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Micromentignatha geberti, a new tiger beetle species from Australia (Coleoptera: Cicindelidae)

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Abstract. *Micromentignatha geberti* (Coleoptera: Cicindelidae), **new species**, is described. It is distinguished from the other members of the genus by its larger body size and shape of elytral maculation.

Key words. Cicindelini, diagnosis, new species.

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Introduction

Due to the kindness of Christian Kerkering, I was able to study specimens of a tiger beetle species he recently acquired. It proved to be new to science and is described herein. It is a member of *Micromentignatha* Sumlin, 1981, which raises the number of species in this genus to four (Wiesner 2020: 327). A key to distinguish these congeners as well as a catalog of the genus are given herein.

Materials and Methods

All measurements were made using a stereomicroscope Motic SMZ 171. Measurements of total body length (TL) were made from the front of the clypeus to apex of elytra. The other measurements were taken at the point of maximal extension, e.g., largest length and width of head (WH), labrum (LL, LW), pronotum (PL, PW), elytron (EL, EW), and aedeagus (AL). The label data of type specimens were collated using the following system: in order from pinhead to pin's point, 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.

Specimens mentioned here are deposited in the following collections:

CKGC Christian Kerkering Collection, Emsdetten, Germany.

JWGC Jürgen Wiesner Collection, Wolfsburg, Germany, (long term loan from Zoologische Staatsammlung, München, Germany)

Results

***Micromentignatha geberti* Wiesner, new species**
(Fig. 1–6)

Type depository. Holotype male in JWGC, two paratype males in JWGC, ten in CKGC, three paratype females in JWGC, five in CKGC.

Type material. Holotype male, *type labels*: "Australia N. T. / Victoria River 195 / km SW Katherine / 29/12/98 Daccordi", "HOLOTYPE / *Micromentignatha* / *geberti* n. sp. / ded. Wiesner 2021 [printed, red]".

Paratypes: 12 males and 8 females each with same label, and "PARATYPE / / *Micromentignatha* / *geberti* n. sp. / ded. Wiesner 2021 [printed, red]".

Distribution. Australia, Northern Territory, 195 km SW Katherine.

Etymology. The new species is cordially dedicated to Jörg Gebert, a specialist in tiger beetles and a friend of mine.

Diagnosis. The new species is distinguished by the presence of a subhumeral dot, which is missing in the other *Micromentignatha* and by its larger body size.

