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Three new species of the genus *Metapocyrtus* Heller, 1912 (Curculionidae: Entiminae) from Negros Island, Philippines

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Three new species of the genus *Metapocyrtus* Heller, 1912 (Coleoptera: Curculionidae: Entiminae: Pachyrhynchini) from Negros Island, Philippines are described and illustrated: *Metapocyrtus (Dolichocephalocyrtus) chloroglosus* sp. nov., *Metapocyrtus (Dolichocephalocyrtus) agryoglosus* sp. nov., *Metapocyrtus (Trachycyrtus) chlorominimus* sp. nov. Paper includes photographic material of species fauna of Negros Island. Diversity of *M. (M.) pilositibialis* Schultze, 1925 is discussed.

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INTRODUCTION

Genus *Metapocyrtus* Heller, 1912 fauna of Negros Island is currently represented by 13 species and one subspecies of four subgenera: one species of subgenus *Dolichocephalocyrtus*: M. *(D.) negro-sensis* Schultze, 1925; five species and one subspecies of subgenus *Metapo-cyrtus*: M. *(M.) elongatus* Schultze, 1925; *M. (M.) pilositibialis* Schultze, 1925; *M. (M.) puncticollis* Heller, 1912; *M. (M.) reyesi* Schultze, 1925; *M. (M.) reyesi* ssp. *daconus* Schultze, 1934; *M. (M.) virgatus* Heller, 1912; one species of subgenus *Orthocyrtus*: *M. (O.) bifoveatus* Schultze, 1925; and six species of subgenus *Trachycyrtus*: *M. (T.) augustanae* Terzin & Bangoy, 2023; *M. (T.) concinnus* Waterhouse, 1843; *M. (T.) corpulentus* Schultze, 1934; *M. (T.) magnigibbicollis* Schultze, 1925; *M. (T.) nanus* Boheman, 1845; *M. (T.) socius* Schultze, 1925 (Heller, 1912; Schultze, 1925, 1934; Terzin & Bangoy, 2023) (Fig. 1).

During careful examination of ento-mological material from Negros Island, three species appeared to be different from already described material. These species are described herein. Additionally, diversity of *M. (M.) pilositibialis* Schultze, 1925 was observed and discussed.

MATERIAL AND METHODS

The study was based on specimens deposited at the Daugavpils University Beetle Collection, Daugavpils, Latvia (DUBC) and Senkenberd Natural History Collections, Dresden, Germany (MTD).

