

## Four new Oriental and Australian species of *Clinteria* (Burmeister, 1842) (Coleoptera: Cetoniidae)

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### Taxonomy, new species, Coleoptera, Cetoniidae, Oriental and Australian regions

**Abstract.** *Clinteria fujiokai* sp. n., *Clinteria krajciki* sp. n. and *Clinteria viridiaurata* sp. n. from the island of Sumatra in the Great Sunda Islands and *Clinteria moae* sp. n. from the Moa Island in the Moluccas are described, illustrated and compared.

### INTRODUCTION

The distribution of *Clinteria* Burmeister, 1842 in Indonesia encompasses the Great Sunda Islands (Sumatra, Kalimantan, Java, Bali and numerous smaller islands) and the Lesser Sunda Islands east to the Moluccas. It ceases in the southern Moluccas, where the fauna is dominantly of the Australian type and contains only a limited number of Asian taxa (Antoine 1998, Jákl & Krajčik 2006, Krajčik 1998, Miksic 1977, Pavicevic 1984, 1987, Sakai & Nagai 1998). Four species of *Clinteria* have hitherto been described from Sumatra: *C. atra* ssp. *vidua* Snell, 1864, *C. cinctipennis* ssp. *hageni* Ritsema, 1864, *C. flavonotata* ssp. *widagdoi* Antoine, 1998 and *C. fraterna* Mikšić, 1977. After several trips to Sumatra and examinations of some private and institutional collections, I discovered three undescribed species of *Clinteria* from the island. Two of them, *C. krajciki* sp. n. and *C. viridiaurata* sp. n., belong to the *C. imperialis* group, whereas *C. fujiokai* sp. n. belongs to the *C. spilota* group. The fourth species, *C. moana* sp. n., inhabits the tiny Moa Island in the southwestern Moluccas. This species was mentioned by Kuntzen (1929), who failed to describe it or provide an indication. I retain his species name and present a description.

### MATERIAL AND METHODS

All specimen sizes are from the anterior margin of the clypeus to the apex of the elytra. Types are provided with red printed labels that give the name of the taxon, HOLOTYPUS or PARATYPUS, sex symbol and St. Jákl det. 2007. Genitalia of all available males were dissected. All specimens are deposited in the author's collection.

## DESCRIPTIONS

### *Clinteria krajciki* sp. n.

(Figs 1-6)

**Type material.** Holotype (♂) labelled: „Indonesia, West Sumatra, MT. TALANG, 1200-1600 m, SOLOK AREA, iii.2001, St. Jakl lgt.“. Paratypes: No. 1. (♀): the same data as holotype; No. 2. (♂): the same data as holotype but vii. 2004. Type material are deposited in the author's collection.

**Description.** Holotype length 22.5 mm, maximum humeral width 12 mm. The largest species in the group. Base colour violet, covered by purple to olive brown tomentum. Without any spots, bands or other patterns.

Frons covered with purplish to olive brown tomentum, widest at its midlength, lateral margins blackish, indistinctly bordered. Clypeus black, untomented, bilobed, elevated and punctured more finely than pronotum. Antenna black, club shorter than stalk.

Pronotum trapezoidal, narrowing sharply from base. Basal lobe narrowing rather abruptly, with end sharply pointed. Entire surface covered with purplish brown tomentum. Punctuation sparse, somewhat coarser than on frons. Anterior angles wrinkled. Lateral margins complete only at midlength. Basal part impunctate.

Elytra covered with purplish brown tomentum, areas lacking tomentum glabrous and shining. Disk rather flat, humeral calli indistinct. Each elytron bears 6-7 irregular, roughly parallel lines of small punctures. Suture flat, its apical termination rounded.

Pygidium flat, apically rounded, surface transversely wrinkled, covered with purplish brown tomentum.