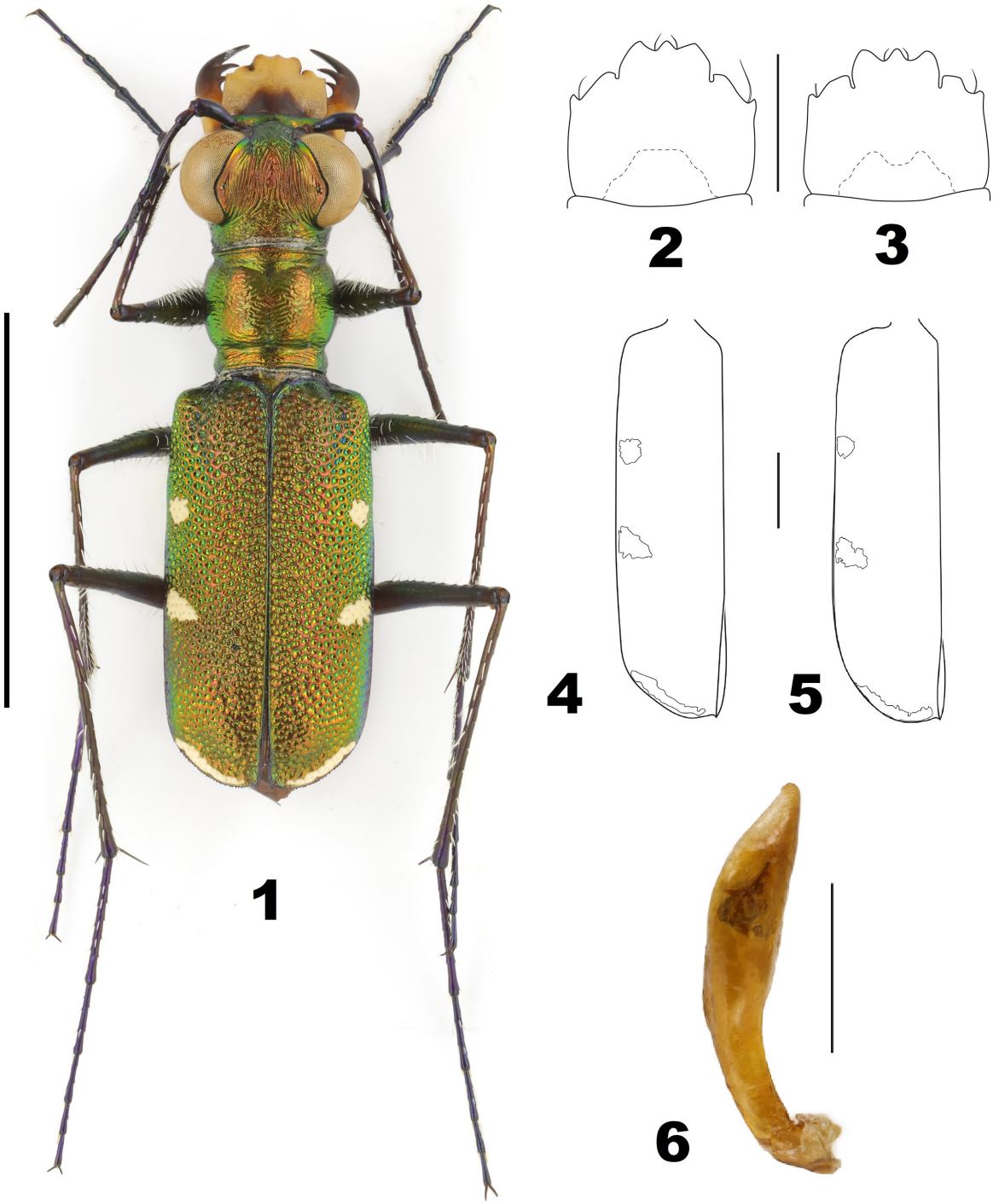
Description. *Size*: TL (without labrum) 7.7–9.1 mm (mean = 8.4 mm, *n* = 21). *Head*: Frons, clypeus, and genae metallic green; vertex and orbital plates metallic red or green coppery; surface of clypeus smooth, strong longitudinal striae on orbital plates, vertex irregularly transversely waved, genae roughly longitudinally striated; surface glabrous, with two setigerous punctures next to each eye in front and at center; width of head slightly smaller than width of elytra (mean EW/HW = 1.2). Labrum testaceous, narrow margin and base in variable extension dark brownish, slightly wider than long (mean LW/LL = 1.1); with four marginal setae; labrum 7-dentate, middle part with the three teeth extended, with different shaped notches (Fig. 2, 3). Mandibles dark brown, lighter at base. Labial and maxillary palpi light brown, last palpomere dark with metallic lustre, basal labial palpomere with long, erect white setae. Antennae slender, long, reaching posteriorly one-third of elytral length in males, somewhat shorter in females; antennomeres one to four blackish, with metallic luster; scape with one long apical seta, following three antennomeres almost glabrous; antennomeres five to eleven blackish, dull, finely, and evenly pubescent. *Thorax*: Pronotum slightly wider than long (mean PW/PL = 1.1), sides somewhat rounded between transverse constrictions; strong transversely waved, somewhat more constricted at base than at front; color metallic red or green coppery; proepisternum densely covered with white setae near coxa. Sterna and episterna metallic bluish black with coppery lustre; pro- and mesothoracic coxae with some white setae, several white setae on lateral margin of metathoracic coxae and on mesepimeron and metepisternum, otherwise glabrous. Mesepisternum of females with a shallow pit in posterior half. Elytra (Fig. 4, 5) nearly twice as long as wide (mean EL/EW = 1.8); parallel-sided, metallic red or green coppery. Surface with small deep pits throughout the surface; apical microserration fine; apical border distinctly rounded and slightly restricted towards suture, with a tiny sutural spine. Elytral testaceous maculation consists of a small subhumeral dot, a larger marginal center dot, and a small apical lunula, extending from outer corner sutural spine. Epipleura metallic blue violet. *Ventral aspect*: Abdominal segments black, one to five with green blue lustre, six brownish black; segments one to four covered with white setae marginally; trochanters light brown. femora, tibia, and tarsi black, with blue green lustre, covered with white setae. *Aedeagus*: (Fig. 6) slightly thickened in the middle and in front of the apex; apex extended to a short, rounded tip (AL = 2.2 mm).

