

New genera of Alleculinae (Coleoptera: Tenebrionidae: Alleculinae: Alleculini) from the Oriental Region. Part XII - *Barbucha* gen. nov.

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Taxonomy, new genus, new species, descriptions, Coleoptera, Tenebrionidae, Alleculinae, Alleculini, *Barbucha*, Oriental Region, the Philippines

Abstract. A new genus of Alleculinae *Barbucha* gen. nov. with the species *Barbucha melancholia* sp. nov. as a type species from the Philippines is described, illustrated and compared with similar genera.

INTRODUCTION

Borchmann (1932) described the genus *Ommatochara* Borchmann, 1932 with the type species *Ommatochara tibialis* Borchmann, 1932 together with further four species from the Philippines. There is a similar genus *Borbochara* Novák, 2009, with its type species *Borbochara bicolor* Novák, 2009. Both genera are similar to the genus *Borboresthes* Fairmaire, 1897. Species of the genus *Ommatochara* have the body small, more elongate, transverse eyes with a narrow space between eyes and pronotum more quadrate; species of the genus *Borbochara* have backwards thorn-like extended sharp-angled posterior angles of pronotum, anterior angles of pronotum indistinct, arcuate, very narrow space between eyes, which is narrower or as long as antennomere 2, males have protibiae bent and distinctly excised in basal part, meso- and metatibiae are slightly, but distinctly bent. Species of *Borboresthes* Fairmaire, 1897 have the pronotum almost semicircular, posterior angles are not thornily extended backwards, the body is more oval and more convex, eyes smaller and space between eyes wider than those in *Borbochara* and *Ommatochara* species. Male tibiae are not bent and without excision.

The new genus *Barbucha* gen. nov. with the type species *Barbucha melancholia* sp. nov. from the Philippines is described, illustrated and compared with similar genera *Borbochara*, *Ommatochara* and *Borboresthes*. The new species and genus can be particularly characterized as follows: the body elongate oval, pronotum slightly longer than semicircular with posterior angles approximately rectangular, anterior angles rounded, indistinct, eyes large, transverse, space between eyes narrow, male has protibiae slightly bent in basal part and with longitudinal edges, metatibiae with depression and double bending, and male metafemora with angularly widened apices.

MATERIAL AND METHODS

Two important morphometric characteristics used for the descriptions of species of the subfamily Alleculinae, the ‘ocular index’ dorsally (Campbell & Marshall 1964) and

'pronotal index' (Campbell 1965), are used in this paper as well. The ocular index equals $(100 \times \text{minimum dorsal distance between eyes}) / (\text{maximum width of head across eyes})$. The pronotal index is calculated as $(100 \times \text{length of pronotum along midline}) / (\text{width across basal angles of pronotum})$.

In the list of type material, a slash (/) separates data in separate rows.

The following collection codes are used:

ERMI private collection of Enrico Ruzier, Mirano, Italy;

SMNS Staatliches Museum für Naturkunde, Stuttgart, Germany.

Measurements of body parts and corresponding abbreviations used in text are as follows: AL - total antennae length, BL - maximum body length, EL - maximum elytral length, EW - maximum elytral width, HL - maximum length of head (visible part), HW - maximum width of head, OI - ocular index dorsally, PI - pronotal index dorsally, PL - maximum pronotal length, PW - pronotal width at base, RLA - ratios of relative lengths of antennomeres 1-11 from base to apex (3=1.00), RL/WA - ratios of length / maximum width of antennomeres 1-11 from base to apex, RLT - ratios of relative lengths of tarsomeres 1-5 respectively 1-4 from base to apex (1=1.00).

Other abbreviations are used as follows: wl= white label; yl= yellow label.

Measurements were made with Olympus SZ 40 stereoscopic microscope with continuous magnification and with Soft Imaging System AnalySIS. Snapshots were taken by using camera Canon EOS 550 D and Canon Macro Photo Lens MP-E and software Helicon Focus 5.2.

TAXONOMY

DESCRIPTION OF THE GENUS *BARBUCHA* GEN. NOV.

