

# Four new species of the genus *Metapocyrtus* Heller, 1912 (Coleoptera: Curculionidae: Pachyrhynchini) from Mindanao Island, Philippines

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Four new species of the tribe Pachyrhynchini of the genus *Metapocyrtus* Heller, 1912 (Coleoptera: Curculionidae: Pachyrhynchini) from the Mindanao Island, Philippines are described and illustrated: *M. (M.) tetramaculatus* sp. nov., *M. (M.) fulvus* sp. nov., *M. (T.) unilineatus* sp. nov., *M. (T.) pseudolanaoensis* sp. nov. The supplementary photographic and comparative material is provided.

Key words: Coleoptera, Curculionidae, Pachyrhynchini, *Metapocyrtus*, taxonomy, Philippines, fauna, Mindanao Island.

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## INTRODUCTION

The *Metapocyrtus* fauna of Mindanao Island is currently is represented by 80 species of seven subgenera, with a fair part of species described in near past years (Heller 1912, Schultze 1925, Cabras et. al. 2022, Cabras & Mainda 2023, Bollino & Bordoni 2021).

During my research on fauna of Pachyrhynchini available at DUBC, four species of the genus *Metapocyrtus* Heller, 1912 appeared to differ from all known representatives. Two of the new species belong to subgenera *Metapocyrtus*, two to *Trachycyrtus*, all these species are described as new in this paper.

## MATERIAL AND METHODS

The study was based on specimens deposited at the Daugavpils University Beetle Collection (DUBC), Daugavpils, Latvia.

The laboratory research and measurements have been carried out using Nikon SMZ 745T and NIS-Elements 6D software. The illustrations were made using digital camera Canon EOS 6D with Canon MP-E 65mm macro lens, using stack shot system and Helicon Focus auto montage, subsequently was edited using Photoshop.

Label data are cited *verbatim*. In the text the following symbols and abbreviations were used:

/ = different lines;  
// = different labels;

LB = body length, from apical margin of pronotum to the apex of elytra;  
 LE = elytral length;  
 LP = pronotal length;  
 LR = length of the rostrum;  
 WE = maximum width of the elytra;  
 WP = maximum width of the pronotum;  
 WR = maximum width of the rostrum.

## RESULTS

### *Metapocyrtus (Metapocyrtus) tetramaculatus* sp. nov.

(Fig. 1A, 2, 4A,B)

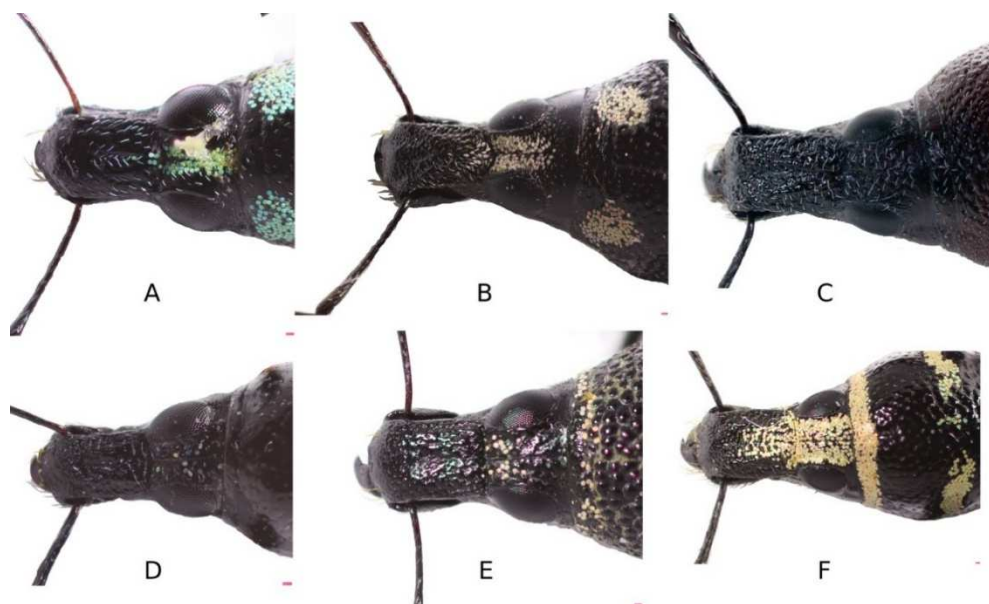


Fig. 1. Dorsal view of rostrum of selected species: A – *M. (M.) tetramaculatus* sp. nov.; B – *M. (M.) flavomaculatus* Cabras & Medina, 2021; C – *M. (M.) fulvus* sp. nov.; D – *M. (T.) unalineatus* sp. nov.; E – *M. (T.) pseudolanaoensis* sp. nov.; F – *M. (M.) lanaoensis* Bollino, 2021.