Key to the members of the genus *Micromentignatha*

1.	Elytra with yellow subhumeral dot; body size > 7.5 mm	***M. geberti* Wiesner, new species**
—	Elytra missing subhumeral dot, size ≤ 7.5 mm	**2**
2(1).	Labrum with marginal teeth well developed and separated by deep, wide notches	**4**
—	Marginal teeth of labrum not well developed	**3**
3(2).	Legs testaceous	***M. leai demarzi* (Mandl, 1960)**
—	Legs pigmented	***M. leai leai* (Sloane, 1905)**
4(2)	Body size ≤ 5.5 mm	***M. minutissima* (Mandl, 1967)**
—	Body size >5.5 mm	***M. oblongicollis* (Macleay, 1888)**

Catalog of the genus *Micromentignatha*, other than *M. geberti*

A review of the previously published works on the species of the genus showed contradictions that need to be clarified in a future monograph on the genus. The status of the taxon *M. nigella*, currently a synonym of *M. leai*, needs further examination. Freitag (1979: 10) reported that the types of *M. leai* and *M. nigella* had been destroyed, but Mandl (1960: 279) referred to cotypical specimens of both taxa, which he had studied (probably from the German Entomological Institute, Müncheberg). From such material lectotypes could be selected and the status of *nigella* established. The status of the taxon *M. clarki*, currently a synonym of *M. oblongicollis*, must be clarified by comparison of the type material. Freitag (1979: 249) placed *M. clarki* as a synonym of *M. oblongicollis*, with the comment that the type resembles the form *tenuicollis* (described as a species by Macleay (1888)). Horn (1926: 194), Schilder (1953: 545) and Rivalier (1963: 36) list it as a distinct species.



Figures 1–6. *Micromentignatha geberti* new species. **1)** Habitus, holotype male. Scale = 5 mm. **2–3)** Labrum. Scale = 1 mm. **2)** Holotype male. **3)** Paratype female. **4–5)** Left elytron. Scale = 1 mm. **4)** Holotype male. **5)** Paratype female. **6)** Aedeagus, left lateral view, holotype. Scale = 1 mm.

Micromentignatha Sumlin, 1981

Cicindela (*Micromentignatha*) Sumlin 1981: 277. **Type species.** *Cicindela leai* Sloane, 1905
Cicindela (*Micromentignatha*): Moore, Weir and Pyke 1987: 42, 43.
Micromentignatha: Wiesner 1992: 225; Golding 2007: 17; Wiesner 2020: 327.