***Barbucha* gen. nov.**

(Figs. 1-9)

Type species: *Barbucha melancholia* sp. nov.

Description. Habitus as in Fig. 1, body outline as in Fig. 2, body elongate oval, slightly convex, relatively small, slightly shiny, dorsal surface with pale setation, punctuation and microgranulation. Widest near middle elytra length. Head (as in Fig. 4) distinctly wider than long, widest through eyes, distinctly narrower than pronotum. Dorsal surface slightly shiny with long, pale setation, fine microgranulation and punctuation, punctures smaller than those on pronotum. Clypeus arcuate laterally with fine excision in the middle of apex. Eyes very large, transverse, distinctly excised, space between eyes very narrow, distinctly narrower than diameter of one eye; in male approximately as wide as length of antennomere 2. Antenna (as in Fig. 5) long, distinctly exceeding half body length, antennomeres narrow, filiform (antennomeres 2-10 very slightly widened apically), with long, pale setation, microgranulation and punctures. Antennomere 2 shortest, ultimate antennomere widest at middle, antennomeres 4-11 distinctly longer than antennomere 3. Maxillary palpus rather matte, with pale setation and fine microgranulation. Palpomeres 2 and 3 distinctly

narrowest at base and widest at apex, ultimate palpomere widely triangular. Pronotum (as in Fig. 4) wide, transverse, convex, matte, slightly narrower than elytra. Dorsal surface with long, semierect, pale setation, very fine microgranulation and very dense punctuation, punctures relatively large. Intervals between punctures very narrow, distinctly narrower than diameter of punctures. Border lines distinct, narrow. Lateral margins straight and parallel in basal half, arcuate in apical part. Anterior margin arcuate, base bisinuate. Posterior angles rectangular, anterior angles indistinct. Elytra elongate oval, slightly convex, slightly shiny, widest near middle, with pale, semierect setation. Elytral striae with distinct rows of punctures approximately as large as those in pronotum. Elytral interspaces slightly convex with relatively dense punctuation and fine microgranulation, punctures small. Scutellum triangular, with microgranulation, punctures and a few setae, slightly shiny. Elytral epipleura well-developed, widest near base, distinctly narrowing to ventrite 1, with pale setae. Row of punctures in basal part distinct, epipleura narrow, leading parallel in apical part. Legs (as in Figs. 6, 7) longer, surface with fine microgranulation and pale setation. Protibiae with sharp longitudinal margins, with strong, short setae on outer, upper margin. Basal part of protibiae bent with depression in inner part between margins. Metafemora with angularly widened apex. Metatibiae with depression and distinct double bending. Pro- and mesotarsomeres 3, 4 and metatarsomeres 3 widened and lobed. Metatarsomere 1 slightly bent and longer than metatarsomeres 2-4 together. Anterior tarsal claws with about 20 visible teeth. Prothorax and mesoventrite with a few short, pale setae and a few punctures larger than respective denser punctures on metaventrite. Abdomen shiny with pale setation, fine microgranulation and dense punctuation, punctures small. Ultimate ventrite with rounded excision in apex. Aedeagus (as in Figs. 8, 9) shiny. Basal piece slightly rounded laterally and narrowing in dorsal view. Apical piece beak-shaped dorsally and laterally.

Female (Fig. 3) has space between eyes slightly wider than male. Protibiae without depression in inner part, metatibiae not bent and without depression, metafemora not angularly widened near apex and anterior tarsal claws have less numerous teeth than male.

Differential diagnosis. Most similar genera are *Borbochara* Novák, 2009, *Borboresthes* Fairmaire, 1897 and *Ommatochara* Borchmann, 1932.

Barbucha gen. nov. is clearly different from species of *Borbochara* Novák, 2009 mainly by its pronotum slightly longer than semicircular with posterior angles approximately rectangular and metafemora of male angularly widened in apex; while species of *Borbochara* have pronotum semicircular, posterior angles sharply extended backwards and metafemora of males do not have angularly widened apex.

