

## Two New Species and a New Subspecies of the Genus *Callistethus* (Coleoptera, Scarabaeidae, Rutelinae) from Sulawesi

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**Abstract** Two new species and a new subspecies of the ruteline genus *Callistethus* are described from Sulawesi under the names *C. masayukii* sp. nov., *C. daruma* sp. nov. and *C. riedeli selatanensis* subsp. nov.

In 1998, I described four new species of the genus *Callistethus* BLANCHARD from Sulawesi. Since then, I have had an opportunity of examining three remarkable forms belonging to the *riedeli* group through the courtesy of Mr. Masayuki FUJIOKA. After a detailed study, I have concluded that the three should be new to science. One of them is similar to *Callistethus riedeli* LANSBERGE, 1880, and another is closely related to *C. sulawesiensis* WADA, 1998. They seem to be morphologically differentiated at the species level. The other is closely related to *C. riedeli* LANSBERGE, 1880, and possesses characteristics similar to those of the latter, e.g., shape of the clypeus, male genitalia and female gonocoxites. In spite of such similarities, they are obviously different in coloration. Therefore, I prefer to regard this form to be a subspecies of *C. riedeli* LANSBERGE, 1880. In this article, I am going to describe them under the names *C. masayukii* sp. nov., *C. daruma* sp. nov. and *C. riedeli selatanensis* subsp. nov.

Before going further, I wish to express my cordial appreciation to Dr. Kimio MASUMOTO of Otsuma Women's University, Tokyo, for his constant encouragement of my entomological study. Deep indebtedness should be expressed to Dr. Roger-Paul DECHAMBRE of the Muséum National d'Histoire Naturelle, Paris, and Dr. Dirk AHRENS of the Staatliches Museum für Tierkunde, Dresden, for the loan of types under their care. Finally, I thank Mr. Masayuki FUJIOKA, Tokyo, for providing me with the invaluable materials. The holotypes will be preserved in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

### *Callistethus masayukii* sp. nov.

(Figs. 1, 4)

Body length: 15.8–17.7 mm, width: 8.9–10.1 mm.

Head except clypeus, pronotum except lateral margins, elytra and pygidium ex-

cept apical areas yellowish green, antennae, clypeus, lateral margins of pronotum, apical area of pygidium, ventral surface except abdominal sternites and legs orange to reddish brown; dorsal surface with metallic lustre, ventral surface and legs with rather weak lustre.

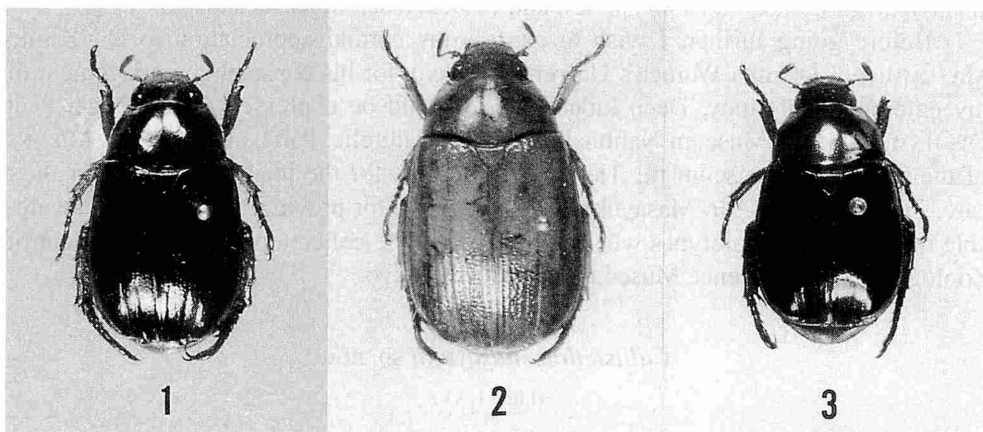
Head microsulptured, with erect orange setae (0.32–0.65 mm in length) along eyes; clypeus weakly emarginate, 2.4–2.7 times as wide as long, reflexed along margin, reticulately rugoso-punctate; frons irregularly punctate in middle, the punctures becoming larger laterad, smaller and sparser towards vertex.

Pronotum 1.6–1.7 times as wide as long, narrowed apicad in apical 2/5, parallel-sided in basal 3/5; front angles projected and acute, hind angles obtuse; disc irregularly scattered with small punctures in middle, which become denser and larger laterad, larger and partly coalescent antero-laterad; lateral margins clothed with erect yellow setae (0.6–1.1 mm in length), with rims extending to hind angles. Scutellum irregularly punctate in antero-lateral portions.

