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(Coleoptera: Cicindelidae) from Mindanao, Philippines

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*Thopeutica petertaylori*, a new tiger beetle species (Coleoptera: Cicindelidae) from Mindanao, Philippines

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**Abstract.** *Thopeutica (Thopeutica) petertaylori* Medina, Cabras and Wiesner (Coleoptera: Cicindelidae), **new species**, is described from the Cagan river, New Bataan, Mindanao. It is characterized by the metallic ground colour of the elytra, prominent middle tooth in the labrum, and bottle-shaped aedeagus with apical hook.

**Key words.** Cicindelini, diagnosis, *Thopeutica*, *petertaylori*, new species.

## Introduction

Tiger beetles (Cicindelidae) in the Philippines remain highly unknown, especially in less explored islands such as Mindanao (Cassola and Ward 2004). Among the noteworthy taxa that have received little attention is the genus *Thopeutica*. This genus refers to the “small and medium” sized tiger beetles with glossy head and pronotum, matt elytra with metallic luster, body which is mostly glabrous but densely setose for some species and which exhibits sexual dimorphism in elytral apices” (Kibby 1985; Cassola and Ward 2004). *Thopeutica* species are endemic to Philippines and Sulawesi and are represented in the Philippines by two subgenera, *Thopeutica* s. str. and *Philippiniella* Cassola and Ward, 2004. *Thopeutica* s. str. is currently represented by 25 species and *Philippiniella* by four species in the Philippines (Cabras et al. 2016). In Mindanao, *Thopeutica* is represented by seven species (Wiesner 2015; Cabras et al. 2016). Species of *Thopeutica* that have been recently described from Mindanao include *Thopeutica rolandmuelleri* Cassola, 2000 and *Thopeutica anichtchenkoi* Wiesner, 2015. During one of our expeditions in New Bataan, Compostela Valley Province, a species of *Thopeutica* new to science was discovered. In this paper, the new species is described and illustrated.

## Materials and Methods

The specimens were collected primarily through light trapping during night time and opportunistic sampling during daytime. Specimens were collected into vials of ethyl acetate. Morphological characters were observed under Luxeo 4D and Nikon SMZ745T stereomicroscopes. Measurements mentioned in the paper include length of body without labrum. The aedeagus was extracted and cleared using KOH.

Specimens mentioned here are deposited in the following collections:

JWGC Jürgen Wiesner Collection, Wolfsburg, Germany.

UMCRC University of Mindanao, Coleoptera Research Center, Davao City, Philippines.

## Results

### *Thopeutica (Thopeutica) petertaylori* Medina, Cabras and Wiesner, new species

(Fig. 1)

**Type depository.** Holotype ♂ in UMCRC, 7 paratype ♂ and 5 paratype ♀ in UMCRC, 1 paratype ♂ and 2 paratype ♀ in JWGC.

**Type status.** Holotype ♂: Philippines, Mindanao, / Compostela Valley, / New Bataan, Cagan, / x.2012, M. Medina leg.", "HOLOTYPE / *Thopeutica (Thopeutica) / petertaylori* n. sp. /ded. Medina, Cabras & Wiesner 2019 [printed, red]".

**Paratypes.** 7 ♂ and 5 ♀ with same label data in UMCRC and "PARATYPE / *Thopeutica (Thopeutica) / petertaylori* n. sp. /ded. Medina, Cabras & Wiesner 2019 [printed, red]". One ♂ and 2 ♀ with the following label data: "Philippines, Mindanao, / Compostela Valley, / New Bataan, Cagan, / x.2012, M. Medina leg.", "PARATYPE / *Thopeutica (Thopeutica) / petertaylori* n. sp. /ded. Medina, Cabras & Wiesner 2019 [printed, red]".

**Distribution.** Philippines (Mindanao: Compostela Valley province).

**Etymology.** The new species is dedicated to Dr. Peter Charles Taylor, an adjunct professor of Murdoch University Western Australia, and the chair of the International Transformative Education & Research Network (ITERN) whose advocacies include empowering citizens towards global biodiversity conservation.

**Diagnosis.** *Thopeutica (Thopeutica) petertaylori* is a member of stem 5 of the stenodera-group (Cassola and Ward 2004: 10) and quite similar to *T. anichtchenkoi* Wiesner, 2015. From the latter it differs by the massive tip of the aedeagus, the absence of the mirror-spot on the elytra of the females and the severely reduced sutural spine of the female elytra.

**Description.** *Size:* Total length (without labrum) 9.0–11.0 mm, (mean = 10.25 mm, n = 12). *Head:* fully metallic, with two orbital setae, white, gold above, greenish on clypeus, bluish green genae; vertex distinctly depressed between compound eyes, without anterior pits, surface generally covered with wavy striae. Labrum (male Fig. 2, female Fig. 3) metallic green, brownish at the front, with 8 setae, 3.5 times wider than long, tridentate, center tooth protruding, 2.5 times longer than the side teeth. Mandibles testaceous at base, white colored at lateral side from base until half of the tenebra, teeth dark brown, without green metallic reflections. Labial palpi segments one and two white, third testaceous, labial terminal segment fully dark. Antennae slender, extending back to the middle dot of the elytra in males, shorter in females; scape and first to third antennomeres metallic green, glabrous, a single seta near the tip; fourth to eleventh dark brown to nearly black, finely pubescent. *Thorax:* Pronotum glabrous, as long as wide, slightly globose at the side, constricted in front and back; metallic green abaxial surface, adaxial greenish at the side, black at the center, dark coppery near constrictions. Sterna and episterna glabrous, coppery and dark green. *Elytra:* (male Fig. 4, female Fig. 5) Almost as wide as eyes and head together, parallel-sided, slightly enlarge in the middle, roundish metallic coppery punctures throughout, color coppery black, with metallic greenish reflections at the margin. Elytral marking consists of six dots: a roundish humeral, subhumeral, medial, subapical, and triangular middle dot. Elytral apex with microsementation and prominent sutural spine, restricted in the females. *Ventral aspect:* Abdomen metallic bluish-green, sterna and mesepisterna highly pubescent at the side, diminishing towards the center. Trochanters brown, glabrous. *Legs:* Femur dark to metallic green, tibia, tarsus, unguiculus dark brown with rows of spiniform setae. *Aedeagus:* (Fig. 6) 3.5 mm long, inflated after base, bottle-shaped tapering towards the apex, tip elongated and forming a prominent hook.

