

Four new species of the genus *Homalocyrtus* Heller, 1912 (Coleoptera: Curculionidae: Pachyrhynchini) from the Philippines

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Four new species of the genus *Homalocyrtus* Heller, 1912 (Entiminae: Pachyrhynchini) from the Mindanao, Dinagat and Siquijor Islands, Philippines are described and illustrated: *H. cabrasae* sp. nov. (Siquijor Island), *H. glendae* sp. nov. (Dinagat Island), *H. azureomaculatus* sp. nov. (Mindanao Island), *H. bukidnonensis* sp. nov. (Mindanao Island). The description is accompanied by a brief account of the habitat and ecological observations relevant to the species. A checklist of the genus with general notes and type photographs is included.

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INTRODUCTION

The genus *Homalocyrtus* Heller, 1912 was originally described as a subgenus of *Metapocyrtus* Heller, 1912 (Heller, 1912). Schultze (1922) later elevated *Homalocyrtus* to full genus status, albeit without a clearly articulated justification. Subsequently, Alonso-Zarazaga and Lyal (Alonso-Zarazaga & Lyal, 1999) reverted *Homalocyrtus* as a subgenus within

Metapocyrtus in their comprehensive checklist of Curculionidea. However, Yap & Gapud (2008) conducted a detailed taxonomic revision and reinstated *Homalocyrtus* to genus level, supported by thorough description and justification.

Currently, the genus *Homalocyrtus* comprises six species, five of which are endemic to the Philippines: *H. conicus* Boheman, 1844 (Philippines), *H. harpago*

Heller, 1912 (Luzon), *H. maculatus* Schultze, 1922 (Cabalian, Leyte), *H. subcuneiformis* Waterhouse, 1842 (Samar), *H. tumidosus* Heller, 1912 (Luzon). One species, *H. intermittens* Heller, 1912, is found outside the Philippines, in Talaud, Indonesia.

Specimens recently collected from Siquijor Island initially presented a taxonomic challenge due to their elytral shape, which in dorsal view resembled that of *Metapocyrtus* Heller, 1912, lacking distinct triangular shape characteristic of *Homalocyrtus*. Detailed morphological examination, however, confirmed their placement within the genus *Homalocyrtus* based on the following diagnostic characters: basal edge of elytra not raised; strongly granulated pronotum; presence of tuft of hairs on the sutural beginning of posterior declivity in both sexes; apex of each elytron arcuately notched in females; sides of rostrum with impression before the eyes; lateral margins of rostrum rounded; antennal scrobe curved downwards, not reaching the eye margin; antennal scape reaching the hind margin of the eye.

The specimens from Siquijor Island exhibit a unique set of characteristics that distinguish them from previously described species within the genus. Based on these findings, a new species is described herein. While reviewing the genus, three more species, two from Mindanao Island and one from Dinagat Island also appeared to be new to science. Part of type material for *H. glendae* sp. nov. was collected during the last author's expedition in the pygmy forests of Dinagat Island on Mt. Redondo, which provided an opportunity to better understand the species ecology and obtain more accurate data on its habitat.

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). Type specimens of *H. cabrasae* sp. nov. will be deposited at the National Museum of the Philippines Davao (NMP).

The laboratory research and measurements were conducted 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

Checklist of the genus *Homalocyrtus* Heller, 1912

1. *Homalocyrtus conicus* Boheman, 1844

(Fig. 1A-C, 2A, 5D, 6G-H)

Schönh. Gen. Curc. (1844), 8, 2, 393; Heller, Phil. Journ. Sci., Sec. D. (1912), 7, 376; Schultze, Phil. Journ. Sci. (1916), 11(2), 136.

Distribution: The original description lacks exact locality except Philippines. Specimens available in DUBC that correspond original description are distributed at Mindanao Island, Bukidnon, Agusan and Lanao provinces. The material available at MTD also comprise several specimens identified as *H. conicus* Bohemann, 1844 from Mindanao Island.

Material examined: 1♂, 3♀ PHILIPPINES / Mindanao, Bukidnon, Cabanglasan / X. 2016 / local collector leg. // 1♂, 1♀ same locality but X. 2015 // 3♂, 4♀ PHILIPPINES / Mindanao, Bukidnon, Kalatungan / X. 2015 / local collector leg. // 1♂ same locality but V. 2014 // 1♂ same locality but VI. 2014 // 2♂, 1♀ same locality but XI. 2015 // 1♀ PHILIPPINES / Mindanao, Lanao del Sur, Wao / VIII. 2016 / local collector leg. // 1♂ same locality but IV. 2016 // 2♂ PHILIPPINES / Mindanao, Agusan, Sibagat / IX. 2015 // 1♂ PHILIPPINES / Mindanao, Bukidnon, Dominorog / XI. 2018 / local collector leg. // 1♀ PHILIPPINES / Mindanao, Bukidnon, Intavas / I. 2016 / local collector leg.

Notes: Body brownish to black, without scally markings or rare, single scales of blue colour; elytra slender compared to other species, in dorsal contour widest at middle of apical half, then sharply declined to apex forming "conical" shape, with finely expressed puncture rows.

2. *Homalocyrtus harpago* Heller, 1912

(Fig. 1D, 2B, 3A, D, 5B, 6C-D).

Heller, Phil. Journ. Sci., Sec. D (1912), 7, 377; Schultze, Phil. Journ. Sci. (1916), 11(2), 136.

Distribution: Luzon Island (original description); Bohol Island (DUBC).

