

Six new species of the genus *Tmesisternus* from New Guinea (Coleoptera: Cerambycidae, Lamiinae, Tmesisternini)

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Suara Serangga Papua (SUGAPA digital) 11(1): 16-26.
urn:lsid:zoobank.org:pub: 4B4DD448-8F03-419C-A546-2CA8D5AED5D0

Abstract: Six new species in the genus *Tmesisternus* Latreille 1829 have been discovered. Three of the new species are found in Papua New Guinea and three in Papua, Indonesia. The species are described and a comparison is made between some similar species. The habitus of the holotypes and male genital drawings are depicted.

Rangkuman: Enam spesies baru dari genus *Tmesisternus* Latreille 1829 telah ditemukan. Tiga dari spesies baru tersebut ditemukan di Papua New Guinea dan tiga lainnya ditemukan di Papua, Indonesia. Spesies tersebut dideskripsi dan dibuat perbandingan di antara beberapa spesies yg sama. Habitus holotype dan gambar dari genitalia jantan dideskripsi secara terperinci.

Keywords: New species, *Tmesisternus*, Cerambycidae, New Guinea, Indonesia, Papua New Guinea.

Introduction

Since the publications of Weigel (2003, 2006, 2008 and 2010) and Withaar (2009, 2011, 2013, 2014, 2015, 2016 and 2017) and Weigel & Withaar (2006) another six new species were found in the collections of BPBM and RMNH. Three new discovered species are from Papua New Guinea: *Tmesisternus clissoldi* **spec.nov.**, *T. schutzei* **spec.nov.** and *T. mewana* **spec.nov.** Three are from Papua (Indonesia): *Tmesisternus digoelae* **spec.nov.**, *T. ramues* **spec.nov.** and *T. cooribus* **spec.nov.**

Abbreviations used

BPBM – Bernice P. Bishop Museum, Honolulu, Hawaii, United States of America
MFNB – Museum für Naturkunde (Humboldt Museum), Berlin, Germany
RMNH – Naturalis Biodiversity Center, Leiden, The Netherlands

Tmesisternus clissoldi spec. nov. (figs. 1 & 7)

urn:lsid:zoobank.org:act: 3B664262-9443-4CE2-9F59-84C1656F84A8

Holotype: ♂, Papua New Guinea, Western district, Ruca 9, leg. H.Clissold [BPBM].

Description: Length: 10,5 mm, width: 3 mm. Female unknown. Head pitchy, smooth and shiny. Ventrally entirely with long, contiguous grey pubescens. Dorsally with two yellow pubescent lines from base to labrum and a small spot behind the upper eye lobes. Centrally divided by a smooth area with a fine groove on front and vertex with on front a few strong punctures.

Antenna yellow-brown, in holotype both not complete. Segment three longer than segment four. Scape clavate. Entirely with very fine transparent pubescens and, from second segment, fringed beneath.

Pronotum pitchy, squarish with lateral ridges from base to a quarter from apex. Ventrally and laterally with grey contiguous pubescens. Dorsally entirely with yellow pubescens and deep black punctures, except for a central longitudinal area. Ventro-laterally a small, sharp tubercle.

Scutellum pitchy, smooth and nearly round.

Elytra pitchy, shiny, nearly parallel sided and gradually bending to the laterally spined apex. Entirely covered with larger and smaller patches of yellow contiguous pubescens and the basal half punctured except for a small postscutellar area.

Legs with femur yellow, tibia dark brown and tarsi chestnut.

Abdomen entirely covered with long contiguous grey pubescens, except for a small smooth chestnut central area.

Distribution: The only known specimen was collected in Papua New Guinea, Western Highlands.

Etymology: The species is named in honor of the collector H. Clissold.

Note: According to Gressitt's (1984) definitions of species groups this species should belong to the *trapezicollis* group by having only a fine groove on the head front.

