

Checklist of the tiger beetle genus *Calochroa* Hope, 1838 from Laos and a description of a new species (Coleoptera: Cicindelidae)

[111th contribution to knowledge of Cicindelidae]

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Abstract. A checklist and a key to the Laotian *Calochroa* species is given. *Calochroa brancuccii* sp.nov. is described. It is distinguished by its elytral maculation, colour of labrum and shape of male aedeagus.

Key words. Coleoptera – Cicindelidae – *Calochroa* – Laos – checklist – key – new species

Introduction

Within a shipment of tiger beetle specimens to be determined at the Natural History Museum of Basel I discovered two specimens of an undescribed *Calochroa* species. The genus *Calochroa* was established in 1838 by Frederick William Hope. Thirty-three species are known to date, ranging from Africa, the Indian subcontinent and South-eastern Asia to Taiwan and the Philippines. The new species represents the third endemic species of this genus for Laos, where a total of twelve species of *Calochroa* are now known to occur. A checklist of these twelve species and a description of the new species are provided below.

Checklist of *Calochroa* species from Laos

<i>C. anometallescens</i> (Horn, 1893)	Myanmar, Thailand, China (?Yunnan), Laos (Houaphan, Xiangkhoang)
<i>C. bramani</i> (Dokhtoureff, 1882)	Thailand, Cambodia, Vietnam, Laos (Champasak)
<i>C. brancuccii</i> sp.nov.	Laos (Houaphan)
<i>C. carissima</i> (Fleurtiaux, 1919)	Thailand, Laos (Louangphrabang, Oudomxai, Vientiane)
<i>C. elegantula</i> (Dokhtoureff, 1882)	Vietnam, Cambodia, Malaysia: Malacca, Thailand, China (Yunnan), Laos (Houaphan, Louangnamtha, Louangphrabang, Oudomxai, Phongsali)
<i>C. flavomaculata flavomaculata</i> (Hope, 1831)	Pakistan, Nepal, India, Bangladesh, Andaman Is, Sri Lanka, Myanmar, Thailand, Vietnam, Cambodia, China (Guangdong, Guangxi, Hainan, Hong Kong, Sichuan, ?Xizang, Yunnan), Taiwan, Philippines, Laos (Borikhamxai, Houaphan, Khammouan, Louangnamtha, Louangphrabang, Oudomxai, Phongsali, Savannakhet, Vientiane, Xaignabouri, Xiangkhoang)
<i>C. harmandi</i> (Fleurtiaux, 1893)	Vietnam, Cambodia, Laos (Attapeu)
<i>C. holzschuhi</i> Wiesner, 2012	Laos (Houaphan)
<i>C. interruptofasciata flavolineata</i> (Chaudoir, 1865)	Myanmar, Thailand, Cambodia, Laos (Borikhamxai, Champasak, Houaphan, Louangnamtha, Louangphrabang, Phongsali, Vientiane, Xiangkhoang)

<i>C. moraveci</i> Sawada et Wiesner, 1999	Laos (Khammouan)
<i>C. pseudosiamensis</i> (Horn, 1913)	Myanmar, Vietnam, Thailand, China (?Yunnan), Laos (Borikhamxai, Houaphan, Khammouan, Louangnamtha, Savannakhet, Vientiane, Xiangkhoang)
<i>C. salvazai</i> (Fleutiaux, 1919)	Thailand, Myanmar, China (Yunnan), Laos (Bokeo, Houaphan)

Taxonomy

Calochroa brancuccii sp.nov.

(Figs 1–6)

Type locality. Phu Phan Mt., Houaphan Prov., Laos.

Type material. Holotype male: “LAO-NE, Hua Phan prov., ~20°12'N 104°01'E, Phu Phan Mt., 1500–1900 m, 17.v.–3.vi.2007, M. Brancucci leg.” [printed, white], “NHMB Basel, expedition to Laos, 2007” [printed white], “HOLOTYPE *Calochroa brancuccii* n. sp., ded. J. Wiesner 2012” [printed red] in NHMB; paratype female, l. c., “PARATYPE *Calochroa brancuccii* n. sp., ded. J. Wiesner 2012” [printed red] in coll. Wiesner (later SMNS, Staatliches Museum für Naturkunde Stuttgart).

Description. Dull black, with four yellow elytral dots (Fig. 1).

