

Les cahiers *Magallanes*

New or interesting *Cerambycidae*
from Philippines, part I
(Coleoptera, Cerambycidae)



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New or interesting Cerambycidae from Philippines (Col.: Cerambycidae) (Part I)

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Resumen

En el presente trabajo se describen cinco nuevas especies filipinas de Cerambycidae, *Nidella stanleyi* n.sp., *Epipedocera cabigasiana* n.sp., *Aliboron bukidnoni* n.sp., *Cereopsius cabigasi* n.sp., *Doliops ismaeli* n.sp. También se citan nuevas localidades de ocho especies filipinas poco conocidas. Entre ellas, *Leptepania sakaii* Hayashi y *Thermonotus nigripennis* Ritsema son nuevas para Filipinas.

Abstract

In this work we describe five new species of Cerambycidae from Philippines, *Nidella stanleyi* n.sp., *Epipedocera cabigasiana* n.sp., *Aliboron bukidnoni* n.sp., *Cereopsius cabigasi* n.sp., and *Doliops ismaeli* n.sp. We also provide with new records for eight poorly known species from Philippines. Among those, *Leptepania sakaii* Hayashi and *Thermonotus nigripennis* Ritsema are new for the Philippines.

Key words:

Cerambycidae, new species, new records, Philippines.

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The Cerambycidae fauna from the Philippines archipelago (Matsuda, 1997) has been studied from early times. Fabricius (1775, 1801), Olivier (1795) and Chevrolat (1863) described some species. Newman (1842) was the first author to describe many specimens collected by Mr. Cumming in the island of Luzon. In the 20th Century, the taxonomic studies of Heller (1913, 1924, 1926), Aurivillius (1927, 1928, 1942), Gressitt (1935, 1940, 1954), Breuning (1947, 1955, 1956, 1980), Villiers (1959), Hayashi (1982, 1984) and Ohbayashi (1974) have contributed significantly to our knowledge about this fauna. Among these recent works, it is important to highlight the studies of our friend and colleague Karl Hüdelpohl (1987, 1989, 1990, and 1992) in his unfinished synopsis, *Cerambycidae der Philippines Insel*.

None the less, the Cerambycidae fauna from the Philippines is far from being well studied yet. G. A. Baer (1886) catalogued the beetles from Philippines reporting 168 Cerambycidae species, and later Schultze (1916) already reported 251 species. Nowadays the catalogue of longhorn beetles from Philippines includes 1,151 species, representing approximately 70% of the known Cerambycidae fauna compared to these of Borneo and continental Malaysia.

In a recent entomological expedition to Philippines in the Nueva Vizcaya Mountains (northern Luzon) and Bukidnon (northern Mindanao) in July 2003, we had the chance to collect many species of Cerambycidae, among which we emphasise the following ones because of their rarity or novelty. We also want to thank the loan of abundant material collected by Ismael Lumawig (Manila) and Stanley S. Cabigas (Davao). We want to effusively thank their help, because their collaboration is essential to make possible the revision of the Philippines longhorn beetles.

***Doliops ismaeli* nov. sp. (Fig. 1)**

Holotype: 1 male from Calayan, Babuyan Islands, Philippines, May 2003 (E. Vives coll.). Length: 12 mm; width: 5 mm. Paratype: 1 female from the same collection site and date (E. Vives coll.). Length: 13 mm; width: 6 mm.

Tegument shiny black, with stripes of white naced scales, showing pink or golden iridescence depending on the incidence of light. The stripes are distributed as follows: one broad band between the eyes and the base of the antennae, not reaching the epistoma; broad bands in the anterior and posterior margins of pronotum, sometimes interrupted in the middle, joined to another broad lateral band; elytra presenting a short basal median longitudinal stripe, a W-shaped narrow band on the anterior third, a narrow sinuous band in the middle, and a V-shaped narrow band close to the elytral apex; femora with apical short scale bands, both at the internal and external sides and usually detached. The second tarsal segments of all tarsi also entirely covered by pale scales.

