

A New Pterostichine Carabid Beetle from the Abukuma Mountains of Eastern Honshu, Japan

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Abstract A new pterostichine carabid beetle, named *Pterostichus (Nialoe) nishiyamai* sp. nov., is described from the Abukuma Mountains in eastern Honshu, Japan. It may be related to *P. (N.) tokejii* YOSHIDA et TANAKA known only from the Kantô Mountains in central Honshu.

The pterostichine fauna of the Abukuma Mountains lying on the Pacific side of eastern Honshu, Japan, has hitherto been poorly known. In recent years, however, I had opportunities to examine many specimens of this group of carabid beetles collected on the mountain range. One of the species involved seems to be new to science. It is isolated, though closely related to *Pterostichus (Nialoe) tokejii* YOSHIDA et TANAKA (1960, pp. 184–186) restricted to the southwestern part of the Kantô mountain range. It is, however, clearly separable from the latter by several peculiarities.

A pair of specimens of this species were found by Mr. Akira NISHIYAMA on Mt. Hanazono-san in Ibaragi Prefecture, lying near the southern end of the Abukuma Mountains. He also found it on Mt. Yamizo-san in the same prefecture, which is about 30 km distant to the west by north from the first locality. Dr. Shun-Ichi UÉNO obtained the same species at the bottom of Oni-ana Sink in Takine-machi, Fukushima Prefecture, lying at the central part of the mountain range. Mr. Tatsuya NISATO collected it in the valley of the River Hananuki in Takahagi-shi, Ibaragi Prefecture, about 15 km south of Mt. Hanazono-san, which marked the southern limit of its range so far as known at the present.

In the present paper, I will describe it under the new name of *P. (N.) nishiyamai* and will enumerate the other pterostichine species collected with the new one.

The abbreviations used herein are as follows: HW—greatest width of head including eyes; PW—greatest width of pronotum; PBW—basal width of pronotum; PL—length of pronotum, measured along mid-line; EW—greatest width of elytra; EL—length of elytra.

The specimens measured: 22 exs. in the male; 16 exs. in the female.

Before going further, I wish to express my deep gratitude to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for affording me facilities to examine the specimens under his care, and for reading through the manuscript of this paper. Thanks are also due to Messrs. Tatsuya NISATO, Akira NISHIYAMA, Minoru NUMATA, Minoru TAO and Sôhachi ZENBA for their kindness in offering the material.

Pterostichus (Nialoe) nishiyamai KASAHARA, sp. nov.

[Japanese name: Abukuma-nagagomimushi]

(Figs. 1-3)

Description. Length (measured from apex of labrum to apices of elytra) 17.4–19.5 mm. Width 5.7–6.5 mm. Black and shiny; labrum, mandibles and femora dark reddish brown; palpi, antennae, tibiae and tarsi reddish brown; ventral side partially reddish brown.

Head moderately convex, shiny; eyes relatively small, though well convex; tempora shorter than eyes, strongly contracted behind, weakly tumid; genae almost smooth; frontal furrows deep, divergent behind in posterior halves, extending to the mid-eye level; supraorbital areas convex in front; lateral grooves deep, reaching the level of posterior supraorbital setae, which are placed a little behind the post-eye level; clypeal suture distinct; surface sparsely and minutely punctate, microsculpture visible, forming isodiametric meshes; clypeus gently emarginate at apex; labrum weakly emarginate at apex; terminal segment of maxillary palpus almost as long as the penultimate, cylindrical, truncate at apex; antennae relatively long, slender, fully extending to behind shoulders of elytra, scape 2.5 times as long as wide, a little longer than segment 3, which is 1.4 times as long as segment 2, the latter trisetose at apex.

Pronotum cordate, moderately convex, shiny, widest at about apical fifth, 1.3 times as wide as head (PW/HW: ♂ 1.21–1.31, mean 1.26; ♀ 1.21–1.33, mean 1.27), as wide as long in the same proportion (PW/PL: ♂ 1.23–1.38, mean 1.31; ♀ 1.30–1.43, mean 1.33), a half as wide again as basal width (PW/PBW: ♂ 1.49–1.62, mean 1.54; ♀ 1.49–1.63, mean 1.55); lateral margins well arcuate in apical half, then strongly convergent posteriad, distinctly sinuate before base, and almost parallel to each other in basal part; lateral reflexed borders narrow, though becoming wider towards apex; marginal grooves almost smooth, obsolete near base; anterior marginal setae inserted at the widest part; apical margin gently emarginate, not bordered, apical angles produced, rounded at the tips; basal margin lightly emarginate at the middle, not bordered or vaguely bordered near basal angles, which are rectangular, though not acute at the tips; basal foveae shallow, with linear impressions, divergent in front, smooth, though often vaguely punctate at the bases; median line sharply impressed, somewhat deepening at the extremities, often vaguely reaching both the apical and basal margins; apical crescent depression more or less distinct; basal depression weak or obsolete; surface very sparsely and minutely punctate, with vague transverse wrinkles, microsculpture slightly visible, forming transverse meshes.