**Type material. Holotype, male:** “PHILIPPINES / Mindanao, Agusan, Sibagat / IX. 2015 / local collector leg.” (white rectangular label, printed) // “HOLOTYPE / *M. (M.) tetramaculatus* / Rukmane-Bärbale, 2023” (red rectangular label, printed).

**Paratypes: (3 females):** “PHILIPPINES / Mindanao, Agusan, Sibagat / IX. 2015 / local collector leg.” // “PHILIPPINES / Mindanao, Bukidnon, Cabanglasan / X. 2015 / local collector leg.” // “PHILIP-

PINES / Mindanao, Bukidnon, Cabanglasan / VIII. 2022 / local collector leg.” (white rectangular label, printed), with additional red label: “PARATYPE / *M. (M.) tetramaculatus* / Rukmane-Bärbale, 2023” (all in DUBC).

**Description. Holotype, Male.** (Fig. 2A) Dimensions: LB: 6,1, LR: 1,1, WR: 0,9, LP: 2,1, WP: 1,9, LE: 4,0, WE: 2,8. N = 1 for all measurements.

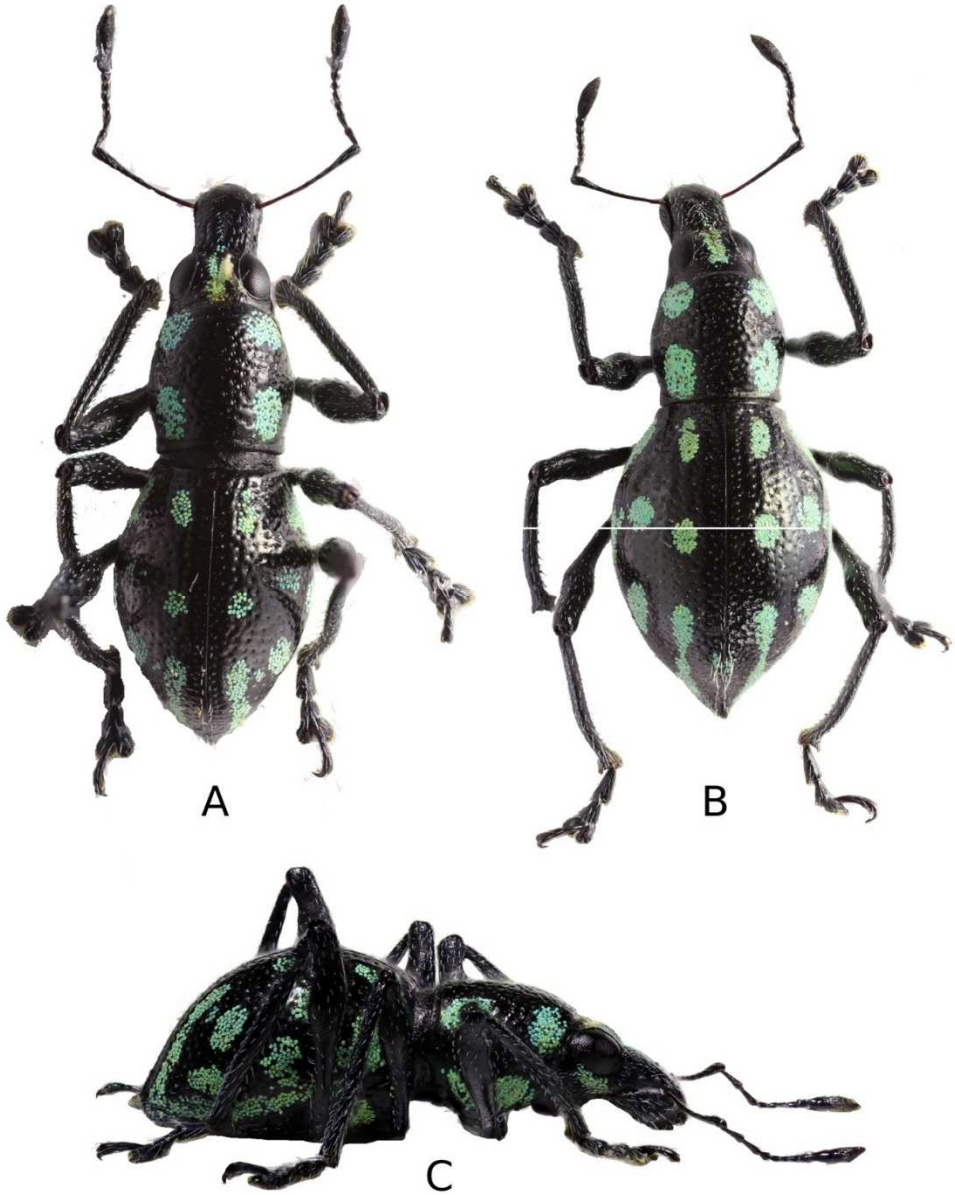


Fig. 2. Habitus of *M. (M.) tetramaculatus* sp. nov. A – dorsal view, male, holotype; B – dorsal view, female; C – lateral view, male, holotype.

