

## Two new taxa of the Subgenus *Artapocyrtus* Heller, 1912, Genus *Metapocyrtus* Heller, 1912 from the Philippines (Coleoptera, Curculionidae, Entiminae, Pachyrhynchini)

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Bollino M., Sandel F. 2017. Two new taxa of the Subgenus *Artapocyrtus* Heller, 1912, Genus *Metapocyrtus* Heller, 1912 from the Philippines (Coleoptera, Curculionidae, Entiminae, Pachyrhynchini). *Baltic J. Coleopterol.*, 17 (1): 1 -14.

One new species and one new subspecies of the subgenus *Artapocyrtus* Heller, genus *Metapocyrtus* Heller (Entiminae: Pachyrhynchini) are described from northern Philippines, Luzon Island: *M. (A.) lumawigi* sp. n. and *M. (A.) quadriplagiatus caeruleus* ssp. nov. The diagnosis of each taxon is provided. Habitus photographs and illustrations of male and female genitalia are also given.

Key words: taxonomy, Pachyrhynchini, new species, new subspecies, Luzon, broad-nosed weevils, genital morphology.

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### INTRODUCTION

The subgenus *Artapocyrtus* Heller, 1912 of the genus *Metapocyrtus* Heller, 1912 (Entiminae, Pachyrhynchini) has been known for a long time as comprising 17 species from the Philippines (Yap 2008) to which Yoshitake (2011) added a new species from Mindanao. The subgenus is characterized by “Rostrum relatively short, as long as broad, squarish or trapezoidal, the sides set off at right angles from the dorsal surface, arched lengthwise and separated from the curved front by a prominent transverse groove.” (Schultze 1925: 137). Examination of recently

collected material preserved in the collections of the authors led us to identify new taxa, which we describe below.

### MATERIALS AND METHODS

This study was based on specimens deposited mainly in the private collections of Maurizio Bollino, Lecce (MBLI) and Franco Sandel, Miane (CFS), as well as in Senckenberg Natural History Collections, Dresden, Germany (SMTD), Senckenberg Deutsches Entomologisches Institut, Müncheberg,

Germany (SDEI), Daugavpils University Beetle Collection, Daugavpils, Latvia (DUBC), Kyushu University Museum, Fukuoka, Japan (KUM), and National Institute for Agro-Environmental Sciences, Tsukuba, Japan (NIAES). The holotypes will be deposited in SMTD.

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

/ = different lines

// = different labels

â = arithmetic mean

LB = length of the body, from the apical margin of pronotum to the apices of ~~elytra~~ elytra

LE = length of the elytra, from the level of the basal margins to the apices of the elytra

LP = length of the pronotum, from the base to apex along the midline

LR = length of the rostrum

HT = holotype

WE = maximum width across the elytra

WP = maximum width across the pronotum

WR = maximum width across the rostrum

External structures were observed under a Nikon SMZ745T stereoscopic microscope. Habitus images were taken with a Nikon D5200 digital camera provided with an AF-S Micro NIKKOR 105mm f/2,8G ED lens, whereas digital images of endophallus were taken with a Nikon D90 digital camera, extension tubes, bellows and Rodenstock Rodagon 60mm f/5.6 lens. All images were then stacked and processed using a licensed version of the software Helicon Focus 6.7.0. Images of anatomical details of genitalia were drawn by tracing photographic images of the single parts, and adding details by observation under stereomicroscope. All measurements are in mm.

Male and female genitalia of specimens were dissected, cleaned by soaking the whole genital apparatus in NaOH 10% solution, and preserved in 90% glycerol in a microvial fixed to the same pin of the relative specimen. Male genitalia with everted endophallus were glued on a glue board and fixed to the same pin of the relative specimen.

Until recently the importance of the characters of the endophallus in the taxonomy of weevils has been highly underestimated. Even if its taxonomical and phylogenetical importance was postulated more than one century ago (Sharp & Muir 1912), and a technique to evert and study the structure was described for the first time in the same article, 30 years passed before Schoof (1942) underlined that “The endophallus is of importance in the definition of groups of species and may be of specific value”. From that time onwards more and more attention was paid to the importance of the everted and inflated endophallus in the taxonomy of some beetles families like Carabidae (Berlov 1992; Angus et al., 2000), Cerambycidae (Danilevsky et al. 2005; Kasatkin 2006; Dascalu & Fusu 2012), Glaphyridae (Uliana & Sabatinelli 2010; Bollino & Ruzzante 2015), while other authors published about the morphology of the everted, but not inflated, structure in Chrysomelidae (De Monte 1948; Dtingelhoef & Schmitt 2006; Leonardi & Sassi 2001), Lucanidae (Imura 2007) and Scarabaeidae (Sabatinelli 1984; Montreuil 2000; Coca-Abia 2007). Coming to weevils, endophallic characters and details of its structure like, for example, separate sclerites, or setose areas were commonly used in their taxonomy, but Arzanov (2003) was the first to describe a wide set of inflated endophalluses in weevils, underlining that it “gives significant additional advantages over the case of glycerin preparations and separate extracted elements of the endophallus armature” and paying special attention “to the shape and external sclerotized structures of the endophallus (sclerites, spicules, and setose areas)”. More recently, Van Dam (2014) paid attention to the morphology of inflated endophallus in Curculionoidea.