Tmesisternus coloribus spec. nov. (figs. 2 & 8)

urn:lsid:zoobank.org:act: 4A16975F-298E-4598-95A3-7F3BAC0467B4

Holotype: ♂, [Dutch New Guinea], bivak A, Alkmaar, ii.1910, leg. Lorenz [RMNH].

Description: Length: 10 mm, width: 3 mm. Female unknown.

Head chestnut, smooth and shiny with a groove from base to labrum, in the middle of that groove with an elliptical depression. Narrow lateral ridges. Red eyes. Ventrally dark brown, smooth and with very fine transparent pubescens.

Antenna yellow, in holotype only five segments present. Smooth and shiny. The fourth segment a little longer than third. Scape clavate. Fringed beneath.

Pronotum chestnut, smooth and shiny. At base much smaller than base of elytra and a little narrowed to the apex. No lateral ridges, only a fine sharp tubercle just in front of the apex. Vento-laterally a second sharp tubercle present. Dorsally and laterally with fine punctures except for a longitudinal central area. Ventrally smooth and dark brown.

Scutellum red with chestnut apex, smooth.

Elytra with basal half chestnut, smooth and with punctures except for a postscutellar area, the second half towards apex fading to yellow with fine grey pubescens and narrowing to the laterally spined apex. From the postscutellar area two weak ridges running to the apex. Legs with femur and tibia olive colored, tarsi red, entirely covered with very fine transparent pubescens.

Abdomen ventrally dark brown, smooth and shiny, laterally with long contiguous grey pubescens.

Distribution: The only known specimen was collected during the Second South New Guinea Expedition from 1910 in Dutch New Guinea (now Papua, Indonesia), Alkmaar Camp.

Etymology: The species name is derived from the two colors of the body: *coloribus*, meaning double colored in Latin.

Note: According to the key of Gressitt (1984, page 34) this species should belong to the *trivittatus* group. It is very similar to *Tmesisternus modestus* Gahan, 1915 in the *agriloides* group (Gressitt, 1984, page 38) which has the same double coloring, but that species has no yellow legs and the elytra apex is only laterally spined.

Tmesisternus digoelae spec. nov. (fig. 3)

urn:lsid:zoobank.org:act: 4AAE5C0C-D581-4551-B626-61B1D39CA1D1

Holotype: ♀, [Dutch New Guinea] Digoel, Expedition 1903 [sic = 1904] [RMNH].

Description: Length 10mm, width 3 mm. Male unknown.

Head brown and eyes dark brown. A central double ridged groove from labrum to base, with on both sides the ridges reuniting. Entirely covered with grey contiguous pubescens except for a small area around the central groove, a long spot behind the lower eye lobe and one behind the upper eye lobe and the lateral ridges dorsally. Labrum yellow and a few punctures on front and vertex.

Antenna yellow, in holotype eleven segments present, a little longer than the elytral apex. Segment three a little longer than segment four. The scapes a little widened towards the apex. Fringed beneath.

Pronotum dorsally brown, ventrally and laterally dark brown. No lateral ridges, only a small blunt tubercle one-fourth from apex laterally. Ventrally another sharp tubercle present, where the pronotum is widest. Dorsally entirely covered with yellow contiguous pubescens except for three longitudinal lines, the central one a little broader and at base broadening. Entirely covered with smaller and larger punctures, except on the middle line. Ventrally dark brown and with grey pubescens, laterally without pubescens.

Scutellum brown with yellow pubescens, except for the apical corners.

Elytra with rounded corners, parallel sided and at one-fourth from apex bending to the laterally strongly spined apex. Dorsally brown and epipleura dark brown and entirely covered with yellow contiguous pubescens except for numerous longitudinal brown spotted lines. At the apex a few larger brown areas and in the epipleura a yellow pubescent spot. Legs entirely olive colored. Femora, tibia and tarsi yellow, the entire legs with fine transparent pubescens.

Abdomen ventrally in the middle smooth brown and laterally grey pubescent with small brown spots.

Distribution: The only known specimen is collected during the First Southwest New Guinea Expedition in 1904-1905 (so not in 1903) at the Digoel River in Dutch New Guinea (now Papua, Indonesia).

