

**New genera of Alleculinae (Coleoptera: Tenebrionidae: Alleculinae: Alleculini)
from Indonesia (Island Sulawesi) - *Sulawesica* gen. nov.
and *Vaclavka* gen. nov.**

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Abstract. Two new genera of Alleculinae from Indonesia (Island Sulawesi) *Sulawesica* gen. nov. with the species *Sulawesica robusta* sp. nov. (type species) and *Vaclavka* gen. nov. with the species *Vaclavka telnovi* sp. nov. (type species) are described, illustrated and compared with similar genera *Mycetocula* Novák, 2015 (*Sulawesica* gen. nov.) and *Borbochara* Novák, 2009 (*Vaclavka* gen. nov.).

INTRODUCTION

The new genera *Sulawesica* gen. nov. and *Vaclavka* gen. nov. are described to include the new species *Sulawesica robusta* sp. nov. (as a type species) and *Vaclavka telnovi* sp. nov. (as a type species), respectively, both from Indonesia (Sulawesi Island).

The new genera are described and compared with similar genera *Mycetocula* Novák, 2015 and *Borbochara* Novák, 2009. The differentiating characters of *Sulawesica* gen. nov. are mainly as follows: body wider and shorter (BL/EW less than 3, EL/EW less than 2), ultimate maxillary palpomere slightly shoe-shaped, metatarsomere 1 distinctly shorter than metatarsomeres 2-4 together. Species of *Mycetocula* Novák, 2015 have body narrow and long (BL/EW higher than 3, EL/EW more than 2.25), ultimate maxillary palpomere triangular and metatarsomere 1 longer than metatarsomeres 2-4 together.

The differentiating characters of *Vaclavka* gen. nov. are mainly as follows: all tibiae distinctly bent, metatibiae widened, paddle-shaped, protibiae not excised on inner side, obtuse posterior angles of pronotum (not sharp or extended backwards). Species of *Borbochara* have only metatibiae distinctly bent, not paddle-shaped, protibiae excised on inner side and posterior angles of pronotum sharp and extended backwards.

New species are described and illustrated.

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 or examined material, a slash (/) separates data in separate rows.

The following collection codens are used:

DTC private collection Dmitry Telnov, Riga, Latvia;

NMEG collection of Naturkundemuseum, Erfurt, Germany;

VNPC private collection of Vladimír Novák, Praha, Czech Republic.

Measurements of body parts and corresponding abbreviations used in the 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 ($1=1.00$).

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

tribe Alleculini Laporte, 1840

subtribe Alleculina Laporte, 1840

Sulawesica gen. nov.

(Figs. 1-7)

Type species: *Sulawesica robusta* sp. nov.

Description. Habitus as in Fig. 1, body outline as in Fig. 2, body wide and short BL/EW less than 3 (dorsally looks as wide and short species of *Mycetocula*), elongate oval, dorsal surface with punctuation, very fine microgranulation and sparse setation, widest near two thirds elytra length. Head (Fig. 3) relatively small, slightly wider than long, dorsal surface with irregular punctuation. Posterior part shiny, with a few setae, anterior part with fine microgranulation and denser setation. Clypeus narrow, matte, rounded apically. Eyes large, transverse, excised, space between eyes very narrow, approximately as wide as length of antennomere 2. Antenna (Fig. 4) relatively long, slightly exceeding half body length, antennomeres with relatively long and dense setation, microgranulation and shallow punctures. Antennomere 2 shortest, antennomeres 4-11 distinctly longer than antennomere 3, antennomeres 3-10 distinctly widened anteriorly. Ultimate antennomere arcuate, half drop shaped, widest near middle. Maxillary palpus (Fig. 5) rather matte, dorsal surface with setation, fine microgranulation and shallow punctures. Ultimate palpomere widely

triangular, slightly shoe-shaped. Pronotum (Fig. 3) wide, transverse, slightly convex, dorsal surface with sparse and short setation, dense punctuation, shiny. Lateral margins straight in basal half, arcuate in apical part. Anterior margin almost straight, posterior margin bisinuate, anterior angles indistinct, posterior angles obtuse. Elytron wide, elongate oval, widest in two thirds elytra length. Dorsal surface with sparse and long setation, shiny. Elytral striae with distinct rows of punctures, elytral interspaces convex, with very fine microgranulation and punctures. Scutellum roundly triangular with a few shallow punctures, shiny. Elytral epipleura well developed, with a few setae and punctures in basal part, regularly narrowing to ventrite 1, then in apical part relatively wide leading parallel. Legs with setation, shallow punctures and fine microgranulation. Femora strong, protibiae widened apically, pro- and mesotarsomeres 3 and 4 and penultimate metatarsomeres widened and lobed. Both anterior tarsal claws with visible teeth. Ventral side of body with punctuation, punctures relatively large and coarse. Abdomen almost glabrous, ventrites with fine microgranulation, fine microrugosities and punctuation. Apical piece of aedeagus (Figs. 6 and 7).