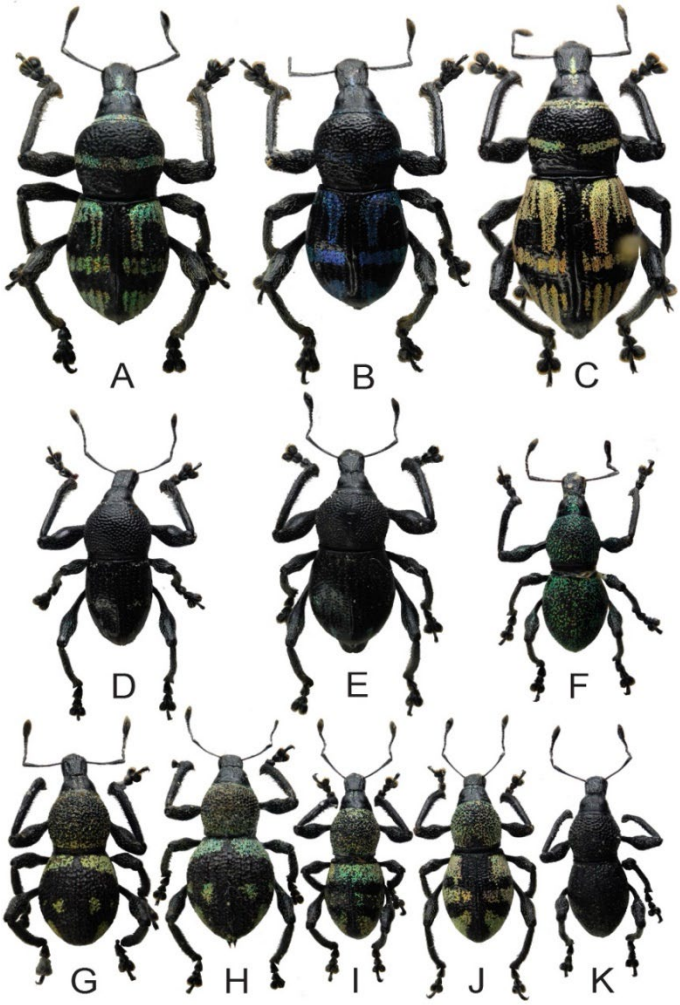

Figure 1. Dorsal habitus of selected species exhibiting Negros Island: **A, C** – *M. (M.) virgatus* Heller, 1912; **A** - male; **C** – female; **B** – *M. (M.) reyesi* Schultze, 1925, male; **D, E** – *M. (D.) negrosensis* Schultze, 1925; **D** – male; **E** – female; **F** – *M. (T.) nanus* Boheman, 1845; **G**, **H** – *M. (T.) corpulentus* Schultze, 1934; **G** – male; **H** – female; **I**, **J** – *M. (T.) socius* Schultze, 1925; **I** – male; **J** – female; **K** – *M. (T.) augustanae* Terzin & Bangoy, 2023.

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;
WE = maximum width of elytra;

LP = pronotal length;
WP = maximum width of pronotum;
LR = length of rostrum;
WR = maximum width of rostrum.

RESULTS

***Metapocyrtus (Dolichocephalocyrtus) chloroglosus* sp. nov.**
(Fig. 2A-B, D, F)

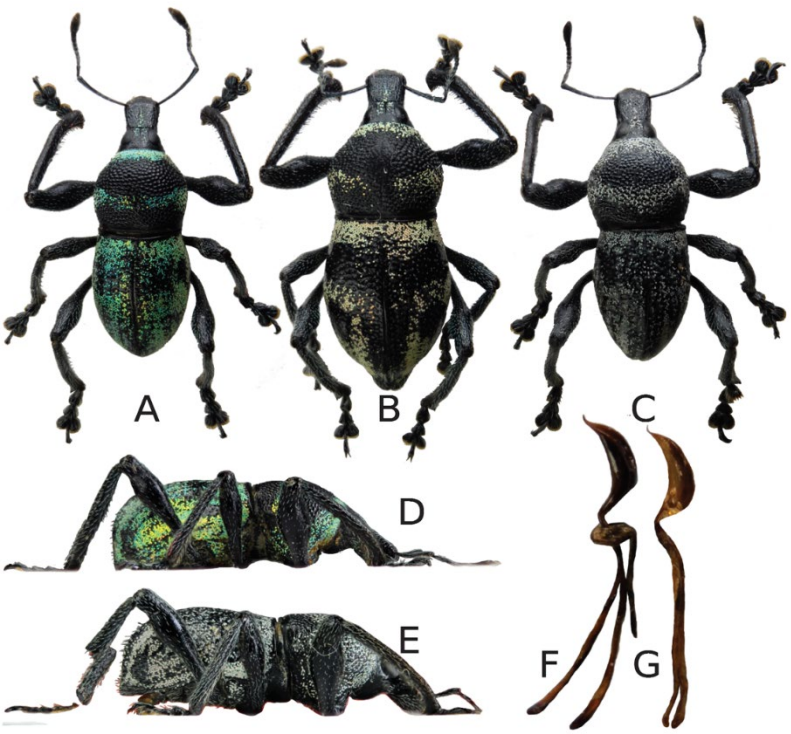

Fig. 2. A, **B, D, F** – *M. (D.) chloroglosus* sp. nov.; **A** – male, holotype; **B** – female, paratype; **D** – male, lateral view; **F** – aedeagus in lateral view; **C**, **E**, **G** – *M. (D.) agryoglosus* sp. nov.; **C** – male, holotype; **E** – lateral view; **G** – aedeagus in lateral view.

Type material. Type material. Holotype, male (Fig. 2A): PHILIPPINES / C Visayas, Negros Isl., Mt. Canlaon / 600 – 900m / I. 2014 / local collector leg. (white printed label) // HOLOTYPE / *Metapocyrtus (Dolichocephalocyrtus) chloroglosus* / Rukmane-Barbale, 2024 (typed on red card).