Barbucha gen. nov. clearly differs from species of *Borboresthes* Fairmaire, 1897 mainly by the body elongate oval, pronotum slightly longer than semicircular, eyes large, transverse, space between eyes very narrow and males with protibiae slightly bent, metatibiae with double bending and metafemora angularly widened in apex; while species of *Borboresthes* have body oval, egg-shaped, pronotum semicircular, eyes almost smaller, space between eyes almost as wide or wider than diameter of one eye, males have pro- and metatibiae straight and metafemora not angularly widened apically.

Barbucha gen. nov. is clearly different from *Ommatochara* Borchmann, 1932 mainly by the body elongate oval, pronotum slightly longer than semicircular, male protibiae bent and metatibiae double bent, metafemora angularly widened in apex; while species of *Ommatochara* have body more oval, pronotum semicircular, male pro- and metatibiae are straight, and male metafemora are not angularly widened apically.

Etymology. Named after the figure of ghost (*Barbucha*) in the famous fairy tale of Czech writer Vladislav Vančura.

Distribution. The Philippines.

***Barbucha melancholia* sp. nov.**

(Figs. 1-9)

Type locality. The Philippines, Bicol Region, Camarine Sur, Tigaon.

Type material. Holotype (♂): wl: PHILIPPINES, Bicol reg. / Camarine Sur, Tigaon / ii.2015 / Local collector, (ERMI). Paratype: (1 ♀): yl: PHILIPPINES : LEYTE / VISCA N Baybay, 1991 / sec. forest, 100-200 m / leg. SCHAWALLER et al., (SMNS). The types are provided with a printed red label: 'Barbucha / melancholia sp. nov. / HOLOTYPUS [or PARATYPUS] / V. Novák det. 2020'.

Description of holotype. Habitus as in Fig. 1, body outline as in Fig. 2, body elongate oval, slightly convex, from yellow to black, slightly shiny, dorsal surface with pale setation, punctuation and microgranulation, BL 6.82 mm. Widest near middle elytra length; BL/EW 2.94.

Head (Fig. 4) reddish brown, distinctly wider than long, widest through the eyes, distinctly narrower than pronotum. Dorsal surface slightly shiny with long, pale setation, fine microgranulation and punctuation, punctures smaller than those in pronotum. Apex of anterior part and clypeus pale brown, clypeus arcuate laterally with fine excision in the middle of apex. HW 1.21 mm; HW/PW 0.52; HL (visible part) 1.03 mm. Eyes very large, transverse, distinctly excised, space between eyes very narrow, distinctly narrower than diameter of one eye; approximately as wide as length of antennomere 2; OI equal to 12.86.

