arrow 1917). Frey (1975) described *A. hirticollis* from Nepal, which was later synonymized with *A. cinderella* based on morphological examination of type specimens (Zorn 2004). *Anomala piliscutella* Lin, 1981, from Mêdog, Xizang, was proposed as a junior synonym of *A. cinderella* (see Lin 1982), but subsequently reinstated as a valid species due to distinct aedeagal morphology (Zorn 2004). The initial discovery of *A. piliscutella* resulted from the inaugural Tibetan Plateau Scientific Expedition and Research of the 1970s (Yao *et al.* 2022). From 2017, the Second Tibetan Plateau Scientific Expedition and Research was started by Chinese Academy of Sciences (Zhang & Zhang 2019). During recent taxonomic investigations of *Anomala* specimens collected from Mêdog, Xizang, China in this program, recorded another two species, *Anomala liuhaoyii* Zhao and *Anomala pemako* Zhao. This study provides their morphological descriptions and diagnoses as well as remarks on the two most similar species.

The genus *Melanopopillia* Lin was established by Lin (1980) to accommodate a distinctive lineage of ruteline beetles, initially comprising three species endemic to China: *M. dinghuensis* Lin, 1980, *M. hainanensis* Lin, 1980, and *M. praefica* (Machatschke, 1971). Historically, the concept of the genus was hindered by a paucity of material;

for instance, *M. hainanensis* was originally described from a hypodigm consisting of a mere two female specimens. This knowledge gap was partially addressed by Lu *et al.* (2019a), who provided the first description of the male of *M. hainanensis*. The taxonomic boundaries of the group were further expanded by Prokofiev (2022), who transferred *Phyllopertha carinicornis* Ohaus, 1905, into the genus, erected the subgenus *Stagonopertha* Prokofiev, and described a fifth species, *M. (Stagonopertha) arlekino* Prokofiev, 2022. Recent surveys in Guangxi Zhuang Autonomous Region have yielded a series of both male and female specimens that exhibit a unique suite of morphological characters, precluding their assignment to any extant species. Consequently, this new taxon is described here and a revised diagnostic key to the nominotypical subgenus *Melanopopillia* (*Melanopopillia*) is provided.

Material and methods

The morphological terminology largely follows Lu *et al.* (2018, 2019b). The body length was measured starting from the clypeus to the apex of the elytra. In dorsal view: the pronotum length was measured in the middle, its width at the place of greatest width; the ratio of interocular width to head width was measured at the widest point of the head and the shortest distance between the eyes.

The new species described in this paper have type specimens labeled as follows: 1) labels indicating the collecting data; 2) a red label with “Name of taxon sp. nov., Holotype [or] Paratype, Y.Y. Lu, M. Borjigin & M. Bai, 2026”. The collecting data from the type material are directly quoted from the labels, with individual labels separated by a double vertical bar (||), and individual lines of each label separated by a single vertical bar (|).

The Olympus SZ61 stereomicroscope was used to conduct observations and dissections. The Canon 5D digital camera, combined with a Canon MP-E 65mm f/2.8 1-5X Macro Lens, was employed to capture the digital images. The initial images were then stacked in Helicon Focus v.7.0.2 and processed in Adobe Photoshop. The distribution map was made by QGIS 3.40 software.

Most of the specimens of these *Anomala* were collected at night using a light trap in Mêdog County, Xizang, China. The locality is characterized by subtropical evergreen broadleaf forest. Collected specimens were preserved in alcohol and examined using standard morphological methods under a stereomicroscope.

The material examined in this work is housed in the following collections (curators in parenthesis):

BMNH: The Natural History Museum [formerly British Museum (Natural History)], London, United Kingdom (Maxwell W. L. Barclay, Michael Geiser);

BSCZ: Bavarian State Collection of Zoology, Munich, Germany (Michael Matschiner);

IZCAS: Institute of Zoology, Chinese Academy of Sciences, Beijing, China (Ming Bai);

IZGAS: Institute of Zoology, Guangdong Academy of Sciences, Guangzhou, Guangdong, China (name used from 1972–2015: GEI, Guangdong Entomological Institute) (Ping Yang, Ji-Huan Zheng).

Taxonomy

Anomala Samouelle, 1819

Anomala cinderella Arrow, 1917

(Fig. 1)

Anomala cinderella Arrow, 1917: 196 (original description).

Anomala hirticornis Frey, 1975: 314 [Synonymized by Zorn 2004: 304].

Anomala cinderella: Machatschke 1957: 88 (catalogue); Machatschke 1972: 164 (catalogue); Zorn 2004: 304; Zorn 2006: 258 (catalogue); Krajčič 2007: 29 (catalogue); Krajčič 2012: 21 (catalogue); Zorn & Bezděk 2016: 330 (catalogue).

Type locality. *Anomala cinderella*: “Darjiling, Nagri Spur, 5000 ft.; Gopaldhara, Rungbong Valley, 6300 ft. (H. Stevens)” (Arrow 1917). Synonym *Anomala hirticornis*: “Nepal, Katmandu Valley, Godovari, 1600-1800 m” (Frey 1975).

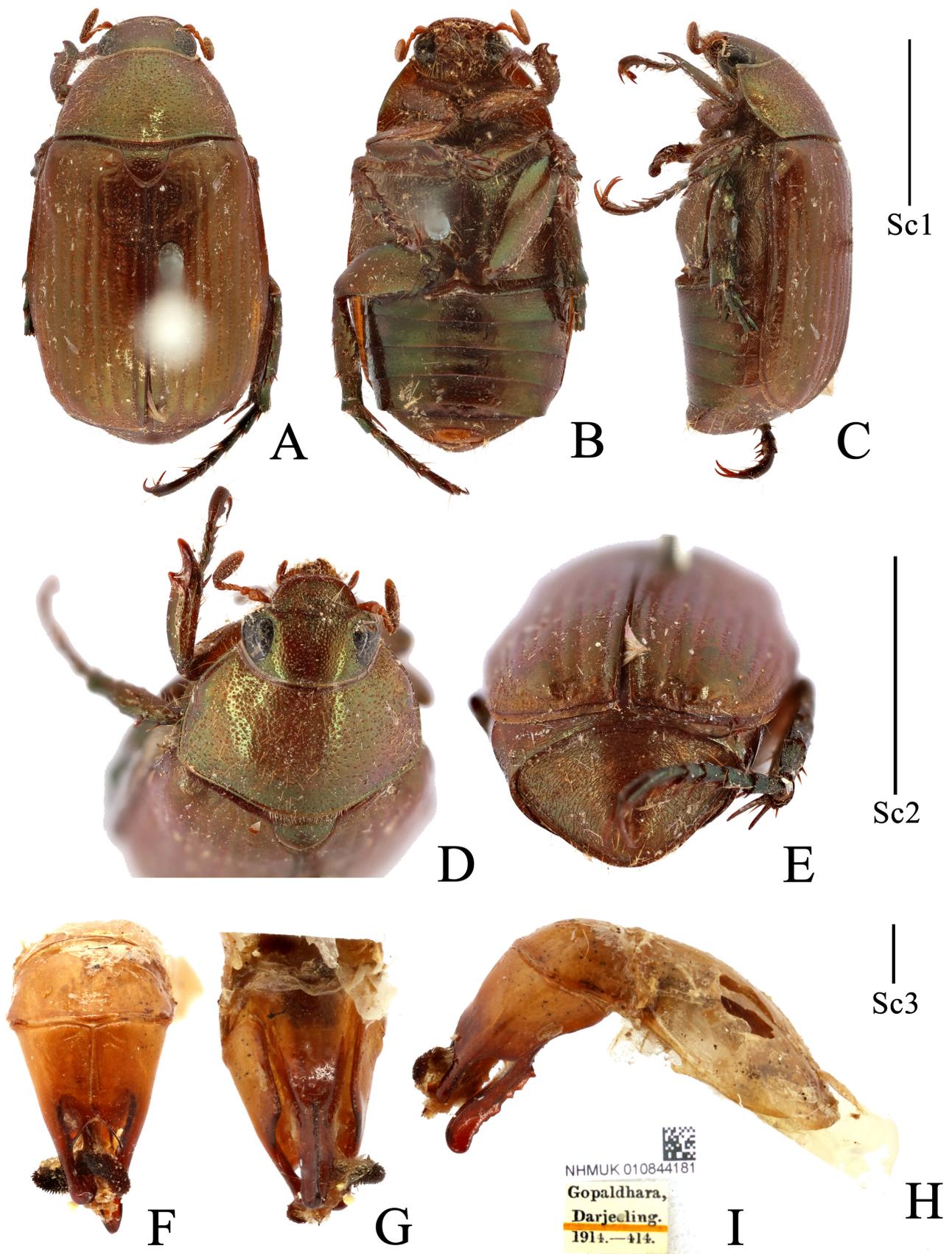


FIGURE 1. Syntype of *Anomala cinderella* Arrow, 1917. ♂ **A–C.** Habitus. **A.** Dorsal view. **B.** Ventral view. **C.** Left lateral view. **D.** Head and pronotum. **E.** Propygidium and pygidium. **F–H.** Aedeagus. **F.** Dorsal view. **G.** Ventral view. **H.** Right lateral view. **I.** Syntype label. Sc. 1: scale for A–C = 5 mm. Sc. 2: scale for D–E = 5 mm. Sc. 3: scale for F–H = 1 mm.

Type material examined. *Anomala cinderella*: **syntypes** (2 ♂♂). 1 ♂ “NHMUK 010844181 || Gopaldhara, | Darjeeling. | 1914.-414. ||” (BMNH) (Fig. 1A–H); 1 ♂ “anomala | cinderella | type arrow [Arrow’s handwritten label] || Nagri Spur, | Darjeeling. | 5000ft. | 1912-83 || Type | H.T. ||” (BMNH).

Anomala hirticollis (examined only images of label and general dorsal view photographed by Matthias Seidel): **paratypes** (1 ♂, 1 ♀). 1 ♂ “Nepal. Kathmandu Valley | Godavari, 16-1800m | 4.VIII.7.VI.1967 | Dierl Forster – Schacht || Type | Anomala | hirticollis [Frey’s handwritten label] | G. Frey 1975 ||” (BSCZ); 1 ♀ “Nepal. Kathmandu Valley | Godavari, 16-1800m | 4.VIII.7.VI.1967 | Dierl Forster – Schacht || Anomala | Paratype | hirticollis [Frey’s handwritten label] | G. Frey 1975 ||” (BSCZ).

Description of syntype (1 ♂, Gopaldhara) (Fig. 1 A–H). Length 12.5 mm, greatest width 7.1 mm; Body shape elongate ovoid, convex.

Color. Body reddish-brown with weak metallic green sheen; hind tibiae and all tarsi dark brown with metallic green sheen (Fig. 1A–C).

Head. Clypeus subtrapezoidal, approximately 2.4 times wider than long, densely, partly merged rugopunctate, anterior corners broadly rounded; anterior margin strongly reflexed; frontoclypeal suture curved backward weakly and irregularly widen in middle; frons and vertex densely rugopunctate; antennal club slightly longer than antennomeres 2–6 combined (Fig. 1D).

Pronotum. Approximately 1.9 times as wide as long; surface covered with long, yellowish, moderately dense setae; disc densely punctate, surface with additional distinct finely micropunctures; lateral margin of pronotum distinctly converging close to middle, slightly curved in anterior half, and nearly straight in posterior half; posterior corners nearly right-angle; basal marginal line interrupted in front of scutellum (Fig. 1A, D).

Scutellum. Nearly semicircular, width 1.4 times length, surface glabrous, densely punctate.

Elytra. Regularly striate; costal intervals and interstices moderately convex; striae punctures distinct; subsutural interstice 2 with densely distributed in middle, large, striated punctures; elytral surface with micropunctation; humeral umbone and apical protuberance prominent; epipleuron broad, broad start behind humerus, ending before elytral posterior three-fourths; posterior margins rounded; marginal membrane complete (Fig. 1A).

Pygidium. Strongly convex; apex broadly rounded; densely punctate-imbricate, transversely confluent; lateral sides and apex with several long, erect yellow setae (Fig. 1E).

Ventral thorax. Metasternal sides densely clothed with soft yellow setae (Fig. 1B).

Abdominal ventrites. Center of ventrites 2–5 with large punctures, sides of ventrites 2–5 and surface of ventrite 6 with coalescently, transverse punctate; ventrites 1–4 carinate laterally (Fig. 1B, C).

Legs. Mesofemur with two bands of long yellow setae (one along anterior margin, another on transverse row of punctures parallel to posterior margin) and middle part with densely distributed, irregularly striated, long yellow setae; metafemur with several long yellow setae near posterior margin. Protibia bidentate, broadened; proximal tooth short, situated close to rather short, moderately outwards curved apical tooth; inner spur short, articulated in opposite to proximal tooth. Protarsomeres 1–4 moderately compressed, length/width ratio 4.1, protarsomere 5 (without claws) strongly widened, concave in inner side; inner protarsal claw strongly widened and deeply incised apically, upper branch spiniform; outer mesotarsal claw long, curved, deeply incised at apex, upper branch spiniform; metatarsal claws unequal, outer claw longer than inner (Fig. 1A–D).

Aedeagus. Parameres symmetric, subtriangular, and relatively short; inner side of parameres curved and notched near end half, apex truncate; basal piece developed and slightly longer than parameres, curved slightly downward in lateral view, with several small denticles along ventral side (Fig. 1F–H).

Female. Unknown.

Distribution. This species was recorded in India (Sikkim, Darjeeling District), the type locality of *Anomala cinderella*; and Nepal, the type locality of synonym *Anomala hirticollis* (Fig. 9).

Anomala liuhaoyii Zhao, 2025

(Figs 2, 3)

Anomala liuhaoyii Zhao, 2025: 914.

Material examined (37 exx.). 1 ♂ “西藏墨脱县背崩乡 [= Beibeng Town, Médog County, Xizang] | 格林村 11km [= Gelin Village 11km] | 海拔: 1452.18 m [= alt. 1452.18 m] | 2024.VII.20 | 中科院动物所 [= Institute of Zoology,

Chinese Academy of Sciences] || 29.23411°N | 95.17761°E | 路边, 灌丛灯诱 [= Roadside, scrub, light trap] | 采集人: 朱笑愚 [= leg. Xiaoyu Zhu] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 1429992 ||” (IZCAS) (Fig. 2A–H). 11 ♂♂ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 格林村 11km [= Gelin Village 11km] | 海拔: 1452.18 m [= alt. 1452.18 m] | 2024.VII.20 | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.23411°N | 95.17761°E | 路边, 灌丛灯诱 [= Roadside, scrub, light trap] | 采集人: 朱笑愚 [= leg. Xiaoyu Zhu] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 1429993 ||” (IZCAS); IOZ(E) 2715002-2715011. 20 ♀♀ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 格林村 11km [= Gelin Village 11km] | 海拔: 1452.18 m [= alt. 1452.18 m] | 2024.VII.20 | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.23411°N | 95.17761°E | 路边, 灌丛灯诱 [= Roadside, scrub, light trap] | 采集人: 朱笑愚 [= leg. Xiaoyu Zhu] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2715012 ||” (IZCAS); IOZ(E) 2715013; IOZ(E) 2715014 (Fig. 3A–E); IOZ(E) 2715015-2715031. 2 ♂♂ “西藏墨脱县城北边 [= North of Mêdog County, Xizang] | 海拔: 1005 m [= alt. 1005 m] | 2015.VIII.14N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.3319°N (灯诱) [= (light trap)] | 95.3397°E | 采集人: 梁红斌等 [= leg. Hongbin Liang *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2715001 ||” (IZCAS); IOZ(E) 2080032. 1 ♂ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 格林公路2公里处 [= At the 2 km mark on Gelin Road] | 2019.VIII.2N 1013 m | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.22333° | E95.13241° | 梁红斌、徐源 [= leg. Hongbin Liang & Yuan Xu] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422842 ||” (IZCAS). 1 ♀ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 格林村 [= Gelin Village] | 1662 m | 2019.VIII.6N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.22163° | E95.17586° | 梁红斌 周润等 [= leg. Hongbin Liang, Run Zhou *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422856 ||” (IZCAS). 1 ♂ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 格林村 [= Gelin Village] | 1662 m | 2019.VIII.6N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.22163° | E95.17586° | 梁红斌 周润等 [= leg. Hongbin Liang, Run Zhou *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422857 ||” (IZCAS). 1 ♂ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 格林公路10公里处 [= At the 10 km mark on Gelin Road] | 2019.VIII.9N 765 m | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.23395° | E95.17574° | 采集人: 梁红斌 [= leg. Hongbin Liang] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422865 ||” (IZCAS). 1 ♂ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 巴登村公路8公里 [= 8 km, Badeng Village Road] | 处 [= at] 海拔: 861.01 m [= alt. 861.01 m] | 2024.VII.24 | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.24272°N | 95.14001°E | 玉米地 网扫 [= Cornfield, collected by sweeping] | 梁红斌 徐源 [= leg. Hongbin Liang & Yuan Xu] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2715094 ||” (IZCAS).

