

***Lycocerus strictipennis* sp. nov. from Yunnan, China, the Second Species in the *Michiakii* Species-Group of *Lycocerus* Gorham (Coleoptera: Cantharidae)**

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Source: *Annales Zoologici*, 61(4):637-640.

Published By: Museum and Institute of Zoology, Polish Academy of Sciences

DOI: <http://dx.doi.org/10.3161/000345411X622480>

URL: <http://www.bioone.org/doi/full/10.3161/000345411X622480>

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LYCOCERUS STRICTIPENNIS SP. NOV. FROM YUNNAN, CHINA, THE SECOND SPECIES IN THE *MICHIAKII* SPECIES-GROUP OF *LYCOCERUS* GORHAM (COLEOPTERA: CANTHARIDAE)

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Abstract.— A second species of *michiakii* species-group of *Lycocerus* Gorham is described, *L. strictipennis* sp. nov. (CHINA, Yunnan), and provided with illustrations of aedeagus. *L. michiakii* Okushima et Brancucci, 2008 is recorded from China for the first time. Habitus photos of both species are presented.



Key words.— Coleoptera, Cantharidae, *Lycocerus*, new species, new record, China.

INTRODUCTION

The genus *Lycocerus* Gorham, 1889 was redefined in a broad sense by Okushima (2005), with the taxa *Athemus* Lewis, 1895, *Athemellus* Wittmer, 1972, *Mikadocantharis* Wittmer et Magis, 1978, *Andrathemus* Wittmer, 1978 and *Isathemus* Wittmer, 1995 as synonyms. Since then, this genus became a large group, including more than 300 species, which are mostly distributed in the Oriental and E Palaearctic Regions, some even reaching to SE Russia (Kazantsev and Brancucci 2007).

Okushima (2005) proposed 9 species-groups for *Lycocerus* of Japanese fauna, later Okushima and Brancucci (2008) added another species-group based on a species located in the Indochinese area. Although some improvement has been made, the classification of this genus is far from being perfect today, because there has been no revision work in a world view, which is also beyond the aim of this study.

In our recent study on *Lycocerus*, we discover a new species located in Yunnan, China, and describe it

under the name of *L. strictipennis* sp. nov. Based on the character of the strongly narrowed elytra, it should be placed in *michiakii* species-group, which was proposed by Okushima and Brancucci (2008). Besides, *L. michiakii* Okushima et Brancucci, 2008 is recorded from China for the first time. Now the *michiakii* species-group of *Lycocerus* has 2 species, both occurring in China.

MATERIAL AND METHODS

The aedeagus was detached from the body under a stereoscopic microscope and kept in 10% KOH solution for several minutes, then cleared in 75% alcohol and observed under a compound light microscope. Line figures were drawn with the aid of a camera lucida mounted on a Nikon SMZ 800 stereomicroscope. The scanning electronic micrographs are edited in CORELDRAW 12 and ADOBE PHOTOSHOP 8.0.1. The habitus photos were taken by Canon 450D digital camera with a Canon EF 100 mm f/2.8 USM Macro Lens. The body

length was measured from the anterior margin of clypeus to apex of hind wing, and width was at the point of humeri of conjoint elytra. Absolute measurements are given in millimetres (mm).

The material in this study is deposited in the following museums or institutes:

- IZAS – Institute of Zoology, Chinese Academy of Sciences, Beijing, China;
- KURA – Kurashiki Museum of Natural History, Kurashiki, Japan;
- NHMB – Naturhistorisches Museum Basel, Basel, Switzerland.

TAXONOMY

Lycocerus michiakii Okushima et Brancucci, 2008 (Fig. 1)

Lycocerus michiakii Okushima et Brancucci, 2008: 41, figs 1–6.

Type locality. Laos and Vietnam.

Type material examined. Holotype ♂, NE. Laos, Houaphan Prov., near Ban Saleui, alt. 1365 m, 20°13'N, 103°59'E, 9.IV.2004, leg. M. Hasegawa (KURA). Allotype ♀, NE. Laos, Houaphan Prov., Phu Pan (Mt.),

24–27.III.2005 (KURA). Paratype ♀, Indo Chine, Annam-Vinh, 1910, coll. Dussault (NHMB).

