

Review of the Genus *Prionispa* Chapuis, 1875 (Coleoptera: Chrysomelidae: Cassidinae: Oncocephalini) of the Philippines

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The genus *Prionispa* Chapuis, 1875 (Coleoptera: Chrysomelidae: Cassidinae: Oncocephalini) is reviewed in the Philippines. Four species from the Philippines are treated. Keys to the genera and species of *Prionispa* is provided.

Keywords: cassidines, hispines, leaf beetles

INTRODUCTION

The genus *Prionispa* was established by Chapuis (1875); he described and designated *P. subopaca* as its type species from Pulo-Penang, a Malaysian state from the Strait of Malacca. The species is distributed in Indonesia and Malaysia. He also described *P. nitida* from Java and Sumatra, Indonesia, which was later synonymized with *P. fulvicollis* (Guérin-Ménéville 1830). Currently, there are 29 species of *Prionispa*, which are distributed in the Oriental and Oceanic regions (Staines 2015). In the Philippines, there are four endemic species of *Prionispa*: *P. bakeri* Gestro 1917 collected in Mt. Banahao, Laguna, and named in honor of Charles F. Baker, who was the second dean of the University of the Philippines College of Agriculture, now the University of the Philippines Los Baños; *P. lucida* Gestro (1917) described and collected in Davao, Mindanao; *P. mauliki* described by Uhmann (1930–32) from Biliran Is., Leyte and named for Samarendra Nath Maulik, an Indian entomologist and Professor of Zoology at the University of Calcutta

and a beetle specialist at the British Museum of Natural History who worked on leaf beetles; and *P. fulva* from northern Leyte described recently by Medvedev (1995) while cataloging the leaf beetles of Leyte.

Some species of *Prionispa* were associated with some economically important crops as leaf defoliators and maybe a minor pest, e.g. *P. champaka* Maulik 1919 on Zingiberaceae (Hua 2002) in China (Yunnan), India (Assam), and Thailand. *Prionispa dentata* Pic 1938 is associated with Zingiberaceae (Hua 2002) and Commelinaceae in China (Yunnan), Thailand, and Vietnam (Kalshoven 1957). *Prionispa tuberculata* Pic 1926 was associated with sweet potato, *Ipomoea batatas* Poir. (Convolvulaceae), in Thailand and Vietnam (Mo 1956). Two species are also associated with flowering plants: *P. fulvicollis* (Guérin-Ménéville 1830) on *Pollia thyrsiflora* Endl ex Hasskarl (Commelinaceae) in Indonesia (Java, Sumatra) (Taylor 1937) and *P. houjayi* Lee *et al.* 2009 on fairly bells, *Disporum kawakamii* Hayata (Liliaceae) in Taiwan (Lee *et al.* 2009). However, the literature does not report any species as major crop pests. *Prionispa* species from the Philippines have unknown food plants.

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MATERIAL AND METHODS

Borrowed specimens from different museums were thoroughly examined under a 6–60X using a 10X wide view eyepiece or 6–120X using a 20X eyepiece Wild Heerbrugg® Wild M5A microscope stereo zoom microscope and an Olympus® SZ40 microscope. Characters were tabulated and summarized using character matrices.

Color images of habitus, genitalia, and other morphological characters were taken using a Nikon®-D7100 DSLR (24.2 megapixel) digital camera equipped with a Nikon Micro 40 mm 1:2.8G lens and mounted on a four-way macro shot focusing rail metal slider. A heavy iron metal-based plate was fabricated and welded with a few small steel barriers to make the camera and rail metal slider stable during each shooting operation. The camera was attached to a Mac® computer and remotely controlled with a mouse using Helicon Remote® software. Time-lapse photography function at predetermined intervals while manually adjusting the camera rail metal slider was also used. This is to hasten the process and prevent unnecessary movement when pressing the camera's shutter button. Lighting was provided by several units of light-emitting diode (LED) ring lights and LED bulbs mounted on a movable study lamp and covered with a Pixco® camera flash diffuser for maximum lighting. Insect specimens and genitalia were mounted using an adjustable and movable mount secured at the center using a dissecting needle or flexible iron wire, whereas the pinned specimens were held using either clay, adhesive tape or Plastazote®, or polyethylene foam. Moreover, tracing paper was used as a background for the specimen and as a roof cover to reflect light and maximize lighting on the subject. Afterward, digital photographs were combined using Helicon Remote® and Helicon Focus® stacking software, digitally enhanced and cleaned from any unwanted blemishes using Windows-based Adobe Photoshop CS 3.0® software, and stored in a TIFF format on an Apple/Mac® computer and other backup hard drives.

Digital photos of the different type specimens, along with their corresponding labels from different European museums, were also requested and cropped using Adobe Photoshop 7.0® software. When we were unable to obtain photographs of species from which we were unable to obtain specimens, we included published line drawings to provide visual documentation of the species that is available.

SYSTEMATICS

Prionispa specimens used for the taxonomic analysis were collected all over the Philippines, including specimens

sent on loan from several museums around the globe. Digital photographs of some type specimens were also provided by some of the following institutions. Requests from other museums went unanswered, or the institution was unwilling to loan specimens to an institution in the Philippines or take photographs for use in this work.

