

Three new species of the genus *Callimetopus* Blanchard, 1853 (Coleoptera: Cerambycidae: Lamiinae) from Philippines

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Three new species of long-horned beetles of the genus *Callimetopus* Blanchard, 1853 from the Philippines are described and illustrated: *C. santossilvai* sp. n. (Negros Island), *C. bukejsi* sp. n. (Luzon Island) and *C. miroshnikovi* sp. n. (Samar Island). The genus *Callimetopus*, which is distributed in the Oriental Region (especially in the Philippines), is now represented by 44 described species.

Key words: Coleoptera, Cerambycidae, *Callimetopus*, fauna, new species, taxonomy, Philippines

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INTRODUCTION

The Philippines is one of the most biodiverse countries in the world with a very high level of endemism. More than 7600 islands are categorized in three main geographical divisions from north to south: Luzon, Visayas, and Mindanao. The biodiversity of the Philippines is intensively studied in last years. Every year there are discovered and described many new species of beetles, including also from the the family Cerambycidae.

The genus *Callimetopus* Blanchard, 1853 (Coleoptera: Cerambycidae) belongs to the subfamily Lamiinae and tribe Pteropliini, which is one

of the more complicated tribe of long-horned beetles. Many genera of this tribe are still poorly studied and they need taxonomic revisions. Several papers has been published on the genus *Callimetopus* Blanchard, 1853 in last five years, with descriptions of fifteen new species from the Philippine archipelago (Vives 2012, 2015, dela Cruz & Adorada 2012, Barševskis, 2015a, 2015b, 2015c, 2016a, 2016b).

The genus *Callimetopus* distributed in the Oriental region and represented by 44 species: 39 species are known from the Philippine archipelago, two species; *C. pantherinus* Blanchard, 1853 and *C. litturatus* Aurivillius, 1926 from the Moluccan archipelago, one species - *C.*

nigritarsis Pascoe, 1865 from the Moluccan archipelago and peninsular Malaysia, next one species *C. paracasta* Breuning, 1965 from Borneo Island and one species *Callimetopus illecebrosus* (Pascoe, 1865) from Celebes and peninsular Malaysia.

In this paper three species of the genus *Callimetopus* from the Philippines are described and illustrated.

MATERIAL AND METHODS

The studied material is deposited in the beetles collection of Daugavpils University, Institute of Life Sciences and Technology, Coleopterological Research Centre (DUBC - Ilgas, Daugavpils Distr., Latvia).

The laboratory research and measurements have been performed using *Nikon AZ100*, *Nikon SMZ745T* and *Zeiss Stereo Lumar V12* digital stereomicroscopes, NIS-Elements 6D software. The habitus photograph was obtained with a digital camera Canon EOS 6D with Canon MP-E 65 mm macro lens, using Helicon Focus auto montage and subsequently was edited with Photoshop. The maps of the Philippine archipelago have been drawn using the software *ArcGis 10*. All measurements are given in millimeters.

RESULTS

Callimetopus santosilvai sp. n. (Fig. 1A, 1B)

Type material. Holotype, male: Philippines: Negros Isl., Salvador Benedicto, 01.2015, local collector leg. (DUBC)

General distribution: Philippines: Negros Isl. (Fig. 2).

Description. Body black, with small sparse spots of yellow-brown pubescence. Length: 24.1 mm, maximal width: 7.2 mm.

Head flat, wide, somewhat trapezoid, with slightly convex eyes. Surface of head with irregular coarse punctures and wrinkles, in middle between eyes and antennal bases with longitudinal keel, that both ends smoothed, in the middle of keel without very fine longitudinal line, rudiments of which visible only on basis of head as small, fine impression. Head covered with sparse yellow-brown pubescence. Antennal bases thickened, slightly extended. Labrum slightly pubescent, shiny, black, brown in anterior part, with widely rounded apical margin. Clypeus brown, transverse, with light luster and several long yellow-brown setae. Mandibles shiny, relatively short and sharp, with deep, oval irregular depressions basally. Antennae black, covered with very fine and sparse pubescence; 1st antennomere black, shiny, thickened, rugosae, with sparse pubescence and punctures; 3rd antennomere slightly shorter than 4th and 5th antennomeres together; length ratio of 3rd antennomere/4th and 5th antennomeres = 0.94; basal part of 4th antennomere with white pubescence.

Pronotum black, subcylindrical, slightly flattened dorsally, with irregular spots of yellow-brown pubescence, very coarse transverse wrinkles, and coarse deep punctures. Apical third of dorsal disc of pronotum with very small, distinct, smoothed, longitudinal area. Anterior ventrolateral pair of spines very well developed, sharp. Anterior lateral humps of pronotum distinct, slightly extended. Basal angles of pronotum small, well distinct. Frontal margin of pronotum almost straight, widely emarginated; basal margin slightly concaved before basal angles, with thin transverse impression. Length of pronotum: 5.9 mm. Width of pronotum: 6.0 mm.