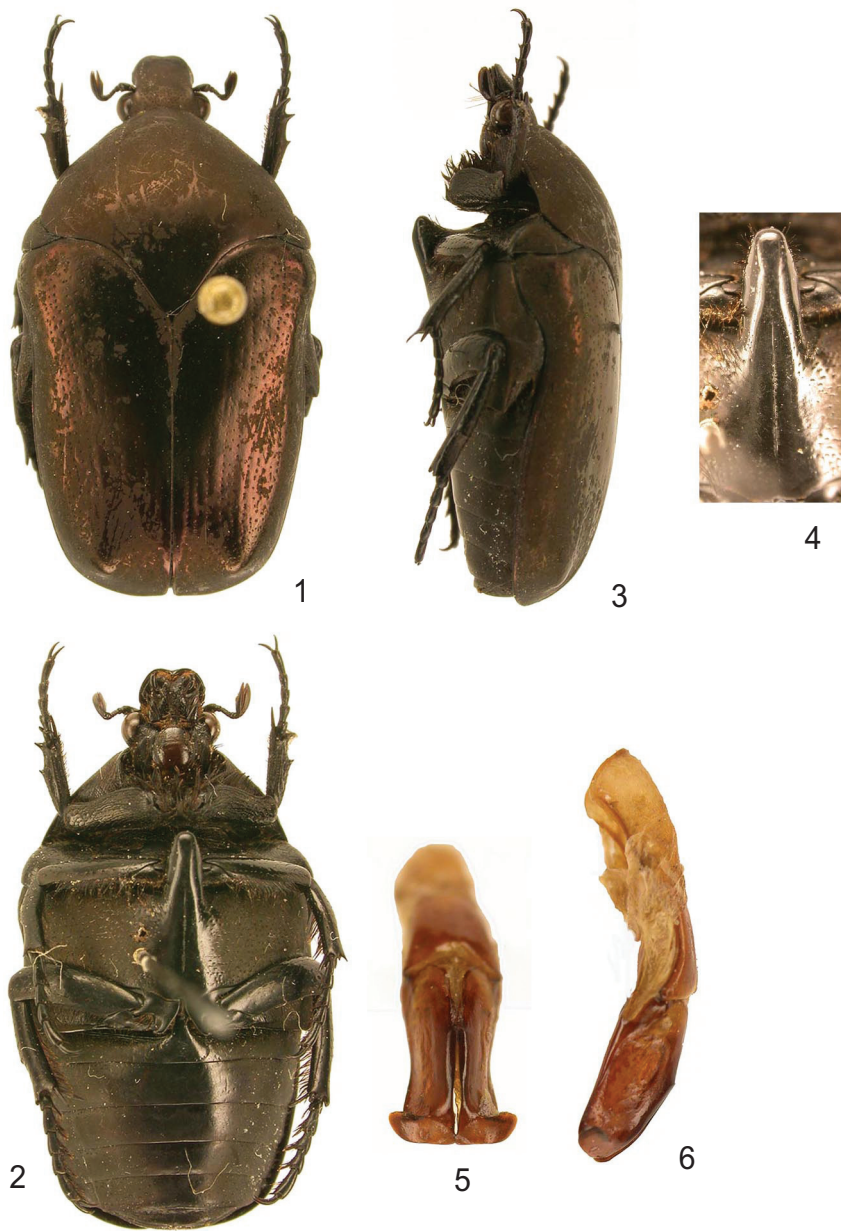
Abdomen black, shining, punctate, each segment covered with a wide semicircle of gray tomentum (except medially).

Metasternum black, shining, laterally covered with silky gray tomentum. Coarsely punctured, some punctures bear brownish setae. Distal part impunctate, shining. Mesometasternal process very robust, extending forward and downward, black, smooth, shining. Metepisternum and metepimeron with few punctures, covered with silky gray tomentum. Mesepimeron black, evenly and densely wrinkled, covered with fine pilosity. Prosternum black, shining, with numerous longitudinal furrows, covered with black hairs. Mentum black, coarsely punctured, covered with blackish hairs.

Legs black, metacoxa and mesocoxa with few coarse punctures and gray tomentum at the inner side. Procoxa without tomentum, very densely wrinkled. Setation of procoxa and mesocoxa very dense, metacoxa only with few setae. Protibia tridentate, with two longitudinal furrows; mesotibia and metatibia each with one transverse carina. Setae of protibia black, short, setation of mesotibia and metatibia very long and dense. Tarsi black, shining.

Parameres (Figs 5-6) resemble those of *C. imperialis* Paykull, 1817 but lamina exterior much wider and shape of apical hook and its angle with lamina interior also differ.

**Variation and sexual dimorphism.** Second male (paratype no. 2) differs only in size (21 mm) and humeral width (10.5 mm).



Figs 1-6. *Clinteria krajciki* sp. n.: 1- habitus dorsal aspect; 2- habitus ventral aspect; 3- habitus lateral aspect; 4- mesometasternal process; 5- aedeagus; 6- aedeagus lateral view.