**Coloration.** Integument black, shiny, with markings of round, metallic green to turquoise scales.

**Head.** Dorsal surface smooth, with longitudinal line of green to turquoise scales; sur-

face between eyes with sparse white to greenish setae; genae with patch of metallic green to turquoise scales and green hair-like scales; shallow medial longitudinal groove from base of the eyes to base anterior margin of prothorax; transverse, moderate fur-

row at base of eyes confluent with medial longitudinal groove; eyes large, strongly convex from outline of head.

**Rostrum.** (Fig. 1A) longer than wide (LR/WR: 1,22), smooth at posterior half, slightly punctured at anterior half; green to white setae from apical ½ to base; dorsum with moderate medial longitudinal furrow and corresponding shallow concavity; in dorsal contour straight; in lateral contour-raised dorsally at base, then gradually declined to apex; lateral parts covered with long white to shiny green setae.

**Antennae** with antennal scrobe not reaching margin of eye, curved downwards; antennal scape reaching anterior margin of prothorax; funicular segment I nearly three times as long as wide, slightly longer than II, segment II nearly two times longer than III, segments III – VI as long as wide, segment VII larger, as long as wide, club 2,5 times as long as wide.

**Prothorax** sub cylindrical, slightly longer than wide (LP/WP: 1,1), strongly punctured, with corresponding, short, white setae; widest just before the middle; in dorsal contour narrowed along anterior margin, widened to just before the middle, gradually narrowed to before posterior margin, straight to posterior margin; with the following markings of round, metallic green to turquoise shales: 1) two spots along anterior margin on disc, each redirected laterally; 2) two spots at basal part, from middle to before posterior margin on disc, each redirected laterally; anterior groove confluent at disc, slightly redirected to middle; posterior groove confluent at disc, curved upwards at lateral parts.

**Elytra** sub-ellipsoidal, (LE/WE: 1,42), wider than prothorax nearly twice as long as prothorax (WE/WP: 1,47; LE/LP: 1,9); punctured in all length, without expressed

puncture rows; in dorsal contour widest just before the middle, moderately convex; each elytron with the following scally markings of round, metallic green to turquoise scales: 1) two sub basal spots; 2) three spots at the medial part; 3) three spots along apical 1/3; 4) longitudinal apical stripe; goldish, thick setae from apical ½ to apex.

**Fore tibia** without denticles along internal margin. Male genitalia as shown in Fig.4A, B.

**Female.** Elytra wider with strongly expressed apex, legs not as thick as in males, otherwise as in males; dorsal habitus as in Fig. 2B.

**Differential analyses.** The new species by black body colour, small size and presence of four scally spots on disc of prothorax, two at basal part and two along apical margin, is similar to *M. (M.) flavomaculatus* Cabras & Medina, 2021, the new species can be easily distinguished by the following characters: 1) large, strongly prominent eyes in *M. (M.) tetramaculatus* sp. nov. instead of relatively small, weakly prominent eyes in *M. (M.) flavomaculatus* Cabras & Medina (Fig. 1B); 2) scally markings of green to turquoise colour in *M. (M.) tetramaculatus* sp. nov. instead of yellow ochre spots in *M. (M.) flavomaculatus* Cabras & Medina, 2021 (Fig. 3); 3) narrow body of *M. (M.) tetramaculatus* sp. nov.

**Distribution.** North Central Mindanao Island, Bukidnon and Agusan Provinces.

**Etymology.** The specific epithet is a latinised designation of four scally spots on disc of prothorax. Tetra – four, maculata – spots.