NMNH	National Museum of Natural History, Smithsonian Institution, Washington, DC, USA
DEI	German Entomological Institute, Senckenberg, Deutsches Entomologisches Institut, Müncheberg, Germany
IRSNB	Institut Royal des Science Naturelle de Belgique, Bruxelles, Belgium
MCSN	Museo Civico di Storia Naturale di Genova, Genova GE, Italy
SMNS	Stuttgart State Museum of Natural History, Rosenstein, Stuttgart, Germany

Key to the Genera of Oncocephalini Chapuis

1. Head carinate between antennae, without protuberance; antennomeres not striate; pronotum not tuberculate 2
Head with a large protuberance behind antennae; antennomeres striate; pronotum tuberculate *Oncocephala* Agassiz
2. Labial palpi absent or only with one palpomere; antennomere 3 slightly longer than first or second *Chaeridiona* Baly
Labial palpi with three palpomeres; antennomere 3 always longer than first and second combined *Prionispa* Chapuis

Prionispa Chapuis 1875

Type species: *Prionispa subopaca* Chapuis 1875, by monotypy

Body distinctly to slightly wedge-shaped, nearly parallel-sided dorsally; monochromatic to bichromatic; light to dark brownish, matte black; sometimes with iridescent, lustrous metallic green sheen; with blackish, brownish tinge to orange tinge. Antennae monochromatic or bichromatic; black, light to dark brown, light yellow to orange; antennomeres VIII–XI usually black, sometimes yellowish; covered with minute thick hairs. Leg light to dark brown, light yellow to orange. *Head* Compound eyes ovate, extending laterally; median sulcus tapered apically. [*Antenna*] Slender medially, robust, thickened subapically, conical apically; with 11 antennomeres; nearly twice the length of pronotum; antennomere III usually longest; VIII–X usually wider than the rest; XI conical. *Pronotum* Cylindrical; nearly quadrate; with minute pore protuberance; slightly wedge-shaped, nearly parallel-sided; surface punctate. *Scutellum* Flattened dorsally, ramp-like laterally; posterior margin rounded

or truncate. *Elytron* Wedge-shaped, nearly parallel-sided, sinuate dorsally; flattened laterally; with or without exterior apical angle; distinctly or slightly extended laterally; rounded or tapered apically; with or without distinct elytral tubercles medially and subanteriorly. *Leg* Moderately long; relatively slender (Figure 1). Male and female genitalia are not useful for species determinations and there is no sexual dimorphism.

Distribution. [Oriental] Nepal, India, China, Thailand,

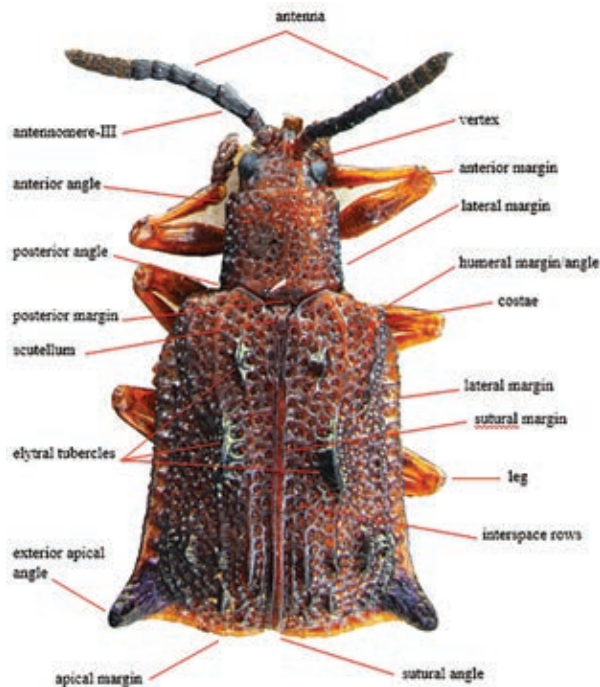


Figure 1. General morphological structures of *Prionispa* Chapuis, 1875.

Malaysia, Myanmar, Burma, Vietnam, Taiwan, and the Philippines. [Oceania] Indonesia, Moluccas, and Papua New Guinea.

Hosts. *Pollia thyrsiflora* Endl ex Hasskarl (Commelinaceae) (Taylor 1937); *Ipomoea batatas* Poir. (Convolvulaceae) (Mo 1956); Zingiberaceae (Hua 2002); *Disporum kawakamii* Hayata (Liliaceae) (Lee *et al.* 2009); Commelinaceae (Kalshoven 1957).

Remarks. The genus can be distinguished from other genera (*Oncocephala* Agassiz and *Chaeridiona* Baly) by the labial palpi with three palpomeres and antennomere III always longer than the first and second combined. Antennomeres VIII–X are nearly quadrate in *Prionispa* and *Oncocephala*, whereas they are distinctly longer than wide in *Chaeridiona*; however, they are densely covered with minute thick setae or hairs in *Prionispa*, whereas it is not in *Oncocephala*. Variation between species in *Prionispa* is much greater compared to *Oncocephala*. To

aid in species descriptions, the elytral tubercle formula of Calcetas *et al.* (2020) was also used to identify and summarize the number of distinct elytral tubercles on each costa [total number of elytral tubercles (costa I–II–III–IV–V)], *e.g.* for *P. lucida* = 8 (2-3-1-1-1). Unlike *Oncocephala* with a tubercle in costa I or the scutellar region, *Prionispa* has a tubercle in variable regions of the elytra in costa I.

Similar to the genus *Oncocephala* (Calcetas *et al.* 2020), the genitalia of the genus *Prionispa* are “whip-like” and without any variation and are not useful in differentiating the species. There is also no observed sexual dimorphism in both genera, particularly on *Oncocephala* except for slightly larger females compared to males (Calcetas *et al.* 2021).

Prionispa bakeri Gestro, 1917

(Figures 2 and 3)

Prionispa bakeri Gestro 1917: 401 (type locality: Philippines, Luzon, Mt. Banahao; holotype depository: MCSN). Gestro 1922: 101 (faunal list), 1923: 6 (catalog); Uhmann 1933: 64 (faunal list), 1951: 37 (museum list), 1958: 252 (catalog), 1964: 466 (catalog), 1964 (1965): 247 (faunal list); Monrós 1959: 31 (illustration).