Apterous. Elytra oblong ovate, moderately convex, shiny in the male, less shiny in the female, widest a little behind middle, 1.3 times as wide as pronotum (EW/PW: ♂ 1.22–1.29, mean 1.26; ♀ 1.23–1.31, mean 1.26), 1.6 times as long as wide (EL/EW: ♂ 1.59–1.70, mean 1.65; ♀ 1.59–1.67, mean 1.62); basal border well curved, obliquely extending to shoulder, and joining lateral margin at an obtuse but distinct or nearly

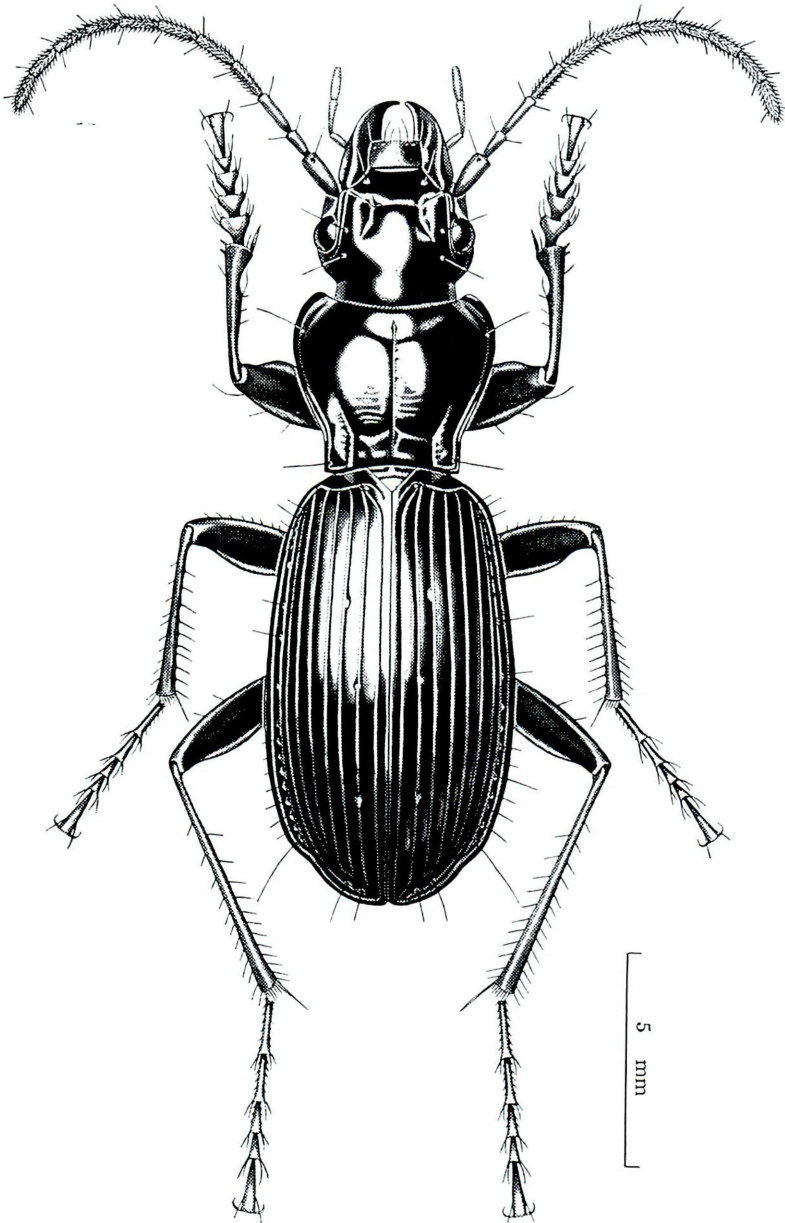


Fig. 1. *Pterostichus (Nialoe) nishiyamai* KASAHARA, sp. nov., ♂, from Mt. Hanazono-san in Ibaragi Prefecture.

