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A redefinition of *Gauromaia* Pascoe, 1866 (Coleoptera: Tenebrionidae: Stenochiinae)

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Abstract

Gauromaia dives Pascoe, 1866, type species of the genus, is redescribed; *Celebesa* Pic, 1921, hitherto a genus in Cnodalonini Oken, 1843, is downgraded in rank to a subgenus of *Gauromaia* Pascoe, 1866. The subgeneric rank is confirmed for *Gauromaia* (*Falsogauromaia* Pic, 1921). The following new combinations are proposed: *G.* (*Celebesa*) *elongata* (Pic, 1921) **comb. nov.**, *G.* (*C.*) *impressa* (Pic, 1923) **comb. nov.**, *G.* (*C.*) *latipennis* (Pic, 1921) **comb. nov.**, *G.* (*C.*) *striata* (Pic, 1923) **comb. nov.**, and the synonym *Celebesa purpurea* (Pic, 1921) **syn. nov.** is introduced for *Gauromaia* (*Celebesa*) *angustior* (Pic, 1921) **comb. nov.** Lectotype designations are made for five species: *Gauromaia dives*, *Gauromaia* (*Celebesa*) *angustior*, *Gauromaia* (*Celebesa*) *purpurea*, *Gauromaia* (*Celebesa*) *elongata*, and *Gauromaia* (*Falsogauromaia*) *annulipes* Pic, 1921. An annotated checklist of *Gauromaia* species, a key to its subgenera, and a key to the species of the subgenus *Celebesa* are presented for the first time. New faunistic records of *Gauromaia* (*Celebesa*) and *G.* (*Falsogauromaia*) are provided.

Key words: *Celebesa*, checklist, *Falsogauromaia*, key, synonymy, redescriptions, taxonomy, Sulawesi, Wallacea

Introduction

The genus *Gauromaia* was originally erected by Pascoe (1866) to hold *G. dives* Pascoe, 1866 from the Malay Peninsula and Greater Sunda Islands of Borneo and Sumatra. Pic (1921) established the genus *Celebesa* for its type species *C. elongata* Pic, 1921 (subsequent designation by Riley (1923)) and three other taxa from Sulawesi, and *Falsogauromaia* Pic, 1921 to accommodate the Bornean *F. annulipes* Pic, 1921. The genus *Cephaleucyrtus,* erected subsequently by Pic (1923a) to include *C. viridicollis* Pic, 1923 from Nias Island, was later synonymised with *Gauromaia* (Gebien 1941). In more recent times, Ando (1987) redescribed *Falsogauromaia annulipes* and later, while presenting descriptions of a new species, *G.* (*F.*) *erotyloides* Ando, 1989, he downgraded *Falsogauromaia* to the rank of subgenus (Ando 1989).

To date, *Gauromaia* s. str. includes approximately 45 described species scattered across the entire Indo-Malaysian region and the Himalayas (Pic 1923a; Gebien 1941; Masumoto1981; Ando 1987; Ando 1989; Masumoto & Makihara 1997; Schawaller 2006; Ando 2020; Medina *et al.* 2022, 2023; Masumoto & Akita 2023; Ando & Cheong 2024) while *Celebesa* includes only those species originally ascribed to this genus and is considered restricted to the island of Sulawesi. Both groups are currently placed in the tribe Cnodalonini Oken, 1843 of the subfamily Stenochiinae W. Kirby, 1837 (Bouchard *et al.* 2021). *Gauromaia* (*Falsogauromaia*) includes three species only (Ando 1987, 1989).

After examination of the type material of the type species of *Gauromaia* and *Celebesa,* we concluded that both groups are morphologically related. The present paper is focused on the redescription and redefinition of *Gauromaia* and a rank change for *Celebesa*, which becomes a subgenus of *Gauromaia*. Subgenus *Celebesa* is

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geographically restricted to the western Wallacea (Sulawesi and adjacent islands). *Falsogauromaia* is maintained as a subgenus of *Gauromaia*. Additionally, we introduce one new species-rank synonym in the subgenus *Celebesa,* and present redescriptions of all valid taxa yet attributed to it. Lectotype designations are made for five species to maintain nomenclatural stability. A key to the subgenera of *Gauromaia* is presented for the first time. Additionally, an annotated checklist of known *Gauromaia* species and a key to the species of the subgenus *Celebesa*, as well as new faunistic records, are provided.

FIGURE 1. *Gauromaia* (s. str.) *dives* Pascoe, 1866 lectotype ♂, habitus, dorsal view.

Material and methods

All taxa are listed in alphabetical order since a phylogenetic arrangement is not yet possible. All label text is reproduced verbatim, with no corrections or additions. Labels (if more than one for the same specimen) are separated by a double slash. Authors' comments are given in square brackets.

For morphological studies, a Leica S6D binocular stereomicroscope was used. Habitus digital images were made with a Canon 5D SLR (Canon Co., Tokyo, Japan) camera mounted on a stand equipped with a Canon MP-E 65 mm macro lens (Canon Co., Tokyo, Japan). Genitalia were relaxed in KOH solution and fixed in dimethyl hydantoin formaldehyde (DMHF) for study and imaging; after the study, genitalia were mounted on a separate card on the same pin with the corresponding specimen and fixed in DMHF. Helicon Focus version 7 software was used for image stacking. Further image manipulations were performed using the GNU Image Manipulation Program (GIMP) software.

Acronyms of material repositories

BMNH—Natural History Museum (formerly British Museum, Natural History), London, United Kingdom;
DTC—Collection Dmitry Telnov, Rîga, Latvia;
MNHN—Museum national d'Histoire naturelle, Paris, France.

The type material from the MNHN was studied from images, no specimens were accessed.

Results

Morphological features common in *Gauromaia* s. str., subgenera *Celebesa* stat. nov. and *Falsogauromaia*

External morphology of the type species of their respective genera and additional material hitherto attributed to *Gauromaia*, *Celebesa*, and *Falsogauromaia* were evaluated (the new rank for *Celebesa* and new combinations for its species are made in the following subsection and mentioned here in the morphological assessment). The following morphological characters were found to be specific for each of the three taxa:

i. General appearance. Body with metallic reflection or slightly subopaque (*G. dives*, *G.* (*C.*) *elongata*) / body black and subopaque (*G.* (*F.*) *annulipes*);

ii.i. Head: tempus. Strongly bulged (*G. dives*) / not or moderately bulged (*G.* (*C.*) *elongata*) / not bulged (*G.* (*F.*) *annulipes*);

ii.ii. Head: dorsal microsculpture. Dense isodiametric microsculpture (*G. dives*, *G.* (*F.*) *annulipes*) / isodiametric microsculpture not present or indistinct (*G.* (*C.*) *elongata*) or present but not dense (*G.* (*C.*) *angustior*);

ii.iii. Mentum (Figs 2E, 3C, 5C): with deep lateral fovea on each side of the convex median portion (*G. dives*) / more or less flat, without distinct foveae (*G.* (*C.*) *elongata*, *G.* (*F.*) *annulipes*) / more or less flat with lateral foveae, impressions or deep pits (*G.* (*C.*) *angustior*, *G.* (*C.*) *latipennis*, *G.* (*C.*) *striata*) / more or less flat, irregularly rugose (*G.* (*F.*) *annulipes*);

iii.i. Pronotum: shape in dorsal view. Wider than long, sub-rectangular in dorsal view (*G. dives*, *G.* (*C.*) *elongata*) / approximately as long as wide, subcylindrical in dorsal view (*G.* (*F.*) *annulipes*);

iii.ii. Pronotum: lateral edge in dorsal view (Figs 2A, 3A, B, 5A) is fully margined, margin is visible in dorsal view (*G. dives*, *G.* (*C.*) *elongata*) / not margined, not visible in dorsal view or partially visible in the vicinity of the base of the pronotum (*G.* (*F.*) *annulipes*);

iii.iii. Pronotum: transition of pronotal disc to hypomeron (Figs 2B, 3D, 5B). Distinct: transition area strongly carinate (*G. dives*, *G.* (*C.*) *elongata*) / indistinct: transition area with weak carina (*G.* (*F.*) *annulipes*);

iv. Elytra: macrosculpture (Figs 1, 4, 6–10). Distinct rows of punctures (*G. dives*, *G.* (*F.*) *annulipes*) / distinct impunctured striae (*G.* (*C.*) *elongata*);

FIGURE 2. *Gauromaia* (s. str.) *dives* Pascoe, 1866 lectotype ♂, adult morphology. A–Dorsal forebody; B–Lateral forebody; C–Head, dorso-lateral view; D–ditto, frontolateral view; E–Mentum and labial palps, ventral view; F–Pro-, meso-, and metathorax, ventral view [not to scale].

v.i. Prothorax: prosternal intercoxal process (Figs 2F, 3E, 5D). Surpassing posterior margin of prosternum; nearly straight in lateral aspect (flattened in ventral aspect); constricted apicad (*G. dives*) / surpassing posterior margin of prosternum but not straight, step-like shaped at posterior extent of procoxal cavity in lateral view, widened apically or not (*G.* (*C.*) *elongata*) / surpassing posterior margin of procoxal cavity and prosternum (*G. dives*) or not so (*G.* (*C.*) *elongata*); convex in lateral view between procoxa, step-like shaped at posterior extent of procoxal cavity, widened apically (*G.* (*F.*) *annulipes*); with (*G.* (*C.*) *impressa*, *G.* (*C.*) *striata*) or without (*G. dives*, *G.* (*C.*) *elongata*, *G.* (*C.*) *angustior*) variably strong hump;

v.ii. Pterothorax: mesoventrite (Figs 2F, 3E, 5D). Strongly V-shapely impressed between mesocoxa to accommodate apical portion of prosternal intercoxal process (*G. dives*) / not or indistinctly impressed (*G.* (*C.*) *elongata*) / moderately impressed between mesocoxa to accommodate the apical portion of prosternal intercoxal process (*G.* (*F.*) *annulipes*);

v.iii. Pterothorax: metathoracic wings. Present (*G. dives*, *G.* (*F.*) *annulipes*) / absent (apterous species) (*G.* (*C.*) *elongata* and other *G.* (*Celebesa*) species);

vi.i. Abdomen: female morphological sternite IX (spiculum ventrale). Fused to morphological sternite VIII, nearly T-shaped, apical arms short (*G. dives*, *G.* (*C.*) *angustior* (terminalia of the type species of *Celebesa* were not available for the study), *G.* (*F.*) *annulipes*);

vi.ii. Abdomen: female ovipositor (Figs 11A–C). Strongly elongate, coxite lobes not fused, coxite not or slightly widened apically, reinforced and sclerotized, gonostyli subterminal, not reduced (Fig. 11), paraproct baculi long and slender (*G. dives*, *G.* (*C.*) *angustior*, *G.* (*C.*) sp. (female genitalia of the type species of *Celebesa* were not available for the study), *G.* (*F.*) *annulipes*);

vii. Legs: femur. Not clavate (*G. dives*, *G.* (*C.*) *elongata*) / slightly clavate (*G.* (*F.*) *annulipes*).

Most of the afore assessed features of *Gauromaia*, *Falsogauromaia* and *Celebesa*, if not identical in all three taxa, are of dubious phylogenetic/systematic genus-rank value. Therefore, we conclude that *Gauromaia* and *Celebesa* are congeneric and propose a new status for *Celebesa* to become a subgenus of *Gauromaia* geographically restricted to the western Wallacea (Sulawesi and adjacent islands): *Gauromaia* subgenus *Celebesa* **stat. nov.** We also confirm the subgeneric rank of *Falsogauromaia* as stated by Ando (1989). See the key to the subgenera of *Gauromaia* below for valid distinguishing features of the subgroups.