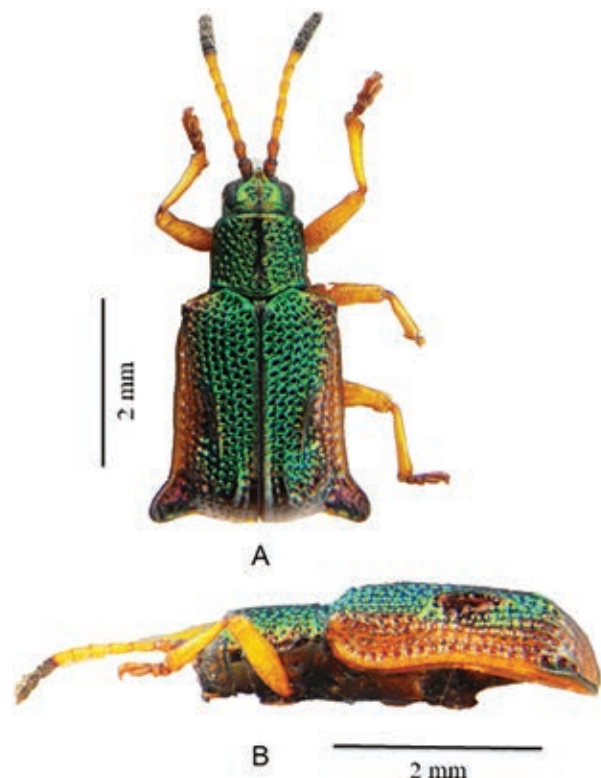


Figure 2. *Prionispa bakeri* Gestro, 1917 A. habitus, dorsal aspect; B. habitus, lateral aspect.



Figure 3. *Prionispa bakeri* Gestro, 1917 habitus, dorsal aspect (photograph of the holotype from MCSN, courtesy of Dr. Roberto Poggi).

Prionispa magnifica Weise 1922: 63 (type locality: Philippines, Luzon, Mount Maquiling; holotype depository: ZMHB). Gestro 1923: 6 (synonymy).

Redescription. Body bichromatic; head, pronotum, and scutellum with lustrous, iridescent, dark metallic green sheen entire; elytra metallic green sheen except each side light to dark brown; lateral margin explanate, light brown; puncture rows, depressed, dark brown to blackish; immediately above sutural margin, apical margin and exterior apical angle black with iridescent, metallic purplish sheen; antennomeres I and II dark brown; III–VII yellow-orange; VIII–XI black, covered with white hairs; anterior margin of VIII with narrow band of black tinge; pro-, meso-, and metafemora and tibiae yellow-orange; tarsi dark brown (Figure 2A). *Head* Anterior margin of compound eyes evenly convex laterally; each side of compound eyes rounded, slightly ovate dorsally and laterally; median sulcus anterior margin mound-shaped, with wide, rounded apex dorsally; median sulcus conical laterally; vertex with small rounded punctures concentrated medially; upper and lower surface and each side smooth, impunctate. *Antennae* Nearly twice the length of pronotum; antennomeres I–VII lateral margins wider at apex, without hairs, smooth, not striate; VIII–X quadrate; XI conical; surface coarse, densely covered with short white hairs; III distinctly longer than others; II and IV nearly same length; VIII–X widest segments; antennal length 1.9 mm ($n = 1$). *Pronotum* Nearly quadrate; anterior margin slightly convex; pore protuberance minute, tooth-like, rounded apically, pointed nearly at approximately

45° angle anteriorly; anterior angle angulate, obtuse, rounded apically; with smooth, impunctate, narrow explanate margin, telescoping medially; lateral margin nearly parallel-sided, smooth; margin near anterior angle and medially narrowly explanate; posterior angle rounded, barrel-shaped laterally; posterior margin widely concave, rounded medially; surface with ovoid to irregular-shaped punctures; with narrow, thin, longitudinal cut or depression medially; with narrow, longitudinal, impunctate callosity medially; pronotal width 1.0 mm; pronotal length 1.0 mm. *Scutellum* Distinctly longer than wide; upper lateral margin slightly wedge-shaped; lower lateral margin long, parallel-sided; posterior margin rounded. *Elytron* Humeral margin convex to nearly subtriangulate medially; depressed, widely explanate margin, with narrow callosity near scutellar margin; scutellar margin raised, with narrow impunctate callosity; humeral angle raised, rounded, punctate; anterior angle widely rounded; lateral margin wedge-shaped, distinctly wider at apex, minutely dentate, narrowly carinate; dentation disappearing toward anterior and exterior apical angle; explanate margin narrower toward anterior angle, wider toward exterior apical angle; exterior apical angle distinctly elongate laterally, lobe-like, pointed downward at approximately 45° angle; with broad, rounded, apex; surface raised or embossed, smooth; apical margin sinuate; slightly concave medially, smooth; sutural angle acute; sutural margin carinate toward apex; with 11 puncture rows; puncture row I incomplete; II–V complete; VI–VIII interrupted medially, medial puncture rows depressed, sunken; side surface of medial tubercle at puncture row V with lustrous, rugose callosity dorsally; with two burn or sore-like tubercles laterally, one medially and one adjacent exterior apical angle; IX complete; X vertically located on the side; XI complete, located on explanate margin; punctures larger and deeper medially and toward anterior margin; smaller and shallower toward posterior margin; with 10 interspace rows; with two distinct costae; with two distinct tubercles; T I with one distinct tubercle sub-posteriorly; tubercle 1 short, small, longitudinal ridge-like; T II with one distinct tubercle medially, tubercle 1 long, large, widely convex, longitudinal ridge-like; side of ridge rugosely punctured; elytral tubercle formula 2 (1-1-0-0-0); elytral width 1.8 mm; elytral length 2.8 mm (Figure 2B).

Body size. L = 4.0 mm, W = 1.8 mm

Material examined. Philippines: LUZON: 4 Mt. Banahao, F. Monrós Collection, 1959, Baker (NMNH).

