

A New *Paranchodemus* (Coleoptera, Carabidae)
from Central Japan

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Abstract A new platynine carabid beetle is described from the Chûbu District, Central Japan, under the name of *Paranchodemus ishiguroi*. It is related to *P. calleides* (BATES), but differs from it mainly in the coloration and the shape of pronotum.

Paranchodemus (HABU, 1978) was erected as a subgenus of the genus *Anchodemus* for *A. calleides* BATES (1883, p. 256). Later, LIEBHERR (1989) studied the type specimen, mainly the female genitalia and regarded HABU's subgenus as an independent genus. At the same time, he added one new species from China.

In 1998, MORVAN erected the genus *Kenserzh* for a Tibetan species, *K. tibetanus*, and added its new subspecies, *K. t. sichuanensis*. However, this genus was a junior synonym of the genus *Paranchodemus* (BOUSQUET, 2003). Up to the present, three species and one subspecies of the genus *Paranchodemus* have been known from East Asia (BOUSQUET, 2003).

In this paper, we are going to describe a new species as a fourth representative of the genus.

The abbreviations used herein are as follows: L – body length, measured from apical margin of clypeus to apices of elytra; HW – greatest width of head; PW – greatest width of pronotum; PL – length of pronotum, measured along the mid-line; PA – width of pronotal apex; PB – width of pronotal base; EW – greatest width of elytra; EL – greatest length of elytra; FL – length of metafemur; ML – length of metatrochanter; TL – length of metatarsus; TLI – length of segment 1 of metatarsus; TLV – length of

claw segment of metatarsus; M – arithmetic mean; NSMT – National Museum of Nature and Science, Tokyo.

Before going further, we wish to express our deep gratitude to the following friends for supplying us with important material: Dr. Yoshiro KUROSA, Messrs. Masaki ISHIGURO and Kentarou TOYOSHIMA.

Paranchodemus ishiguroi MORITA, TODA et KANIE, sp. nov.

[Japanese name: Hakusan-ruri-hirata-gomimushi]

(Figs. 1–17)

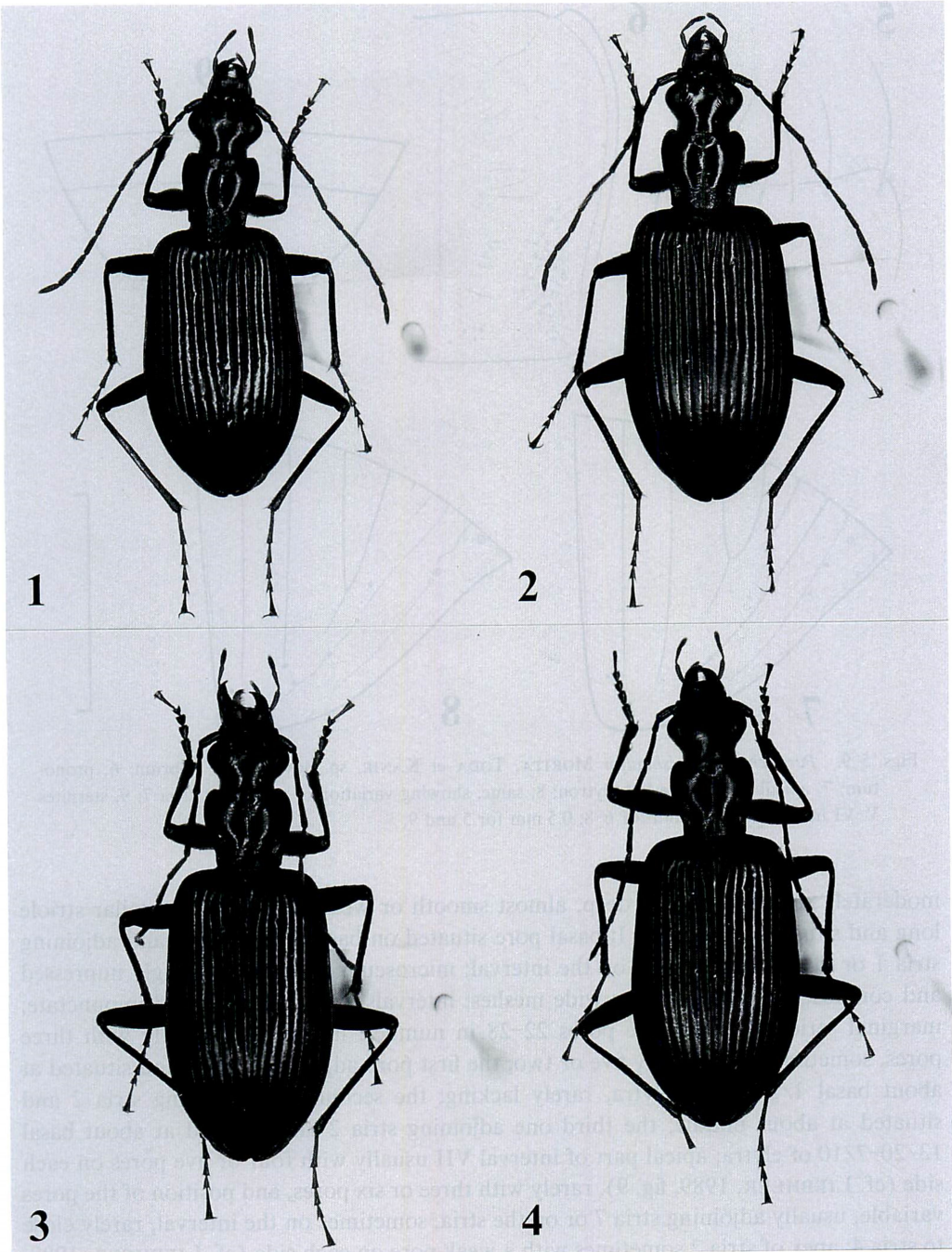
Diagnosis. Body of moderate size; dorsal side usually with brilliant blue lustre; sides of pronotum weakly arcuate in front, and convergent posteriad or weakly sinuate before hind angles; basal part of elytra wide.

