

New species of *Sulawesica* Novák, 2021 from Indonesia (Coleoptera: Tenebrionidae: Alleculinae: Alleculini: Alleculina)

Vladimír NOVÁK

Nepasické náměstí 796, CZ-190 14 Prague 9 - Klánovice, Czech Republic
e-mail: alleculinae.vn@centrum.cz

Taxonomy, new genus, new species, description, Coleoptera, Tenebrionidae, Alleculinae, Alleculini, Sulawesica, Indonesia, Morotai Island, West Papua

Abstract. A new species of the genus *Sulawesica* Novák, 2021 are described and illustrated as follows: *Sulawesica morotai* sp. nov. from Indonesia (Morotai Island in Moluccas) and *Sulawesica yamorica* sp. nov. from Indonesia (West Papua). New species are compared together and with the species *Sulawesica robusta* Novák, 2021.

INTRODUCTION

Novák (2021) described the genus *Sulawesica* Novák, 2021 with *Sulawesica robusta* Novák, 2021 from Sulawesi Island (Indonesia) as a type species.

Two new species *Sulawesica morotai* sp. nov. from Indonesia (Morotai Island in Moluccas) and *Sulawesica yamorica* sp. nov. from Indonesia (West Papua) are described, illustrated and compared together and with the species *Sulawesica robusta* Novák, 2021.

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 × minimum dorsal distance between eyes) / (maximum width of head across eyes). The pronotal index is calculated as (100 × length of pronotum along midline) / (width across basal angles of pronotum).

'Type material' information is taken from recent locality labels.

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

The following collection codes are used:

NMEG collection of Naturkundemuseum, Erfurt, Germany;

SMNS collection of Staatliches Museum für Naturkunde, Stuttgart, Germany;

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

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 used in the text: wl= white label; yl= yellow label.

Measurements were made with an Olympus SZ 40 stereoscopic microscope with continuous magnification and with Soft Imaging System AnalySIS. Snapshots were taken by using the camera Canon EOS 550 D and Canon Macro Photo Lens MP-E and software Helicon Focus 7.7.5.

TAXONOMY

***Sulawesica morotai* sp. nov.**

(Figs. 1, 2)

Type locality. Indonesia, Moluccas, Morotai Island, W of Daruba, 50-300 m.

Type material. Holotype (♀): yl: MALUKU:ls. Morotai / W Daruba. Raja / 16.-19.IX1999 50-300m / leg. A.RIEDEL (SMNS). The type is provided with a printed red label: '*Sulawesica / morotai* sp. nov. / HOLOTYPUS / V. Novák det. 2024'.

Description of holotype. Habitus as in Fig. 1, body large, wide, elongate oval, shiny, from brown to blackish brown, dorsal surface with pale setae, punctuation and microgranulation, BL 11.94 mm, widest near middle elytra length; BL/EW 2.88.

Head (Fig. 2) slightly longer than wide, through the eyes narrower than anterior margin or base of pronotum. Dorsal surface shiny with long, pale setae and small, dense punctures. Posterior part blackish brown, microgranulation not clearly distinct everywhere, anterior part dark brown. Clypeus pale brown, transverse, rounded, with long, pale setae, shallow punctures and microgranulation. Mandibles brown, glabrous, shiny with pale setae, sides and apex darker. HW 1.99 mm; HW/PW 0.58; HL (visible part) 2.10 mm. Eyes very large, transverse, excised, space between eyes narrow, distinctly narrower than diameter of one eye, approximately as wide as length of antennomere 1; OI equal to 17.95.

Antenna. Long, brown, antennomeres relatively narrow, matte (AL 5.94 mm, reaching half body length - AL/BL 0.50). Dorsal surface with pale setae, microgranulation and very small punctures. Antennomeres 3-10 slightly widened apically. Antennomere 2 shortest, antennomeres 4-11 longer than antennomere 3, antennomeres 6-11 1.26-1.59 times longer than antennomere 3. Antennomere 1 slightly shorter than antennomere 3.

RLA(1-11): 0.92 : 0.51 : 1.00 : 1.37 : 1.18 : 1.26 : 1.48 : 1.59 : 1.54 : 1.43 : 1.59.

RL/WA(1-11): 2.50 : 1.33 : 2.23 : 3.72 : 2.51 : 2.34 : 2.87 : 2.82 : 3.19 : 3.18 : 3.37.

Maxillary palpus pale brown, matte, with pale setae, fine microgranulation and very small punctures. Palpomeres 2 and 3 distinctly narrowest at base and widest at apex, ultimate palpomere widely triangular.