Scutellum small, transverse, very widely rounded apically. Pars stridens bilobate, with reticulate microsculpture.

Elytra parallel-sided, slightly concaved at shoulders, black, slightly flattened dorsally, without visible humps behind shoulders, with keel-shaped narrow flattened elevation along suture in apical part, with very coarse punctation,



Fig. 1. Holotype of *C. santossilvai* sp. n. (A – habitus, B – male genitalia: aedeagus (above) and paramera (below))

which impressed near scutellum. Elytra covered with small spots of yellow pubescence, more distinct in apical part. Base of elytra slightly concaved at shoulders, in apical part along suture located narrow flat elevation as flat keel. Apex of elytra rounded, with many long hairs. Length of

elytra: 13.6 mm, width of elytra: 7.2 mm. Length of elytra / length of pronotum = 2.3.

Ventral side of body covered with dense yellow brown pubescence, especially on margins of sternites. Legs black, slightly shiny, covered with red-brown and brown dense pubescence.

Forelegs of male is much longer than the other legs. Tarsomeres black, covered with golden-yellow pubescence. Last tarsal segment with very sparse, fine pubescence.

Aedeagus relatively short, curved. Apex of lamella evenly rounded. Paramera slender, lateral lobes nearly parallel, dentiform apically (Fig. 1B).

Differential diagnosis. The new species differs from *C. bukejsi* sp. n. and *C. longicollis* (Schwarzer, 1831) (Fig. 3) by following characters:

1) Pronotum of *C. santossilvai* sp. n. with irregular spots of yellow-brown pubescence and very coarse transverse wrinkles. Pronotum of *C. bukejsi* sp. n. without irregular spots of yellow-brown pubescence, with coarse punctures, and



Fig. 2. Distribution of *C. santossilvai* sp. n



A



B

Fig. 3. *C. longicollis* (Schwarzer, 1831) (A – habitus, B – male genitalia: aedeagus (above) and paramera (below))

in lateral part with some fine transverse wrinkles only. Pronotum of *C. longicollis* evenly covered with sparse yellow-brown pubescence, fine punctured and without visible wrinkles;

2) Anterior ventro-lateral pair of spines of *C. santossilvai* sp. n. very well developed, sharp. Anterior ventro-lateral pair of spines of *C. bukejsi* sp. n. very small and sharp, more smaller as by *C. santossilvai* sp. n. Pronotum of *C. longicollis* without visible anterior ventro-lateral pair of spines;

3) Anterior lateral humps of pronotum of *C. santossilvai* sp. n. distinct, slightly extended. Anterior lateral humps of pronotum of *C. bukejsi*

sp. n. significantly flattened. Pronotum of *C. longicollis* without visible lateral humps; 4) Basal angles of pronotum of *C. santossilvai* sp. n. small, well distinct. Basal angles of pronotum of *C. bukejsi* sp. n. very small, but visible. Pronotum of *C. longicollis* without visible basal angles.

Etymology. This species is named after my colleague, Brazilian entomologist Antonio Santos-Silva (São Paulo, Brazil) in appreciation of cooperation and in gratitude for his great contribution to the studies of Cerambycidae.

***Callimetopus bukejsi* sp. n.**
(Fig. 4)

Type material. Holotype, female: Philippines: Luzon Isl., S Camarines, Tigaon, 03.2015, local collector leg. (DUBC).



Fig. 4. Holotype of *C. bukejsi* sp. n.



Fig. 5. Distribution of *C. bukejsi* sp. n.

Paratypes: female; Philippines: Luzon Isl., S Camarines, Tigaon, 01.2015, local collector leg. (DUBC); **female;** Philippines: Luzon Isl., S Camarines, Tigaon, 02.2015, local collector leg. (DUBC)

General distribution: Philippines: Luzon Isl. (Fig. 5).

Description. Body black to dark brown, glossy, without distinct metallic gloss, with small sparse spots of yellow-brown pubescence. Length: 22.1-25.4 mm, maximal width: 6.1-7.4 mm.

Head flat, wide, somewhat trapezoid, with slightly convex but not extended eyes. Surface of head with irregular coarse punctures and wrinkles, in middle between eyes and antennal bases with flat longitudinal keel, that both ends smoothed, but in the middle of keel with very fine longitudinal line, which continue to the basis of head and are more impressed. Head covered with sparse yellow-brown pubescence, distinct frontally as irregular spots. Antennal bases thickened, slightly extended. Labrum bilobate, with median emargination, slightly pubescent, shiny, black, brown apically. Clypeus brown, transverse, with light luster and several long yellow-brown setae. Mandibles shiny, relatively short and sharp, basally with wide, oval irregular depressions. Antennae black, covered with very fine and sparse pubescence. First antennomere black, shiny, thickened, rugosae, with sparse pubescence and punctures; 3rd an-tennomere longer than antennomeres 4th and 5th; ratio of 3rd an-tennomere / 4th and 5th antennomeres = 1.48; 3rd and 4th antennomere with white pubescence in basal part.