Etymology: The species name *digoelae* is derived from the river Digoel where the holotype was found.

Note: According to Gressitt's (1984, page 32) definitions of species groups this species belongs to the *distinctus* group.

***Tmesisternus mewana* spec. nov.** (fig. 4)

urn:lsid:zoobank.org:act: C62C9087-DE4B-4AC9-88C7-DBD963B79F86

Holotype: ♀, Papua New Guinea, West Sepik Prov. Mt. Mewana, Agp.o. creek, 1200m, 2-3.x.1986. Leg. A. Alison et al. Acc. No: 1986.485 [BPBM].

Description: Length: 16 mm, width: 6 mm. Male unknown.

Head chestnut, red eyes and labrum. Jaws strongly developed. A double ridged groove from base to labrum. Dorsally with small punctures. In front of labrum two small dots with white pubescens.

Antenna chestnut, in holotype eleven segments, nearly reaching elytral apex. Entirely covered with very fine grey pubescens. Segment three and four equal in length. Scape clavate.

Pronotum transverse and trapeziform, expanded laterally with sharp ridges, rounded basally and at front with a blunt tubercle, chestnut, smooth and shiny. Entirely covered with disordered punctures, except for a small central area, wide at base and narrowing to the apex. Ventro-lateral a small sharp tubercle, hidden if seen from above. Ventrally with contiguous grey pubescens.

Scutellum chestnut, smooth and shiny. Pointed towards the apex and laterally with some grey pubescens.

Elytra chestnut, with rounded shoulders wider than the pronotum base. Gradually tapering to the emarginated apex. Laterally with a strong spine. Entirely covered with small punctures, mostly in rows, and different small dots of yellow pubescens in longitudinal rows, except for a large postscutellar smooth and shiny area with some small punctures. Except for the sutural ridges, three weak elevated ridges present, starting behind the postscutellar area. The lateral two are reuniting in front of the apex, the central one not reaching the reunited ones.

Legs chestnut, tibia a little clavate. Entirely covered with grey pubescens.

Abdomen ventrally chestnut and denuded, laterally with contiguous grey pubescens with chestnut spots.

Distribution: The only known specimen has been found in the West Sepik Province in Papua New Guinea.

Etymology: The species name *mewana* refers to the mountain Mewana in Papua New Guinea where the holotype is found in 1986.

Note: This species more or less resembles *Tmesisternus stellae* Gressitt, 1984, and belongs to the *latithorax* group, according to the definition of species groups of Gressitt (1984, pages 31-36), but the pronotum from *T. mewana* is widened to the base and not narrowed like in the female of *T. stellae*.

***Tmesisternus ramues* spec. nov.** (figs. 5 & 9)

urn:lsid:zoobank.org:act: 924196DF-28E9-4C6F-8432-62C1150C2739

Holotype: ♂, [Papua New Guinea, Madang Province, [Ramu exp. Leg. Rodatz und Klings [RMNH].

Description: Length: 10mm, width: 2mm. Female unknown.

Head pitchy. Dorsally with very fine punctures, except for a strong elevated double ridged area with an elliptical depression on front, with in the middle a fine groove from labrum to

the base and lateral ridges from labrum to the antennal insertions. Behind the eyes a long smooth neck narrowing to base. Black eyes.

Antenna chestnut, in holotype both not complete. Scape clavate. Segment four a little longer than segment three. With very fine transparent pubescens and only segment three is fringed beneath.

Pronotum pitchy, shiny and longer than wide. From base a little widened to the middle, behind the middle a little narrowing to the apex. No lateral ridges, only a sharp tubercle just in front of the apex.

Ventro-laterally a second tubercle more basally. Dorsally and laterally entirely covered with punctures except for a small central longitudinal area.

Scutellum pitchy, smooth and shiny, apex rounded.

Elytra pitchy and shining, basal half parallel sided and behind that narrowing to the laterally spined apex. A black postscutellar area, a sutural ridge and dorsally two weak ridges. Entirely covered with punctures, some in rows. Less punctures on the black postscutellar area.