The following new combinations are proposed for the taxa hitherto attributed to *Celebesa*: *Gauromaia* (*Celebesa*) *angustior* (Pic, 1921) **comb. nov.**, *Gauromaia* (*Celebesa*) *elongata* (Pic, 1921) **comb. nov.**, *Gauromaia* (*Celebesa*) *impressa* (Pic, 1923) **comb. nov.**, *Gauromaia* (*Celebesa*) *latipennis* (Pic, 1921) **comb. nov.**, *Gauromaia* (*Celebesa*) *purpurea* (Pic, 1921) **comb. nov.**, *Gauromaia* (*Celebesa*) *striata* (Pic, 1923) **comb. nov.** One of these taxa is here considered junior synonym and so is invalid.

Falsogauromaia is maintained at the subgenus-rank of *Gauromaia* as defined by Ando (1989) despite the fact that it might represent a particular divergent lineage defined by the features iii.ii and iiii.iii.

Key to subgenera of *Gauromaia*

The key is an attempt to diagnose the subgenera of *Gauromaia* in the new sense proposed in this work and is based mainly on the features of the type species of each subgroup.

1 Lateral edge of pronotum not margined; transition of pronotal disc to hypomeron indistinct, defined by weak, obtuse carina . . . . . **subgen. *Falsogauromaia***

– Lateral edge of pronotum fully margined, visible in dorsal view at least at pronotal base; transition of pronotal disc to hypomeron distinct, defined by strong, deflected carina **2**

2 Prosternal intercoxal process surpasses posterior margin of prosternum; entire margined lateral edge of pronotum visible in dorsal; macropterous . . . . . **subgen. *Gauromaia***

– Prosternal intercoxal process does not or barely surpasses posterior margin of prosternum; margined lateral edge of pronotum visible in dorsal view only in basal portion of pronotum; brachypterous or apterous . . . . . **subgen. *Celebesa***

Redescriptions and a new synonym

Gauromaia Pascoe, 1866 s. str.

= *Cephaleucyrtus* Pic, 1923

Pascoe (1866: 473). Type species *Gauromaia dives* Pascoe, 1866 (monotypy).
Pic (1923a: 22). Type species *Cephaleucyrtus viridicollis* Pic, 1923 (monotypy).
Synonymy: Gebien (1941: 1144).

Diagnosis of the genus *Gauromaia* in the new sense. Body generally subrectangular in dorsal view, elytra slightly convex in dorsal aspect, general shape of head in dorsal view clearly transverse (excluding the cranial neck), frontoepistomal suture present but not deeply impressed, inner edge of compound eye located in a straight line with point where frontoepistomal suture joins anterolateral margin of head, ocular sulcus present and located in eye proximity, varying substantially among taxa, antenna short (not extending beyond mesocoxa), antennal club of five or six dorso-ventrally flattened antennomeres, antennomeres constituting club asymmetrical, indentation pointing anteriad (terminal antennomere differently shaped, nearly symmetrical, elliptical), posterior edge of pronotum always margined, maximum width of pronotum always shorter than maximum combined width of elytra, scutellar shield always exposed, parameres fused, converging apically, lacking modifications, front femora without any indentation, third and fourth exposed ventrites with distinct distal membrane, last exposed abdominal ventrite is not margined apically, species fully winged, brachypterous or apterous, three to four basal tarsomeres short, terminal tarsomere slightly shorter than combined length of previous tarsomeres, all tarsomeres except terminal one bearing ventral pad of dense pale tomentum. Sexual dimorphism is weak, tibiae slightly more curved in males than in females.

Distribution. Himalayas (Kashmir, Nepal), mainland SE Asia, Taiwan, Greater Sunda Islands (Borneo, Java, Sulawesi, Sumatra) and satellites including Banggi, Nias, Sinabang and Riau islands, Philippine Archipelago (Basilan, Luzon, Mindanao, Mindoro), 'Indes Meridionales'. Five species, one each from Indonesia and Zanzibar and three from Thailand are likely not *Gauromaia*.

Gauromaia (s. str.) *dives* Pascoe, 1866

(Figures 1–2, 11A)

Gauromaia dives: Pascoe 1866: 474 (description).

Type material examined. Lectotype ♂ BMNH [herewith designated]: Type [printed, label circular, red frame] // Mt. Ophir Wallace [handwritten, label elliptical, green] // Gauromaia dives Type Pasc [handwritten] // Pascoe Coll. 93–60. [printed] // Lectotype [printed, label circular, purple frame] // NHMUK015534468 [printed, supplemented with QR code]. Paralectotype 1♂ BMNH: Paratype [printed, label circular, yellow frame] // Malacca [handwritten, label green, elliptical] // MT. OPHIR [handwritten, label circular] // Pascoe Coll. 93–60. [printed] // Gauromaia dives. Pasc. [handwritten] // Paralectotype [printed, label circular, pale blue frame].

Additional material studied. 1♂ BMNH: Borneo [handwritten] // F. Bates 81–19. [printed]; 1♀ BMNH: Undergrowth [printed] // SARAWAK: R.Kapah trib. of R.Tinjar. [printed] 8. [handwritten] x.1932. [printed] // Oxford Univ.Exp. B.M.Hobby & A.W. Moore. B.M.1923-254 [printed].

Lectotype designation. The lectotype designation is made herein for the type species of the genus *Gauromaia* to maintain nomenclatural stability, since *G. dives* was originally described from an unspecified number of specimens and a new concept of the genus and its subgenera as presented herein.

Redescription. Lectotype male, total body length 15.5 mm (paralectotype ♂ 14.7 mm long). Body subcylindrical in dorsal view. Dorsum and venter glabrous. Head subrectangular in dorsal view, transverse (not including wide epicranial 'neck'), flattened in lateral view, slightly glossy and subopaque. Left mandible apex bidentate, right mandible apex shortly notched. Terminal labial palpomere subtriangular. Terminal maxillary palpomere securiform. Mentum semicircular with two longitudinal deep foveae both sides of strongly convex median portion. Epistoma subtrapezoid, broadly emarginate at anterior margin. Epistomal suture present. Canthus moderately developed, laterally not carinate, completely concealing antennal insertion and basal antennomere from above. Epicranial

'neck' wide, transition point from occiput not indicated. Eye strongly reniform in lateral view, anterior margin broadly emarginate at insertion of canthus. Tempus short, bulged dorso-laterally (protruding from lateral outline of head) in dorsal view, about one-fourth to one-third dorsal eye length. Interfacetal setae not present. Labrum slightly emarginate at anterior margin, with a row of short, orange, anteriad-directed setae. Head dorsal punctures elliptical, more or less strongly elongated, variably dense, becoming smaller towards epicranial 'neck'. Tiny, curved seta raises from the centre of each puncture, and hardly surpasses margin of the corresponding puncture. Intervening spaces variably wide, with dense isodiametric microsculpture. Antenna 11-segmented with five terminal antennomeres composing club. Antennomeres I–VI rather slender, glossy and nearly glabrous; antennomeres VII–XI are variably strongly widened and dorso-laterally flattened, densely punctured and setose. Antennomere III is longest among six basal antennomeres, antennomere II is shortest among them. Antennomeres V and VI slightly inflated. Antennomeres VII–XI strongly widened and flattened, truncate to barely emarginate at distal margin. Terminal antennomere apically broadly rounded, ~ 1.5× as long as penultimate antennomere. Pronotum transverse, slightly convex in dorsal aspect, subopaque. Pronotal length to maximum width ratio is ~ 0.7. Anterolateral angles rounded, slightly produced anteriad so that medially subtruncate anterior pronotal margin appears broadly emarginate. Anterior edge of pronotum shortly margined at anterolateral margins only. Posterior pronotal edge at median portion very broadly obtusely produced posteriad, deeply margined including at posterolateral angles. Lateral edge of pronotum margined, visible in dorsal view. Transition of pronotal disc to hypomeron carinate. Dorsal pronotal punctures, intervening spaces and setation similar to those on head. Anterior margin of pronotum with a row of short, dense yellowish setae. Prothoracic hypomeron with weak isodiametric microsculpture, not or barely punctured. Scutellar shield subtriangular, pointed posteriorly, glossy and glabrous. Elytra subcylindrical in dorsal view, slightly convex in lateral aspect, slightly widened at posterior 1/3, glossy and glabrous. Elytral length to maximum combined width ratio ~ 1.4. Humerus broadly rounded, no humeral callosity present. Lateral margin of elytron slightly deflected, visible from above at around midlength. Deflection continues on anterior margin of elytron near humerus in form of a short sulcus. Elytral striae constitute of a series of impressed punctures; scutellar stria short. Elytral striae one and two reaching to nearly elytron apex. Punctures in striae of variable size, with distance between them much narrower than distance between striae. Interstriae barely convex. Ratio width of elytra across humeri through apex of scutellar shield versus basal width of pronotum across posterolateral angles is ~ 1.3. Epipleuron broad in humeral area, narrowing posteriad, extending nearly towards elytral apex. Procoxa moderately widely separated, prosternal intercoxal process rather broad, nearly straight in lateral view, extending slightly beyond procoxal cavity and posterior margin of prosternum. Mesoventrite strongly V-shapely impressed antero-ventrally between mesocoxa to accommodate prosternal intercoxal process, its lateral margins ridge-like raised at inner margin of mesosternal cavity, posterior portion of mesoventrite somewhat M-shaped. Mesanepisternum separated from mesoventrite and mesepimeron by distinct suture. Mesocoxa broadly separated by short, broad, anteriorly rounded intercoxal process of metaventrite. Metathoracic discrimen distinct, incomplete. Metacoxal cavities broadly separated by short, apically rounded to subtruncate intercoxal process of first abdominal ventrite. Last visible tergite and ventrite broadly rounded at posterior margin. Legs long, femora long and narrow, not clavate. Protibia subequal in length to profemur, curved in apical 1/3. Meso- and metatibia shorter than corresponding femur, slightly curved, thickened distally. Tarsomeres ventrally each with a brush of dense orange setae. Penultimate tarsomere subcylindrical, not bilobate. Terminal tarsomere slightly arched in lateral view, pretarsal claws with short empodium. Basal metatarsomere much shorter than combined length of remaining metatarsomeres.

Sexual dimorphism. Male protibia gently curved in the apical 1/3. Inner apical 1/3 of pro-, meso- and metatibia bearing more setae than in females.

Ecology. Species of lower to mid-montane rainforests.

Distribution. Malay Peninsula, Greater Sunda Islands (Borneo, Java (1 specimen BMNH), Sumatra).

FIGURE 3. *Gauromaia* subgenus *Celebesa* Pic, 1921, adult morphology. A–*G.* (*C.*) sp., ♀ from Central Sulawesi Province, dorsal forebody; B–*G.* (*C.*) *angustior* (Pic, 1921) **comb. nov.**, ♀ from near Battang village, South Sulawesi (DTC), dorsal forebody; C–ditto, mentum and mouthparts, ventral view; D–ditto, lateral forebody; E–Pro-, meso-, and metathorax, ventral view [not to scale].