Probably one of the reasons which led to the little attention of taxonomists paid to this structure in fully everted and inflated condition is the undoubted difficulty in obtaining the complete eversion of the membranes that form the anatomical structure. Based on our personal experience (Bollino & Ruzzante 2015), we

determined that the Berti-Vachon method (Bontems 2013) was the most appropriate to obtain the full inflation of the endophallus, thus either allowing to examine its morphology, and having a permanent sample to be properly examined. The process consists in inflating the endophallus by insufflating air through the basal opening of the penis, and then allowing it to dry. In any case, the procedure, if applied to weevils, is lengthy, difficult and with a very low success rate, requiring also a decent dexterity, especially if working on rehydrated material, as was our case. After examining the endophallic morphology of 12 taxa of the subgenus *Artapocyrtus* within others, we observed that the shape of inflated membranes is strongly species-specific, allowing to identify the specimens at species level simply observing this structure.

## RESULTS

### *Metapocyrtus (Artapocyrtus) lumawigi* sp. nov.

(Plate 1 a-d)

### Diagnosis

*Metapocyrtus (Artapocyrtus) lumawigi* is easily separable from all other species of *Artapocyrtus* known to date for the elytral ornamentation, consisting of longitudinal stripes of cupric red color, and striae I-XII generally interrupted in the middle (occasionally such striae are continuous from the base to the elytral apex).

**Description.** Male. Dimensions: LB: 10.2 - 1.15 (holotype 10.6;  $\hat{a}$ : 10.3). LR: 2.00 - 2.20 (2.10;  $\hat{a}$ : 2.14). WR: 1.65 - 1.80 (1.65;  $\hat{a}$ : 1.71). LP: 3.80 - 4.20 (3.90;  $\hat{a}$ : 3.95). WP: 3.80 - 4.25 (3.90;  $\hat{a}$ : 3.95). LE: 6.2 - 6.80 (6.60;  $\hat{a}$ : 6.50). WE: 5.10 - 5.21 ( $\hat{a}$ : 5.15; 5.18). N = 4 for all measurements.

Habitus as shown in Plate 1 a-b.

Integument black. Body upper surface strongly shiny, underside with weaker luster. Body mostly subglabrous. Head shiny without hairs. Rostrum moderately covered with minute hairs on dorsum; antero-lateral parts moderately covered with short brownish hairs, which become longer apically. Prothorax with markings of pale yellow round scales as follows: a latero-ventral broad stripe on each side extended antero-laterally, a narrow band along apical and basal margins. Elytra with striae I-XI covered with metallic scales of cupric color, that outline fine stripes beginning shortly after the anterior margin and extending to the apex; in the median portion of the elytra there is a broad black glossy transverse band-like spot without scales widest at the suture, and narrowing laterally until it disappears on the VII stria. Striae V and VI joined at the base, starting shortly behind striae IV and VII. Stria XII, at anterior edge of elytra very short, and interrupted before the socket. Intestriae minutely punctured, each puncture with a light-colored short seta, longer and adpressed toward the apex.

Forehead flat, with sparse punctures with fine white bristles only above the eyes, smaller and without bristles behind them. Front with a median longitudinal groove; eyes relatively large, slightly prominent from the outline of the head, with convexity more pronounced posteriorly. Antennae with thin scape slightly longer than funiculus, with sparse small hairs more thick in the distal part, first segment of funiculus about three times longer than wide, and slightly longer than the second one; second segment about 2.7 times longer than wide, and about 2.5 times longer than the third; third segment about 1.2 times longer than wide; forth to seventh segments nearly as long as wide. Antennal club swollen, about 2.7 times longer than wide, covered with fine yellowish pubescence, with eighth segment perfectly tapered from the base to the distal part. Rostrum slightly longer than wide (LR/WR 1.30-1.35) widened at the apex, with smooth dorsum finely punctured, and with a deep basal transverse groove and a median longitudinal groove on

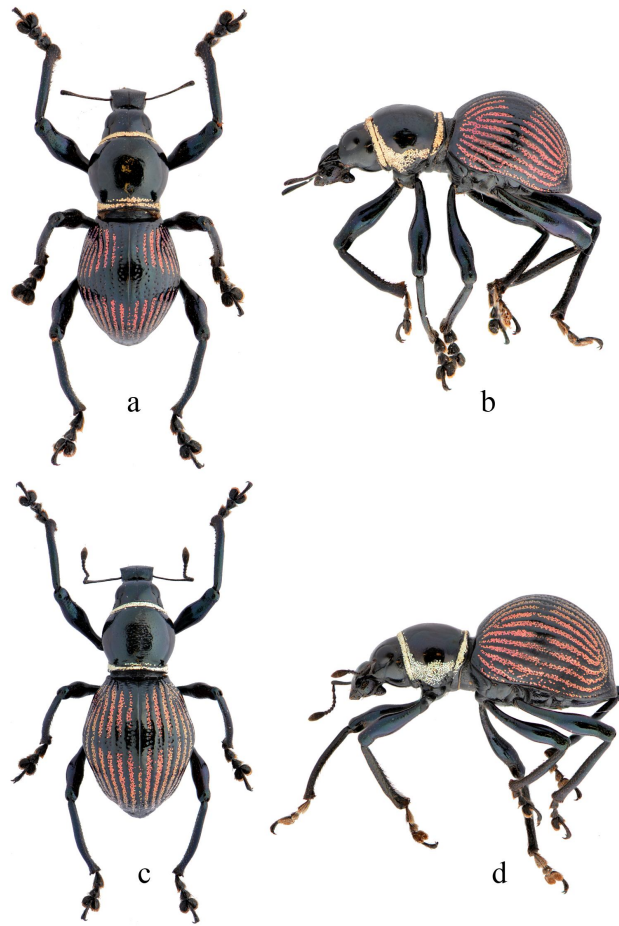


Plate 1

Fig 1: a: *Artapocyrtus lumawigi* HT, male, dorsal view; b: idem, lateral view; c: *Artapocyrtus lumawigi*, female, dorsal view; d: idem, lateral view