Description of material (IOZ(E) 1429992) (Fig. 2A–H). Length 13.6 mm, greatest width 7.7 mm; body shape ovoid, convex.

Color. Body reddish-brown with weak metallic green sheen; hind tibiae and all tarsi dark brown with metallic green sheen (Fig. 2A–C).

Head. Clypeus subtrapezoidal, approximately 3.1 times wider than long, densely, partly merged rugopunctate, anterior corners broadly rounded; anterior margin strongly reflexed; frontoclypeal suture curved backward weakly and irregularly widen in middle; frons and vertex densely rugopunctate; ratio interocular width/width of head approximately 0.6; antennal club slightly longer than antennomeres 2–6 combined (Fig. 2D).

Pronotum. Approximately 2.0 times as wide as long; surface covered with moderately long, yellowish, moderately dense setae; disc densely punctate, surface with additional distinct finely micropunctures; lateral margin of pronotum distinctly converging anteriorly in middle, slightly curved concave in anterior half, and slightly curved in posterior half; posterior corners obtuse; basal marginal line interrupted in front of scutellum (Fig. 2A, D).

Scutellum. Nearly semicircular, width 1.5 times length, moderately coarse, densely punctate (Fig. 2A).

Elytra. Regularly striate; costal intervals and interstices weakly convex; striate punctures distinct, moderately dense; subsutural interstice 2 with densely distributed, large, striated punctures; elytral surface with micropunctuation; humeral umbone and apical protuberance prominent; epipleuron broad behind humerus, ending slightly posteriorly of elytral midlength; posterior margins rounded; marginal membrane complete (Fig. 2A).

Pygidium. Moderately convex; apex narrowly rounded; densely punctate-imbricate, transversely confluent; lateral sides and apex with several long, erect yellow setae (Fig. 2E).

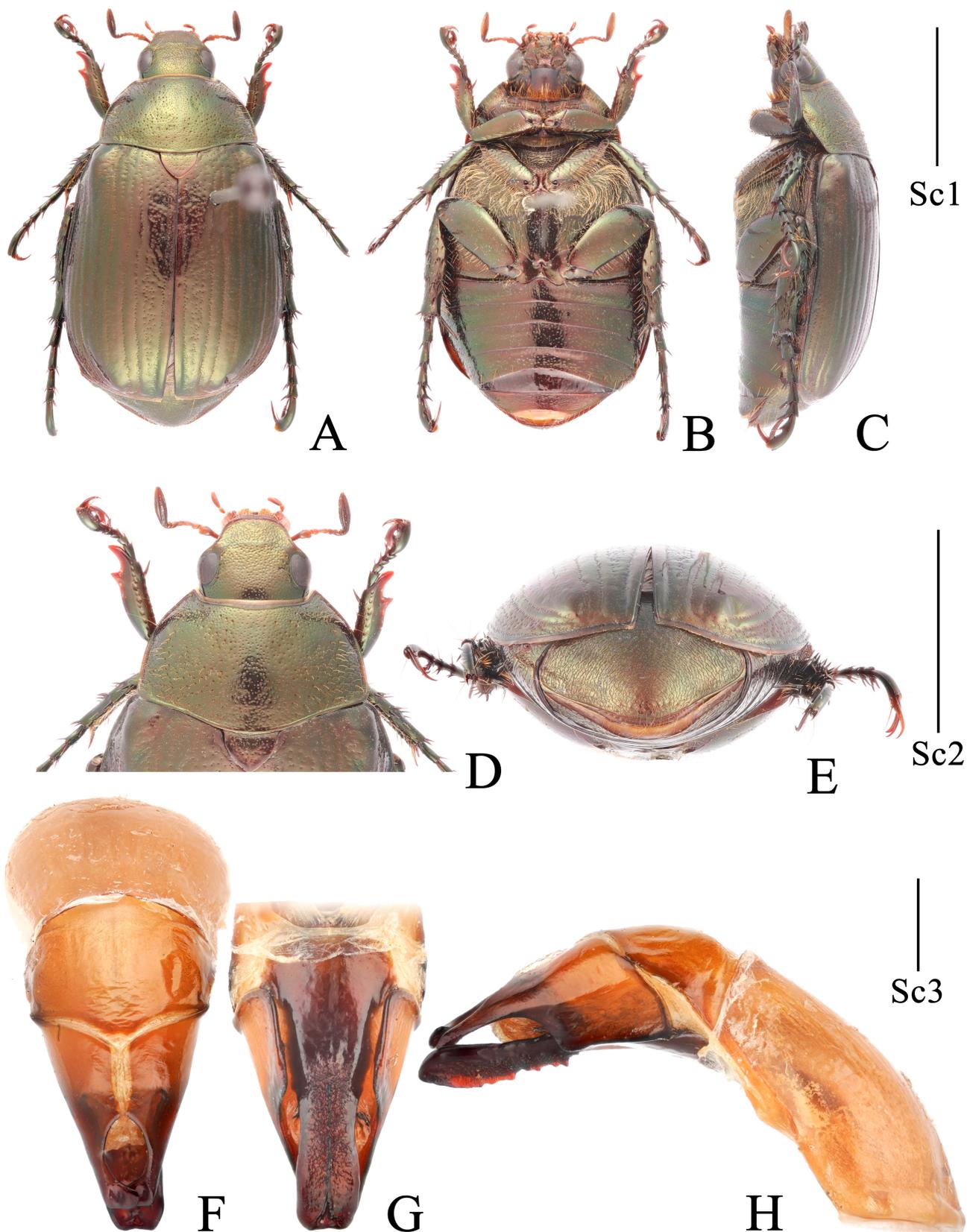


FIGURE 2. *Anomala liuhaoyii* Zhao, 2025. ♂ A–C. Habitus. A. Dorsal view. B. Ventral view. C. Left lateral view. D. Head and pronotum. E. Propygidium and pygidium. F–H. Aedeagus. F. Dorsal view. G. Ventral view. H. Right lateral view. Sc. 1: scale for A–E = 5 mm. Sc. 2: scale for D–E = 5 mm. Sc. 3: scale for F–H = 1 mm.

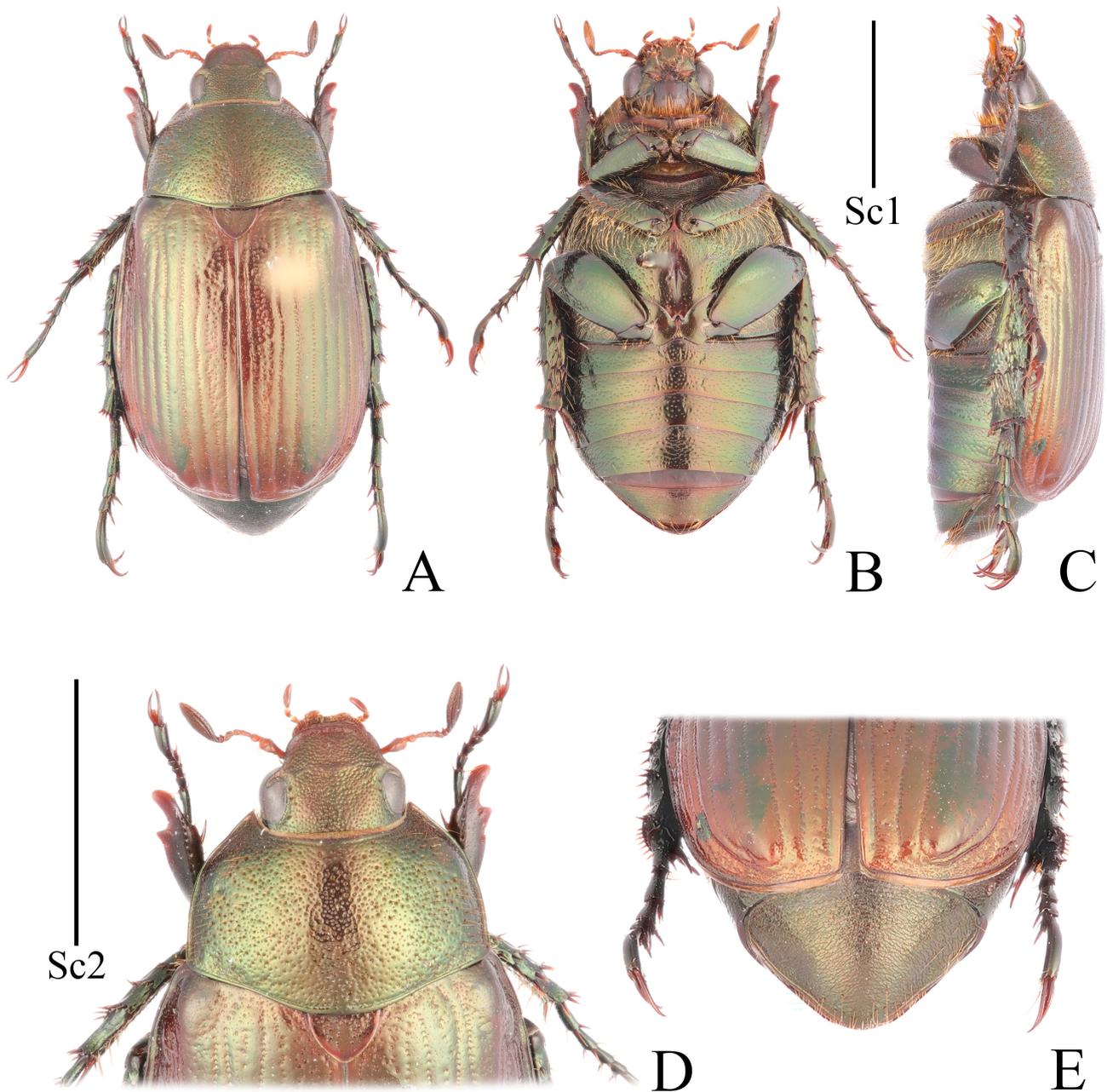


FIGURE 3. *Anomala liuhaoyii* Zhao, 2025. ♀ **A–C.** Habitus. **A.** Dorsal view. **B.** Ventral view. **C.** Left lateral view. **D.** Head and pronotum. **E.** Propygidium and pygidium. Sc. 1: scale for A–C = 5 mm. Sc. 2: scale for D, E = 5 mm.

Ventral thorax. Metasternal sides densely clothed with soft yellow setae (Fig. 2B).

Abdominal ventrites. Center of ventrites 2–5 with large punctures, sides of ventrites 2–5 and surface of ventrite 6 with coalescently, transverse punctate; ventrites 1–4 carinate laterally (Fig. 2B, C).

Legs. Mesofemur with two bands of long yellow setae (one along anterior margin, another on transverse row of punctures parallel to posterior margin) and middle part with densely distributed, irregularly striated, long yellow setae; metafemur with several long yellow setae near posterior margin. Protibia bidentate, broadened; proximal tooth short, situated close to rather short, moderately outwards curved apical tooth; inner spur short, articulated in opposite to proximal tooth. Protarsomeres 1–4 strongly compressed, length/width ratio 4.6, protarsomere 5 (without claws) strongly widened, concave in inner side; inner protarsal claw strongly widened and deeply incised apically, lower margin with right-angled angle basally, upper branch spiniform; outer mesotarsal claw long, curved, deeply incised at apex, upper branch spiniform; metatarsal claws unequal, outer claw longer than inner (Fig. 2A–D).

Aedeagus. Parameres symmetric, subtriangular, and relatively short; inner side of parameres curved notch near end half, apex truncate; basal piece developed and widen, longer than parameres; ventral side of basal piece with several small denticles; basal piece curved slightly upward from lateral view (Fig. 2F–H).

Morphological variability. Male and female. Body length 11.9–13.9 mm, body width 6.2–8.0 mm. Body coloration reddish brown or slightly dark brown; scutellum glabrous or with 1–3 yellow setae. Male. Shape of parameres very consistent.

Female. Epipleuron in elytra broader than male; protibia slender, apical tooth of protibia long and spatulate; protarsus articulated slightly basally of level of proximal tooth; inner spur long, articulated between 1/2 and 2/3 of tibial length; protarsus very slender, protarsomere 5 (without claws) shorter than tarsomeres 1–4 combined; modified claws of pro- and mesotarsus shorter, two apical branches more equal than in males (Fig. 3A–E).

Differential diagnosis. This species is different from the previously described *A. cinderella* by the following characters: shape of body ovoid, not slightly elongated; posterior half of elytra moderately broader than anterior half; parameres of aedeagus longer, and with truncate apex; basal piece of aedeagus spatulate-like, slightly curved upward in lateral view, not downward.

Distribution. This species is currently recorded only from Xizang (Fig. 9).

Anomala piliscutella Lin, 1981

(Figs 4–6)

Anomala piliscutella Lin, 1981: 380 (original description).

Anomala piliscutella: Lin 1982: 36 (synonymized to *Anomala cinderella*); Lin 1988: 250 (misidentified to *Anomala cinderella*); Zorn 2004: 310 (status revert); Zorn 2006: 262 (catalogue); Krajčik 2007: 44 (catalogue); Krajčik 2012: 25 (catalogue); Zorn & Bezděk 2016: 337 (catalogue).

Type locality. “Xizang, Mêdog, 390 m” (Lin 1981).

