

# A new species of *Therates* LATREILLE, 1817 (Coleoptera: Cicindelidae), and new records of further tiger beetle species from Vietnam

Jürgen WIESNER

## Abstract

*Therates caobangensis* sp.n. is described. It is distinguished from the other members of the *T. chennelli* group by the colour of its ventral side, the extended distal two antennomeres in males, shape of elytral maculation, and shape of aedeagus. In addition, five first time records of tiger beetle species are given for Vietnamese provinces.

**Key words.** *Therates caobangensis*, new species, diagnosis, key, Vietnam, first records.

## Zusammenfassung

*Therates caobangensis* sp.n. wird als neue Art beschrieben. Sie unterscheidet sich von den anderen Mitgliedern der *T. chennelli*-Gruppe durch die Farbe der Unterseite, die erweiterten zwei distalen Fühlerglieder des Männchens, die Form der Flügeldeckenzeichnung und die Form des Aedeagus. Weiters werden fünf Erstnachweise von Sandlaufkäferarten für vietnamesische Provinzen vorgelegt.

## Introduction

The author received an identification consignment from the Natural History Museum Vienna (NHMW) that contained specimens from the expeditions of Adam Brunke and Harald Schillhammer to Vietnam. My evaluation of these specimens resulted in recognition of a previously undescribed species from the *chennelli* group of *Therates* LATREILLE, 1817, which previously contained 53 species (WIESNER 2013: 4), and five first records for Vietnamese provinces.

## Material and methods

All measurements were made using a stereomicroscope Motic SMZ-171. Measurements of total body length were made from the front of the clypeus to apex of elytra. The label data of type specimens were collated using the following system: in order from pinhead to pinpoint, the label data were copied with label lines. Printed white labels and rectangular shape, however, were not explicitly noted. All remaining pertinent data were recorded within brackets.

## Taxonomy

### *Therates caobangensis* sp.n. (Figs 1–10)

**Type material.** Holotype (male, Natural History Museum Vienna), labelled: “VIETNAM: Cao Bang Prov. / Pia Ouac Nat. Park / summit road, guard post / ca. 1360 m // 22° 36' 13" N 105° 51' 24.5" E / 13.V.2019 / leg. Brunke & Schillhammer (24) // HOLOTYPE / *Therates / caobangensis* / design. Wiesner 2023 [printed, red]”. Paratypes: four females (three females Natural History Museum Vienna, one female in coll. J. Wiesner), with same locality label and “PARATYPE / *Therates / caobangensis* / design. Wiesner 2023 [printed, red]”.

**Diagnosis.** The new species is readily distinguished from other members of the *Therates chennelli* group by a combination of the following features: distal two antennomeres of male obviously extended at tip, labrum dark at outer margin, humeral lunule not diverging away from marginal suture; metaepisternum yellow.

**Description.** Size: Total length (without labrum) 7.5–8.2 mm, (mean = 8.0 mm; n = 5).

**Head:** Shiny black. Mandibles yellowish, teeth brownish marginally. Ratio of width of head to elytra = 1.2 on average. Labrum (male: Fig. 3; females: Figs 4, 5) as wide as long, ratio of width to length = 1.0 on average, blackish laterally and at base in some specimens, yellowish in the center, with five or six apical teeth and one pair of lateral teeth. Labial and maxillary palpi yellowish. Antennae extending posteriorly to elytral shoulders in male, somewhat shorter in females; scape with a single apical bristle; antennomeres 2 to 5 glabrous, antennomeres 6 to 11 finely and evenly pubescent; scape yellowish above, black on underside; in females antennomeres 2–11 black, in male antennomeres 2–4 and 10–11 black, 5–9 yellowish; antennomeres 10 and 11 of male obviously enlarged. Clypeus glabrous. Frons smooth, with a transverse furrow in the posterior part of the orbital plates.

**Thorax:** Pronotum shiny black; as long as wide, ratio of width to length = 1.0 on average; barely more constricted in front than at back, transverse furrows strong, middle line and lateral lines nearly obsolete. Elytra longer than wide, with basal and apical humps; distinctly punctate in front, shallower in the apical third, extinct near apex (Fig. 6); apex with angular lateral and sutural tooth, recurved between, somewhat transparent brownish. Shiny black; maculation composed of a short brownish humeral lunule not diverging away from marginal suture, a brownish basal dot, and a yellowish angular central dot that is acutely angled inwards toward the suture (Figs 7–9).