basal half; more convex on basal third, then gradually less convex towards the distal part; dorsal boundary of the rostrum discontinuous from that of front, rather quickly lifted from the base; dorso-lateral edges well defined, not interrupted by the basal transverse groove; on each side is present a slight triangular depression between the dorso-lateral edge and the antennal furrow. Ventral surface with a large conical projection in the middle, strongly convex ventrally, and with some long brown bristles.

Prothorax globose, nearly as long as wide (WP/LP 1.00-1.05), maximum width somewhat apicad of the middle, with dorsal sparse punctures, surface finely wrinkled between the punctures.

Elytra subovate, (LE/WE 1.30-1.35), wider than the prothorax (WE/WP 1.25-1.30, LE/LP 1.75-1.80), with convexity more marked in the middle, finely striate-punctured.

Legs slender, femora moderately clavate, with sparse brown bristles, longer and adpressed

toward the distal end. Tibiae moderately covered with brown bristles, with a series of teeth along the inner edge and sparse fringe of long hair. Mucrones present, but reduced. Coxae, sternites and ventrites with sparse and scattered light long adpressed hairs, shorter on the edges; ventrite V flat, with a tuft of long brown hairs, laterally clearer and shorter.

Genitalia as illustrated on Plate 2 a-d. Spiculum gastrale (Plate 2 c) slender, nearly 1.7 times as long as penis body, strongly curved leftward after half. Penis body (Plate 2 a-b) slender; in lateral view ventral side uniformly curved, dorsal side gradually curved towards the apex to form a tubercle, bent nearly at right angle to the ventral side; in dorsal view (Plate 2 b) it is slightly sinuate in sub-basal part, apical 1/4 regularly and gradually sinuate to the apical tubercle. Penis apodemes slender, nearly 1.5 times as long as penis body. Tegmen (Plate 2 d) with slender apodeme, nearly 1.8 times longer than the diameter of tegminal ring.

We obtained only the partial evertion of the endophallus of our specimens. Like in the case of *M. (A.) quadriplagiatus*, the fully inflated endophallus has two basal lateral diverticula, but unfortunately we did not succeed to evert the flagellar diverticulum.

Female. Dimensions: LB: 10.5. LR: 2.00. WR: 1.65. LP: 3.30. WP: 3.60. LE: 6.70. WE: 5.45.

Habitus as shown in Plate 1 c-d.

Forehead slightly wider than that of males. Rostrum slightly longer (LR/WR 1.21). Prothorax barely wider (WP/LP 1.09), rugose on the middle of dorsum. Ventrite I simple, not depressed. Ventrite V with a pair of deep oblique-ovate depressions along margins; interstices between depressions narrow, Y-shaped. Tarsi smaller. Otherwise practically as in male.

Terminalia as illustrated in Plate 2 e-g.

**Type material.** Holotype male “Philippines - South Luzon / Jose Panganiban (Camarines Norte) / September 2014 / ex I. Lumawig - coll. Bollino” (typed on white card) // HOLOTYPE male / *Metapocyrtus (Artapocyrtus) lumawigi* BOLLINO & SANDEL, 2017 (typed on red card), presently in MBLI, will be deposited in SMTD

Paratypes (16 males, 3 females: 1 male, 1 female, same data as holotype; 1 male, Philippines - Luzon I. / Camarines Norte / March 2014 / lg. local people - coll. Bollino; 2 males, Philippines - S. Luzon / Camarines Sur - Bicol / Tigaon / VI.2015 / ex Lumawig - coll. Bollino; 1 male, Philippines - S. Luzon / Bicol Prov. - Camarines Sur / Tigaon / VII.2015 / ex Lumawig - coll. Bollino; 3 males, Philippines - S. Luzon / Bicol - Camarines Norte / Panganiban / October 2015 / ex Lumawig - coll. Bollino, all in MBLI; 1 male, Philippines - LUZON / Camarines Norte Pr. / Panganiban - XII-2014 / Ex. Ismael Lumawig / Coll. Franco Sandel; 2 males, Philippines - LUZON / Camarines Norte Pr. / Panganiban - XII-2015 / Ex. Ismael Lumawig / Coll. Franco Sandel; 2 males, Philippines LUZON / Bicol Province / Libon, Albay - XII-2014 / Ex. Ismael Lumawig / Coll. Franco Sandel, all in CFS; 1 male, 1 female, Philippines / N Camarines, Jose / Panganiban , VI.2014 / local collector leg. // ex. Prof. A. Barsevskis coll.; 1 male., Philippines / N Camarines, Jose / Panganiban , VII.2014 / local collector leg. // ex. Prof. A. Barsevskis coll.; 1 female, Philippines / S Luzon, Catanduanes [sic] / Panganiban / November 2015 / local collector leg. // ex. Prof. A. Barsevskis coll., all in DUBC; 1 male, Camarines Sur, Bicol, X 2015, native, (Munetoshi Maruyama Collection), in KUM.