Legs with femur pedonculate, pitchy with chestnut base. Tibia and tarsi chestnut. Entirely covered with fine transparent pubescens.

Abdomen ventrally chestnut, smooth and shiny. Laterally with grey contiguous pubescens.

Distribution: The only known specimen is collected in Ramu, a village in Madang Province, Papua New Guinea.

Etymology: The species name *ramuesis* derived from the village Ramu where it was found.

Note: *Tmesisternus ramues* very much resembles *T. carlae* Withaar, 2017, but this species is much smaller, the antennal scape is clavate, the postscutellar black area is much larger, nearly the length of the elytron, and the pronotum has shallower and much smaller punctures.

***Tmesisternus schutzei* spec. nov.** (figs. 6 & 10)

urn:lsid:zoobank.org:act: 5FD49F50-220C-4C09-A33E-DE2D61A008CD

Holotype: ♂, Deutsch Neu Guinea, Sepik, Hauptbivak, x.10, Leg. S. Schutze [MFNB].

Description: Length: 17 mm, width: 6mm. Female unknown.

Head black, black eyes and strongly developed jaws. Including the eyes somewhat wider than the pronotal apex. A deep double ridged, central groove from base to the labrum. Eight large yellow spots; two on front and two on vertex on each side of the double ridged groove, two on the cheeks and two smaller ones after the antennal insertions.

Antenna chestnut. In holotype eleven segments and nearly reaching the elytral apex. Entirely covered with very fine grey pubescens. Fringed beneath from the third segment apically. The scape clavate.

Pronotum pitchy and much wider than long. Laterally sharply ridged with in front of apex a rounded tubercle. Ventrally another sharp tubercle present. Entirely covered with deep punctures and contiguous, transverse, grey pubescens, except for a longitudinal central smooth area, narrowing to both ends and two small spots in the middle, close to the lateral ridges.

Scutellum large, black, smooth and shiny. Only basally some grey pubescens.

Elytra pitchy, base wider than the base of the pronotum. Rounded shoulders, gradually narrowing towards the truncated apex. Somewhat elevated on base and nearly covering the pronotal base. Entirely covered with transparent, very short pubescens. On each elytron a designation from grey contiguous pubescens and three brown round areas with a large yellow spot: a pre central lateral one, a post central triangular one along sutur and a pre apical one on epipleura, more to the apex a creamy, yellow pubescent transverse band, from sutur oblique to the epipleura. The apex entirely covered with grey pubescens.

Legs chestnut, entirely covered with fine contiguous pubescens.

Abdomen ventrally entirely covered with grey contiguous pubescens, except on each sternite in the middle apically a small smooth and shiny dot.

Distribution: The only known specimen was collected in “Hauptbivak” (Main Camp) at the Sepik River in former Deutsch Neu Guinea (at present Papua New Guinea).

Etymology: The species is named *schutzei* in honor of S. Schutze who collected the holotype of this species along the Sepik River.

Note: This species resembles *Tmesisternus quadripunctatus* Gilmour, 1949 in the *jaspideus* group (Gressitt, 1984, page 32), but *T. schutzei* has a different pattern, no rounded elytral apex and the scutellum is not strongly transverse.

Acknowledgements

I wish to thank Mr. H. Huijbregts (RMNH), Mr. G.A. Samuelson and Mr. S. Meyer (BPBM) and Mr. J. Willers and Mr. Jäger (MFNB) for the opportunity to study material in the collections. I also thank Mr. Rob de Vos for commenting on the manuscript. Mrs. Dra. Daawia Suhartawan (Waena, Papua, Indonesia) I am grateful for the translation of the abstract into Bahasa Indonesia (“Rangkuman”).