Female unknown.

Differential diagnosis. Habitually similar genus is *Mycetocula* Novák, 2015. Species of *Sulawesica* gen. nov. differs from the species of *Mycetocula* mainly by body wider and shorter (BL/EW less than 3, EL/EW less than 2), by ultimate palpomere slightly shoe-shaped, by metatarsomere 1 distinctly shorter than metatarsomeres 2-4 together; while species of *Mycetocula* have body narrow and long (BL/EW higher than 3, EL/EW more than 2.25), ultimate palpomere triangular and metatarsomere 1 longer than metatarsomeres 2-4 together.

Etymology. Patronymic, named after the type locality of its origin, Island Sulawesi (Indonesia). Gender: feminine.

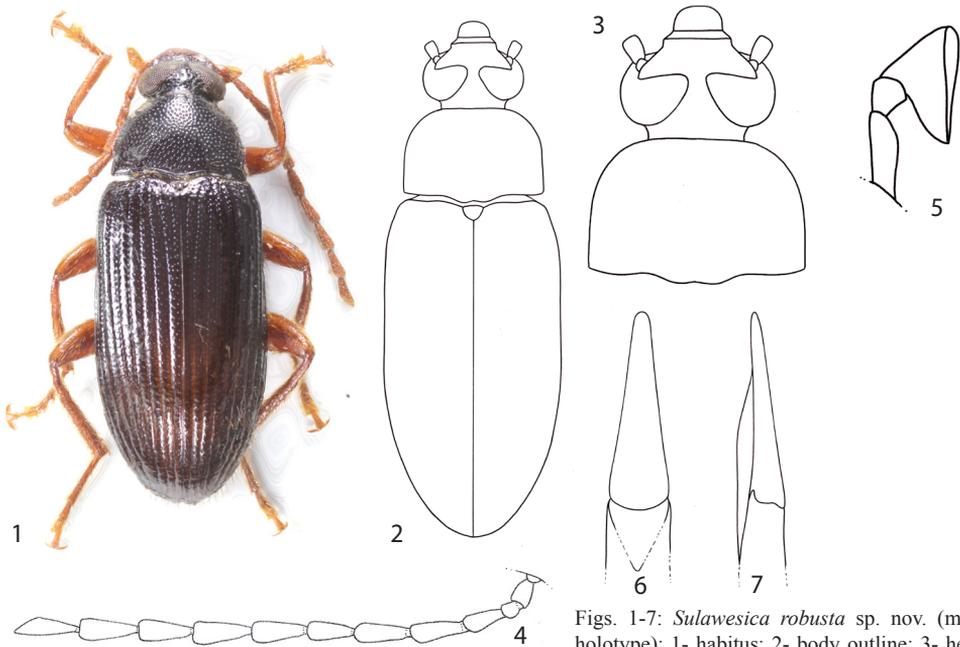
Distribution. Indonesia (Sulawesi Island).

***Sulawesica robusta* sp. nov.**
(Figs. 1-7)

Type locality. Indonesia, central Sulawesi Island, 17 km E of Pendolo, 120.45.49 E, 2.06.33 S, 800 m.

Type material. Holotype (♂): C Sulawesi, 17 km E / Pendolo, 800 m / 120.45.49 E, 2.06.33 S / 4-9 Jul 1999, Bolm lgt., (VNPC). The types are provided with a printed red label: 'Sulawesica / robusta sp. nov. / HOLOTYPE / V. Novák det. 2020'.

Description of holotype. Habitus as in Fig. 1, body outline as in Fig. 2, body wide (dorsally looks as wide and short species of *Mycetocula*), elongate oval, dorsal surface blackish brown, with punctuation, very fine microgranulation and sparse, pale setation, BL 8.48 mm. Widest near two thirds elytra length; BL/EW 2.91.