**Ventral aspect:** Venter yellowish or brownish; abdominal segments brownish black. Legs: femora yellowish or brownish; pro- and mesotarsus and pro- and mesotibia yellowish or brownish; metatibia bicoloured, basal third blackish, remainder yellowish; metatarsus yellowish; mesotibia and all tarsomeres darker distally.

**Aedeagus** (Fig. 10): dilated from base to middle, then straightly tapered towards apex, with broad, slightly angled tip; total length 1.7 mm.

**Distribution.** Vietnam (Cao Bang: Pia Ouac National Park).

**Etymology.** Named after Cao Bang, the province of the type locality for this species.

**Comparative notes.** At first sight, the new species resembles *Therates rugifer* HORN, 1902, from which it is distinguished by the pale metaepisternum, the shape of the aedeagus, and the black colouration of antennomeres 2 to 11 of the female. The new species is integrated into the identification key of members of the *T. chennelli* group given by WIESNER (2013: 5–9) as follows.

- 1 Metaepisternum yellow to reddish brown. .... 2
- Metaepisternum black. .... 7
- 2 Elytral maculation including the middle suture from base to apex. Body length 6.4 mm. Thailand. .... 51. *T. rogeri* PROBST & WIESNER, 1994
- Elytral maculation not as above. .... 3
- 3 Pronotum brownish. .... 4
- Pronotum black. .... 5
- 4 Apical two antennomeres of male obviously extended. Body length 6.2–7.4 mm. Vietnam. .... 50. *T. clavicornis* HORN, 1902
- Apical two antennomeres of male not extended. Body length 6.4–6.6 mm. Laos. .... 49. *T. ottomerkli* WIESNER, 1999
- 5 Central dot of elytron forming a narrow band. Body length 6.3–7.6 mm. India. .... 48. *T. dohertyi* HORN, 1905
- Central dot of elytron not as above. .... 6
- 6 Apical two antennomeres of male obviously extended. Body length 7.5–8.2 mm. Vietnam. .... *T. caobangensis* sp.n.
- Apical antennomeres of male not extended. .... 55
- ...
- 55 Distance between elytral apical hump and lateral tooth short. Aedeagus short, less prominent. Body length 5.8–7.5 mm. Laos. .... 28. *T. nagaii* SAWADA & WIESNER, 2000
- Distance between elytral apical hump and lateral tooth long; aedeagus long and prominent. Body length 6.5–7.4 mm. Myanmar. .... 44. *T. murzini* WIESNER, 1999

The new species is integrated into the identification key of members of the *T. chennelli* group given by WIESNER et al. (2017: 34, 35) as follows.

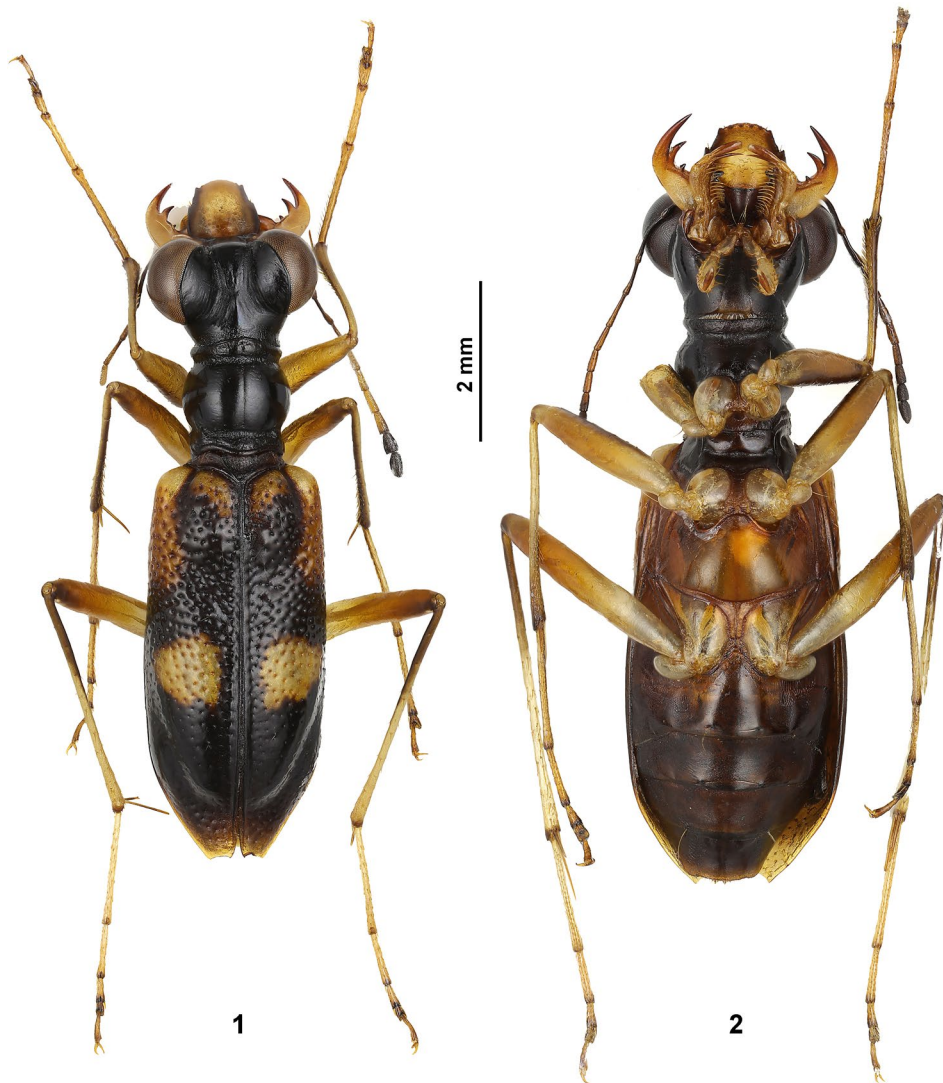
- 1 Metaepisternum yellow to reddish brown. Male with distal two antennomeres obviously extended. .... 17
- Ventral aspect partly to almost completely dark; metaepisternum black. .... 2
- ...
- 17 Labrum uniformly pale. Humeral lunule diverging away from marginal suture. .... 104. *T. clavicornis* HORN, 1902
- Labrum dark at outer margin; humeral lunule not diverging away from marginal suture. .... *T. caobangensis* sp.n.