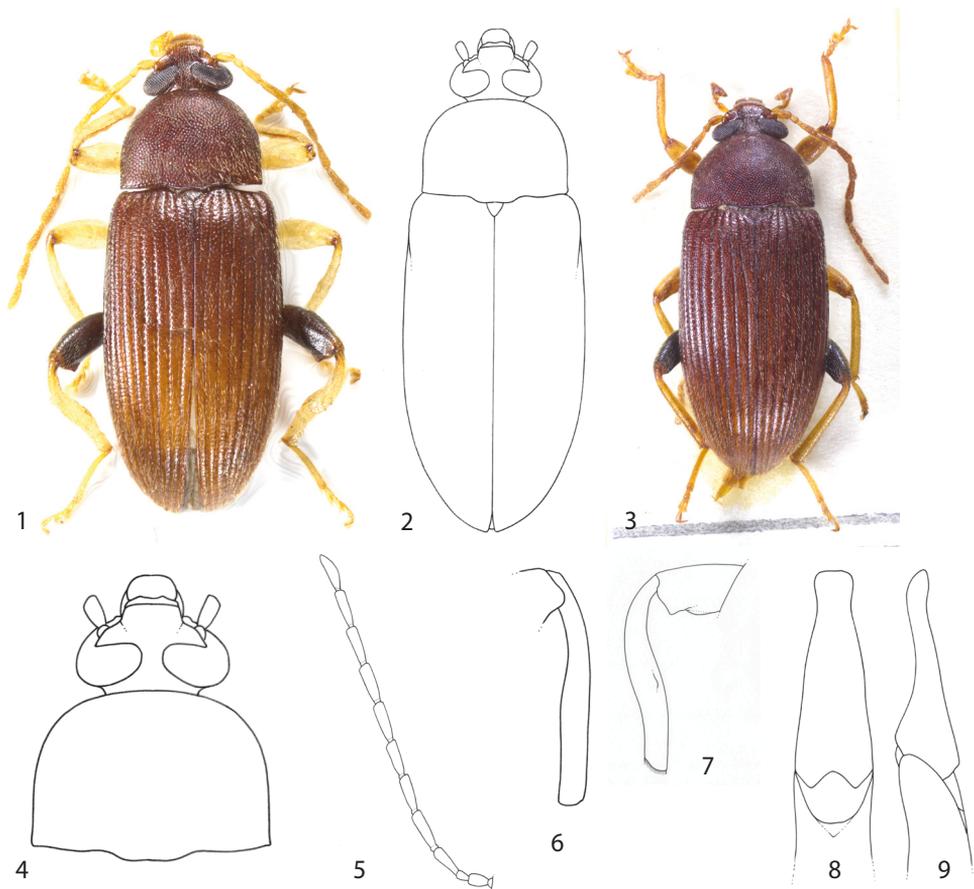
Antenna (Fig. 5). Ochre yellow, long (distinctly exceeding half body length, AL 4.13 mm; AL/BL 0.61), antennomeres narrow, filiform (antennomeres 2-10 very slightly widened apically), with long, pale setation, microgranulation and punctures. Antennomere 2 shortest, ultimate antennomere widest in middle, antennomeres 4-11 distinctly longer than antennomere 3.

RLA(1-11): 0.85 : 0.45 : 1.00 : 1.43 : 1.23 : 1.31 : 1.37 : 1.41 : 1.33 : 1.39 : 1.42.

RL/WA(1-11): 1.93 : 1.86 : 2.84 : 4.48 : 3.39 : 3.61 : 4.03 : 4.00 : 4.03 : 4.35 : 4.30.

Maxillary palpus ochre yellow, rather matte, with pale setation and fine microgranulation. Palpomeres 2 and 3 distinctly narrowest at base and widest at apex, ultimate palpomere widely triangular.

Pronotum (Fig. 4) reddish brown, wide, transverse, convex, matte, slightly narrower than elytra. Dorsal surface with long, semierect, pale setation, very fine microgranulation and very dense punctuation, punctures relatively large. Intervals between punctures very



Figs. 1-9: *Barbucha melancholia* sp. nov. (1, 2, 4-9: male holotype): 1- Habitus; 2- body outline; 3- habitus of female paratype; 4- head and pronotum; 5- antenna; 6- protibiae; 7- metafemora and metatibiae; 8- aedeagus, dorsal view; 9- aedeagus, lateral view.

narrow, distinctly narrower than diameter of punctures. PL 1.37 mm; PW 1.88 mm; PI equal to 72.87. Border lines distinct, narrow. Lateral margins straight and parallel in basal half, arcuate in apical part. Anterior margin arcuate, base bisinuate. Posterior angles rectangular, anterior angles indistinct.

Elytra. Reddish brown, elongate oval, slightly convex, slightly shiny, widest near middle, with pale, semierect setation. EL 4.42 mm; EW 2.32 mm; EL/EW 1.91. Elytral striae with distinct rows of punctures approximately as large as those on pronotum. Elytral interspaces slightly convex with fine microgranulation and relatively dense punctuation, punctures small.

Scutellum. Reddish brown with blackish sides, triangular, with microgranulation, punctures and a few setae, slightly shiny.

Elytral epipleura well developed, reddish brown, widest near base, distinctly narrowing to ventrite 1, with pale setae. Row of punctures in basal part distinct, narrow and leading parallel in apical part.