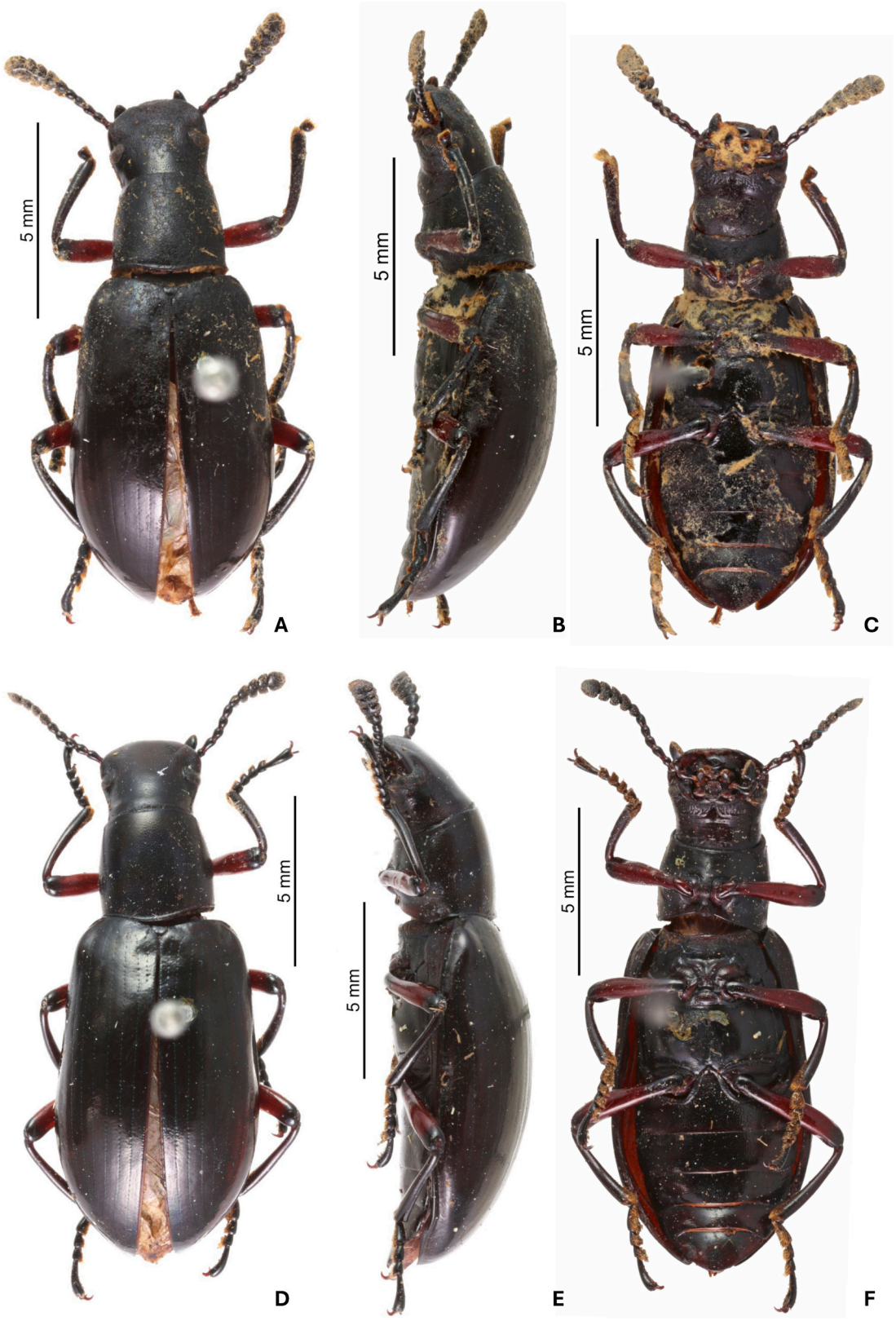

FIGURE 4. *Gauromaia* (*Falsogauromaia*) *annulipes* (Pic, 1921), adult habitus. A–C–Lectotype in dorsal (A), lateral (B) and ventral (C) view; D–F–Paralectotype in dorsal (D), lateral (E) and ventral (F) view [images courtesy Christophe Rivier, MNHN].

FIGURE 5. *Gauromaia* (*Falsogauromaia*) *annulipes* (Pic, 1921), adult morphology, specimen from Crocker Range, Sabah (BMNH). A–Dorsal forebody; B–Lateral forebody; C–Mentum and mouthparts, ventral view; D–Pro- and mesothorax, ventral view [not to scale].

FIGURE 6. *Gauromaia* (*Celebesa*) *angustior* (Pic, 1921) **comb. nov.**, adult habitus. A–C–Lectotype in dorsal (A), lateral (B) and ventral (C) view; D–F–Paralectotype No 1 in dorsal (D), lateral (E) and ventral (F) view [images courtesy Christophe Rivier, MNHN].

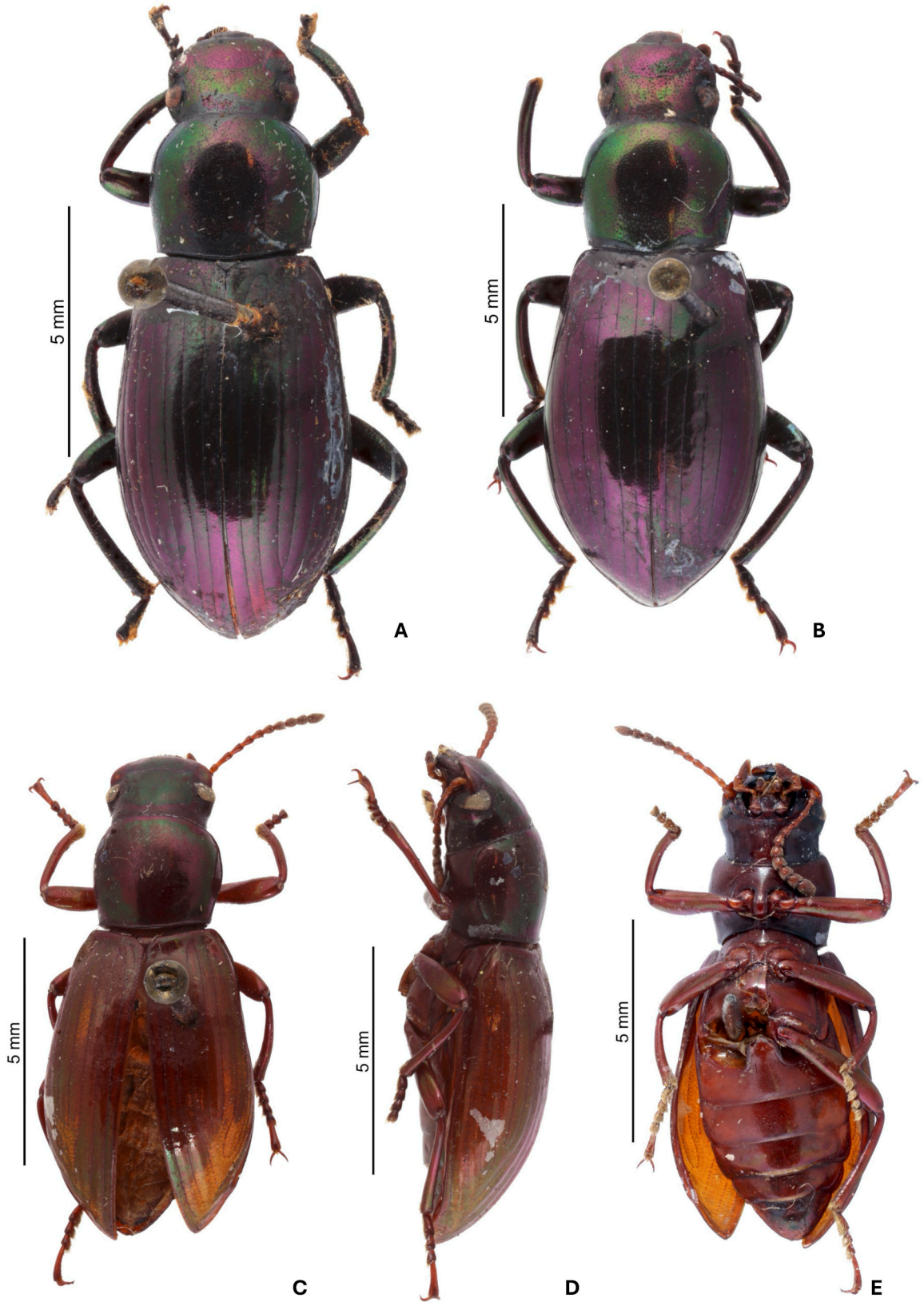

FIGURE 7. *Gauromaia* (*Celebesa*) *angustior* (Pic, 1921) **comb. nov.**, adult habitus. A–Paralectotype No 2, habitus, dorsal view; B–Paralectotype No 3, habitus, dorsal view; C–E–*G.* (*C.*) *purpurea* (Pic, 1921), **syn. nov.** of *G.* (*C.*) *angustior*, lectotype, dorsal (C), lateral (D) and ventral (E) view [images courtesy Christophe Rivier, MNHN].

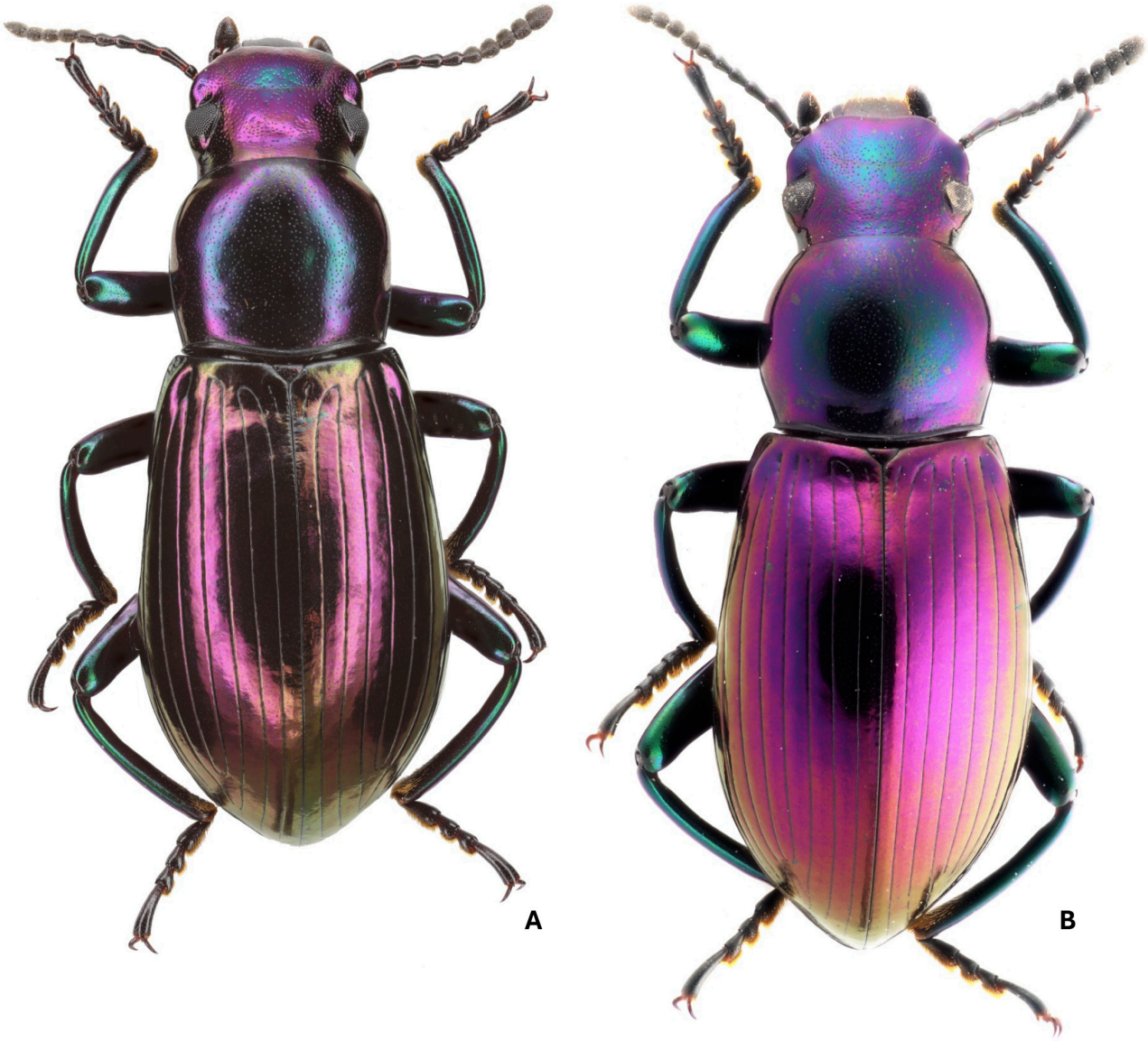

FIGURE 8. *Gauromaia* (*Celebesa*) *angustior* (Pic, 1921) **comb. nov.**, dorsal habitus, specimens from near Battang village, South Sulawesi (DTC).

Gauromaia subgenus *Celebesa* Pic, 1921 stat. nov.

Pic (1921: 23). Type species *Celebesa elongata* Pic, 1921, subsequent designation by Riley (1923).