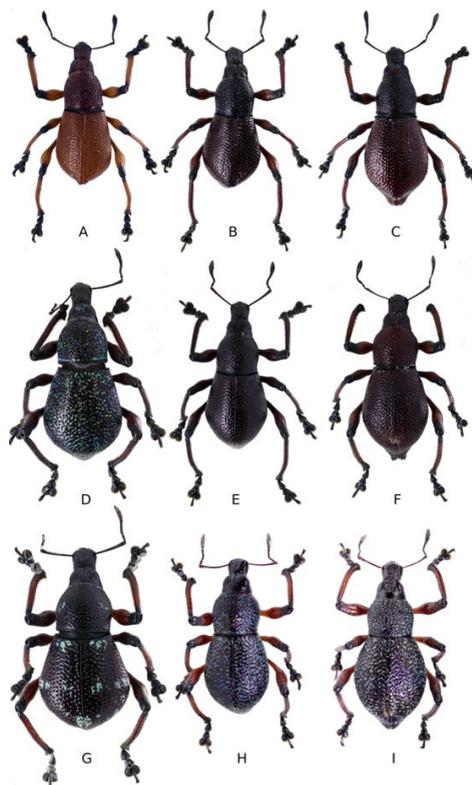


Figure 1. Dorsal habitus of selected species. A - C - *H. conicus* Bohemann, 1844; A - male, brown form; B - male, black form; C - female; D - *H. harpago* Heller, 1912, male; E - F - *H. subcuneiformis* Waterhouse, 1942; E - male; F - female; G - *H. malucatus* Schultze, 1922; H - *H. cabrasaes* sp. nov.; H - male; I - female.

Material examined: 1♂ PHILIPPINES / C Visayas, Bohol Isl. / 300 - 500m, VIII. 2013 / local collector leg. (DUBC).

Notes: Similar to *H. conicus* Boheman, 1844 by elytral shape; body black, densely covered with metallic green scales; rostrum with subtriangular impression in front of each eye laterally; basal furrow from base to eyes; antennae reddish brown; prothorax sub transverse, granulated, sometimes with median longitudinal groove, slightly longer than wide; elytra twice as long as prothorax;

elytra of female elliptic, each apex shortly excised; elytra without expressed puncture rows.

Type specimens from Luzon Island were compared with specimen from Bohol Isl. (DUBC), with no species level differences recorded except slightly larger size specimens from Bohol.

3. *Homalocyrtus intermittens* Heller, 1912

(Fig. 3B, E).

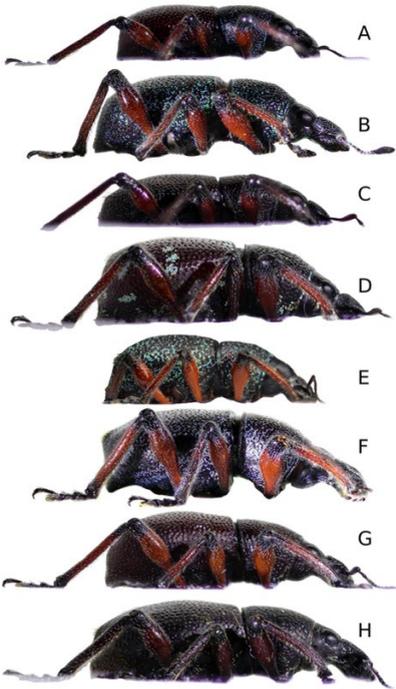


Figure 2. Lateral habitus of selected species. **A** - *H. conicus* Bohemann, 1844; **B** - *H. harpago* Heller, 1912; **C** - *H. subcuneiformis* Waterhouse, 1942; **D** - *H. malucatus* Schultze, 1922; **E** - *H. cabrasae* sp. nov.; **F** - *H. azureomaculatus* sp. nov.; **G** - *H. glendae* sp. nov.; **H** - *H. bukidnonensis* sp. nov.

Heller, Phil. Journ. Sci., Sec. D (1912), 7, 376, Pl. 1, fig. 29, 29a; Schultze, Phil. Journ. Sci. (1916), 11(2), 136.

♀ *marginodosus* Chevr., Le Natur. (1881), 3, 439; Heller, Phil. Journ. Sci., Sec. D (1912), 7, 376.

Distribution: Talaud (Indonesia); Luzon (Philippines).

Notes: Brownish, sometimes with few grey scales; rostrum strongly punctured, basal furrow straight; prothorax wider than long, rugose – granulated, base wider than apex; elytra with expressed puncture rows.

Heller described type of the species from Talaud, Indonesia, while specimens appearing at Luzon, Philippines, formed a different population. Considering lack of examples when same Pachyrhynchini species appear on such a wide range and no future species records from the Luzon Island, species should be considered endemic to Talaud Island, Indonesia.

4. *Homalocyrtus subcuneiformis* Waterhouse, 1842

(Fig. 1E-F, 2C, 5G, 6L-M).

Waterh., Ann. & Mag. Nat. Hist. (1842), 9, 310.

♀ *rufescens* Water., Ann. & Mag. Nat. Hist. (1842), 9, 310; Heller, Phil. Journ. Sci., Sec. D (1912), 7, 375. Schultze, Phil. Journ. Sci. (1916), 11(2), 136.

Distribution: Ticao (9613, McGregor); Romblon (1988, McGregor); Sibuyan (7666, McGregor); Bohol (6732, McGregor); Samar (DUBC).

Material examined: 1♂ PHILIPPINES / Samar, Marobot / X. 2015 / local collector leg. // 1♂ PHILIPPINES / Samar, Hinabangan / IV. 2016 / local collector leg.

// 1♀ PHILIPPINES / Samar, Hinabangan / X. 2015 / local collector leg. (DUBC).

Notes. Brownish to reddish, without scally markings; sculpture moderately rugose; prothorax narrow, widest just before the middle; elytra moderately rounded, widest just after the middle. Species is similar to *H. conicus* Bohemann, 1844, but beside different distribution can be distinguished by smaller eyes and denser medial longitudinal groove between eyes together with different shape of male penis.