Description. L: 8.71–11.43 mm. Body of moderate size, black; head and pronotum with greenish, purplish or brilliant bluish lustre; elytra with brilliant bluish or greenish lustre, rarely with purplish lustre; ventral side black with weak bluish lustre; coxae blackish brown; appendages black.

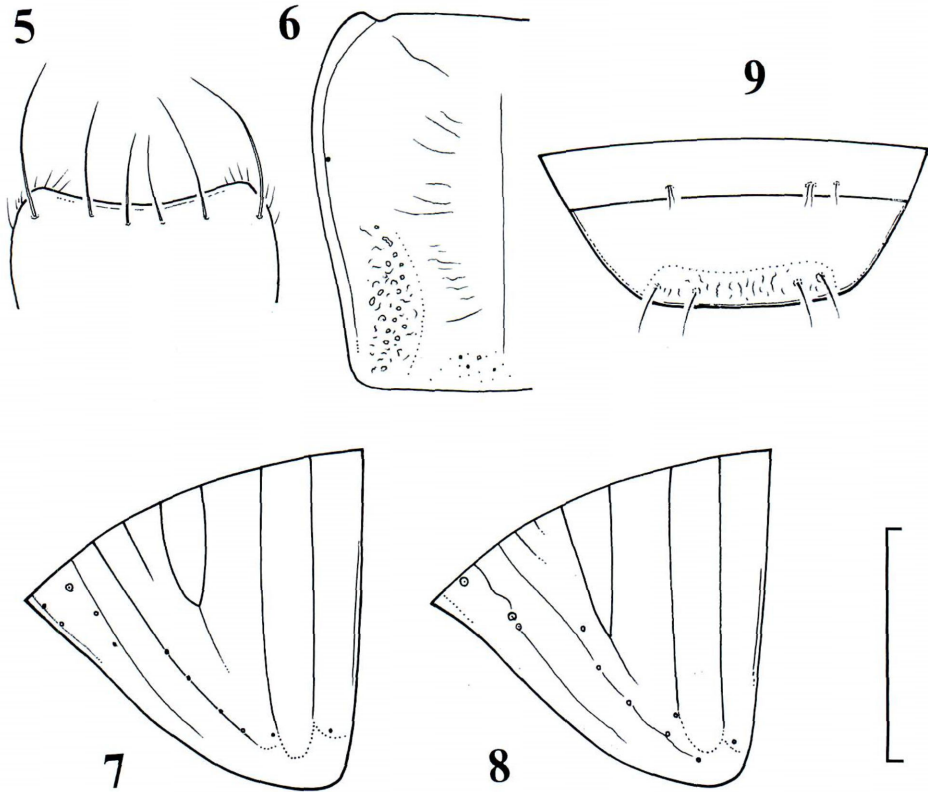
Head moderately convex; eyes large and convex; frontal furrows deep, almost parallel from clypeal seta to clypeal suture, and then divergent posteriad and reaching the level of basal 5/6 of eye; microsculpture not sharply impressed though consisting of isodiametric meshes; genae oblique; mentum tooth wide and weakly bifid at the tip; apex of labrum weakly to moderately emarginate; antennae filiform, reaching the middle of elytra or a little before that level; relative lengths of antennal segments as follows: — I : II : III : IV : V : VI : XI \approx 1 : 0.63 : 1.64 : 1.47 : 1.41 : 1.27 : 1.08.