Paratypes (6♀, 8♂): 1♂ same data as holotype // 1♀, 4♂ same data as holotype, but 25. IV. 2014 // 5♀, 3♂ same data as holotype, but VIII. 2014. The additional label: "PARATYPE / *Metapocyrtus (Dolichocephalocyrtus) chloroglosus* / Rukmane-Barbale, 2024" (typed on red card) was added to both paratypes (DUBC).

Diagnosis. *M. (D.) chloroglosus* sp. nov. is similar to *M. (D.) negrosensis* Schultze, 1925 (Fig. 1D - E), single representative species of the subgenus *Dolichocephalocyrtus* from Negros Island. The new species can be distinguished by characteristic glossy green scally markings on prothorax and elytra instead of bare black *M. (D.) negrosensis* Schultze, 1925; bigger

size on new species; elytra of new species longer, elliptical compared to short, sub globular elytra of *M. (D.) negrosensis* Schultze, 1925; different shape of male genitalia.

Description. Holotype. Male. Dimensions: LB: 7,3 – 8,9 (holotype 8,1, mean 8,18); LE: 4,4 – 5,8 (holotype 5, mean 5); LP: 2,8 – 3,0 (holotype 3, mean 2,93); WE: 2,9 – 3,3 (holotype 3,2m mean 3,15); WP: 3,0 – 3,8 (holotype 3,3, mean 3,41); LR: 1,3 – 1,5 (holotype 1,3, mean 1,31); WR: 1,1 – 1,3 (holotype 1,1, mean 1,13). N = 8 for all measurements.

Integument black, glossy, underside with weaker lustre, marked with glossy green, round scales. Head dorsally with scally patch from middle of forehead to middle of rostrum, with corresponding moderate setae; lateral parts with long setae from genae to apex, without scally markings. Prothorax with the following glossy green scally markings: 1) transverse band medially on disc, narrowest at middle and slightly extending to sides; 2) transverse band along anterior margin in all length; 3) large patch at each latero ventral part. Each elytron with the following glossy green scally markings: three transverse bands, one at sub basal part, one along middle, one along apex, bands can be distinct or nearly confluent, sometimes with additional longitudinal band from medial transverse band to apex along intervals III – V. Elytra pubescent in all length, with moderate setae along apex. Each femur covered with fine hairs increasing posteriorly, without scally markings. Tibiae covered with long setae in all length and longer hairs along internal margin, fore tibiae mucronate.

Head moderately punctured; forehead flattish, with moderate median furrow from middle of rostrum to before posterior ocular edge; eyes nearly not convex from outline of the head. Rostrum slightly longer than wide (LR/WR 1,15); moderate transverse basal groove; dorsum roughly punctured, moderate elliptical medial groove from base of rostrum to middle of apical half; in dorsal contour straight, lateral parts slightly convex from outline of rostrum; in lateral contour nearly straight, weakly increased towards apex. Antennal scape flattened, with fine setae at apical half, shorter than funicle; funicular segment I longer than II, three times as long as wide; segment II 2.5 times as long as wide, two times longer than segment III; segments III – VII subequal; club ellipsoidal, more than twice as long as wide.

Pronotum sub spherical, rough – scally textured, slightly wider than long (WP/LP 1,16), slightly wider than elytra (WP/WE 1,08); convex, sometimes with shallow medial longitudinal groove; dorsal contour widest just before the middle; lateral contour widest at the middle.

Elytra ovate (LE/WE 1,58), less than two times longer than prothorax (LE/LP 1,7), punctured in fine puncture rows; dorsal contour highest at middle; lateral contour widest at middle.

Genitalia as illustrated in Fig. 2F.