Distribution. Philippines (Luzon)

Remarks. The species can be distinguished from the other species of *Prionispa* by the exterior apical angle of the elytra being distinctly elongated laterally and lobe-like. The apical margin is distinctly sinuate and concave

medially. The head, pronotum, and elytra of *P. bakeri* have a dark metallic green sheen, whereas it is a metallic light green sheen in *P. mauliki*. Both species are iridescent and lustrous. The exterior apical angle of the elytra of *P. bakeri* is distinctly elongated laterally, lobe-like, pointed downward at approximately 45° angle, and distinctly not nearly parallel to distinctly sinuate to apical margin, whereas it is not distinctly elongated laterally, lobe-like and not pointed downward at approximately 45° angle and nearly parallel to slightly sinuate to apical margin in *P. mauliki*. However, both species have a broad and rounded apex. The pronotum of *P. bakeri* has a narrow, longitudinal, impunctate callosity medially, whereas it is absent in *P. mauliki*. The pronotum of *P. bakeri* is without a narrow, thin, longitudinal cut or depression medially, whereas *P. mauliki* has one. Also, the elytral puncture rows are uniformly aligned and not intertwined medially and posteriorly in *P. bakeri* and *P. mauliki*, whereas they are not uniformly aligned and intertwined medially and posteriorly in *P. lucida* and *P. fulva*. The specimen examined from the NMNH matches the digital photographs of Gestro's holotype from the MCSN (provided by Dr. Roberto Poggi) (Figure 3).

***Prionispa mauliki* Uhmman, 1930–1932**
(Figures 4 and 5)

Prionispa mauliki Uhmman 1930–1932: 37 (type locality: Philippines, Biliran; holotype depository: DEI). Uhmman 1933: 64 (faunal list), 1951: 37 (museum list), 1958: 253 (catalog), 1964 (1965): 257 (faunal list); Gaedike and Döbler 1971: 382 (types); Staines 1997: 418 (Uhmman species list).

Redescription. Head bichromatic; with a lustrous, iridescent, light metallic green sheen; with narrow longitudinal brownish to reddish sheen medially on each side of compound eyes; pronotum monochromatic; with a light metallic green sheen; elytra bichromatic; with lustrous, iridescent, light metallic green sheen medially; anterior half of basal margin, scutellar angle, lateral margin, apical margin, explanate margin, exterior apical angle, interspaces VII–X, puncture rows VII–XI light brown, with some occasional and isolated green tinge; medial, depressed tubercles and puncture rows with dark green to black tinge; posterior half of scutellum with black tinge posteriorly; leg yellow-orange; antennomeres I–VII dark brown with blackish tinge; VIII–XI covered with short, long yellowish hairs or setae (Figure 4A). **Head** Anterior margin of compound eyes irregular-shaped laterally; each side of compound eyes rounded, with minute white hairs laterally; compound eyes ovate dorsally and laterally; median sulcus anterior margin triangulate, with narrow, tapered apex dorsally; rounded laterally; surface rugose, depressed; vertex with rounded, irregular-shaped punctures medially; adjacent to

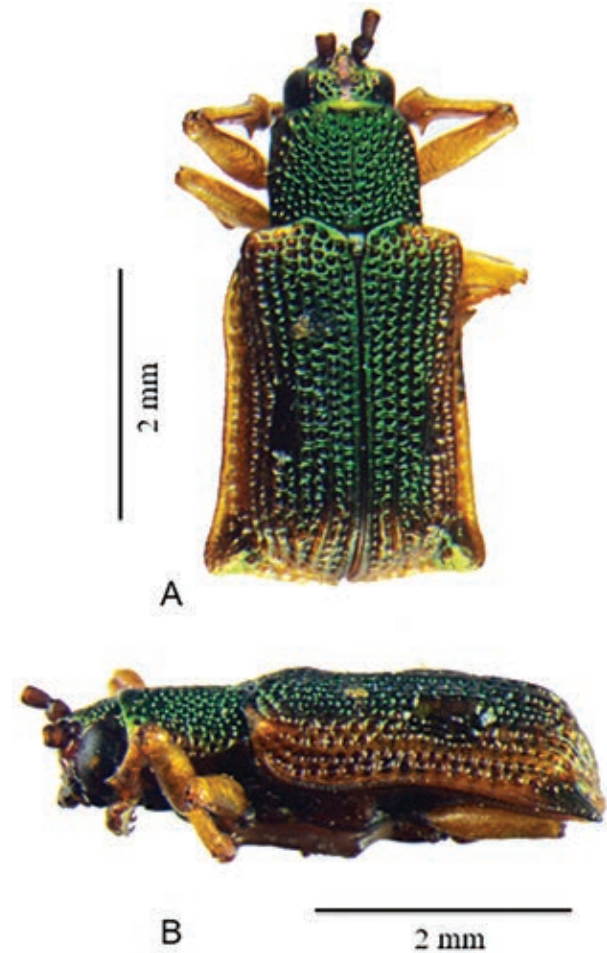


Figure 4. *Prionispa mauliki* Uhmman, 1930-1932. A. habitus, dorsal aspect; B. habitus, lateral aspect.

compound eyes with narrow, rugose, depressed margin; with faint longitudinal carina medially. **Antennae** Nearly twice the length of pronotum; antennomeres I–VII lateral margins broader at apex, with few elongate translucent scales, surface with minute gray pigments; antennomere I irregular-shaped, surface with some depressions and raised areas; II longer than wide smooth; III–VII longer than preceding, striate, much distinct toward apical antennomeres; III longest segment; VIII distinctly broader at apex; VIII–XI densely covered with short and long, elongate grayish translucent scales; VIII–X nearly quadrate; XI conical; antennal length 1.8 mm (n = 1). **Pronotum** Nearly quadrate; anterior margin convex medially; with narrow, impunctate callosity subanteriorly; pore protuberance minute, tooth-like, rounded apically, pointed nearly at approximately 90° angle anteriorly; anterior angle angulate, obtuse, short; with smooth, impunctate, narrow explanate margin, narrowing medially; lateral margin parallel-sided, slightly undulated; posterior angle acute; posterior margin bisinuate; widely concave, rounded medially, with narrow impunctate area



Figure 5. *Prionispa mauliki* Uhmman, 1930-1932. A. habitus, dorsal aspect; B. habitus, lateral aspect (photograph of the holotype from MCSN, courtesy of Dr. Roberto Poggi).