***Metapocyrtus (Metapocyrtus) fulvus* sp. nov.**  
(Fig. 1C, 4C-D, 5)

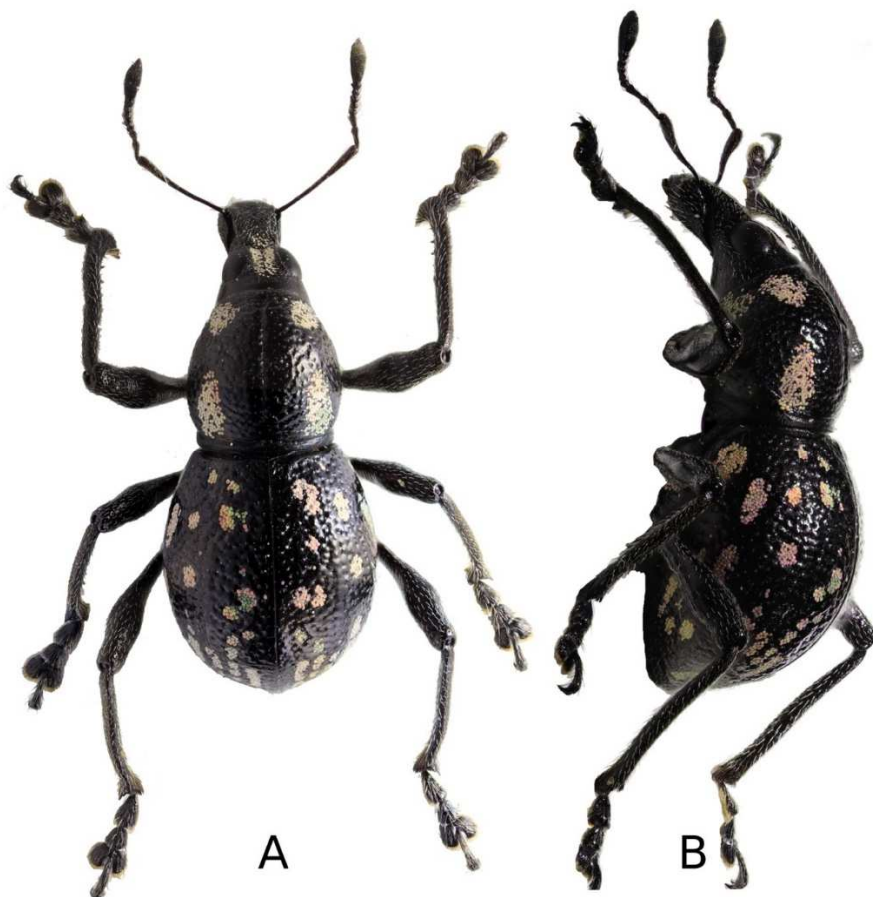


Fig. 3. Habitus of *M. (M.) flavomaculatus* Cabras & Medina, 2021, female; A – dorsal view; B – lateral view.

**Type material. Holotype, male:** “PHILIPPINES / Mindanao, Bukidnon, Intavas / I. 2016 / local collector leg.” (white rectangular label, printed) // “HOLOTYPE / *M. (M.) fulvus* / Rukmane-Bärbale, 2023” (red rectangular label, printed).

**Paratypes: (1 female)** “PHILIPPINES / Mindanao, Bukidnon, Cabanglasan / IV. 2016 / local collector leg.”, with additional red label: “PARATYPE / *M. (M.) fulvus* / Rukmane-Bärbale, 2023” (all in DUBC).

**Description. Holotype, Male.** (Fig. 5A) Dimensions: LB: 8,6, LR: 1,6, WR: 1,2,

LP: 2,5, WP: 2,8, LE: 5,3, WE: 3,4. N = 1 for all measurements.

**Coloration.** Prothorax, elytra, head, femur, and tarsus reddish, brown to black; body surface shiny, without scally markings.

**Head.** Dorsal surface moderately punctured; surface between eyes and genae with sparse white setae; forehead flattish; shallow medial longitudinal furrow from base of the eyes to before anterior margin of prothorax; transverse, shallow furrow at base of the eyes confluent with medial longitudinal furrow; eyes medium-sized, slightly convex from outline of head.

**Rostrum.** (Fig. 1C) longer than wide (LR/WR: 1,1,33), punctured in all length; white setae in all length; dorsum with moderate medial longitudinal furrow from middle of apical part to base, with shallow concavity; in dorsal contour nearly straight, slightly widened along basal ½; in lateral contour straight from base, decreased from apical ½ to apex.

**Antennae** with antennal scape slightly longer than funicle, scape reaching beyond hind margin of eye; rare white setae at anterior half; funicular segment 1,5 times longer than II, segment II 1,5 times longer than III, segments III – V as long as wide, segments VI - VII wider than long.

**Prothorax** sub globular, slightly wider than long (WP/LP: 1,12), strongly rugose, covered with white, short setae in all length and longer setae along anterior margin; widest

just at the middle, in dorsal contour narrowed along anterior margin, gradually widened middle, gradually narrowed to before posterior margin, straight to posterior margin; with pronounced, continuous anterior and posterior groove; with shallow medial longitudinal groove at disc.