Type material examined (3 exx.). **Holotype** (HT) (Fig. 4A–G): 1 ♂ “西藏墨脱马尼 [= Xizang, Mêdog, Mani (Maniweng)] | 翁 930公尺 [= Weng (Maniweng) 930 m] | 中国科学院 [= Chinese Academy of Sciences] || 1974.VIII.25 | 采集者: 黄复生 [= leg. Fusheng Huang] || *Anomala* | *cinderella* Arrow | (对过模本) [= Compared with type] | 鉴定者 林平 1981 [= det. Ping Lin 1981] [Lin’s handwritten label] || HOLOTYPE || *Anomala* | *piliscutella* | Lin sp. nov. [Lin’s handwritten label] | 鉴定者 [= det.] || 42 || 459 ||” (IZCAS-IZGAS). **Paratypes** (1 ♂, 1 ♀): 1 ♂ “西藏察隅洞穷 [= Xizang, Zayü, Dongqiong] | 1800-2000公尺 [= 1800-2000 m] | 中国科学院 [= Chinese Academy of Sciences] || 1973.VII.14 | 采集者: 黄复生 [= leg. Fusheng Huang] || *Anomala* | *cinderella* Arrow | (对过正模) [= Compared with type] | 鉴定者 林平 1981 [= det. Ping Lin 1981] [Lin’s handwritten label] || *Anomala* | *piliscutella* | Lin sp. nov. [Lin’s handwritten label] | 鉴定者 [=det.] || PARATYPE ||” (IZCAS-IZGAS) (Fig. 4H–L); 1 ♀ “西藏墨脱马尼 [= Xizang, Mêdog, Mani (Maniweng)] | 翁 930公尺 [= weng (Maniweng) 930 m] | 中国科学院 [= Chinese Academy of Sciences] || 1974.VIII.27 | 采集者: 李铁生 [= leg. Tiesheng Li] || ALLOTYPE || IOZ(E) 220641 || *Anomala* | *cinderella* | Arrow | det. Lin || *Anomala* | *piliscutella* | Lin sp. nov. [Lin’s handwritten label] | 鉴定者 [= det.] ||” (IZCAS) (Fig. 4M–P).

Additional material examined (42 ♂♂, 41 ♀♀). 4 ♂♂ North of Mêdog County, Xizang, light trap, 29.3319°N, 95.3397°E, 1005 m, 2015.VIII.14, leg. Hongbin Liang *et al.*, IOZ(E) 2080030 (IZCAS); IOZ(E) 2715072-2715074. 4 ♂♂ Beibeng Town, Mêdog County, Xizang, light trap, 29.3431°N, 95.1700°E, 799 m, 2015.VIII.20, leg. Hongbin Liang *et al.*, IOZ(E) 2715068-2715071 (IZCAS); 3 ♂♂ Beibeng Town, Mêdog County, Xizang, light trap, 29.2430°N, 95.1703°E, 800 m, 2017.VIII.07-08, leg. Hongbin Liang, IOZ(E) 2715083-2715085 (IZCAS); 7 ♀♀ Beibeng Town, Mêdog County, Xizang, light trap, 29.2430°N, 95.1703°E, 800 m, 2017.VIII.07-08, leg. Hongbin Liang, IOZ(E) 2715119-2715125 (IZCAS); 1 ♀ 10 km, Gelin Road, Beibeng Town, Mêdog County, Xizang, 29.23395°N, 95.17574°E, 765 m, 2019.VIII.9, night, leg. Hongbin Liang, IOZ(E) 2422863 (IZCAS); 1 ♂ Gelin Village, Beibeng Town, Mêdog County, Xizang, 29.22163°N, 95.17586°E, 1662 m, 2019.VIII.6N, leg. Hongbin Liang, Run Zhou *et al.*, IOZ(E) 2422855 (IZCAS); 1 ♀ 10 km, Gelin Road, Mêdog County, Xizang, 29.24510°N, 95.14296°E, 1606 m, 2019.VIII.3N, leg. Hongbin Liang & Jingwen Jiang, IOZ(E) 2422848 (IZCAS); 3 ♀♀ Ximo River Bridge, Mêdog County, Xizang, 29.35151°N, 95.34098°E, 733 m, 2019.VII.28N, leg. Hongbin Liang & Yuan Xu, IOZ(E) 2422824; IOZ(E) 2422825, IOZ(E) 2422827 (leg. Run Zhou) (Fig. 6A–E) (IZCAS). 2 ♂♂ 11 km, Gelin Village, Beibeng Town, Mêdog County, Xizang, light trap, 29.23411°N, 95.17761°E, 1452.18 m, 2024.VII.20, leg. Xiaoyu Zhu,

IOZ(E) 2715090-2715091 (IZCAS); 2 ♀♀ 11km, Gelin Village, Beibeng Town, Mêdog County, Xizang, light trap, 29.23411°N, 95.17761°E, 1452.18 m, 2024.VII.20, leg. Xiaoyu Zhu, IOZ(E) 2715092-2715093 (IZCAS); 2 ♂♂ next to Zhaxi Inn, Damu Town, Mêdog County, Xizang, light trap, 29.49629°N, 95.46154°E, 1562.34 m, 2024.VII.28, leg. Hongbin Liang, IOZ(E) 2715086-2715087 (Fig. 5A–H) (IZCAS); 2 ♀♀ next to Zhaxi Inn, Damu Town, Mêdog County, Xizang, light trap, 29.49629°N, 95.46154°E, 1562.34 m, 2024.VII.28, leg. Hongbin Liang, IOZ(E) 2715088-2715089 (IZCAS); 8 ♂♂ Mêdog Village, Mêdog County, Xizang, light trap, 29.3222°N, 95.3302°E, 1101 m, 2017.VIII.13, leg. Hongbin Liang, IOZ(E) 2715075-2715077; IOZ(E) 2715081-2715082; IOZ(E) 2715114-2715116 (IZCAS); 5 ♀♀ Mêdog Village, Mêdog County, Xizang, light trap, 29.3222°N, 95.3302°E, 1101 m, 2017.VIII.13, leg. Hongbin Liang, IOZ(E) 2715078-2715080; IOZ(E) 2715117-2715118 (IZCAS). 3 ♂♂ Jiangxin Road K3, Beibeng Town, Mêdog County, Xizang, 29.23256°N, 95.14630°E, 786 m, 2019.VIII.10N, leg. Hongbin Liang & Yuan Xu, IOZ(E) 2422897; IOZ(E) 2422875; IOZ(E)2422891 (IZCAS); 4 ♀ Jiagagou Bridge, Beibeng Town, Mêdog County, Xizang, 29.25910°N, 95.19405°E, 772 m, 2020.IX.7N, leg. Hongbin Liang, Yuan Xu *et al.*, IOZ(E) 2425823; IOZ(E) 2425827; IOZ(E) 2425833-2425834 (IZCAS). 1 ♂ Jiagagou Bridge, Beibeng Town, Mêdog County, Xizang, 29.25910°N, 95.19405°E, 772 m, 2020.IX.7N, leg. Hongbin Liang, Yuan Xu *et al.*, IOZ(E) 2425832 (IZCAS). 3 ♂♂ 2km, Gelin Road, Beibeng Town, Mêdog County, Xizang, 29.22333°N, 95.13241°E, 1013 m, 2019.VIII.2N, leg. Hongbin Liang & Yuan Xu, IOZ(E) 2422840-2422841; IOZ(E) 2422828 (IZCAS). 3 ♀♀ 2km, Gelin Road, Beibeng Town, Mêdog County, Xizang, 29.22333°N, 95.13241°E, 1013 m, 2019.VIII.2, night, leg. Hongbin Liang & Yuan Xu, IOZ(E) 2422830; IOZ(E) 2422846-2422847 (IZCAS). 1 ♀ Lagong Tea Plantation, Mêdog Town, Mêdog County, Xizang, light trap, 29.31784°N, 95.31512°E, 1255 m, 2019.VIII.14N, leg. Hongbin Liang, Yuan Xu *et al.*, IOZ(E) 2422901 (IZCAS). 2 ♂♂ Ximo River Bridge, Mêdog Town, Mêdog County, Xizang, light trap, 29.35171°N, 95.34067°E, 732 m, 2020.IX.2N, night, leg. Hongbin Liang, Yuan Xu *et al.*, IOZ(E) 2425747; IOZ(E) 2425750 (IZCAS). 2 ♀♀ Ximo River Bridge, Mêdog Town, Mêdog County, Xizang, light trap, 29.35171°N, 95.34067°E, 732 m, 2020.IX.2N, leg. Hongbin Liang, Yuan Xu *et al.*, IOZ(E) 2425746; IOZ(E) 2425748 (IZCAS). 4 ♂♂ Lagong Tea Plantation, Mêdog Town, Mêdog County, Xizang, light trap, 29.31528°N, 95.31841°E, 1254 m, 2020.IX.3N, leg. Hongbin Liang, Yuan Xu *et al.*, IOZ(E) 2425758; IOZ(E) 2425799; IOZ(E) 2425776; IOZ(E) 2425753 (IZCAS). 6 ♀♀ Lagong Tea Plantation, Mêdog Town, Mêdog County, Xizang, light trap, 29.31528°N, 95.31841°E, 1254 m, 2020.IX.3N, leg. Hongbin Liang, Yuan Xu *et al.*, IOZ(E) 2425792; IOZ(E) 2425808; IOZ(E) 2425778; IOZ(E) 2425771; IOZ(E) 2425765; IOZ(E) 2425756 (IZCAS). 1 ♂ Badeng Village, Beibeng Town, Mêdog County, Xizang, 29.26585°N, 95.15701°E, 1411 m, 2020.IX.8, leg. Hongbin Liang, Yuan Xu *et al.*, IOZ(E) 2425835 (IZCAS). 1 ♂ Madi Village, Mêdog Town, Mêdog County, Xizang, light trap, 29.39729°N, 95.37942°E, 933 m, 2020.IX.13N, leg. Xiaoliang Yang *et al.*, IOZ(E) 2425874 (IZCAS). 2 ♀♀ Madi Village, Mêdog Town, Mêdog County, Xizang, light trap, 29.39729°N, 95.37942°E, 933 m, 2020.IX.13N, leg. Xiaoliang Yang *et al.*, IOZ(E) 2425855; IOZ(E) 2425877 (IZCAS). 2 ♂ Riverside at the 79 km mark, Mêdog Road, Mêdog County, Linzhi City, Xizang, light trap, 29.66667°N, 95.49449°E, 2184 m, 2020.IX.16N, leg. Hongbin Liang, Yuan Xu *et al.*, IOZ(E) 2425896; IOZ(E) 2425893 (IZCAS). 2 ♀ Riverside at the 79 km mark, Mêdog Road, Mêdog County, Linzhi City, Xizang, light trap, 29.66667°N, 95.49449°E, 2184 m, 2020.IX.16N, leg. Hongbin Liang, Yuan Xu *et al.*, IOZ(E) 2425887; IOZ(E) 2425892 (IZCAS). 1 ♂ Lagong Tea Plantation, Mêdog Town, Mêdog County, Linzhi City, Xizang, light trap, 29.31876°N, 95.31578°E, 1293 m, 2020.IX.12N, leg. Hongbin Liang, Yuan Xu *et al.*, IOZ(E) 2425842 (IZCAS).

Description (Fig. 4–6). Body length 10.2–12.7 mm (HT: 11.5 mm), body width 5.5–7.0 mm (HT: 6.5 mm). Body shape elongate ovoid, convex.

Color. Body reddish-brown with weak metallic green sheen; hind tibiae and all tarsi dark brown with metallic green sheen (Fig. 5A–C).

Head. Clypeus subtrapezoidal, approximately 2.4 times wider than long, densely, partly merged rugopunctate, anterior corners broadly rounded; anterior margin strongly reflexed; frontoclypeal suture curved backward weakly and irregularly widen in middle; frons and vertex densely rugopunctate; antennal club slightly longer than antennomeres 2–6 combined (Fig. 5D).

Pronotum. Approximately 1.7 times as wide as long; surface covered with long, yellowish, moderately dense setae; disc densely punctate, surface with additional distinct finely micropunctures; lateral margin of pronotum distinctly converging anteriorly in anterior one third, slightly curved in anterior half, and nearly straight in posterior half; posterior corners nearly right-angle; basal marginal line interrupted in front of scutellum (Fig. 5A, D).

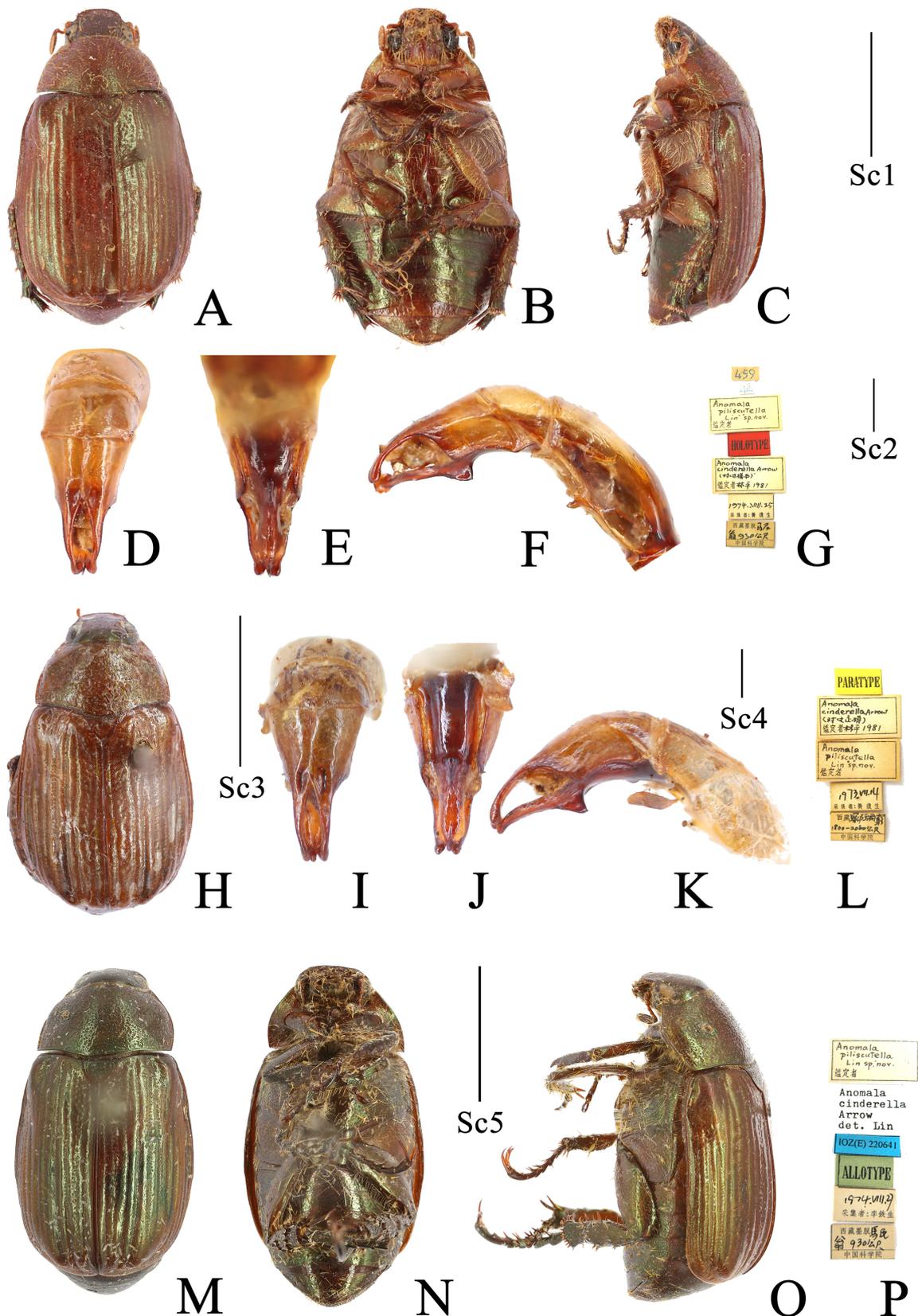


FIGURE 4. Types of *Anomala piliscutella* Lin, 1981. Holotype ♂ **A–C.** Habitus. **A.** Dorsal view. **B.** Ventral view. **C.** Left lateral view. **D–F.** Aedeagus. **D.** Dorsal view. **E.** Ventral view. **F.** Right lateral view. Sc. 1: scale for **A–C** = 5 mm. Sc. 2: scale for **D–F** = 1 mm. **G.** Holotype label. Paratype of *Anomala piliscutella* ♂ **H.** Dorsal view. **I–K.** Aedeagus. **I.** Dorsal view. **J.** Ventral view. **K.** Right lateral view. **L.** Paratype label. Sc. 3: scale for **H** = 5 mm. Sc. 4: scale for **I–K** = 1 mm. Paratype of *Anomala piliscutella* ♀ **M.** Dorsal view. **N.** Ventral view. **O.** Left lateral view. **P.** Paratype label. Sc. 5: scale for **M–O** = 5 mm.