Female. Dimensions: LB: 9,7 – 11,6 (mean 10,7); LE: 6,7 – 8,4 (mean 7.525); LP: 3,2 – 3,6 (mean 3,37); WE: 3,9 – 4,3 (mean 4,15); WP: 3,9 – 4,3 (mean 4,12); LR: 1,3 – 1,6 (mean 1,45); WR: 1,2 – 1,3 (mean 1,25). N = 6 for all measurements. Larger, prothorax less globular, posterior margin wider, with moderate medial groove on dorsum, apex of elytra extended, with longer setae along apex; medial transverse scale band on dorsum of prothorax interrupted at middle; otherwise, essentially as in males (Fig. 2B).

Distribution. The new species is known exclusively from type locality, Negros Island, Mt. Canlaon.

Etymology. *Chloro-* (green) and *glossus* (shiny surface), describing its glossy green markings.

Comments. The new species appear sympatric and is a new mimicry pair example with *M. (M.) virgatus* Heller, 1912

***Metapocyrtus (Dolichocephalocyrtus) agryoglosus* sp. nov.**
(Fig. 2C, E, G)

Type material. Type material. Holotype, male (Fig. 2C, E): PHILIPPINES / C Visayas, Negros Isl. / Mt. Canlaon, 600 – 900m / VI. 2014 / local collector leg. (white printed label) // HOLOTYPE / *Metapocyrtus (Dolichocephalocyrtus) agryoglosus* / Rukmane-Barbale, 2024 (typed on red card).

Diagnosis. *M. (D.) agryoglosus* sp. nov. is similar to *M. (D.) chloroglosus* sp. nov., but can be distinguished by silvery – white scally markings of *M. (D.) agryoglosus* sp. nov. instead of glossy green markings of *M. (D.) chloroglosus* sp. nov.; elytra of *M. (D.) agryoglosus* sp. nov. in lateral contour raised from base, strongly bulging along apical half, then declined to apex, while in *M. (D.) chloroglosus* sp. nov. straight from base, not rised along apical half; different shape of male genitalia.

Description. Holotype. Male. Dimensions: LB: 9,5; LE: 5,9; LP: 3,3; WE: 3,6; WP: 3,9; LR: 1,7; WR: 1,3. N = 1.
Integument glossy black, with markings of silver, pale scales. Rostrum with small, irregular patch of scales along midline, long hair-like scales on genae and sides of rostrum. Prothorax with the following markings of silver pale scales: 1) transverse medial band on disc, band redirected downwards along middle, extending to sides; 2) wide transverse bans along anterior margin; 3) large band along each latero ventral part.

Elytra with irregularly dispersed single scales in all length. Fine, long setae on suture from apical middle to apex and laterally on apical end. Tibiae and tarsus covered with setae in all length.

Head moderately punctured; forehead flattish with median furrow from base of rostrum to after posterior ocular edge; eyes slightly convex from outline of head. Rostrum longer than wide (LR/WR 1,3); shallow basal groove; dorsum slightly wrinkled, without median groove; in dorsal contour narrow at base, then straight to apex; ovate impression in front of each eye; in lateral contour straight.

Pronotum spherical, widest at the middle, wider than long (WP/LP 1,18); rough – scaly textured, with shallow medial longitudinal groove; sub apical groove indistinct.

Elytra ovate (LE/WE 1,63), less than two times as long as pronotum (LE/LP 1.78), slightly narrower than prothorax (WE/WP 0,92), with shallow puncture rows, pubescent in all length; in dorsal contour widest just before the middle; in lateral contour constricted at base, gradually increased to widest apical middle, then abruptly decreased to apex.

Genitalia as illustrated (Fig. 2G).

Female. Unknown.

Distribution. The new species is known exclusively from type locality, Negros Island, Mt. Canlaon.

Etymology. *Argyro-* means "silver," and *glosus* (shiny surface), perfectly describing its silvery sheen.