Head almost square, parallel-sided, with lobate eyes not too big, and vertex furrowed throughout. Antennal prominences small. Male antennae long, slightly surpassing the elytral apex; scape broad and smooth; pedicel short and subquadrate; third segment almost twice as long as fourth, faintly narrowed in the middle and lacking the brush of apical black setae, replaced by a row of short setae along the inferior margin. Female

antennae shorter, not reaching the elytral apex; segment 5-11 shortening gradually, not forming an aggregated series as it occurs in other species in the genus *Doliops*.

Prothorax cylindrical; disc very convex and smooth, with leathery shine, lacking puncturation except for some scattered fossule-like strong punctures. Pronotum entirely covered by a very disseminated thin short brown tomentum. Anterior and posterior borders of pronotum strongly margined and covered by a broad stripe of white and golden scales; sides presenting a broad band of scales before the prosternum. Scutellum triangular with rounded apex; black with very short black pubescence. Elytra parallel, short and convex, smooth basally, but with humeral area protruding and rugose, the rugosity reaching beyond the middle of elytra as a strong puncturation. Apex rounded and convex, finely punctured. Meso- and metasternum punctured and covered by golden and whitish scales. Abdominal sternites squamose on both sides.

Legs short and robust; femora pedunculated and tibia broadened and flattened apically, the external border laminate. Tarsi short and broad; second tarsal segment dorsally covered by greenish-white scales.

The new species is similar to *D. similis* (Miwa & Mitono, 1933) in shape, size and elytral markings, but they can be easily distinguished because *D. ismaeli* n.sp. has longer and thinner antennae, particularly the third segment is much longer, the elytra basally rugose with puncturation spreading beyond the half of the elytra, the humeral protuberances less bulging, differences in the elytral stripes, and the smooth pronotum with leathery shine. This species coexists with several species of weevils in the genus *Pachyrrhynchus*, which are usually mimicked by species in the genus *Doliops*; in particular *D. ismaeli* seems to mimic the shape and colouration of *P. moniliferus* (Germar) (Fig. 2), although it is also reminiscent of *P. semperi* (Heller), a coexisting species in Calayan Island (Siraudeau, *in litteris*).

Etymology: We name this species after our friend and colleague Mr. Ismael Lumawig (Manila), with whom we have shared very interesting entomological excursions in the north of Luzon Island.

The genus *Doliops* Waterhouse, 1841 has more than twenty species and it is extensively represented in the Philippines archipelago. Each island has endemic species coexisting with others widely distributed in the Philippines. A single species, *D. similis*, living in Lanyu and Lu Tao Islands (Taiwan) does not belong to the Philippines archipelago, but to a group of small islands close to the large island of Formosa. However, there is a strong philippine influence in the fauna of Lanyu Island, with a clear biogeographical relation with the Batanes and Babuyan Islands, to the north of Luzon (Yu and Nara, 2002).

The mimicry of *Doliops* species on Pachyrrhynchini of the genera *Metapocyrtus* and *Pachyrrhynchus* is remarkable in that they do not just mimic the colouration and the shape of the scale stripes, but the general habitus of *Doliops* species strongly resembles that of the weevils in this tribe. They are very similar indeed in their rounded appearance, the short and pedunculated legs, and especially the characteristically shaped antennae, shortened, with a stretched third antennomere and the following very short, mimicking the antennal morphology of Pachyrrhynchini.



Fig.1



Fig.2



Fig 3



Fig.4



Fig.5



Fig.6

Fig.1.- *Doliops ismaeli* sp.nov. Holotype male. Fig.2.- *Pachyrrhynchus moniliferus* (Germar) Is. Calayan. Fig. 3.- *Doliops pachyrrhynchoides* Heller. Fig.4.- *Pachyrrhynchus reticulatus* Waterhouse. Fig.5.- *Doliops multifasciata* Schultze. Fig.6.- *Pachyrrhynchus speciosus* Waterhouse.

***Doliops pachyrrhynchoides* Heller, 1916 (Fig. 3)**

We were able to study two males from Guenzon, Infanta (Luzon Island) and one male and two females from Majayjay, Laguna (Luzon Island) (US NMNH, Washington DC). The species was described based on a specimen from Mt. Banahao (Luzon Island) and it is a rather abundant species in southern Luzon. The imagos coexist and mimic those of *Pachyrrhynchus reticulatus* (Waterhouse) (Fig. 4).