Gauromaia (*Celebesa*) *angustior* (Pic, 1921) comb. nov.

(Figs 3, 6–8, 11B, D)
= *Celebesa purpurea* Pic, 1921 **syn. nov.** (Figs 7C–E)

Celebesa angustior: Pic 1921: 23 (description).
Celebesa purpurea: Pic 1921: 23 (description); Ando 2011: unnumbered plate 1 fig. i (misidentification).

Type material examined. *Celebesa angustior*. Lectotype MNHN [herewith designated, sex unknown]: S.Celebes Patumuang Jan.1896 H. Fruhstorfer. [printed, black frame] // Muséum Paris Coll. M. Pic [printed] // SYNTYPE [printed, label red] // Syntype Celebesa angustior Pic, 1921 [printed] // MNHN, Paris EC20359 [printed, supplemented

with a QR code]; Paralectotype 1 specimen MNHN [not sexed]: S.Celebes Patumuang Jan.1896 H. Fruhstorfer. [printed, black frame] // C. angustior n sp [handwritten] // angustior Pic [handwritten] // TYPE [printed, label red] // Muséum Paris Coll. M. Pic [printed] // SYNTYPE [printed, label red] // Syntype Celebesa angustior Pic, 1921 [printed] // MNHN, Paris EC20358 [printed, supplemented with a QR code]; Paralectotype 1 specimen MNHN [not sexed]: S.Celebes Patumuang Jan.1896 H. Fruhstorfer. [printed, black frame] // Muséum Paris Coll. M. Pic [printed] // SYNTYPE [printed, label red] // Syntype Celebesa angustior Pic, 1921 [printed] // MNHN, Paris EC20360 [printed, supplemented with a QR code]; Paralectotype 1 specimen MNHN [not sexed]: S.Celebes Patumuang Jan.1896 H. Fruhstorfer. [printed, black frame] // Muséum Paris Coll. M. Pic [printed] // SYNTYPE [printed, label red] // Syntype Celebesa angustior Pic, 1921 [printed] // MNHN, Paris EC20361 [printed, supplemented with a QR code].

Type material examined. *Celebesa purpurea*. Lectotype MNHN [herewith designated, not sexed, presumably a female]: Lompa-Battau 3000´ März 1896 H. Fruhstorfer [printed, black frame] // type [handwritten] // purpurea n sp [handwritten] // purpurea Pic [handwritten] // Muséum Paris Coll. M. Pic [printed] // TYPE [printed, label red] // SYNTYPE [printed, label red] // Syntype Celebesa purpurea Pic, 1921 [printed] // MNHN, Paris EC20365 [printed, supplemented with a QR code].

New material examined. 1 specimen BMNH: Celebes. 96-120. [handwritten]; 1 specimen BMHH: Celebes. G. Heinrich. B. M. 1933-117. [printed] // Celebes Bantimoeroeng 8. 1931 G Heinrich [printed, label yellow]; 1 ♂ DTPC: INDONESIA, Sulawesi, South Sulawesi Prov., Palopo 12 km NWW, Battang vill., 2°57'S, 120°05'E, 07.I.2018, 770 m, disturbed lowland rainforest, day collecting [printed]; 2 ♂ & 1 ♀ DTPC: INDONESIA, Sulawesi, South Sulawesi Prov., Palopo 12 km NWW, Battang vill., 2°57'S, 120°05'E, 24.I.2018, 800–900 m, disturbed lowland rainforest, day collecting [printed].

Synonym. The type material of *Gauromaia* (*C.*) *angustior* and *G.* (*C.*) *purpurea* appears conspecific in the external morphology, including the shape of pronotum and mentum, the shape and structure of prosternal intercoxal process, and the slightly convex elytral interstriae.

Redescription. Total body length 11–14 mm (syntypes *G.* (*C.*) *angustior*) and 11 mm (syntype *G.* (*C.*) *purpurea*). Body subcylindrical in dorsal view. Dorsum and venter glabrous and glossy. Head subrectangular in dorsal view and flattened in lateral aspect, slightly glossy. Left mandible apex bidentate, right mandible apex shortly notched. Terminal labial palpomere elongate subtriangular. Terminal maxillary palpomere securiform. Mentum trapezoid, widened anteriorly, flattened in ventral aspect or with longitudinally elevated central portion and slightly impressed lateral portions along of it. Epistoma subtrapezoid, broadly emarginate at anterior margin. Epistomal suture forms vague impression (epistoma fused to frons). Canthus moderately developed, laterally not carinate, completely concealing antennal insertion and basal antennomere from above. Epicranial 'neck' wide, transition point from occiput not indicated. Eye strongly reniform, anterior margin broadly emarginate at insertion of canthus. Tempus short, slightly bulged dorso-laterally and immediately constricted posteriad, approximately as long as dorsal eye length. Interfacetal setae not present. Labrum subtruncate at anterior margin, with row of short, orange, anteriad-directed setae. Head dorsal punctures circular to slightly elliptical, variably dense, becoming smaller towards epicranial 'neck'. Tiny, scale-like seta raises from centre of each puncture, not surpassing margin of corresponding puncture. Intervening spaces variable wide, smooth to microscopically wrinkled. Antenna 11-segmented with five terminal antennomeres composing club. Antennomeres III–IV slender, I–VI rather slender, glossy and nearly glabrous; antennomeres VII to XI variably strongly widened and dorso-laterally flattened, densely punctured and setose. Antennomere III is longest among six basal antennomeres, antennomere II is shortest among them. Antennomeres V and VI slightly inflated. Antennomeres VII–XI strongly widened and flattened, truncate to barely emarginate at distal margin. Terminal antennomere apically broadly rounded, ~ 1.4× as long as penultimate antennomere. Pronotum transverse, slightly convex in dorsal aspect, subopaque. Pronotal length to maximum width ratio ~ 0.8–0.9. Anterior margin subtruncate, posterior margin slightly sinuous. Anterolateral angles rounded, posterolateral angles nearly right-angled in dorsal view. Anterior pronotal edge shortly margined at anterolateral angles, sulcus broadly interrupted medially. Posterior and lateral edge of pronotum margined, including at posterolateral angles. Lateral margin of pronotum visible in dorsal view. Pronotal disc dorsally on basal portion with a track of vague transverse impression. Transition of pronotal disc to hypomeron carinate. Dorsal pronotal punctures, intervening spaces and setation similar as those on head. Anterior margin of pronotum with a row of short, dense yellowish setae. Prothoracic hypomeron barely punctured. Scutellar shield broadly triangular, obtusely pointed apically, glossy and glabrous. Elytra subcylindrical, slightly convex in dorsal aspect, slightly widened laterally in posterior 1/3, glossy and glabrous. Elytral length to maximum

combined width ratio ~ 1.3–1.6. Humerus obsolete, no humeral callosity present. Lateral margin of elytron slightly deflected, visible from above at around midlength. Deflection continues to anterior margin of elytron near humerus in a form of shallow impression. Elytron with eight moderately deep longitudinal striae and a short, inconspicuous scutellar stria; punctures in striae not visible. Complete striae one and two nearly reach elytral apex. Interstriae slightly convex. Ratio width of elytra across humeri through apex of scutellar shield versus basal width of pronotum across posterolateral angles ~ 1.1–1.2. Epipleuron broad in humeral area, narrows posteriad, stretches nearly to elytral apex. Procoxa widely separated, prosternal intercoxal process rather wide, distinctly margined laterally and (in some paralectotypes) at anterior edge of procoxal cavity, flattened to slightly convex in lateral view, declivous at posterior extent of procoxal cavity, touches posterior margin of prosternum and apically rounded. Mesoventrite shallowly V-shapely impressed antero-ventrally, its lateral margins not elevated, apex emarginate to subtruncate between mesocoxal cavities. Mesanepisternum separated from mesoventrite and mesepimeron by distinct suture. Mesocoxa broadly separated by short, broad, apically rounded intercoxal process of metaventrite. Median length to maximum width of metaventrite ratio 0.4–0.5. Metathoracic discrimen distinct, incomplete. Metacoxal cavities broadly separated by moderately long, apically rounded intercoxal process of first abdominal ventrite. Last visible tergite and ventrite broadly rounded at posterior margin. Legs long, femora long and narrow, not clavate. Protibia subequal in length to profemur, slightly curved. Meso- and metatibia shorter than corresponding femur, slightly curved, slightly thickened distally. Tarsomeres ventrally each with a brush of dense orange setae. Penultimate tarsomere subcylindrical, not bilobate. Terminal tarsomere slightly arched in lateral view, pretarsal claws with short empodium. Basal metatarsomere much shorter than the combined length of remaining tarsomeres.

Sexual dimorphism. Female elytra stronger widened, body shape more obese than in male, protibia comparatively less curved.

Ecology. Species of lower to mid-montane rainforests.

Distribution. Southern arm of Sulawesi (Central and Southern Sulawesi provinces).

Gauromaia (*Celebesa*) *elongata* (Pic, 1921) comb. nov.

(Figs 9A–C)

Celebesa elongata: Pic 1921: 23 (description).

Type material examined. Lectotype ♀ [herewith designated] MNHN: S.Celebes Lompa-Battau 3000′ März 1896 H. Fruhstorfer [printed, black frame] // type [handwritten] // Celebesa n g. elongata n sp [handwritten] // elongata Pic [handwritten] // Muséum Paris Coll. M. Pic [printed] // SYNTYPE [printed, label red] // Syntype Celebesa elongata Pic, 1921 [printed] // MNHN, Paris EC20357 [printed, supplemented with a QR code].

New material examined. 2♂ BMNH: Tjamba. S.Celebes. [printed] // C.E.Tottenham Collection B.M. 1969–77 [printed].

Redescription. Total body length 16 mm (lectotype). Body subcylindrical. Dorsum and venter glabrous. Head subrectangular, subopaque, flattened in dorsal aspect. Left mandible apex bidentate. Terminal maxillary palpomere securiform. Mentum transversely subrectangular, flattened in ventral aspect. Canthus moderately developed, laterally not carinate, completely concealing antennal insertion and basal antennomere from above. Epicranial 'neck' wide, transition point from occiput not indicated. Eye strongly reniform, anterior margin broadly emarginate at insertion of canthus. Tempus moderate, slightly bulged dorso-laterally and immediately constricted posteriad, approx. dorsal eye length. Interfacetal setae not present. Head dorsal punctures circular to elliptical, variably dense, becoming smaller towards epicranial 'neck'. Intervening spaces variable wide, microscopically wrinkled. Antenna 11-segmented with five terminal antennomeres composing club. Antennomeres III–IV slender, I–VI rather slender, glossy and nearly glabrous; antennomeres VII to XI variably strongly widened and dorso-laterally flattened, densely punctured and setose. Terminal antennomere apically broadly rounded. Pronotum transverse, moderately convex in dorsal aspect, moderately glossy. Pronotal length to maximum width ratio ~ 0.8 (this calculation is approximate since the only available syntype is in suboptimal condition). Anterior pronotal margin subtruncate, posterior margin slightly sinuous. Anterolateral angles rounded, posterolateral angles nearly right-angled in dorsal view. Posterior and lateral edge of pronotum margined, including at posterolateral angles. Lateral edge of pronotum visible in dorsal view, broadly rounded. Pronotal disc dorsally on basal portion with a track of vague transverse impression. Transition of pronotal disc to hypomeron carinate. Dorsal pronotal punctures somewhat larger than those on head

dorsum, intervening spaces variable. Prothoracic hypomeron barely punctured. Scutellar shield broadly triangular, obtusely pointed apically, glossy and glabrous. Elytra elongate subcylindrical, slightly convex in dorsal aspect, slightly widened laterally in posterior 1/3, moderately glossy, glabrous. Elytral length to maximum combined width ratio ~ 1.5. Humerus obsolete, humeral callosity present, weak. Lateral margin of elytron slightly deflected, visible from above at humerus and near apex. Deflection continues to anterior margin of elytron near humerus in a form of shallow impression. Elytron with eight shallow longitudinal striae and short, inconspicuous scutellar stria; no visible punctures in striae. Complete striae I and II stretch to nearly elytral apex. Interstriae flat. Ratio width of elytra across humeri through apex of scutellar shield versus basal width of pronotum across posterolateral angles nearly 1.2 (this calculation is approximate since the only available syntype is in suboptimal condition). Epipleuron broad, stretches to elytral apex where it narrows. Procoxa widely separated, prosternal intercoxal process rather wide, flat, distinctly margined laterally and at anterior edge of procoxal cavity, step-like shaped in lateral view immediately beyond posterior margin of procoxal cavity, touches posterior margin of prosternum and apically subtruncate. Mesoventrite slightly transversely impressed antero-ventrally between mesocoxa, its lateral margins not elevated, median portion somewhat convex in ventral aspect, apex subtruncate between mesocoxal cavities. Mesanepisternum separated from mesoventrite and mesepimeron by distinct suture. Mesocoxa broadly separated by short, broad, apically rounded intercoxal process of metaventrite. Median length to maximum width of metaventrite ratio ~ 0.5. Metathoracic discrimen distinct, nearly complete. Metacoxal cavities broadly separated by moderately long, apically obtuse angulate to rounded intercoxal process of first abdominal ventrite. Last visible tergite and ventrite broadly rounded at posterior margin. Legs long, femora long and narrow, not clavate. Protibia subequal in length to profemur, slightly curved. Meso- and metatibia shorter than corresponding femur, slightly curved, slightly thickened distally. Tarsomeres ventrally each with a brush of dense orange setae. Penultimate tarsomere subcylindrical, not bilobate. Terminal tarsomere slightly curved, pretarsal claws with short empodium. Basal metatarsomere much shorter than combined length of remaining tarsomeres.

