

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

Gerrit Withaar

Meidoornstraat 20, 9501 VZ Stadskanaal, The Netherlands  
email: g.withaar@hetnet.nl

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**Abstract:** Five new species in the genus *Tmesisternus* are described, two from Papua, Indonesia, and three from Papua New Guinea: *Tmesisternus yoibosa* **spec. nov.**, *T. sinecolor* **spec. nov.**, *T. michaelensis* **spec. nov.**, *T. versteegi* **spec. nov.** and *T. bulldogensis* **spec. nov.** Of all species the adults are depicted and of two males the genitalia are figured.

**Rangkuman:** Lima spesies baru dari genus *Tmesisternus* dideskripsi disini, dua spesies dari Papua, Indonesia dan tiga spesies dari Papua New Guinea yaitu: *Tmesisternus yoibosa* **spec. nov.**, *T. sinecolor* **spec. nov.**, *T. michaelensis* **spec. nov.**, *T. versteegi* **spec. nov.** dan *T. bulldogensis* **spec. nov.** Semua hewan dewasa dari semua spesies dan dua genitalia jantan dideskripsi dengan gambar.

**Keywords:** Longhorn beetles, Papua, Indonesia, Papua New Guinea

### Introduction

*Tmesisternus* Latreille, 1829 is a species rich genus of Cerambycidae (Lamiinae), with most species distributed in the Moluccas and New Guinea. Since the publication of the monograph on *Tmesisternus* by Gressitt (1984) many new species have been described and are still continuously being discovered. Most of the discoveries are done in museum collections among old expedition material. Five more species were recently discovered to be new for science and are described here: *Tmesisternus yoibosa* **spec. nov.**, *T. michaelensis* **spec. nov.** and *T. bulldogensis* **spec. nov.** were collected in Papua New Guinea, *T. sinecolor* **spec. nov.** and *T. versteegi* **spec. nov.** were found in former Dutch New Guinea (at present the Province Papua, Indonesia).

### Abbreviations

BPBM – Bernice P. Bishop Museum, Honolulu, Hawaii, United States of America  
RMNH – Naturalis Biodiversity Center, Leiden, The Netherlands  
PNG – Papua New Guinea

## Systematic part

### *Tmesisternus yoibosa* spec. nov. (figs 1, 6)

urn:lsid:zoobank.org:act: 9895BAFA-9587-40AE-8B1A-30D7195CB19F

**Holotype:** BPBM: ♂, Papua New Guinea, W. Highlands, Yoibos, 2150-2200 m, 10.vi.1963, leg. J. Sedlacek.

**Description:** Length 11.5 mm, width 3.8 mm. Female unknown.

Head is pitchy and shiny, including the eyes much wider than neck. From labrum to base in the centre strong double ridged with inside a deep groove. Strong lateral ridges from labrum to the elevated area frontal of the antennal insertions and continuing around the antennal insertions. On labrum, between the eyes and around the eye lobes, contiguous stiff yellow hairs like a brush. Eyes red, along the double ridged groove some punctures. Antennae pitchy, with eleven segments, reaching the elytra apex. Scape clavate.

Pronotum pitchy and shiny, at base more chestnut-coloured. From base tapering to the apex. Entirely with deep, round punctures except for a narrow central area. Fine lateral ridges with near apex a small sharp tubercle and more ventrally, visible from above, a second sharp tubercle.

Scutellum triangular, chestnut-coloured and bordered with pitchy pubescens.

Elytra shiny chestnut-coloured with strong pronounced shoulders, gradually narrowing to the strong laterally spined, outwards bending apex. A smooth and shiny, pitchy postscutellar area. The basal half of the elytra with punctures, except for the postscutellar area, some arranged in rows. The distal half without punctures and between the sharp longitudinal ridges with short grey pubescens, some forming small dots.

Legs olive-green coloured, smooth and shiny. Tarsi red.

Abdomen ventrally chestnut-coloured, shiny with fine dots of grey pubescens.

Genitalia as in fig. 6.

**Distribution:** The holotype has been found in the village Yoibos in the Western Highland Province, Papua New Guinea at an altitude of about 2200 meters.

**Etymology:** The species name refers to the village Yoibos in the Western Highlands, Papua New Guinea, where the holotype has been found.