Female: Length 21 mm, humeral width 10.5 mm. Clypeus indistinctly bilobed, slightly elevated. Protibia shorter and wider, its 3<sup>rd</sup> tooth large and sharp; 2<sup>nd</sup> tooth approximately half way between 1<sup>st</sup> and 3<sup>rd</sup> teeth (in males 2<sup>nd</sup> tooth about one-third closer to 1<sup>st</sup> tooth than to 3<sup>rd</sup> tooth). Abdomen with silky gray tomentum, which is reduced and present only at posterolateral part of each segment. Mesometasternal process not as robust and shorter than in male. Pygidium with apex more narrowly rounded. Punctuation of elytra very sparse, lines of punctures indistinct.

**Differential diagnosis.** *C. krajciki* sp. n. differs from other representatives of the *imperialis* group by absence of dorsal maculation, presence of silky gray tomentum on the venter, extremely pronounced mesometasternal process and shape of the parameres.

**Etymology.** Dedicated to my friend and Cetoniidae specialist, Milan Krajcik (Plzeň, Czech Republic).

**Distribution.** Sumatra, West Sumatra province, Mt. Talang.

***Clinteria viridiaurata* sp. n.**  
(Figs 7-12)

**Type material.** Holotype (♂) labelled: „Mt. Dempo, SUMATRA, v.2000“. Holotype deposited in the author's collection.

**Description.** Holotype length 22.5 mm, maximum humeral width 11.3 mm. Large and beautiful species. Elongately oval, metallic golden green, shining, covered with grassy green tomentum, without any maculation.

Head golden metallic, with green tomentum, widest across clypeus. Frons impunctate, clypeus with circular punctures more closely spaced near lateral and anterior margins. Sides of clypeus also punctate, its anterior margin slightly emarginate, not bordered, lacking tomentum, with purple reflections. Antenna blackish, scape brownish black, club shorter than stalk.

Pronotum trapezoidal, narrowing sharply from base, metallic golden green, covered with grassy green tomentum, almost impunctate except at anterior angles. Lateral margins complete at midlength. Basal lobe large and pointed.

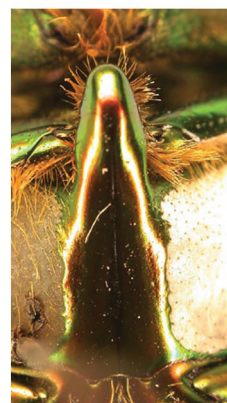
Elytra golden green, uniformly covered with grassy tomentum, very elongate, flat, humeral calli indistinct, 4-5 ill-defined lines of punctures present in distal half of each elytron. Suture flat, slightly elevated at four-fifths of its length, apically rounded.

Pygidium flat, covered with bronze green tomentum, laterally punctate.

Epimeron covered with bronze green tomentum.

Abdomen metallic green, shining, impunctate. Sternites 3-6 except for narrow median part covered with shining, silky tomentum. Sternite 1 untomented, sternite 2 entirely-tomented. Median groove not present.

Metasternum covered with identical silky tomentum except for median part which is



Figs 7-12. *Clinteria viridiaurata* sp. n.: 7- habitus dorsal aspect; 8- habitus ventral aspect; 9- habitus lateral aspect; 10- mesometasternal process; 11- aedeagus; 12- aedeagus lateral view.

metallic green. Mesometasternal process metallic green, glabrous, robust and pronounced forward and downward. Metepisternum also with silky tomentum.

Prosternum, mesepimeron and mentum green, shining, densely wrinkled. Long, yellowish-brown hairs present especially on prosternum and mentum. Metasternal hairs whitish.

Legs metallic green, metacoxa, mesocoxa and procoxa with strong golden-red reflections. Protibia tridentate, 3<sup>rd</sup> tooth smaller. Meso- and metatibia each with one transverse carina. Tarsi dark green, slightly shining.

Parameres (Figs 11-12) resemble those of *C. imperialis* (Paykull, 1817), but differ in shape of lamina exterior and apical hook of lamina interior rounded.

**Variation and sexual dimorphism.** Only holotype male is known.

**Differential diagnosis.** The only allied species is *C. krajciki* sp. n., from which *C. viridiaurata* sp. n. differs in dorsal and ventral coloration, tomentation of the venter, different shape of the parameres, and elytra more flat and elongated.

