

Figs. 1–3.— 1. *Temnaspis pretiosa pretiosa* (REINECK, 1923), female. — 2. *Colobaspis elegans* (Chûjô, 1951), female. — 3. *Colobaspis fraxini* Y. Komiya, sp. nov.; a: holotype, male; b: paratype, female.

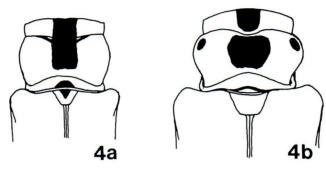


Fig. 4. Prothorax and the basal part of elytra. — a: *Temnaspis pretiosa pretiosa* (REINECK, 1923); b: *T. laosensis* Pic, 1922.

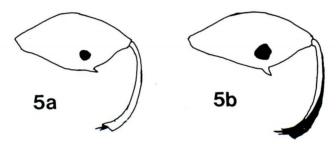


Fig. 5. Left posterior femur and tibia of male, lateral view. — a: Temnaspis pretiosa elegantula (GRESSITT, 1942); b: T. laosensis Pic, 1922.

yuehtan, Nantou Hsien, Taiwan, 3. V. 1977, Y. Komiya lgt.; 1 ex., the same locality as the preceding, 1. V. 1977, K. Suzuki lgt.; 1 ♀, Kenting, Pingtung Hsien, Taiwan, 17. V. 1975, S. Takeda lgt.; 1 ♀, Nanshanchi, Jenai, Nantou Hsien, Taiwan, 28. V. 1975, S. Takeda lgt. *T. pretiosa elegantula* (Gressitt, 1942); 1 ♂ 1 ♀, Shinhua Hsien, Hunan, China, VI. 1945, K. Shirahata lgt., in the collection of Natn. Sci. Mus. (Nat. Hist.), Tokyo.

# 2. *Colobaspis elegans* (CHÛJÔ, 1951), comb. nov. (Figs. 2, 6a, 7a)

Temnaspis elegans Chûjô, 1951, Tech. Bull. Kagawa agr. Coll., 3: 64, fig. 10 (Formosa).

This species resembles *C. septemmaculata* (HOPE, 1831) in its coloration, but may be separable from the latter by the following key.

Body more slender. Head entirely pale without any marking. Lateral margin of
pronotum nearly parallel-sided from the basal angle to a little before the middle,
then gradually narrowed to the anterior corner, with an oval black marking on
the median portion lacking any black spot on each side. Scutellum concolorous
with elytron and pronotum. Each elytron with two transverse black markings;
apical flavous portion of elytron with pale hairs except for the extreme marginal

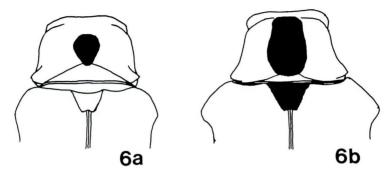


Fig. 6. Prothorax and the basal part of elytra. — a: Colobspis elegans (Chûjô, 1951); b: C. septemmculata (HOPE, 1831).

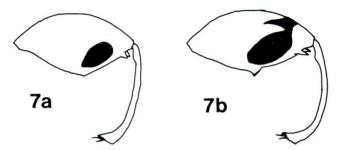


Fig. 7: Left posterior femur and tibia of male, lateral view. — a: *Colobaspis elegans* (Chûjô, 1951); b: *C. septemmaculata* (HOPE, 1831).

area where the hairs are dark; lateral margin of each elytron entirely pale to its

apex. Underside largely fulvous with meso- and metasterna, mesepisternum and metacoxa partly dark brown or piceous. Posterior femur armed with a pair of spine near the distal end, attaching rectangularly, with a small tuberclelike elevation near the middle of underside in male, and decorated with a black oval spot a little beyond the middle on the lateral side near the posterior margin, Body wider, more robust. Head with two black or piceous markings, one, small, in interocular area, the other, relatively large, on vertex. Lateral margin of pronotum straightly narrowed from the basal angle to the anterior corner with a longitudinal black marking on the median portion, and with another one on each side. Scutellum dark brown to piceous. Each elytron with two obliquely situated transverse black markings; a narrow black line extending from the posterior one to the apex along the lateral margin; apical flavous part of elytron covered with blackish hairs. Underside largely dark brownish with prothorax, median and lateral portions of the remaining part pale. Posterior femora armed with a pair of spines near the distal end, attaching obliquely, with an additional small denticle near the middle of underside in male, and decorated

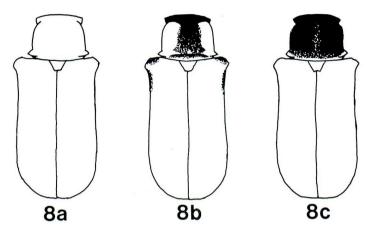


Fig. 8. Colour variation of *Colobaspis fraxini* Y. Komiya, sp. nov.; a and b: male; c: female.