***Metapocyrtus (Trachycyrtus) chlorominimus* sp. nov.** (Fig. 3E-F, 4E)

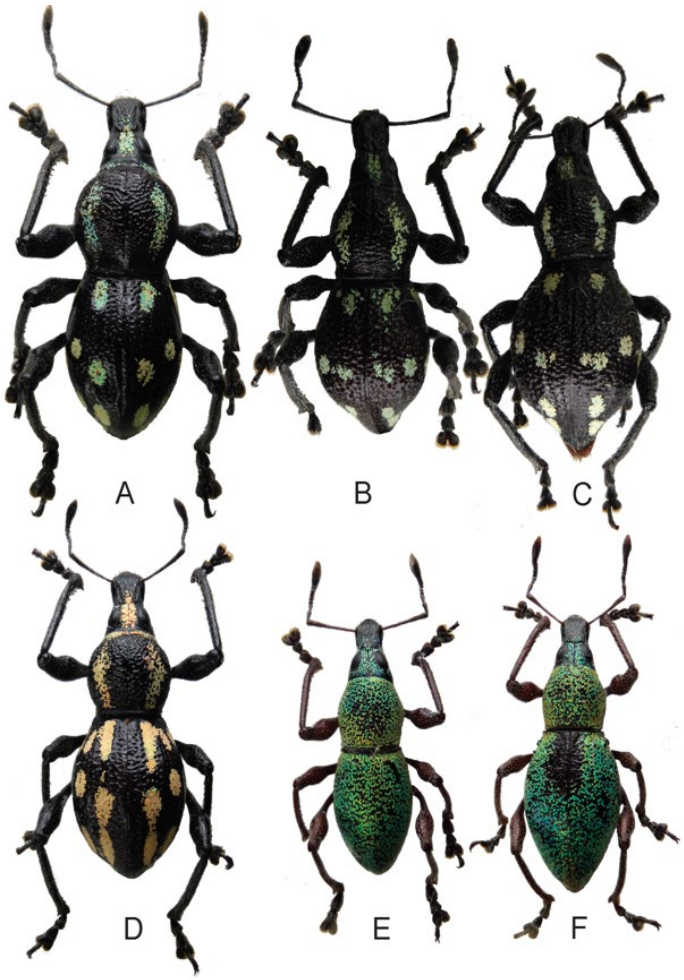

Fig. 3. A-D – variation of *M. (M.) pilositibialis* Schultze, 1925; **A, B** – male; **C, D** – female; **E, F** – *M. (T.) chlorominimus* sp. nov.; **E** – male, holotype; **F** – female, paratype.

Type material. Type material. Holotype, male (Fig. 3E): PHILIPPINES / Nwgros Oriental, Mt. Canlaon / 600 – 900m / VIII. 2014 / local collector leg. (white printed label) // HOLOTYPE / *Metapocyrtus (Trachycyrtus) chlorominimus* / Rukmane-Barbale, 2024 (typed on red card).
Paratypes (1♀, 3♂): 1♀ same data as holotype // 3♂ same data as holotype, but X. 2014. The additional label: "PARATYPE / *Metapocyrtus (Trachycyrtus) chloromanimus* / Rukmane-Barbale, 2024" (typed on red card) was added to both paratypes (DUBC).
Diagnosis. *M. (M.) chlorominmius* sp. nov. is distinct from the rest of the species exhibiting Negros Island by its small, slender body and unique scally markings.

Species can be distantly related to *M. (T.) nanus* Boheman, 1945 by presence of glossy green scale markings, but can be distinguished by flat body shape instead of relatively convex *M. (T.) nanus* Boheman, 1845.

Description. Holotype. Male. Dimensions: LB: 6,0 – 6,2 (holotype 6,0, mean 6,1); LE: 3,8 – 4,1 (holotype 3,8, mean 3,925); LP: 2,0 – 2,2 (holotype 2,0, mean 2,05); WE: 2,2 – 2,3 (holotype 2,3, mean 2,275); WP: 1,9 – 2,2 (holotype 2,2, mean 2,075); LR: 0,9; WR: 0,8. N = 4 for all measurements.

Integument glossy black except reddish legs and antennae; body sub ellipsoidal, with metallic green scales. Head, rostrum along basal half, pronotum and elytra evenly marked with single, metallic green scales; underside with single scales at sides of each ventrite; genae with irregular patch of metallic green scales. Each femur covered with fine setae in all length, tibia covered with short setae in all length.