Sexual dimorphism. Male unknown.

Ecology. The studied syntype comes from a lower montane rainforest.

Distribution. Southern arm of Sulawesi (Southern Sulawesi Province).

Gauromaia (*Celebesa*) *impressa* (Pic, 1923) comb. nov.

(Figs 9D–F)

Celebesa impressa: Pic 1923a: 23 (description).

Type material examined. Syntype 1 specimen MNHN [not sexed, presumably a male]: S.Celebes Lompa-Battau 3000′ März 1896 H. Fruhstorfer [printed, black frame] // Celebesa impressa n sp [handwritten] // impressa Pic [handwritten] // Muséum Paris Coll. M. Pic [printed] // TYPE [printed, label red] // SYNTYPE [printed, label red] // Syntype Celebesa impressa Pic, 1923 [printed] // MNHN, Paris EC20367 [printed, supplemented with a QR code].

Redescription. Total body length 12.5 mm (syntype). Body elongate subcylindrical. Dorsum and venter glabrous. Head subrectangular, subopaque, flattened in dorsal aspect. Left mandible apex bidentate, right mandible apex shortly notched. Terminal maxillary palpomere securiform. Mentum subrectangular, slightly transverse, slightly convex medio-longitudinally, each side with one posterolateral and one submedian tubercle. Canthus moderately developed, laterally not carinate, completely concealing antennal insertion and basal antennomere from above. Epicranial ‘neck’ wide, transition point from occiput not indicated. Eye strongly reniform, anterior margin broadly emarginate at insertion of canthus. Tempus short, slightly bulged dorso-laterally and immediately constricted posteriad, ~ 1/2 dorsal eye length. Interfacetal setae not present. Head dorsal punctures circular, variably dense. Intervening spaces variable wide, microscopically wrinkled. Antennomeres III–IV slender, glossy and glabrous. Pronotum slightly transverse, moderately convex in dorsal aspect, subopaque. Pronotal length to maximum width ratio ~ 0.9. Anterior pronotal margin subtruncate, posterior margin slightly sinuous. Anterolateral angles rounded, posterolateral angles nearly right-angled in dorsal view. Posterior and lateral edge of pronotum margined, including at posterolateral angles. Lateral edge of pronotum visible in dorsal view, broadly rounded. Pronotal disc dorsally on basal portion with shallow transverse impression. Transition of pronotal disc to hypomeron carinate.

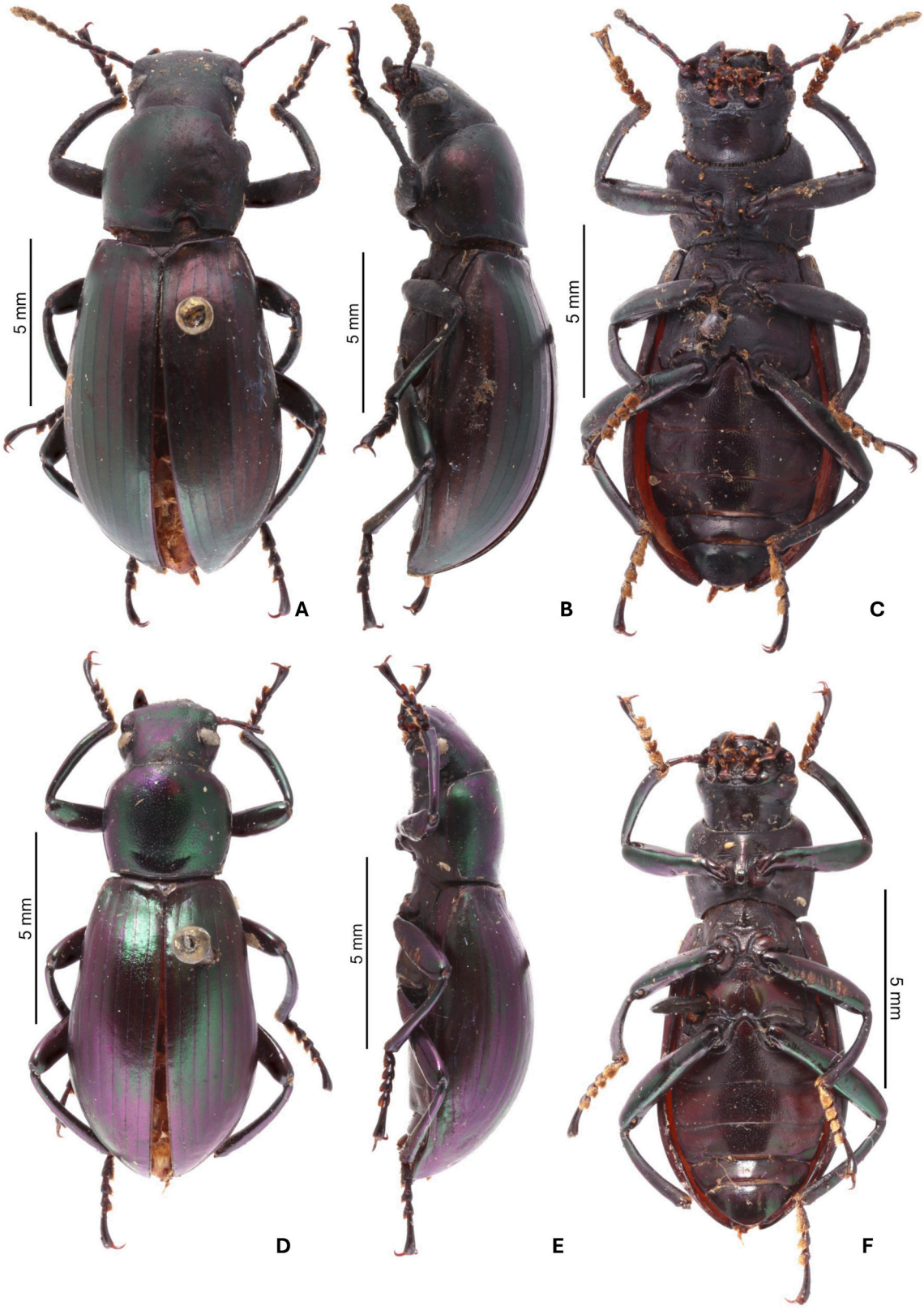

FIGURE 9. *Gauromaia* subgenus *Celebesa* Pic, 1921, adult morphology. A–C–*G.* (*C.*) *elongata* (Pic, 1921) **comb. nov.**, lectotype in dorsal (A), lateral (B) and ventral (C) view; D–F–*G.* (*C.*) *impressa* (Pic, 1923) **comb. nov.**, syntype in dorsal (D), lateral (E) and ventral (F) view [images courtesy Christophe Rivier, MNHN].

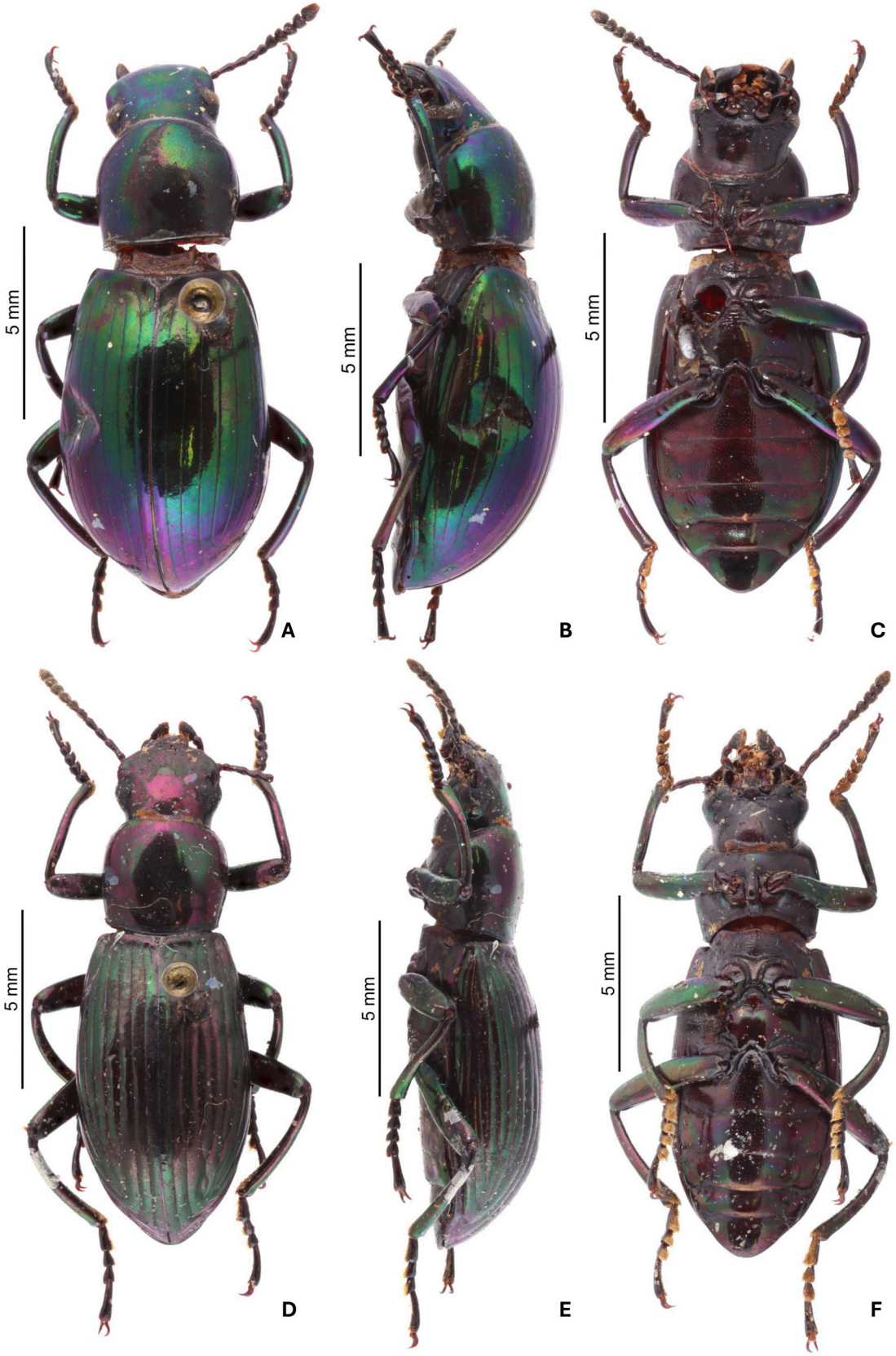

FIGURE 10. *Gauromaia* subgenus *Celebesa* Pic, 1921, adult morphology. A–C–*G.* (*C.*) *latipennis* (Pic, 1921) **comb. nov.**, syntype in dorsal (A), lateral (B) and ventral (C) view; D–F–*G.* (*C.*) *striata* (Pic, 1923) **comb. nov.**, syntype in dorsal (D), lateral (E) and ventral (F) view [images courtesy Christophe Rivier, MNHN].