5. *Homalocyrtus tumidosus* Heller, 1912

(Fig. 3C, F).

Heller, Phil. Journ. Sci., Sec. D (1912), 7, 378. Schultze, Phil. Journ. Sci. (1916), 11(2), 136.

Distribution: Luzon Island, Philippines.

Notes: Body black, legs reddish to black; prothorax punctured (less than *H. intermittens* Heller, 1912); dorsally marked with two medial spots of metallic gold to green scales; elytra marked with irregular, diffuse transverse golden to metallic green scale bands; elytra sub - conically rounded, with expressed puncture rows.

6. *Homalocyrtus maculatus* Schultze, 1922

(Fig. 1G, 2D, 5F, 6K)

Schultze, Phil. Journ. Sci. (1922), 21, 588.

Distribution: Leyte, Cabalian (type); Mindanao, Misamis Oriental (DUBC).

Material examined: 1♂ PHILIPPINES / Mindanao, Misamis Oriental / IV. 2014 / local collector leg. (DUBC).

Notes: Body dark brown to black, marked with golden to green scales, closely related

to *H. tumidosus* Heller, 1912; rostrum medially with expressed transverse groove, apical half strongly punctured; basal half with expressed medial longitudinal groove; forehead with few single golden scales; prothorax as long as wide, with expressed central groove, with two small spots dorsally on each side; elytra punctured in puncture rows, smoother than in *H. tumidosus* Heller, 1912; with three interrupter transverse scale bands on each elytron.

Type specimens were originally described from Leyte, mountains near the village of Cabalian in the south of the island. Specimen from Mindanao, Misamis Oriental (DUBC) was compared with type specimens (MTD) with no differences of species level.

7. *Homalocyrtus cabrasae* sp. nov.

(Fig. 1H-I, 2E, 5H, 7A-G)

Type material. Holotype: (Fig. 1H), male: PHILIPPINES / Siquijor, 9.187767N, 123.581283E, 559 m a.s.l. / Dale Ann Acal leg. (white printed label). With additional red printed label: HOLOTYPE / *Homalocyrtus cabrasae* Rukmane-Bärbale & Acal, 2024 / Rukmane-Bärbale det.

Paratypes: 2♂, 1♀ same data as holotype, with additional red printed label: PARATYPE / *Homalocyrtus cabrasae* Rukmane-Bärbale & Acal, 2024 / Rukmane-Bärbale det. (currently at DUBC, will be deposited at NMP).

Description. Male. Measurements: **LB:** 6.8 – 7.2 (mean 7.0, holotype 7.0); **LE:** 4.4 – 5.0 (mean 4.7, holotype 4.7); **WE:** 3.4 – 4.0 (mean 3.63, holotype 3.4); **LP:** 2.1 – 2.2 (mean 2.16, holotype 2.2); **WP:** 2.4 – 2.8 (mean 2.63, holotype 2.7); **LR:** 1.2 – 1.3 (mean 1.26, holotype 1.3); **WR:** 1.1 – 1.2 (mean 1.16, holotype 1.2). N = 3 for all measurements.



Figure 3. Syntypes of selected species. **A, D** – *H. harpago* Heller, 1912; **B, E** – *H. intermittens* Heller, 1912; **C, F** – *H. tumidosus* Heller, 1912.

Integument black. Antennae and legs brownish except black apices. Body surface, rostrum, head, legs, and underside moderately lustrous. **Head.** Dorsal surface irregularly punctured with few sparse setae; lateroventral side with sparse setae; forehead between eyes flat, with distinct medial groove from sub-apical part to frons; with single, round, metallic scales; eyes medium-size, flat, not prominent in lateral outline of head. **Rostrum.** (Fig. 5H) Dorsal surface rugose, with coarse puncture in all length, with minute appressed setae at basal half; slightly longer than wide (LR/WR 1.08); with deep basal groove reaching lateral margin; dorso-lateral edges rounded; dorsum with a distinct, moderate medial groove in all length; dorsal contour straight; lateral sides with subtruncate margin, gradually widened from sub-basal part

towards apex; in lateral contour raised dorsally; square-shape impression on each lateral side before the eye. **Antennae.** Antennal scape longer than funicle, scape reaching after posterior margin of eye, with rare setae along outer margin; antennomeres sparsely covered with setae; club two times longer than wide, covered with brownish setae; funicular segment I slightly longer than II, three times longer as wide, funicular segment II three times longer as wide, segments III-VII as long as wide, slightly increasing in size towards club. **Prothorax.** Cylindrical, strongly rugose, with fine setae in all length; single, sparsely dispersed round scales of metallic green to blue colour in all length; wider than long (WP/LP 1.21); widest along apical middle, weakly convex on dorsal surface; disc with indistinct medial groove. **Elytra.** Ovate, longer than wide

(LE/WE 1.29), wider than prothorax (WE/WP 1.38), strongly rugose, sparsely pubescent; a tuft of hairs on the sutural beginning of posterior declivity and longer setae along apex (Fig. 7F); marked with single, sparsely dispersed round scales of metallic green to blue colour; in dorsal contour weakly convex, widest after the middle; lateral contour weakly convex from basal margin towards after the middle then sharply abrupt towards apex. **Legs.** Legs with moderately clavate femora, without scally markings. Femora with white setae at apical half; tibiae covered with white setae in all length; coxa glossy black, without scales and pubescence. **Underside** strongly shiny, black, without scally markings; ventrites smooth except slightly wrinkled ventrite I, with short setae in all length (Fig. 7E). Male genitalia as shown in Fig. 7A.

Female. (Fig. 11) Measurements: **LB:** 8.3; **LE:** 5.9; **WE:** 4.1; **LP:** 2.2; **WP:** 2.8; **LR:** 1.3; **WR:** 1.2. N = 1 for all measurements. Bigger, elytra wider (LE/WE 1.43), with strongly expressed apex; rostrum covered with setae in all length; tuft of hairs on elytra denser compared to male (Fig. 7G). Otherwise, essentially as in males. Female genitalia as shown in Fig. B – D.

