

## Description of the Male of *Zorochros (Zorochros) nikkoensis* (Coleoptera, Elateridae, Negastrinae)

Kôichi ARIMOTO<sup>1)</sup> and Hisayuki ARIMOTO<sup>2)</sup>

<sup>1)</sup>Entomological Laboratory, Graduate School of Bioresource and  
Bioenvironmental Sciences, Kyushu University, Fukuoka, 812–8581 Japan

<sup>2)</sup>Tedukayama Nishi 3–4–21, Osaka, 558–0052 Japan

**Abstract** Male of *Zorochros (Zorochros) nikkoensis* (KISHII, 1976) is firstly recorded with its supplementary description. This species does not show any marked sexual dimorphism, but the male antennae are slightly longer than those of the female.

### Introduction

*Zorochros (Zorochros) nikkoensis* (KISHII, 1976) was described on the basis of a female specimen from Marunuma, Gunma Prefecture, central Japan. Only one female was subsequently recorded from Tochigi Prefecture adjacent to Gunma Prefecture (ÔHIRA, 2011), and the male has so far been unknown. The second author collected two male individuals of this species during research on elaterid beetles in the shore of Azusa River, central Japan. In this paper, we firstly report the male of *Z. nikkoensis* with its supplementary description.

### Materials and Methods

The specimens examined are deposited in the collection of Kôichi ARIMOTO and Hisayuki ARIMOTO (cAR: Osaka, Japan). Photograph of specimen was taken by a single-lens reflex camera (Canon EOS 7D) with a macro lens (Canon macro photo lens MP-E 65 mm), and then combined using image processing software (CombineZM, Alan Hadley). Map was created using free software (DIVA-GIS 7.5.0). The digital images of photograph, drawings and map were edited by image editing software (Adobe Photoshop 7.0).

### Taxonomy

*Zorochros (Zorochros) nikkoensis* (KISHII, 1976)

[Japanese name: Nikkô-chibimizugiwa-kometsuki]

(Figs. 1–4)

*Pronegastrius (Chibistrius) nikkoensis* KISHII, 1976: 27 (original description on female; type locality: Marunuma, Nikkô National Park, Tochigi Prefecture [sic]).

*Fleutiauxellus nikkoensis*: INAZUMI, 2003: 201 (catalogue of insects of Tochigi Prefecture). [probably a lapsus calami].

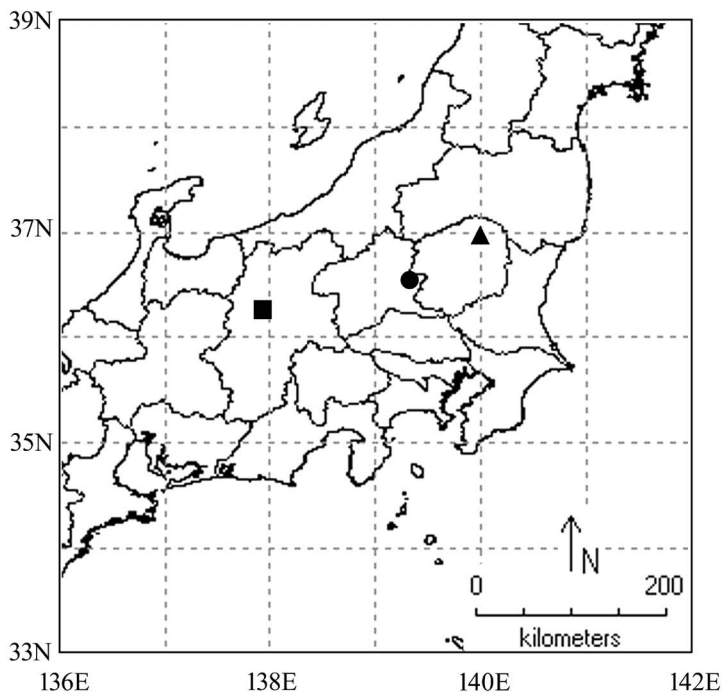


Fig. 1. Localities of *Zorochochros (Zorochochros) nikkoensis* (KISHII, 1976). — ●, Marunuma, Gunma Prefecture (KISHII, 1976; type locality); ▲, Sabi-gawa River, Imaizumi, Ôtawara-shi, Tochigi Prefecture (ÔHIRA, 2011); ■, Azusa River, Toyoshinatakebe, Azumino-shi, Nagano Prefecture.

*Zorochochros (Zorochochros) nikkoensis*: KISHII, 1999: 104 (transferred to the genus *Zorochochros* THOMSON, 1859; check list of Elaterridae from Japan); ÔHIRA, 2011: 12 (record of female from Tochigi Prefecture, Japan).

Although the type locality was described as “Marunuma in Nikkô National Park, Tochigi Prefecture” in the original description, Marunuma is actually located in Gunma Prefecture, and therefore we revised the place name of type locality in this paper.

*Materials examined.* 2 ♂♂, Shore of Azusa River, Toyoshinatakebe, Azumino-shi, Nagano Pref., c. Honshu, Japan, 15.VIII.1987, Hisayuki ARIMOTO leg. (cAR).