**Distribution.** The range of the new species (map 1) falls within the Bicol subregion of the Greater Luzon biogeographical region, i.e. the Isarog sub-subregion (C8a *sensu* Ong et al. 2002).

**Etymology.** The new species is dedicated with friendship to Ismael Ocampo Lumawig (Manila,

Philippines) for his contribution to a better knowledge of this interesting group of weevils.

***Metapocyrtus (Artapocyrtus) quadriplagiatus caeruleus* ssp. nov.**

(Plate 3 a-d)

**Diagnosis**

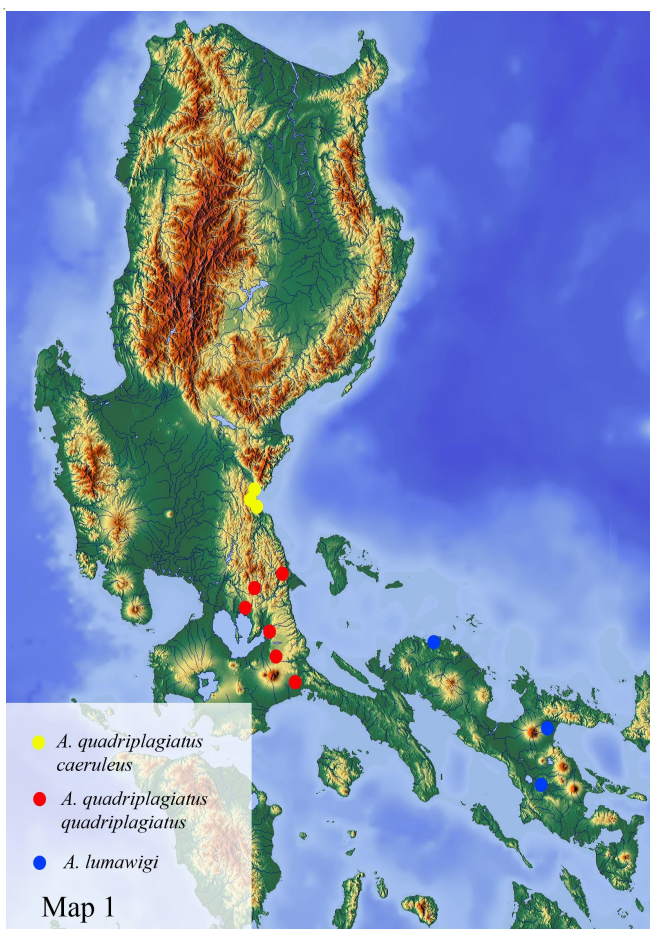
*Metapocyrtus (Artapocyrtus) quadriplagiatus caeruleus* is very similar in general appearance to *M. (A.) quadriplagiatus quadriplagiatus* (Roelofs, 1876), but is readily distinguishable mainly by the unique markings of pale blue

metallic scales of elytra, and the presence of scales of the same color on mesepisternum and metasternum.

**Description.** Male. Dimensions: LB: 9.80 - 11.00 (holotype 10.6;  $\hat{a}$ : 10.3). LR: 1.67 - 2.00 (1.90;  $\hat{a}$ : 1.814). WR: 1.68 - 1.99 (1.85;  $\hat{a}$ : 1.804). LP: 3.70 - 4.20 (4.10;  $\hat{a}$ : 3.95). WP: 3.70 - 4.25 (4.00;  $\hat{a}$ : 3.95). LE: 6.2 - 6.98 (6.60;  $\hat{a}$ : 6.50). WE: 4.48 - 5.13 (4.80;  $\hat{a}$ : 4.70). N = 5 for all measurements.

Habitus as shown in Plate 3 a-b.

Integument black. Body surface strongly shiny, except underside and tibiae with weaker luster. Body mostly subglabrous. Head covered with sparse minute light-colored hairs on latero-ventral parts. Rostrum moderately covered with minute hairs on dorsum; lateral parts moderately covered with short brownish hairs, which become longer apically. Prothorax with markings of metallic pale blue round scales as follows: a broad latero-ventral stripe on each side and a narrow band along apical margin. Elytra with paired patches of metallic pale blue scales in sub-basal and subapical parts; sub-basal patches transversely ovate, extending from intervals VI to XI; subapical patches longer, extending from intervals III to XI, constricted between intervals VIII and X, sometimes divided into an internal and a smaller external patches; apical part sparsely covered with minute hairs. Femora covered with fine brownish hairs, which become sparse and minute medially. Tibiae moderately covered with fine brownish hairs, which become denser apically; internal margin of each tibia fringed with longer, stouter hairs. Coxae, sterna and venter sparsely covered with fine



Map 1. Distribution of *M. (A.) lumawigi* sp. n., *M. (A.) quadriplagiatus caeruleus* ssp. nov. and *M. (A.) quadriplagiatus quadriplagiatus*