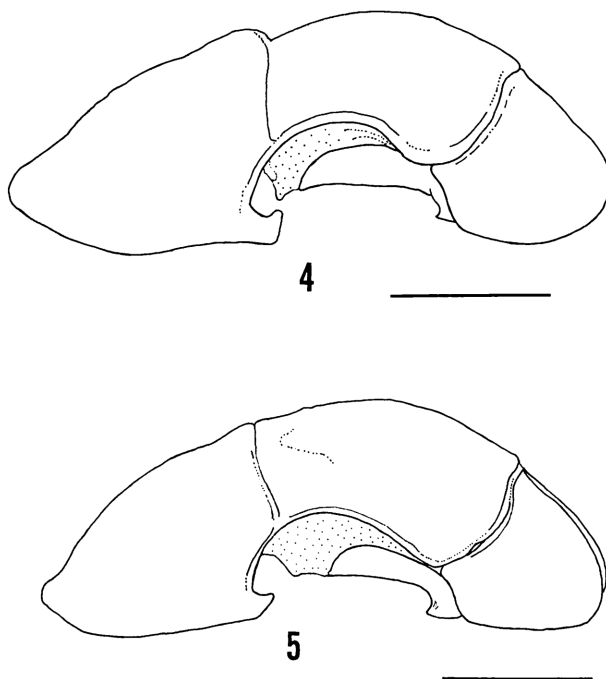
Elytra with 11 rows of round punctures; 1st interval irregularly scattered with round punctures, 3rd and 4th sparsely so; sides weakly widened in anterior half, narrowed posteriad in posterior half; distal margins slightly rounded; lateral margins with rims thickened in basal 2/5, becoming thinner in apical 3/5, and disappearing at hind corners; marginal membrane narrow, starting from basal 1/4, and extending to apices.

Pygidium with erect yellowish brown setae (0.5–0.92 mm in length) in apical and apico-lateral portions; disc closely punctate, the punctures large, elliptical to elongate, and partly coalescent in lateral portions; outer margins rimmed, nearly straight in lateral sides, widely rounded at apex.

Metasternum sparsely punctate in middle, the punctures dense and setigerous in lateral portions, each with a suberect yellow seta (0.38–1.1 mm in length); mesosternal



Figs. 1–3. Habitus of *Callistethus* spp. — 1, *C. masayukii* sp. nov., holotype, ♂; 2, *C. daruma* sp. nov., holotype, ♂; 3, *C. riedeli selatanensis* subsp. nov., holotype, ♂.



Figs. 4–5. Male genitalia (scale: 1 mm). — 4, *Callistethus masayukii* sp. nov., lateral view; 5, *C. daruma* sp. nov., lateral view.

process projected, extending to the level of procoxae, slightly bent downwards, with acute apex in lateral view.

Abdominal sternites irregularly punctate in middle, the punctures elongate to crescent-shaped, becoming denser laterad, each with a transverse row of appressed yellow setae (0.5–0.83 mm in length).

Protibiae bidentate, apico-external denticle obtuse and slightly rounded in male; inner claw of fore leg and outer claw of middle leg apically incised, forming two branches, outer claw of fore leg and inner claws of middle and hind legs simple and acuminate.

Holotype: ♂, near Sampuraga, south of Lake Poso, Central Sulawesi, XII–1994, native collector. Paratypes: 6♂♂, same data as for the holotype.

*Notes.* This species is closely related to *Callistethus riedeli* LANSBERGE, 1880, but can be distinguished from the latter by the clypeus broadly truncate and by different coloration, *e.g.*, the dorsal surface yellowish green, the lateral margins of pronotum and the legs orange to reddish brown.

*Callistethus daruma* sp. nov.

(Figs. 2, 5)

Body length: 17.3–19.7 mm, width: 10.5–11.1 mm.

Dorsal surface pale yellowish brown, pronotum sometimes with a few vague reddish brown patches in middle and lateral portions; legs and ventral surface except abdominal sternites yellowish brown, abdominal sternites reddish brown; dorsal surface and legs with rather weak lustre, ventral surface except abdominal sternites with weak lustre, abdominal sternites with vitreous lustre.

Clypeus broadly truncate, rounded at apical corners, 2.2–2.4 times as wide as long, reflexed along margin, closely punctate, the punctures shallow and partly coalescent in lateral and marginal portions; frons irregularly punctate, the punctures becoming closer laterad, smaller and sparser towards vertex, with a few suberect yellowish brown setae (0.32–0.7 mm in length) along eyes.

Pronotum 1.7–1.9 times as wide as long, narrowed apicad in apical 1/3, subparallel-sided in basal 2/3; front angles projected, hind angles obtuse; disc with a pair of round impressions at the middle of lateral portions, irregularly scattered with round punctures, which become larger laterad, with decumbent yellow setae (0.37–0.95 mm in length) along lateral margins; lateral margins with rims extending onto hind margin opposite to 2nd elytral stria. Scutellum sparsely scattered with small punctures.

Elytra with 11 rows of punctures, 1st interval irregularly scattered with round punctures, the remaining intervals sparsely scattered with small punctures; sides weakly widened in basal 2/3, then narrowed posteriad, distal margins slightly rounded; lateral margins with rims thickened in basal 1/4, becoming thinner posteriad and disappearing at hind corners; marginal membrane starting from the level of posterial corner of metasternum and extending to apices.

Pygidium with long erect yellowish brown setae (0.85–1.0 mm in length) in lateral to apical portions; disc irregularly scattered with crescent-shaped punctures, vaguely depressed at the middle on each side; outer margins rimmed, slightly sinuate in lateral sides, weakly truncate at apex.