***Doliops multifasciata* Schultze, 1922 (Fig. 5)**

One male collected on *Ficus sp.* from Bukidnon, Mindanao, 22 July 2003 (E. Vives leg. and coll.). Schultze described this species from Lindaban, and in Bukidnon it also mimics to perfection to *Pachyrrhynchus speciosus* (Germar) (Fig. 6), with which it coexists on the same species of *Ficus*. *P. speciosus* is very abundant, but *D. multifasciata* is, on the contrary, very scarce.

***Doliops curculionoides* Waterhouse, 1841**

Several male and female specimens collected in Bukidnon (S. Cabigas leg.); six males and seven females from Surigao (Baker leg.; US NMNH, Washington DC). This species is the commonest among the 21 known *Doliops* species and it dwells in most of the main islands of the Philippines archipelago (Luzon, Samar, and Masbate Islands, and is new for Mindanao Island). This species is very variable regarding to the number and shape of elytral markings, being easily mistaken for *D. duodecimpunctata* Heller, 1923.

***Leptepania sakaii* Hayashi, 1974**

Species described from Lanyu Islands (Taiwan) and captured recently as a male specimen from Calayan, Babuyan Islands, Philippines, May 2003, local collectors (Vives coll.). This is a new species and genus record for the Philippines fauna.

***Nidella stanleyana* nov. sp. (Figs. 7 and 8)**

Holotype: 1 male from Bukidnon, N Mindanao (Philippines), 6 April 2004, S. Cabigas leg. (E. Vives coll.). Length: 6,5 mm; width: 1,3 mm. Paratypes: 4 males and 6 females from the same locality and date (E. Vives coll.).

Ground colour dark. Head shiny black. Antennal segments 1-3 black, 4 dark brown, and 5-11 pale testaceous basally and dark apically. Mandibles and palpi brown. Pronotum dull satin-black, sometimes with reddish disc in females; covered on the anterior border and basally by a silvery pubescence. Elytra black, slightly shiny and with golden-greenish metallic reflexions. Underneath of the body shiny black with metaepisterna and last four abdominal segments covered by a long silvery pubescence. Anterior legs dark brown except on the dorsal face of femora; medium and hind legs black, except for the yellowish-brown median part of femora. Protarsi brown, meso- and metatarsi black.

Head round, wider than pronotum; occiput striated between the eyes with punctures posteriorly and on the neck. Anterior margin very short and upright, with golden pilosity. Eyes big and protruding, strongly emarginated and rugulose in the emargination. Genae short, projecting on a protruding angle next to mandibles. Antennal tubercles rounded and separated. Antennae long, surpassing from their tenth segment the elytral apex in males, slightly shorter in females. Scape clavate, rounded apically, strongly punctured basally. Third segment twice as long as fourth, reaching the base of elytra in males, shorter in females, reaching the base of pronotum; strongly punctured and substriated, ending on a strong apical protuberance. Fourth and fifth segments subequal, strongly punctured. From sixth to eleventh finely punctuated with sparse setae.

Pronotum cylindrical, longer than wide (3/2); narrowed on its anterior margin, delimiting an area fairly smooth, without pubescence; also narrowed on the posterior margin, rounded, with an area strongly punctured and covered on a dense and very deciduous silvery tomentum. Discal area protruding, with two small posterior swellings; strongly punctured with large fossules and completely surrounded by dense silvery pubescence. Scutellum subsquare with silvery pubescence.

Elytra narrow (35/11) and subparallel, slightly narrowed in the middle in males, with more pronounced median narrowing and broadening at the apical third in females. Humeri straight and protruding; elytral suture margined and prolonged as a small internal apical tooth. Epipleurae longitudinally furrowed and sinuous. Elytral apex rounded; disc flat. Elytral base with two small transverse protuberances to both sides of scutellum. Elytral surface entirely covered by large rounded fossules, smaller towards the apical third; covered by short golden pubescence. Some specimens show a hinted testaceous stripe, more apparent in the basal region. Metaepisterna long and narrow. Abdomen with the first visible segment as long as the following three together. Pygidium rounded. Legs very long and slender, with distal part of medium and hind femora enlarged, club-like, and slightly arcuate tibiae. Tarsi short with silvery tomentum.