### *Tmesisternus versteegi* spec. nov. (fig. 2)

urn:lsid:zoobank.org:act: 59FBFB03-1359-4AC4-A42A-A6A6F63FF7F9

**Holotype:** RMNH: ♂, [Indonesia, Papua], Kloofbivak, 2 km N van Alkmaar, 18.x.1912, 3e Zuid West Nieuw Guinea Expeditie 1912-1913, leg. G.M. Versteeg.

**Description:** Length 15 mm, width 5 mm. Female unknown.

Head black, smooth and shiny, with a fine groove in the centre, from labrum to base. Strong lateral ridges from labrum to antennal insertions. Ventrally and laterally black and smooth. Jaws large. Antennae with eleven segments. Scape and next three segments pitchy, the other segments brown. Scape a little swollen towards apex.

Pronotum black and shiny. Laterally parallel sided and with a blunt square tubercle near the apex. Entirely covered with punctures, except for a central and basal area. Ventro-laterally dull brown with a small sharp tubercle.

Scutellum black, shiny and oval. Elytra black and shiny, basal half with numerous small punctures, distal half less punctured, at the apex without punctures. Basal two-third of the elytra, from rounded shoulders, parallel sided, distal third bending to the laterally on both sides strongly spined apex. Dorsally along the epipleura with four obscure yellow tomented (covered with short hairs) spots. At the apex with irregular white coloured dots, which are not tomented.

Legs with femur and tibia black and shiny, tarsi red.

Abdomen ventrally dark brown and smooth, laterally with fine short grey pubescens.

Male genitalia as in fig. 7.

**Distribution:** The holotype has been collected in Kloofbivak (Cleft Camp), a temporary camp during the early Dutch Third Southwest New Guinea Expedition from August 1912 till May 1913, at the southern slopes of the Central Mountain Range in what is now the Lorentz Natural Reserve.

**Etymology:** The species is named in honour of its collector, Second Class Officer of Health G.M. Versteeg, who was responsible for the study of zoology and anthropology in the above mentioned expedition, and who collected the holotype.

***Tmesisternus sinecolor spec. nov.*** (figs 3, 7)

urn:lsid:zoobank.org:act:3AEDBDD2-3D60-4DCD-996B-64E67847FEFF

**Holotype:** RMNH: ♂, [Indonesia, Papua], Kloofbivak, 2 km N van Alkmaar, ii.1913, 3e Zuid West Nieuw Guinea Expeditie 1912-1913, leg. G.M. Versteeg.

**Description:** Length 15 mm, width 5 mm. Female unknown.

Head pitchy and shiny with black eyes. Dorsally with a strong double ridge in the centre from labrum to base. Strong lateral ridges from labrum to antennal insertion. On both sides of the lateral ridges contiguous, yellow pubescens. Ventro-laterally also a large area with contiguous pubescens, surrounded by grey pubescens.

Antennae in holotype both not complete, pitchy and shiny with fine grey pubescens, fringed beneath except near the apex, swollen scape.

Pronotum pitchy and shiny, entirely with fine punctures. From the wide base, laterally narrowing to the much narrower apex. Distally at apex on each side a sharp tubercle. Ventro-laterally another but smaller blunt tubercle. Sides and ventro laterally pitchy with fine grey pubescens. Scutellum pitchy, at base and apex rounded, covered with long grey pubescens. Ventrally pitchy with fine grey pubescens.

Elytra pitchy, at base wide and from rounded shoulders basal half of elytra nearly parallel sided, distally regularly bending to the nearly rounded apices, except for a tiny lateral tubercle. Dorsally with some obscure longitudinal ridges. Entirely covered with irregular short grey pubescens, at epipleura some cloudy pubescent pattern. Basal half of the elytra with small punctures.

Legs chestnut-coloured, femur clavate, entirely with fine grey pubescens.

Abdomen ventrally chestnut-coloured, centrally smooth and laterally with short grey pubescens.

**Distribution:** The holotype has been collected in Kloofbivak (Cleft Camp), a temporary camp during the early Dutch Third Southwest New Guinea Expedition from August 1912 till May 1913, at the southern slopes of the Central Mountain Range in what is now the Lorentz Natural Reserve.

**Etymology:** The species name refers to its dull grey colour, which could be interpreted as “uncolored”, in Latin “sine color”.