Dorsal pronotal punctures somewhat larger than those on head dorsum, rather dense, intervening spaces variable. Prothoracic hypomeron barely punctured. Scutellar shield rounded apically, glossy and glabrous. Elytra elongate subcylindrical, convex in dorsal aspect, widened laterally in posterior 1/3, glossy and glabrous. Elytral length to maximum combined width ratio ~ 1.7. Humerus rounded, humeral callosity present, weak. Lateral margin of elytron slightly deflected, visible from above at humerus and near apex. Deflection continues to anterior margin of elytron near humerus in a form of shallow impression. Elytron not punctate, with eight shallow longitudinal striae and short, inconspicuous scutellar stria; no visible punctures in striae. Complete striae one and two stretch to nearly elytral apex. Interstriae flat, delicately irregularly wrinkled. Ratio width of elytra across humeri through apex of scutellar shield versus basal width of pronotum across posterolateral angles nearly 1.2. Epipleuron broad, extends towards near elytral apex. Procoxa widely separated, prosternal intercoxal process rather wide, flattened ventrally in anterior portion, strongly hump-like bulged in ventral aspect at posterior extent of procoxal cavity, distinctly margined laterally and at anterior edge of procoxal cavity, step-like shaped in lateral view at posterior extent of it, touches posterior margin of prosternum and apically rounded. Mesoventrite slightly transversely impressed medio-ventrally in front of mesocoxa, its lateral margins not elevated, median portion somewhat convex in ventral aspect between mesocoxae, apex subtruncate between mesocoxal cavities. Mesanepisternum separated from mesoventrite and mesepimeron by distinct suture. Mesocoxa broadly separated by short, broad, apically subangulate intercoxal process of metaventrite. Median length to maximum width of metaventrite ratio ~ 0.4. Metathoracic discrimen distinct, complete. Metacoxal cavities broadly separated by moderately long, apically rounded intercoxal process of first abdominal ventrite. Last visible tergite and ventrite broadly rounded at posterior margin. Legs long, femora long and narrow, not clavate. Protibia subequal in length to profemur, slightly curved. Meso- and metatibia shorter than corresponding femur, slightly curved, slightly thickened distally. Pro- and mesotibia distinctly curved. Tarsomeres ventrally each with a brush of dense orange setae. Penultimate tarsomere subcylindrical, not bilobate. Terminal tarsomere slightly curved, pretarsal claws with short empodium. Basal metatarsomere much shorter than combined length of remaining tarsomeres.

Sexual dimorphism. Unknown.

Ecology. The studied syntype comes from lower montane rainforest.

Distribution. Southern arm of Sulawesi (Southern Sulawesi Province).

Gauromaia (*Celebesa*) *latipennis* (Pic, 1921) comb. nov.

(Figs 10A–C)

Celebesa latipennis: Pic 1921: 23 (description).

Type material examined. Syntype 1 specimen MNHN [not sexed]: Samanga S. Celebes Nov.1895 H.Fruhstorfer. [printed, black frame] // type [handwritten] // C. latipennis n sp [handwritten] // Muséum Paris Coll. M. Pic [printed] // SYNTYPE [printed, label red] // Syntype Celebesa latipennis Pic, 1921 [printed] // MNHN, Paris EC20364 [printed, supplemented with a QR code].

Redescription. Total body length 13 mm (syntype). Body subcylindrical. Dorsum and venter glabrous. Head subrectangular, glossy, flattened in dorsal aspect. Left mandible apex bidentate, right mandible apex rounded. Terminal maxillary palpomere securiform. Mentum transversely subrectangular, flattened in ventral aspect, with a deep, large posterolateral pit with its anterior margin somewhat elevated. Canthus moderately developed, laterally not carinate, completely concealing antennal insertion and basal antennomere from above. Epicranial ‘neck’ wide, transition point from occiput not indicated. Eye strongly reniform, anterior margin broadly emarginate at insertion of canthus. Tempus moderate, slightly bulged dorso-laterally and immediately constricted posteriad, approx. dorsal eye length. Interfacetal setae not present. Head dorsal punctures circular to elliptical, variably dense, becoming sparser on vertex and epicranial ‘neck’. Intervening spaces variable wide, smooth. Antenna 11-segmented with five terminal antennomeres composing club. Antennomeres III–IV slender, I–VI glossy and nearly glabrous; antennomeres VII to XI variably strongly widened and dorso-laterally flattened, densely punctured and setose. Terminal antennomere apically subtruncate. Pronotum transverse, moderately convex in dorsal aspect, glossy. Pronotal length to maximum width ratio is ~ 0.9. Anterior pronotal margin subtruncate to broadly rounded, posterior is subtruncate. Anterolateral angles rounded, posterolateral angles nearly right-angled in dorsal view. Posterior

and lateral edge of pronotum margined, including at posterolateral angles. Lateral edge of pronotum visible in dorsal view except at anterolateral angles, broadly rounded. Transition of pronotal disc to hypomeron carinate. Dorsal pronotal punctures somewhat larger than those on head dorsum, intervening spaces variable. Prothoracic hypomeron very sparsely punctured. Scutellar shield subcircular, rounded apically, glossy and glabrous. Elytra elongate subcylindrical, convex in dorsal aspect, moderately widened laterally in posterior 1/3, glossy and glabrous. Elytral length to maximum combined width ratio ~ 1.5. Humerus obsolete, humeral callosity present, weak. Lateral margin of elytron deflected, visible from above at humerus and near apex. Elytron with eight shallow longitudinal striae and a short, inconspicuous scutellar stria; no visible punctures in striae. Complete striae one and two stretch to nearly elytral apex. Interstriae flat, sparsely microscopically punctate. Ratio width of elytra across humeri through apex of scutellar shield versus basal width of pronotum across posterolateral angles nearly 1.2. Epipleuron broad, stretches towards apical 1/5 of elytra. Procoxa widely separated, prosternal intercoxal process rather wide, flat in ventral aspect, distinctly margined laterally and at anterior edge of procoxal cavity, nearly step-like shaped in lateral view at posterior extent of procoxal cavity, touches posterior margin of prosternum and subtruncate at apex. Mesoventrite slightly transversely impressed antero-ventrally between mesocoxa, its lateral margins not elevated, median portion somewhat convex ventrally between mesocoxae, apex emarginate between mesocoxal cavities. Mesanepisternum separated from mesoventrite and mesepimeron by distinct suture. Mesocoxa broadly separated by short, broad, apically rounded intercoxal process of metaventrite. Median length to maximum width of metaventrite ratio ~ 0.5. Metathoracic discrimen distinct, nearly complete. Metacoxal cavities broadly separated by moderately long, apically subangulate intercoxal process of first abdominal ventrite. Last visible tergite and ventrite broadly rounded at posterior margin. Legs long, femora long and narrow, not clavate. Protibia subequal in length to profemur, slightly curved. Meso- and metatibia shorter than corresponding femur, slightly curved, slightly thickened distally. Tarsomeres ventrally each with a brush of dense orange setae. Penultimate tarsomere subcylindrical, not bilobate. Terminal tarsomere slightly curved, pretarsal claws with short empodium. Basal metatarsomere much shorter than combined length of remaining tarsomeres.

Sexual dimorphism. Unknown.

Ecology. The studied syntype comes from lower montane rainforest.

Distribution. Southern arm of Sulawesi (Southern Sulawesi Province).

Gauromaia (*Celebesa*) *striata* (Pic, 1923) comb. nov.

(Figs 10D–F)

Celebesa striata: Pic 1923a: 23 (description); Ando 2011 (unnumbered plate 1 fig. k, misidentification).

Type material examined. Syntype 1 specimen MNHN [not sexed]: S.Celebes Lompa-Battau 3000′ März 1896 H. Fruhstorfer [printed, black frame] // type [handwritten] // 151 [handwritten] // Celebesa striata n sp [handwritten] // striata Pic [handwritten] // Muséum Paris Coll. M. Pic [printed] // TYPE [printed, label red] // SYNTYPE [printed, label red] // Syntype Celebesa striata Pic, 1923 [printed] // MNHN, Paris EC20366 [printed, supplemented with a QR code].

Redescription. Total body length 14 mm (syntype). Body elongate in dorsal view. Dorsum and venter glabrous. Head subrectangular in dorsal view, flattened in lateral aspect, glossy. Left mandible apex bidentate, right mandible apex shortly notched. Terminal labial palpomere elongate subtriangular. Terminal maxillary palpomere securiform. Mentum poorly preserved (deformed), transversely subrectangular, possible with indistinct impression on each side of the slightly longitudinally elevated (in ventral aspect) median portion. Epistoma subtrapezoid, broadly emarginate at anterior margin. Epistomal suture present. Canthus moderately developed, laterally not carinate, completely concealing antennal insertion and basal antennomere from above. Epicranial ‘neck’ wide, transition point from occiput not indicated. Eye strongly reniform in lateral view, anterior margin broadly emarginate at insertion of canthus. Tempus short, slightly bulged dorso-laterally and immediately constricted posteriad, ~ 1/3 dorsal eye length. Interfacetal setae not present. Labrum subtruncate at anterior margin, with a row of short, orange, anteriad-directed setae. Head dorsal punctures circular, variably sparse. Dorsal setation not observed (this might be because of the non-perfect conservation of the specimen). Intervening spaces much wider than punctures, smooth. Antenna 11-segmented with the five terminal antennomeres composing club. Antennomeres III–IV slender, I–VI rather slender, glossy and nearly glabrous; antennomeres VII to XI variably strongly widened and dorso-laterally

flattened, densely punctured and setose. Antennomere III is longest among six basal antennomeres, antennomere II is shortest among them. Antennomere VI slightly inflated. Antennomeres VII–XI strongly widened and flattened, truncate to barely emarginate at distal margin. Terminal antennomere apically broadly rounded, ~ 1.7–1.8× as long as penultimate antennomere. Pronotum transverse, slightly convex in dorsal aspect, glossy. Pronotal length to maximum width ratio is ~ 0.9. Anterior pronotal margin subtruncate, posterior margin very broadly rounded. Anterolateral angles rounded, posterolateral angles nearly right-angled in dorsal view. Anterior pronotal edge shortly margined at anterolateral angles, margin broadly interrupted medially. Posterior and lateral edge of pronotum margined, including at posterolateral angles. Lateral margin of pronotum visible in dorsal view. Transition of pronotal disc to hypomeron carinate. Dorsal pronotal punctures, intervening spaces and setation similar as those on head; punctures somewhat denser. Prothoracic hypomeron barely punctured, glossy. Scutellar shield small, triangular, obtusely pointed posteriorly, glossy and glabrous. Elytra distinctly elongated, convex in dorsal aspect, widened laterally postmedium, glossy. Base of elytra narrowly transversely impressed in lateral aspect. Elytral length to maximum combined width ratio 1.7–1.8. Humerus broadly rounded, no humeral callosity observed. Lateral margin of elytron slightly deflected, visible from above at elytral apex. Each elytron presenting eight shallow longitudinal striae and a short, inconspicuous scutellar stria; interstriae convex; striae impunctate. Stria I conjoins lateral margin of elytron at elytral apex, stria II joining stria eight at elytral apex. Elytral setae not observed. Ratio width of elytra across humeri through apex of scutellar shield versus basal width of pronotum across posterolateral angles 1.1. Epipleuron broad in humeral area, narrows posteriad, stretches nearly to elytral apex. Procoxa widely separated, prosternal intercoxal process rather wide, distinctly margined laterally and at anterior edge of procoxal cavity, step-like shaped at posterior extent of procoxal cavity in lateral view and with distinct preapical ventral hump, touches posterior margin of prosternum and with subtruncate apex. Mesoventrite flat, its lateral margins not elevated, somewhat convex ventrally between mesocoxae, apex emarginate between mesocoxal cavities. Mesanepisternum separated from mesoventrite and mesepimeron by distinct suture. Mesocoxa broadly separated by short, broad, apically obtuse angulate intercoxal process of metaventrite. Metaventrite convex in ventral aspect. Median length to maximum width of metaventrite ratio ~ 0.44. Metathoracic discrimen distinct, incomplete. Metacoxal cavities broadly separated by long, apically rounded intercoxal process of first abdominal ventrite. Last visible tergite and ventrite broadly rounded at posterior margin. Legs long, femora long and narrow, not clavate. Protibia subequal in length to profemur, curved in apical 1/3. Meso- and metatibia shorter than corresponding femur, curved, slightly thickened distally. Tarsomeres ventrally each with a brush of dense orange setae. Penultimate tarsomere subcylindrical, not bilobate. Terminal tarsomere slightly curved, pretarsal claws with short empodium. Basal metatarsomere much shorter than combined length of remaining tarsomeres.