**Elytra** sub-ovate, (LE/WE: 1,55), wider than prothorax and more than twice as long as prothorax (WE/WP: 1,21; LE/LP: 2,12); striate punctate in all length; puncture rows expressed near suture and more chaotic to lateral margin; in dorsal contour widest just at the middle, weakly convex; short white setae corresponding puncture.

**Femora** and tibia covered with sparse white setae from middle towards anterior margin; fore-tibia with denticles along internal margin, mucronate. Male genitalia as shown in Fig. 4C, D.



Fig. 4. Male genitalia of selected species, A, C, E – aedeagal body in lateral view; B, D, F – sternite IX; A, B – *M. (M.) tetramaculatus* sp. nov., C, D – *M. (M.) fulvus* sp. nov., E, F – *M. (T.) unilineatus* sp. nov.

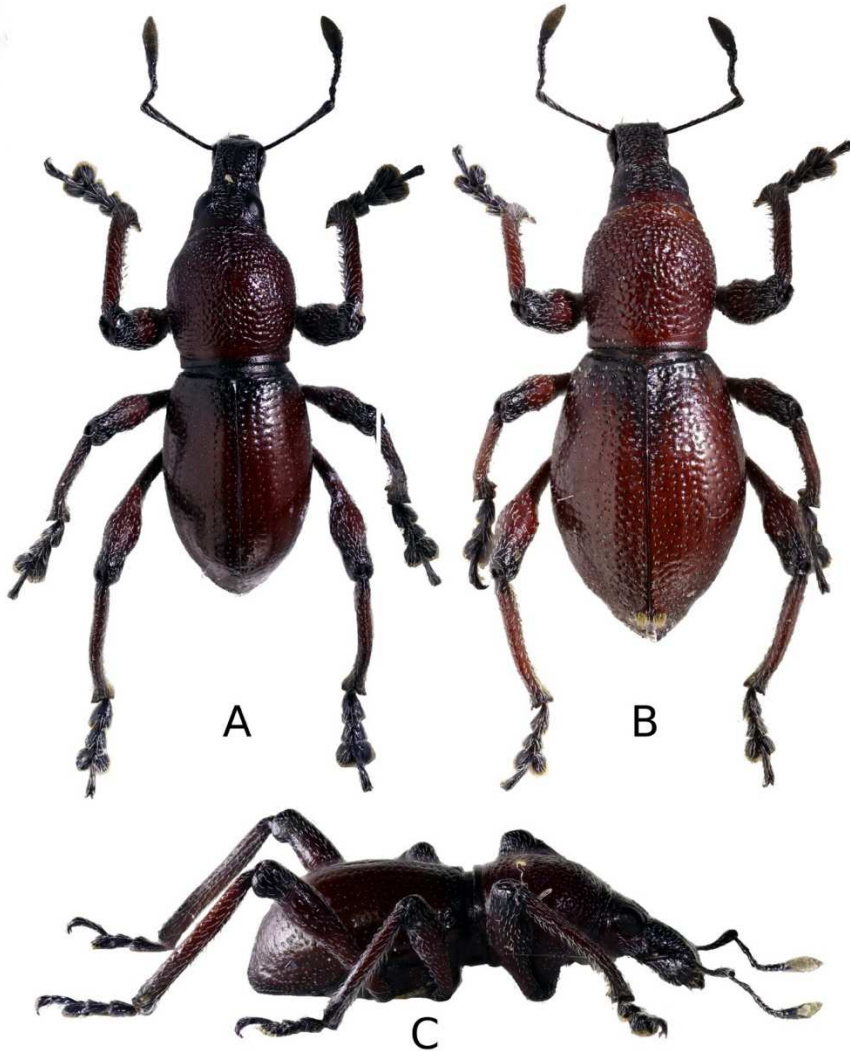


Fig. 5. Habitus of *M. (M.) fulvu* ssp. nov. A – dorsal view, male, holotype; B – dorsal view, female; C – lateral view, male, holotype.

**Female.** Dorsal habitus as shown in Fig. 5B, elytra wider, apex of elytral declivity with tuft of bristles.

**Type material. Holotype, male:** "PHILIPPINES / Mindanao, Lanao, Wao / VI. 2016 / local collector leg." (white rectangular label, printed) // "HOLOTYPE / *M. (T.) unilineatus* / Rukmane-Bärbale, 2023" (red rectangular label, printed).

**Paratypes: (1 male, 1 female):** both with the same location label as holotype, with additional red label: "PARATYPE / *M. (T.) unilineatus* / Rukmane-Bärbale, 2023" (all in DUBC).