medially; each side rugose; surface uniformly covered with ovoid to irregular-shaped punctures; each side with three wedge-shaped costae; with narrow, thin, longitudinal cut or depression medially; pronotal width 1.1 mm; pronotal length 1.0 mm. *Scutellum* Distinctly longer than wide; upper lateral margin slightly wedge-shaped; posterior margin rounded. *Elytron* Humeral margin convex to nearly sub-triangular medially; depressed, with widely explanate margin, with narrow callosity near scutellar margin; scutellar margin raised, with narrow impunctate callosity; humeral angle raised, rounded, punctate; anterior angle widely rounded; lateral margin wedge-shaped, distinctly wider at apex, without minute dentation, narrowly carinate; explanate margin narrows toward anterior angle, broader toward exterior apical angle; exterior apical angle distinctly elongate, rounded apically; margin smooth; apical margin, posterior margin of exterior apical angle and sutural angle nearly straight; sutural margin shortly at apex; carina smooth, with few punctures; not carinate toward scutellum; with 11 puncture rows; puncture row I incomplete; II–V complete; VI–VIII interrupted medially, medial puncture rows depressed; medial side surface of puncture row V with lustrous, smooth callosity dorsally; IX complete; X vertically

located on the outer side of the medial tubercle; XI complete, located on explanate margin; punctures larger and deeper medially and toward anterior margin, smaller and shallower toward posterior margin; with 10 interspace rows; with three distinct costae; T I and II each with one small longitudinal ridge-like tubercle sub-posteriorly; T III dorsally with one large, distinct longitudinal ridge-like tubercle medially; with burn or sore-like tubercle laterally; elytral tubercle formula 3 (1-1-1-0-0); elytral width 1.9 mm; elytral length 3.0 mm (Figure 4B).

Body size. L = 4.0 mm, W = 1.9 mm

Material examined. Holotype: Philippines: Leyte: Biliran: Baker, DEI-09854; 1 Biliran, Baker, (NMNH); 1 Mindanao, Butuan, Baker (NMNH); 2 Zamboanga, Baker (NMNH); 5 Philippines, no further data (NMNH).

Distribution. Philippines (Visayas)

Remarks. The species can be distinguished from *P. bakeri* by the anterior margin of the exterior apical angle and the apical margin being nearly straight, whereas it is sinuate in *P. bakeri*. Antennomeres II–VII are light yellowish and VIII–XI blackish in *P. bakeri*, whereas II–VII is dark reddish brown with a blackish tinge and VIII–XI yellowish in *P. mauliki*. There is one elytral tubercle in *P. bakeri*, whereas *P. mauliki* has three tubercles. Also, the anterior margin of the compound eyes of *P. mauliki* is irregular-shaped when viewed laterally, whereas it is evenly convex in *P. bakeri*.

The color of the tinge on the head and the elytra varies between species from dark brown to purplish. The elytral apical margin also varies from nearly straight to slightly sinuate. The specimen examined from the DEI matches the digital photographs of Uhmman's holotype from the MCSN (provided by Dr. Roberto Poggi) (Figures 5A and B).

Prionispa lucida Gestro, 1917

(Figures 6 and 7)

Prionispa lucida Gestro 1917: 403 (type locality: Philippines, Mindanao, Davao; holotype depository: MCSN). Gestro 1923: 6 (catalog); Uhmman 1931: 225 (museum list), 1933: 64 (faunal list), 1951: 37 (museum list), 1958: 253 (catalog).

Redescription. Body bichromatic, iridescent when seen from different angles; head, pronotum, scutellum elytra, and legs dark reddish brown with blackish tinge; pronotum with longitudinal blackish tinge on each side; elytral costae and tubercles with blackish tinge; exterior apical angle of elytra with blackish tinge; antennomere I dark brown; II dark brown, covered with more blackish tinge; III–VII charcoal black; VIII–XI black, covered with minute yellowish brown hairs (Figure 6A). *Head*

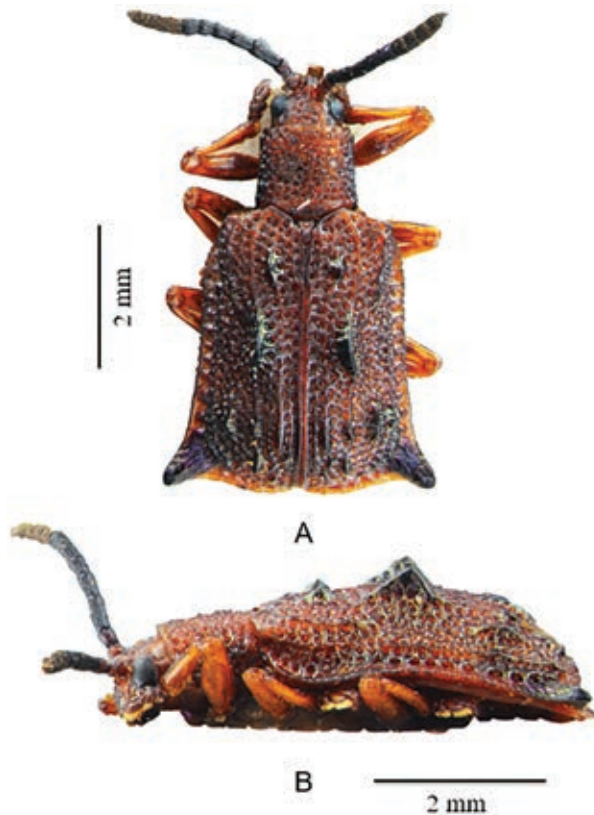


Figure 6. *Prionispa lucida* Gestro, 1917. A. habitus, dorsal aspect; B. habitus, lateral aspect.



Figure 7. *Prionispa lucida* Gestro, 1917. habitus, dorsal aspect (photograph of the holotype from MCSN, courtesy of Dr. Roberto Poggi).