Sexual dimorphism. Unknown.

Ecology. Unknown.

Distribution. Southern arm of Sulawesi (Southern Sulawesi Province).

Key to species assigned to *Gauromaia* subgenus *Celebesa*

1	Body length to maximum width ratio ~ 2.8–2.9; prosternal intercoxal process at posterior extent of procoxal cavity nearly right-angled, step-like shaped in lateral view; elytral striae deep, interstriae convex; elytra elongate, ~ 1.8× as long as combined width . . . . . ***G.* (*C.*) *striata* comb. nov.**
–	Body length to maximum width ratio 2.6 or less; posterior margin of prosternal intercoxal process at posterior extent of procoxal cavity either declivous, rarely step-like in lateral view; elytral striae flat or moderately deep, interstriae flat or slightly convex; elytra less elongate, ≤1.6× as long as combined width **2**
2	Mentum each side to median portion with deep posterolateral pit, pit anterior margin raised in ventral aspect . . . . . ***G.* (*C.*) *latipennis* comb. nov.**
–	Mentum posterolaterally without deep pits, with or without shallow ventral impressions **3**
3	Prosternal intercoxal process strongly humped in ventral aspect at posterior extent of procoxa; lateral portions of mentum with two rounded tubercles . . . . . ***G.* (*C.*) *impressa* comb. nov.**
–	Prosternal intercoxal process between procoxae flattened or evenly arched in ventral aspect; mentum without obvious rounded tubercles **4**
4	Elytral interstriae slightly convex; elytral striae comparatively deeper cut; prosternal intercoxal process constricted apically in ventral, declivous in lateral view . . . . . ***G.* (*C.*) *angustior* comb. nov.**
–	Elytral interstriae entirely flat; elytral striae delicately cut, shallow; prosternal intercoxal process subparallel, broadly rounded at apically in ventral, nearly right-angled in lateral view . . . . . ***G.* (*C.*) *elongata* comb. nov.**

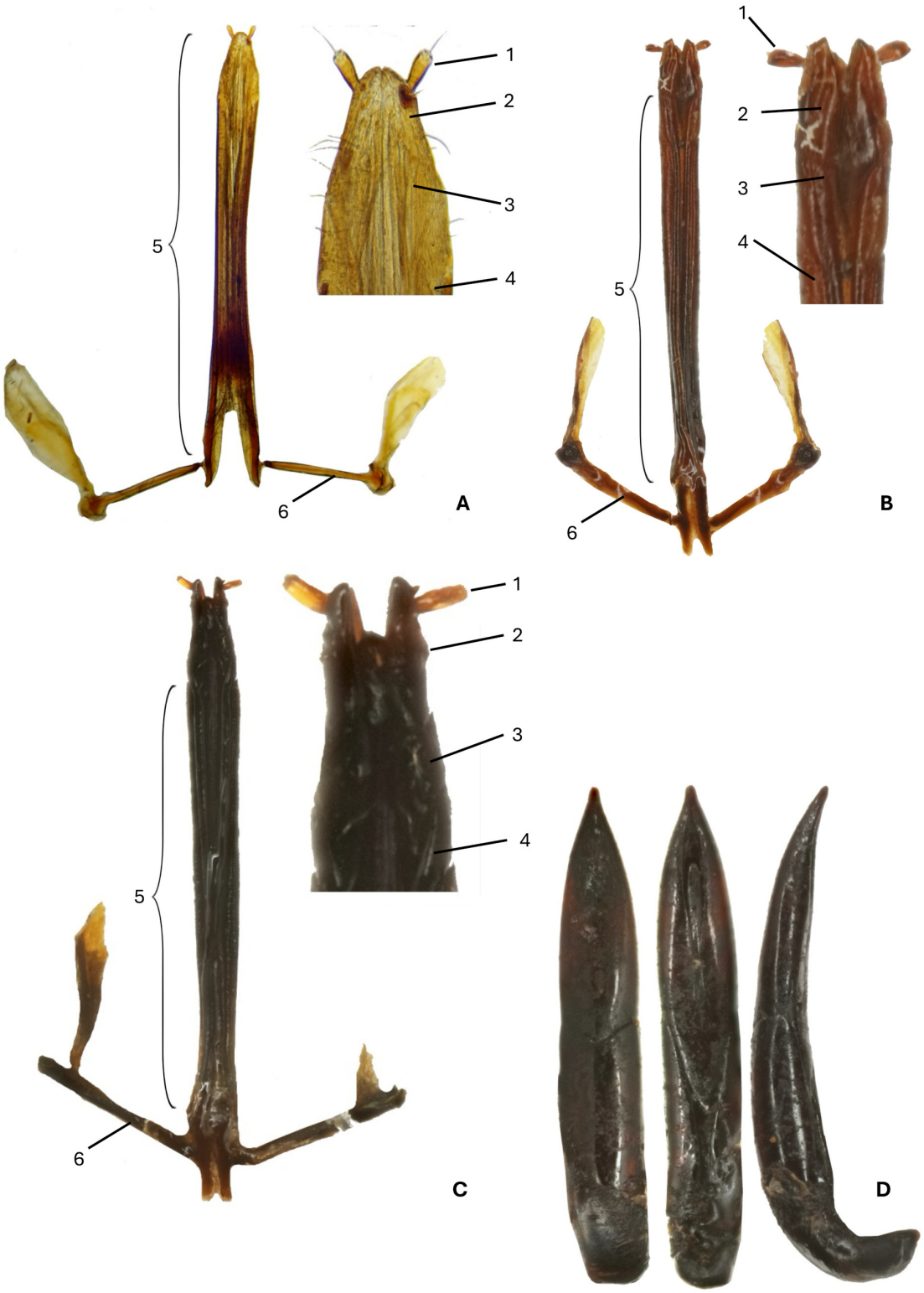

FIGURE 11. *Gauromaia* Pascoe, 1866 species, genitalia. A–*G.* (s. str.) *dives* Pascoe, 1866, ♀ from Sumatra (BMNH), ovipositor, entire view and apex (magnified); B–*G.* (*Celebesa*) sp., ♀ from Tambusigi, Central Sulawesi (BMNH), ovipositor, entire view and apex (magnified); C–*G.* (*Falsogauromaia*) *annulipes* (Pic, 1921), ♀ from Crocker Range, Sabah (BMNH), ovipositor, entire view and apex (magnified); D–*G.* (*Celebesa*) *angustior* (Pic, 1921) **comb. nov.**, ♀ from near Battang village, South Sulawesi (DTC), aedeagus in ventral, lateral and dorsal view [not to scale]. Abbreviations: A1–Gonostylus; A2–Coxite lobe 4; A3–Coxite lobe 3; A4–Coxite lobe 2; A5–Coxite; A6–Paraproct and a connecting membrane; B1–Gonostylus; B2–Coxite lobe 4; B3–Coxite lobe 3; B4–Coxite lobe 2; B5–Coxite lobe 1; B6–Paraproct and a connecting membrane; C1–Gonostylus; C2–Coxite lobe 4; C3–Coxite lobe 3; C4–Coxite lobe 2; C5–Coxite lobe 1; C6–Paraproct and a connecting membrane.

Gauromaia subgenus *Falsogauromaia* Pic, 1921

Pic 1921: 22. Type species *Falsogauromaia annulipes* Pic, 1921 (monotypy).
Ando 1989: 105, treated as a subgenus of *Gauromaia*.

Gauromaia (*Falsogauromaia*) *annulipes* Pic, 1921
(Figs 4–5, 11C)

Falsogauromaia annulipes: Pic 1921: 22 (description); Ando 1987: 3 (redescription).
Gauromaia (*Falsogauromaia*) *annulipes*: Ando 1989: 105 (new combination, record).

Type material examined. Lectotype ♀ MNHN [herewith designated]: Kina Balu [handwritten] // 103 [handwritten] // Muséum Paris Coll. M. Pic [printed] // SYNTYPE [printed, label red] // Syntype Falsogauromaia annulipes Pic, 1921 [printed] // MNHN, Paris EC25135 [printed, supplemented with a QR code]; paralectotype 1 specimen [not sexed] MNHN: Bornéo [handwritten] // type [handwritten] // Falsogauromaia annulipes n sp [handwritten] // annulipes Pic [handwritten] // Muséum Paris Coll. M. Pic [printed] // SYNTYPE [printed, label red] // Syntype Falsogauromaia annulipes Pic, 1921 [printed] // MNHN, Paris EC25134 [printed, supplemented with a QR code].

New material examined. 1 specimen DTPC: EAST MALAYSIA, BORNEO, Sabah, Tambunan env., Crocker Range foothills, 5°43'N, 116°18'E, 02-04.VI.1997, edge of primary lower montane rainforest, leg. local collector; 2♀ BMNH: BORNEO: Sabah Crocker Range 24.iv.2005 Steven Chew leg. BMNH{E} 2006-36.

Distribution. Considered endemic to Sabah, Borneo, Greater Sunda Islands.

Annotated checklist of *Gauromaia* species

Species marked with * are most probably not *Gauromaia*, because they are lacking features of the genus. However, as we were unable to review the type material, we have avoided introducing new taxonomic combinations at this time.