Pronotum (Fig. 2) blackish brown, almost semicircular, shiny, convex, widest near base, almost as wide as elytra at humeri. Dorsal surface with long, pale setae, dense punctures and very fine microgranulation. PL 2.25 mm; PW 3.41 mm; PI equal to 65.98. Border lines very narrow, margins conspicuous from dorsal view. Base bisinuate, anterior margin arcuate, anterior angles indistinct, posterior angles obtuse.

Elytra. Blackish brown, wide, elongate oval, slightly convex, shiny, widest near middle elytra length. Dorsal surface with long, pale setae. EL 7.59 mm; EW 4.14 mm; EL/EW 1.83. Elytral striae with rows of punctures, intervals between punctures in rows wider than diameter of punctures. Elytral intervals with fine microgranulation and dense punctures approximately as large as those in striae.

Scutellum. Dark brown, triangular, shiny with a few long, pale setae, fine microgranulation and punctures.

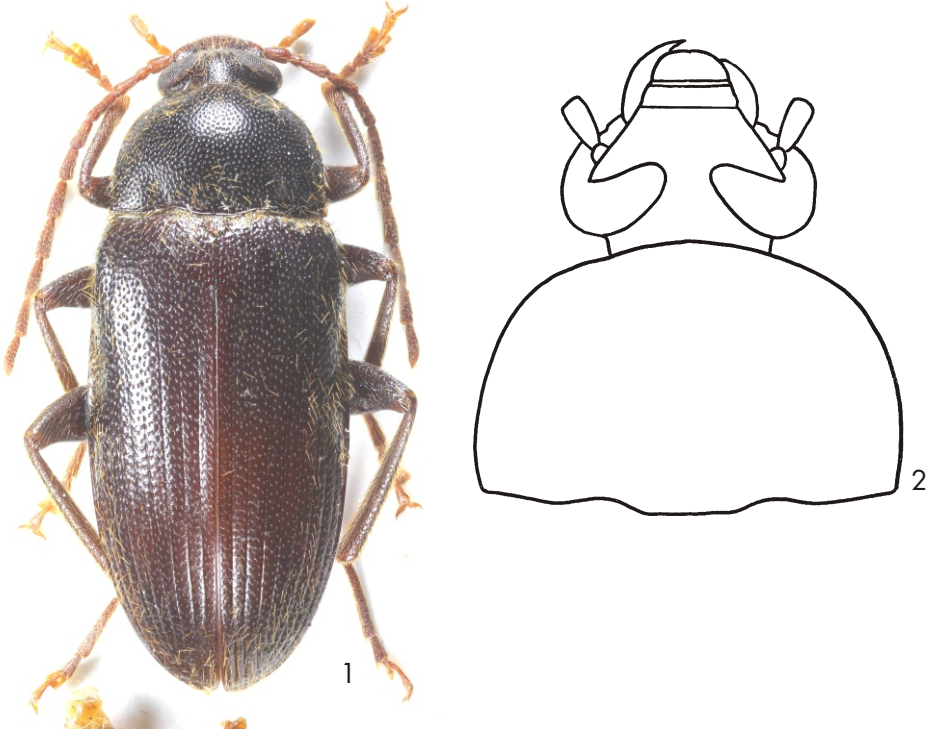
Elytral epipleura well-developed, dark brown, with punctures and pale setae on basal part distinctly narrowing to ventrite 1, then relatively narrow and parallel on apical part.

Legs. Long and narrow, dark brown, dorsal surface with pale setae and small punctures. Tarsi pale brown, pro- and mesotarsomeres 3, 4 and penultimate metatarsomere widened and lobed. RLt: 1.00 : 0.49 : 0.63 : 0.78 : 1.37 (protarsus); 1.00 : 0.31 : 0.30 : 0.43 : 0.77 (mesotarsus);

1.00 : 0.32 : 0.27 : 0.48 (metatarsus), metatarsomere 1 1.2 times longer than metatarsomeres 2-4 together.

Protarsal claws small and hollow with teeth on upper part, both protarsal claws with 11 teeth.

Ventral side of body brown with short, pale setae and small punctures. Abdomen brown with dark brown sides of ventrites, shiny with sparse, pale setae, punctures and fine microgranulation, ultimate ventrite with shallow impression at middle.



Figs. 1, 2. *Sulawesica morotai* sp. nov. (female holotype): 1 - habitus; 2 - head and pronotum.

Male unknown.

Differential diagnosis. Habitually similar species are *Sulawesica yamorica* sp. nov. from Indonesia (West Papua) and *Sulawesica robusta* Novák, 2021 from Sulawesi.