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Figs 1-6 (on next page): fig. 1. *Tmesisternus clissoldi* **spec. nov.**, holotype ♂ (BPBM); fig. 2. *T. coloribus* **spec. nov.**, holotype ♂ (RMNH); fig. 3. *T. digoelae* **spec. nov.**, holotype ♀ (RMNH); fig. 4. *T. mewana* **spec. nov.**, holotype ♀ (BPBM); fig. 5. *T. ramues* **spec. nov.**, holotype ♂ (RMNH); fig. 6. *T. schutzei* **spec. nov.**, holotype ♂ (MFNB).



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2



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4



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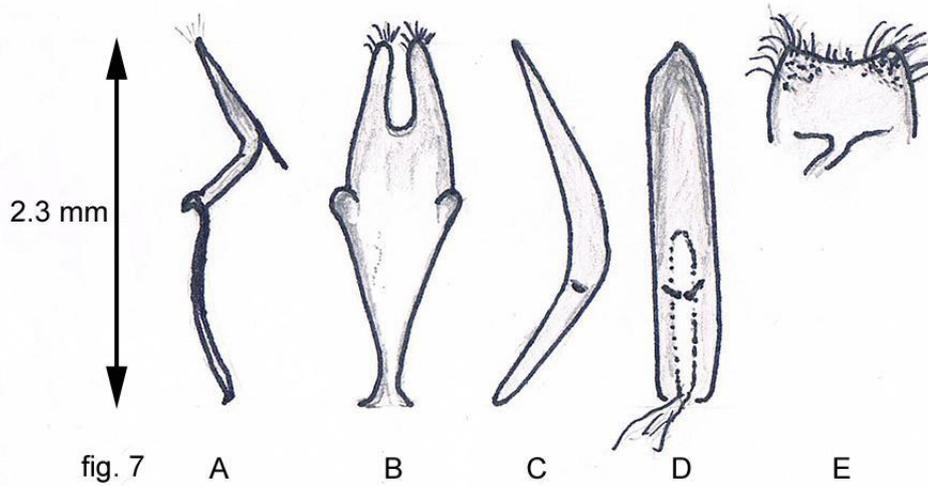


Fig. 7. *Tmesisternus clissoldi* **spec. nov.**, ♂ genitalia, A: paramere lateral; B: paramere ventral; C: aedeagus ventral; D: aedeagus lateral; E: 8th ventral tergite

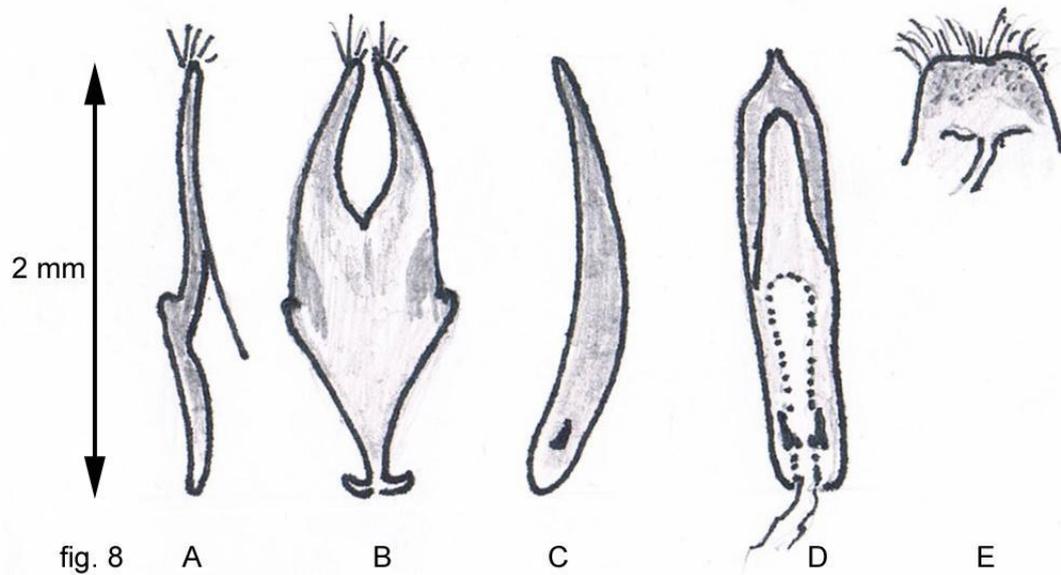


Fig. 8. *Tmesisternus coloribus* **spec. nov.**, ♂ genitalia, A: paramere lateral; B: paramere ventral; C: aedeagus ventral; D: aedeagus lateral; E: 8th ventral tergite

