https://doi.org/10.59893/bjc.24(2).015
Baltic J. Coleopterol. 24(2) 2024
ISSN 1407 – 8619

Description of a new species of *Tsounkranaglenea* Lin & Ge, 2021 (Coleoptera: Lamiinae: Saperdini) from Davao de Oro, Mindanao, Philippines

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Medina M.N., Barševskis A. 2024. Description of a new species of *Tsounkranaglenea* Lin & Ge, 2021 (Coleoptera: Lamiinae: Saperdini) from Davao de Oro, Mindanao, Philippines. *Baltic J. Coleopterol., 24(2): 267–272.*

This paper presents *Tsounkranaglenea cabrasae* sp. nov., a new species of Saperdini from Mt. Candalaga Range in Maragusan, Davao de Oro Philippines. The new species has a peculiar short, recurved rake-like sternite VII and a unique form of aedeagus making the species distinct from its congeners. High-definition images of species habitus, male terminalia, and genitalia are also provided.

Key words: Asia, Beetles, Lamiinae, Mindanao, New Species, Philippines.

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INTRODUCTION

The genus *Tsounkranaglenea* Lin & Ge, 2021 is a peculiar type of Saperdini that greatly resembles *Glenea* Thomson, 1825. It is distinct from *Glenea* for having a strange rake-like structure in its abdominal segments, particularly in sternite VII as in the case of *T. hefferni* Lin & Ge, 2021 (Lin & Ge, 2021). There are two species known under this genus, since *T. fissicauda* (Aurivillius, 1926) was transferred by Vives to this genus from the genus *Glenea* (Vives, 2023). The genus is distributed so far in Southeast Asia, particularly in Borneo (*T. hefferni*) and the Philippines (*T. fissicauda*), specifically in the Visayas, Negros, Samar, and Mindanao (Medina et al., 2021).

The Coleoptera Research Team of Davao Oriental State University in collaboration with the coleopterists from Daugavpils University Latvia conducted an expedition in Mt. Candalaga Range in Maragusan, Davao de Oro. The team found this mountain range of special interest since it is considered

one of the last havens of biodiversity in Mindanao and only very few studies have been conducted in this range. Although, there have been a few long-horned beetle species discoveries from this mountain range over the past two years (Medina et al., 2023; Medina et al., 2024a, b). Several specimens were collected from the expedition including several species from the tribe Saperdini, including the species described herein. With the addition of this new species, the genus *Tsounkranaglenea* now has three species, two from the Philippines and one in Borneo. High-definition images of species habitus and male terminalia are provided.

MATERIALS AND METHODS

The specimen was collected through the beating sheet method at an elevation of 1500 masl, killed using ethyl acetate, and brought to the Invertebrate Research Laboratory of Davao Oriental State University for examination. Morphological characters were observed under Leica MZ 12.5 stereomicroscope. Habitus images were taken using Canon EOS 6D digital camera equipped with an MP-E 65mm macro lens mounted in StackShot macro rail automated with Helicon Remote version 4.3.0.w. All images were stacked using Helicon Focus version 8.1.1 and processed using licensed Photoshop CS6 Portable software.

Measurements of the various body parts as follows: LB = length of body from antennal support to apices elytra; WH = maximum width across head from the outer margin of a gena to that of another; LG = length of gena from upper margin to lower margin; LL = length of lower eye lobe from upper margin to lower margin; WL = maximum width across lower eye lobe; LP = length of pronotum from base to apex along midline; WP = maximum width across pronotum; LE = length of elytra from level of basal margins to apices of clothed elytra; WE = width of elytra (widest section); WEH = width of elytra at humeri; / separates different lines on a label; // separates different labels. All measurements are given in millimeters (mm).

Comparative materials and specimens used in this study are deposited in the following collections:
MMCP Milton Medina Collections, Tagum City, Philippines.
PNM Philippine National Museum, Ermita, Manila, Philippines.

TAXONOMY

***Tsounkranaglenea cabrasae* sp. nov.**
Fig. 1.

HOLOTYPE, male: PHILIPPINES – Mindanao, Davao de Oro / Maragusan / Brgy. New Albay / 7-9.vi.2024 / 1800 masl. M.N.Medina, leg. / printed on red card. The holotype is currently at MMCP and will be deposited at the PNM. No paratypes.