Pronotum black or dark brown, subcylindrical, slightly convex dorsally, without irregular spots of yellow-brown pubescence, with coarse punctures, and with some fine transverse wrinkles laterally. Medio-apical part of dorsal disc of pronotum without visible middle line. Anterior ventro-lateral pair of spines very small and sharp. Anterior lateral humps of pronotum significantly flattened. Basal angles of pronotum very small.

Apical margin of pronotum almost straight, basal margin slightly concaved before basal angles. Apical margin of pronotum emarginated, with interruption in middle, basal margin with thin transverse impression. Length of pronotum: 5.0-5.8 mm. Width of pronotum: 5.1-5.8 mm.

Scutellum small, transverse, very wide rounded apically. Pars stridens bilobate, with reticulate microsculpture and fine punctures.

Elytra black, parallel-sided, with slightly concaved basis at shoulders, slightly flattened dorsally, without visible humps behind shoulders, with keel-shaped flattened elevation along suture in apical third, with very coarse punctation impressed near scutellum. Elytra covered with small spots of yellow pubescence, more distinct apically. Apex of elytra rounded, with many long hairs. Length of elytra: 13.6-14.7 mm, width of elytra: 6.1-7.3 mm; length of elytra / length of pronotum: 2.0-2.2.

Ventral side of body covered with dense yellow-brown pubescence, denser on lateral margins of sternites. Legs black, slightly shiny, covered with red-brown and brown pubescence. Forelegs is longer than the other legs. Tarsomeres black, with golden-yellow pubescence; apical tarsomere without pubescence.

Male unknown.

Differential diagnosis. The new species differs from *C. santossilvai* sp. n. and *C. longicollis* (Fig. 3) by following characters:

1) Pronotum of *C. bukejsi* sp. n. without irregular spots of yellow-brown pubescence, with coarse punctures, and in lateral part with some fine transverse wrinkles only. Pronotum of *C. santossilvai* sp. n. with irregular spots of yellow-brown pubescence and very coarse transverse wrinkles. Pronotum of *C. longicollis* evenly covered with sparse yellow-brown pubescence, fine punctured and without visible wrinkles;

2) Anterior ventro-lateral pair of spines of *C. bukejsi* sp. n. very small and sharp, more smaller as by *C. santossilvai* sp. n. Pronotum of *C. longicollis* without visible anterior ventro-lateral pair of spines.

3) Anterior lateral humps of pronotum of *C. bukejsi* sp. n. significantly flattened. Pronotum of *C. longicollis* without visible lateral humps. Anterior lateral humps of pronotum of *C. santossilvai* sp. n. distinct, slightly extended.

4) Basal angles of pronotum of *C. bukejsi* sp. n. very small, but visible. Pronotum of *C. longicollis* without visible basal angles. Basal angles of pronotum of *C. santossilvai* sp. n. small, well distinct.

Etymology. This species is named after my colleague, Latvian entomologist Dr. Andris Bukejs (Daugavpils, Latvia) in appreciation of cooperation and in gratitude for his great contribution to the research of fossil beetles from Baltic Amber.

***Callimetopus miroshnikovi* sp. n.**
(Fig. 6)

Type material. Holotype, female: Philippines: Samar Island, Lope De Vega, 08.2016, local collector leg. (DUBC).