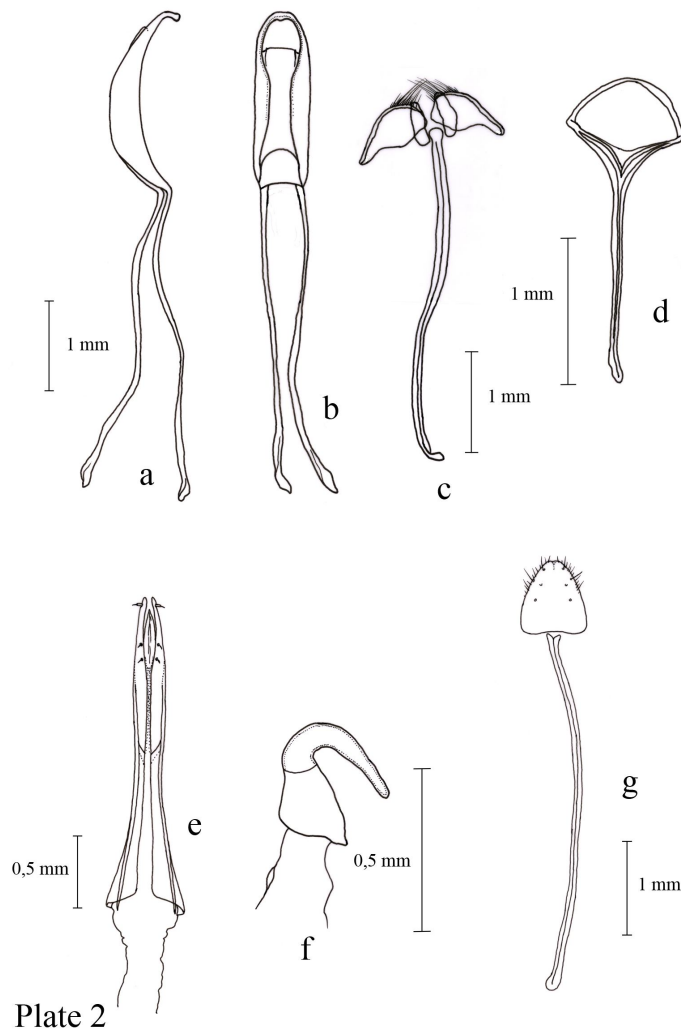


Plate 2  
 Fig 2. Male genitalia and female terminalia of *Artapocyrtus lumawigi* n. sp. a: penis in dorsal view; b: idem in lateral view; c: sternite IX in dorsal view; d: tegmen in dorsal view; e: ovipositor in dorsal view; f: spermatheca; g: sternite VIII in ventral view

brownish hairs, except intercoxal parts of pro- and mesosternum densely covered with longer hairs; mesepisternum with an obscure spot of pale blue metallic round to lanceolate scales on apical half; metasternum with a spot of pale blue metallic round to lanceolate scales on each side.

Forehead flat, finely sparsely punctured, with a fine longitudinal median groove along the entire length. Antennae with scape slender, slightly

longer than funicle; funicular segment I nearly three times as long as wide, slightly longer than II; segment II nearly 2.7 times as long as wide, nearly twice as long as III; segments III–VII subequal in length, nearly as long as wide; club lanceolate, nearly 2.4 times as long as wide. Rostrum nearly as long as wide, (LR/WR 0.99–1.03), widened apically; dorsum finely punctured, with a deep basal transverse groove across entire width and with a longitudinal

groove along midline on basal half, strongly convex on basal 2/3; dorsal contour of rostrum discontinuous with that of forehead, rather rapidly raised from base; dorso-lateral edges well-defined in entire length, not interrupted by basal transverse groove, weakly constricted in the middle; dorso-lateral part on each side with a subtriangular depression between dorso-lateral edge and upper margin of antennal scrobe, which is interrupted by the depression; ventral surface with a large conical projection in the middle. Prothorax subglobular, nearly as long as wide (WP/LP 0.98  $\square$  1.01); dorsum finely punctured, also on interstices between punctures, rather strongly convex; dorsal contour more elevate before the middle; sides rather strongly dilated from strongly constricted base, widest before the middle, strongly convergent apicad, and then narrowly constricted at apex; basal margin shallowly widely emarginate in the middle; apical margin weakly arched; sub-basal and subapical grooves entirely distinct. Elytra subovate (LE/WE 1.35  $\square$  1.43), moderately wider than prothorax (WE/WP 1.11 - 1.23, LE/LP 1.61 - 1.70), finely striate-punctured; striae distorted in median part; dorsum strongly convex, with subtruncate basal margin; dorsal contour rather rapidly raised from base, highest behind the middle, with continuous but rather steep apical declivity; sides strongly dilated from base to subapical parts, gradually widened apicad, widest at the middle, sharply strongly narrowed apicad, and then gently rounded at apices. Ventricle I deeply depressed on disc. Ventricle V flattened, finely densely punctured along apical margin. Legs slender; femora moderately clavate; tibiae weakly incurved apically, mucronate at apex; fore tibiae sharply serrate along internal margin; mid and hind tibiae finely serrate along internal margins; apical mucrones on hind tibiae vestigial.

Genitalia as illustrated on Plate 4 a-d. Spiculum gastrale (Plate 4 d) slender, nearly 1.5 times as long as penis body, curved leftward to the apex. Penis body (Plate 4 a-b) slender, in lateral view ventral side uniformly curved, dorsal side gradually curved towards the apex to form a

tubercle, bent to the ventral side with a more obtuse angle than in *A. lumawigi*; in dorsal view (Plate 4 b) it is not or slightly sinuate in subbasal part, apical 1/3 regularly and gradually sinuate to the apical tubercle. Penis apodemes slender, nearly 1.6 times as long as penis body. Tegmen (Plate 4 c) with slender apodeme, nearly 1.7 times longer than the diameter of tegminal ring and curved leftward to the apex.