Figs. 1-7: *Sulawesica robusta* sp. nov. (male holotype): 1- habitus; 2- body outline; 3- head and pronotum; 4- antenna; 5- maxillary palpus; 6- aedeagus, dorsal view; 7- aedeagus, lateral view.

Head (Fig. 3) relatively small, slightly wider than long, dorsal surface with irregular punctuation. Posterior part blackish brown, shiny, with a few pale setae and dark setae behind eyes, punctuation behind eyes denser than between eyes. Anterior part reddish brown with fine microgranulation and denser pale setation than in posterior part. Clypeus narrow, with microgranulation and a few long, pale setae, matte, rounded apically. HW 1.49 mm; HW/PW 0.67. HL (visible part) 1.31 mm. Eyes large, transverse, excised, space between eyes very narrow, approximately as wide as length of antennomere 2; OI equal to 6.45.

Antenna (Fig. 4). Relatively long, reddish brown (AL 4.75 mm, slightly exceeding half body length, AL/BL 0.56), antennomeres with relatively long, dense, pale setation, microgranulation and shallow punctures. Antennomeres 1-3 slightly shiny, antennomeres 4-11 rather matte. Antennomere 2 shortest, antennomeres 4-11 distinctly longer than antennomere 3, antennomeres 3-10 distinctly widened anteriorly. Ultimate antennomere arcuate, half drop shaped, widest near middle.

RLA(1-11): 0.74 : 0.39 : 1.00 : 1.56 : 1.23 : 1.29 : 1.38 : 1.49 : 1.50 : 1.49 : 1.60.

RL/WA(1-11): 1.56 : 1.23 : 2.49 : 3.46 : 2.73 : 2.59 : 2.63 : 2.71 : 2.86 : 2.81 : 3.64.

Maxillary palpus (Fig. 5) pale brown, rather matte. Dorsal surface with pale setation, fine microgranulation and shallow punctures. Ultimate palpomere widely triangular, slightly shoe-shaped, palpomeres 2 and 3 distinctly dilated anteriorly.

Pronotum (Fig. 3). Blackish brown, wide, transverse, slightly convex, dorsal surface with sparse, short, pale setation, dense punctuation, punctures medium sized, interspaces between

punctures narrow, shiny. Border lines narrow, distinct, only in the middle of anterior margin not clearly conspicuous. Lateral margins straight in basal half, arcuate in apical part. Anterior margin almost straight, posterior margin bisinuate, anterior angles indistinct, posterior angles obtuse. PL 1.44 mm; PW 2.22 mm; PI equal to 64.49.

Elytron blackish brown, wide, elongate oval, widest in two thirds elytra length. Dorsal surface with sparse, long, pale setation, shiny. Elytral striae with distinct rows of punctures slightly smaller than those on disc of pronotum, elytral interspaces convex, with very fine microgranulation and punctures, distinctly smaller than those in elytral striae. EL 5.73 mm; EW 2.91 mm. EL/EW 1.97.

Scutellum. Blackish brown, roundly triangular with a few shallow punctures, shiny.

Elytral epipleura well developed, blackish brown, with a few pale setae and punctures in basal part, regularly narrowing to ventrite 1, then in apical part reddish brown and relatively wide leads parallel.

Legs reddish brown, with pale setation, shallow punctures and fine microgranulation. Femora strong, protibiae widened apically, pro- and mesotarsomeres 3 and 4 and penultimate metatarsomeres widened and lobed. RLT: 1.00 : 0.48 : 0.57 : 0.58 : 1.34 (protarsus), 1.00 : 0.34 : 0.23 : 0.33 : 0.76 (mesotarsus), 1.00 : 0.31 : 0.30 : 0.50 (metatarsus).

Both anterior tarsal claws with 14 visible teeth.

Ventral side of body blackish brown with dense punctuation, punctures relatively large and coarse. Abdomen almost glabrous, ventrites 1-3 dark brown with fine microgranulation, fine microrugosities and denser punctuation than those in distinctly paler ultimate and penultimate ventrites.

Aedeagus (Figs. 6 and 7). Pale brown, slightly shiny. Basal piece finely rounded in lateral view and very slightly narrowing dorsally. Apical piece elongate triangular in dorsal and lateral view. Ratio of length of apical piece to length of basal piece from dorsal view 1: 3.39.

Differential diagnosis. See Differential diagnosis in *Sulawesica* gen. nov.