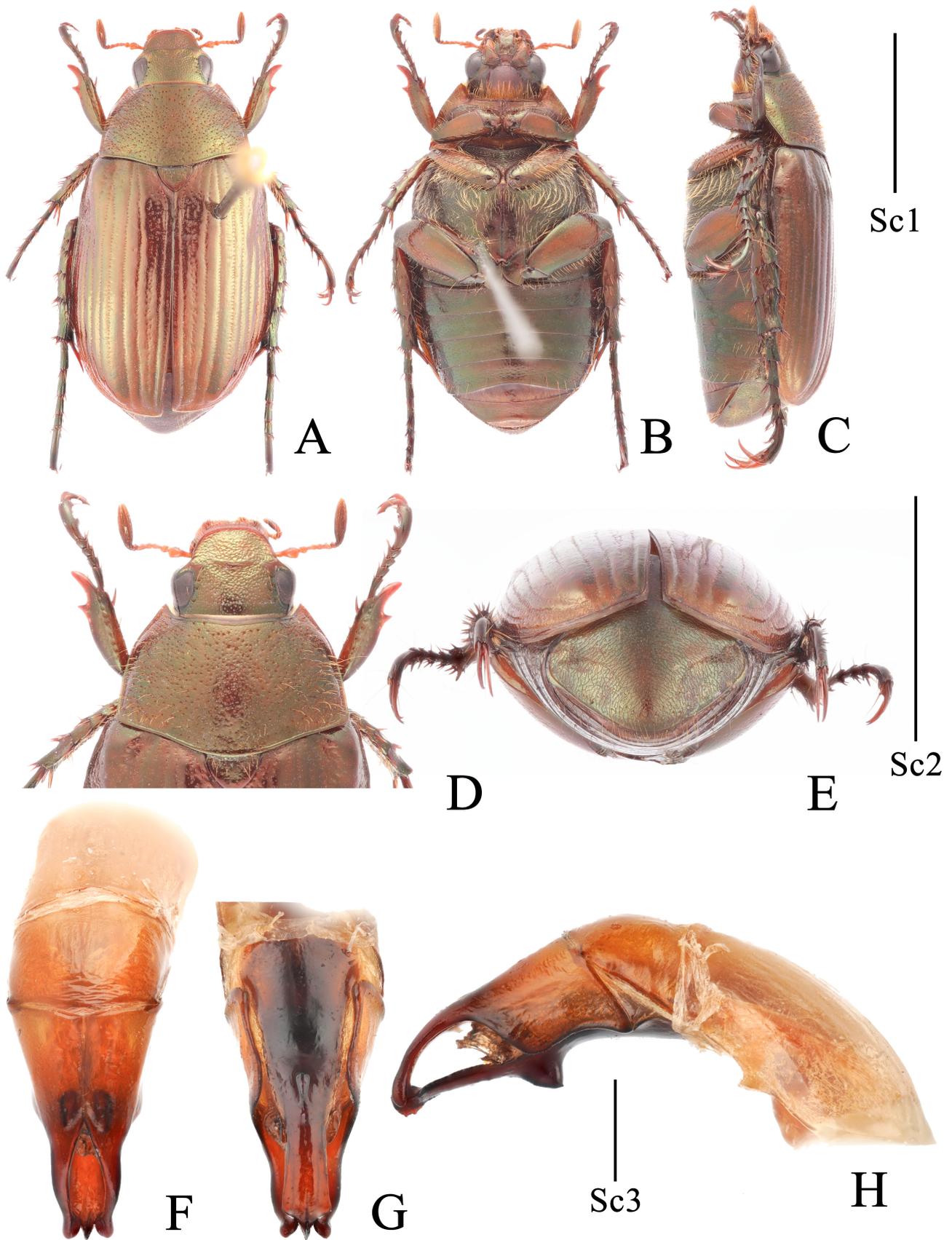


FIGURE 5. Additional specimen of *Anomala piliscutella* Lin, 1981 from Xizang, China. ♂ A–C. Habitus. A. Dorsal view. B. Ventral view. C. Left lateral view. D. Head and pronotum. E. Propygidium and pygidium. F–H. Aedeagus. F. Dorsal view. G. Ventral view. H. Right lateral view. Sc. 1: scale for A–E = 5 mm. Sc. 2: scale for D–E = 5 mm. Sc. 3: scale for F–H = 1 mm.

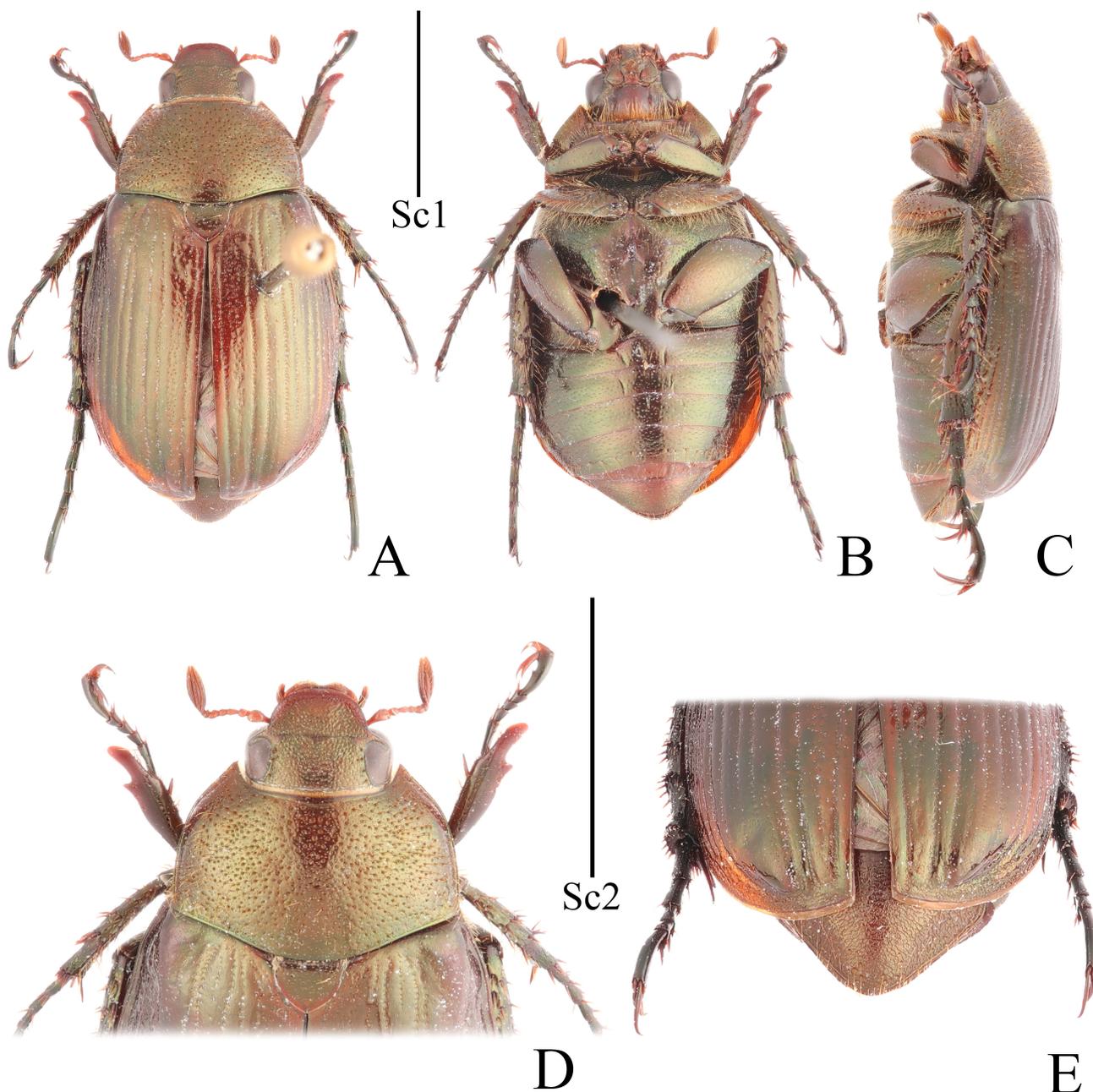


FIGURE 6. Additional specimen of *Anomala piliscutella* Lin, 1981 from Xizang, China. ♀ **A–C.** Habitus. **A.** Dorsal view. **B.** Ventral view. **C.** Left lateral view. **D.** Head and pronotum. **E.** Propygidium and pygidium. Sc. 1: scale for A–C = 5 mm. Sc. 2: scale for D, E = 5 mm.

Scutellum. Nearly semicircular, width 1.4 times the length, moderately coarse, the scutellum with more than five yellow setae or occasionally less than three setae until glabrous, densely punctate.

Elytra. Regularly striate; costal intervals and interstices moderately convex; striae punctures distinct; subsutural interstice 2 with densely distributed in the middle, large, striated punctures; elytral surface with micropunctuation; humeral umbone and apical protuberance prominent; epipleuron narrow, slightly broad behind humerus, ending before elytral posterior three-fourths; posterior margins rounded; marginal membrane complete (Fig. 5A).

Pygidium. Strongly convex; apex broadly rounded; densely punctate-imbricate, transversely confluent; lateral sides and apex with several long, erect yellow setae (Fig. 5E).

Ventral thorax. Metasternal sides densely clothed with soft yellow setae (Fig. 5B).

Abdominal ventrites. Center of ventrites 2–5 with large punctures, the sides of ventrites 2–5 and surface of ventrite 6 with coalescently, transverse punctate; ventrites 1–4 carinate laterally (Fig. 5B, C).

Legs. Mesofemur with two bands of long yellow setae (one along anterior margin, another on transverse row of punctures parallel to posterior margin) and the middle part with densely distributed, irregularly striated, long yellow setae; metafemur with several long yellow setae near posterior margin. Protibia bidentate, broadened; proximal tooth short, situated close to the rather short, moderately outwards curved apical tooth; inner spur short, articulated in opposite to proximal tooth. Protarsomeres 1–4 moderately compressed, length/width ratio 5.2, the protarsomere 5 (without claws) strongly widened, concave in inner side; inner protarsal claw strongly widened and deeply incised apically, lower margin with obtuse angle basally, upper branch spiniform; outer mesotarsal claw long, curved, deeply incised at apex, upper branch spiniform; metatarsal claws unequal, outer claw longer than inner (Fig. 5A–D).

Aedeagus. Parameres symmetric, outer side curved and relatively long, inner side curved and weakly notched near the end half, the apex broadly rounded; basal piece developed and as long as parameres, with sharp tip, without denticles on the ventral side (Figs 4D–F, I–K, 5F–H); shape of parameres very consistent.

Female. The punctures in pronotum more coarsely and densely; the epipleuron in elytra slightly broader than male; protibia slender, apical tooth of protibia long and spatulate; protarsus articulated slightly basally of level of proximal tooth; inner spur long, articulated between 1/2 and 2/3 of tibial length; protarsus very slender, protarsomere 5 (without claws) shorter than tarsomeres 1–4 combined; modified claws of pro- and mesotarsus shorter, two apical branches more equal than in males (Fig. 6A–E).

Differential diagnosis. This species is different from the previous two species *A. cinderella* Arrow, 1917 and *Anomala liuhaoyii* by the following characters: shape of pronotum subquadrate, narrower and longer than the other species (ratio of width/length~1.7); lateral margin of pronotum distinctly converging anteriorly in the anterior one third, not in the middle; scutellum normally with more than three yellow setae, only occasionally glabrous; basal piece of aedeagus as long as parameres, ventral side without denticles.

Distribution. This species is found in the Chinese provinces and autonomous regions of Sichuan, Xizang (type locality of *Anomala piliscutella*) and Yunnan. Records from Sichuan and Yunnan derive from misidentified specimens attributed to *Anomala cinderella* by Lin (1988) who recorded specimens identified as such for “Xizang (Médog: Maniweng 930m, Didong 970m, Zayü, Dongqiong 930–2000 m), Sichuan, Yunnan; Sikkim”. Specimens from Xizang, Maniweng and Dongqiong originally identified by Lin are included in the type series of his own *A. piliscutella*, while Sikkim is the type locality of *A. cinderella*. The two provincial records from Sichuan and Yunnan were later naturally considered as the locality of *Anomala piliscutella* in Zorn (2004: 310). From the handwritten notebooks of Dr. Ping Lin, we found three records in draft of Yunnan Rutelinae: “Maguan, 1979.VII.3, 1500 m; Yingjiang, Tongbiguan, 1979.VII.15, 1000 m; Luxi, 1979.VII.24, 1470 m” that we consider reliable even the absence of direct examination of these specimens. While until now, we have no clue about the origin of the records from Sichuan he mentioned. Consequently, in the distribution map (Fig. 9), we included three records from Yunnan, but no record from Sichuan (Table 1).

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(Figs 7, 8)

Anomala pemako Zhao, 2025: 916.