The eversion of the endophallus of *Metapocyrtus (Artapocyrtus) quadriplagiatus quadriplagiatus* and *M. (A.) quadriplagiatus caeruleus* was particularly difficult because almost always the median diverticulum (or flagellar diverticulum) intruded one of the latero-basal diverticula, so that we obtained a success rate of less than 10%. The success rate was higher with species without latero-basal diverticula, or with shorter flagellar diverticulum.

Since the morphology of the everted endophallus of either *Metapocyrtus (Artapocyrtus) quadriplagiatus quadriplagiatus* (Plate 5 b, d) and *M. (A.) quadriplagiatus caeruleus* (Plate 5 a, c) is identical, except for minimal differences due to individual variability, we concluded that they represent only two subspecies of the same species.

Female. Dimensions: LB: 11.10 - 12.70 ( $\hat{a}$ : 11.88). LR: 1.70 - 2.00 ( $\hat{a}$ : 1.84). WR: 1.85 - 2.20 ( $\hat{a}$ : 2.01). LP: 3.75 - 4.35 ( $\hat{a}$ : 4.01). WP: 3.80 - 4.50 ( $\hat{a}$ : 4.14). LE: 7.49 - 8.55 ( $\hat{a}$ : 8.03). WE: 5.80 - 6.50 ( $\hat{a}$ : 6.08). N = 5 for all measurements.

Habitus as shown on Plate 3 c-d.

Elytra often with a pair of spots of metallic pale blue round scales on the middle of intervals III. Forehead slightly wider than that of males. Rostrum slightly wider (LR/WR 0.90 - 0.95). Prothorax barely wider (WP/LP 1.01 - 1.06), more strongly punctured, rugose on the middle of dorsum. Elytra longer and wider, (LE/LP 1.97 - 2.03, LE/WE 1.28 - 1.36, WE/WP 1.40 -



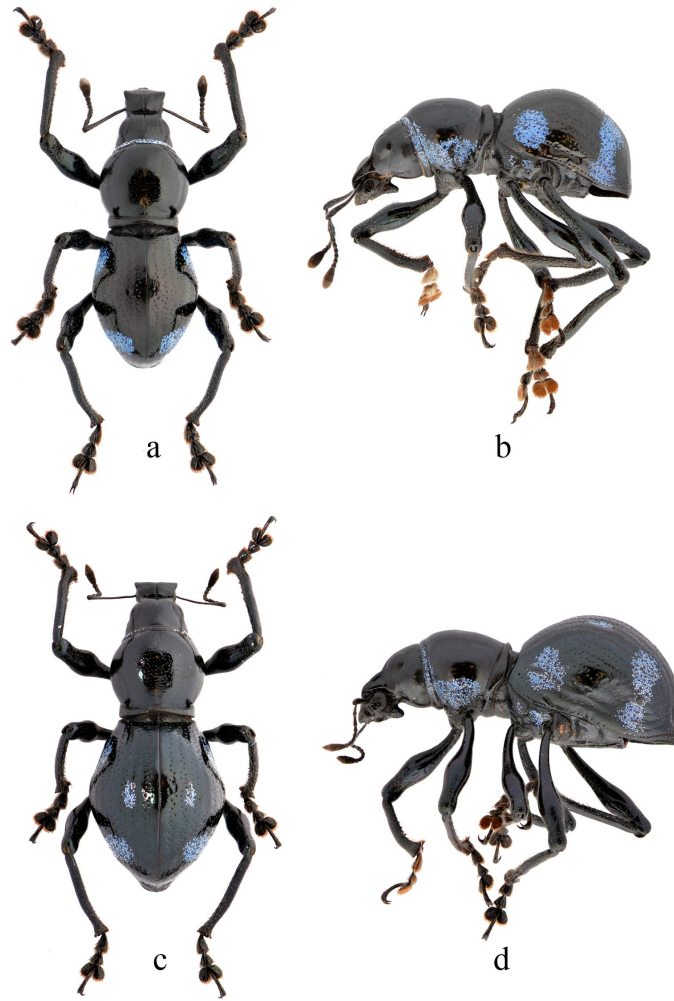


Plate 3

Fig 3: a: *Artapocyrtus quadriplagiatus caeruleus* HT, male, dorsal view; b: idem, lateral view; c: *Artapocyrtus quadriplagiatus caeruleus*, female, dorsal view; d: idem, lateral view

1.54), slightly compressed laterally in sub-basal and postmedian parts, respectively, bearing a small round prominence on intervals VIII and IX of each elytron; apical declivity steeper before prominent apex. Ventricle I simple, not depressed. Ventricle V with a pair of deep oblique-ovate depressions along margins; interstices between depressions narrow, Y-shaped. Tarsi smaller. Otherwise practically as in male.

Terminalia as illustrated in Plate 4 e-g.