Ecological notes: *H. cabrasae* sp. nov. was collected using a beating sheet on shrubs along a trail at 559 m a.s.l. (Fig.8). The habitat is characterized by remnants of primary lowland forest, but is predominantly disturbed secondary growth dominated by fig (*Ficus*) species. The canopy is fragmented, with dense undergrowth consisting of saplings, shrubs, and coarse grasses. Adjacent areas are characterized by farm lots and abandoned agricultural fields, indicating significant anthropogenic pressure (Jakosalem et al., 2005). Deforestation for agriculture and timber harvesting for household use poses a critical threat to the habitat. Given the limited extent of forest cover on Siquijor, the removal of

even a single tree has disproportionate ecological impacts. Continued logging and encroachment intensify habitat degradation, emphasizing the urgent need for forest rehabilitation. Restoration efforts are essential not only for conserving biodiversity but also for maintaining these forests as critical watershed areas for the island's inhabitants.

Differential analyses: The new species was compared with five type specimens of *H. harpago* Heller, 1912 from Luzon Island (MTD) (Fig. 3A, D) and corresponding specimen from Bohol Island (DUBC) (Fig. 1D). Both species share the characteristically marking pattern of evenly dispersed metallic green to golden scales on body.

The new species, beside geographical isolation, can be distinguished by following features: 1) in lateral view, elytra of *H. cabrasae* sp. nov. convex and less abruptly angled, whereas in *H. harpago* Heller, 1912, the elytra is flat with sharp abrupt angle of 120° (Fig 2B, E); 2) dorsal groove of rostrum is distinct in *H. cabrasae* sp. nov. but indistinct in *H. harpago* Heller, 1912 (Fig. 5B); 3) differences in shape of male genitalia (Fig. 6C-D).

Etymology. The species epithet is dedicated to Analyn A. Cabras, an esteemed coleopterologist, in recognition of her pioneering contributions to the study of Philippine weevils and her unwavering commitment to advancing biodiversity research. This naming honors her enduring legacy in the scientific community and serves as a tribute to her remarkable dedication, passion, and invaluable contributions to the field of entomology.

Distribution. *Homalocyrtus cabrasae* sp. nov. is known only by the 4 specimens from Siquijor Island, Philippines.

8. *Homalocyrthus azureomaculatus*
sp. nov.

(Fig. 2F, 4A, 5A, 6A-B)

Type material. Holotype: (Fig. 4A), male: PHILIPPINES / Mindanao, Mt. Apo / local collector leg. (white printed label). With additional red printed label: HOLOTYPE / *Homalocyrthus azureomaculatus* Rukmane-Bārbale, 2024 / Rukmane-Bārbale det. (DUBC).

Description. Male. Measurements: **LB:** 10.0; **LE:** 7.0; **WE:** 5.7; **LP:** 3.0; **WP:** 3.3; **LR:** 1.7; **WR:** 1.7. N = 1 for all measurements.

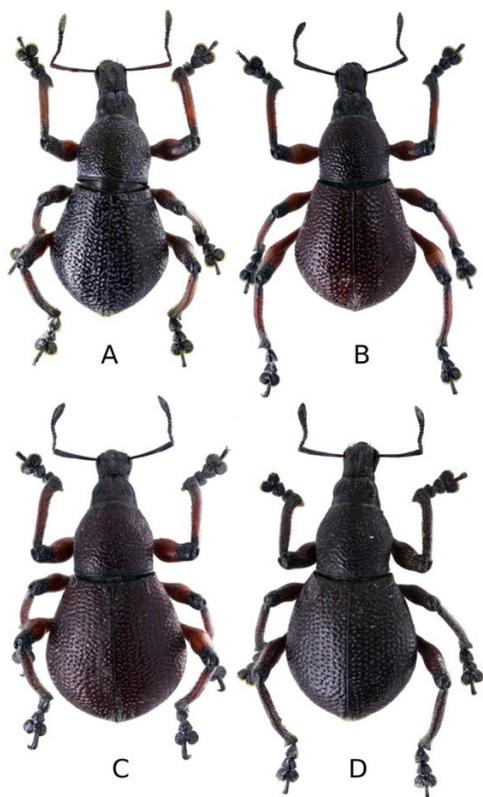


Figure 4. Dorsal habitus of selected species. **A** – *H. azureomaculatus* sp. nov.; **B**, **C** – *H. glendae* sp. nov.; **B** – male; **C** – female; **D** – *H. bukidnonensis* sp. nov.

Integument black, shiny. Antennae and legs brownish except black apices. **Head.** Dorsal surface slightly wrinkled between eyes, covered with single white setae and rare glossy blue scales of round shape; distinct medial longitudinal groove in all length; lateroventral side with sparse white and blue setae, mingled with blue lanceolate single scales; eyes medium-size, slightly prominent in lateral outline of head. **Rostrum.** (Fig. 5A) Dorsal surface moderately wrinkled, with moderate setae in all length; as long as wide (LR/WR 1.0); deep basal groove not reaching margin of eye; dorso-lateral edges angular; dorsum with a distinct, deep medial groove from base to middle of apical half; dorsal contour slightly widened before midline; in lateral contour slightly raised at base, then straight in all length; roundish impression on each lateral side before the eye. **Antennae.** Antennal scape slightly shorter than funicle, with few single setae along outer margin; funicular segment I longer than II, 3.5 times longer than wide, funicular segment II 2.5 times longer than wide, segments III-VII as long as wide, slightly increasing in size towards club. **Prothorax.** Cylindrical, rugose, with short setae in all length; single, sparsely dispersed round scales of glossy blue colour in all length except dorsum; wider than long (WP/LP 1.1); in dorsal contour apical edges rounded, then slightly widened to widest middle, then straight to basal margin; distinct sub-basal transverse groove; disc without medial groove; in lateral contour nearly straight, slightly raised along middle. **Elytra.** Ovate, longer than wide (LE/WE 1.22), significantly wider than prothorax (WE/WP 1.72), strongly punctured, without expressed puncture rows, pubescent in all length; a dense tuft of hairs on the sutural beginning of posterior declivity; marked with single, sparsely dispersed round scales of glossy blue colour; in dorsal contour widest after the middle; lateral contour flattened, raised along sub-basal margin, straight apical part, gradually