Description. Dimensions: Holotype female: LB: 22.0 mm. WH: 3.5 mm. LL: 1.0 mm. WL: 0.7 mm. LP: 3.4 mm. WP: 3.5 mm. LE: 9.0 mm. WE: 4.5 mm. WEH: 4.5 mm.

Adult male (Fig. 1). Small-sized, body length 12 mm. Dorsal view, prothorax wider than head. Eyes matte black, deeply emarginate, not divided, lower eye lobe slightly longer than wide. Mandible very short, shorter than palpi, convex at base. Labrum matte light brown, with few long soft golden setae. Clypeus lustrous, light goldish brown, arc-shaped, base lined with short whitish setae. Vertex and frons with deep punctures arranged at random. Antennae longer than body, dark brown, densely covered with very fine recumbent pubescence, underside of scape, pedicle, and antennomeres III-VI lined with semi-erect setae. Scape reaching basal third of

pronotum, pedicle short bell-shaped, antennomere III longer than scape and IV, IV and V subequal, VI slightly recurve, VII-VIII subequal, VII longer than IX, IX- XI subequal.

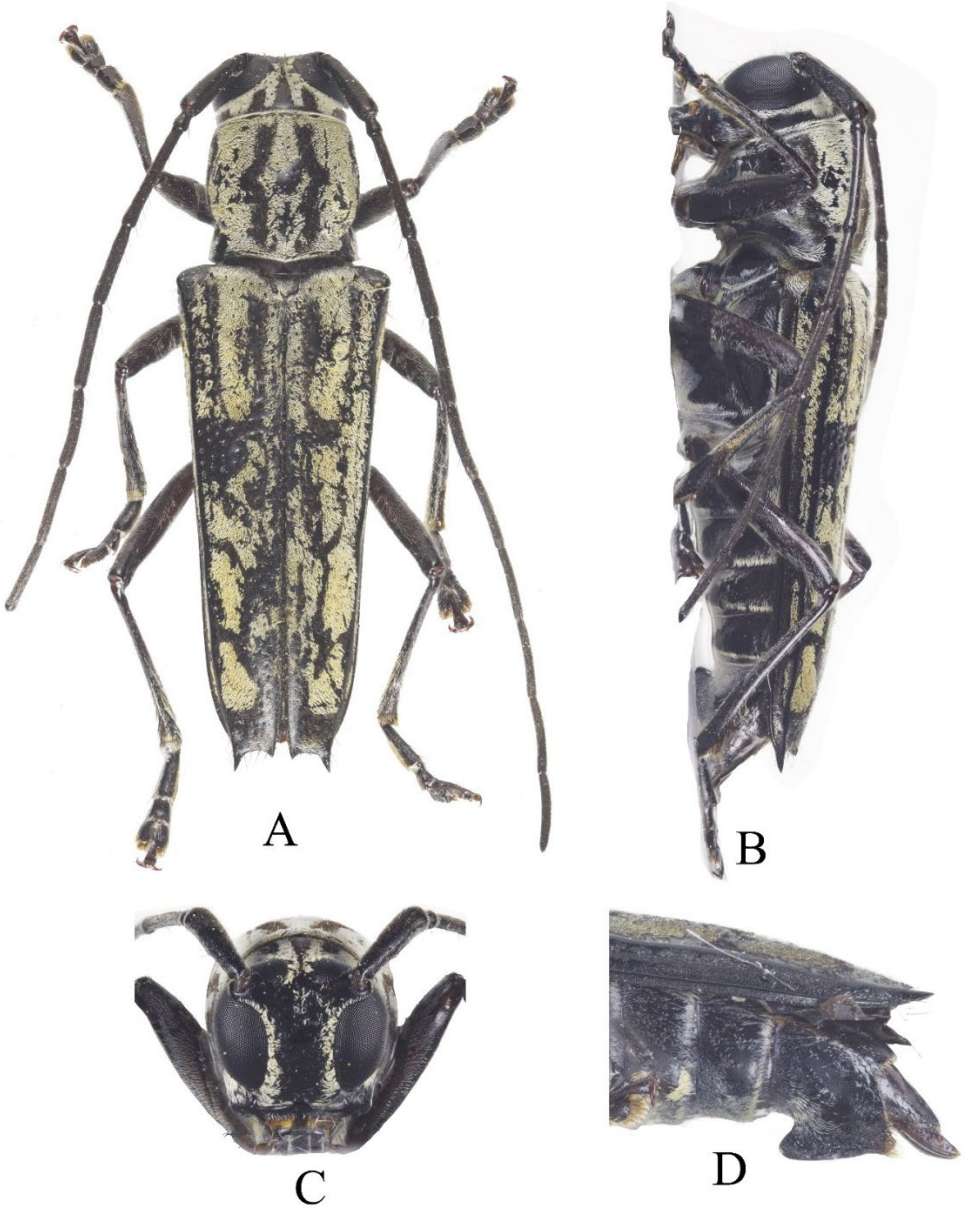

Figure 1. Habitus of *Tsounkranaglenea cabrasae* sp. nov: A. Dorsal aspect, B. Lateral aspect, C. Frons, D. Lateral aspect showing the abdominal portion with rake-like structure.

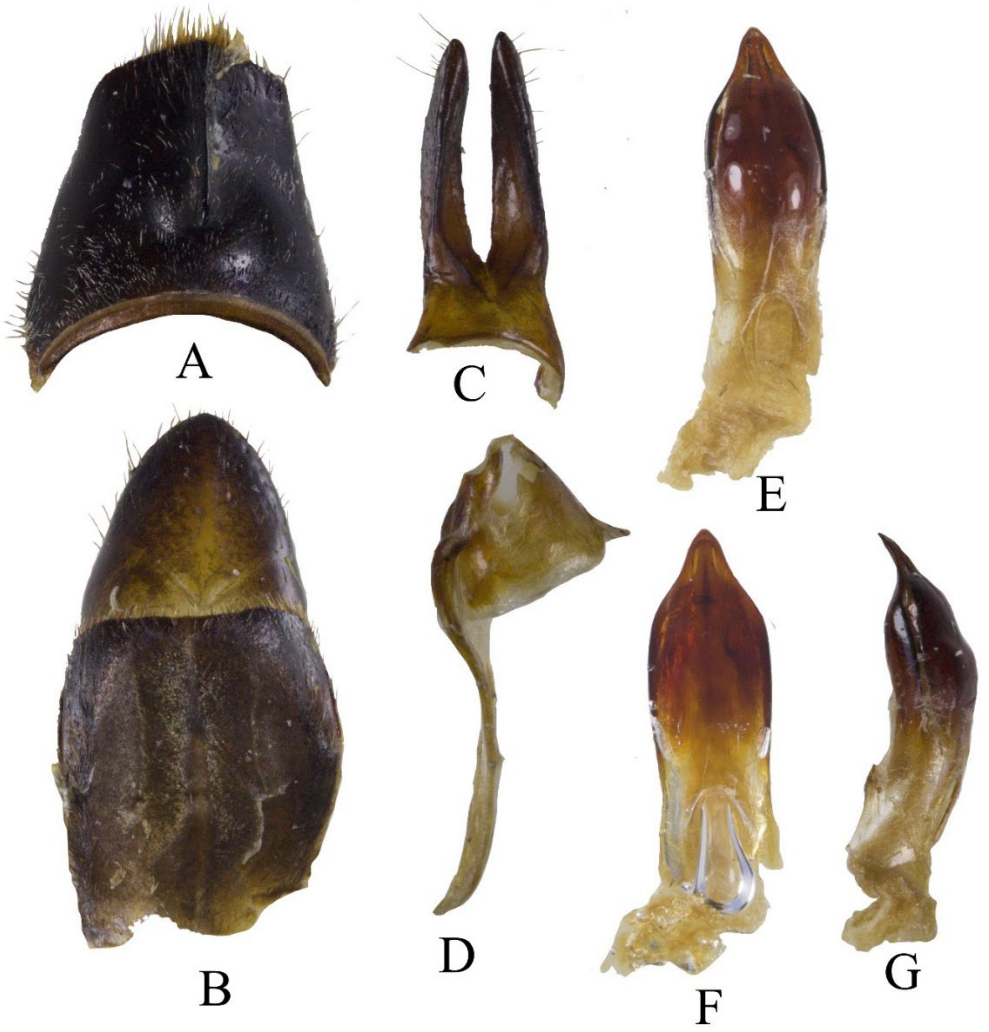

Figure 2. *Tsounkranaglenea cabrasae* sp. nov: A. sternite II, B. tergite VI and VII, C. parameres, D. part of tegmen, lateral aspect, E-F: Aedeagus: E. Dorsal view, F. ventral view, G. lateral view.