**Type material.** Holotype male, Philippines - NE. Luzon / Sierra Madre - Aurora / Ibuna - Umiray Area / XII.2010 / Lg. local collectors - coll. Bollino " (typed on white card) // HOLOTYPE male / *Metapocyrtus* (*Artapocyrtus*) / *quadriplagiatus caeruleus* BOLLINO & SANDEL, 2017 (typed on red

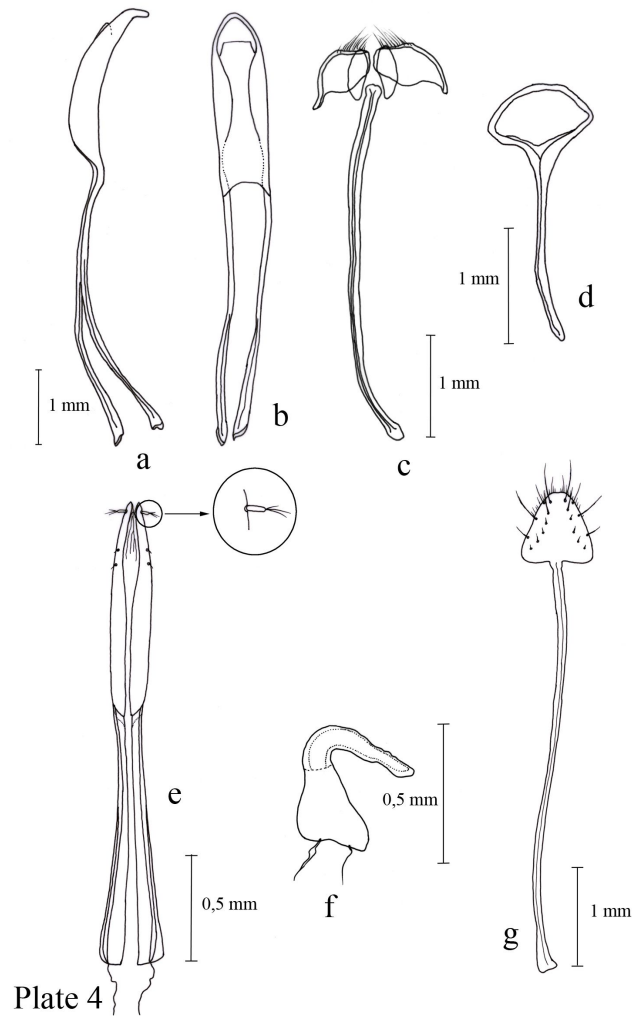


Fig 4. Male genitalia and female terminalia of *Artapocyrtus quadriplagiatus caeruleus* n. ssp. a: penis in dorsal view; b: idem in lateral view; c: sternite IX in dorsal view; d: tegmen in dorsal view; e: ovipositor in dorsal view; f: spermateca; g: sternite VIII in ventral view

card), presently in MBLI, will be deposited in SMTD.

Paratypes (128 males, 97 females: 60 males, 41 females, same data as holotype; 1 female, Philippines - N. Luzon / Dingalan / Aurora Prov. / X. 2012 / ex Noel Mohagan - coll. Bollino; 2 males, Philippines - Luzon Is. / Labuyo / (Aurora) / June 2013 / Ex Mari G. Felipe - coll. Bollino; 1 female, Philippines - N. Luzon / Dingalan / Aurora Prov. / X. 2015 / ex Noel

Mohagan - coll. Bollino; 4 males, 4 females, Philippines - E. Luzon / Sierra Madre-Dingalan / (Aurora) / IX-XI.2016 / Ex Lumawig - coll. Bollino, all in MBLI; 6 males, 4 females, Philippines - N. Luzon / Dingalan / Aurora Prov. / XII. 2010 / ex Noel Mohagan - coll. Bollino; 1 female, Philippines - N. Luzon / Dingalan / Aurora Prov. / X. 2012 / ex Noel Mohagan - coll. Bollino; 4 males, 5 females, Philippines - NE. LUZON / Sierra Madre - Aurora / Dingalan - III.2012 / Ex Ismael Lumawig / coll.

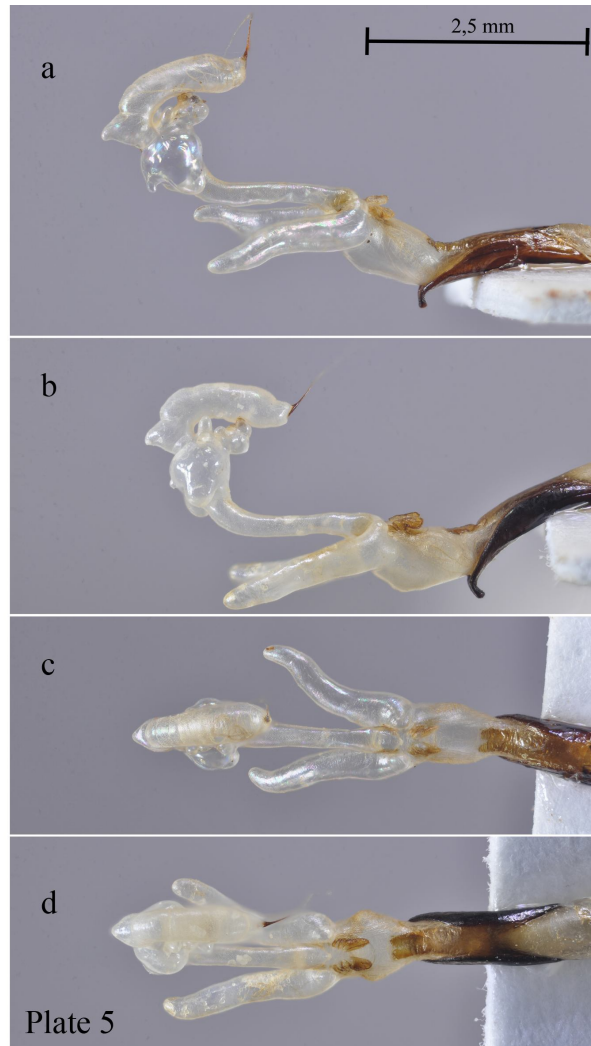


Fig 5 - a: *Artapocyrtus quadriplagiatus caeruleus*, everted endophallus in lateral view; b: *Artapocyrtus quadriplagiatus quadriplagiatus*, everted endophallus in lateral view; c: *Artapocyrtus quadriplagiatus caeruleus*, everted endophallus in dorsal view; d: *Artapocyrtus quadriplagiatus quadriplagiatus*, everted endophallus in dorsal view