Material examined (252 exx.). 1 ♂ “西藏墨脱县城北边 [= North of Médog County, Xizang] | 海拔: 1005 m [= alt. 1005 m] | 2015.VIII.14N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.3319°N (灯诱) [= (light trap)] | 95.3397°E | 采集人: 梁红斌等 [= leg. Hongbin Liang *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2715045 ||” (IZCAS) (Fig. 7A–H). 2 ♂♂ “西藏墨脱县背崩乡 [= Beibeng Town, Médog County, Xizang] | 江新村公路2公里处 [= At the 2 km mark on Jiangxin Village Road] | 2019.VIII.8N 752 m | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.23604° 灯诱 [= light trap] | E95.16549° | 采集人: 梁红斌 [= leg. Hongbin Liang] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422858 ||” (IZCAS); IOZ(E) 2422859 (leg. Hongbin Liang, Run Zhou *et al.*). 1 ♀ “西藏墨脱县背崩乡 [= Beibeng Town, Médog County, Xizang] | 江新村公路2公里处 [= At the 2 km mark on Jiangxin Village Road] | 2019.VIII.8N 752 m | 中科院动物所 [= Institute of Zoology, Chinese Academy

of Sciences] || N29.23604° 灯诱 [= light trap] | E95.16549° | 梁红斌 周润等 [= leg. Hongbin Liang, Run Zhou *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422860 ||” (IZCAS). 1 ♂ “西藏墨脱县墨脱镇 [= Mêdog Town, Mêdog County, Xizang] | 西莫河大桥 [= Ximo River Bridge] | 海拔: 732 m [= alt. 732 m] | 2020.IX.2N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.35171° | E95.134067° | 采集方式: 灯诱 [= light trap] | 梁红斌 徐源等 [= leg. Hongbin Liang, Yuan Xu *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425749 ||” (IZCAS). 3 ♂♂ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 格林公路10公里处 [= At the 10 km mark on Gelin Road] | 2019.VIII.9N 765 m | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.23395° | E95.17574° | 采集人: 梁红斌 [= leg. Hongbin Liang] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422861 ||” (IZCAS); IOZ(E) 2422864; IOZ(E) 2422862. 6 ♂♂ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 海拔: 800 m [= alt. 800 m] | 2017.VIII.07-08 | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.2430°N (灯诱) [= (light trap)] | 95.1703°E | 采集人: 梁红斌 [= leg. Hongbin Liang] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2715097 ||” (IZCAS); IOZ(E) 2715098-2715102. 7 ♀♀ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 海拔: 800m [= alt. 800 m] | 2017.VIII.07-08 | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.2430°N (灯诱) [= (light trap)] | 95.1703°E | 采集人: 梁红斌 [= leg. Hongbin Liang] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2715103||” (IZCAS); IOZ(E) 2715104-2715109. 18 ♂♂ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 江新路 [= Jiangxin Road] K3 786 m | 2019.VIII.10N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.23256° | E95.14630° | 梁红斌 徐源 [= leg. Hongbin Liang & Yuan Xu] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422869 ||” (IZCAS); IOZ(E) 2422868; IOZ(E) 2422877; IOZ(E) 2422888; IOZ(E) 2422873; IOZ(E) 2422870; IOZ(E) 2422871; IOZ(E)2422872; IOZ(E) 2422874; IOZ(E) 2422876; IOZ(E) 2422878; IOZ(E) 2422880; IOZ(E) 2422882; IOZ(E) 2422884; IOZ(E) 2422885; IOZ(E) 2422887; IOZ(E) 2422867; IOZ(E) 2422895. 12 ♀♀ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 江新路[= Jiangxin Road] K3 786 m | 2019.VIII.10N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.23256° | E95.14630° | 梁红斌 徐源 [= leg. Hongbin Liang & Yuan Xu] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422866 ||” (IZCAS); IOZ(E) 2422879; IOZ(E) 2422881; IOZ(E) 2422886; IOZ(E)2422889; IOZ(E)2422890; IOZ(E)2422883; IOZ(E) 2422892; IOZ(E)2422893; IOZ(E)2422894; IOZ(E)2422896; IOZ(E) 2422898. 9 ♂♂ “西藏墨脱县墨脱村 [= Mêdog Village, Mêdog County, Xizang] | 海拔: 1101 m [= alt. 1101 m] | 2017.VIII.13 (灯诱) [= (light trap)] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.3222°N | 95.3302°E | 采集人: 梁红斌 [= leg. Hongbin Liang] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2715032-2715037 ||” (IZCAS); IOZ(E) 2715041; IOZ(E) 2715110-2715111. 6 ♀♀ “西藏墨脱县墨脱村 [= Mêdog Village, Mêdog County, Xizang] | 海拔: 1101 m [= alt. 1101 m] | 2017.VIII.13 (灯诱) [= (light trap)] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.3222°N | 95.3302°E | 采集人: 梁红斌 [= leg. Hongbin Liang] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2715038 ||” (IZCAS); IOZ(E) 2715039-2715040; IOZ(E) 2715067; IOZ(E) 2715112-2715113. 15 ♂♂ “西藏墨脱县城北边 [= North of Mêdog County, Xizang] | 海拔: 1005 m [= alt. 1005 m] | 2015.VIII.14N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.3319°N (灯诱) [= (light trap)] | 95.3397°E | 采集人: 梁红斌等 [= leg. Hongbin Liang *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2080031 ||” (IZCAS); IOZ(E) 2715046-2715060. 1 ♀ “西藏墨脱县城北边 [= North of Mêdog County, Xizang] | 海拔: 1005 m [= alt. 1005 m] | 2015.VIII.14N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.3319°N (灯诱) [= (light trap)] | 95.3397°E | 采集人: 梁红斌等 [= leg. Hongbin Liang *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2715066 ||” (IZCAS). 5 ♂♂ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 海拔: 799 m [= alt. 799 m] | 2015.VIII.20N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.3431°N (灯诱) [= (light trap)] | 95.1700°E | 采集人: 梁红斌 [= leg. Hongbin Liang] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2715061 ||” (IZCAS); IOZ(E) 2715062-2715065. 1 ♀ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 江新村公路8公里处 [= At the 8 km mark on Jiangxin Village Road] | 海拔: 678 m [= alt. 678 m] | 2020.IX.6N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.22495° | E95.12963° | 采集方式: 灯诱 [= light trap] | 梁红斌 徐源等 [= leg. Hongbin Liang, Yuan Xu *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425814 ||” (IZCAS). 1 ♀ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 江新村公路2公里处 [= At the

2 km mark on Jiangxin Village Road] | 海拔: 844 m [= alt. 678 m] | 2020.IX.9N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.23526° | E95.15829° | 采集人: 段文元 [= leg. Wenyuan Duan] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425836 ||” (IZCAS). 2 ♂♂ “西藏墨脱县西莫河 [= Ximo River, Mêdog County, Xizang] | 大桥 733 m [= Bridge, 733 m] | 2019.VII.28N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.35151° | E95.34098° | 梁红斌 徐源 [= leg. Hongbin Liang, Yuan Xu] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422820 ||” (IZCAS); IOZ(E) 2422826. 2 ♀♀ “西藏墨脱县西莫河 [= Ximo River, Mêdog County, Xizang] | 大桥 733 m [= Bridge, 733 m] | 2019.VII.28N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.35151° | E95.34098° | 江静文 [= leg. Jingwen Jiang] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422821 ||” (IZCAS); IOZ(E) 2422822. 4 ♂♂ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 格林公路2公里处 [= At the 2 km mark on Gelin Road] | 2019.VII.29N 1013m | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.22333° (灯诱) [= (light trap) | E95.13241° | 采集人: 江静文 [= leg. Jingwen Jiang] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422834 ||” (IZCAS); IOZ(E) 2422844; IOZ(E) 2422843; IOZ(E) 2422832. 5 ♀♀ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 格林公路2公里处 [= At the 2 km mark on Gelin Road] | 2019.VII.29N 1013 m | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.22333° (灯诱) [= (light trap) | E95.13241° | 采集人: 江静文 [= leg. Jingwen Jiang] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422829 ||” (IZCAS); IOZ(E) 2422831 (Fig. 8A–E); IOZ(E) 2422833; IOZ(E) 2422835; IOZ(E) 2422845. 1 ♂ “西藏墨脱县格林路 [= Gelin Road, Mêdog County, Xizang] | 10公里处 1606 m [= At the 10 km mark, 1606 m] | 2019.VIII.3N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.24510° | E95.14296° | 梁红斌 江静文 [= leg. Hongbin Liang & Jingwen Jiang] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422849 ||” (IZCAS). 1 ♂ “西藏林芝墨脱县墨 [= Mêdog County, Linzhi City, Xizang] | 脱镇拉贡茶场 [= Lagong Tea Plantation, Mêdog Town] | 海拔: 1293 m [= alt. 1293 m] | 2020.IX.12N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.31876° | E95.31578° | 采集方式: 灯诱 [= light trap] | 梁红斌 徐源等 [= leg. Hongbin Liang, Yuan Xu *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425840 ||” (IZCAS). 1 ♀ “西藏林芝墨脱县墨 [= Mêdog County, Linzhi City, Xizang] | 脱镇拉贡茶场 [= Lagong Tea Plantation, Mêdog Town] | 海拔: 1293 m [= alt. 1293 m] | 2020.IX.12N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.31876° | E95.31578° | 采集方式: 灯诱 [= light trap] | 梁红斌 徐源等 [= leg. Hongbin Liang, Yuan Xu *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425841 ||” (IZCAS). 4 ♂♂ “西藏墨脱县 [= Mêdog County, Xizang] | 拉贡茶场 [= Lagong Tea Plantation] 1255 m | 2019.VIII.14N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.31784° | E95.31512° | 梁红斌 徐源 [= leg. Hongbin Liang & Yuan Xu] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422903 ||” (IZCAS); IOZ(E) 2422905; IOZ(E) 2422900; IOZ(E) 2422906. 2 ♀♀ “西藏墨脱县 [= Mêdog County, Xizang] | 拉贡茶场 [= Lagong Tea Plantation] 1255 m | 2019.VIII.14N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.31784° | E95.31512° | 梁红斌 徐源 [= leg. Hongbin Liang & Yuan Xu] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422902 ||” (IZCAS); IOZ(E) 2422904. 22 ♂♂ “西藏墨脱县墨脱镇 [= Mêdog Town, Mêdog County, Xizang] | 拉贡茶场 [= Lagong Tea Plantation] | 海拔: 1254 m [= alt. 1254 m] | 2020.IX.3N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.31528° | E95.31841° | 采集方式: 灯诱 [= light trap] | 梁红斌 徐源等 [= leg. Hongbin Liang, Yuan Xu *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425783 ||” (IZCAS); IOZ(E) 2425807; IOZ(E) 2425795; IOZ(E) 2425789; IOZ(E) 2425791; IOZ(E) 2425797; IOZ(E) 2425775; IOZ(E) 2425751; IOZ(E) 2425754; IOZ(E) 2425766; IOZ(E) 242569; IOZ(E) 2425761; IOZ(E) 2425801; IOZ(E) 2425803; IOZ(E) 2425804; IOZ(E) 2425805; IOZ(E) 2425785; IOZ(E) 2425782; IOZ(E) 2425781; IOZ(E) 2425772; IOZ(E) 2425768; IOZ(E) 2425760. 28 ♀♀ “西藏墨脱县墨脱镇 [= Mêdog Town, Mêdog County, Xizang] | 拉贡茶场 [= Lagong Tea Plantation] | 海拔: 1254 m [= alt. 1254 m] | 2020.IX.3N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.31528° | E95.31841° | 采集方式: 灯诱 [= light trap] | 梁红斌 徐源等 [= leg. Hongbin Liang, Yuan Xu *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425780 ||” (IZCAS); IOZ(E) 2425784; IOZ(E) 2425786; IOZ(E) 2425788; IOZ(E) 2425790; IOZ(E) 2425793; IOZ(E) 2425764; IOZ(E) 2425796; IOZ(E) 2425798; IOZ(E) 2425800; IOZ(E) 2425809; IOZ(E) 2425810; IOZ(E) 2425773; IOZ(E) 2425779; IOZ(E) 2425770; IOZ(E) 2425767; IOZ(E) 2425787; IOZ(E) 2425794; IOZ(E) 2425802; IOZ(E) 2425752; IOZ(E) 2425763; IOZ(E) 2425762; IOZ(E) 2425757; IOZ(E) 2425755; IOZ(E) 2425806; IOZ(E) 2425774; IOZ(E)

2425777; IOZ(E) 2425759. 1 ♀ “西藏墨脱县墨脱镇 [= Mêdog Town, Mêdog County, Xizang] | 墨脱村拉贡茶场 [= Lagong Tea Plantation, Mêdog Village] | 2017.VIII.14 1275m | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.3137°N | E95.3183°E | 采集人: 梁红斌 [= leg. Hongbin Liang] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2715042 ||” (IZCAS). 1 ♂♂ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 甲嘎沟 703m [= Jiagagou, 703m] | 2019.VII.31D | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.25295° | E95.19820° | 江静文 周润 [= leg. Jingwen Jiang & Run Zhou] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422837 ||” (IZCAS); IOZ(E) 2422838-2422839. 2 ♀♀ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 甲嘎沟 703m [= Jiagagou 703m] | 2019.VII.31D | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.25295° | E95.19820° | 江静文 周润 [= leg. Jingwen Jiang & Run Zhou] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422838 ||” (IZCAS); IOZ(E) 2422839. 1 ♀ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 甲嘎沟 696 m [= Jiagagou, 696 m] | 2019.VIII.11N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.25291° | E95.19838° | 梁红斌 徐源 [= leg. Hongbin Liang & Yuan Xu] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422899 ||” (IZCAS). 6 ♂♂ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 甲嘎沟大桥 [= Jiagagou Bridge] | 海拔: 772 m [= alt. 772 m] | 2020.IX.7N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.25910° | E95.19405° | 采集方式: 灯诱 [= light trap] | 梁红斌 徐源等 [= leg. Hongbin Liang, Yuan Xu *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425819 ||” (IZCAS); IOZ(E) 2425826; IOZ(E) 2425829; IOZ(E) 2425831; IOZ(E) 2425821; IOZ(E) 2425824. 12 ♀♀ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 甲嘎沟大桥 [= Jiagagou Bridge] | 海拔: 772 m [= alt. 772 m] | 2020.IX.7N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.25910° | E95.19405° | 采集方式: 灯诱 [= light trap] | 梁红斌 徐源等 [= leg. Hongbin Liang, Yuan Xu *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425820 ||” (IZCAS); IOZ(E) 2425815-2425818; IOZ(E) 2425822; IOZ(E) 2425828; IOZ(E) 2425830; IOZ(E) 2425837-2425839; IOZ(E) 2425825. 1 ♀ “西藏墨脱县达木乡 [= Damu Town, Mêdog County, Xizang] | 扎西客栈旁 [= Next to Zhaxi Inn] | 海拔: 1562.34 m [= alt. 1562.34 m] | 2024.VII.28 | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.49629°N | 95.46154°E | 路边, 灌丛 灯诱 [= Roadside, scrub, light trap] | 采集人: 梁红斌 [= leg. Hongbin Liang] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2715095 ||” (IZCAS). 1 ♂ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 甲嘎沟香蕉园 [= Banana Plantation, Jiaga Valley] | 2019.VIII.4N 724 m | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.25103° | E95.19296° | 梁红斌 周润 [= leg. Hongbin Liang & Run Zhou] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422852 ||” (IZCAS). 2 ♀♀ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 甲嘎沟香蕉园 [= Banana Plantation, Jiaga Valley] | 2019.VIII.4N 724m | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.25103° | E95.19296° | 梁红斌 周润 [= leg. Hongbin Liang & Run Zhou] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422853 ||” (IZCAS); IOZ(E) 2422854. 1 ♀ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 格林村 11km [= Gelin Village 11km] | 海拔: 1452.18 m [= alt. 1452.18 m] | 2024.VII.20 | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.23411°N | 95.17761°E | 路边, 灌丛 灯诱 [= Roadside, scrub, light trap] | 采集人: 朱笑愚 [= leg. Xiaoyu Zhu] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2715096 ||” (IZCAS). 1 ♂ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 格林村公路 5.5 km [= Gelin Village Road 5.5 km] | 处 [= at] 1145 m [= alt. 1145 m] | 2020.IX.5N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.24514°N | 95.18253°E | 采集方式: 灯诱 [= light trap] | 梁红斌 徐源等 [= leg. Hongbin Liang, Yuan Xu *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425811 ||” (IZCAS). 2 ♀♀ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 格林村公路 5.5 km [= Gelin Village Road 5.5 km] | 处 [= at] 1145 m [= alt. 1145 m] | 2020.IX.5N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.24514°N | 95.18253°E | 采集方式: 灯诱 [= light trap] | 梁红斌 徐源等 [= leg. Hongbin Liang, Yuan Xu *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425812 ||” (IZCAS); IOZ(E) 2425813. 2 ♂♂ “西藏林芝市墨脱县 [= Mêdog County, Linzhi City, Xizang] | 背崩乡甲嘎沟香蕉 [= Banana, Jiaga Valley, Beibeng Town] | 园 [= Plantation] 763 m | 2019.VIII.2D | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.25129° | E95.19427° | 采集人: 周润 [= leg. Run Zhou] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425741 ||” (IZCAS); IOZ(E) 2425742. 2 ♀♀ “西藏林芝市墨脱县 [= Mêdog County, Linzhi City, Xizang] | 背崩乡甲嘎沟香蕉 [= Banana, Jiaga Valley, Beibeng

