

The Pterostichine Subgenus *Rhagadus* (Coleoptera,
Carabidae) from the Abe Pass, Central Japan, with
Description of a New Species

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Abstract Three pterostichine species belonging to the subgenus *Rhagadus* collected on the Abe Pass, Shizuoka Prefecture, Central Japan are enumerated. A new species is described under the name of *Pterostichus (Rhagadus) komiyai* sp. nov.

I am going to deal with the species belonging to the pterostichine subgenus *Rhagadus* collected by myself from the Abe Pass, Shizuoka Prefecture, Central Japan. They are *Pterostichus (R.) komiyai* sp. nov., *P. (R.) brittoni* HABU (1958, p.10), and *P. (R.)* sp. Even though the taxonomic knowledge of the subgenus is still not satisfactory, I am going to venture to describe a new species, and to dedicate this paper to the memory of the late Dr. Yoshiaki KOMIYA, a specialist of Chrysomelidae.

The abbreviations used herein are the same as those explained in my previous papers. The holotype and allotype of this new species are deposited in the National Museum of Nature and Science, Tokyo.

This study is based on examination of 150 specimens of the subgenus *Rhagadus* from Kwantô district, and Shizuoka and Yamanashi Prefectures, Central Japan.

Before going further, I wish to express my deep gratitude to Dr. Shun-Ichi UÉNO of the National Museum of Nature and Science, Tokyo, for critically reading the original manuscript of this paper. My thanks are also due to Dr. Kimio MASUMOTO and Dr. Yuka UTSUNOMIYA for supplying me with important material.

Pterostichus (Rhagadus) komiyai MORITA, sp. nov.

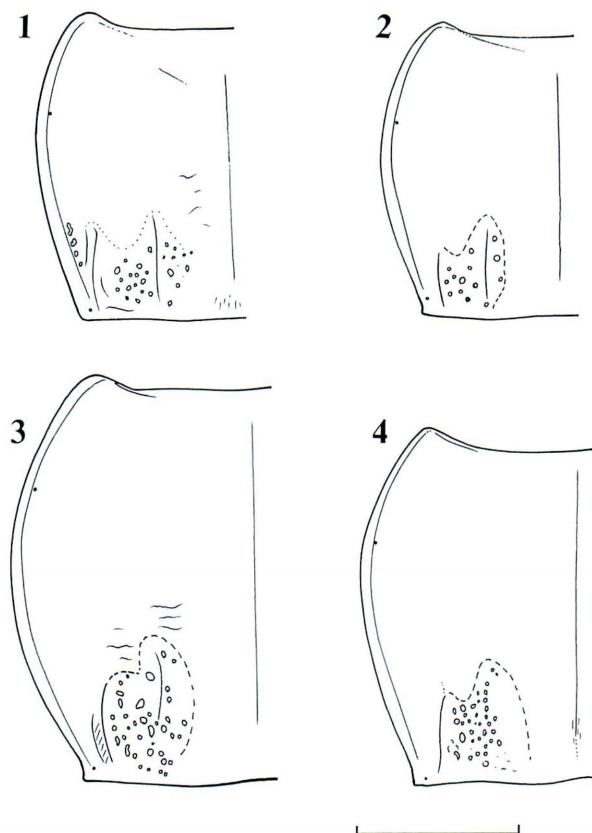
[Japanese name : Komiya-hime-naga-gomimushi]

(Figs. 1 & 5)

Diagnosis. Body small and stout; pronotum wide; sides of elytra rather strongly arcuate; aedeagal apical lobe simple and with rather widely rounded apex in dorsal view.

Description. Length: 6.2–6.9 mm (from apical margin of clypeus to apices of elytra).

Body small and stout. Colour black to blackish brown; dorsal surface slightly



Figs. 1-4. Outline of the left side of pronotum in *Pterostichus* (*Rhagadus*) spp. — 1, *P. (R.) komiyai* MORITA, sp. nov., from the Abe Pass; 2, *P. (R.) takaosanus* HABU, from the type locality (Mt. Takao-san); 3, *P. (R.)* sp., from the Abe Pass; 4, *P. (R.) brittoni* HABU, from the Abe Pass. (Scale: 2 mm.)

shiny; ventral side almost black to blackish brown; sides and base of pronotum and appendages dark brown to brown.