Franco Sandel; 3 males, 1 female, idem, but III.2014; 2 males, idem, but XI.2014; 2 males, 3 females, idem, but XII.2014; 4 males, 2 females, idem, but XII.2015; 9 males, 3 females, idem, but II.2016; 8 males, 6 females, idem, but III.2016; 9 males, 9 females, Philippines - E. Luzon / Sierra Madre-Dingalan / (Aurora) / IX-XI.2016 / Ex Ismael Lumawig / coll. Franco Sandel, all in CFS; 3 males, Philippines / N. Luzon, Aurora / Labuyo, III.2014 / local collector leg. // ex. Prof. A. Barsevskis coll.; 1

female, Philippines / N. Luzon, Sierra Madre / Aurora, VIII.2014 / local collector leg. // ex. Prof. A. Barsevskis coll.; 1 male, Philippines, N. Luzon / Sierra Madre, Isabela / VIII.2013 / local collector leg. // ex. Prof. A. Barsevskis coll.; 1 male, Philippines / Sierra Madre, Dingalan, Aurora / E. Luzon / November 2015 / local collector leg. // ex. Prof. A. Barsevskis coll.; 2 females, Philippines / N. Luzon, Aurora, Dingalan / May 2015 / local collector leg. // ex. Prof. A. Barsevskis coll.; 1 female,

Philippines / N. Luzon, Aurora, Labuyo / May 2015 / local collector leg. // ex. Prof. A. Barsevskis coll.; 1 male, 1 - female, Philippines , C. Luzon / Aurora, Dingalan / June 2015, local collector leg. // ex. Prof. A. Barsevskis coll.; 1 female, Philippines / N. Luzon, Aurora, Dingalan / May 2015 / local collector leg. // ex. Prof. A. Barsevskis coll.; all in DUBC; 3 males, 3 females, Philippines - E. Luzon / Sierra Madre-Dingalan / (Aurora) / IX-XI.2016 / Ex Lumawig - coll. Bollino, all in SMTD; 3 males, 3 females, Philippines - E. Luzon / Sierra Madre-Dingalan / (Aurora) / IX-XI.2016 / Ex Lumawig - coll. Bollino, all in SDEI; 1 male, 1 female, [ PHILIPPINES: Luzon ], Sierra Madre, Aurora, X 2012, native (Munetoshi Maruyama Collection); 3 females [ PHILIPPINES: Luzon ], Dingalan, Aurora, 9-12 III 2013, M. Maruyama, (Munetoshi Maruyama Collection), all in KUM; 1 male, 1 female, [ PHILIPPINES: Luzon ], Central Luzon region, Province of Aurora, Sierra Madre Mountain Range, Dingalan, III. 2013, native collector leg. (Hiraku Yoshitake Collection), in NIAES.

Specimens non included in the type series: 1 male, Philippines - South Luzon / Luisiana (Laguna) / September 2014 / ex Lumawig - coll. Bollino; 1 female, Philippines - S. Luzon / Ocampo - Camarines Sur / XII.2014-I.2015 / Ex Lumawig / lg. local people - coll. Bollino; 1 female, Philippines □ T-@S. Luzon / Tigaon - Camarines Sur / XII.2014-I.2015 / Ex Lumawig / lg. local people - coll. Bollino, all in MBLI; 1 male, Philippines / Luzon, Isabela / VIII.2014 / local collector leg. // ex. Prof. A. Barsevskis coll.; 1 male, Philippines, N. Luzon / Nueva Vizcaya / Malico, VII.2014 / local collector leg. // ex. Prof. A. Barsevskis coll., all in DUBC.

**Distribution.** At the best of our knowledge, the new subspecies is known only from the type locality, where it is fairly common, and from the nearby areas of Dingalan and Labuyo (map 1). Some specimens are not included in the type series, due that their collecting data are doubtful, as easily happens with traded material. The range of *Metapocyrtus* (*Artapocyrtus*)

*quadriplagiatus* falls within the Sierra Madre subregion of the Greater Luzon biogeographical region (subregion C3 of Ong et al. 2002), but, while the nominotypical subspecies is endemic of sub-subregion C3c, the new subspecies is restricted to sub-subregion C3b.

**Etymology.** The Latin adjective *caeruleus* means blue and refers to the scale markings of elytra.

## ACKNOWLEDGMENTS

We wish to express our cordial thanks to Olaf Jäger (SMTD) for his support during our stay in Dresden in September 2009 and loan of specimens; furthermore we are grateful to Enzo Colonnelli (Rome, Italy) and two anonymous reviewers for their suggestions and kind revision of the text.

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- Received: 02.04.2017*  
*Accepted: 14.04.2017*  
*Published: 31.07.2017*