

On *Nippononebria chaldeola horioi* NAKANE (Coleoptera, Carabidae)

Seiji MORITA

Higashi-gotanda 5–19–7, Shinagawa-ku, Tokyo, 141–0022 Japan

Abstract *Nippononebria chaldeola horioi* NAKANE is redescribed based on the holotype and newly obtained specimens and is regarded as a good species.

In 1960, NAKANE briefly described a new subspecies, *Nippononebria chaldeola horioi*, based on three specimens collected on Mt. Chôkai-zan, Yamagata Prefecture, North Japan. Since then, little information has been added to the taxon. Later, the same author (1983) showed its male genital organ and provided a key to the related species. LEDOUX and ROUX (2005) listed this subspecies under the genus *Nebria*.

Through the courtesy of Dr. ÔHARA and some friends of mine, I was able to examine the type specimen and some newly obtained specimens from the type locality. Subsequently, I extended my examination to the collection of about 100 specimens of the genus. However, my collection now at hand, mainly consisting of *N. pusilla* S. UÉNO (1955, p. 47) and *N. chaldeola kyushuensis* HABU (1958, p. 73) is far from sufficiency, so that completion of a revision of the Japanese species will require many more years. Therefore, the present paper is limited to a redescription of *N. c. horioi*, which is regarded as a good species.

The abbreviations used herein are the same as those explained in my previous papers.

Before going further, I wish to express my deep gratitude to Dr. Shun-Ichi UÉNO for critically reading the original manuscript of this paper. Thanks are due to Dr. Masahiro ÔHARA for the loan of the type material of *Nippononebria chaldeola horioi* NAKANE under his care. Hearty thanks are also due to Dr. Toshihiro OZAKI, Mr. Shun-ichi SAKURAI and Mr. Fukuo SATÔ, who offered opportunities to me for studying the specimens from Mt. Chôkai-zan.

Nippononebria (Nippononebria) horioi NAKANE

[Japanese name: Chôkai-miyama-marukubi-gomimushi]

(Fig. 1)

Nippononebria chaldeola horioi NAKANE, 1960, Akitu, Kyoto, 9: 63, type locality: Mt. Chokai [sic.]. — 1963, Icon. Ins. Japon. Col. nat. ed., Tokyo, 2: 19, pl. 9, fig. 78-b. — 1974, Nat. & Ins., Tokyo, 9 (1): 13, 14, fig. 8-d.

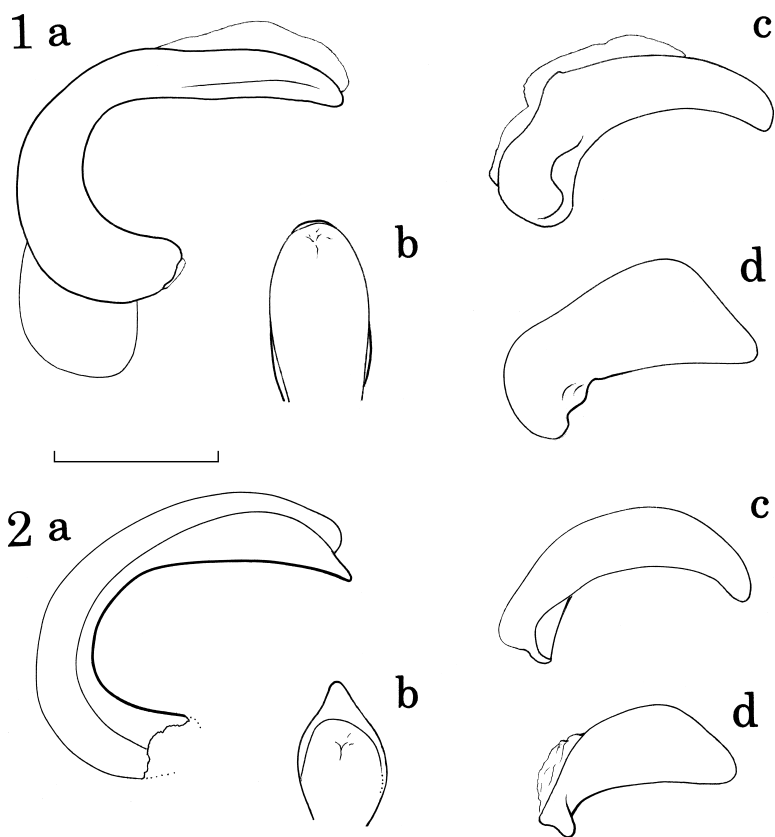
Nippononebria (Nippononebria) chaldeola horioi: KAVANAUGH, 1995, Ent. News, Philadelphia, 106: 159.

Nebria (Nippononebria) chaldeola horioi: LEDOUX & ROUX, 2005, Nebria, Lyon, p. 707, fig. 526.

Diagnosis. Body brown; basal fovea of pronotum deep, rounded, linear at the bottom and impunctate; sides of pronotum sinuate before hind angles; microsculpture of dorsal side strongly impressed; elytral shoulders obliquely and weakly arcuate; hind wings reduced; apical part of aedeagus very wide, with widely rounded apex in dorsal view.

Redescription. L: 6.86–8.14 mm. Body of moderate size. Body brown; clypeus, appendages and apical angles of pronotum slightly lighter than dorsum.