Gauromaia (*Gauromaia*) *alternata* Fairmaire, 1882 [Type locality: “Atjeh” (Sumatra)] *
Gauromaia (*Gauromaia*) *alutaceipes* Pic, 1923b [Type locality: “Tonkin” (Vietnam)]
Gauromaia (*Gauromaia*) *bella* Pic, 1925 [Type locality: “Basilan” (Philippines)]
Gauromaia (*Gauromaia*) *borneensis* Pic, 1923a [Type locality: “Borneo”]
Gauromaia (*Gauromaia*) *boucardi* Pic, 1925 [Type locality: “Sumatra”]
Gauromaia (*Gauromaia*) *chiangdaoensis* Masumoto & Akita, 2023 [Type locality: “Chiang Mai, / Chiang Dao Hill Resort”, Thailand] *
Gauromaia (*Gauromaia*) *diversipes* Fairmaire, 1896 [Type locality: “Borneo”]
Gauromaia (*Gauromaia*) *dives* Pascoe, 1866 [Type locality: “Mount Ophir (Malacca)”]
Gauromaia (*Gauromaia*) *dorsu* Medina & Cabras, 2023 [Type locality: “Brgy. Eureka (Gingoog City, Misamis Oriental)” (Philippines)]
Gauromaia (*Gauromaia*) *formosana* Masumoto, 1981 [Type locality: “Jiyue-tan, Nantou Hsien” (Taiwan)]
Gauromaia (*Gauromaia*) *haagi* Fairmaire, 1896 [Type locality: “Borneo”]
Gauromaia (*Gauromaia*) *hasselti* Fairmaire, 1882 [Type locality: “Boenga (Palembang)” (Sumatra)]
Gauromaia (*Gauromaia*) *himalaica* Schawaller, 2006 [Type locality: “Waleng Iswa Khola” (Arun Valley, Nepal)]
Gauromaia (*Gauromaia*) *huachewi* Ando & Cheong, 2024 [Type locality: “NeeSoon pipeline” (Singapore)]
Gauromaia (*Gauromaia*) *janthina* Fairmaire, 1893 [Type locality: “Singapore”]
Gauromaia (*Gauromaia*) *javana* Pic, 1922b [Type locality: “Java”]
Gauromaia (*Gauromaia*) *kitangladensis* Medina, Cabras & Ruzzier, 2022 [Type locality: “Mt. Kitanglad Range Natural Park” (Bukidnon Province, Philippines)]
Gauromaia (*Gauromaia*) *laticeps* Gebien, 1921 [Type locality: “Luzon” (Philippines)]
Gauromaia (*Gauromaia*) *magniceps* Pic, 1927 [Type locality: “Indes Meridionales”]
Gauromaia (*Gauromaia*) *maruyamai* Ando, 2020 [Type locality: “Malaysia: Selangor, Ulu Gombak (Univ. Malaya Field Studies Centre)”]

Gauromaia (*Gauromaia*) *medanensis* Pic, 1922a [Type locality: “Sumatra”]
Gauromaia (*Gauromaia*) *micans* Ando, 2020 [Type locality: “Petchaburi, Kaeng Krachan N. P., Ban Krang” (Thailand)]
Gauromaia (*Gauromaia*) *mindoroensis* Ando, 2020 [Type locality: “Mt. Halcon” (Arangin, Naujan, Mindoro Is., Philippines)]
Gauromaia (*Gauromaia*) *morimotoi* Ando, 2020 [Type locality: “Nr. Keningau (Sabah, N. Borneo)”]
Gauromaia (*Gauromaia*) *niasensis* Pic, 1922a [Type locality: “Ile Nias” (Indonesia)]
Gauromaia (*Gauromaia*) *purpurea* Medina & Cabras, 2023 [Type locality: “Lake Holon (Mt. Parker, Koronadal, South Cotabato)” (Philippines)]
Gauromaia (*Gauromaia*) *raffrayi* Pic, 1927 [Type locality “Zanzibar”] *
Gauromaia (*Gauromaia*) *robusta* Pic, 1922a [Type locality: “Kina-Balu” (Borneo)]
Gauromaia (*Gauromaia*) *robustior* Pic, 1938 [Type locality: “Senggoro” (Riau Province, Indonesia)]
Gauromaia (*Gauromaia*) *ruffordi* Medina, Cabras & Ruzzier, 2022 [Type locality: “Catigan Toril” (Davao City, Davao Region, Philippines)]
Gauromaia (*Gauromaia*) *rufiventris* Gebien, 1914 [Type locality: “Sinabang (Simalur)” (Simeulue Is.)]
Gauromaia (*Gauromaia*) *semicyanea* Fairmaire, 1893 [Type locality: “Sumatra”]
Gauromaia (*Gauromaia*) *semiopaca* Pic, 1922b [Type locality: “Java”]
Gauromaia (*Gauromaia*) *suturata* Fairmaire, 1896 [Type locality: “Sumatra”]
Gauromaia (*Gauromaia*) *tenuefasciata* Pic, 1922a [Type locality: “Tonkin” (Vietnam)]
Gauromaia (*Gauromaia*) *tenuestriata* Fairmaire, 1891 [Type locality: “Kashmir”]
Gauromaia (*Gauromaia*) *thailandica* Masumoto & Akita, 2023 [Type locality: “Khon Kaen Univ. / Thailand”] *
Gauromaia (*Gauromaia*) *tsurui* Masumoto & Akita, 2023 [Type locality: “Chiang Mai / Mae Rim / Non”, Thailand]
Gauromaia (*Gauromaia*) *tsuyukii* Masumoto & Akita, 2023 [Type locality: “Si Phangnga N. P. / Phangnga-Prov. / South Thailand”] *
Gauromaia (*Gauromaia*) *variicolor* Pic, 1922b [Type locality: “Borneo”]
Gauromaia (*Gauromaia*) *viridescens* Pic, 1923a [Type locality: “Sumatra”]
Gauromaia (*Gauromaia*) *viridicollis* (Pic, 1923c) [Type locality: “Borneo”]
Gauromaia (*Gauromaia*) *viridijanthina* Fairmaire, 1882 [Type locality: “Alahan Panjang” (Sumatra)]
Gauromaia (*Gauromaia*) *viridipennis* Pic, 1922b [Type locality: “Java”]
Gauromaia (*Gauromaia*) *viridipes* Pic, 1923a [Type locality: “Ile Nias” (Indonesia)]

Gauromaia (*Celebesa*) *angustior* (Pic, 1921) **comb. nov.** [Type locality: “Célèbes”]
= *Celebesa purpurea* (Pic, 1921) **syn. nov.** [Type locality: “Célèbes”]
Gauromaia (*Celebesa*) *elongata* (Pic, 1921) **comb. nov.** [Type locality: “Célèbes”]
Gauromaia (*Celebesa*) *impressa* (Pic, 1923a) **comb. nov.** [Type locality: “Célèbes”]
Gauromaia (*Celebesa*) *latipennis* (Pic, 1921) **comb. nov.** [Type locality: “Célèbes”]
Gauromaia (*Celebesa*) *striata* (Pic, 1923a) **comb. nov.** [Type locality: “Célèbes”]

Gauromaia (*Falsogauromaia*) *annulipes* Pic, 1921a [Type locality: “Kina Balu” (Borneo)]
Gauromaia (*Falsogauromaia*) *cyanipes* Pic, 1923a [Type locality: “Banguey” (Banggi Is., Malaysia)]
= *Gauromaia* (*Falsogauromaia*) *yamamotoi* Ando, 1987 (Ando 2007) [Type locality: “Sepilok (North Borneo)”]
Gauromaia (*Falsogauromaia*) *erotyloides* Ando, 1989 [Type locality: “Head Quarter (North Borneo)”]

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References

Ando, K. (1987) Two new Malaysian tenebrionid-beetles with note *on Falsogauromaia annulipes* Pic (Coleoptera). *Entomological Review of Japan*, 62, 1–7.

Ando, K. (1989) Studies on the Tenebrionidae of Shibata collection mainly from SE Asia. I. *Entomological Review of Japan*, 44, 105–110.

Ando, K. (2007) Some unfamiliar tenebrionid species deposited in the British Museum (Natural History), with two new species of the tribe Cnodalonini (Tenebrionidae). *Entomological Review of Japan*, 3 (1), 117–125.

Ando, K. (2011) Tenebrionid beetles of Sulawesi. *Nature and Insects*, 46 (10), 21–24, two unnumbered plates.

Ando, K. (2020) Four new species of the genus *Gauromaia* Pascoe (Coleoptera, Tenebrionidae), with a new combination. *Elytra*, *New Series*, 10 (1), 119–128.

Ando, K. & Cheong, L.F. (2024) Notes on the Cnodalonini-species (Coleoptera, Tenebrionidae) in Singapore and its adjacent areas, with nine new species and some new records. *Elytra*, New Series, 14 (1), 27–48.

Fairmaire, L. (1882) Coléoptères hétéromères de Sumatra. *Notes from the Leyden Museum*, 4 (4), 219–265.

Fairmaire, L. (1891) Descriptions de Coléoptères des montagnes de Kashmir. *Annales de la Société entomologique de Belgique*, 35, 88–103.

Fairmaire, L. (1893) Coléoptères nouveaux des Indes Orientales, de la famille des Scarabaeidae, Rhipidoceridae, Tenebrionidae et Oedemeridae. *Notes from the Leyden Museum*, 15 (1), 17–64.

Fairmaire, L. (1896) Coléoptères de l'Inde boréale, Chine et Malaisie. *Notes from the Leyden Museum*, 18 (2–3), 81–129.

Gebien, H. (1914) Fauna Simalurensis. Coleoptera, Fam. Tenebrionidae. *Notes from the Leyden Museum*, 36 (1–2), 61–80.

Gebien, H. (1921) Philippine Tenebrionidae II. *The Philippine Journal of Science*, 19, 439–516. https://doi.org/10.5962/bhl.part.1233

Gebien, H. (1941) Katalog der Tenebrioniden (Col. Heteromera). Teil 2. *Mitteilungen der Münchner Entomologischen Gesellschaft*, 31, 1131–1146.

Kergoat, G. J., Bouchard, P., Clamens, A.-L., Abbate, J.L., Jourdan, H., Jabbour-Zahab, R., Genson, G., Soldati, L. & Condamine, F.L. (2014) Cretaceous environmental changes led to high extinction rates in a hyperdiverse beetle family. *BMC Evolutionary Biology*, 14, 1–13. https://doi.org/10.1186/s12862-014-0220-1

Masumoto, K. (1981) Tenebrionidae of Formosa (II). *Elytra*, 9 (1), 15–52.

Masumoto, K. & Makihara, H. (1997). Study on the tenebrionid beetles in South Sumatra. *Bulletin of Forestry and Forest Products Research Institute*, 374, 115-143.

Masumoto, K. & Akita, K. (2023) Fourteen new tenebrionid species from Thailand and Laos. *Folia Heyrovskyana*, *Series A*, 31 (2), 13–49.

Medina, M.N.D., Cabras, A.A. & Ruzzier, E. (2022) The Tenebrionidae Latreille, 1802 (Coleoptera: Tenebrionoidea) of the Philippines. Part 2. Two new species of the genus *Gauromaia* Pascoe, 1866 (Cnodalonini) from Mindanao Island. *Zootaxa*, 5178 (3), 278–284. https://doi.org/10.11646/zootaxa.5178.3.6

Medina, M.N.D., Cudera, R.B., Villegas, J.P. & Cabras, A.A. (2023) Two new species of darkling beetles of the genus *Gauromaia* Pascoe, 1866 (Coleoptera: Tenebrionidae: Cnodalonini) from central and southern Mindanao with updated species geographic distribution and a key to species of the Philippine fauna. *Philippine Journal of Science*, 152 (3), 1189–1196. https://doi.org/10.56899/152.03.34

Pascoe, F.P. (1866) Notices of new or little-known genera and species of Coleoptera. Part V. *The Journal of Entomology*, 2 [1863–1866], 443–493, pls. 18–19.

Pic, M. (1921) Nouveaulés diverses. *Mélanges exotico-entomologiques*, 34, 1–33.

Pic, M. (1922a) Diagnoses d'Hétéromères du Tonkin [Col.]. *Bulletin de la Société entomologique de France*, 27 (5), 66–67. https://doi.org/10.3406/bsef.1922.26938

Pic, M. (1922b) Nouveautés diverses. *Mélanges Exotico-entomologiques*, 35, 1–32.

Pic, M. (1923a) Nouveaulés diverses. *Mélanges exotico-entomologiques*, 38, 1–32.

Pic, M. (1923b) Coléoptères exotiques en partie nouveaux. *L'Échange, Revue Linnéene*, 39, 7–8. https://doi.org/10.3406/bsef.1902.22988

Pic, M. (1925) Nouveautés diverses. *Mélanges Exotico-entomologiques*, 43, 1–32.

Pic, M. (1927) Nouveautés diverses. *Mélanges Exotico-entomologiques*, 48, 1–32.

Riley, N.D. (1923) Insecta. *In:* Sclater, W.L. (Ed.), *The zoological record, volume the fifty-eighth being records of zoological literature relating chiefly to the year 1921*. Zoological Society of London, London, pp. 1–270.

Schawaller, W. (2006) New species, new records and new synonyms of Tenebrionidae (Insecta: Coleoptera) from Nepal. *In:* Hartmann, M. & Weipert, J. (Eds.), *Biodiversität & Naturausstattung im Himalaya*. *Vol. 2*. Freunde und Förderer des Naturkundemuseums Erfurt, Erfurt, pp. 475–482, pls. ix–x.