There is a remarkable sexual dimorphism in this species. Females show a slightly enhanced colouration, sometimes also presenting a red pronotal disc; their elytra are conspicuously enlarged in the apical third and strongly narrowed medially; and the antennae are shorter.

Nidella stanleyana n. sp. is close to the type species of the genus, *N. coomani* Gressitt & Rondon, 1970 described from Vietnam. Both can be distinguished by the shape of the pronotum, the apical elytral enlargement in females, and by the shape of the third antennal segment in males, showing a distal protuberance in *N. stanleyana*.

Etymology: This new species is named after its discoverer, Mr. Stanley Cabigas.

***Epipedocera cabigasiana* nov. sp. (Fig. 9)**

Holotype: 1 female from Bukidnon, N Mindanao, 6 April 2004, S. Cabigas leg. (E. Vives coll.). Length: 5.3 mm; width: 1.8 mm.

Head and pronotum dull black, glossy on the elytra, which present a median broad transverse stripe, cream-coloured, very convex and shiny. Elytral apex and apical teeth amber. Epistome, palpi, tibiae and tarsi ochreous. Seventh to eleventh antennal segments dark reddish. Underneath of body shiny black, covered by silvery tomentum. Posterior margin of pronotum and scutellum clothed by silvery tomentum.

Head not very broad, with small non-lobed eyes. Space between eyes trapezoidal, flat and presenting large fossules bearing a broad squamose gray seta. Antennae short and slender, only reaching half of the elytra. First antennal segment shaped as a thick cylindrical scape, second segment twice as long as broad, third segment twice as long as fourth; segments 4-6 subequal, distally enlarged; segments 7-11 short with thickened external margin.

Prothorax slightly longer than wide, with largest width on basal third. Disc punctuated-reticulated, with large fossules conferring a rugulose appearance. Anterior margin with appressed gray pubescence. Posterior margin narrowed with a large median emargination, coincident with two elytral basal callosities. Scutellum round-shaped.

Elytra long and parallel (9.5/4.6), narrowed in the middle where the transverse stripes occur, presenting a short and shining humeral depression, two protruding gibbosities on anterior margin to both sides of scutellum. Humeri round and prominent. Elytral disc convex on the anterior third. Elytra laterally presenting a long arcuated toothed rib, delimiting a punctured area before the epipleurae; rib interrupted after the shining transverse stripes. Elytral apices truncated, each with two large spurs, one internal and one external. Elytral surface with large rugulose fossules, fainter in the apical half which also has approximately aligned thick moniliform setae. Underneath of body finely punctured. Epipleurae smooth and shining.

Legs slender, with femora slightly broadened and presenting a fine silvery pubescent line above. Tibiae straight and apically campanulate. Tarsi short, subequal; first metatarsi twice as long as second.

Epipedocera cabigasiana n. sp. belongs to the “cleriformis” species group, showing short antennae, transverse elytral stripe not reaching the suture, and elytral base dark. The new species coexists with *E. lunata* Newman in Bukidnon, a species belonging to a different species group characterised by their larger size and paler colouration. It also coexists with *Centrotoclytus helleri* Aurivillius, sharing its cleriform appearance despite they belong to different tribes.

Etymology: This species is named after its discoverer, Mr. Stanley Cabigas.