Pronotum narrow, weakly convex and widest at about apical 2/7; sides widely and weakly arcuate in front, gradually convergent towards hind angles or very weakly sinuate at basal 2/7; apical angles weakly produced and moderately rounded at the tips; apex almost straight; median line deep and not reaching apex nor base; anterior marginal setae situated at about basal 7/20; anterior transverse impression very shallow; basal foveae rather shallow, with several coarse punctures and irregular wrinkles, each extending anteriorly; hind angles right, and with obtusely rounded tips; PW/HW 1.01–1.10 (M 1.06) in ♂, 1.04–1.13 (M 1.09) in ♀, PW/PL 1.07–1.20 (M 1.15) in ♂, 1.10–1.20 (M 1.17) in ♀, PW/PA 1.29–1.39 (M 1.34) in ♂, 1.30–1.40 (M 1.35) in ♀, PW/PB 1.30–1.38 (M 1.34) in ♂, 1.30–1.42 (M 1.35) in ♀, PA/PB 0.97–1.03 (M 1.00) in ♂, 0.96–1.03 (M 1.00) in ♀; disc with fine transverse wrinkles; microsculpture consisting of fine transverse meshes.

Elytra elongate, moderately convex, and with wide basal part; EW/PW 1.93–2.03 (M 1.99) in ♂, 1.91–2.10 (M 2.01) in ♀, EL/EW 1.57–1.71 (M 1.65) in ♂, 1.55–1.74 (M 1.65) in ♀; shoulders prominent and rounded; sides almost straight in front, usually very weakly emarginate at about basal 7/20 of elytra, and then widely and weakly arcuate posteriad; preapical situation wide and shallow; apical parts narrow and