# 3. *Colobaspis fraxini* Y. Komiya, sp. nov. (Figs. 3, 8-9)

Male. Body elongate, parallel-sided. Head pitchy black, with anterior portion of clypeus and labrum yellowish brown, mouth-part and lateral portion of neck region behind eye more or less brownish; antenna dark brown to pitchy with distal end of segments 1 to 4 somewhat reddish brown; prothorax dark brown, much darker in front, almost pitchy black near the anterior margin, paler towards the base, nearly ochraceous in the posterior margin and in the lateral projecting area; scutellum brownish with the central portion darker; elytron orange ochraceous near the base, gradually changing to pale yellowish near the apex; underside reddish brown with mesepisternum dark brown; anterior and middle legs dark brownish to pitchy, hind leg reddish brown with distal part of tibia and tarsi darkened.

Head distinctly broader than prothorax, covered with fine but distinct punctures laterally, each puncture bearing a long erect dark brownish hair, but a pale yellowish one in clypeus and labrum, interstices of punctures smooth and shining; clypeus almost flat, well-delimited from behind by a transverse depression, anterior margin nearly straight, with the central portion almost devoid of puncture; labrum somewhat convex

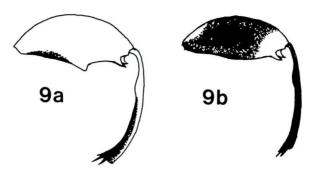


Fig. 9. Left posterior femur and tibia of *Colobaspis fraxini* Y. Komiya, sp. nov.; a: male; b: female.

in the middle with anterior margin slightly emarginate; gena very short with the surface distinctly reticulate; frons nearly flat, slightly depressed laterally with the median portion almost impunctate; vertex with a well-defined fovea in the middle. Eye prominent, deeply emarginate near the antennal insertion. Antenna relatively short, reaching a little behind humerus; segments 1-4 partly reticulate but shining, and sparsely punctured with long yellowish hairs, segments 5-11 strongly serrate, rugosely granulate, covered thickly with dark hairs and sparsely with long ones in the distal portion; segment 1 incrassate and curved, nearly  $3 \times$  as long as broad, 2 short, a little longer than broad, 3 slender, 1.3× as long as 2, 4, shortest, about a half of 3, 5-10 broadened, nearly as broad as long, 10 distinctly broader than long, 11 slightly longer than broad with apex rounded. Pronotum subquadrate, 1.2× as broad at base as long; lateral margin not bordered, nearly parallel from the base to a little beyond the middle, then slightly narrowed anteriorly with a constriction near the front end; anterior margin almost straight, not bordered; basal margin distinctly bordered, and gently sinuate; dorsum evenly convex on each side with a shallow longitudinal depression in the middle, connecting anteriorly and posteriorly with shallow transverse depressions, covered with sparse fine punctures, being closer near the anterior margin, each puncture bearing a long erect yellowish hairs, distinctly tuberculate near the basal conrer; interstices of punctures nearly smooth and shining. Scutellum trapezoidal, lateral margin slightly sinuate, apex feebly emarginate; dorsum smooth and shining, covered sparsely with hair-bearing punctures. Elytron elongate, nearly parallel-sided, slightly widened posteriorly; dorsum irregularly covered with moderate-sized punctures, being slightly larger than those on pronotum, each puncture bearing a long erect dark-coloured hair in basal two-thirds and a yellowish one in apical one-third. Underside moderately covered with fine punctures with pale long hairs; metasternum with a pair of tubercles; apical margin of last visible abdominal sternite nearly straight; pygidium rather evenly rounded apically. Legs stout, covered less densely with fine punctures on femora, more densely with moderately strong ones on tibiae, each puncture having a long pale hair; hind femur strongly incrassate, armed with a pair of spines of almost equal size

at the distal end and with an additional denticle on the lower edge a little beyond the middle; posterior tibia strongly arcuate with a pair of sharp spine at the apex.

Female. Apical margin of last visible abdominal sternite emarginate bisinuately. Pygidium straightly truncated apically. Posterior femur less swollen without denticle on the lower edge a little beyond the middle. Posterior tibia less arcuate.

Colour variation. Pronotal coloration is variable from entirely brownish to mostly pitchy, but even in the darkest specimen, the basal margin including lateral projecting areas remains brownish. Generally female tends to become darker. Elytral coloration also varies from entirely reddish brown to mostly pale yellowish, usually paler towards the apex. In a male specimen, anterior portion of the humerus is stained dark. In some specimens, the mesosternum and mesepimeron are also dark brown to pitchy, entirely or in part. In female, the hind femur and tibia are widely dark brown to pitchy.