Prothorax cylindrical, without lateral tubercles, sinuate near the base, slightly bulging at pronotal disc. Pronotum densely covered with yellowish recumbent pubescence, with deep puncturation scattered at disc.

Elytra matte black, densely covered with deep puncturation from base to middle, diminishing towards apex. Apex truncate slightly concave with highly pointed sutural and marginal tooth. Humeri strictly angled, slightly raised. Lateral side with two distinct lateral carinae from humeral angle towards marginal apical tooth. Suture not raised. Elytra with very shallow depressions covered with thick band of yellowish pubescence arranged as follows: at basal third, three very shallow depressions after the middle (Fig. 1).

Procoxal cavity closed posteriorly, mesocoxal cavity open towards mesepimeron, metanepisternum triangular when viewed laterally. Metasternum and abdominal segments I-V densely covered with black and yellowish recumbent pubescence. Central disc of metasternum concave with longitudinal ridge.

Femora lustrous, dark brown, covered with whitish recumbent pubescence. Protibia expanded at anterior end. Hind tibia longer than protibia. Metatibia slenderer and longer than hind tibia. Protarsi and hindtarsi subequal, metatarsi longer than protarsi and metatarsi. Claws simple.

Male terminalia. The middle of sternite VII has short rake-shaped curvature extending two-thirds of the segment. Tergite VII slender, subequal to VI (about 1.0 mm). Parameres distinctly open, slightly recurved at middle, apex lined with soft erect yellowish setae, twice shorter than aedeagus (Fig. 2, C). Tegmen slender, twice as long as parameres, slightly recurved laterally. Aedeagus about 2.0 mm long, slightly recurved when viewed laterally (Fig. 2, G), robust at base, apex acuminate (Fig. 2, E-F). Endophallus broad, subequal in length with aedeagus (Fig. 2, E-G).

Adult female. Unknown.

Etymology. The new species is named in honor of our dearest colleague Dr. Analyn Cabras, a remarkable Philippine weevil worker, who has been instrumental in advancing Philippine coleopterology.

Differential diagnosis. *Tsounkranaglenea cabrasae* sp. nov. is distinct from other *Tsounkranaglenea* species based on the following: *T. cabrasae* sp. nov. has sternite VII with a unique short, recurved rake-like structure (vs. elongated rake-like structure in *T. hefferni*). The rake-like structure of *T. fissicauda* is also short but not recurved. Elytral maculations are distinct between the three species: *T. cabrasae* sp. nov. having elytra densely covered with yellowish pubescence vs. *T. hefferni* and *T. fissicauda* devoid of large patches of pubescence. Elytra of *T. cabrasae* sp. nov. with shallow depressions covered with fine yellowish pubescence (vs. absent in *T. hefferni* and *T. fissicauda*). Pronotum of *T. cabrasae* sp. nov. densely covered with yellowish pubescence (vs. *T. hefferni* devoid of pronotal markings, vs. *T. fissicauda* with three distinct band, one at middle and two each lateral sides). markings between the three species are distinct. The aedeagus structure of *T. cabrasae* sp. nov. is distinct having acuminate apex (vs. semi acute to acute in *T. hefferni*).

Distribution. Philippines: Mindanao (Davao de Oro: Mt. Candalaga, Maragusan, Davao de Oro).

ACKNOWLEDGMENT

This study is funded in part by the Davao Oriental State University Center for Futures Thinking and Regenerative Development (DORSU-CFTRD) and the author's funds. To Jhonnel Villegas and Analyn Cabras for their help in securing the DORSU-CFTRD fund. Our gratitude to our local guides and colleagues during the expedition: Dexter Patalita, Jessa Patalita, Eleuterio Avergonzado, Jenelyn Japitan, Nestor “Tatay Bobong” Badilla, John Mark Badilla, Jovil Mamparo, Rinato Concepcion, Neshan Badilla, Erick Pescadero.

This paper is dedicated to our dearest colleague Dr. Analyn Cabras, for all the memories we shared. She will forever be remembered.

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Received: 12.12.2024.
Accepted: 19.12.2024.