

First Discovery of a Yellow Elytral Form of *Macrocrates australis* LUEDERWALDT (Coleoptera, Lucanidae, Lucaninae) from Brazil

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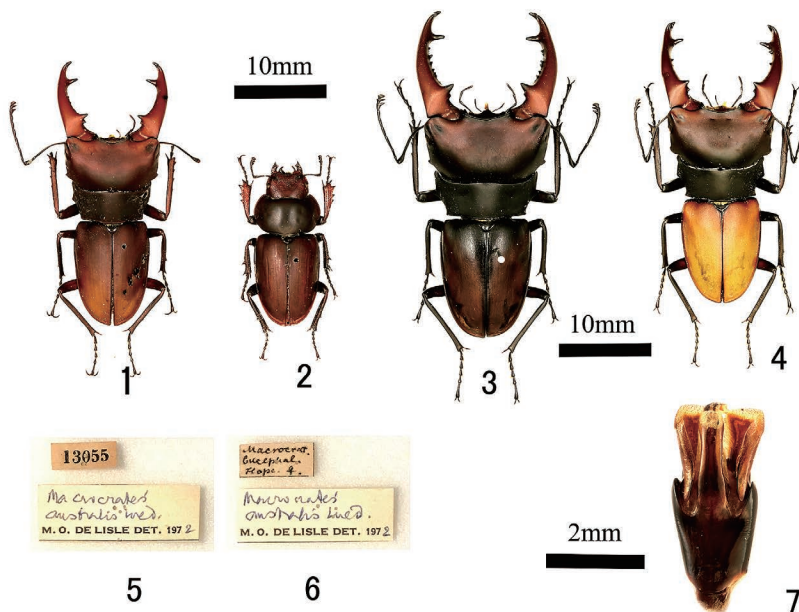
Color variation in elytra is known in the genus *Macrocrates* BRUMEISTER, 1847 (Lucanidae, Lucaninae). In *M. bucephalus* (HOPE et WESTWOOD, 1845) and *M. galantorum* FUJII, 2012, both of which have the dark elytra typically, the yellow forms of the elytra have been reported, respectively (FUJII & GROSSI, 2015; FUJII & KOIKE, 2015).

Macrocrates australis LUEDERWALDT, 1934 was described based on the specimens from Brazil, deposited in the Museu Paulista, Universidade de São Paulo, Brazil. Recently, we had opportunities to examine additional specimens of *M. australis* deposited in the following institutions: Museu Paulista, Universidade de São Paulo, Brazil (MPB); Museum für Naturkunde der Humboldt Universität zu Berlin, Germany (MNHU); Ricardo Mitsuhiro KOIKE Collection, Arujá, São Paulo, Brazil (RMKC). The specimens examined include two color variations of the elytra, a melanic form known in the original description and a yellow form newly found. In this paper, we record the additional specimens of *M. australis*, and first introduce its yellow elytral form.

Macrocrates australis LUEDERWALDT, 1934

(Figs. 1–7)

Macrocrates australis LUEDERWALDT, 1934: 388 (Joinville, Sta. Catharina [sic!]); 1935: 510, pl. 2, figs. 15, 19, pl. 4, fig. 68; BLACKWELDER, 1944: 196; DIDIER & SEGUY, 1953: 131; BENESH, 1955: 57; 1960: 54; WEINREICH, 1963: 200, 202, pl. 13,



Figs. 1–7. *Macrocrates australis* from Brazil. — 1–3, 5 & 6, Melanic elytral form; 4 & 7, yellow elytral form. — 1, 3–5, 7, Male; 2 & 6, female. — 1, 2, 5 & 6, Specimens preserved at MNHU; 3, male from Tijuca do sul, Paraná, Brazil; 4, male from Serra dos Perdidos, Paraná, Brazil. — 5 & 6, Labels; 7, male genitalia.

figs. 9, 10; MAES, 1992: 62; MIZUNUMA & NAGAI, 1994: 278, pl. 116, figs. 465-1, 465-2; KRAJCIK, 2001: 29; 2003: 111; FUJITA, 2010: 283, pl. 189, figs. 822-1, 822-2; FUJII, 2012: 246, figs. 11–16, 20, 21 & 25.

Macrocrates bucephalus DIDIER & SEGUY, 1952 (nec HOPE & WESTWOOD, 1845): pl. 94. figs. 1–6.

Type depositary. MPB: holotype ♂ (08883) and paratype ♀ (08884).

Distribution. South Brazil (Santa Catarina, Paraná).

Variation. Length: ♂ 21.4–36.5 mm (including mandible); ♀ 17.9–22.0 mm (including mandible). Width: ♂ 7.3–12.0 mm; ♀ 7.2–9.0 mm. Elytra typically melanic, but sometimes yellow.

Specimens examined. 1 ♂, Tijucas do sul, Paraná, Brazil, 18–20.III.2016 (RMKC; Fig. 3); 1 ♂, Serra dos Perdidos, Paraná, Brazil, alt. 1,300 m, III.2016 (RMKC; Figs. 3, 4 & 7); 1 ♂, 1 ♀, written on the label “*Macrocrates / australis* Lued. M. / O. DE LISLE DET. 1972” (MNHU; Figs. 1, 2, 5 & 6).

Notes. As a result of our study of *M. australis* specimens, a male specimen with yellow elytra was found from Paraná, Brazil (Fig. 4). The taxonomic identity of the specimen, which was collected from not exactly the same as but a neighboring locality to that of the melanic form, was confirmed by observation of the male genital structure (Fig. 7) showing no significant differences from that of the typical *M. australis* males (see FUJII, 2012 for detailed description of the male genitalia).

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