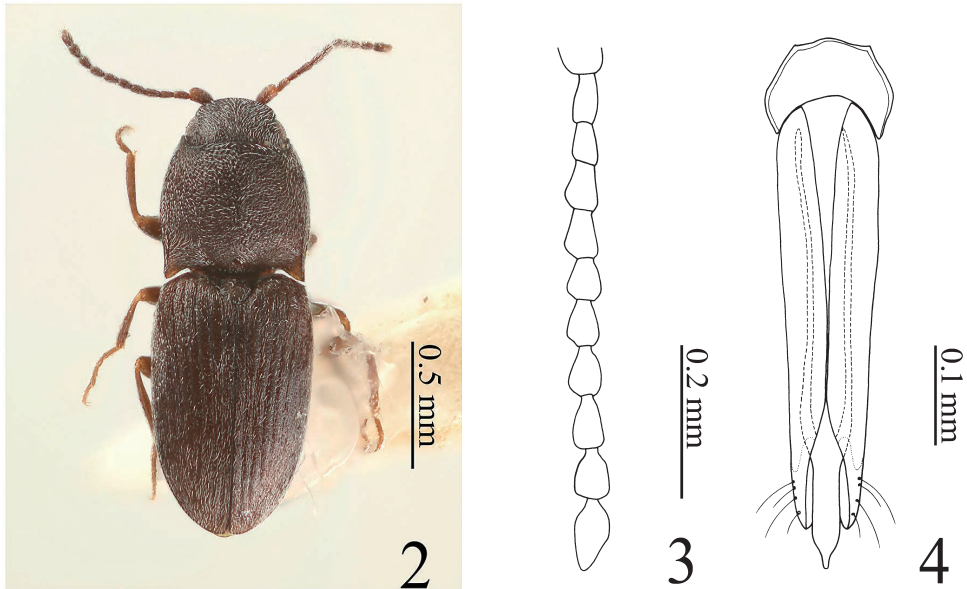
*Distribution* (Fig. 1). Japan: central Honshu (Gunma Prefecture, Tochigi Prefecture and Nagano Prefecture). New record from Nagano Prefecture.

*Supplementary description.* Adult. Male. Measurements. Body length: 1.695–1.715 mm; body width: 0.627–0.633 mm; pronotal length including posterior angles: 0.547–0.559 mm; pronotal length across the midline: 0.468–0.515 mm; pronotal width: 0.590–0.593 mm; elytral length: 0.960–1.029 mm; elytral width: 0.627–0.633 mm.

Body (Fig. 2) oblong, not shining, covered densely with white recumbent setae. Color wholly blackish gray; antennae, pronotal posterior angles and legs rather brownish.

Antennae (Fig. 3) short, not reaching pronotal posterior angles; segment II subcylindrical, about 1.2 times as long as segment III; segment III obconical, shortest; segment IV about 1.2 times as long as segment III; segments IV–X weakly serrate.

Aedeagus (Figs. 4) elongate; median lobe exceeding the apex of parameres, narrowed abruptly near apex which is pointed; basal struts not attaining the basal margin of parameres; parameres sepa-



Figs. 2–4. *Zorochros (Zorochros) nikkoensis* (KISHII, 1976), male. — 2, Habitus, dorsal side; 3, right antenna; 4, aedeagus, ventral side.

rate each other, but slightly overlapped, with four setae near apices, with apical portion not sharpened, without subapical tooth.

**Diagnosis.** *Zorochros nikkoensis* is distinguished from other Japanese congeners of the genus by a combination of the following characteristics: small body size, short and dense setae, broadly rounded frontal margin of the head, elytra being without yellowish spots (Fig. 2), longer pronotum (length/width: ca. 0.9), pronotosternal suture being simple and not grooved, and distinctly elongate aedeagus (Fig. 4).

**Sexual dimorphism.** This species does not show any marked sexual dimorphism, but the male antennae are slightly longer than those of the female. It is difficult to determine the sex by only observing the external morphology.

**Bionomics.** Materials examined were collected from the shore of Azusa River, Nagano Prefecture. Although many individuals were observed around the roots of herbaceous plants, only two males could be collected because of their very active behavior. The specimen recorded by ÔHIRA (2011) was also collected from the riverbed.

**Remarks.** SUZUKI (1987) mentioned that *Zorochros nikkoensis* is very similar to *Cryptohypnus cinefactus* LEWIS, 1894 (= *Zorochros (Zorochros) cinefactus*) and probably synonymized with the latter. We could not show their true status since we have not examined the type specimens of the two species in this study.

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tory, Kyushu University, Fukuoka (Ser. 7, No. 30).

## 要 約

有本晃一・有本久之：ニッコウチビミズギワコメツキの雄の記載（鞘翅目コメツキムシ科ミズギワコメツキ亜科）。—— ニッコウチビミズギワコメツキ *Zorochros (Zorochros) nikkoensis* (KISHII, 1976) は日光国立公園内から記載され、その後、栃木県からのみ記録されていた。雌しか知られておらず、筆者らは長野県から雄を得ているため、補足的な記載を添えて記録した。タイプ産地は原記載では栃木県とされているが、記録されている地名から判断して群馬県と改めた。

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