**Description. Holotype, Male.** (Fig. 6A) Dimensions: LB: 4,8, LR: 0,9, WR: 0,6, LP: 1,9, WP: 1,6, LE: 2,9, WE: 2,0. N = 1 for all measurements.

**Coloration.** Body black, strongly shiny, with markings of round, metallic pink, greenish to silver scales.

**Head.** Dorsal surface smooth, with single colourful scales; surface between eyes and genae with rare silver setae; genae without scally markings; shallow medial longitudinal groove in all length; transverse, moderate furrow at base of eyes, not reaching lateral margins, confluent with medial longitudinal groove; eyes large, strongly convex from outline of head.

**Rostrum.** (Fig. 1D) longer than wide (LR/WR: 1,5), rugose in all length; silver setae in all length; dorsum with moderate medial longitudinal furrow and corresponding shallow concavity; in dorsal contour straight; in lateral contour nearly straight.

**Antennae** with antennal scape reaching behind margin of eye; funicular segment I nearly four times as long as wide, nearly two times longer than II, segment II more than two times longer than III, segments III – VII as long as wide, club wide, two times as long as wide.

**Prothorax** sub globular, slightly longer than wide (LP/WP: 1,18), moderately punctured with corresponding, short, silver setae; widest just at the middle; without scally markings; with strongly pronounced, continuous anterior and posterior groove; anterior margin curved anteriorly.

**Elytra** sub-ellipsoidal, (LE/WE: 1,45), wider than prothorax and 1,5 times as long as prothorax (WE/WP: 1,25; LE/LP: 1,52); moderately punctured in all length, with expressed puncture rows and corresponding short setae; in dorsal contour widest just before the middle, slightly convex; with the following scally markings: 1) one longitudinal line of scales along suture; 2) longitudinal line of scales along lateral margin of each elytron.

**Tibia** strongly widened from before middle to anterior 2/3; with long, rare silver setae from basal ½ to anterior edge; reddish in colour at basal part; tibia with shorter setae, without denticles along internal margin. Male genitalia as shown in Fig. 4E-F.

**Female.** Elytra wider, more strongly rounded, with strongly expressed apex, with brown, thick setae along apex; otherwise as in males; dorsal habitus as in Fig. 6B.

**Differential analyses.** The new species is unique in appearance and different from all known members of the genus, by brown - reddish colour of prothorax and general body shape new species can be referred to *M. (M.) ged* Cabras & Medina, 2021, but can be easily distinguished by bare body without scally markings.

**Distribution.** Mindanao Island, Bukidnon Province.

**Etymology.** The specific epithet is a latinised name of specific body colouration of *M. (M.) fulvus* sp. nov. Fulva – reddish, brownish.

***Metapocyrtus (Trachycyrtus) unalineatus*** sp. nov.  
(Fig. 1D, 4E-F, 6)

**Differential analyses.** The new species is referred to subgenera *Trachycyrtus* by following characters of rostrum: transverse groove that is not extending to lateral edges, shallow medial ridge at apical part and rounded lateral edges. Along subgeneric conquerors, the new species is unique in having longitudinal scale line along suture of elytra while rest of the species have transverse line markings, spots or single dispersed scales.

**Distribution.** Mindanao Island, Lanao Province, Wao.



**Etymology.** The specific epithet is a latinised designation of one scally longitudinal line along suture of elytra. One – una, line – lineata.

*Metapocyrtus* (*Trachycyrtus*) *pseudolanaoensis* sp. nov.  
(Fig. 1E, 7)

**Type material. Holotype, male:** “PHILIPPINES / Mindanao, Agusan, Sibagat / XII. 2015 / local collector leg.” (white rectangular label, printed) // “HOLOTYPE / *M. (T.) pseudolanaoensis* / Rukmane-Bārbale, 2023” (red rectangular label, printed).