**Etymology.** Latin viridi-aurata = green-golden metallic, named after its coloration.

**Distribution.** SW Sumatra, Bengkulu province, Mt. Dempo.

***Clinteria fujiokai* sp. n.**  
(Figs 13-18)

**Type material.** Holotype (♂) labelled: „Aceh, SUMATRA, vii.1996“. Paratype: No.1. (♂), the same data as holotype. Type material deposited in the author's collection.

**Description:** Holotype length 13.5 mm, maximum humeral width 7.8 mm. Body small, oval-shaped, base color blackish brown, with abundant yellow-ochre tomentum.

Head black, shining, densely covered by large punctures. Clypeus bilobed, elevated. Yellow pilosity sparse on clypeus, longer and more dense on frons. Antenna brown, club shorter than stalk.

Pronotum covered by dark brown to black tomentum, laterally with three elongated yellow-ochre elongated spots along margins and not reaching base. Small yellow-ochre spot also present on basal lobe. Lateral margins complete except near base. Whitish hairs present mostly on distal part, near anterior, lateral and basal margins become sparse. Punctures simple, present chiefly on distal part and near basal lobe.

Each elytron bears 4 yellow-ochre spots, two (large median and small lateral) placed anteriorly between scutellum and lateral margin, one smallest in distal 4/5 of length adjacent to suture and one transversally extended between and below apical calli.

Pygidium blackish, transversely wrinkled, with 3 yellow spots, two near lateral margins and one medially at base. Yellow pilosity present especially near apex.

Venter black, shining, with few small tomentose spots near lateral margins.

Abdomen slightly impressed, with light brown pubescence. Sternite 2 with two small





13



15



16



14



17



18

Figs 13-18. *Clinteria fujiokai* sp. n.: 13- habitus dorsal aspect; 14- habitus ventral aspect; 15- habitus lateral aspect; 16- mesometasternal process; 17- aedeagus; 18- aedeagus lateral view.

spots of yellow tomentum between impression and base. Sternites 3-6 also with yellow tomentose spots near basal margins, spots smaller than those on 2<sup>nd</sup> sternite.

Prosternum black, shining, covered by brown hairs and decorated with 3 laterally situated yellow spots. Metasternum coarsely punctate; mesosternal plate with median furrow; mesometasternal process pointed, with round apex, extends slightly forward and downward.

Mentum brown, covered by long, soft hairs. Mesepimeron black, largely covered with yellow-ochre tomentum.

Legs brown to reddish brown, protibia tridentate, meso- and metatibiae each with one transverse carina and fine pilosity mainly at inner side. Tarsi reddish, long.

Parameres (Figs 17-18) resembling those of *C. atra* Viedeman, 1823, but shape of hook and formation of lamina exterior differ.

**Variation.** Paratype male differs slightly in position of yellow tomentose spots on abdominal sternites and lacks small spot on 3<sup>rd</sup> sternite.

**Sexual dimorphism.** Female unknown.

**Differential diagnosis.** *Clinteria fujiokai* sp. n. differs from other species in the region by the very strong tomentation of the pronotum, elytra and pygidium, the reddish colour of the legs and tarsi, the bilobed clypeus and the shape of the genitalia, in which it is closer to the *C. sexpustulata* group of the Lesser Sunda than to any species inhabiting Sumatra, Kalimantan and the Malay peninsula. The new species shares the most characters with *C. moerens* Gory-Perch, 1833 described from Java, as is apparent from the following comparison.

*Clinteria moerens* Gory-Perch, 1833

*Clinteria fujiokai* sp. n.

- |  |   |
|--|---|
| 1. Length 16.0-17.5 mm.  | 1. Length 12.0-13.0 mm.   |
| 2. Dorsum strongly shining.                                      | 2. Dorsum almost matt.  |
| 3. Dorsal tomentation orangish yellow.                           | 3. Dorsal tomentation yellow-ochre.   |
| 4. Distal rib of elytron developed, elevated.                    | 4. Distal rib of elytron indistinct.  |
| 5. Pronotum coarsely punctate.                                   | 5. Pronotum finely punctate.  |
| 6. Lamina exterior of same width along full length of parameres. | 6. Lamina exterior widened at midlength..                                     |
| 7. Apical hook of lamina interior short.                         | 7. Apical hook of lamina interior almost as long as width of lamina interior. |

**Etymology.** Patronymic, in honour of my friend and donor of the described species, Masayuki Fujioka of Tokyo, Japan.

**Distribution.** North Sumatra, Aceh province.



***Clinteria moae* sp. n.**

(Figs 19-24)

**Type material.** Holotype (♂) labelled: „Moa Is., Indonesia, iii.2003“. Paratypes: Nos. 1-3, (♀♀), labelled: „Indonesia, SW Mollucas, MOA ISLAND, cca. 100 km NEE of Timor, iii.2006, local collectors lgt.“; Nos. 4-5 (♀♀) labelled: „Timor, Moa Island“. Type material deposited in the author's collection.