Town] | 园 [= Plantation] 763 m | 2019.VIII.2D | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.25129° | E95.19427° | 采集人: 周润 [= leg. Run Zhou] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425743 ||” (IZCAS); IOZ(E) 2425744-2425745. 3 ♂♂ “西藏墨脱县墨脱镇 [= Mêdog Town, Mêdog County, Xizang] | 玛迪村 [= Madi Village] | 海拔: 933 m [= alt. 933 m] | 2020.IX.13N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.39729°N | 95.37942°E | 采集方式: 灯诱 [= light trap] | 采集人: 杨晓亮等 [= leg. Xiaoliang Yang *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425864 ||” (IZCAS); IOZ(E) 2425843; IOZ(E) 2425875. 29 ♀♀ “西藏墨脱县墨脱镇 [= Mêdog Town, Mêdog County, Xizang] | 玛迪村 [= Madi Village] | 海拔: 933 m [= alt. 933 m] | 2020.IX.13N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.39729°N | 95.37942°E | 采集方式: 灯诱 [= light trap] | 采集人: 杨晓亮等 [= leg. Xiaoliang Yang *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425865 ||” (IZCAS); IOZ(E) 2425844-2425854; IOZ(E) 2425856-2425863; IOZ(E) 2425866-2425873; IOZ(E) 2425876. 1 ♂ “西藏林芝墨脱县墨脱 [= Mêdog County, Linzhi City, Xizang] | 脱公路79 km处河 [= Riverside at the 79 km mark, Mêdog Road] | 边 [= side] 2184 m | 2020.IX.16N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.66667°N | 95.49449°E | 采集方式: 灯诱 [= light trap] | 梁红斌 徐源等 [= leg. Hongbin Liang, Yuan Xu *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425898 ||” (IZCAS). 17 ♀♀ “西藏林芝墨脱县墨脱 [= Mêdog County, Linzhi City, Xizang] | 脱公路79 km处河 [= Riverside at the 79 km mark, Mêdog Road] | 边 [= side] 2184 m | 2020.IX.16N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 29.66667°N | 95.49449°E | 采集方式: 灯诱 [= light trap] | 梁红斌 徐源等 [= leg. Hongbin Liang, Yuan Xu *et al.*] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425897 ||” (IZCAS); IOZ(E) 2425879-2425886; IOZ(E) 2425888-2425891; IOZ(E) 2425894-2425895; IOZ(E) 2425899-2425900. 1 ♂ “西藏墨脱县墨脱公路 [= Mêdog Road, Mêdog County, Xizang] | 路81.5 km处 [= At the 81.5 km mark on Road] | 海拔: 2033 m [= alt. 2033 m] | 2020.IX.17N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.65792° | E95.49430° | 采集方法: 灯诱 [= light trap] | 刘虹 段文元 [= leg. Hong Liu & Wenyuan Duan] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425902 ||” (IZCAS). 1 ♀ “西藏墨脱县墨脱公路 [= Mêdog Road, Mêdog County, Xizang] | 路81.5 km处 [= At the 81.5 km mark on Road] | 海拔: 2033 m [= alt. 2033 m] | 2020.IX.17N | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.65792° | E95.49430° | 采集方法: 灯诱 [= light trap] | 刘虹 段文元 [= leg. Hong Liu & Wenyuan Duan] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425901 ||” (IZCAS). 1 ♂ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 江新公路3公里处 [= At the 3 km mark on the Jiangxin Road] | 2019.VII.30N 712 m | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.24363° | E95.17008° | 采集人: 徐源 [= leg. Yuan Xu] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2422836 ||” (IZCAS). 1 ♀ “西藏林芝墨脱县墨脱 [= Mêdog County, Linzhi City, Xizang] | 脱公路103 km处 [= At the 103 km mark on the Mêdog Road] | 海拔: 1180 m [= alt. 1180 m] | 2020.IX.14D2 | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.54693° | E95.46163° | 采集人: 段文元 [= leg. Wenyuan Duan] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2425878 ||” (IZCAS). 1 ♀ “西藏墨脱县背崩乡 [= Beibeng Town, Mêdog County, Xizang] | 东南2公里处 [= 2 km southeast of Beibeng Town] | 2017.VIII.10N 780 m | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || N29.23549° | E95.15850° | 采集人: 周润 [= leg. Run Zhou] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2715043 ||” (IZCAS). 1 ♀ “西藏波密县通麦镇 [= Tongmai Town, Bomi County] | 通麦大桥 [= Tongmai Bridge] 2001 m | 2017.VII.30 | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || 30.0964°N (灯诱) [= light trap] | 95.0660°E | 梁红斌 赵凯东 [= leg. Hongbin Liang & Kaidong Zhao] | 中科院动物所 [= Institute of Zoology, Chinese Academy of Sciences] || IOZ(E) 2715044 ||” (IZCAS).

Description of specimen IOZ(E) 2715045 (Fig. 7A–H). Length 11.8 mm, greatest width 6.8 mm; body shape ovoid, convex.

Color. Body reddish-brown with weak metallic green sheen; hind tibiae and all tarsi dark brown with metallic green sheen (Fig. 7A–C).

Head. Clypeus subtrapezoidal, approximately 2.3 times wider than long, densely, partly merged rugopunctate, anterior corners broadly rounded; anterior margin strongly reflexed; frontoclypeal suture curved backward weakly and irregularly widen in the middle; frons and vertex densely rugopunctate; ratio interocular width/width of head approximately 0.6; antennal club slightly longer than antennomeres 2–6 combined (Fig. 7D).

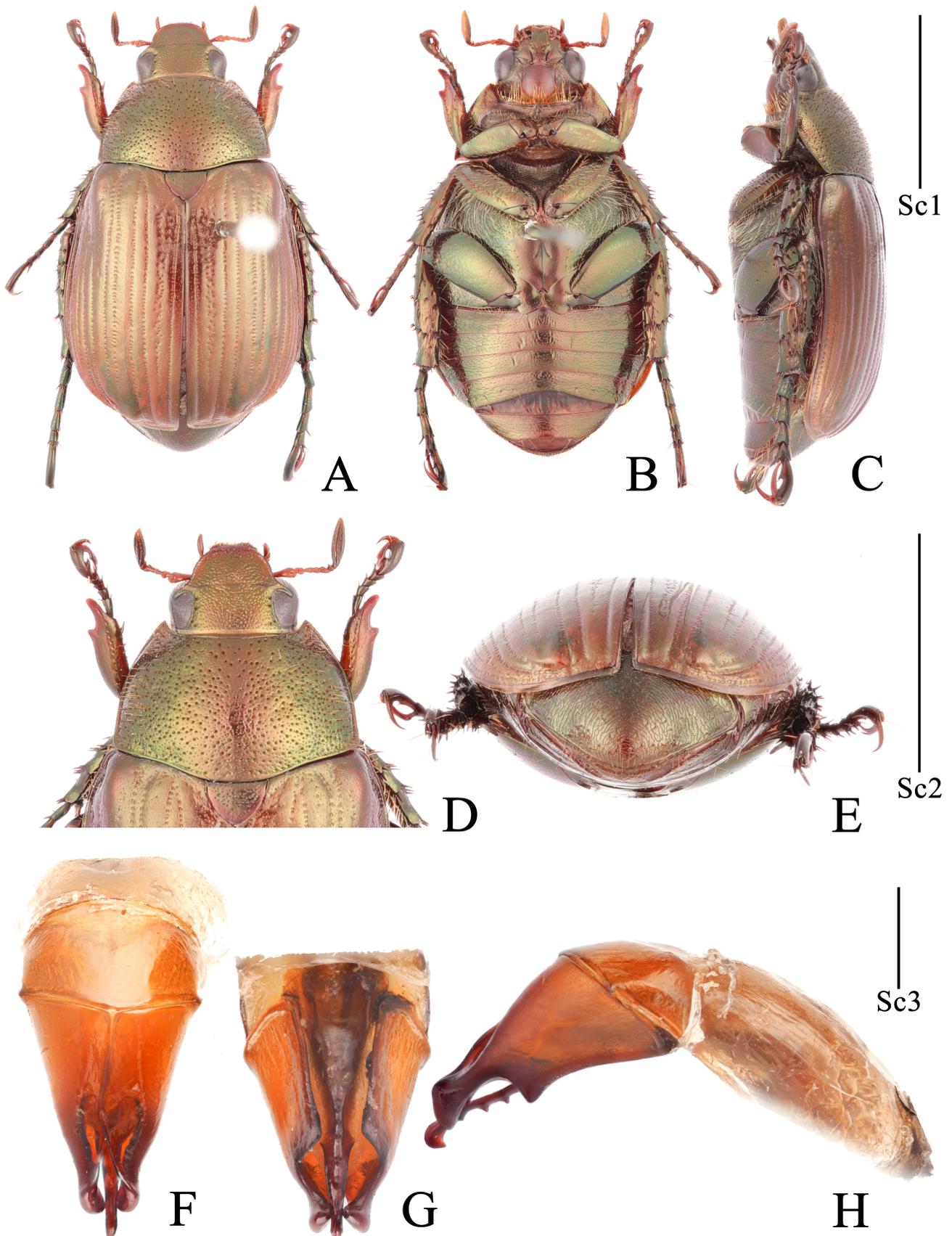


FIGURE 7. *Anomala pemako* Zhao, 2025. ♂ **A–C.** Habitus. **A.** Dorsal view. **B.** Ventral view. **C.** Left lateral view. **D.** Head and pronotum. **E.** Propygidium and pygidium. **F–H.** Aedeagus. **F.** Dorsal view. **G.** Ventral view. **H.** Right lateral view. Sc. 1: scale for A–C = 5 mm. Sc. 2: scale for D–E = 5 mm. Sc. 3: scale for F–H = 1 mm.

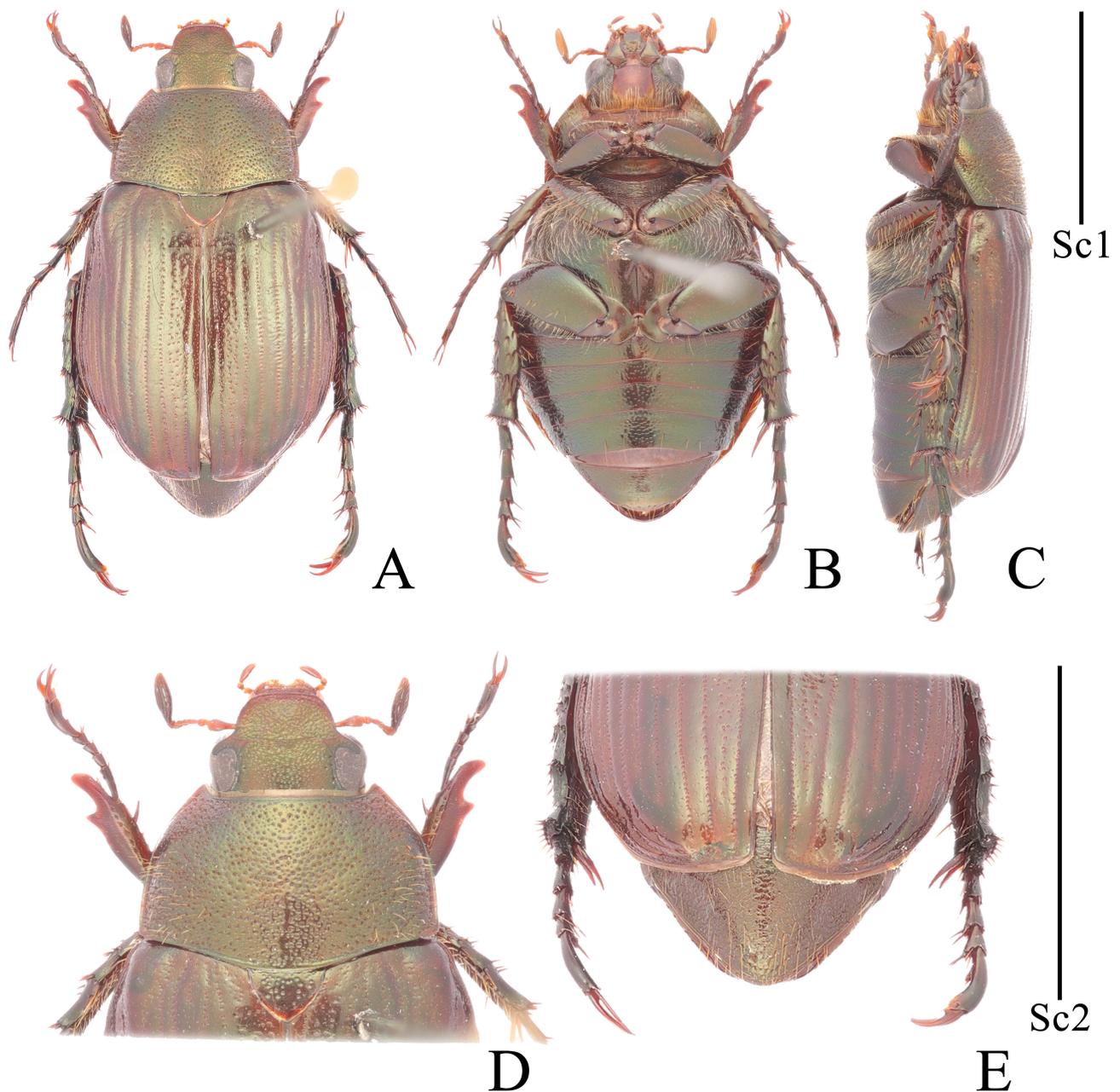


FIGURE 8. *Anomala pemako* Zhao, 2025. ♀ **A–C.** Habitus. **A.** Dorsal view. **B.** Ventral view. **C.** Left lateral view. **D.** Head and pronotum. **E.** Propygidium and pygidium. Sc. 1: scale for A–C = 5 mm. Sc. 2: scale for D, E = 5 mm.

Pronotum. Approximately 1.8 times as wide as long; surface covered with long, yellowish, moderately dense setae; disc densely punctate, surface with additional distinct finely micropunctures; lateral margin of pronotum distinctly converging anteriorly in middle, slightly curved concave in anterior half, and nearly straight in posterior half; posterior corners obtuse; basal marginal line interrupted in front of scutellum (Fig. 7A, D).

Scutellum. Nearly semicircular, width 1.5 times length, moderately coarse, densely punctate (Fig. 7A).

Elytra. Regularly striate; costal intervals and interstices moderately convex; striae punctures distinct; subsutural interstice 2 with densely distributed in middle, large, striated punctures; elytral surface with micropunctuation; humeral umbone and apical protuberance prominent; epipleuron broad, broad start behind humerus, ending behind elytral posterior three-fourths; posterior margins rounded; marginal membrane complete (Fig. 7A).

Pygidium. Strongly convex; apex broadly rounded; densely punctate-imbricate, transversely confluent; lateral sides and apex with several long, erect yellow setae (Fig. 7E).

Ventral thorax. Metasternal sides densely clothed with soft yellow setae (Fig. 7B).