***Acronioglenea besucheti* Breuning, 1974 nov. comb. (Fig. 10)**

This species was described from Luzon Island and we have been able to study a new specimen from Laguna (Luzon Island), August 2002, I. Lumawig leg. (Vives coll.). Breuning (1974) described this species and created for it the subgenus *Glenea* (*Acronioglenea*), based on its particular pronotal shape, carinated in the middle, the short and parallel shape of the elytra, which have the same metallic shine as the



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12



Fig. 13

Fig. 7.- *Nidiella stanleyana* n.sp. Holotype male. Fig. 8.- idem Paratype female. Fig. 9.- *Epipedocera cabigasiana*, Holotype female Fig. 10.- *Acronioglenea besucheti* Breuning. Fig. 11.- *Callimetopus longicollis* Schwartz. Fig. 12.- *Aliboron bukidnoni* n sp. Holotype male. Fig. 13.- *Cereopsius cabigasi* n.sp. Holotype male.

remainder of the body and their apex toothed. We believe that these characters justify their treatment as a genus different from *Glenea*.

***Callimetopus longicollis* Schwarze, 1931 (Fig. 11)**

Several specimens from Laguna, August 2002, I. Lumawig leg. This species is rarely collected and is usually mistaken for the congeneric species *C. longior* Hüdepohl, 1990, but can be distinguished by the structure of pronotum and the different shape and proportions of the antennal segments.

***Thermonotus nigripennis* Ritsema, 1896**

Two female specimens from Palawan Island, 15 August 2003, J. L. Boudant leg. This species, described from Borneo, is new for the Philippines. It is a Malesian species reaching the Philippines archipelago in Palawan Island, as it occurs with many other species such as *Cereopsius sexmaculatus* Aurivillius, *Xixuthrus microcerus* ssp. *microcerus* (White), or *Euryclelia cardinalis* Thomson, among others.

***Aliboron bukidnoni* sp. nov. (Fig. 12)**

Holotype: 1 male from Bukidnon, N Mindanao, Philippines, April 2004, S. Cabigas leg. (E. Vives coll.). Length: 26 mm.; width: 7 mm. Paratype: 1 male from the same locality, April 2002, S. Cabigas leg. (S. Cabigas coll.).

Head shiny black with reddish frons; antennae, pronotum and tibiae also reddish. Elytra shiny black with sparse small areas of golden pubescence. Antennae and legs with black pubescence. Head, pronotum, scutellum and underneath of body with golden pubescence.

Head vertical, with small slightly protruding eyes, their superior lobe largely reduced. Frons flat and trapezoidal, marked all over as well as the occiput. Cheeks flat and shining. Labrum blackish with long brown setae. Mandibles rounded and robust. Antennae long, reaching beyond the elytral apex from their fifth segment. Scape long and cylindrical, somehow enlarged apically. Second segment short and transverse. Third segment long and slender, longer than the scape and the fourth segment. Segments 4-12 long and thin, progressively shorter. Antennal segments with long black pubescence on their internal half and short golden pubescence elsewhere.

Pronotum slightly longer than wide, almost cylindrical, with thin anterior and posterior margins. Pronotum transversally ridged by a dozen of subparallel carinules, faintly furrowed on the disc. Prosternum flat with intercoxal apophysis dilated behind coxae, presenting a faint median carina. Elytra long, parallel and subcylindrical; slightly furrowed apically. Scutellum rounded and transverse. Mesonotum with a large stridulatory plate. Humeri straight and protruding. Elytral base sinuated. Elytral disc

very convex, with a broad, flat and shiny sutural margin. Elytral surface entirely covered by punctures and scattered groups of golden pubescence tufts, larger in the basal half, smaller to the apical third. Tegument black except for the areas with pubescence, where it becomes reddish. Epipleurae glabrous and microreticulated. Mesonotum narrow and convex, longitudinally furrowed. Abdominal sternites feebly convex, reddish, with golden tomentum.

Legs short and robust; femora enlarged, striated, black, shining and without pubescence. Tibiae enlarged apically, reddish with golden or brown pubescence; protibiae furrowed ventrally; mesotibiae furrowed dorsally; metatibiae broad and very short. Tarsi short and broad; first and second male protarsi with expanded internal margin.