**Description.** Holotype length 14.5 mm, maximum humeral width 8.0 mm. Oval, black, almost matt, with pattern of yellow tomentum.

Head black, punctate, slightly shining. Frons coarsely punctate, shining, bordered, widest at two-thirds of length. Clypeus bilobed, elevated, coarsely punctate.

Pronotum trapezoidal, black, evenly punctate. Punctures rather deep, small in diameter. Lateral margins complete. Basal lobe rather obtuse, almost impunctate. Four irregular spots of yellow tomentum form a band along lateral margin.

Elytra oval, black, slightly shining, with spots of yellow tomentum. Each elytron bears 3 spots: a larger longitudinal spot in centre of base; a smaller longitudinal spot in about two-thirds of elytron length near lateral margin; and a transverse spot at distal termination between sutural ridge and lateral margin. Striation irregular, developed between humeral and apical calli. Each elytron with 3 flat, smooth 3 costae. Elytral suture flat, elevated only at two-thirds of length, apically rounded. Epimeron black, glossy.

Pygidium flat, rounded, bearing 2 spots of yellow tomentum laterally near base.

Abdomen black, shining, without tomentum, median groove absent. Each segment with a few simple punctures.

Metasternum black, shining, with few coarse punctures, without pilosity or tomentum. Mesometasternal process well developed, black, shining, protruding quite sharply infront. Prosternum and mentum black, shining, densely striate. Procoxa and mesocoxa with black setae at inner sides. Metacoxa with only a few blackish hairs.

Legs black. Protibia tridentate, 3<sup>rd</sup> tooth small and obtuse. Meso- and metatibia transversely carinate, mesotibial carina obtuse, metatibial carina sharp. Tarsi black, relatively short.

Parameres (Figs 23-24) similar to all other species of the *C. sexpustulata* group.

**Variation and sexual dimorphism.** Female. Maculation of pronotum reduced to 3 smaller irregular spots leaving large part of apicolateral margin black. Protibia shorter and wider, its 3. dent bigger, almost same as 1. and 2. dent. Two specimens, paratype no. 2.5 the colour of elytral and pronotal tomentum almost orange.

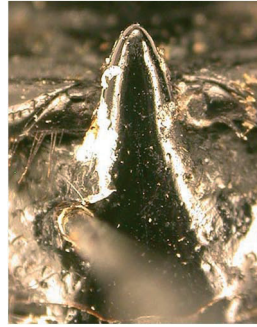
**Differential diagnosis.** Four species of *Clinteria* inhabit nearby islands: *C. dimorpha* Arrow, 1910 (Larat in Tanimbar Is.), *C. alboguttata* Moser, 1905 (Key Is.), *C. nigra* Kraatz, 1899 (Dammer I.) and *C. sexpustulata* Gory-Perch, 1833 (Timor I.). *C. nigra* and *C. sexpustulata* seem to be more closely allied with the new species than the other two species. *Clinteria moae* sp. n. differs from them by the presence of yellow tomentum (*C. nigra* is strongly shining, black, without any tomentation), shape of the elytral costae (*C. nigra* has two



19



21



22



20



23



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Figs 19-24. *Clinteria moae* sp. n.: 19- habitus dorsal aspect; 20- habitus ventral aspect; 21- habitus lateral aspect; 22- mesometasternal process; 23- aedeagus; 24- aedeagus lateral view.

elevated, shining costae on each elytron, which merge before the apical calli) and shape of the parameres.

The main difference from *C. sexpustulata* is the presence of pronotal tomentation, very dense elytral tomentation, different pronotal and elytral punctation (in *C. sexpustulata* pronotal punctation is more simple and sparse, and elytral striae more distinct and coarser). The mesometasternal process of *C. moae* sp. n. extends much more forward and is rather sharp (*C. sexpustulata* has the process shorter, less extending forward and blunt).

**Etymology.** Named after the Moa Island.

**Distribution.** SW Moluccas, ca. 100 km E of Timor, Moa Island.

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