Compound eyes side distinctly rounded and ovate laterally; median sulcus mound shaped; each side truncate apically, medially distinctly narrow, carinate, acicular-like, acuminate dorsally; rounded apically; each side and posterior of median sulcus with galley-like depressed and raised areas; vertex with rounded to irregular-shaped punctures medially; with rugose to smooth surface posteriorly; below compound eyes with uneven surface. *Antennae* Nearly twice the length of pronotum; antennomere I short, subglobose, smooth; II–VII lateral margin broader at apex; with shallow, irregular longitudinal punctures; with few whitish scales; III longest, nearly twice the length of II; IV longer than V; VI and VII same length; VIII–X quadrate, finely striate, widest, densely covered with short, long yellowish brown hairs; XI conical finely striate; antennal length 3.0 mm (n = 9). *Pronotum* Nearly quadrate; anterior margin slightly convex medially; pore protuberance minute, tooth-like, rounded apically, pointed nearly at approximately 90° angle anteriorly; anterior angle angulate, obtuse; shortly, narrowly explanate; explanate margin slightly wider apically; lateral margin slightly concave medially, slightly undulate; posterior angle angulate, obtuse, tapered apically; slightly sinuate above it, wedge-shaped below it; posterior margin bisinuate, widely concave medially; with thickened, impunctate carina medially, narrowing toward the sides; surface uniformly covered with ovoid to irregular-shaped punctures except subposteriorly; pronotal width 1.5 mm; pronotal length 1.5 mm. [*Scutellum*] Distinctly longer than wide; upper lateral margin distinctly wedge-shaped; constricted medially; lower lateral margin; elongate, slightly wider toward apex; posterior margin rounded. *Elytron* Humeral margin with convex, depressed, flattened plate-like, smooth callosity; scutellar margin with depressed, flattened area; humeral angle rounded; lateral margin wedge-shaped, distinctly wider at apex; margin serrate; with small serrations below humeral angle, getting smaller to indistinct toward exterior apical angle; exterior apical angle distinctly elongate laterally, pointed downward at approximately 45° angle; conical, widely rounded apically; with rugose, embossed or raised callosity medially; margin smooth; without serration; apical margin sinuate, slightly rugose; slightly concave medially near sutural angle; sutural margin widely carinate toward apex, getting narrow toward scutellum, smooth; with 11 puncture rows; puncture row I short, incomplete; puncture rows II–V complete; V row with largest punctures medially adjacent medial tubercle; VI–VIII interrupted medially, depressed; IX–XI complete; X vertically located on the outer side of the medial tubercle; XI complete, located on explanate margin; punctures irregular-shaped, inter twined medially and posteriorly; with 10 interspace rows; with 5 distinct, raised costae; with 8 distinct, isolated tubercles; costa I with two distinct tubercles; T I moderate-sized, isosceles; tapered apically,

sub anteriorly; T II small, long, longitudinal ridge-like, sub posteriorly; costa II with three distinct tubercles; T I large, scalene, tapered apically medially; T II and III minute, short, longitudinal ridge-like, sub-posteriorly; costae III with one distinct tubercle; T I moderate-sized, mound-like sub-posteriorly; IV and V each with one distinct tubercle; both T I, moderate-sized, longitudinal ridge-like sub-posteriorly; elytral width 2.5 mm; elytral tubercle formula 8 (2-3-1-1-1); elytral length 6.0 mm. *Leg* Profemur ovate or raised medially, surface smooth (Figure 6B).

Body size. L = 3.7 mm, W = 2.5 mm

Material examined. Philippines: Mindanao: 1 Davao, 1910, W. Micholitz (DEI- 09853); 6 Davao, 1959, Baker, Monrós Collection (NMNH); 2 Davao, Baker (IRSNB).

Distribution. Philippines (Mindanao)

Remarks. The species can be distinguished from both *P. bakeri* and *P. mauliki* by the dark reddish brown with blackish tinge, whereas both species have brown color metallic sheen. However, the body of *P. fulva* is monochromatic light brown. The scutellum is distinctly longer than wide in *P. lucida*, whereas it is distinctly wider than long in *P. fulva*. The humeral margin is convex, depressed, and with flattened plate-like, smooth callosity in *P. lucida*, whereas it is convex, broad, and with mound-shaped, smooth callosity in *P. fulva*.

Some of the body and antennal color varies from light to dark brown between specimens and from lustrous to non-lustrous when seen from different angles. Hairs or setae on antennomeres VIII-X varies from light brown, dark yellow to blackish. The apical margin of the elytra also varies from slightly undulate to non-undulate. Females are also distinctly broader than the much slimmer males. The specimen examined from the DEI matches the digital photographs of Gestro's holotype from the MCSN (provided by Dr. Roberto Poggi) (Figure 7).

Prionispa fulva Medvedev, 1995

(Figures 8 and 9)

Prionispa fulva L. Medvedev 1995: 19 (type locality: Philippines, Leyte, N. Baybay; holotype depository: SMNS).

Redescription. Body monochromatic; head, pronotum, elytra, and legs light brown, with dark brownish tinge; pronotum with longitudinal dark brownish tinge on each side; adjacent sutural margin and exterior apical angle of elytra dark brownish tinge; antennomere I light brown; II dark brown, with longitudinal blackish tinge on each side; III and IV blackish except dark brown subapically; V–XI blackish; VIII–XI covered with minute blackish hairs; scutellum dark brown; pro-, meso-, and metafemora and tibiae light brown; tarsi dark brown (Figure 8A). *Head*