The new species is quite distinct from the other three species included in the genus *Aliboron* Thomson, because of its larger size and the distribution of elytral pubescence as sparse small tufts. It can be distinguished from *A. granulatum* Breuning, 1966 by the shape of pronotum and the third antennal segment, considerably longer than the scape. It differentiates from *A. antenatum* Thomson also by the length of the third antennal segment, but also because it lacks the pubescent stripes on the elytra and the spur in the sutural angle, and because its pronotum is significantly broader. The differences with *A. wongi* Hüdepohl, 1987 are in the antennae, presenting less pubescence, and in the shape of the elytral apex, less acuminate. *Aliboron* is a typically Bornean and Malayan genus, and its presence in Mindanao Island is suggestive of a clear connection between Bornean and Philippines fauna through the Sulu Islands archipelago.

***Cereopsius cabigasi* nov. sp. (Fig. 13)**

Holotype: 1 male from Bukidnon, Mindanao Island, Philippines, 22 July 2003, E. Vives and S. Cabigas leg. (E. Vives coll., Terrassa). Length: 17 mm; width: 7 mm. Paratypes: 2 males with the same data as holotype and 1 female from Bukidnon, 29 April 2002, S. Cabigas leg. (E. Vives coll.).

Teguments black with faint gloss. Antennae reddish-orange. Prothorax with a yellowish marking on each side, generally expanding as a transverse discal stripe. Elytra with three yellow lateral markings, one band in the basal third, one band after the middle and one rounded apical spot. Elytral tegument black except for the areas surrounding the markings, where it is reddish underneath the pubescence. Body entirely covered by a short black velvety pubescence.

Head round, globose, covered by black pubescence. Antennae long and slender, reaching from their fifth segment beyond elytral apex. Scape long and cup-shaped, with a conspicuous apical scar. Pronotum transverse, largely margined anterior and posteriorly, transversely run by a middle ridge with a median gibbosity. Puncturation large and dispersed. Lateral spines acute and slightly directed backwards.

Elytra long and subparallel, slightly tapering towards the apex, which presents one spine in the external angle. Humera margined and protruding, lacking humeral ridge. Base of elytra with a median thick protuberance. Elytral puncturation strong and aligned in longitudinal rows. Elytral suture margined. Scutellum triangular with rounded apex.

Legs short and thick. Anterior tibiae tenuously reddish; meso- and metatibiae black. Underneath of body with black sparse pubescence. Pygidium reddish.

This species is close to *Cereopsius luctor* (Newman) and both are sympatric in Bukidnon (Mindanao). They can be easily distinguished because of the longer and reddish antennae of the new species, its cup-shaped distally enlarged first antennal segment, the confluent pronotal discal markings, and the lack of the big white metasternal marking typical of *C. luctor* specimens. Other differences between these species are the lateral prothoracic spurs, more acuminate and protruding in *C. cabigasi*, its transversal pronotal ridge showing a median swelling, the strong protuberance at the base of the elytra, between each humerus and the scutellum, lacking the small basal longitudinal ridge. The tegument underlying the elytral markings is reddish and the elytra are narrower and subparallel.

Cereopsius cabigasi n.sp. belongs to the species group including *C. luctor* and *C. sexmaculatus* Aurivillius, separating from those by the abovementioned characters. It is important to point out here that live specimens have shiny lemon yellow elytral markings, turning to dark yellow in dead specimens, as it usually occurs to the tegument of most species in the genus *Cereopsius*.

Etymology: This species is named after our friend and colleague entomologist, Mr. Stanley S. Cabigas, distinguished explorer of the entomological fauna in Mindanao Island.

***Cereopsius vivesi* Breunig, 1971**

This species was described based on a single old specimen from Baer's collection without other information than "Philippines" (Vives coll.). We have been able to study a male specimen obtained by local collectors from Mt. Balocanta (Leyte Island), 9 September 2003 (Vives coll.) and a male specimen from Marinduque, July 2000, S. Cabigas leg. This species, which can be easily confounded with large specimens of *Blepephaeus marmoratus* (Heller, 1934), seems to be distributed in several islands to the south of the archipelago.

***Cereopsius copei* Hüdepohl, 1993**

We studied one male from Palawan, 21 September 2003, J. L. Boudant leg. It matches perfectly the description by Hüdepohl (1993). This species seems to be endemic to Palawan Island.

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