Head blackish with green and bronze lustre, finely granulated; clypeus and vertex with longitudinal striae in the central depression between eyes; two supraorbital bristles near each eye. Labrum (Figs 2–3) in each sex metallic greenish, with violet lustre in the female; five brownish marginal teeth, more prominent in the female; up to six labral setae; mandibles blackish with yellow central patch larger in males and smaller in females. Maxillary palpi glabrous, blackish. Labial palpi with long, white bristles, yellow except last segment glabrous and blackish in male, completely blackish in female. Genae metallic-blue/green with fine longitudinal striae, glabrous. Antenna (several joints missing in both types) filiform, reaching the first third of the elytra, first segment with a few setae, the following three with a few bristles; the first four antennomeres blackish-green/red-metallic, last segments blackish with fine pubescence.

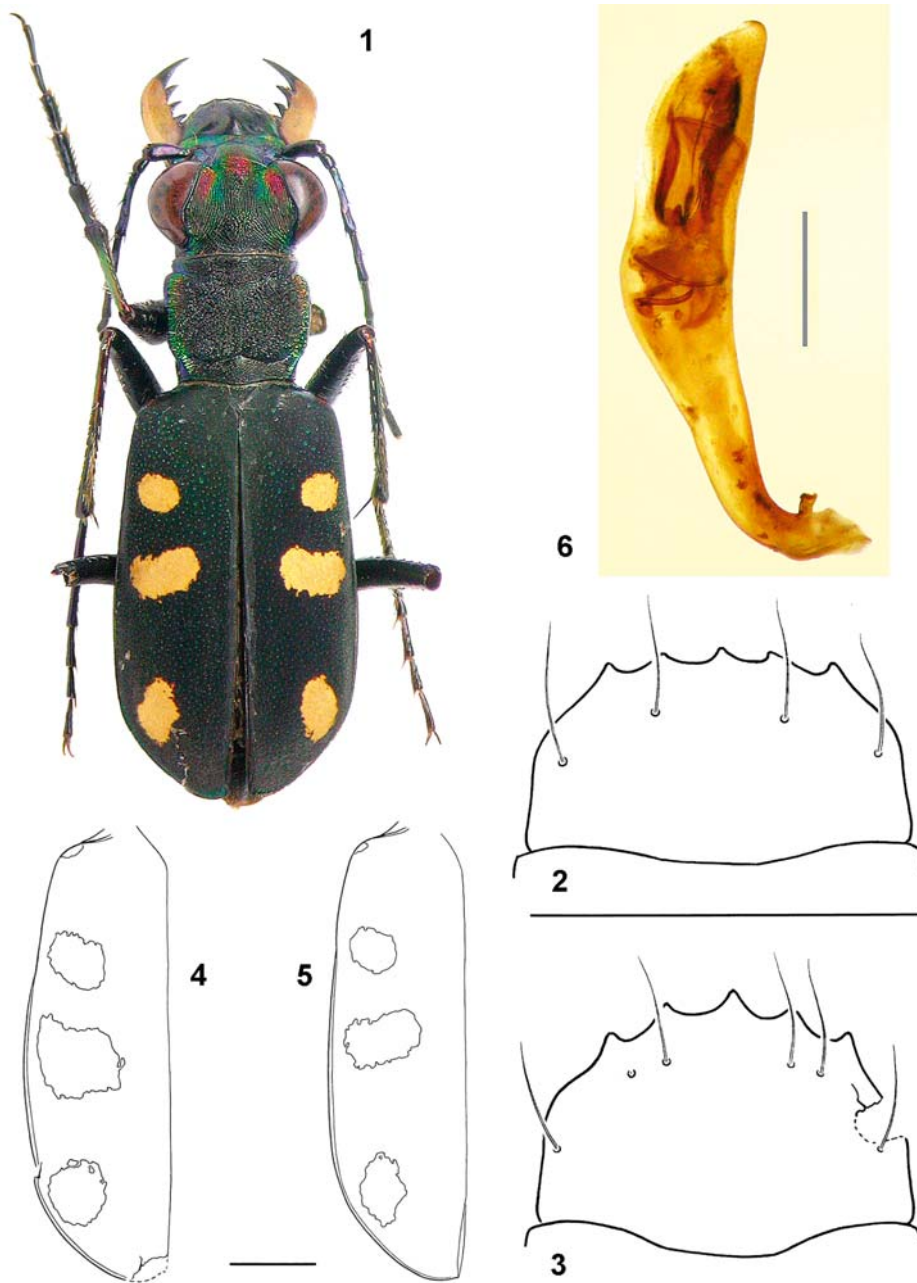
Pronotum trapezoid, blackish, with coarse transverse granulation and a fine median furrow, lateral margins with a few white setae; proepisternum glabrous, blue/violet.