rectangular angle; lateral margins gently divergent posteriad from behind shoulders to the widest part, then roundly convergent to shallow preapical emargination, inner plica slightly visible in lateral view, each apex more widely rounded in the female than

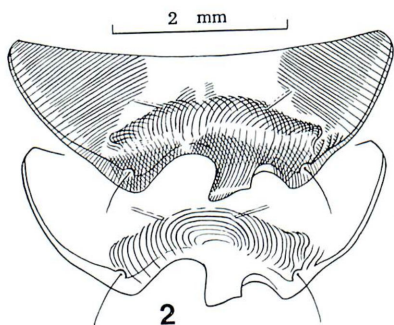


Fig. 2. *Pterostichus (Nialoe) nishiyamai* KASAHARA, sp. nov.; terminal sternite in the male.

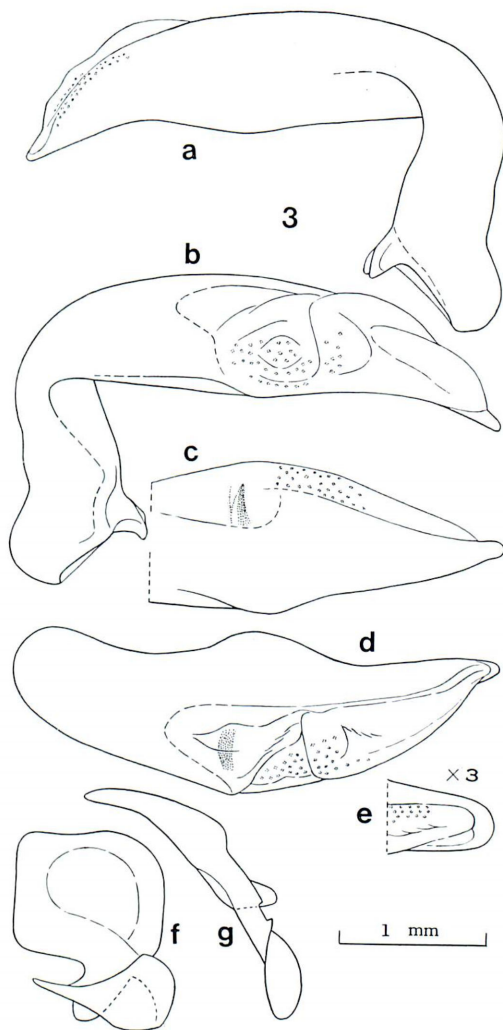


Fig. 3. Male genitalia of *Pterostichus (Nialoe) nishiyamai* KASAHARA, sp. nov.: a-e, aedeagus; a, right lateral view; b, left lateral view; c, apical two-thirds in ventral view; d, dorsal view; e, apical part in dorsal view; f, left paramere; g, right paramere.

in the male; scutellar striole rather short, though distinctly impressed, present on interval 1, and connected with basal border; striae clearly impressed throughout, almost smooth, striae 1 and 2 arising from and adjoining basal pore, respectively; intervals almost flat or somewhat convex, interval 6 often widening at base, interval 3 usually with three, rarely four or five, dorsal pores, anterior one at about basal fourth and adjoining stria 3, while posterior two adjoin stria 2, at about middle and apical fourth, respectively; marginal series of pores 17-19 in number, widely spaced at middle; microsculpture more clearly impressed in the female than in the male, forming transverse meshes.

Ventral surface moderately shiny, almost smooth, basal part of sternites 3-4

vaguely punctate and wrinkled; prosternal process shallowly furrowed at middle, not bordered at apex; in the male, terminal sternite deeply concave in apical half, with apical margin deeply emarginate, the emargination being separated by a projection, which is asymmetrical in the shape and position; in the female, terminal sternite shallowly depressed along apical margin, which is gently rounded and bordered.

Legs slender, metatarsi 1.4 times as long as the width of head; basal three segments of meso- and metatarsi externally sulcate.

Aedeagus strongly bent at more than 90 degrees at the basal third, almost straight at the middle, weakly curved downwards in the preapical part, and distinctly tumid at apical third on the right side; apical lobe very short, rounded at apex; left paramere wide, square; right paramere narrow, gently arcuate, tapering towards apex.