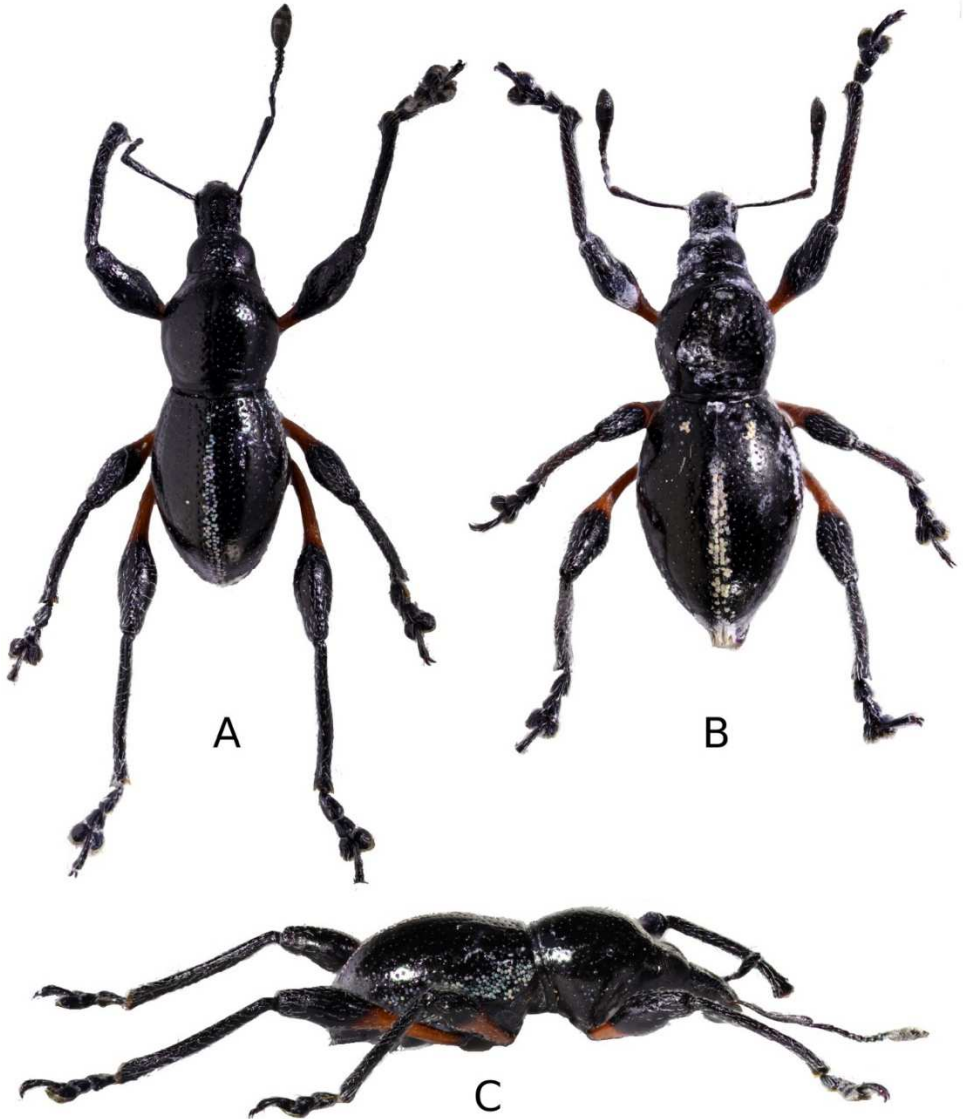


Fig. 6. Habitus of *M. (T.) unalineatus* sp. nov. A – dorsal view, male, holotype; B – dorsal view, female; C – lateral view, male, holotype.