Elytra (Figs 4–5) blackish, parallel-sided in male but more rounded in female, apex rounded, microserrated, sutural spine short. Yellow maculation comprised of one small to very small humeral spot and three larger ones transversally arranged along elytra, one roundish or slightly transverse spot in the position at which the apical end of a humeral lunule might be imagined, followed at a short distance by a transverse middle spot and a roundish apical spot.

Abdominal sternites black and glabrous, episternae blue/violet with a few white setae. Coupling sulcus of female mesepisternum with a shallow ventral tip. Legs blackish-green/red with light bristles except for the inner part of meso- and metafemur (holotype male missing right foreleg and tibiae and tarsi of hind legs, paratype female is missing forelegs and left mid- and hind legs).

Male aedeagus (Fig. 6) 4.2 mm long, narrow, straight, elongate, broadly rounded at apex.

Total length (without labrum): 13.2–13.3 mm.



Figs 1–6. 1 – *Calochroa brancuccii* sp.nov.: holotype male, habitus; 2 – labrum, holotype male; 3 – labrum, paratype female; 4 left elytron, paratype female; 5 – left elytron, holotype male; 6 – aedeagus, holotype male. Scale = 1 mm.

Etymology. This new *Calochroa* species is cordially dedicated to its discoverer, Dr. Michel Brancucci.

Differential diagnosis. The labrum and general shape of this remarkable new species resemble *Calochroa bicolor* (Fabricius, 1781) from India, Nepal, Bangladesh, Myanmar, Thailand and China (Guangxi). However, the new species is readily distinguished by its black abdominal segments, abbreviated elytral maculation and the shape of the aedeagus.

Distribution. North-eastern Laos, Houaphan.

Key to to the *Calochroa* species from Laos

1. Ground colour of elytra mainly brown.
..... *C. carissima* (Fleutiaux, 1919)
- Ground colour of elytra mainly black. 2.
2. Lateral suture of elytra with a transverse lustrous greenish band reaching the yellow maculae on the disk.
..... *C. harmandi* (Fleutiaux, 1893)
- Lateral suture of elytra without a lustrous band. 3.
3. Elytra with three small, yellow, transversally-arranged spots.
..... *C. flavomaculata* (Hope, 1831)
- Yellow maculation of elytra not as above. 4.
4. Labrum metallic. *C. brancuccii* sp. nov.
- Labrum black-brown with variable extension of yellow. 5.
5. Yellow maculation of elytra comprises a longitudinal band. 6.
- Yellow maculation of elytra comprises a triangular shoulder spot or a lunule. 7.
6. Longitudinal band extends from shoulder to apex. If sometimes broken in the apical part, these parts of the band are not broader in extension than the remainder.
..... *C. interruptofasciata flavolineata* (Chaudoir, 1865)
- Longitudinal band extended on the basal half of the elytra, followed by a transverse middle spot and a roundish apical spot; band and middle spot sometimes connected. *C. bramani* (Dokhtouroff, 1882)
7. Apical spot of elytral maculation absent or very small. 8.
- Apical spot of elytral maculation large. 9.
8. Total length of beetle <14 mm. Apical spot of elytral maculation absent. *C. salvazai* (Fleutiaux, 1919)
- Total length of beetle >14 mm. Apical spot of elytral maculation very small. *C. holzschuhi* Wiesner, 2012

- 9. Middle spot of elytral maculation shaped as a transverse band, nearly reaching the suture at its full extension.
..... ***C. pseudosiamensis* (Horn, 1913)**
- Middle spot of elytra more or less roundish. 10.
- 10. Labrum with five marginal teeth.
..... ***C. moraveci* Sawada et Wiesner, 1999**
- Labrum with three or fewer than three marginal teeth. 11.
- 11. Head and pronotum mainly greenish-black. Yellow maculation of elytra comprises a long humeral lunule with roundish enlarged apical part. ***C. elegantula* (Dokhtouroff, 1882)**
- Head and pronotum mainly black. Yellow maculation of elytra comprises a short humeral lunule which is not roundish-enlarged at apical part. ***C. anometallescens* (Horn, 1893)**

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