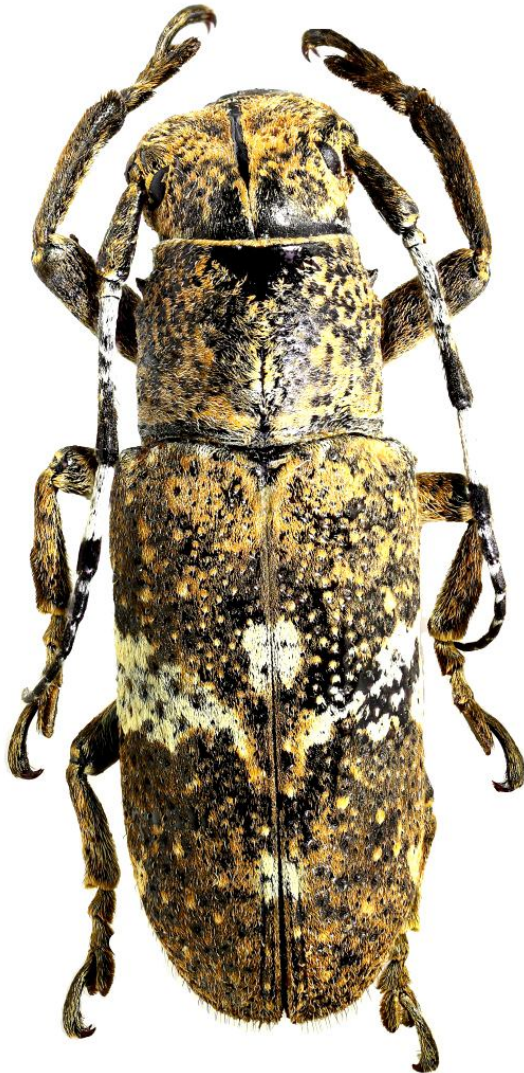


Fig. 6. Holotype of *C. miroshnikovi* sp. n.



Fig. 7. Distribution of *C. miroshnikovi* sp. n.

General distribution: Philippines: Samar Isl. (Fig.7).

Description. Body black, covered with small sparse yellow-brown and separate spots of white pubescence. Length: 22.0 mm, maximal width: 7.2 mm.

Head flat, wide, quadrilateral with parallel sides. Surface of head flat, smooth, with coarse punctures, with longitudinal keel with distinctly smoothed basal and apical parts. Head covered with sparse yellow-brown pubescence. Yellow-

brown pubescence very dense. Antennal bases thickened, slightly extended. Labrum pubescent, shiny, black and bilobate, slightly curved apically. Clypeus brown, transverse, glossy, with several long yellow-brown setae. Mandibles shiny, widened at basis, relatively short and sharp. Antennae black, covered with very fine pubescence; 1st antennomere black, shiny, thickened, rugosae, with sparse yellow-brown pubescence, and with punctures; 2nd antennomere very short, covered with yellow-brown and white pubescence; 3rd antennomere longer than antennomeres 4th and 5th; antennomere 3rd and 4th with white pubescence basally.

Pronotum black, subcylindrical, slightly convex dorsally, covered with yellow-brown pubescence, with coarse puncturation, with several fine transverse wrinkles laterally. Surface of pronotum between yellow-brown pubescence with small black spots, especially around punctures. Anteromedian part of dorsal disc of pronotum with triangular smoothed area without pubescence (it is probably rubbed at holotype). Anterior ventro-lateral pair of spines very well developed, sharp. Anterior lateral humps of pronotum well developed, distinct. Basal angles of pronotum not distinct. Apical margin of pronotum almost straight, basal margin slightly emarginated before basal angles. Lateral margins of pronotum emarginated, basal margin with thin transverse impression. Length of pronotum: 4.8 mm. Width of pronotum: 5.9 mm.

Scutellum small, transverse, very wide rounded apically. Pars stridens not visible at holotype.

Elytra black, parallel-sided, with not concaved basis at shoulders, slightly flattened dorsally, without visible humps behind shoulders, with very coarse punctation, with narrow flattened keel-shaped elevation in apical part along suture. Elytra covered with dense yellow-brown pubescence, with wide band of irregular white spots in middle part, some of these spots connected together, forming irregular zig-zag-shaped lines. Apex of elytra rounded, with many long hairs. Length of elytra: 14.2 mm, width of



Fig. 8. Habitus of *C. stanleyi* dela Cruz, Adorata, 2012

elytra: 7.5 mm. Length of elytra / length of pronotum: 3.0 mm.

Ventral side of body covered with dense yellow-brown pubescence and with small black spots, especially around punctures. Legs black, slightly shiny, covered with dense yellow-brown pubescence. Forelegs is longer than the other legs. Tarsomeres black, covered with same pubescence as that on other parts of body. Last protarsomere with fine pubescence.

Male unknown.

Differential diagnosis. By the habitus and by the shape of rounded apex of elytra, *C. miroshnikovi* sp. n. is similar to *C. stanleyi* dela Cruz & Adorada, 2012 (Fig. 8), from which it can be distinguished by the larger body size and different drawing on the elytra. Elytra of the new species with broad transverse band of white pubescence, narrowing before and near suture, splitting in several small spots; two small white spots are located before the transverse band; preapical part of each elytron with small, sparse white spots. The transverse band with yellow pubescence on the elytra of *C. stanleyi* not reaching or not narrowing at the suture; preapical part of each elytron with small, sparse black spots surrounding coarser punctures.

Etymology. This species is named after prominent Russian cerambycidologist Alexandr I. Miroshnikov (Krasnodar, Russia) in appreciation of cooperation and in gratitude for his great contribution to the research of cerambycid beetles of the world fauna.

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