declined to expressed projection at apical middle, then cut off straight to apex, underside moderately incurved along ventrite IV (Fig. 2F). **Legs.** Femora thick, with long white setae at apical half; tibia covered with white setae in all length and longer hairs along inner margin; fore tibia mucronate. Male genitalia as shown in Fig. 6A-B.

Female. Unknown.

Differential analyses: The new species is similar to *H. maculatus* Schultzze, 1922 by general dorsal contour of prothorax and elytra, but can be distinguished by the following characters: 1) unique blue scale markings of *H. azureomaculatus* sp. nov.; 2) eyes of *H. azureomaculatus* sp. nov. bigger, with longitudinal medial groove in all length while up to medial part of forehead in *H. maculatus* Schultzze, 1922 (Fig. 5F); 3) different shape of male penis (Fig. 6K).

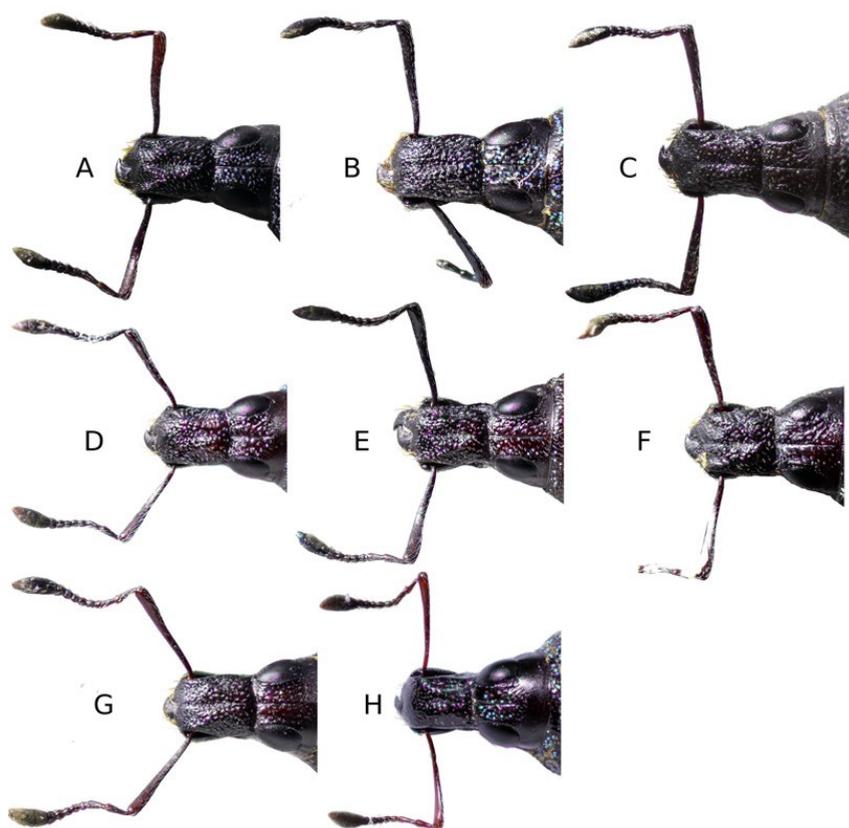


Figure 5. Dorsal view of rostrum and head of selected species. **A** – *H. azureomaculatus* sp. nov.; **B** – *H. harpago* Heller, 1912; **C** – *H. bukidnonensis* sp. nov.; **D** – *H. conicus* Boheman, 1844; **E** – *H. glendae* sp. nov.; **F** – *H. maculatus* Schultzze, 1922; **G** – *H. subcuneiformis* Waterhouse, 1842; **H** – *H. cabrasae* sp. nov.