Head minutely punctured; forehead flat, with weak medial groove from base of rostrum to posterior ocular edge; eyes small, not convex from outline of the head, 1.5 times as wide as forehead. Rostrum wider than long (WR/LP 1,12); moderate transverse basal groove, sides curved downwards; dorsum wrinkled, without longitudinal groove, in dorsal contour straight, lateral parts moderately prominent from outline of rostrum. Antennae with club 3.5 times as long as wide.

Prothorax cylindrical, same length and width, moderately granulated, slightly pubescent in all length; in dorsal contour narrowest along anterior margin, slightly impressed at subapical part, slightly increased to widest just before the middle, then slightly decreased to posterior margin; expressed posterior groove; anterior groove indistinct.

Elytra ellipsoidal, longer than wide (LE/WE 1,77), nearly two times as long as prothorax (LE/LP 1,9), moderately punctured, without expressed puncture rows; dorsal contour widest just at the middle, lateral contour widest at the middle.

Genitalia as illustrated (Figs. 4E).

Female. Dimensions: LB: 7,0; LE: 4,9; LP: 2,0; WE: 3,1; WP: 2,2; LR: 0,9; WR: 0,8. N = 1 for all measurements. Larger, elytra wider (LE/WE 1,58), with expressed growths along sub basal part; basal half along suture without scally markings, otherwise essentially as in males (Fig. 3F).

Distribution. The new species is known exclusively from type locality, Negros Island, Mt. Canlaon.

Etymology. *Chloro-* (green) and *minimus* (smallest), highlighting its size and bright green markings.

DISCUSION

In this study, a series of *Metapocyrtus* (*M.) pilositibialis* Schultze, 1925 specimens that exhibited notable variability in body size, ranging from 6.9 to 11.3 mm were examined. Despite this significant size variation, certain morphological traits, such as features of rostrum and the curvature of the male penis, remained consistent across all specimens. However, the size of the male penis did vary significantly, indicating sexual dimorphism or a potential influence of environmental factors on this trait (Fig. 3A-D).

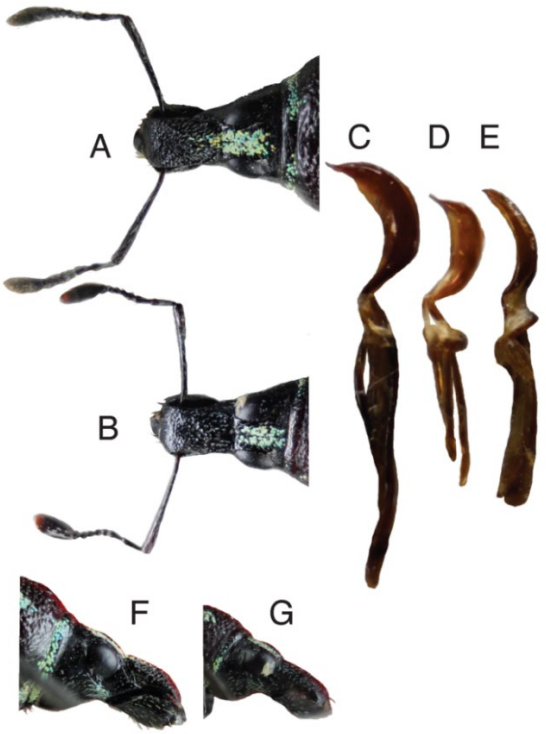

Fig. 4. A-D, F-G - variation of *M. (M.) pilositibialis* Schultze, 1925; **A, B** – head, dorsal view; **C,D** – aedeagus, lateral view; **F, G** – head, lateral view; **E** – aedeagus of *M. (M.) chlorominimus* sp. nov., lateral view.

The prothorax also showed considerable variation, with specimens ranging from long and slender to sub-globular in shape. This suggests that *M. pilositibialis* displays a high degree of variability not only in overall body size but also in prothoracic morphology, likely influenced by both genetic and environmental factors (Fig 4A-D, F-G.

Our findings highlight the species' significant size plasticity, which does not seem to correlate with changes in key diagnostic features such as the rostrum and penis curvature. This variability in body form and size, along with the stable features, suggests that *M. pilositibialis* is a highly adaptable species, capable of exhibiting a wide range of morphological forms while retaining consistent functional traits. Further research into the ecological or genetic drivers behind this variability is needed.

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