Sulawesica morotai sp. nov. clearly differs from similar species *S. yamorica* mainly by large body (BL approximately 12 mm), by dark brown legs, by space between eyes relatively wide (OI approximately 18), approximately as wide as length of antennomere 1, by antennomere 3 longer than antennomere 1 and by antennomeres 6-11 1.26-1.59 times longer than antennomere 3; while *S. yamorica* has small body (BL approximately 8 mm), legs are pale, space between eyes is narrow (OI approximately 8), approximately as wide as length of antennomere 2, antennomere 3 is shorter than antennomere 1 and antennomeres 6-11 are 1.6-2.1 times longer than antennomere 3.

S. morotai is distinctly different from similar species *S. robusta* mainly by large body (BL approximately 12 mm), by legs and antenna dark (from brown to dark brown); while *S. robusta*

has smaller body (BL approximately 8.5 mm) and antenna and legs are distinctly paler (reddish brown).

Etymology. Toponymic, named after the country of its origin Morotai Island (Indonesia).

Distribution. Indonesia, Northern Moluccas, Morotai Island.

***Sulawesica yamorica* sp. nov.**

(Figs. 3, 4)

Type locality. Indonesia, West Papua, 130 km southeastern Kaimana, Omba (=Yamor) river, 10-20 km from coast, S04°05'48", E134°54'09", 10-20 m.

Type material. Holotype (♀): wl: INDONESIA, W-PAPUA, 130km SE / Kaimana, Omba (=Yamor) river / 10-20 km from coast, S04°05'48" / E134°54'09", 10-20 m, 09.-11.II. / 2011, leg. A. Skale (008), (NMEG). Paratype: (1 ♀): wl: INDONESIA, W-PAPUA / ca. 130km SE Kaimana / Omba (=Yamor) river / 10-20 km from coast // S04°05'49", E134°54'09" / 10-20 m, 09.-11.II.2011 / leg. A. Weigel (008), (VNPC). The types are provided with a printed red label: 'Sulawesica / yamorica sp. nov. / HOLOTYPUS [or PARATYPUS] / V. Novák det. 2024'.

Description of holotype. Habitus as in Fig. 3, wide, elongate oval, convex, slightly shiny, from ochre yellow to dark brown, dorsal surface with pale setae, punctures and microgranulation, BL 7.97 mm. Widest near middle elytra length; BL/EW 2.61.

Head (Fig. 4) slightly wider than long, through the eyes narrower than anterior margin or base of pronotum. Dorsal surface brown, matte with pale setae, fine microgranulation and shallow punctures. Clypeus pale brown, transverse with long, pale setae and fine microgranulation, sides rounded, apex excised at middle. Mandibles brown, glabrous, shiny with sides and apex darker. HW 1.35 mm; HW/PW 0.55; HL (visible part) 1.26 mm. Eyes very large, transverse, excised, space between eyes narrow, distinctly narrower than diameter of one eye, approximately as wide as length of antennomere 2; OI equal to 8.21.

Antenna. Long, brown, antennomeres narrow, matte (AL 4.32 mm, slightly exceeding half body length - AL/BL 0.54). Dorsal surface with long, pale setae, microgranulation and small punctures. Antennomeres 3-10 slightly widened apically. Antennomere 2 shortest, antennomeres 4-11 longer than antennomere 3, antennomeres 6-11 1.6-2.1 times longer than antennomere 3.

RLA(1-11): 1.12 : 0.50 : 1.00 : 1.33 : 1.41 : 1.60 : 1.71 : 1.79 : 1.71 : 1.75 : 2.10.

RL/WA(1-11): 2.04 : 0.96 : 1.81 : 2.06 : 2.39 : 2.63 : 2.73 : 2.94 : 3.00 : 3.83 : 4.40.

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

Pronotum (Fig. 4) dark brown, transverse, wider than semicircular, shiny, convex, widest at base, almost as wide as elytra at humeri. Dorsal surface with sparse, pale setae, dense punctures and fine microgranulation. Interspaces between punctures distinctly narrower than diameter of punctures. PL 1.57 mm; PW 2.62 mm; PI equal to 63.82. Border lines very narrow, margins conspicuous from dorsal view only at the middle of anterior margin not clearly distinct. Base bisinuate, anterior margin slightly arcuate, anterior angles indistinct, posterior angles obtuse.

Elytra. Dark brown, wide, elongate oval, convex, slightly shiny, widest near middle elytra length. Suture slightly paler than dorsal surface with sparse, pale setae. EL 5.13 mm; EW 3.05 mm; EL/EW 1.68. Elytral striae with rows of punctures, intervals between punctures in rows almost wider than diameter of punctures. Elytral intervals with microgranulation and dense, coarse punctures approximately as large as those in striae.