**Habitat.** The type specimens were collected using light trapping method installed near the river in Barangay Cagan, New Bataan, Compostela Valley [7° 25' 28.23" N; 126° 09' 30.00" E] 1200 m asl. The habitat is open area with direct sunlight with relatively high moisture due to its elevation (Fig. 7 and 8).

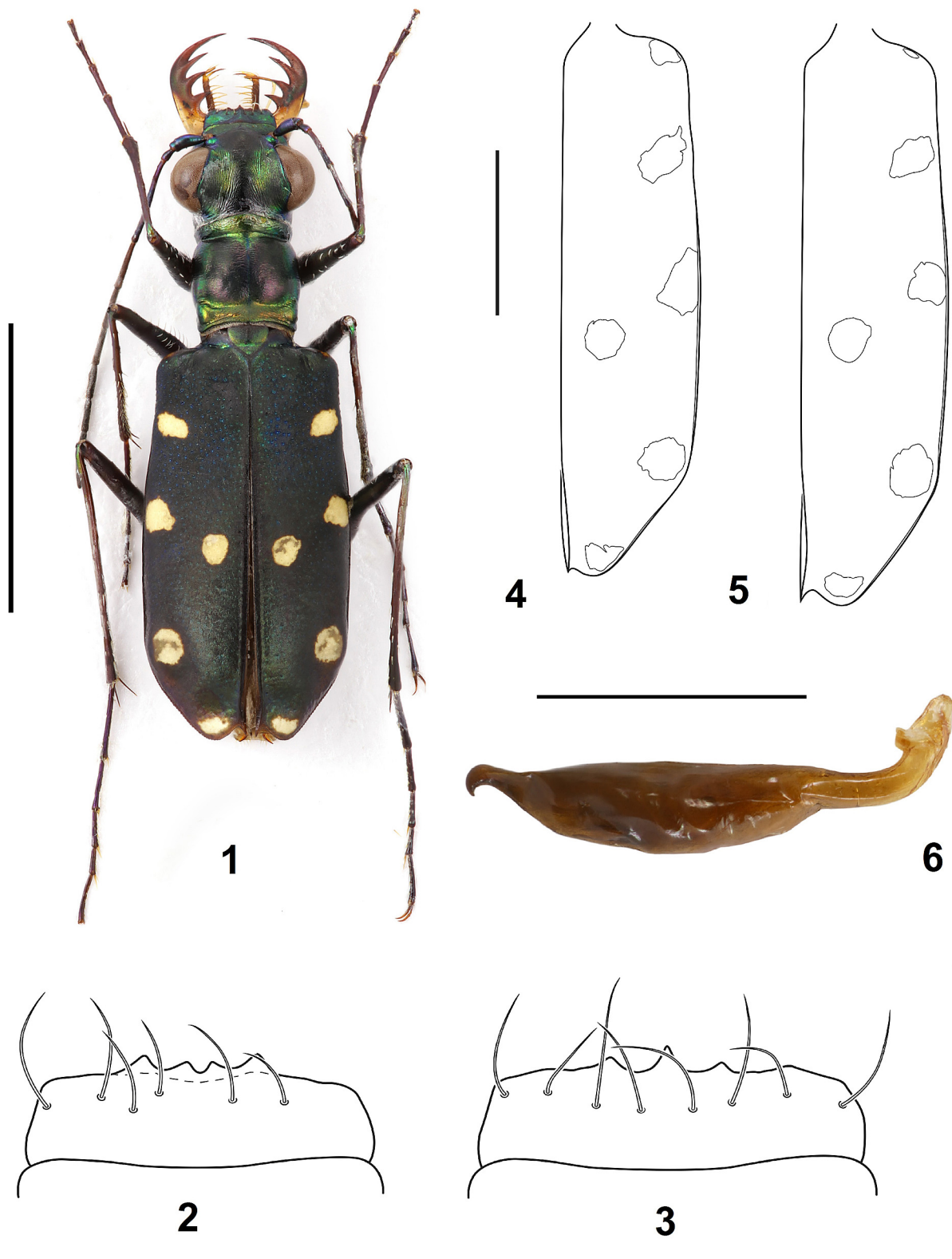
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Figures 1–6. *Thopeutica (Thopeutica) petertaylori*, new species. 1) Habitus, paratype female, scale = 5 mm. 2–3) Labrum, scale = 1 mm. 2) Paratype male. 3) Paratype female. 4–5) Right elytron, scale = 5 mm. 4) Paratype male. 5) Paratype female. 6) Left lateral view of aedeagus, paratype, scale = 2 mm.





Figures 7–8. Habitat of *Thopeutica* (*Thopeutica*) *petertaylori*, new species.

