

New species of the genus *Termitodiellus* Nakane, 1961 from Papua New Guinea (Scarabaeidae, Aphodiinae)

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The new species from Oceania (Papua New Guinea) *Termitodiellus minkinai* sp. nov. is described. The new species is compared to the most similar species: *T. interruptus* (Krikken and Huijbregts, 1987). Illustrations of the habitus and diagnostic characters are provided.

Key words: Scarabaeidae, *Termitodiellus*, taxonomy, new species, Oceania, Papua New Guinea.

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INTRODUCTION

Through the courtesy of Dr. Alain Drumont (Royal Belgian Institute of Natural Sciences) we received a sample of south Asian scarab beetles for identification which, *inter alia*, included one interesting species of the genus *Termitodiellus* Nakane, 1961 from Papua New Guinea, which does not match any of the described species and is described in the present paper.

The genus *Termitodiellus* is represented by eight termitophilous species (Minkina & Kakizoe, 2020), known from islands of Southeast Asia. Diagnosis of the genus and its phylogenetic relationships within Rhyparini Schmidt, 1910 was recently discussed by Skelley (2007), Jiang & Wang (2020) and Minkina & Kakizoe (2020).

Updated checklist includes 9 species:

T. besucheti (Paulian, 1983) Sumatra (Indonesia), Dohol, Kuala Dumpur, Borneo (Malaysia)
T. esakii (Nomura, 1943) Yap Island (Micronesia)

T. hainanensis Jiang and Wang, 2020 Hainan Island (China)

T. hammondi (Krikken and Huijbregts, 1987) Sarawak, Borneo (Malaysia)

T. interruptus (Krikken and Huijbregts, 1987) Sulawesi (Indonesia)

T. luzonensis (Howden, 1995) Luzon Island (the Philippines)

T. mindanaoensis Minkina and Kakizoe, 2020 Mindanao Island (the Philippines)

T. minkinai sp. nov. Papua New Guinea

T. monticola (Krikken and Huijbregts, 1987) Sulawesi (Indonesia)

MATERIAL AND METHODS

Type material deposited in Royal Belgian Institute of Natural Sciences (RBINS).

The measurements were made as follows: body length (from the anterior margin of clypeus to the apex of elytra along the suture); length of

pronotum (along the midline); width of pronotum (in the widest point); length of elytra (from the base to the apex along the suture); width of elytra (in the widest point).

The habitus photographs were obtained using Canon EOS 6D with Canon MP-E 65 mm macro lens with Helicon Focus auto montage and subsequently edited with Photoshop.

Terminology of the description mainly follows Krikken & Huijbregts (1987).

RESULTS

Termitodiellus minkinai sp. nov.

Type material. Holotype, male: "Coll.R.Isc.N.B. | Canopy mission P.N.G. | Madang province | Batteta 14-5-1996 | Light T 11 | leg. Olivier Missa" (RBINS).

Differential diagnosis. *Termitodiellus minkinai* new species can be easily distinguished from other *Termitodiellus* species by combination of following features: only discolateral costae of pronotum interrupted near middle; all furrows of pronotum smooth, except small areas near anterior margin; posterior lobe of pronotum very weak; intervals of elytra with two rows of small punctures in basal half only, elytral costae not interrupted. Because of relatively wide body, well developed caudal bulbs and relatively fine punctation of elytral intervals it seems to be most similar to *T. interruptus*. *T. interruptus* and *T. monticola* are known from Sulawesi. There is no other species with nearer area of distribution. According to it we can suppose that both species (newly described and *T. interruptus*) are probably closer related each other than with the rest of species. From *T. interruptus* (as well from the rest of known species) we can very easily distinguish it by all features mentioned in the beginning part of diagnosis.

Description. Small, dark brown, dorsal surface obviously carinated. Antennae and mouthparts light brown. Body length 3.7 mm.

Head (Figs 1-3) transverse, 1.3 times as wide as long, widest near middle. Clypeus anteriorly widely rounded, with rounded angles at sides, considerable lateral emargination and a further widely rounded angle separated by a small emargination from the distinctly protruding, rounded genae. Clypeocentral disc convex, ringed by moderate peridiscal impression, with a pair of parallel, elongate tubercles, bearing minute yellow setae; space between peridiscal impression and tubercles sparsely and gently punctate; posterior part of head behind clypeal tubercles with dense, large and strong punctation. Punctures bearing short, thick, yellow setae. Frons with four short but strongly elevated longitudinal costae (two frontodiscal and two frontolateral) of structure similar to costae on clypeal convexity; punctures of frons with setae similar to those on clypeus. Compound eyes not visible from above, anterior margin sinuated on each side.

Pronotum (Figs 1-3), transverse, 1.7 times as wide as long, widest near anterior angles, shiny, with six longitudinal costae, seven longitudinal furrows and two lateral lobes on each side. Anterior lobe large and wide, forms widest part of pronotum, posterior lobe very weak. Paramedian costae entire, slightly concave, strongly elevated in anterior third. Discolateral costae interrupted near middle, apical portion strongly elevated; submarginal costa sinuate, not interrupted, regularly elevated; costae with small punctures bearing short, thick setae. All furrows smooth, except few large punctures in anterior fourth; fourth furrows with deep rounded fovea near base of anterior pronotal lobe.

Elytra (Figs 1-2) widest just before middle. Each elytron with five narrow, longitudinal costae, all costae with double row of fine setae. Sutural costa weakly elevated, 2-4th costae strongly elevated; 3rd costae completely obliterate behind the middle of elytra. Postdiscal bulbs strong and



Figs. 1–2. Habitus of *Termitodiellus minkinai* sp. nov., Holotype: 1 – dorsal view, 2 – dorso lateral view. Scale bar = 1 mm.



rounded, apex covered with long setae. Intervals with two rows of small punctures along costae, obliterated in apical half. Caudal bulb with three protrusions, external protrusion small, internal and median protrusion much bigger, all protrusions covered with short setae. Scutellum weakly visible.

Hind wings well developed.

All legs sturdy. Profemora strongly expanded, widest near basal 1/3. Apex of protibiae with three teeth, the lateral one larger than other two. Mesofemora expanded, ventral surface with irregular row of long setae at basal half; apex of mesotibia with a large, flattened, inwardly hooked apical spine (Fig. 4). Metafemora slender than mesofemora, metatibia expanded and with a small tooth at apex. Dorsal surface of all femora

Figs. 3–5. Diagnostic features of *Termitodiellus minkinai* sp. nov.: 3 – head and pronotum, frontal view, 4 – middle leg, ventral view; 5 – aedeagus, dorsal and lateral view. Scale bar = 1 mm

and tibiae more or less uniformly covered with small punctuations and short setae. Tarsi densely covered by long setae.

Aedeagus (Fig. 5), stout, strongly curved at lateral view, phallobase wide, longer than parameres.

Female unknown.

Distribution. Known only from type locality in Papua New Guinea.

Biology. Specimen collected by light trap.

Etymology. Named after Polish scarab-beetle specialist and our friend Łukasz Minkina.

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