### First records

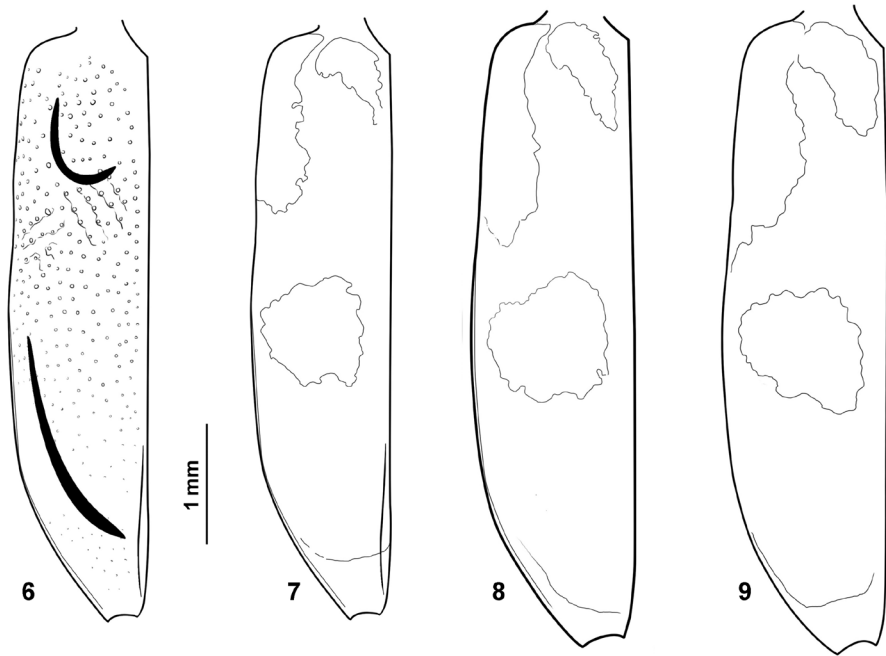
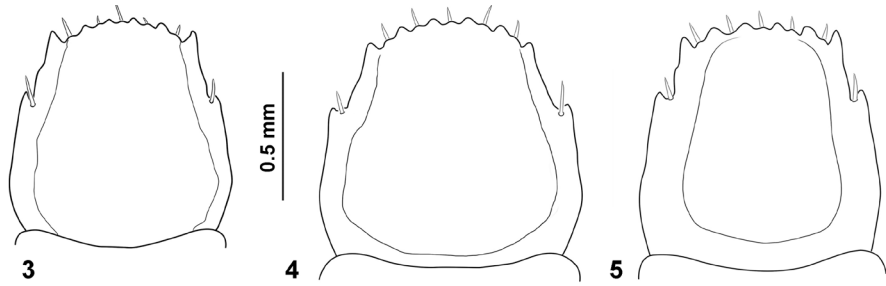
#### *Tricondyla (Tricondyla) mellyi* CHAUDOIR, 1850

**Material examined.** Vietnam: Bắc Kạn Prov., Ba Be National Park, ca. 220 m a. s. l., 22°24'42.5"N, 105°37'41.9"E, 19.–23.V.2019, leg. Brunke & Schillhammer (29), 1 female.