Etymology. From Latin *robusta* (it means ‘strong’), reflecting feature of its habitus.

Distribution. Indonesia (Sulawesi Island).

***Vaclavka* gen. nov.**

(Figs. 8-14)

Type species: *Vaclavka telnovi* sp. nov.

Description. Habitus as in Fig. 8, body outline as in Fig. 9, body small, elongate oval, slightly convex. Dorsal surface with punctuation, microgranulation and setation, widest near middle elytra length. Head (Fig. 10) relatively small, wider than long, with fine microgranulation, long setae and dense punctuation, punctures shallow. Clypeus narrow, with long setae and microgranulation. Mandibles strong, glabrous, with a few setae near lateral margins, shiny. Eyes large, transverse, excised, space between eyes very narrow, approximately as wide as length of antennomere 2. Antenna (Fig. 11) relatively long, exceeding half body length,

antennomeres narrow with relatively long setation, microgranulation and shallow punctures. Antennomere 2 shortest, each of antennomeres 4-11 longer than antennomere 3. Ultimate antennomere arcuate, half drop shaped, widest near middle. Maxillary palpus rather matte, with setation and fine microgranulation. Ultimate palpomere widely triangular. Pronotum (Fig. 10) wide, transverse, almost semicircular, in base approximately as wide as elytron in base. Dorsal surface with long and dense setation and dense punctation. Lateral margins straight in basal half, arcuate in apical part. Anterior margin arcuate, posterior margin bisinuate. Posterior angles obtuse, anterior angles indistinct. Elytron elongate oval, widest near middle elytra length. Dorsal surface with long, semierect setation, shiny. Elytral striae with indistinct rows of punctures, elytral interspaces with irregular fine microgranulation and punctures, approximately as large as those in elytral striae. Scutellum matte, pentagonal shape with microgranulation, few shallow punctures and a few setae. Elytral epipleura well developed, with pale setae and punctures regularly narrowing to ventrite 1, then relatively wide leading parallel. Legs long, with setation, shallow punctures and fine microgranulation. Tibiae distinctly bent, protibiae with distinct row of strong and short setae in outer edge, metatibiae wide, paddle shaped (Fig. 12) with small tubercles in outer edge. Penultimate tarsomeres widened and lobed. Meso- and metatarsomere 1 rather flat, metatarsomere 1 distinctly wider than mesotarsomere 1. Protarsal claws longer than meso- or metatarsal claws. Both protarsal claws large, with visible teeth. Ventral side of body with dense punctation and short, sparse setae. Abdomen with setation, microgranulation, microrugosities and small, shallow punctures, shiny. Ultimate ventrite with large, shallow impression in middle. Apical piece of aedeagus as in Figs. 13 and 14.

Female has body more robust, space between eyes wider than in male. Tibiae are not bent, metatibiae not paddle-shaped. Anterior tarsal claws have less teeth than in male.

Differential diagnosis. Habitually similar genus is *Borbochara* Novák, 2009. Species of *Vaclavka* gen. nov. differs from similar species of *Borbochara* mainly by all tibiae in males distinctly bent, by male metatibiae widened, paddle-shaped, by protibiae not excised on inner side, by posterior angles of pronotum obtuse (not sharp or extended backwards); while male species of *Borbochara* have only metatibiae distinctly bent, metatibiae not paddle-shaped, protibiae excised on inner side and posterior angles of pronotum sharp and extended backwards.

Etymology. Named after the name of my agricultural company “Vaclavka”. Gender: feminine.

Distribution. Indonesia (Sulawesi Island).

***Vaclavka telnovi* sp. nov.**

(Figs. 8-14)

Type locality. Indonesia, Island Sulawesi, South Sulawesi Province, 5 km SW of Makale, 3°08'S, 119° 49'E, 1700 m.

Type material. Holotype (♂): INDONESIA, Sulawesi, South / Sulawesi Prov., Makale 5 km SW, / 3°08'S, 119° 49'E, 10.I.2018, 1700 / m, disturbed lowland rainforest, day / day collecting, leg. D. Telnov, (NMEG). Paratypes: (1 ♀): same data as holotype, (NMEG); (2 ♂♂): same data as holotype, but 6 km SSW, (DTC, VNPC). The types are provided with a printed red label: '*Vaclavka / telnovi* sp. nov. / HOLOTYPUS [or PARATYPUS] / V. Novák det. 2020'.