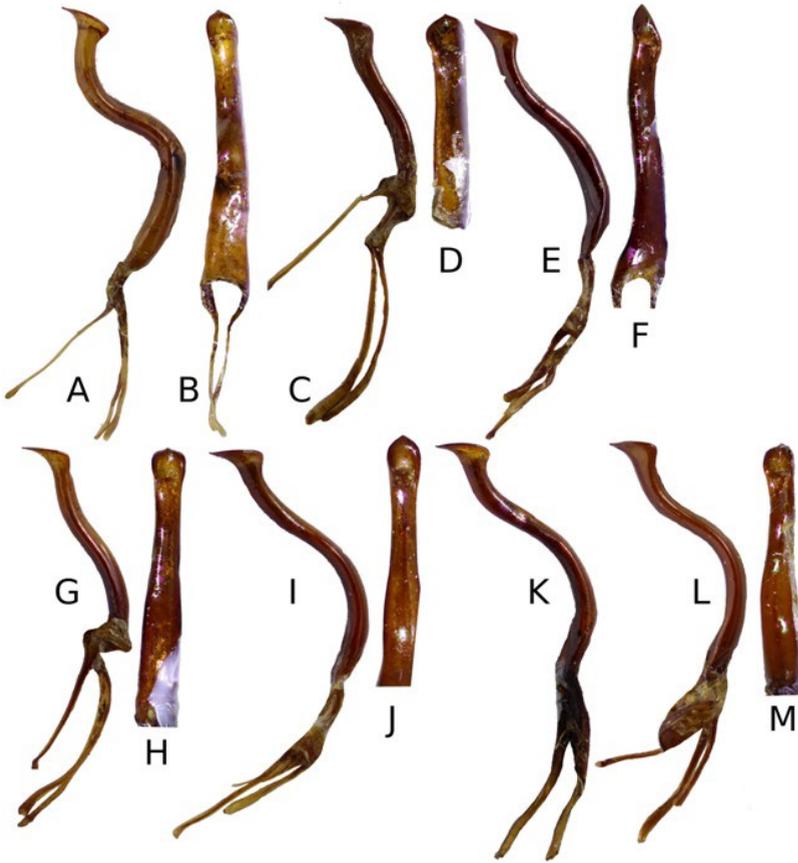


Figure 6. Male genitalia of selected species. **A,B** – *H. azureomaculatus* sp. nov.; **C,D** – *H. harpago* Heller, 1912; **E,F** – *H. bukidnonensis* sp. nov.; **G,H** – *H. conicus* Boheman, 1844; **I,J** – *H. glendae* sp. nov.; **K** – *H. maculatus* Schultze, 1922; **L,M** – *H. subcuneiformis* Waterhouse, 1842

Etymology. The new species is named after its blue scale markings. *Azureo* derives from *azureus*, Latin form azure or bright blue, *maculatus* comes from *macula*, Latin for spot or marking.

Distribution. *H. azureomaculatus* sp. nov. is known only by single specimen from Mt. Apo, Mindanao Island, Philippines.

9. *Homalocyrtus glendae* sp. nov.
(Fig. 2G, 4B – C, 5E, 6I–J)

Type material. Holotype: (Fig. 4B), male: PHILIPPINES / Dinagat Isl., Dinagat / II. 2019 / local collector leg. (white printed label). With additional red printed label: HOLOTYPE / *Homalocyrtus glendae* Rukmane-Bārbale & Mohagan, 2024 / Rukmane-Bārbale det. (DUBC)

Paratypes: 1♂, 1♀ same data as holotype, with additional red printed label: PARATYPE / *Homalocyrtus glendae* Rukmane-Bārbale & Mohagan, 2024 / Rukmane-Bārbale det. (DUBC).

Description. Male. Measurements: **LB:** 9.4 – 9.9 (mean 9.65, holotype 9.4); **LE:** 6.3 – 6.5 (mean 6.4, holotype 6.3); **WE:** 5.6 – 5.8 (mean 5.7, holotype 5.6); **LP:** 3.0 – 3.2 (mean 3.1, holotype 3.0); **WP:** 3.1 – 3.3 (mean 3.2, holotype 3.1); **LR:** 1.7 (mean 1.7, holotype 1.7); **WR:** 1.4 (mean 1.4, holotype 1.4). N = 2 for all measurements.

Integument reddish to dark brown; head, antennae and tarsus black; coxa and tibia red except black apices. Body surface lustrous, underside more strongly shiny. **Head.** Dorsal surface weakly punctured, with sparse setae between eyes; lateroventral sides smooth except wrinkled genae, with rare setae on genae; forehead with deep medial groove from base of rostrum to after the distal margin of eyes; 1.5 times as wide as eye width; single round metallic scales dispersed on all length; eyes medium sized, not prominent in lateral outline of head.

Rostrum. (Fig. 5E) Dorsal surface strongly rugose, with sparse setae at basal half, pubescent in apical half; as long as wide (LR/WR 1.0); with deep basal transverse groove ending before inner margin of eye; moderate longitudinal medial groove from base to sub apical part, with corresponding, shallow medial impression; dorsal contour narrowest at base, then gradually rising, widest just before the middle, then gradually declined; dorso – lateral margins well expressed from outline of dorsal contour, gradually widened from middle of basal part to apex; in lateral contour strongly raised at base, then gradually raised to widest middle, then smoothly declined towards apex; shallow triangular impression on each lateral side before the eye. **Antennae.** Antennal scape shorter than funicle, with rare setae in all length; club elliptical, three times longer than wide; funicular segment I 1.5 times longer than II, three times longer than wide; segment II more than two times longer than wide, two times longer than III, segments III – VII as long as wide, sub equal in size. **Prothorax.** Cylindrical, moderately rugose, pubescent along sub apical part and on sides;

without scally markings; slightly wider than long (WP/LP 1.03); in dorsal contour narrowest along anterior margin, firmly rounded dorso-lateral edges, widened to widest just before the middle, straight to base; posterior margin straight, with deep sub basal groove in all length; disc without medial groove; in lateral contour nearly straight, slightly raised just before the middle. **Elytra.** Sub globular, slightly longer than wide (LE/WE 1.12), less than two times wider than prothorax (WE/WP 1.78), moderately granulate, with corresponding pubescence; tuft of long white hairs on the sutural beginning of posterior declivity; without scally markings; in dorsal contour firmly rounded, widest after along apical 1/3, then firmly rounded, apex not visible; in lateral contour raised along middle, abrupt angle of 90° along posterior declivity (Fig. 2G). **Legs.** Thick; tibia covered with long white setae in all length; fore tibia with moderate tuft of hairs. Male genitalia as shown in Fig. 6I-J.

Female. (Fig. 4C) Measurements: **LB:** 11.3; **LE:** 7.8; **WE:** 8.0; **LP:** 3.4; **WP:** 4.0; **LR:** 2.0; **WR:** 1.8. N = 1 for all measurements. Elytra wider than long (WE/LE 1.02), otherwise, essentially as in males.