**Distribution.** Vietnam (Cao Bang, Dien Bien, Ha Noi City, Kon Tum, Lai Chau, Lang Son, Lam Dong, Lao Cai, Quang Nam, Thanh Hoa, Thua Thien-Hue, Vinh Phuc) (WIESNER et al. 2017: 7), China (Guangxi, Xizang, Yunnan) (WIESNER 2020: 38), Laos (Attapeu,



Figs 1–2. *Therates caobangensis* sp.n. (1) Habitus of holotype, male, dorsal view. (2) Habitus of paratype, female, ventral view.



Figs 3–10. *Therates caobangensis* sp.n. (3–5) Labrum of (3) male (holotype) and (4, 5) females. (6) Punctures of elytron (holotype). (7–9) Maculae of elytra of (7) male (holotype) and (8, 9) females (paratypes). (10) Left lateral view of aedeagus (holotype).

Borikhamxay, Champasak, Houaphanh, Khammuane, Luangnamtha, Luangprabang, Oudomxay, Phongsaly, Xiengkhuang, Vientiane) (WIESNER & GEISER 2016: 64), Thailand (Chiang Mai, Chiang Rai, Ubon Ratchathani) (NAVIAUX & PINRATANA 2004: 119), Myanmar (Kachin, Shan) (SAWADA & WIESNER 2000: 96). – First record for Bắc Kạn Province.

***Tricondyla (Tricondyla) gestroi scabra* FLEUTIAUX, 1920**

Material examined. Vietnam: Lai Châu Prov., WNW Sa Pa, Tam Ton Pass, near entrance building, 22°21'09"N, 103°46'28.6"E, ca. 1940 m a. s. l., 22.VI.2017; Vietnam expedition 2017, NMW, CNC, H. Schillhammer, R. Schuh, D. Zimmermann, A. Brunke, H. Douglas, 1 male, 1 female.

Distribution. Vietnam (Lao Cai) (WIESNER et al. 2017: 7), China (Xizang, Yunnan) (WIESNER 2020: 38), Laos (Houaphanh, Phongsaly, Xiengkhuang) (WIESNER & GEISER 2016: 63), Thailand (Chiang Mai, Nahkon Ratchasima) (NAVIAUX & PINRATANA 2004: 119). – First record for Lai Châu Province.

***Neocollyris (Isocollyris) resplendens* (HORN, 1902)**

Material examined. Vietnam: Cao Bằng Prov., Pia Ouac National Park, summit road, guard post, ca. 1360 m a. s. l.; 22°36'13"N, 105°51'24.5"E, 13.V.2019, leg. Brunke & Schillhammer, 1 male, 1 female.

Distribution. Vietnam (Lang Son, Thua Thien-Hue) (WIESNER et al. 2017: 12). – First record for Cao Bằng Province.

***Neocollyris (Pachycollyris) foveifrons* (HORN, 1901)**

Material examined. Vietnam: Cao Bằng Province, Pia Ouac National Park, summit road, guard post, ca. 1360 m a. s. l., 22°36'13"N, 105°51'24.5"E, 13.V.2019, leg. Brunke & Schillhammer, 1 male, 1 female.

Distribution. Vietnam (Lang Son) (WIESNER et al. 2017: 30), India (Assam, Meghalaya) (PEARSON et al. 2020: 75). – First record for Cao Bằng Province.

***Therates probsti* WIESNER, 1988**

Material examined. Vietnam: Cao Bằng Prov., Pia Ouac National Park, below Salmon Station, ca. 1270 m a. s. l., 22°35'43.2"N, 105°52'52"E, 12.–18.V.2019, pitfall traps, leg. Brunke & Schillhammer, 1 female.

Distribution. Vietnam (Bac Kan, Ha Noi City, Hoa Binh, Lao Cai, Son La, Phu Tho, Vinh Phuc) (WIESNER et al. 2017: 36), Laos (Attapeu, Houaphanh, Luangnamtha, Oudomxay, Phongsaly) (WIESNER & GEISER 2016: 85). – First record for Cao Bằng Province.

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Author's address: Jürgen Wiesner,  
Dresdener Ring 11,  
D-38444 Wolfsburg, Germany  
E-mail: [juergen.wiesner@wolfsburg.de](mailto:juergen.wiesner@wolfsburg.de)

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Autor(en)/Author(s): Wiesner Jürgen

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