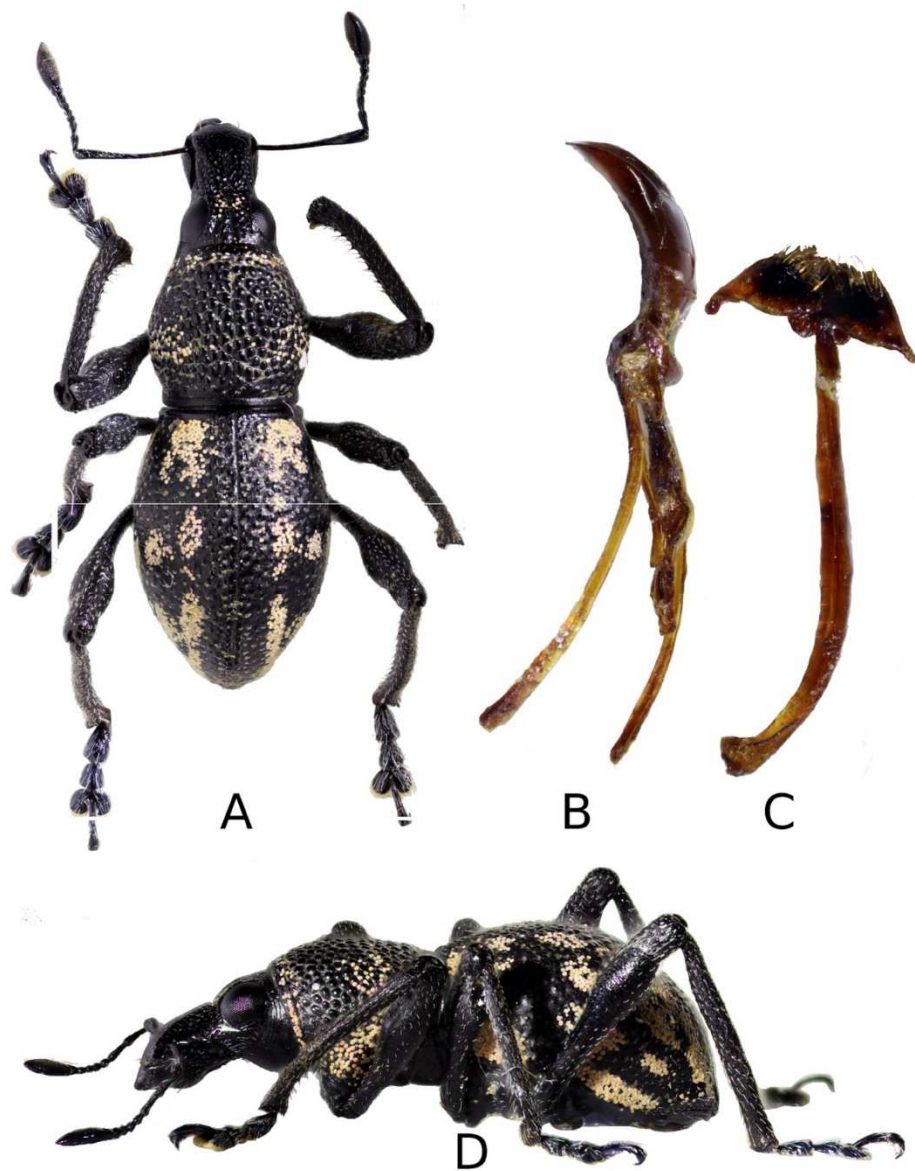


Fig. 7. Habitus of *M. (T.) pseudolanaoensis* sp. nov., male, holotype; A – dorsal view; D – lateral view; B – aedeagal body, lateral view; C – sternite IX.

**Description. Holotype, male.** (Fig. 7A) Dimensions: LB: 6,6, LR: 1,4, WR: 1,1, LP: 2,2, WP: 2,1, LE: 4,4, WE: 2,9. N = 1 for all measurements.

**Coloration.** Integument black, shiny, with markings of round, shiny orange scales.

**Head.** Dorsal surface slightly rugose, with single orange scales; surface between eyes with short white setae at basal part; genae with longer, white to metallic green setae; moderate medial longitudinal groove from base of the eyes to base anterior margin of prothorax; transverse, moderate furrow at

base of eyes confluent with medial longitudinal groove, not reaching lateral margins;

eyes moderate, weakly convex from outline of head.



Fig. 8. Habitus of *M. (M.) lanaoensis* Bollino, 2021; A – dorsal view; B – lateral view.

**Rostrum.** (Fig. 1E) longer than wide (LR/WR: 1,27), granulate in all length; short white setae at basal part; dorsum with shallow medial longitudinal furrow and corresponding shallow concavity; in dorsal contour straight; lateral parts covered with long white to shiny green setae.

**Antennae** with funicular segment I 1,5 times longer than II, segment II nearly two times longer than III, segments III – VI as long as wide, segment VII larger, wider than long.

**Prothorax** sub globular, nearly same width and length (LP/WP: 1,04), strongly rugose,

without setae or pubescence on disc; widest just at the middle; with the following markings of round, shiny orange shales: 1) transverse line along anterior margin in all length; 2) transverse line just after the middle in all length; shallow longitudinal medial groove on disc; anterior margin with short pubescence.

**Elytra** sub-ellipsoidal, (LE/WE: 1,51), wider than prothorax, twice as long as prothorax (WE/WP: 1,38; LE/LP: 2,0); rugose in all length, without expressed puncture rows; with short brown setae along suture from apical ½ to apex; each elytron with the following scally markings of round shiny orange scales: 1) two irregular spots at basal part; 2) 4-5 smaller spots at medial part; 3) three elongated longitudinal spots at apical part; 4) one longitudinal line at apical part near suture. Male genitalia as shown in Fig. 7B-C.

Female unknown.

**Differential analyses.** The new species by scally markings on prothorax and elytra can be referred to *M. (M.) lanaoensis* Bollino, 2021 (Fig. 8, Fig. 1F) but can be easily distinguished by features of rostrum that refers species to subgenera *Trachycyrtus*.

**Distribution.** Mindanao Island, Agusan Province.

**Etymology.** The specific epithet is related to similar general appearance to *M. (M.) lanaoensis* Bollino, 2021.

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