Ecological notes: *H. glendae* sp. nov. abundantly inhabits the cloud pygmy forest ecosystem of Mt. Redondo, Dinagat Islands situated 10.21°3.26'N, 125°38'33.32'E (Fig. 8). It is classified as forest over the limestone. Such ecosystems are characterized by their unique vegetation structure, with stunted trees from 0.4 m to 5.0 meters high with a nutrient-poor soils and harsh environmental conditions. The pygmy forest on Mt. Redondo is a distinct ecological niche. The Altitude is 894 masl. The vegetation is dominated by dwarf or stunted trees such as *Agathis philippinensis* (Almacyga), *Cinnamomum mercadoi*, *Suararia* sp., with gnarled branches, *Cycas* sp. (Pitogo), *Nepenthes* ssp (Pitcher plants), mosses, lichens, and epiphytes due to nutrient-poor

ultramafic soils, acidic conditions, and exposure to strong winds. The ultrabasic or serpentine soils with low nutrient levels, containing heavy metals and it is rich with chromite, nickel and several elements. The climate is wet and humid, with significant rainfall and moderate temperatures. It has high levels of endemism among flora and fauna. Along with the beetles, rare and brightly stick insects were spotted in the area. The major threats of fauna is habitat destruction - a large scale open pit mining that flattens some of the mountain peaks of the area as it is nationally declared as mining zone. Mining activities on Dinagat Islands, particularly in ultrabasic areas, pose a severe threat to the pygmy forest and its unique species. The Local Government Unit (LGU) of Dinagat Islands is engaged in conservation initiatives as it gave an ordinance to stop the mining activities in the area and converted it to a local conservation area as they promote tourism to ensure sustainable practices and minimize habitat degradation. *H. glendae* sp. nov. serves as a microcosm of the ecological uniqueness and vulnerability of the beautiful Mt. Redondo pygmy forest. Its conservation underscores the importance of protecting small, specialized ecosystems and the rich biodiversity they harbor.

Differential analyses: The new species is similar to *H. conicus* Bohemann, 1844 (Mindanao population) by general brownish body without specific scally markings but can be distinguished by the following characters: 1) body of *H. glendae* sp. nov. significantly bigger, legs thicker than in *H. conicus* Bohemann, 1844; 2) elytra in dorsal contour strongly convex after the midline in *H. glendae* sp. nov. while slender in *H. conicus* Bohemann, 1844; 3) prothorax of *H. glendae* sp. nov. with basal half straight in dorsal contour, posterior margin bulged, while prothorax of *H. conicus* Bohemann, 1844 incurved along middle of basal half, posterior margin indistinct; 4) in dorsal contour apex of elytra not visible because of

the sharp abrupt angle in *H. glendae* sp. nov. while visible in *H. conicus* Bohemann, 1844; 5) different shape of male penis (6G-H).

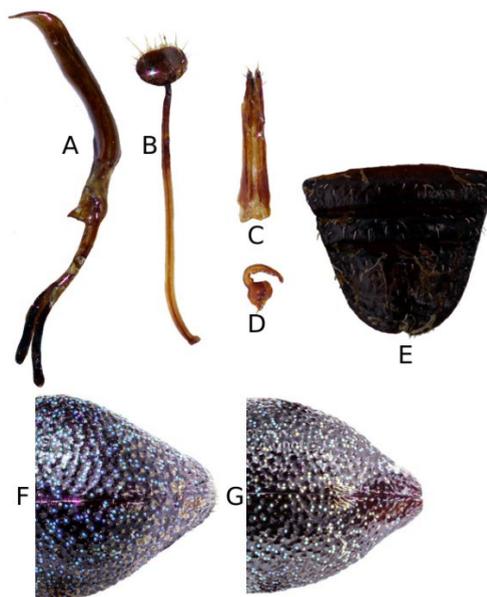


Figure 7. *H. cabrasae* sp. nov. **A** – male penis in lateral view; **B** – sternite VIII in dorsal view; **C** – ovipositor; **D** – spermatheca; **E** – ventrites III – V; **F** – elytra, male; **G** – elytra, female.

Etymology. The species is named *glendae* (a feminine genitive Latin form) in honor of Glenda Ecleo, the wife of Ruben Ecleo, the founder of the province of Dinagat Islands in the Philippines. The name recognizes her contributions to the community and commemorates her significant role in the cultural and social development of the region. The species, endemic to the area, reflects the rich biodiversity of Dinagat, linking its natural heritage with the human history of its founders.

Distribution. *Homalocyrtus glendae* sp. nov. is known only by the type locality from Dinagat Island, Philippines.

10. *Homalocyrtus bukidnonensis* sp. nov.
(Fig. 2H, 4D, 5C, 6E-F)

Type material. Holotype: (Fig. 4D), male:
PHILIPPINES / Mindanao, Bukidnon,

Cabanglasan / X. 2016 / local collector leg. (white printed label). With additional red printed label: HOLOTYPE / *Homalocyrtus bukidnonensis* Rukmane-Bärbale, 2024 / Rukmane-Bärbale det. (DUBC).



Figure 8. Left: A portion of the pygmy forest, Mt. Redondo, Dinagat Islands; right: Habitat of *Homalocyrtus cabrasae* sp. nov.