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

urn:lsid:zoobank.org:act:0BE5394C-DC42-4545-B9FE-03DD29550059

**Holotype:** BPBM: ♀, [Papua New Guinea, Eastern Highlands, 6°25'S – 145°20'E], British New Guinea, Mnt. Michael, Saddle camp, N.W. arete, 3050 m, 11-22.vi.1919.

**Description:** Total length 15 mm, width 6 mm. Male unknown.

Head large, wider than pronotal apex. A deep ridge from labrum to base with strong lateral ridges, furthermore smooth and pitchy. Yellow pubescent spots on each side of front, around the eye lobes and on vertex, next to the antennal insertions.

Pronotum chestnut-coloured with a large smooth central area with scattered fine punctures. Dorsally, along the lateral fine ridges, an area with yellow contiguous pubescens. The lateral ridge, with a strong tubercle anterior to apex, ventro-laterally another strong tubercle with grey pubescens.

Antennae chestnut-coloured and shiny, both antennae in holotype not complete. Scape short and a little swollen at apex.

Scutellum chestnut-coloured and shiny. Base round and apex triangular. Laterally with a small yellow pubescent dot.

Elytra entirely chestnut-coloured. A wide base with round shoulders and gradually narrowing to the blunt apex and laterally weakly spined. With five distinct longitudinal ridges on each elytron, the strongest ones along sutur and epipleura. In the centre of each elytron, three ridges next to each other. Epipleura with yellow pubescens. Elytra entirely covered with fine shallow punctures.

Legs chestnut-coloured, smooth and shiny with scarce grey pubescens.

Abdomen ventrally chestnut-coloured, smooth and shiny, laterally with some grey pubescens.

**Distribution:** The holotype has been found on Mount Michael, Eastern Highlands, Papua New Guinea at an altitude of about 3000 meters.

**Etymology:** The species is named after its type locality, Mount Michael in the Eastern Highlands, Papua New Guinea.

***Tmesisternus bulldogensis* spec. nov.** (fig. 5)

urn:lsid:zoobank.org:act: A1E6C75E-A93A-481D-8E90-130A11047920

**Holotype:** RMNH: ♂, [Papua New Guinea, Morobe Province], Bulldog rd., 40 km S. Wau, 2200-2800 m., 22-23.v.1969, light trap, Leg. Sedlacek.

**Description:** Length 11.5 mm, width 4 mm. Female unknown.

Head black, smooth and shiny. Red eyes. A deep double ridged groove from labrum to base. Some white pubescens on labrum, around the eye lobes and on a small depressed area frontally of the antennal insertion. Antennae pitchy, with eleven segments, not reaching the elytra apex. The scape clavate, other segments fringed beneath.

Pronotum at base wider than long, trapezoid with latero-distally to the apex a small sharp tubercle. More ventro-laterally another small sharp tubercle. Dorsally with fine punctures except in a wide central area.

Scutellum chestnut-coloured and smooth. Base round and apex triangular.

Elytra chestnut-coloured, smooth and shiny. At base wide and with rounded shoulders, gradually narrowing to the apex with sharp lateral tubercles. Entirely covered with fine punctures except for a post scutellar area. Dorsally, including the suture, one obscure and two more pronounced longitudinal ridges. Post centrally an oblique transverse line with some small white spots.

Legs with tibia clavate and pitchy, femur and tarsi chestnut. All shiny with some grey pubescens.

Abdomen ventrally chestnut-coloured, smooth and shiny. Laterally with scattered grey pubescens.

Genital not present in the holotype.

**Distribution:** The holotype was found at the famous Bulldog Track, a road from Wau to the village Bulldog, Morobe Province, Papua New Guinea, at an altitude between 2200 and 2800 meters.