Head convex; eyes weakly convex; frontal furrows wide, divergent posteriad and reaching the level of anterior supraorbital pores or a little before that level, and with fine to coarse punctures; frons usually with coarse punctures; lateral grooves deep, straight, and extending to the mid-level of genae; PW/HW 1.54-1.57 (M 1.56) in ♂, 1.52-1.53 (M 1.53) in ♀; genae oblique and a little shorter than eyes; microsculpture composed of isodiametric meshes; mentum tooth stout and bifid; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI ≈ 1 : 0.53 : 0.99 : 0.93 : 0.90 : 0.89 : 1.20.

Pronotum transverse and convex; apex almost straight to moderately emarginate, and weakly bordered at the sides; PW/PL 1.34-1.40 (M 1.36) in ♂, 1.35-1.44 (M 1.39) in ♀; sides widely arcuate throughout or very slightly sinuate a little before hind angles;

base straight; PW/PA 1.43–1.48 (M 1.46) in ♂, 1.40–1.46 (M 1.44) in ♀, PW/PB 1.23–1.25 (M 1.24) in ♂, 1.20–1.31 (M 1.25) in ♀, PA/PB 0.85–0.86 (M 0.86) in ♂, 0.83–0.90 (M 0.87) in ♀; apical angles moderately produced and widely rounded at the tips; hind angles obtuse or rectangular; anterior pair of marginal setae inserted at a little before the widest part, posterior ones a little before and inside hind angles; anterior transverse impression vanished; median line clearly impressed, reaching neither apex nor base; basal foveae rather shallow, wide, and with coarse punctures and wrinkles; microsculpture composed of fine and transverse meshes.

Elytra ovate, convex and widest at about the middle; EW/PW 1.14–1.17 (M 1.16) in ♂, 1.13–1.18 (M 1.16) in ♀, EL/EW 1.50–1.52 (M 1.51) in ♂, 1.46–1.53 (M 1.50) in ♀; shoulders distinct, and with a tooth on each side; sides moderately arcuate, and with very shallow preapical emargination; apices separated from each other, and sutural angle rounded; scutellar striole lacking; stria 1 joining basal border; basal pore situated at the base of stria 2; two dorsal pores situated on interval III and joining stria 2 or on stria 2; first pore situated at basal 2/5 of elytra, and second one at basal 7/10; microsculpture composed of fine transverse lines; marginal series composed of 14 pores.

Ventral surface coarsely punctate, but the gula, median part of prosternum, metepimera and metacoxae are smooth.

Basal two or three segments of meso- and metatarsi each with outer sulci on dorsal side; TL/HW 0.90–0.97 (M 0.93) in ♂, 0.82–0.89 (M 0.86) in ♀.

Aedeagus elongate; apical lobe elongate and slightly inclined to the right or almost straight; viewed dorsally, apex rather widely rounded; right paramere elongate, and with elongate apical part; left one square.

Type series. Holotype: ♂, allotype: ♀, Abe Pass, 4~11-X-1997, S. MORITA leg. Paratypes: 6 ♂♂, 3 ♀♀, Abe Pass, 4~11-X-1997, S. MORITA leg.; 2 ♂♂, 1 ♀, same locality, 2-VI-1996, S. MORITA leg.; 1 ♀, same locality, 19~20-IX-1980, S. MORITA leg.; 1 ♂, Mt. Ô-yama, Tanzawa Mountains, Kanagawa Pref., 10-VI-2005, Y. UTSUNOMIYA leg.