Additional material examined. China: 1 ♂, Yunnan, Xishuangbanna, Menglong, Mengsong, 1600m, 24.III.1958, leg. Xuwu Meng; 1 ♀, same data to the latter, 30.IV.1958; 1 ♀, same locality, 25.IV.1958, leg. Fuji Pu; 1 ♀, same locality, 26.IV.1958, leg. Yiran Zhang; 1 ♀, Yunnan, Xiaomengyang, 850m, 25.III.1957, leg. Lingchao Zang; same data, 2.IV.1957 [above transliterated from Chinese labels] (all in IZAS).

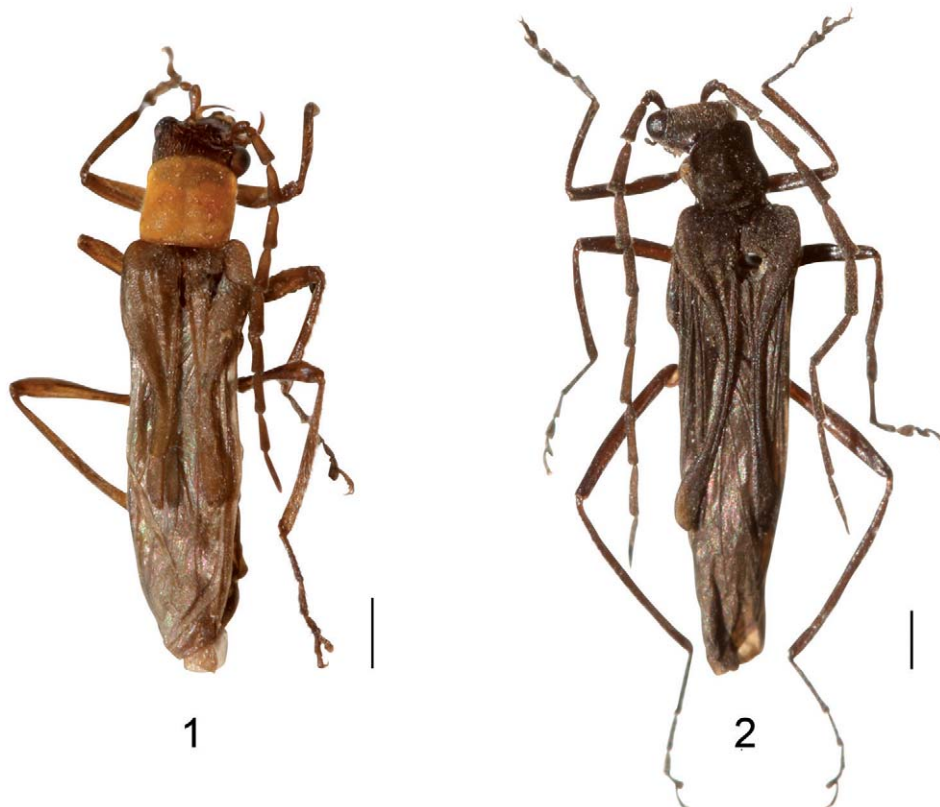
Distribution. China (Yunnan), Laos, Vietnam.

Notes. This species is recorded from China for the first time. Although its habitus was illustrated by Okushima and Brancucci (2008), a photo is provided (fig. 1) here to be compared with the new species, especially in the character of the elytra.