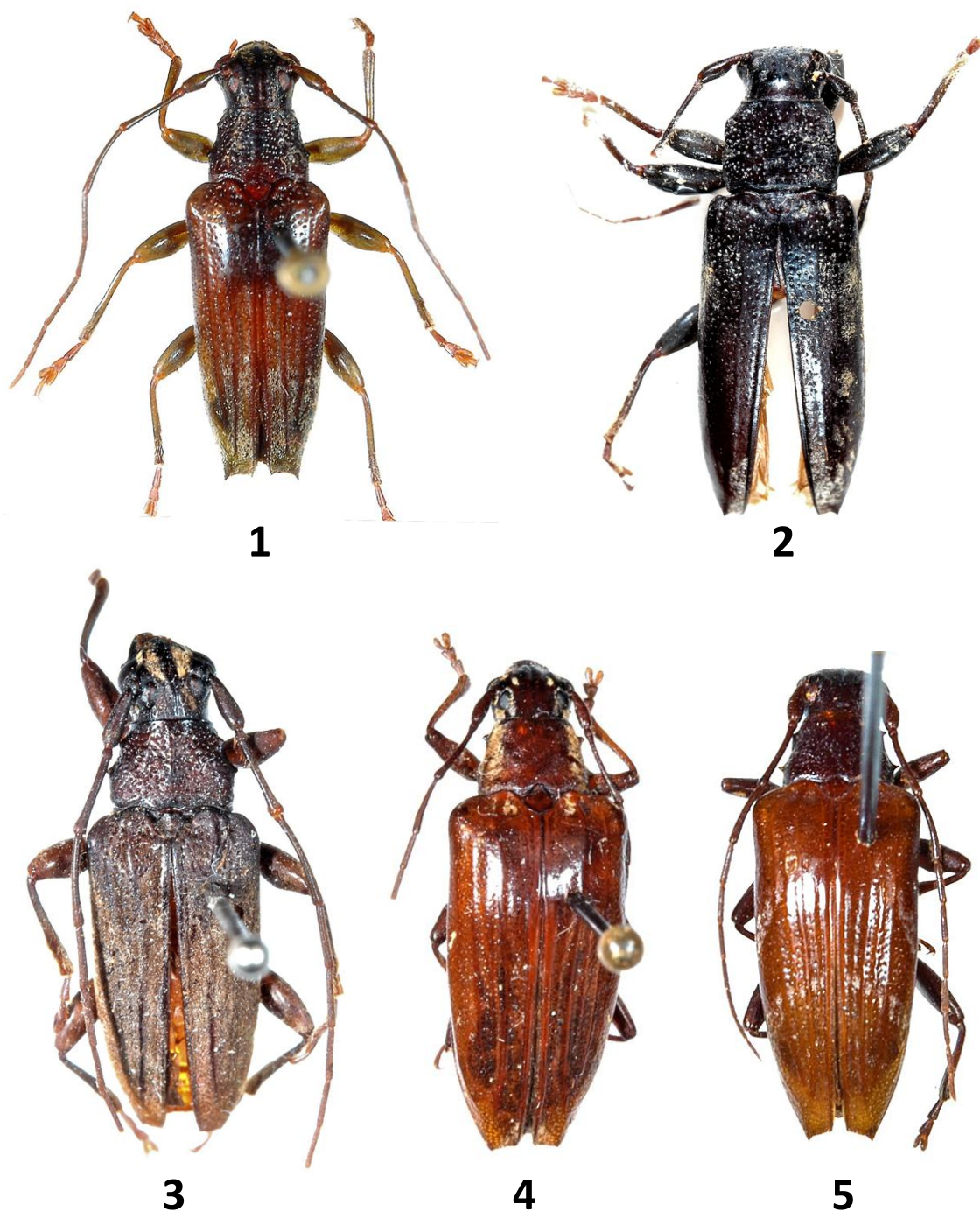
**Etymology:** The species name refers to Bulldog Track (Bulldog Road) from where the holotype has been found.