Metasternum scattered with punctures, those in middle small and sparse, becoming larger and denser laterad, and those in lateral portions setigerous, each puncture with a decumbent yellow seta (0.60–0.75 mm in length); mesosternal process projected, extending to the level of procoxae, slightly compressed, rounded at apex in lateral view.

Abdominal sternites with a transverse row of decumbent reddish yellow setae (0.25–0.38 mm in length); disc irregularly punctate, the punctures somewhat elongate in middle, and becoming larger laterad.

Protibiae bidentate, apico-external denticle acute, inner claw of fore leg and outer claw of middle leg apically incised, forming two branches, the other claws simple and acuminate.

Holotype: ♂, near Sampuraga, south of Lake Poso, Central Sulawesi, XII–1994,

native collector. Paratypes: 5 ♂♂, same data as for the holotype.

*Notes.* This species is closely related to *Callistethus sulawesiensis* WADA, 1998, but can be distinguished from the latter by the clypeus broadly truncate, the pronotum with denser punctures, and the mesosternal process compressed.

*Callistethus riedeli selatanensis* subsp. nov.

(Fig. 3)

Body length: 16.4–20.6 mm, width: 9.0–11.1 mm.

Dorsal surface except pygidium deep green to reddish green with strong metallic lustre, ventral surface, pygidium and femora deep green to reddish brown with metallic lustre, tibiae and tarsi reddish brown to black with rather weak lustre.

Head with suberect reddish brown setae (0.27–0.48 mm in length) at the base of eye-canthus; clypeus broadly truncate, 2.1–2.3 times as wide as long, reflexed along margin, reticulate rugulose except posterior part, which is irregularly scattered with small punctures; frons irregularly punctate in middle, the punctures round, becoming somewhat larger and sparser laterad, smaller and sparser towards vertex.

Pronotum 1.51–1.56 times as wide as long, narrowed apicad in apical half, almost parallel-sided in basal half; front angles acute, hind angles obtuse; disc irregularly scattered with round punctures, which become smaller towards medio-basal portion and denser and larger laterad, with suberect yellow setae (0.45–0.83 mm in length) along lateral margins; lateral margins with rims extending to hind angles. Scutellum sparsely scattered with round punctures, which are intermixed with extremely small punctures (visible under 40×).

Elytra with 11 rows of round punctures; intervals scattered with extremely small punctures (visible under 40×); sides weakly widened towards the middle and widest at the middle, then narrowed posteriad; distal margins widely rounded; lateral margins with rims thickened in basal halves, then becoming thinner apicad and disappearing at hind corners; marginal membrane narrow, starting from basal 1/4 and extending to apices.

Pygidium with erect yellowish brown setae (0.40–0.78 mm in length) in apical and antero-lateral portions; disc irregularly scattered with elongate punctures, those in marginal portions rather elongate and partly coalescent; outer margins rimmed, nearly straight laterad, widely rounded at apex.

Metasternum sparsely scattered with extremely small punctures in middle, those in lateral portions large, sparsely furnished with suberect reddish brown setae (0.20–0.30 mm in length) in apical halves of lateral portions; mesosternal process projected, extending to the level of procoxae, widely rounded at apex in lateral view.

Abdominal sternites irregularly punctate, the punctures small and elongate in middle, becoming larger laterad, with a transverse row of suberect yellow setae (0.27–0.38 mm in length).

Holotype: ♂, Pulu Pulu, Central Sulawesi, XI–1997, native collector. Allotype: ♀,

same data as for the holotype. Paratypes: 4♂♂, 2♀♀, same data as for the holotype; 1♀, Puncak Palopo, Sulawesi, III-1989, native collector; 1♂, Puncak Palopo, Sulawesi, XI-1993, native collector; 1♀, Sapalla Keang, southern Sulawesi, 13-VIII-1992, N. KASHIWAI leg.

*Notes.* This new subspecies is quite similar to *Callistethus riedeli riedeli* LANSBERGE, 1880 from northern Sulawesi, but can be distinguished from the latter by the pronotum wholly unicolorous, and the metasternum sparsely furnished with suberect reddish brown setae in apical halves of lateral portions.

### 要 約

和田 薫：スラウェシ島から発見された*Callistethus*属コガネムシの2新種1新亜種。——*Callistethus*属のコガネムシ、*C. masayukii* sp. nov., *C. daruma* sp. nov., *C. riedeli selatanensis* subsp. nov. をスラウェシ島から記載した。これらの種は中胸突起が鋭く突出することから、*riedeli*群に含まれる種である。*C. masayukii* sp. nov. は*C. riedeli* LANSBERGE, 1880に近縁の種であるが、幅広い頭盾、より明るい色彩や雄交尾器の形態等の違いから区別は容易である。*C. daruma* sp. nov. は*C. sulawesensis* WADA, 1998によく似た種であるが、頭盾や雄交尾器の形態などから区別は容易である。*C. riedeli selatanensis* subsp. nov. は*C. riedeli riedeli* LANSBERGE, 1880によく似ているが、頭盾や前胸背板の色彩が均一であることから容易に区別できる。

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