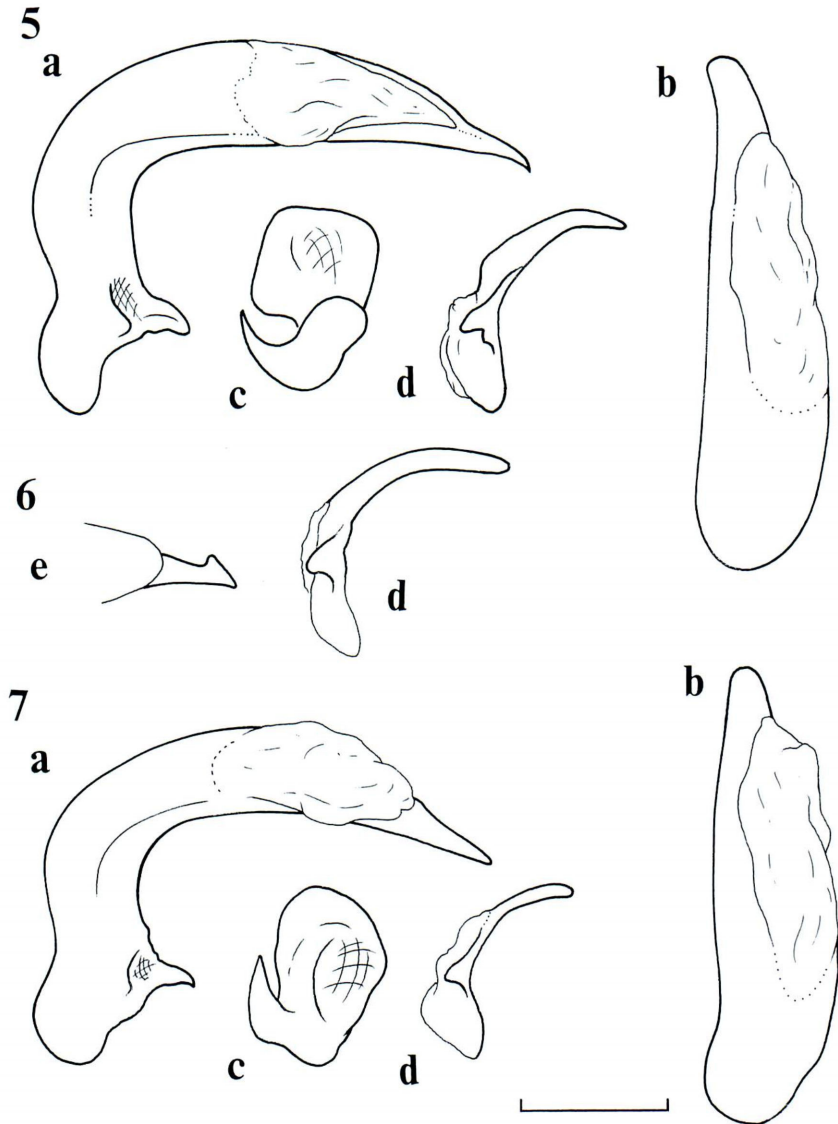
Localities of the type series. Abe Pass, Shizuoka-shi, Shizuoka Prefecture; Mt. Ô-yama, on the Tanzawa Mountains, Kanagawa Prefecture, Central Japan.

Further specimens examined. 2 ♀♀, Aoki-kôsen, Yamanashi Pref., 12-VI-1999, S. MORITA leg.

Notes. The standard ratios of body parts shown in the descriptive part were measured in 4 ♂♂ and 4 ♀♀ from the type locality.

Judging from the shape of the aedeagal apical lobe, this new species is closely allied to *Pterostichus (Rhagadus) takaosanus* HABU (1958, p. 8). It is, however, distinguished from it by the following points: 1) frontal furrows wider, 2) frons coarsely punctate, 3) pronotum wide, PW/PL 1.34–1.44, 4) reflexed lateral sides of pronotum wider, 5) basal foveae of pronotum more strongly punctate, 6) elytral sides more strongly arcuate, 7) aedeagal apical lobe slightly inclined to the right, 8) aedeagal apex rather widely rounded in dorsal view, and 9) apical part of right paramere more elongate.