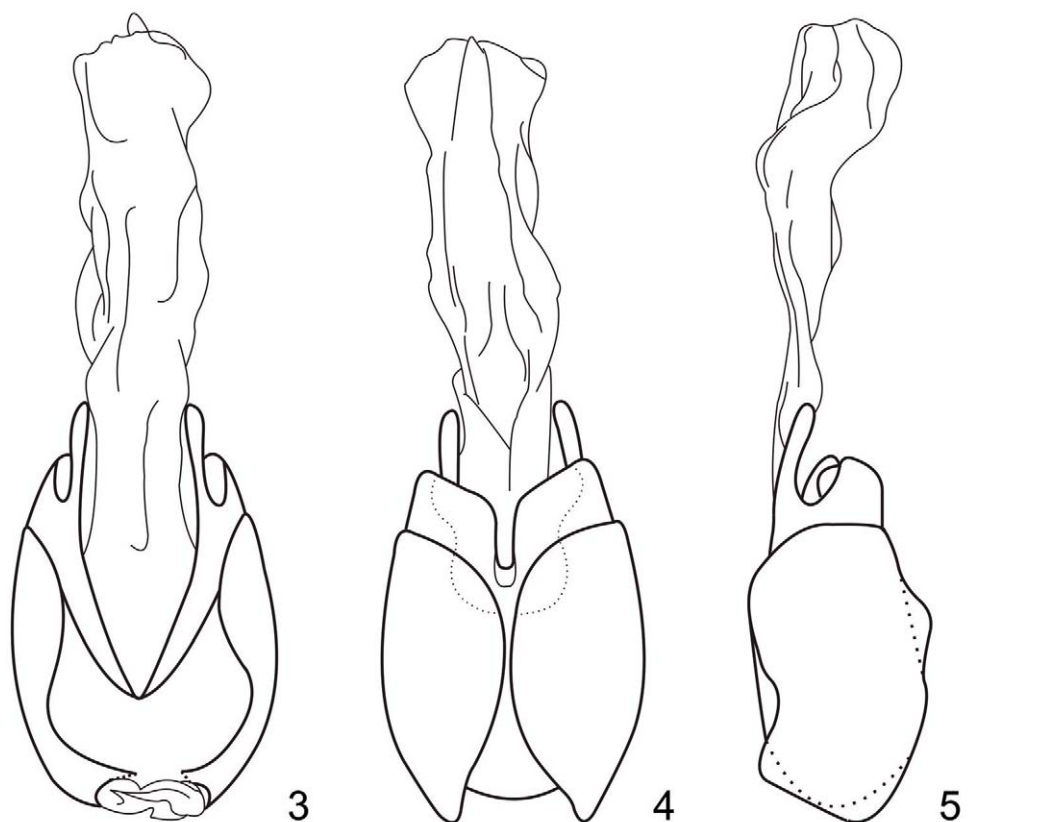
Lycocerus strictipennis sp. nov. (Figs 2–5)

Type locality. China: Yunnan.

Type specimen. Holotype ♂, Yunnan, Xishuangbanna, Menglong, Mengsong, 1600m, 28.IV.1958, leg. Shuyong Wang [transliterated from the Chinese label] (in IZAS).



Figures 1–2. male habitus, dorsal view: (1) *Lycocerus michiakii* Okushima et Brancucci, 2008; (2) *Lycocerus strictipennis* sp. nov.



Figures 3–5. *Lycocerus strictipennis* sp. nov., aedeagus: (3) ventral view; (4) dorsal view; (5) lateral view.

Description. Male (fig. 2). Body black, mandibles dark brown. Body surface densely covered with short black pubescence, with a few long hairs along anterior margin of clypeus.

Head evenly narrowed behind eyes, with an obscure furrow in middle of clypeus, dorsum densely and finely punctate, surface between punctations smooth and faintly shining before posterior margins of eyes, while coarse and mat on posterior part; eye slightly protruding, breadth across eyes wider than anterior margin of pronotum; last maxillary palpomere securiform, widest nearly in middle, acute at apex; antenna filiform, extending over apex of elytron, antennomere II slightly longer than wide at apex, III–XI slightly flattened and subparallel-sided, IX longest, XI slightly longer than X, IV–XI each with a short narrow longitudinal furrow near apex of inner margin.

Pronotum subquadrate, almost as long as wide, anterior margin arcuate, lateral margins nearly parallel to each other, posterior margin nearly straight, anterior angles rounded, posterior angles nearly vertical; disc distinctly depressed on antero-lateral parts, with a distinct median longitudinal furrow on posterior part, densely and finely punctate, surface between punctations coarse and mat.