Description of holotype. Habitus as in Fig. 8, body outline as in Fig. 9, body small, elongate oval, slightly convex. Dorsal surface blackish brown, with punctuation, microgranulation and pale setation, BL 5.12 mm. Widest near middle elytra length; BL/EW 2.74.

Head (Fig. 10) relatively small, wider than long, with fine microgranulation, long, pale setae and dense punctuation, punctures shallow, behind eyes with a few short, dark setae. Posterior part blackish brown distinctly darker than reddish brown anterior part and clypeus. Clypeus narrow, with long, pale setae and microgranulation. Mandibles strong, brown, glabrous, with a few pale setae near lateral margins, shiny. HW 0.93 mm; HW/PW 0.60. HL (visible part) 0.76 mm. Eyes large, transverse, excised, space between eyes very narrow, approximately as wide as length of antennomere 2; OI equal to 11.27.

Antenna (Fig. 11). Relatively long (AL 3.12 mm, exceeding half body length, AL/BL 0.61), antennomeres narrow with relatively long, pale setation, microgranulation and shallow punctures. Antennomeres 1-3 pale brown, slightly shiny, antennomeres 4-11 rather matte, bicolor with pale brown base and dark brown apical part. Ultimate and penultimate antennomeres almost completely dark. Antennomere 2 shortest, each of antennomeres 4-11 longer than antennomere 3. Ultimate antennomere arcuate, half drop shaped, widest near middle.

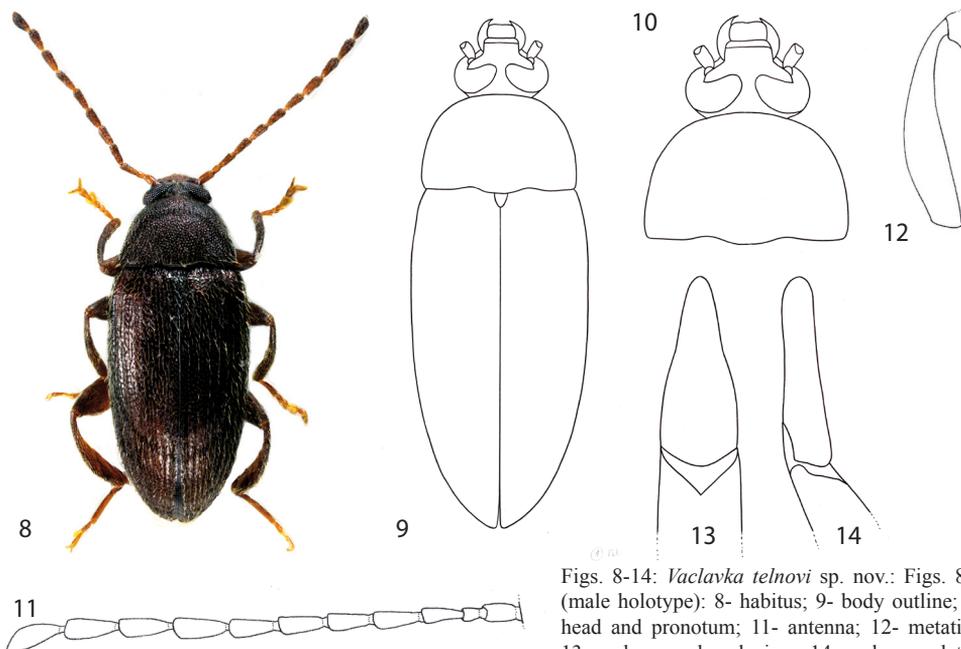
RLA(1-11): 0.84 : 0.48 : 1.00 : 1.16 : 1.16 : 1.29 : 1.21 : 1.36 : 1.41 : 1.25 : 1.38.

RL/WA(1-11): 2.04 : 1.42 : 2.80 : 2.96 : 2.71 : 3.13 : 2.96 : 3.46 : 4.16 : 3.18 : 3.45.

Maxillary palpus pale brown, rather matte, with pale brown setation and fine microgranulation. Ultimate palpomere widely triangular, palpomeres 2 and 3 distinctly dilated anteriorly.

Pronotum (Fig. 10). Blackish brown, wide, transverse, almost semicircular, in base approximately as wide as elytron in base. Dorsal surface with long and dense, pale setation and dense punctuation, punctures medium sized, interspaces between punctures very narrow. Border lines narrow, distinct and complete, only in the middle of anterior margin not clearly conspicuous. Lateral margins straight in basal half, arcuate in apical part. Anterior margin arcuate, posterior margin bisinuate. Posterior angles obtuse, anterior angles indistinct. PL 0.93 mm; PW 1.56 mm; PI equal to 59.62.