Head weakly convex and wide; eyes moderately convex; PW/HW 1.34–1.43 (M 1.37); frontal furrows wide, shallow, parallel to each other, and reaching the level of basal 2/3 of eyes; frons vague-



Figs. 1–2. Male genitalia of *Nippononebria* (*Nippononebria*) spp. — 1, *N. (N.) horioi* NAKANE; 2, *N. (N.) chaliceola chaliceola* (BATES) from Mt. Katta-dake. — a, Aedeagus, left lateral view; b, apical part of aedeagus, apico-dorsal view; c, right paramere, left lateral view; d, left paramere, left lateral view. Scale: 0.5 mm.

ly and irregularly wrinkled; supraorbital pore situated at a little behind the post-eye level; microsculpture clearly impressed and consisting of isodiametric meshes; genae short, and oblique or weakly arcuate; mentum tooth wide, weakly porrect, and sharply bifid at the tips; relative lengths of antennal segments as follows: — I : II : III : IV : V : VI : XI = 1 : 0.50 : 1.04 : 1.02 : 1.04 : 0.98 : 1.10.

Pronotum transverse, weakly convex and widest at basal 3/5; PW/PL 1.41–1.43 (M 1.42); apex almost straight and weakly produced at median part and deeply emarginate at the sides; anterior transverse impression shallow at median part, with several fine punctures and short wrinkles, though both become vanished at the sides; PW/PA 1.45–1.51 (M 1.48); sides widely and moderately arcuate in front, sinuate at about basal 3/20, and then weakly divergent towards hind angles; reflexed sides rather wide; side gutters deep and adjoining the deep apical gutters; PW/PB 1.23–1.26 (M 1.25); PA/PB 0.83–0.85 (M 0.84); median line linear, strongly impressed, widening towards base, and then very deep at basal 1/4; basal part with short and longitudinal wrinkles and punctures; base weakly arcuate or almost straight at median part, and oblique at the sides; apical angles strongly advanced and moderately rounded at the tips; hind ones right; basal fovea deep, rounded, linear at the bottom and impunctate; posterior impression transverse, with punctures and very short wrinkles, and then laterally merging into basal foveae; microsculpture consisting of wide to transverse meshes.

Elytra wide and moderately convex; EW/PW 1.38–1.44 (M 1.41); EL/EW 1.40–1.44 (M 1.42);

shoulders oblique and very weakly arcuate; sides weakly arcuate towards the widest part and then moderately so towards apices, and with very shallow and narrow preapical emargination on each side; apex of each elytron rounded, forming a small re-entrant angle at suture; intervals moderately convex and impunctate; striae 1–3 clearly impressed throughout, moderately punctate or crenulate from base to a little behind the middle, though punctation or crenulation indistinct at apical parts; striae 4–6 similar to the striae 1–3, but they become shallower towards apices and vanished at apices; striae 7 and 8 indistinct, usually marked with a row of fine punctures from base to a little before the middle; scutellar striole long, deep, free at the apex, situated on interval I and crenulate; three dorsal pores situated on interval III, and adjoining stria 3; the first dorsal pore situated between basal 1/5–1/4, the second at a little before the middle, and the third between basal 7/10–4/5, respectively; microsculpture sharply impressed, consisting of wide to isodiametric meshes. Hind wings reduced, WL/EL 0.78–0.82 (M 0.80).

Sternite I sparsely and finely punctate; metasternal process bordered at the median part.

Aedeagus elongate, U-shaped and with a large sagittal aileron; viewed dorsally, apical part very wide, with widely rounded apex; left paramere short and broad; right one elongate and weakly arcuate.

Specimens examined. Holotype, ♂, “0000004699 Sys. Ent Hokkaido Univ. Japan [SEHU]”/“Mt. Chôkai Yamagata, Japan July 21~22, 1957 Coll. T. HORIO”/“*Nippononebria chalceola horioi* NAKANE Det. T. NAKANE”/“*Nippononebria chalceola horioi* NAKANE Det. T. NAKANE”/“NAKANE Coll. SEHU JAPAN 1999”/“HOLOTYPE”; 1 ♂, Mt. Chôkai-zan, 15–VII–1983, S. SAKURAI leg.; 3 ♂♂, 1 ♀, same locality, 19–IX–1992, F. SATÔ leg.

Locality. Mt. Chôkai-zan, Yamagata Prefecture, North Japan.

Specimens compared. *Nippononebria (Nippononebria) chalceola chalceola* (BATES) (1883, p. 219). In my collection, the nearest collecting data of *N. chalceola* (BATES) are as follows: 1 ♂, 2 ♀♀, Mt. Katta-dake, Zaô Mts., Miyagi Pref., 23–VII–1976, S. MORITA leg. The body length and standard ratios of body parts of a single male are as follows: L: 7.29 mm; PW/HW 1.40; PW/PL 1.44; PW/PA 1.46; PW/PB 1.21; PA/PB 0.83; EL/EW 1.48; EW/PW 1.50; WL/EL 1.40 (hind wings developed). Relative lengths of antennal segments are as follows: — I : II : III : IV : V : VI : XI = 1 : 0.52 : 1.10 : 1.08 : 1.05 : 1.02 : 1.18.

Notes. This species is separable from *Nippononebria chalceola chalceola* (BATES) by having a combination of the following features: 1) coloration of the dorsal side, 2) sides of pronotum more strongly sinuate before hind angles, 3) microsculpture of dorsal side more strongly impressed, 4) different shape of elytra, especially of humeral parts, and 5) apical part of aedeagus wide, with widely arcuate apex in dorsal view.

The standard ratios of body parts shown in the descriptive part are those of three males.

要 約

森田誠司：ミヤママルクビゴムシ（コウチュウ目オサムシ科）鳥海山亜種について。——鳥海山から記載された *N. chalceola horioi* NAKANE の基準標本ならびに新たに採集された標本を検した結果、本亜種を独立種とみなし、再記載を行った。

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