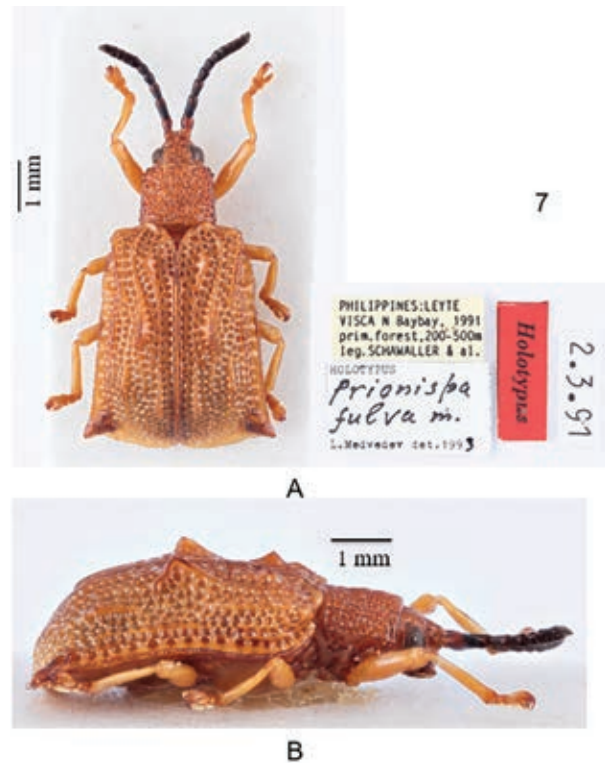


Figure 8. *Prionispa fulva* Medvedev, 1995. A. habitus, dorsal aspect; B. habitus, lateral aspect (photograph of the holotype from SMNS, courtesy of Dr. Arnaud Faille).

Each side of compound eyes rounded, not distinctly ovate dorsally and laterally; median sulcus triangulate apically, with blunt apex; each side parallel basally; without narrow carina medially; lateral margin of median sulcus lower margin rounded, depressed; vertex surface with few rounded punctures medially, rugose medially, the rest smooth; lateral margin, adjacent to compound eyes with a narrow blackish tinge. *Antennae* Nearly twice the length of pronotum; antennomere I short, subglobose, smooth; II short, moderate, longer and wider than I, smooth; II–VII lateral margin broader at apex; III–VII thickly striated; III longest segment, nearly twice the length of II; IV second longest segment, nearly 1 ½ the length of II; V third longest, a little longer than II; VI and VII nearly same length as II, narrower than II; VII anterior margin distinctly wider than posterior margin, nearly as wide as VIII–X; VIII–X quadrate, moderate-sized, nearly of the same length, finely striate; XI conical, finely striate; antennal length 2.0 mm (n = 1). *Pronotum* Nearly quadrate, anterior margin a little narrower than posterior margin; anterior margin widely convex, with thick carina medially, disappearing toward sides; pore protuberance minute, tooth-like, rounded apically, pointed nearly at approximately 60° angle anteriorly; with distinct lateral protuberance; angulate, acute, short, tooth-like, pointed at approximately 45° angle anteriorly; lateral margin undulate, slightly wedge-shaped

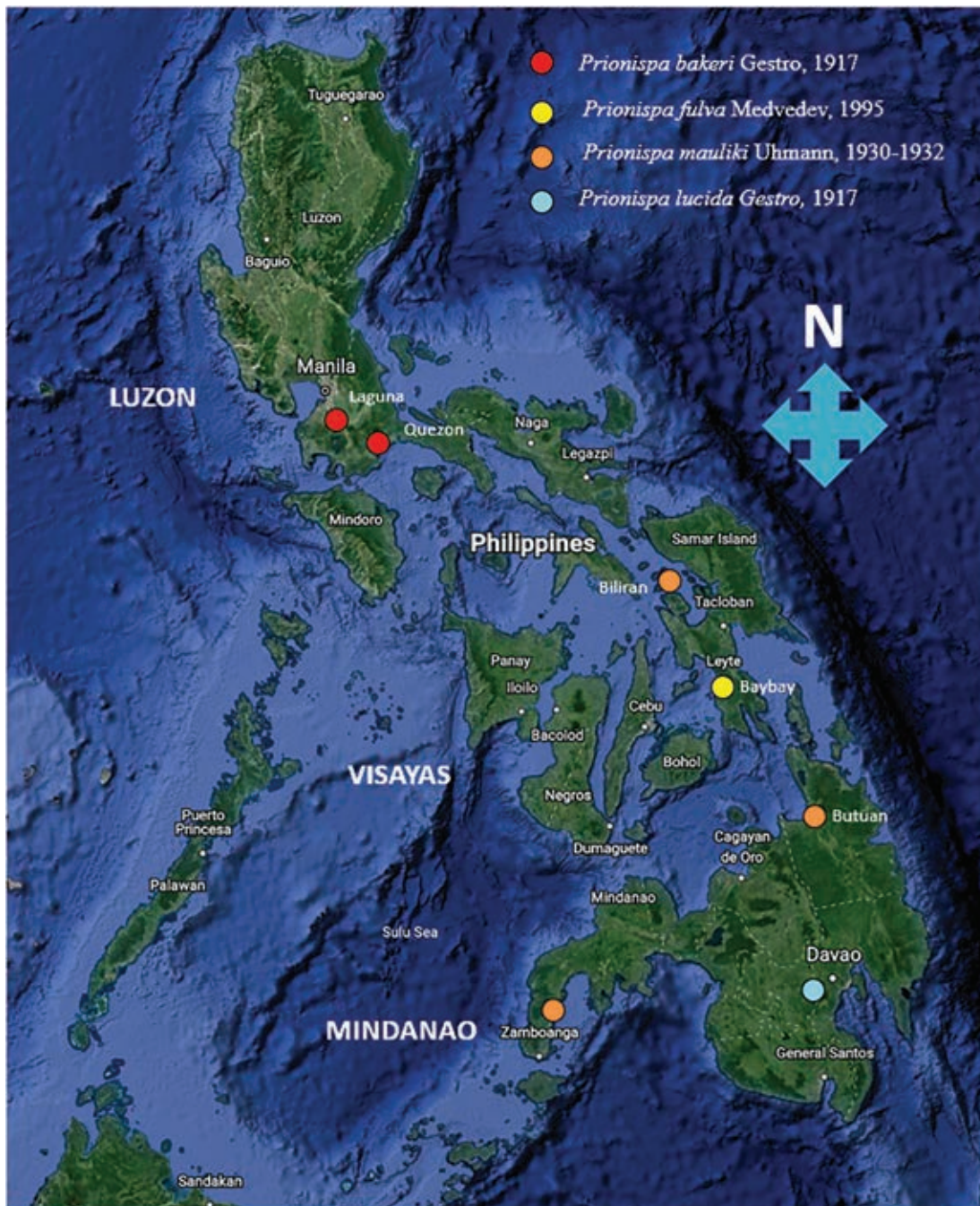


Figure 9. Geographical distribution map of genus *Prionispa* Chapuis, 1875 in the Philippines (Template courtesy of Google Map).