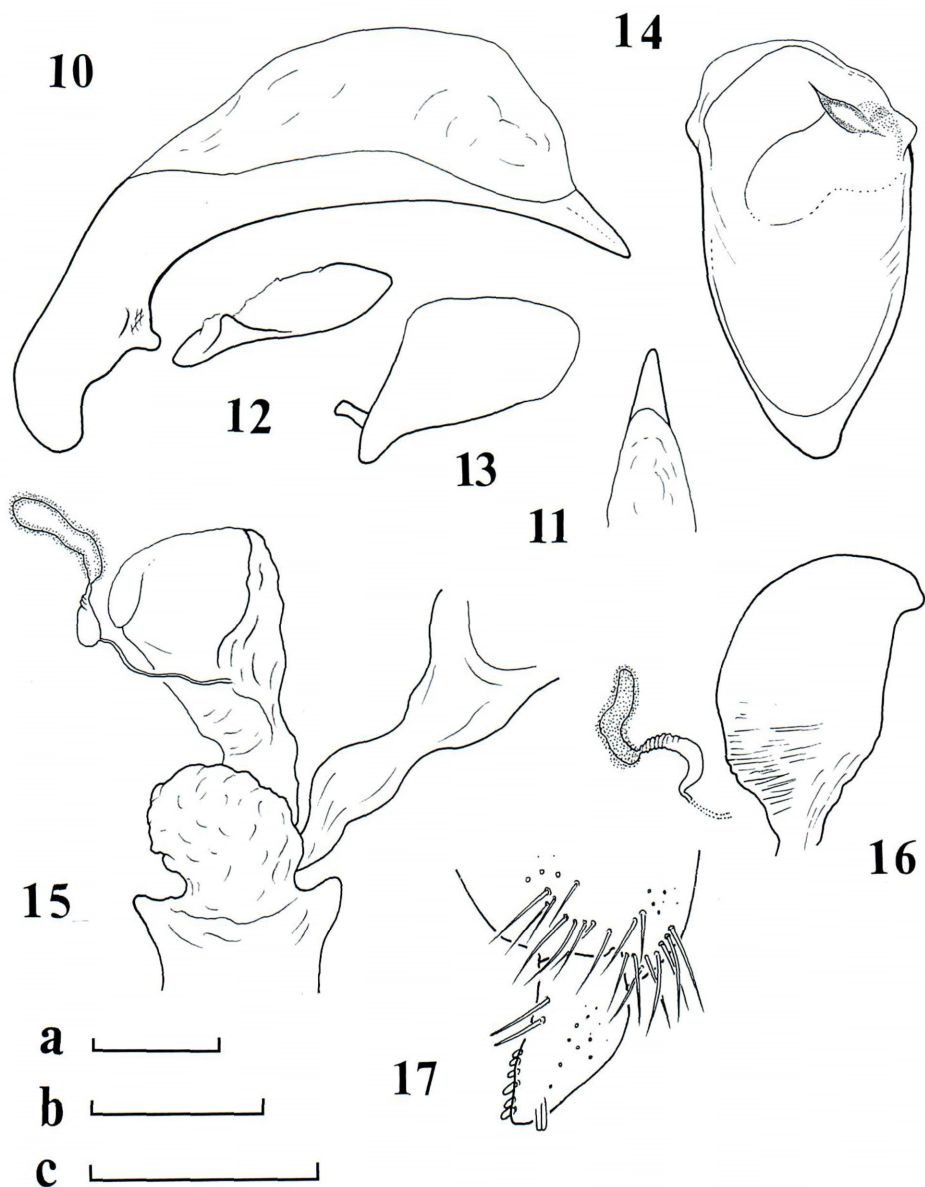


Figs. 1-4. *Paranchodemus ishiguroi* MORITA, TODA et KANIE, sp. nov., showing colour variation.
— 1, 3, 4, ♂; 2, ♀.



Figs. 5-9. *Paranchodemus ishiguroi* MORITA, TODA et KANIE, sp. nov. — 5, Labrum; 6, pronotum; 7, apical part of the left elytron; 8, same, showing variation of pores and stria 7; 9, sternites V-VI in ♀. Scale: 1.0 mm for 6-8; 0.5 mm for 5 and 9.

moderately produced; striae deep, almost smooth or weakly punctate; scutellar striole long and situated on interval I; basal pore situated on base of interval I, and adjoining stria 1 or on the stria, rarely on the interval; microsculpture rather strongly impressed and composed of polygonal or wide meshes; intervals weakly convex and impunctate; marginal series of umbilicate pores 22-28 in number; interval III usually with three pores, sometimes four, rarely five or two; the first pore adjoining stria 3 and situated at about basal $1/5-1/3$ of elytra, rarely lacking; the second one adjoining stria 2 and situated at about middle; the third one adjoining stria 2 and situated at about basal $13/20-7/10$ of elytra; apical part of interval VII usually with four or five pores on each side (cf. LIEBHEER, 1989, fig. 9), rarely with three or six pores, and position of the pores variable, usually adjoining stria 7 or on the stria, sometimes on the interval, rarely close to stria 4; apex of stria 2 sometimes with a weak pore on each side (cf. LIEBHEER, 1989, fig. 10); stria 7 rarely rather clearly impressed towards the anastomosis of striae 1 and 2; apex of stria 1 with a weak pore on each side; elytral epipleuron gradually narrowed



Figs. 10-17. *Paranchodemus ishiguroi* MORITA, TODA et KANIE, sp. nov. — 10, Aedeagus, left lateral view; 11, apical part of aedeagus, dorso-apical view; 12, right paramere, left lateral view; 13, left paramere, left lateral view; 14, genital segment, ventral view; 15, female reproductive tract, with folded apical part of spermatheca; 16, spermatheca and spermathecal gland in another specimen; 17, stylus. Scales: a, 0.5 mm for 15-17; b, 0.5 mm for 10-13; c, 1.0 mm for 14.

apicad; inner plica indistinct.

Sternites (I–V) usually with two or three short setae on each side, and rarely with one additional seta; anal sternite (VI) trapezoidal, bisetose in ♂, quadrisetose in ♀, apical half depressed, and with short and irregular wrinkles.

Legs long and slender; metatrochanter very short, usually with a seta; ML/FL 0.29–0.32 (M 0.30) in ♂, 0.29–0.33 (M 0.31) in ♀; metafemora each with three or four setae in ventral view, rarely two; two proximal segments of meso- and metatarsi each with inner and outer sulci; claw segments of meso- and metatarsi without setae on ventral side; segment 4 of meso- and metatarsi shallowly bilobed; TLI/TLV 0.95–1.13 (M 1.02) in ♂, 0.98–1.20 (M 1.06) in ♀.