Elytra distinctly shortened, 3.5 times longer than pronotum, 2.8 times longer than wide at humeri; strongly narrowed posteriorly and slightly widened and rounded at apices, humeral width about 4 times wider than at the point of minimum width; inner margins parallel at basal one-third and diverging posteriorly, inner and outer margins bordered, simple at apical widened parts; disc densely and finely punctate, surface between punctations coarse and mat, each with 2 short costae, not extending to base and terminating at basal one-third.

Hind wings well-developed and mostly exposed, about 1.3 times as long as elytra.

Legs: slender, all claws simple.

Aedeagus (Figs 3–5): dorsal plate of each paramere with nearly straight apical margin, ventral process slightly widened apically and distinctly longer than dorsal plate; laterophysis well-developed and as long as dorsal plate of each paramere.

Body length: 9.0 mm; width: 1.7 mm.

Female. Unknown.

Differential diagnosis. This new species can be distinguished from *L. michiakii* Okushima et Brancucci by the following characters: pronotum black, elytra more strongly narrowed, aedeagus: dorsal

plate of each paramere with nearly straight apical margin, ventral process distinctly longer than dorsal plate.

Etymology. This specific name is derived from Latin words *strictus* (narrow) and *penna* (elytron), referring to its strongly narrowed elytra.

Distribution. China (Yunnan).

Remarks. The aedeagus of holotype is damaged in the nodule of basal pieces.

ACKNOWLEDGEMENTS

We are grateful to Dr. Michel Brancucci (Naturhistorisches Museum Basel, Switzerland) and Dr. Yûichi Okushima (Kurashiki Museum of Natural History, Japan) for showing us their type specimens. This study was supported by the National Natural Science Foundation of China (No. 31010103913, No. 31172135) and Science Foundation of Hebei University (No. 2010-203).

REFERENCES

- Gorham, H. S. 1889. Descriptions of new species and of a new genus of Coleoptera of the family Telephoridae. *Proceedings of the Zoological Society of London*, 1889: 96–111, pl. 10.
- Kazantsev, S. V. and Brancucci, M. 2007. Cantharidae, pp. 234–298. *In*: Löbl, I. & Smetana, A. (eds.) *Catalogue of Palaearctic Coleoptera*, Vol. 4. Apollo Books, Stenstrup.
- Lewis, G. 1895. On the Dascillidae and malacoderm Coleoptera of Japan. *The Annals and Magazine of Natural History*, 16(6): 98–122, pl. 6.
- Okushima, Y. 2005. A taxonomic study on the genus *Lycocerus* (Coleoptera, Cantharidae) from Japan, with zoogeographical considerations. *Japanese Journal of Systematic Entomology, Monographic Series, Matsuyama* 2: 1–383.
- Okushima, Y. and Brancucci, M. 2008. A remarkable new species of the genus *Lycocerus* (Coleoptera, Cantharidae) from Indochina. *Entomologica Basiliensia et Collectionis Frey*, 30: 41–47.
- Wittmer, W. 1972. Beitrag zur Kenntnis der palaearktischen Cantharidae und Malachiidae (Col.). *Entomologische Arbeiten aus dem Museum G. Frey*, 23: 122–141.
- Wittmer, W. 1978. Ergebnisse der Bhutan-Expedition 1972 des Naturhistorischen Museums in Basel. *Coleoptera: Fam. Cantharidae* (4. Teil) und Bemerkungen zu einigen Arten aus angrenzenden Gebieten. *Entomologica Basiliensia*, 3: 151–161.
- Wittmer, W. 1995. Zur Kenntnis der Gattung *Athemus* Lewis (Col. Cantharidae). *Entomologica Basiliensia*, 18: 171–286.
- Wittmer, W. and Magis, N. 1978. Zur Kenntnis einiger mit *Cantharis* L. verwandter Gattungen (Coleoptera, Cantharidae). *Bulletin & Annales de la Societe Royale Belge d'Entomologie*, 114(4–6): 133–139.

Received: July 20, 2011

Accepted: October 3, 2011