Legs (Figs. 6, 7). Longer, yellow, metafemora black, surface with fine microgranulation and pale setation. Protibiae with sharp margins, outer upper margin with strong short setae. Basal part of protibiae bent with depression in inner part between margins. Metafemora black or blackish brown with angularly widened apex (Fig. 7). Metatibiae with depression and distinctly double bending. Pro- and mesotarsomeres 3, 4 and metatarsomeres 3 widened and lobed. Metatarsomere 1 slightly bent and longer than metatarsomeres 2-4 together. RLT: 1.00 : 1.09 : 0.75 : 1.03 : 1.54 (protarsus), 1.00 : 0.38 : 0.53 : 0.53 : 0.88 (mesotarsus), 1.00 : 0.31 : 0.29 : 0.39 (metatarsus).

Anterior tarsal claws with 17 and 20 visible teeth.

Ventral side of body reddish brown, prothorax and mesoventrite with a few short, pale setae and a few punctures, larger than denser punctures on metaventrite, with short pale setation. Abdomen pale reddish brown, shiny with pale setation, fine microgranulation and dense punctuation, punctures small. Ultimate ventrite with rounded excision in apex, distinctly paler than ventrites 1-4.

Aedeagus (Figs. 8, 9) ochre yellow, shiny. Basal piece slightly rounded laterally and narrowing in dorsal view. Apical piece beak-shaped dorsally and laterally. Ratio of length of apical piece to length of basal piece in dorsal view 1: 2.81.

Female (Fig. 3) has space between eyes slightly wider than male (OI 19.86). Protibiae without depression in inner part, metatibiae not bent and without depression and anterior tarsal claws have only 10 teeth. Metafemora without angularly widened apex.

Mesurements of female body. BL 6.63 mm; HL 0.93 mm; HW 1.29 mm; OI 19.86; PL 1.24 mm; PW 2.05 mm; PI 60.49; EL 4.66 mm; EW 2.52 mm; AL 4.08 mm; AL/BL 0.62; HW/PW 0.63; BL/EW 2.63; EL/EW 1.85.

RLA(1-11): 0.84 : 0.41 : 1.00 : 1.32 : 1.06 : 1.11 : 1.16 : 1.15 : 1.17 : 1.13 : 1.24.

RL/WA(1-11): 2.22 : 1.35 : 2.72 : 3.58 : 2.97 : 3.11 : 3.26 : 3.23 : 3.83 : 3.96 : 4.17.

RLT: 1.00 : 0.50 : 0.53 : 0.82 : 1.67 (protarsus), 1.00 : 0.23 : 0.30 : 0.44 (metatarsus).

Differential diagnosis. See the differential diagnosis of the genus *Barbucha* gen. nov.

Etymology. The name *melancholia* is taken from Latin (melancholic).

Distribution. The Philippines, Islands Luzon and Leyte.

ACKNOWLEDGEMENTS. Sincere thanks are due to Wolfgang Schawaller (SMNS) for the loan of material under his care and Enrico Ruzier (Mirano, Italy) for donating me a new material. Special thanks are due to Zuzana Čadová (Liberec, Czech Republic) for excellent drawings.

REFERENCES

BORCHMANN F. 1932: Die Alleculiden-Fauna der Philippinen. *The Philippine Journal of Science* 48: 305-381.

- CAMPBELL J. M. 1965: A revision of the genus *Charisius* (Coleoptera: Alleculidae). *The Coleopterist's Bulletin* 19: 43-56.
- CAMPBELL J. M. & MARSHALL J. D. 1964: The ocular index and its applications to the taxonomy of the Alleculidae (Coleoptera). *The Coleopterist's Bulletin* 18: 42.
- FAIRMAIRE L. 1897: Coléoptères du Szé-tchouen et de Kouï-Tchéou (Chine). *Notes of the Leyden Museum* 19: 241-255.
- NOVÁK V. 2009: New genera of Alleculinae (Coleoptera: Tenebrionidae) from Oriental region. Part I - *Borbochara* gen. n. *Studies and reports of District Museum Prague-East Taxonomical Series* 5(1-2): 257-274.

Received: 1.11.2020
Accepted: 30.11.2020
Printed: 31.3.2021