toward posterior angle; posterior angle slightly protrude laterally; asymmetrical, rounded on one side and tapered on other side apically; posterior margin widely concave medially; with thickened carina; surface distinctly rugose, with ovoid to irregular-shaped punctures; with narrow longitudinal faint depression medially; pronotal width 1.0 mm; pronotal length 1.0 mm. *Scutellum* Distinctly broad anterior margin; upper lateral margin wedge-shaped, constricted subapically; lower lateral margin distinctly

shorter; posterior angle rounded; posterior margin nearly straight medially. *Elytron* Humeral margin with convex, broad, mound-shaped, smooth callosity; scutellar margin with thick rib-like callosity; humeral angle asymmetrical, one side wedge-shaped, other side rounded; lateral margin distinctly wedge-shaped, distinctly broader toward posterior angle; margin minutely serrate; serration disappearing toward exterior apical angle; exterior apical angle nearly triangulate; elongate laterally, pointed downward at

approximately 45° angle; rounded to conical apically, margin smooth; with rugose, raised callosities medially; apical margin sinuate near exterior apical angle, widely rounded medially; margin slightly undulate; widely explanate, carinate toward exterior apical angle, narrow toward sutural angle; sutural angle angulate, obtuse; sutural margin narrowly carinate toward apex, carina disappearing toward scutellum, with raised margin medially; with 11 puncture rows; puncture row I incomplete; II–XI complete; with 10 interspace rows; with 3 distinct, raised costae; with 4 distinct, isolated tubercles; costa I with two distinct tubercles; T I moderate-sized, isosceles, apically tapered sub anteriorly; T II longitudinal ridge-like sub posteriorly; costa II with one distinct tubercles; T I distinctly large, scalene, distinctly pointed apically medially; costae III with one distinct tubercle; T I longitudinal ridge-like sub posteriorly; elytral tubercle formula 4 (2-1-1-0-0); elytral width 2.3 mm; elytral length 4.0 mm. *Leg* Profemur ovate or raised medially, surface smooth (Figure 8B).

Body size. L= 6.6–5.9 mm, W = 2.3 mm

Material examined. Holotype: Philippines: Visayas: Leyte: VISCA, N Baybay, 1991, prim. Forest, 200–500 m, leg. Schawaller et al. (SMNS).

Distribution. Philippines (Visayas)

Remarks. The species can be distinguished from *P. lucida* by the elytra being blackish, whereas its brownish in *P. fulva*. The exterior apical angle of *P. lucida* is distinctly larger, longer, and wider apically, whereas it is distinctly smaller, shorter, and narrower apically in *P. fulva*. There are five distinct costae and eight distinct tubercles in *P. lucida*, whereas there are three distinct costae and four distinct tubercles in *P. fulva*. Each tubercle of *P. lucida* has a blackish tinge, whereas it is evenly brownish on *P. fulva*. Both species have two raised tubercles on their elytra, the small one is triangulate and isosceles; the other is large, triangulate, and scalene; whereas *P. bakeri* and *P. mauliki* have none (Figures 2, 3, 4, and 5). The pronotum of *P. fulva* has a distinct lateral protuberance, whereas it is indistinct in *P. lucida*, *P. bakeri*, and *P. mauliki* and more like of pronotum's anterior angle (Figures 2, 3, 4, 5, 6, and 7). Also, *P. lucida* has eight distinct elytral tubercles, whereas *P. fulva* only has four. The geographic distribution map of the Philippines species *Prionispa* Chapuis, 1875 is presented (Figure 9).

Key to the Species of *Prionispa* Chapuis

1. Elytron with iridescent, lustrous metallic green sheen; without large, distinct triangulate tubercles medially; elytral puncture rows uniformly aligned, not intertwined medially and posteriorly 2

Elytron without iridescent, lustrous metallic green sheen; with large, distinct triangulate tubercles medially; elytral puncture rows less uniformly aligned, intertwined medially and posteriorly 3

2. Exterior apical angle distinctly elongate laterally, lobe-like, pointed downward at 45° angle, distinctly not parallel to the apical margin; apical margins bisinuate, concave medially; head, pronotum, and elytra with a dark metallic green sheen; pronotum with narrow, longitudinal, impunctate callosity medially; without narrow, thin, longitudinal cut or depression medially; anterior margin of compound eyes evenly convex laterally; elytron with two distinct tubercles (Figures 2A and B and 3) *P. bakeri* Gestro

Exterior apical angle of elytra not distinctly elongated laterally, lobe-like, not pointed downward at a 45° angle; nearly parallel to slightly sinuate to the apical margin; the apical margin nearly straight; head, pronotum, and elytra with a light metallic green sheen; pronotum without narrow, longitudinal, impunctate callosity medially; with narrow, thin, longitudinal cut or depression medially; anterior margin of compound eyes irregular-shaped laterally (Figures 4A and B plus 5A and B); elytron with three distinct tubercles *P. mauliki* Uhmman

3. Elytron blackish; exterior apical angle distinctly larger, longer, wider apically; elytron with five distinct costae, eight distinct tubercles, each tubercle with blackish tinge; scutellum distinctly longer than wider; humeral margin with convex, depressed, flattened plate-like, smooth callosity; pronotum with indistinct lateral protuberance (Figures 6A and B plus 7A and B) *P. lucida* Gestro

Elytron brownish; exterior apical angle distinctly smaller, shorter, narrower apically; elytron with three distinct costae, four distinct tubercles, each tubercle without blackish tinge, brownish; scutellum distinctly wider than longer; humeral margin with convex, broad, mound-shaped, smooth callosity; pronotum with distinct lateral protuberance (Figures 8A and B) ...
..... *P. fulva* Medvedev

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