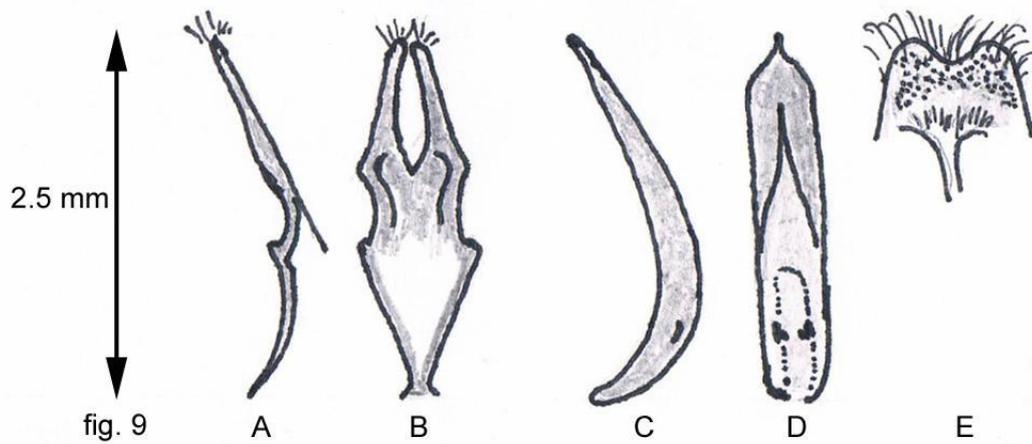


Fig. 9. *Tmesisternus ramues spec. nov.*, ♂ genitalia, A: paramere lateral; B: paramere ventral; C: aedeagus ventral; D: aedeagus lateral; E: 8th ventral tergite

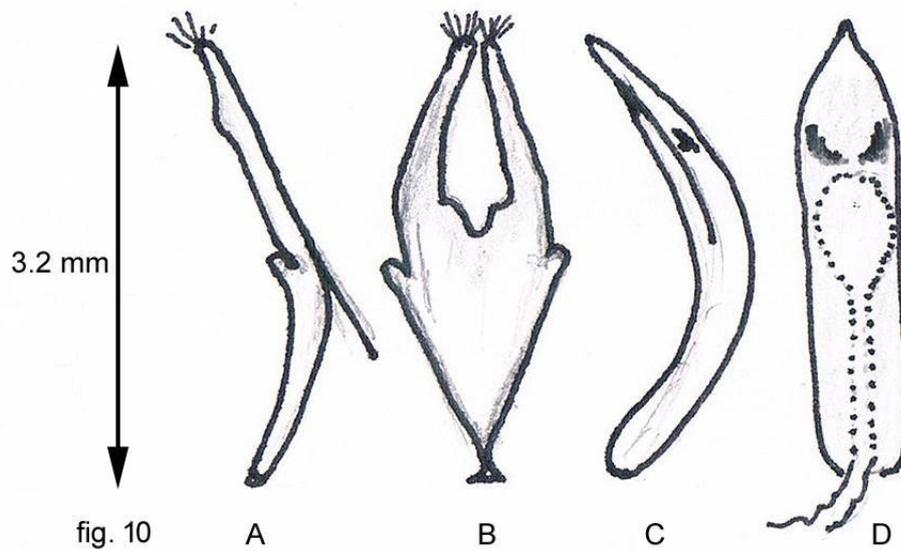


Fig. 10. *Tmesisternus schutzei spec. nov.*, ♂ genitalia, A: paramere lateral; B: paramere ventral; C: aedeagus ventral; D: aedeagus lateral