The northernmost record of the ground beetle *Pterostichus macrogenys* Bates, 1883 (Coleoptera: Carabidae)

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**Abstract:** The carabid beetle *Pterostichus (Nialoe) macrogenys* Bates, 1883 is recorded from Mt. Kariwakurohime, Kashiwazaki-shi, Niigata Prefecture, Japan, based on a single male. This is the northernmost distribution record of the species. The body size of the specimen is the smallest reported for a male of the species.

**Key words:** biogeography, distribution, Japan, *macrogenys* species group, *Nialoe*

**Introduction**

*Pterostichus (Nialoe) macrogenys* Bates, 1883 is a flightless carabid species that is endemic to Japan and is characterized by a large head with long mandibles. The species is distributed widely in the mountains of the western Kantô and Kôshin-etsu regions (Sasakawa, 2005). However, its precise distribution has not been elucidated because it is relatively rare due to its probable subterranean lifestyle (e.g., Ito & Ogai, 2015) and there are few collection records based on appropriately identified specimens due to the difficulty in dissecting it for species identification (Sasakawa, 2005). This and related species constitute the *macrogenys* species group, which exhibits marked differentiation in central and northern Honshu, where many species with limited distributions occur (Sasakawa, 2005, 2009). Elucidating the precise distribution of each species will provide insights into our understanding of the species relationships of the species group. This short communication reports *P. macrogenys* from a mountain where it has not previously been recorded. Some measurements are provided, and their peculiarities are mentioned.

**Pterostichus (Nialoe) macrogenys** Bates, 1883


**Specimen examined.** 1♂, Mt. Kariwa-kurohime, Kashiwazaki-shi, Niigata Prefecture, Japan (37.2151372N, 138.5747852E), 21.V.2017, Hirotarô Itô leg. (Figs. 1–3)

**Measurements (mm).** Body length from the mandible apices to elytral end 15.2 mm; Body length from anterior margin of labrum to elytral end 13.7 mm; Body length from clypeal apex to elytral end 13.1 mm; Head length from clypeal apex to neck base 2.94 mm; Head width at widest part 3.37 mm;

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Pronotum length along median line 2.83 mm; Pronotum width at widest part 3.90 mm; Pronotal anterior margin width 3.50 mm; Pronotal posterior margin width 3.03 mm; Elytral length from shoulder tip to apices 7.27 mm; Elytral width at widest part 4.50 mm.

Remarks. The structure of the endophallus of the Kariwa-kurohime specimen (Figs. 2–3) is identical to that of *P. macrogenys* individuals from other localities (e.g., a male from Mt. Nasu, Tochigi Prefecture; Figs. 4–5). Based on this result, we identified the focal specimen as *P. macrogenys*. Sasakawa (2005) reported that the body length (measured from the anterior margin of the labrum to the elytral end) of male *P. macrogenys* was 14.7–18.6 mm. Therefore, at 13.7 mm, the Kariwa-kurohime specimen (Fig. 1) is the smallest male *P. macrogenys* reported. The previous northernmost record of *P. macrogenys* based on appropriately identified specimens was Yahata Spa, Yumoto, Nasu-chô, Mt. Nasu, Tochigi Prefecture (37.111084N, 140.0006536E) (Sasakawa, 2005), making the current record the new northernmost distributional record of *P. macrogenys* (Fig. 6).

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Reference


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