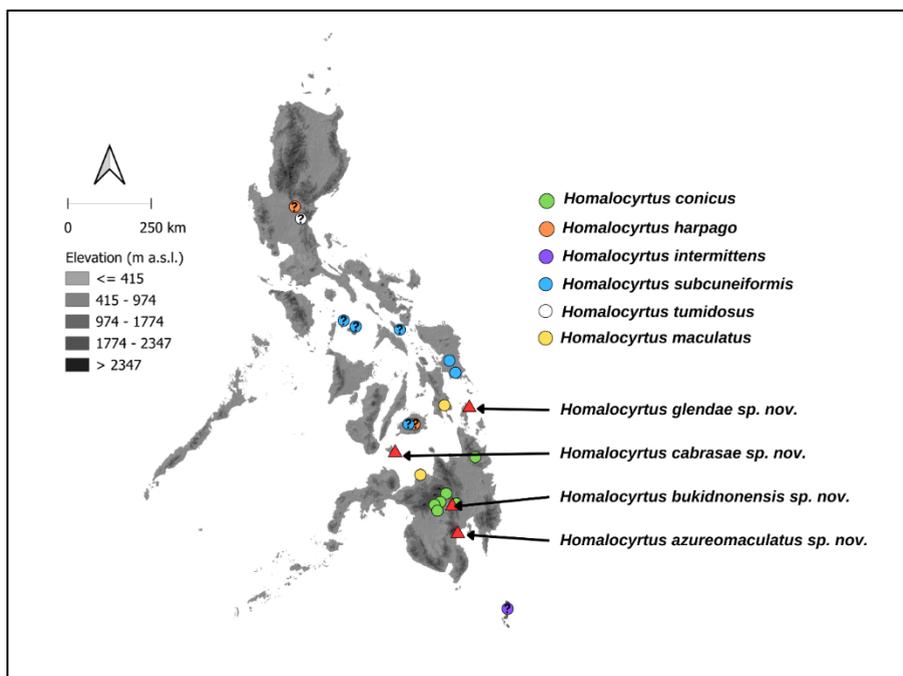


Figure 9. Geographic distribution of the genus *Homalocyrtus*. Circles represent the six previously described species, with question marks indicating records limited to island-level locality data. Triangles denote the four newly described species.

Description. Male. Measurements: **LB:** 10.1; **LE:** 7.0; **WE:** 5.7; **LP:** 3.0; **WP:** 3.3; **LR:** 1.7; **WR:** 1.7. N = 1 for all measurements.

Integument black, antennae and legs dark brown except black apices; body surface weakly lustrous. **Head.** Dorsal surface punctured behind eyes, wrinkled between eyes; few sparse setae between eyes; without scally markings; lateroventral side with long white setae along genae; forehead with moderate medial groove from base of rostrum to after distal margin of eye; 1.8 times as wide as eye width; eyes small, not prominent from the outline of the head.

Rostrum. (Fig. 5C) Dorsal surface rugose except triangle at apical half; pubescent from base to apical half; same length and width (LR/WR 1.0); dorsum with medial longitudinal groove from base to before middle of apical half; dorsal contour slightly widened just before the middle, otherwise straight; lateral sides with long white setae in all length, in lateral contour straight, weakly bulging along base; deep, round impression before each eye with corresponding setae.

Antennae. Club three times as long as wide; funicular segment I 2.5 times as long as wide, 1.5 times as long as segment II; segment II two times as long as wide, 1.5 times as long as segments III – VII.

Prothorax. Strongly rugose, slightly pubescent at lateral parts; without scally markings; wider than long (WP/LP 1.1); in dorsal contour narrowest along anterior margin, angular dorso lateral edges, widened to widest just before the middle, then slightly incurved to basal 2/3, then straight to base; posterior margin with distinct groove in all length, bulged; anterior margin with weak transverse groove in all length. **Elytra.** Sub globular; wider than long (LE/WE 1.22); (WE/WP 1.72); strongly punctured, moderately pubescent in all length; without scally markings; in dorsal contour widest just after the middle, apex not visible; in lateral contour raised along middle, abruption angle of 100° along posterior

declivity (Fig. 2H). Male genitalia as shown in Fig. 6E-F.

Female. Unknown.

Differential analyses: The new species is closely related to *H. glendae* sp. nov. by the similar, sub globular shape of elytra. Beside different distribution, species can be distinguished by the following characters: 1) abruption angle of elytra along posterior declivity 90° in *H. glendae* sp. nov. while 100° in *H. bukidnonensis* sp. nov.; 2) smaller eyes (1.8 to 1.5 of width of forehead) in *H. bukidnonensis* sp. nov.; 3) less curved dorsal contour of rostrum in *H. bukidnonensis* sp. nov.; 4) deep, rounded impression before eyes with corresponding setae in *H. bukidnonensis* sp. nov. while shallow triangular impression without setae in *H. glendae* sp. nov.; 5) different shape of male penis.

Etymology. The species epithet is derived from the locality where it was first discovered, serving as a geographical homage and ensuring a clear association with its place of origin.

Distribution. The new species is known exclusively from type locality Mindanao Island, Bukidnon province, Cabanglasan.

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REFERENCES

- Alonso-Zarazaga M. A., Lyal C. H. C. 1999. A world catalogue of families and genera of curculionidea (Insecta: Coleoptera) (Excepting Scolytidae and Platypodidae). *Entomopraxis*: 1 – 290.
- Heller K. M. 1912. Philippinische Russelkafer. *The Philippine Journal of Science*, 7(6): 347 – 403.
- Jakosalem P.G., Paguntalan L.M., Pedregosa M., Catacutan M.J. 2005. Distribution and conservation importance of volant mammals in Siquijor island, the Philippines. *The Philippine Scientist*, 42:159-170. DOI.10.3860/psci.v42i0.365.
- Schultze W. 1916. A Catalogue of Philippine Coleoptera. *The Philippine Journal of Science*, 11(2): 95 – 194.
- Schultze W. 1922. X. Beitrag zur coleopteren fauna der Philippinen. *The Philippine Journal of Science*, 21: 569 - 594.
- Yap S. A., Gapud V. P. 2007. Taxonomic review of the genus *Metapocyrtus* Heller (Coleoptera: Curculionidae: Entiminae). *The Philippine Entomologist* 21(2): 115 – 135.
- Waterhouse G. R. 1842. Descriptions of new species of Coleopterous Insects belonging to the genus *Apocyrtus*, collected by Hugh Cuming, Esq., in the Philippine Islands. *The annals and magazine of natural history*, 10: 302 – 311.

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