The Abe Pass, the type locality of this new species, is situated just above the



Figs. 5-7. Male genital organ of *Pterostichus (Rhagadus)* spp. — 5, *P. (R.) komiyai* MORITA, sp. nov., from the Abe Pass; 6, *P. (R.) brittoni* HABU, from the Abe Pass; 7, *P. (R.) takaosanus* HABU, from the type locality (Mt. Takao-san). — a, Aedeagus, left lateral view; b, aedeagus, dorsal view; c, left paramere, left lateral view; d, right paramere, left lateral view; e, apical part of aedeagus, left lateral view. (Scale: 0.5 mm.)

headspring of the Abe-kawa River. The nearest collecting spot of *P. (R.) takaosanus* HABU is Uedo, where this river descends for about 14 km to the south from the Abe Pass. A male specimen of *P. (R.) takaosanus* from Uedo has the following standard

ratios of body parts: PW/PL 1.29, PW/PB 1.29, EL/EW 1.56. The collecting data of the specimen are as given below: 1 ♂, Uedo, Shizuoka-shi, Shizuoka Pref., 29-IV-1988, S. MORITA leg.

On the other hand, this new species looks like a small individual of *P. (R.) brittoni* HABU, but is distinguished from it by the following points: 1) basal foveae of pronotum shallower and wider, and widely punctate, and 2) decisively different shape of aedeagal apex.

Pterostichus (Rhagadus) brittoni HABU

(Figs. 4 & 6)

Specimens examined. 2♂♂ (teneral), Abe Pass, 4-X-1997, S. MORITA leg.

Notes. This species has a wide pronotum and a peculiarly shaped aedeagal apex. A male specimen of this species from the Abe Pass has the following standard ratios of body parts: PW/HW 1.54, PW/PL 1.34, PW/PA 1.52, PW/PB 1.27, PA/PB 0.83, EW/PW 1.20, EL/EW 1.50. This species reminds us of *P. (R.) harponifer* TANAKA (1987, p. 118) known from the Kwantô and Tôkai districts, because of the peculiar shape of aedeagal apex. Though I have not seen that species, I determined them as *P. (R.) brittoni* based on their peculiar shape of the pronotum and of aedeagal apex in dorsal view.

Pterostichus (Rhagadus) sp.

(Fig. 3)

Specimen examined. 1 ♂, Abe Pass, 3~4-VII-1977, S. MORITA leg.

Notes. I am unable to determine this specimen. It has the following features: body rather large (L : 9.00 mm); body black; elytra with iridescent luster; appendages blackish brown; sides of pronotum strongly arcuate; elytral microsculpture almost vanished; aedeagal apical lobe simple.

要 約

森田誠司：静岡県安倍峠産 *Rhagadus* 亜属のナガゴミムシ。——静岡県安倍峠と神奈川県相模大山大で採集されたナガゴミムシを新種と認め、故小宮義璋先生に献名し、コミヤヒメナガゴミムシ *Pterostichus (Rhagadus) komiyai* sp. nov. として記載した。本種は、この亜属の種のなかでも小型で、前胸背板の基部が幅広く、陰茎の先端部は、やや幅広であることなどの特徴をもつ。さらに、基準産地の安倍峠において、同亜属の2種が採集されているので、簡単に報告した。

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Elytra, Tokyo, **35**(2): 406, November 3, 2007

A New Record of *Bembidion satoi* (Coleoptera, Carabidae) from Taiwan

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Bembidion satoi MORITA was described by myself on the basis of an ample series of specimens collected on Iriomote Is., Southwest Japan. Since then, however, no record has been made of this species.

Recently, I came across a single female specimen of *B. satoi* collected by local people in Taiwan. In this brief report, I will record it for the first time from Taiwan. I thank Dr. Katsuyuki TERADA for his kind help.

Bembidion (Neoemphanes) satoi MORITA

Specimen examined. 1 ♀, Lienhuachih, 5–VI–1978.

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