Abdominal ventrites. Center of ventrites 2–5 with large punctures, sides of ventrites 2–5 and surface of ventrite 6 with coalescently, transverse punctate; ventrites 1–4 carinate laterally (Fig. 7B, C).

Legs. Mesofemur with two bands of long yellow setae (one along anterior margin, another on transverse row of punctures parallel to posterior margin) and middle part with densely distributed, irregularly striated, long yellow setae; metafemur with several long yellow setae near posterior margin. Protibia bidentate, broadened; proximal tooth short, situated close to rather short, moderately outwards curved apical tooth; inner spur short, articulated in opposite to proximal tooth. Protarsomeres 1–4 moderately compressed, length/width ratio 4.9, protarsomere 5 (without claws) widened, concave in inner side; inner protarsal claw strongly widened and deeply incised apically, lower margin with right-angled angle basally, upper branch spiniform; outer mesotarsal claw long, curved, deeply incised at apex, upper branch spiniform; metatarsal claws unequal, outer claw longer than inner (Fig. 7A–D).

Aedeagus. Parameres symmetric, outer side slightly curved and relatively long, inner side curved and weakly notched near posterior third, apex broadly rounded; basal piece developed and narrow, longer than parameres, curved downward in lateral view, with several small denticles along ventral side (Fig. 7F–H).

Morphological variability. Male and female. Body length 10.6–11.8 mm, body width 5.6–6.7 mm. Body coloration reddish brown or slightly dark brown; scutellum glabrous or with 1–3 yellow setae. Male. shape of parameres very consistent.

Female. Epipleuron in elytra broader than male; protibia slender, apical tooth of protibia long and spatulate; protarsus articulated slightly basally of level of proximal tooth; inner spur long, articulated between 1/2 and 2/3 of tibial length; protarsus very slender, protarsomere 5 (without claws) shorter than tarsomeres 1–4 combined; modified claws of pro- and mesotarsus shorter, two apical branches more equal than in males (Fig. 8A–E).

Differential diagnosis. This species is different from the two similar species *A. cinderella* Arrow, 1917 and *A. liuhaoyii* by the characters of smaller size of body (less than 12 mm) and narrower basal piece of aedeagus. An additional difference from *A. liuhaoyii* is to be found in the subsutural interstice 2 of elytra with punctures densely distributed in the middle, large, striated, not irregular. This species is quite similar to *A. piliscutella* due to the size of the body and habitus, but can be diagnosed from it by the characters of lateral margin of pronotum distinctly converging anteriad closer to the middle, scutellum normally glabrous without setae, and basal piece of aedeagus longer than parameres and denticulate on its ventral side.

Distribution. This species has been recorded only from Xizang (Fig. 9).

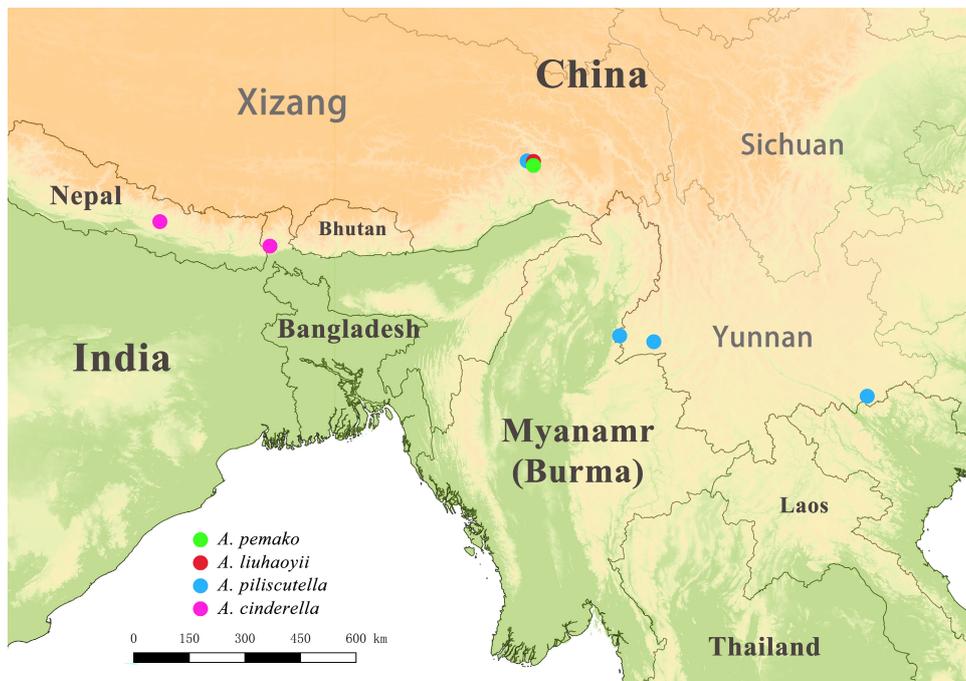


FIGURE 9. Sketch map of South-east Asia with marked distribution of four *Anomala* species.

TABLE 1. List of know localities of the discussed *Anomala* species, with geographic coordinates and altitude.

Species	Country	Locality	N	E	Altitude
<i>A. cinderella</i>	India	Darjeeling, Gopaldhara	27°2'30"	88°15'47"	1920 m
<i>A. cinderella</i>	Nepal	Kathmandu Valley, Godavari	27°42'14.22"	85°18'30.89"	1600–1800 m
<i>A. liuhaoyii</i>	China	Xizang, Mêdog County	29°19'54.84"	95°20'22.92"	1005 m
<i>A. piliscutella</i>	China	Xizang, Mêdog County	29°20'35.16"	95°10'12"	799 m
<i>A. piliscutella</i>	China	Sichuan ?? (Lin 1988)	/	/	/
<i>A. piliscutella</i>	China	Yunnan, Maguan County *	22°58'47"	104°18'7"	1500 m
<i>A. piliscutella</i>	China	Yunnan, Yingjiang County, Tongbiguan Town*	24°36'51"	97°39'16"	1000 m
<i>A. piliscutella</i>	China	Yunnan, Luxi City (= Mangshi)*	24°27'11"	98°34'13"	1470 m
<i>A. pemako</i>	China	Xizang, Mêdog County	29°13'18.84"	95°20'22.92"	1005 m

*Locality records from Lin's handwritten notebook

Key to the four discussed species from *Anomala*

- 1 Pronotum subquadrate, ratio width/length about 1.7; lateral margin of pronotum distinctly converging anteriorly in anterior one third; scutellum normally with more than three yellow setae; basal piece of aedeagus as long as parameres, ventral side of basal piece without denticles *A. piliscutella* Lin, 1981
- Pronotum subrectangular, ratio width/length higher than 1.8; lateral margin of pronotum distinctly converging anteriorly about from middle; scutellum normally glabrous; basal piece of aedeagus longer than parameres, ventral side with denticles 2
- 2 Body length less than 12 mm; basal piece of aedeagus narrow. *A. pemako* Zhao, 2025
- Body length normally larger than 12 mm; basal piece of aedeagus wide 3
- 3 Shape of body slightly elongate ovoid, posterior half of elytra slightly broader than anterior half; basal piece of aedeagus slightly curved downward in lateral view *A. cinderella* Arrow, 1917
- Shape of body ovoid, posterior half of elytra markedly broader than anterior half; basal piece of aedeagus slightly curved upward in lateral view *A. liuhaoyii* Zhao, 2025

Melanopopillia Lin, 1980

Melanopopillia guangxiensis sp. nov.

(Figs 10, 11)

Type material (5 exx.). **HOLOTYPE** (Figs 10, 11): **CHINA:** ♂ “China, Guangxi, Guilin | Longsheng Huaping Nature Reserve || 750m; 2011.VI.7 D | Huang Xinlei Collector. | Inst. of Zoology, CAS | 广西龙胜花坪保护区 [Guangxi, Longsheng, Huaping Nature Reserve] || IOZ(E) 2080033 ||” (IZCAS).

PARATYPES: **CHINA:** 2 ♂♂, 2 ♀♀, same data as in holotype (2 ♂♂: IOZ(E) 2080216, IOZ(E) 2080217; 2 ♀♀: IOZ(E) 2080218, IOZ(E) 2080219) (IZCAS).

Description of holotype (Fig. 10). Length 12.5 mm, greatest width 7.4 mm; Body shape elongate ovoid, weakly convex.

Color. Body black with strong metallic luster; tibiae and the end of tarsi brown.

Head. Clypeus subrectangular, approximately 2.1 times wider than long; disc very densely, transversely and confluent punctate, anterior corners rounded; anterior margin weakly reflexed; frons very shallowly impressed medially, densely punctate; vertex sparsely punctate; ratio of interocular width/width of head approximately 0.66; antennal club as long as antennomeres 2–6 combined.

Pronotum. Approximately 1.6 times as wide as long; disc densely punctate, punctures slightly becoming larger and denser laterally, partly confluent; anterior angles subrectangular; posterior angles obtuse; lateral margin of pronotum converging anteriorly in the middle, slightly curved; without basal marginal line; all other marginal lines complete.

Scutellum. Nearly semicircular, width 1.7 times the length, finely and densely punctate.

Elytra. Disc near scutellum with strong impressions; regularly striate; costal intervals more convex than interstices; stria punctures distinct; subsutural interstice with 2 to 4 vague secondary striae being irregularly anteriorly and some of them disappearing in posterior third; vague duplicated secondary striae also present in interstices 2 and

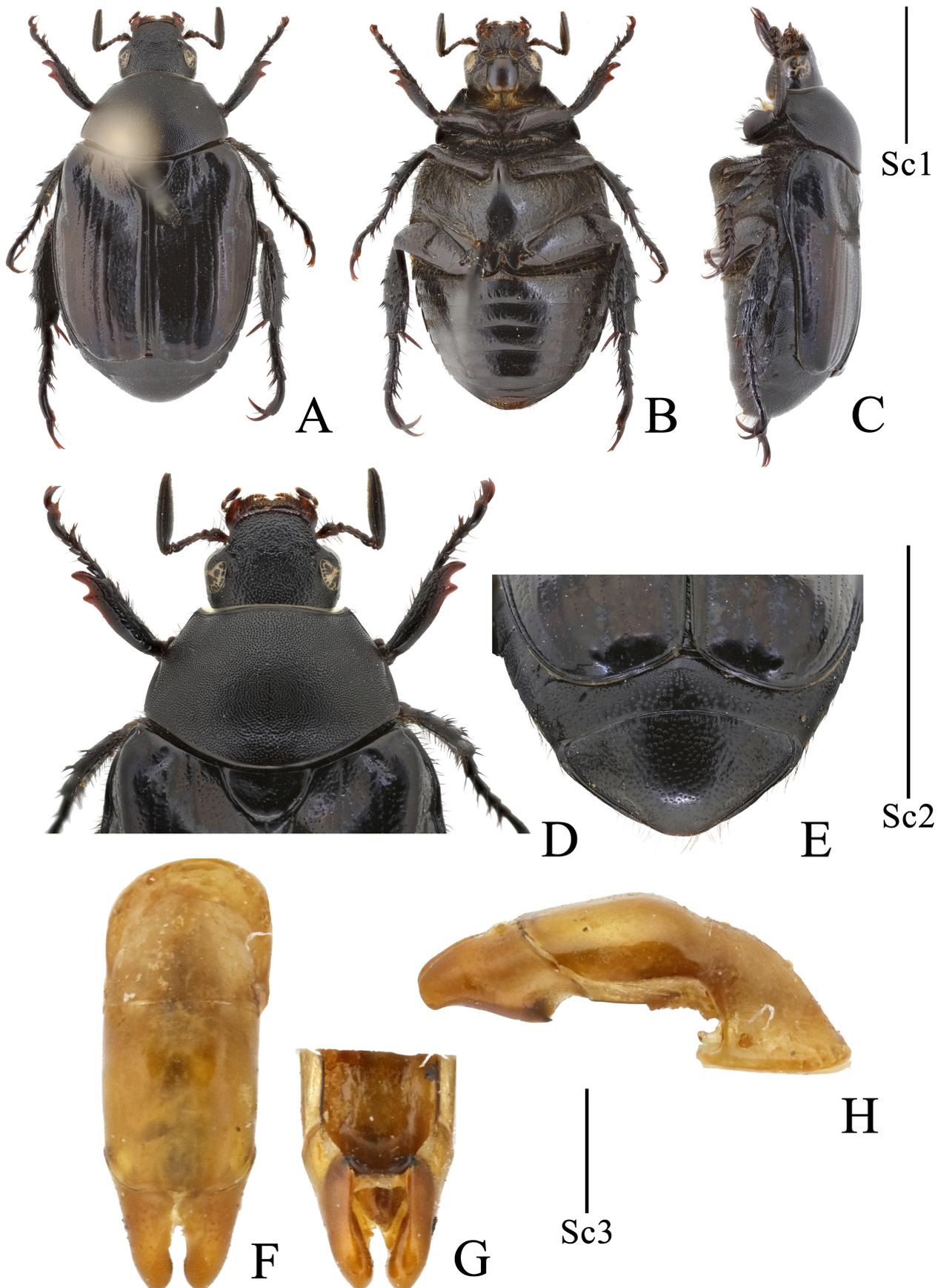


FIGURE 10. Holotype of *Melanopopillia guangxiensis* sp. nov. ♂ A–C. Habitus. A. Dorsal view. B. Ventral view. C. Left lateral view. D. Head and pronotum. E. Propygidium and pygidium. F–H. Aedeagus. F. Dorsal view. G. Ventral view. H. Right lateral view. Sc. 1: scale for A–C = 5 mm. Sc. 2: scale for D–E = 5 mm. Sc. 3: scale for F–H = 1 mm.