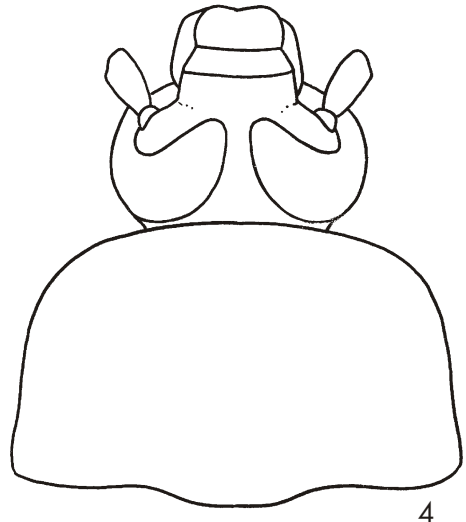
Scutellum. Brown, roundly, widely triangular, matte, with microgranulation and a few shallow punctures.

Elytral epipleura well-developed, brown, with punctures on basal part distinctly narrowing to ventrite 1, then relatively narrow and parallel on apical part.

Legs. Long and narrow, ochre yellow, dorsal surface with long, pale setae, and fine microgranulation. Pro- and mesotarsomeres 3, 4 and penultimate metatarsomere widened and lobed. RLT: 1.00 : 0.34 : 0.45 : 0.58 : 1.47 (protarsus); 1.00 : 0.25 : 0.24 : 0.40 : 0.70 (mesotarsus); 1.00 : 0.32 : 0.43 : 0.27 (metatarsus). Metatarsomere 1 1.15 times longer than metatarsomeres 2-4 together.

Protarsal claws smaller and hollow with teeth on upper part, both protarsal claws with 8 and 9 teeth.

Ventral side of body brown with pale setae and punctures. Abdomen brown, shiny with sparse, pale setae, punctures and fine microgranulation, ultimate ventrite with shallow impression at middle.



Figs. 3, 4. *Sulawesica yamorica* sp. nov. (female holotype): 3-habitus; 4-head and pronotum.

Male unknown.

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Females (n= 2). BL 7.69 mm (7.40-7.97 mm); HL 1.23 mm (1.19-1.26 mm); HW 1.32 mm (1.28-1.35 mm); OI 8.32 (8.21-8.43); PL 1.48 mm (1.39-1.57 mm); PW 2.32 mm (2.17-2.46 mm); PI 63.94 (63.82-64.06); EL 4.98 mm (4.82-5.13 mm); EW 2.96 mm (2.87-3.05 mm).

Differential diagnosis. Habitually similar species are *Sulawesica morotai* sp. nov. from Indonesia (Morotai Island in Moluccas) and *Sulawesica robusta* Novák, 2021 from Sulawesi.

Sulawesica yamorica sp. nov. clearly differs from similar species *S. morotai* mainly by small body (BL approximately 8 mm), by legs pale, by space between eyes narrow (OI approximately 8), almost as wide as length of antennomere 2, by antennomere 3 shorter than antennomere 1 and by antennomeres 6-11 1.6-2.1 times longer than antennomere 3; while *S. morotai* has large body (BL approximately 12 mm), legs are dark brown, space between eyes is relatively wide (OI approximately 18), almost as wide as length of antennomere 1, antennomere 3 is longer than antennomere 1 and antennomeres 6-11 are 1.26-1.59 times longer than antennomere 3.

S. yamorica is distinctly different from similar species *Sulawesica robusta* Novák, 2021 mainly by antennomere 1 longer than antennomere 3, by antennomeres 7-11 1.7-2.1 times longer than antennomere 3; while *S. robusta* has antennomere 1 shorter than antennomere 3 and antennomeres 7-11 are 1.4-1.6 times longer than antennomere 3.

Etymology. Toponymic, named after the name of Yamor river in West Papua.

Distribution. Indonesia (West Papua).

ACKNOWLEDGEMENTS. Sincere thanks are due to Matthias Hartmann (NMEG) and Wolfgang Schawaller (SMNS) for loaning me material under their care, and to Zuzana Čadová (Liberec, Czech Republic) for excellent drawings.

REFERENCES

- 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.
NOVÁK V. 2021: New genera of Alleculinae (Coleoptera: Tenebrionidae: Alleculinae: Alleculini) from Indonesia (Island Sulawesi) - *Sulawesica* gen. nov. and *Vaclavka* gen. nov. *Studies and Reports, Taxonomical Series* 17(1): 97-105.

Published: 25. 12. 2024