Micromentignatha leai leai (Sloane, 1905)

Cicindela leai Sloane 1905: 234 (Type locality. Cooktown).
= *Cicindela leai* var. (?) *nigella* Sloane 1906: 559, 560 (Type locality. Coën).
Cicindela leai: Horn 1915: 314; Horn 1926: 194; Horn 1938: plate 58, fig. 28; Freitag 1979: 20, 21, 22, fig. 5, 11, 17, 23, 26.
Cicindela (*Micromentignatha*) *leai*: Sumlin 1981: 277; Sumlin 1984: 193; Moore, Weir and Pyke 1987: 43.
Archidela leai: Schilder 1953: 545; Rivalier 1963: 35.
Micromentignatha leai leai: Wiesner 1992: 225; Golding 2007: 17, fig.; Wiesner 2020: 327.
Cicindela nigella: synonymy by Horn 1915: 314 (n-F); Horn 1926: 194; Freitag 1979: 20, 21, 22; Sumlin 1981: 278; Moore, Weir and Pyke 1987: 43; Wiesner 1992: 225; Wiesner 2020: 327.
Cicindela nigella: Mandl 1960: 279, 280.
Archidela leai nigella: Schilder 1953: 545.

Micromentignatha leai demarzi (Mandl, 1960)

Cicindela nigella Demarzi Mandl, 1960: 279, 280 (Type locality. Northern Territory: Beswick).
Cicindela leai demarzi: synonymy by Freitag 1979: 20, 21, 22.
Cicindela (*Micromentignatha*) *leai demarzi*: Sumlin 1981: 277, 278; Sumlin 1984: 193; Moore, Weir and Pyke 1987: 43; Kamoun and Hogenhout 1997: 9.
Micromentignatha leai demarzi: Wiesner 1992: 225; Wiesner 2020: 327.

Micromentignatha oblongicollis (Macleay, 1888)

Cicindela oblongicollis Macleay 1888: 445, 446 (Type locality. 100 miles inland from King's Sound).
= *Cicindela tenuicollis* Macleay 1888: 446 (Type locality. 100 miles inland from King's Sound).
= *Cicindela clarki* Sloane 1921: 330, 331, fig. 1, 2 (Type locality. North West Australia: Wyndhamm and Forest River).

Cicindela oblongicollis: Fleutiaux 1892: 120; Horn 1915: 314; Horn 1926: 195; Freitag 1979: 23, 24, 25, fig. 6, 12, 18, 24, 26.
Cicindela (*Micromentignatha*) *oblongicollis*: Sumlin 1981: 278; Sumlin 1984: 193; Moore, Weir and Pyke 1987: 43.
Archidela oblongicollis: Rivalier 1963: 35; Schilder 1953: 545.
Micromentignatha oblongicollis: Wiesner 1992: 225; Strunc 2020: 81; Wiesner 2020: 328.

Cicindela tenuicollis: Fleutiaux 1892: 120; Mandl 1960: 280, 281; Mandl 1967: 386.
Cicindela oblongicollis tenuicollis: Horn 1938: plate 59, fig. 1.
Archidela oblongicollis tenuicollis: Schilder 1953: 545.
Cicindela tenuicollis: synonymy by Horn 1915: 314 (rr-F); Horn 1926: 195; Freitag 1979: 23, 24, 25; Moore, Weir and Pyke 1987: 43; Wiesner 1992: 225; Wiesner 2020: 328.

Cicindela Clarki: Horn 1926: 194.
Archidela Clarki: Schilder 1953: 545; Rivalier 1963: 36.
Cicindela clarki: synonymy by Freitag 1979: 24; Moore, Weir and Pyke 1987: 43; Wiesner 1992: 225; Wiesner 2020: 328.
Micromentignatha oblongicollis syn. *tenuicincta* (Mandl, 1963): Wiesner 1992: 225; Wiesner 2020: 328; nomen nudum, per errorem.

Micromentignatha minutissima (Mandl, 1967)

Cicindela minutissima Mandl 1967: 386, 387 (Type locality. Northern Territory: Beswick).

Cicindela oblongicollis minutissima: synonymy by Freitag 1979: 24.
Cicindela oblongicollis syn. *minutissima*: Moore, Weir and Pyke 1987: 43; Wiesner 1992: 225.
Cicindela (*Micromentignatha*) *minutissima*: Kamoun and Hagenhout 1997: 10.
Micromentignatha minutissima: Golding 2007: 17, fig.; Wiesner 2020: 328.

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