Genital segment elongated ovate and with a very short handle.

Aedeagus of moderate size, and with thin basal part; basal orifice large; viewed laterally, aedeagus weakly arcuate; apical lobe narrowly produced and simply rounded at the tip in dorsal view; right paramere elongate and small; left paramere large and wide.

Spermatheca broad, with curved apex; spermathecal gland elongate and curved; apical styli wide, with two nematiform setae at apical pit-like depression (LIEBHEER, 1989, p. 6), with two long spines at basal part and six short spines at apical part.

Type series. Holotype: ♂ (NSMT), 14–VI–2008, S. MORITA leg. Paratypes: 1 ♀, 30–VII–2006, M. ISHIGURO leg.; 2 ♂♂, 1 ♀, 16–VIII–2006, M. ISHIGURO leg.; 1 ♀, 26–VIII–2006, K. TOYOSHIMA leg.; 4 ♂♂, 1 ♀, 2–IX–2006, K. TOYOSHIMA leg.; 11 ♂♂, 6 ♀♀, 11–VIII–2007, N. KANIE leg.; 14 ♂♂, 7 ♀♀, 12–VIII–2007, N. TODA leg.; 50 ♂♂, 27 ♀♀, 14–VI–2008, S. MORITA & N. TODA leg.; 14 ♂♂, 9 ♀♀, 28–VI–2008, N. TODA leg.; 9 ♂♂, 17 ♀♀, 26–VII–2008, N. TODA leg.

Locality. Riv. Ogamigô-gawa, Shôkawa-chô, Takayama-shi, Gifu Prefecture, Chûbu District, Central Japan.

Notes. The standard ratios of body parts shown in the descriptive part are those of ten males and ten females.

This new species is closely allied to *Paranchodemus calleides* (BATES, 1883, p. 256). It is, however, distinguished from the latter by the following points: 1) coloration of dorsal side; 2) shape of pronotum; and 3) wide elytral basal parts. [in 3 ♂♂ and 3 ♀♀ of *P. calleides* from Niigata Pref., PW/HW 1.07–1.09 (M 1.08) in ♂, 1.08–1.11 (M 1.09) in ♀; PW/PL 1.16–1.20 (M 1.18) in ♂, 1.16–1.21 (M 1.19) in ♀; PW/PA 1.32–1.38 (M 1.36) in ♂, 1.33–1.37 (M 1.35) in ♀; PW/PB 1.30–1.35 (M 1.33) in ♂, 1.28–1.36 (M 1.31) in ♀; PA/PB 0.95–1.03 (M 0.98) in ♂, 0.95–1.00 (M 0.98) in ♀; EW/PW 1.88–1.98 (M 1.93) in ♂, 1.93–2.00 (M 1.96) in ♀; EL/EW 1.64–1.76 (M 1.69) in ♂, 1.63–1.71 (M 1.67) in ♀; TLI/TLV 1.06–1.24 (M 1.13) in ♂, 1.08–1.12 (M 1.04) in ♀; ML/FL 0.32–0.33 (M 0.32) in ♂, 0.31–0.32 (M 0.32) in ♀; TL/HW 1.33–1.36 (M 1.35) in ♂, 1.28–1.36 (M 1.31) in ♀; relative lengths of antennal segments as follows: — I : II : III : IV \cong 1 : 0.54 : 1.55 : 1.31.]

要 約

森田誠司・戸田尚希・蟹江 昇：中部地方から採集されたヒラタゴミムシの1新種。——岐阜県から採集された標本を基に、ハクサンルリヒラタゴミムシ *Paranchodemus ishiguroi* MORITA, TODA et KANIE を記載した。本種は、中部～東北地方から知られるオオアオグロヒラタゴミムシ *P. calleides* (BATES) に近縁であるが、背面につよい青色ないし緑青光沢をもつことのほか、前胸背板の形、幅広い上翅の基部などの外部形態から、容易に識別される。

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Description of the Male of *Onthophagus (Indachorius) cheyi*
OCHI et KON (Coleoptera, Scarabaeidae)

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Onthophagus (Indachorius) cheyi was described by OCHI and KON (2006) based on three female specimens collected from Gomantong, near Sandakan, Sabah, Malaysia. Recently, the third author has collected the male of this species from Sepilok near the type locality. We briefly describe it herein and based on this specimen illustrate its male genitalia.