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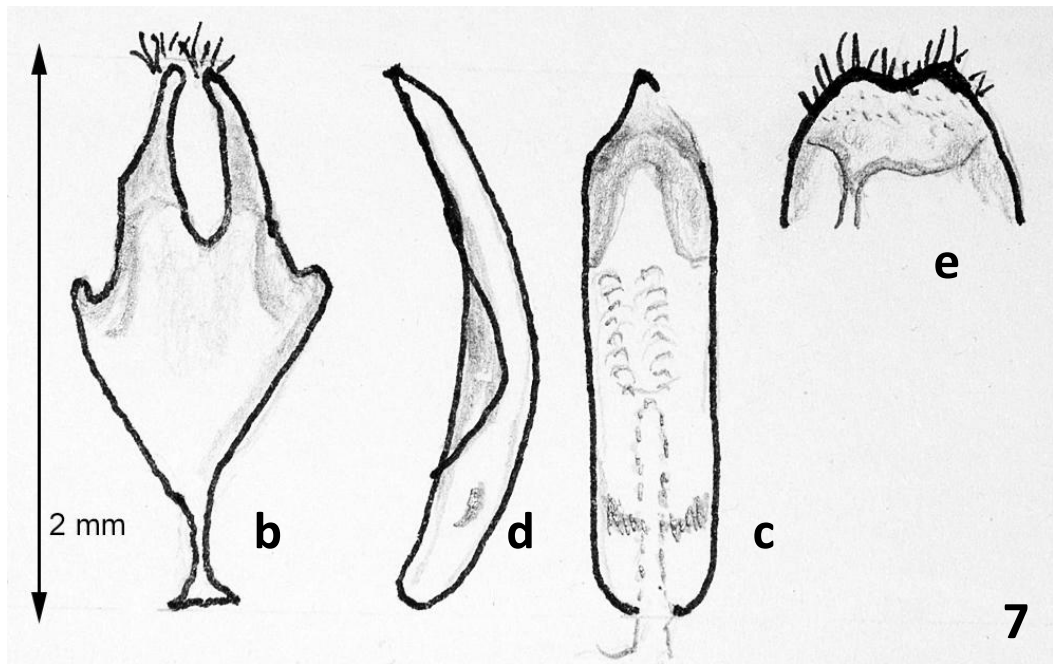
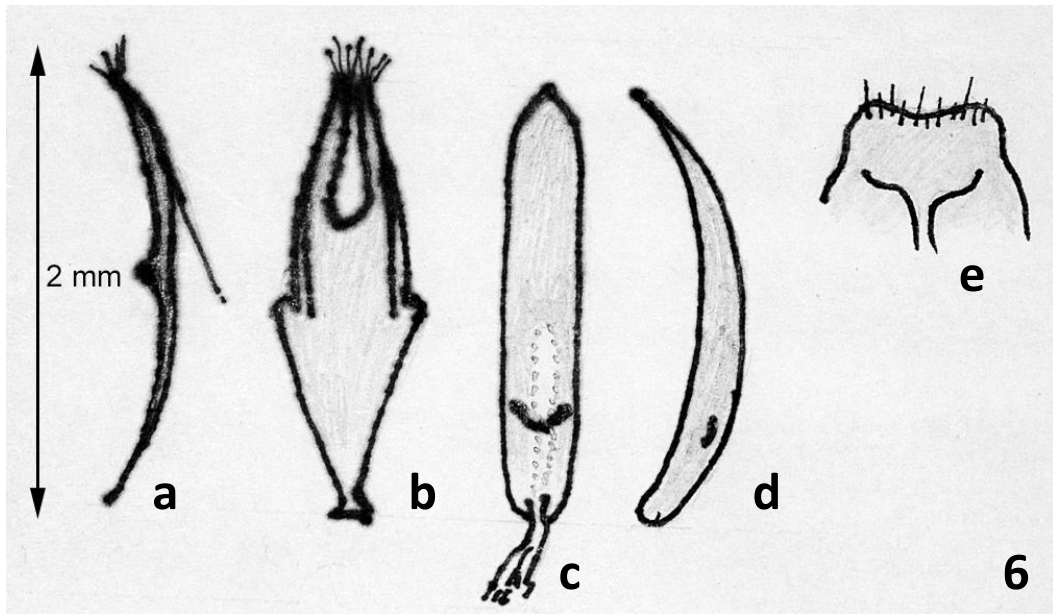
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**References**

Gressitt, J.L., 1984. Systematics and Biogeography of the longicorn beetle tribe Tmesisternini. *Pacific Insects Monography*: 41: 1-263.



**Figs 1-5. *Tmesisternus* species. 1. *Tmesisternus yoibosa* spec. nov., holotype ♂, BPBM; 2. *T. versteegi* spec. nov., holotype ♂, RMNH; 3. *T. sinecolor* spec. nov., holotype ♂, RMNH; 4. *T. michaelensis* spec. nov., holotype ♀, BPBM; 5. *T. bulldogensis* spec. nov., holotype ♂, RMNH.**



**Figs 6-7.** Male genitalia of *Tmesisternus* species, a. paramere lateral; b. paramere ventral; c. aedeagus ventral; d. aedeagus lateral; e. 8th ventrite. **6.** *Tmesisternus yoibosa* **spec. nov.**; **7.** *T. sinecolor* **spec. nov.**