Elytron blackish brown, elongate oval, widest near middle elytra length. Dorsal surface with long, pale, semierect setation, shiny. Elytral striae with indistinct rows of punctures distinctly smaller than those on disc of pronotum, elytral interspaces with irregular fine



Figs. 8-14: *Vaclavka telnovi* sp. nov.: Figs. 8-12 (male holotype): 8- habitus; 9- body outline; 10- head and pronotum; 11- antenna; 12- metatibia; 13- aedeagus, dorsal view; 14- aedeagus, lateral view.

microgranulation and punctures, approximately as large as those in elytral striae. EL 3.43 mm; EW 1.87 mm. EL/EW 1.83.

Scutellum. Black, matte, pentagonal shape with microgranulation, few shallow punctures and a few pale setae.

Elytral epipleura well developed, dark reddish brown, with pale setae and punctures regularly narrowing to ventrite 1, then relatively wide leads parallel.

Legs long, reddish brown, with pale setation, shallow punctures and fine microgranulation. Tibiae distinctly bent, protibiae with distinct row of strong and short setae in outer edge, metatibiae wide, paddle shaped (Fig. 12) with small tubercles in outer edge. Penultimate tarsomeres widened and lobed. Meso- and metatarsomere 1 rather flat, metatarsomere 1 distinctly wider than mesotarsomere 1. Protarsal claws longer than meso- or metatarsal claws. RLT: 1.00 : 0.47 : 0.44 : 0.79 : 1.33 (protarsus), 1.00 : 0.37 : 0.37 : 0.44 : 0.59 (mesotarsus), 1.00 : 0.24 : 0.20 : 0.45 (metatarsus).

Both protarsal claws large, with more than 20 visible teeth.

Ventral side of body blackish brown with dense punctuation and short, sparse, pale setae. Abdomen reddish brown with pale setation, microgranulation and microrugosities, small, shallow punctures, shiny. Ultimate ventrite with large, shallow impression in middle.

Aedeagus (Figs. 13 and 14). Ochre yellow, rather matte. Basal piece finely rounded in lateral view and slightly narrowing dorsally. Apical piece short, roundly triangular in dorsal view, beak-shaped dorsally and laterally. Ratio of length of apical piece to length of basal piece from dorsal view 1: 5.46.

Female has body more robust, space between eyes wider than in male. Tibiae are not bent, metatibiae not paddle-shaped. Anterior tarsal claws have 8 teeth.

Measurements of female body. BL 5.21 mm; HL 0.77 mm; HW 0.94 mm; OI 19.91; PL 0.99 mm; PW 1.67 mm; PI 59.; EL 3.45 mm; EW 1.97 mm; AL 2.68 mm; AL/BL 0.51; HW/PW 0.56; BL/EW 2.65; EL/EW 1.75.

RLA(1-11): 0.87 : 0.46 : 1.00 : 1.08 : 0.91 : 1.08 : 1.15 : 1.31 : 1.27 : 1.04 : 1.29.

RL/WA(1-11): 1.80 : 1.33 : 2.89 : 2.15 : 1.76 : 2.67 : 2.61 : 2.83 : 2.75 : 2.70 : 2.91.

RLT: 1.00 : 0.37 : 0.40 : 0.68 : 1.58 (protarsus), 1.00 : 0.35 : 0.40 : 0.42 : 0.76 (mesotarsus), 1.00 : 0.28 : 0.28 : 0.47 (metatarsus).

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Males (n=3). BL 4.84 mm (4.49-5.12 mm); HL 0.71 mm (0.67-0.76 mm); HW 0.87 mm (0.82-0.93 mm); OI 12.37 (11.27-13.33); PL 0.87 mm (0.77-0.93 mm); PW 1.46 mm (1.33-1.56 mm); PI 59.62 (57.90-61.33); EL 3.26 mm (3.05-3.43 mm); EW 1.77 mm (1.65-1.87 mm).

Differential diagnosis. See Differential diagnosis in *Vaclavka* gen. nov.

Etymology. Dedicated to Dmitry Telnov (DTC), collector of type material and well known expert in the beetle family Anthicidae, after his surname.

Distribution. Indonesia (Sulawesi Island).

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