Type series. Holotype: ♂, Mt. Hanazono-san, 700 m alt., Ibaragi Pref., 13. VI. 1976, A. NISHIYAMA leg.; allotype: ♀, Mt. Hanazono-san, 700 m alt., Ibaragi Pref., 10. VIII. 1977, A. NISHIYAMA leg.; paratypes: 1 ♀, Oni-ana Sink, 760 m alt., Takine-machi, Fukushima Pref., 10. VII. 1976, S. UÉNO leg.; 1 ♂, 1 ♀, Oni-ana Sink, 760 m alt., Takine-machi, Fukushima Pref., 7. VII. 1983, S. UÉNO leg.; 1 ♂, 5 ♀♀, Sadanami, 700 m alt., Kitaibaragi-shi, Ibaragi Pref., 16–17. IX. 1983, S. KASAHARA & A. NISHIYAMA leg.; 10 ♂♂, 8 ♀♀, Mt. Hanazono-san, 450 m alt., Ibaragi Pref., 16–17. IX. 1984, S. KASAHARA, A. NISHIYAMA, M. NUMATA, M. TAO & S. ZENBA leg.; 3 ♂♂, 4 ♀♀, Mt. Yamizo-san, 950 m alt., Ibaragi Pref., 18–20. IX. 1984, A. NISHIYAMA leg.; 9 ♂♂, 1 ♀, Hananuki-keikoku, 320 m alt., Takahagi-shi, Ibaragi Pref., 14–15, 24–25. VI. 1984, T. NISATAO leg.

The holo- and allotypes are deposited in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo. The paratypes are separately deposited in the above collection and those of the collectors.

Notes. The present new species somewhat resembles *P. (N.) tokeiji* YOSHIDA et TANAKA, but can easily be distinguished from the latter by having larger and more elongate body, especially the elytra, the smaller number of dorsal pores, the different shape of the terminal sternite in the male, the longer metatarsi, and so on.

A List of the Pterostichine Species Collected with

P. (N.) nishiyamai KASAHARA

Pterostichus (Bothriopterus) subovatus (MOTSCHULSKY)

2 ♂♂, Sadanami, Ibaragi Pref., 16. IX. 1984, M. TAO leg.

Pterostichus (?) yoritomus BATES

2 ♀♀, Mt. Hanazono-san, Ibaragi Pref., 17. IX. 1984, M. TAO leg.

Pterostichus (Epinialoe) spiculifer spiculifer BATES

16 ♂♂, 9 ♀♀, Mt. Hanazono-san, Ibaragi Pref., 17. IX. 1984, S. KASAHARA & M. TAO leg.; 2 ♂♂, 5 ♀♀, Mt. Yamizo-san, Ibaragi Pref., 18–20. IX. 1984, A. NISHIYAMA leg.

Pterostichus (?) *mirificus* BATES

2 ♂♂, 14 ♀♀, Mt. Hanazono-san, Ibaragi Pref., 16–17. IX. 1984, S. KASAHARA, M. NUMATA & M. TAO leg.; 1 ♀, Mt. Yamizo-san, Ibaragi Pref., 18–20. IX. 1984, A. NISHIYAMA leg.; 1 ♀, Hananuki-keikoku, Ibaragi Pref., 24–25. VI. 1984, T. NIISATO leg.

Pterostichus (?) *macrogenys* BATES

1 ♀, Mt. Yamizo-san, Ibaragi Pref., 18–20. IX. 1984, A. NISHIYAMA leg.

Pterostichus (*Nialoe*) *rhanis rhanis* (TSCHITSCHÉRINE)

1 ♀, Sadanami, Ibaragi Pref., 16–17. IX. 1983, S. KASAHARA leg.

Pterostichus (*Nialoe*) *asymmetricus* BATES

10 ♂♂, 10 ♀♀, Mt. Yamizo-san, Ibaragi Pref., 18–20. IX. 1984, A. NISHIYAMA leg.

摘 要

本州東部の阿武隈山地から、ナガゴミムシ属 *Pterostichus* の 1 新種アブクマナガゴミムシ *P. (Nialoe) nishiyamai* を記載した。本種は、関東山地南西部に分布するトケジナガゴミムシ *P. (N.) tokejii* YOSHIDA et TANAKA に近縁である。また、本新種と同時に得られたナガゴミムシ類数種もあわせて記録した。

Reference

- YOSHIDA, A., & K. TANAKA, 1960. Description of a new species of the genus *Pterostichus* from Japan (Carabidae, Coleoptera). *Kontyû, Tokyo*, **28**: 184–186.