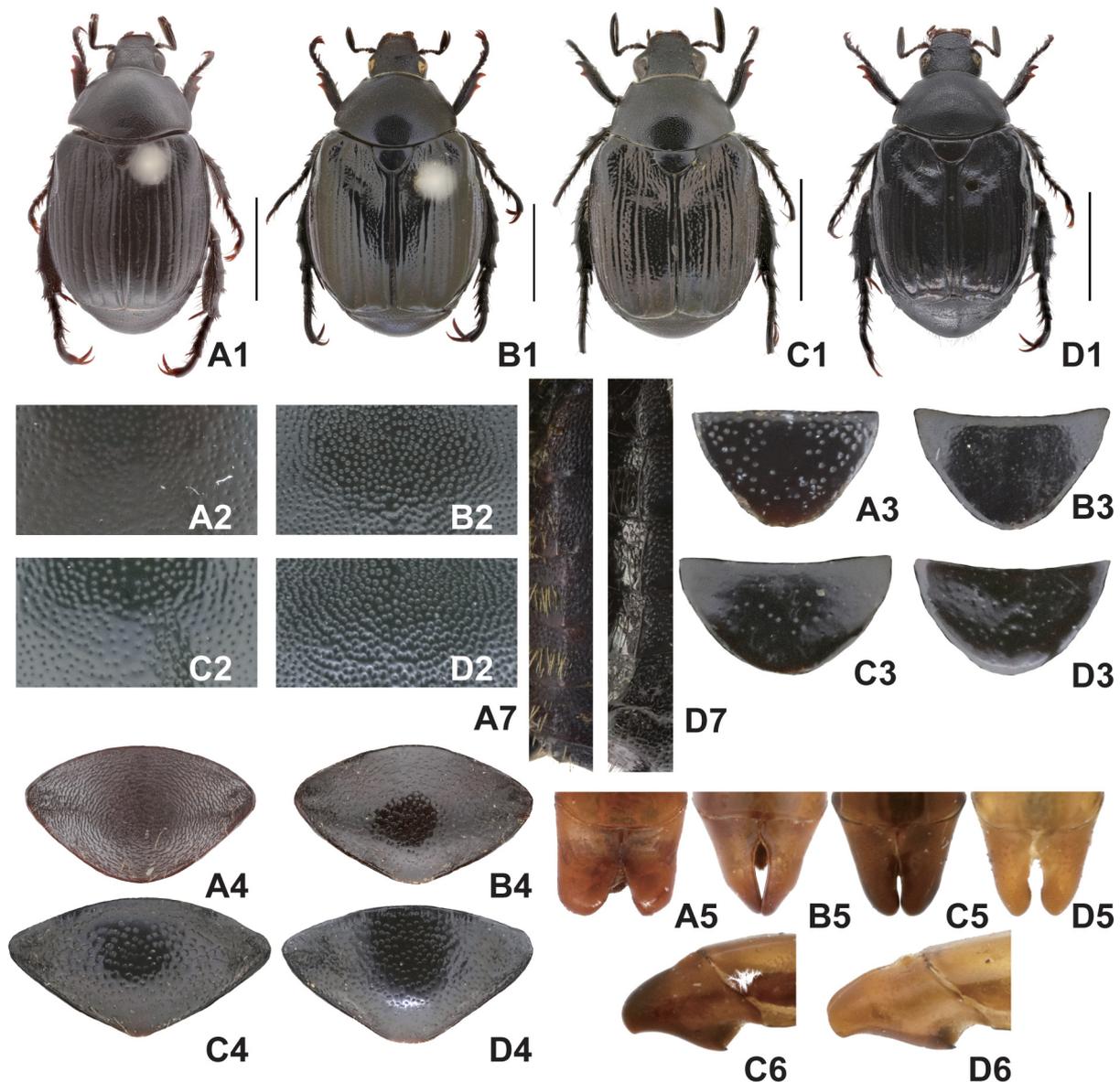


FIGURE 11. **A.** *Melanopopillia praefica* (Machatschke, 1971). **B.** *Melanopopillia dinghuensis* Lin, 1980. **C.** *Melanopopillia hainanensis* Lin, 1980. **D.** *Melanopopillia guangxiensis* sp. nov. **1:** Dorsal view. **2:** Disc of pronotum. **3:** Scutellum. **4:** Pygidium. **5:** Dorsal view of parameres. **6:** Right lateral view of parameres. **7:** Lateral view of abdominal ventrites. Scale for A1–D1 = 5 mm.

3; elytral surface with sparse micropunctuation; humeral umbone and apical protuberance prominent; lateral margin with moderately wide flat paramarginal extension between humerus and middle of elytron; posterior margin evenly rounded.

Propygidium. Glabrous.

Pygidium. Weakly convex; apex broadly rounded; punctuation dense, transverse; apex with several long, erect brownish setae.

Ventral thorax. Thoracic surface densely covered with soft, long, brown setae. Meso-metaventral process short, compressed between mesocoxae, projecting slightly downwards in lateral view, anteriorly vertical and straight; apex subcircular; bulbiform in ventral view.

Abdominal ventrites. Center of ventrites 2–5 with transverse band of sparse, long, white setae in posterior half (broadly interrupted in middle); ventrites 1–5 carinate laterally.

Legs. Meso- and metafemur with several irregular bands of long brown setae. Protibia bidentate, broadened; proximal tooth short, situated close to the rather short, curved apical tooth; inner spur short, at level of space between proximal and apical tooth. Metatibia strongly fusiform; protarsus slightly thickened; protarsomere 5 (without claws) slightly shorter than tarsomeres 2–4 combined; inner protarsal claw approximately 2/3 as long as protarsomere 5, deeply incised apically, upper branch spiniform, lower branch rectangular; outer mesotarsal claw as long as mesotarsomere 5, incised at apex, upper branch spiniform; metatarsal claws unequal, outer claw approximately twice as thick and 1/3 longer than inner claw.

Aedeagus. Parameres symmetric, gradually narrower anteriorly, tips slightly sharp in dorsal view, inwardly slightly curved in lateral view (Fig. 10F–H).

Female. Protibia slender, apical tooth of protibia long and spatulate; protarsus articulated slightly basally of level of proximal tooth; inner spur long, positioned between 1/2 and 2/3 of tibial length; modified claws of pro- and mesotarsi shorter, two apical branches more equal than in males; antennal club slightly longer than antennomeres 2–6 combined.

Measurements. Total body length 11.6–12.5 mm, total body width 7.1–7.4 mm.

Morphological variability. Punctures in head, pronotum and pygidium sparser or denser, more or less confluent with each other; abdominal ventrites 5 weakly or strongly carinate laterally. Male: shape of parameres very constant.

Differential diagnosis. Details see key.

Etymology. The specific name refers to the type locality Guangxi.

Distribution. This species is currently recorded only from Guangxi, China.

Key to species of *Melanopopillia* (s. str.)

- | | |
|---|---|
| 1 | Abdominal ventrites strongly carinate laterally (Fig. 11D7); pygidium punctate (Fig. 11B4, C4, D4) 2 |
| – | Abdominal ventrites rounded or angularly rounded laterally (Fig. 11A7); pygidium sculptured (Fig. 11 A4); parameres almost parallel, tips broad in both lateral and dorsal view (Fig. 11 A5) <i>M. praefica</i> (Machatschke, 1971) |
| 2 | Body length less than 14 mm; scutellum with large punctures (Fig. 11C3, D3); Outer costal intervals (4 to 6) more convex than interstices, partly rugose 3 |
| – | Body length more than 14 mm; scutellum with tiny punctures (Fig. 11B3); Outer costal intervals (4 to 6) slightly convex than interstices; parameres subtriangular, tips sharp, inwardly curved in lateral view (Fig. 11B5) <i>M. dinghuensis</i> Lin, 1980 |
| 3 | Antennal club distinctly longer than antennomeres 2–6 combined (Fig. 11C1); pronotum slightly densely punctate, inter-puncture distance longer than puncture diameter (Fig. 11C2); scutellum sparsely punctate (Fig. 11C4); parameres gradually narrower anteriorly, tips rounded in dorsal view, inwardly curved in lateral view (Fig. 11C5, C6) <i>M. hainanensis</i> Lin, 1980 |
| – | Antennal club as long as antennomeres 2–6 combined (Fig. 11D1); pronotum densely punctate, inter-puncture distance shorter than puncture diameter (Fig. 11D2); scutellum densely punctate (Fig. 11D4); parameres gradually narrower anteriorly, tips slightly sharp in dorsal view, inwardly slightly curved in lateral view (Fig. 11D5, D6) <i>M. guangxiensis</i> sp. nov. |

Notes: The following comments pertain to the unfortunate nomenclatural circumstances surrounding the two taxa included here during the publication process of this manuscript. While the initial submission of our paper occurred on 3 October 2025, and subsequently underwent rigorous peer review and revision, the intervening publication of a similar study (Zhao 2025) on 13 December 2025 enforced a critical reappraisal of the taxonomic status of the Mèdog material. Consequently, the two species initially proposed as new (now *A. liuhaoyii* and *A. pemako*) must be relegated to the status of junior subjective synonyms.

It is not the intent of this discussion to adjudicate the specific mechanisms by which this nomenclatural collision occurred; rather, what merits profound attention is that such a squandering of the systematist’s limited resources was inherently preventable. This waste of effort is particularly detrimental in light of the objective decline in the number of practicing taxonomists—a “taxonomic impediment” that continues to hinder our elucidation of global biodiversity. Furthermore, it is hoped that authors and editors alike will more strictly adhere to the “Code of Ethics” (Appendix A of the *International Code of Zoological Nomenclature*; ICZN 1999) fostering a more robust exchange of data. By prioritizing the investigation of unexplored lineages and avoiding redundant descriptions of the same taxa, we may more effectively promote high-quality systematic syntheses that reflect the true evolutionary history of the Insecta.

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References

- Arrow, G.J. (1917) *The Fauna of British India, Including Ceylon and Burma. Coleoptera Lamellicornia part II (Rutelinae, Desmonycinae, and Euchirinae)*. Taylor & Francis, London, 387 pp.
- Filippini, V., Mico, E. & Galante, E. (2016) Checklist and identification key of Anomalini (Coleoptera, Scarabaeidae, Rutelinae) of Costa Rica. *ZooKeys*, 621, 63–136.
<https://doi.org/10.3897/zookeys.621.7565>
- Frey, G. (1975) Neue Indische Ruteliden. *Entomologische Arbeiten aus dem Museum G. Frey*, 26, 314–315.
- Huang, Z.-H., Li, X.-X., Bai, M. & Lu, Y.-Y. (2024) Description of a new species of *Anomala* Samouelle, 1819 (Coleoptera: Scarabaeidae: Rutelinae) from the Nanling Mountains (China) and remarks on three related species. *Zootaxa*, 5528 (1), 266–282.
<https://doi.org/10.11646/zootaxa.5528.1.19>
- ICZN [International Commission on Zoological Nomenclature] (1999) *International Code of Zoological Nomenclature. 4th Edition*. International Trust for Zoological Nomenclature, London, xxix + 306 pp.
<https://doi.org/10.5962/bhl.title.50608>
- Krajčič, M. (2007) Checklist of the Scarabaeoidea of the World. 2. Rutelinae (Coleoptera: Scarabaeidae: Rutelinae). *Animma. x Supplementum*, 4, 1–139.
- Krajčič, M. (2012) Checklist of the world Scarabaeoidea. *Animma. x Supplementum*, 5, 1–278.
- Lin, P. (1980) A new genus, *Melanopopillia*, from China (Coleoptera: Rutelidae). *Entomotaxonomia*, 2, 297–301.
- Lin, P. (1981) Coleoptera: Rutelidae. In: Huang, B.-K. (Ed.), *The Series of the Comprehensive Scientific Expedition to the Qinghai-Xizang Plateau. Insects of Xizang. Vol. 1*. Science Press, Beijing, pp. 355–387.
- Lin, P. (1982) New synonyms of Rutelidae. *Entomotaxonomia*, 4, 36.
- Lin, P. (1988) Coleoptera: Rutelidae. In: Huang, F.-S., Wang, P., Yin, W.-Y., Yu, P.-Y., Lee, T.-S., Yang, C.-K. & Wang, X.-J. (Eds.), *Insects of Mt. Namjagbarwa region of Xizang*. Science Press, Beijing, pp. 249–265.
- Lu, Y.-Y., Zorn, C., Král, D., Bai, M. & Yang, X.K. (2018) Taxonomic revision of the genus *Glenopopillia* (Coleoptera: Scarabaeidae: Rutelinae). *Acta Entomologica Musei Nationalis Pragae*, 58 (2), 297–320.
<https://doi.org/10.2478/aemnp-2018-0026>
- Lu, Y.-Y., Yang, H.-D. & Bai, M. (2019a) Micro CT approach applied in taxonomy: An example on the species *Melanopopillia hainanensis* (Coleoptera: Scarabaeidae). *Zoological Systematics*, 44 (4), 294–303.
<https://doi.org/10.11865/zs.201928>
- Lu, Y.-Y., Zorn, C., Král, D. & Bai, M. (2019b) Description of *Callistethus hamus* sp. nov. (Coleoptera, Scarabaeidae, Rutelinae) from continental Southeast Asia using synchrotron to illustrate the aedeagus. *ZooKeys*, 881, 1–11.
<https://doi.org/10.3897/zookeys.881.34821>
- Lu, Y.-Y., Ding, Q., Yang, X.-K. & Bai, M. (2023) Advances in taxonomy of Chinese Rutelinae. *Journal of Environmental Entomology*, 45 (3), 611–619.
<https://doi.org/10.3969/j.issn.1674-0858.2023.03.6>
- Machatschke, J.W. (1957) *Coleoptera Lamellicornia fam. Scarabaeidae subfam. Rutelinae. Tribus Anomalini. Genera insectorum*, 199b, 1–219.
- Machatschke, J.W. (1971) *Callistethus praefica* n sp eine neue Rutelinae aus Fukien (Sud-China). *Entomologische Arbeiten Aus Dem Museum G.Frey*, 22, 198–201.
- Machatschke, J.W. (1972) *Coleopterorum catalogus supplementa. Pars 66. Fascicle 1. Superfamilie Scarabaeoidea, Familie Melolonthidae, Subfamilie Rutelinae. Editio Secunda*. Dr. W. Junk, Gravenhage, 361 pp.
- Prokofiev, A.M. (2022) The genus *Melanopopillia* Lin, 1980 in Indochina. *Caucasian Entomological Bulletin*, 18 (2), 179–186.

<https://doi.org/10.23885/181433262022182-179186>

Yao, T., Wang, W., An, B., Piao, S. & Chen, F. (2022) The scientific expedition and research activities on the Tibetan Plateau in 1949–2017. *Acta Geographica Sinica*, 77 (7), 1586–1602.

<https://doi.org/10.11821/dlxb202207002>

Zhang, D. & Zhang, L. (2019) Tandong Yao: The second Tibetan Plateau scientific expedition and research. *Chinese Science Bulletin*, 64 (27), 2765–2769.

<https://doi.org/10.1360/TB-2019-0267>

Zhao, M.Z. (2025) A revision of the *Anomala cinderella* species group (Coleoptera: Scarabaeidae: Rutelinae). *The Indochina Entomologist*, 1 (91), 909–928.

<https://doi.org/10.70590/ice.2025.01.91>

Zorn, C. (2004) Taxonomical acts initiated during the preparation of the part of Rutelinae, tribe Anomalini (Coleoptera: Scarabaeidae) of the “Catalogue of Palaearctic Coleoptera”. *Acta Societatis Zoologicae Bohemicae*, 68, 301–328.

Zorn, C. (2006) Subfamily Rutelinae, tribe Anomalini C. E. Blanchard, 1851. In: Löbl, I. & Smetana, A. (Eds.), *Catalogue of Palaearctic Coleoptera. Vol. 3. Scarabaeoidea – Scirtoidea – Dascilloidea – Buprestoidea – Byrrhoidea*. Apollo Books, Stenstrup, pp. 276–277.

Zorn, C. & Bezděk, A. (2016) Subfamily Rutelinae. In: Löbl, I. & Löbl, D. (Eds.), *Catalogue of Palaearctic Coleoptera. Vol. 3. Scarabaeoidea, Scirtoidea, Dascilloidea, Buprestoidea, Byrrhoidea. Revised and Updated Edition*. Brill, Leiden, pp. 317–358.

西藏墨脱异丽金龟属 *Anomala* 四种评述及广西黑丽金龟属 *Melanopopillia* 一新种 (鞘翅目：金龟科：丽金龟亚科)

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摘要: 讨论了西藏墨脱和周边喜马拉雅地区四种异丽金龟属 *Anomala* 物种: 半毛异丽金龟 *A. cinderella*、毛盾异丽金龟 *A. piliscutella*、吴祎异丽金龟 *A. liuhaoyii* 和墨脱异丽金龟 *A. pemako*; 四种具以下共同特征: 体红褐色及前胸背板表面被黄色长毛; 讨论了这些近缘种的区别特征并提供特征照片、检索表和分布图。还描述广西黑丽金龟属 *Melanopopillia* 一新种, 即广西黑丽金龟 *M. guangxiensis* **sp. nov.**。

关键词: 分类学; 检索表; 广西黑丽金龟;