Adult food plants: Fraxinus floribunda WALL. and F. griffithii C. B. CLARKE (Oleaceae).

Holotype: ♂, Mt. Tayuanshan (ca. 1,000 m alt.), Liukuei, Kaohsiung Hsien, Taiwan, 24. V. 1984, Y. Komiya lgt. Paratypes: 8 ♂♂, 9 ♀♀, the same data as holotype.

The holo- and paratypes are separately deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo, and in that of the author.

The present new species is closely allied to *C. nankinea* PIC, 1914 from Mainland China and Korea and to *C. japonica* (BALY, 1873) from Japan, but is easily separated from them by the coloration of dorsal surface and by the pronotal punctuation. Judging from their close similarity in the body structure and adult food plants, these three species seem to form a species-group. It also resembles *C. formosana* Reineck, 1923 from Taiwan, but may be distinguished by having a pair of spines instead of one in the latter at the distal end of the lower edge of hind femur.

Ecological observations. The beetle was found feeding on sprouts from a stump of the host tree, and seems to prefer those shoots or small sprouts to the taller tree, never found on the leaves of a big tree. It is usually gnawing at the trunk of newly sprouting shoot near the top end with its head upward, sometimes cutting off the top portion of the shoot. When someone is approaching, it moves around the trunk to the opposite side, as some hemipteran insects often do. On further approach, it flies away or falls down. This kind of behavior seems to be shared with the other members of the subfamily, as a similar behavior was also observed in northern Thailand.

#### A Key to the Taiwanese Species of Megalopodinae

1. Posterior femur without tooth near the distal end, but with a small spine a little beyond the middle of its underside in male; pronotum lacking laterobasal tuber-

cles; general colour orange ochraceous with elytron blue
— Posterior femur armed with one or a pair of teeth near the distal end, and with or
without an additional denticle a little beyond the middle of its underside in
male; pronotum with latero-basal tubercles
2. Posterior femur armed with a pair of teeth of almost equal size near the distal
end
— Posterior femur armed with a sharp spine near the distal end on its outer edge 4
3. Elytron orange ochraceous with apical one-third somewhat yellowish, lacking
black marking on its disc
— Elytron orange-red in basal two-thirds, and pale yellowish in apical one-third,
with two transverse black markings
4. Head and prothorax black
- Prothorax yellowish brown to reddish brown; in some specimens pronotum with
a dark brown to pitchy marking in the median portion 6
5. Antenna long, distinctly longer than the head and prothorax combined; elytron
reddish brown in basal half and pale yellowish in apical half
— Antenna short, only extending to the basal margin of pronotum; elytron yellowish
brown with a long pitchy brown marking on humerus
6. Elytron reddish brown with apical one-third yellowish; hind femur deep yellowish
brown to reddish brown with base somewhat infuscated and apex paler
- Elytron uniformly yellowish brown; head and ponotum yellowish brown with
clypeus, labrum, anterior extremity and latero-basal tubercles of pronotum
pitchy brown; hind femur pitchy black with apical extremity yellowish brown.

## Acknowledgements

The author expresses his hearty thanks to Dr. Y. Kurosawa for loaning the specimens preserved in the collection of the National Science Museum (Nat. Hist.), Tokyo, to Dr. S. Kimoto for valuable suggestions, to Dr. H. Takizawa, Mr. S. Imasaka and Mr. T. Niisato for the materials. Thanks are also due to Dr. T. Nakaike for identifying the host plants and to Mr. A. Hara for taking photographs.

#### 摘 要

台湾産カタビロハムシ亜科のうち、Temnaspis pretiosa pretiosa (REINECK, 1923) を中国大陸産の亜種 T. pretiosa elegantula (GRESSITT, 1942) およびインドシナ半島産の近似種 T. laosensis Pic, 1922 から、また本報で所属を Temnaspis 属から変更した Colobaspis elegans (CHÛJÔ, 1951) を大陸産の近似種 C. septemmaculata (HOPE, 1831) から区別した。また新種、Colobaspis fraxini の記載を行った。台湾産カタビロハムシ亜科の 7 種につき検索表を作成した。

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

#### Sumao KASAHARA

Nishifuna 4-9-13, Funabashi City, Chiba, 273 Japan

Abstract A new pterostichine carabid beetle, named *Pterostichus* (*Nialoe*) *nishi-yamai* 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 Niisato 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 NIISATO, 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:  $\circlearrowleft$  1.22–1.29, mean 1.26;  $\circlearrowleft$  1.23–1.31, mean 1.26), 1.6 times as long as wide (EL/EW:  $\circlearrowleft$  1.59–1.70, mean 1.65;  $\circlearrowleft$  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

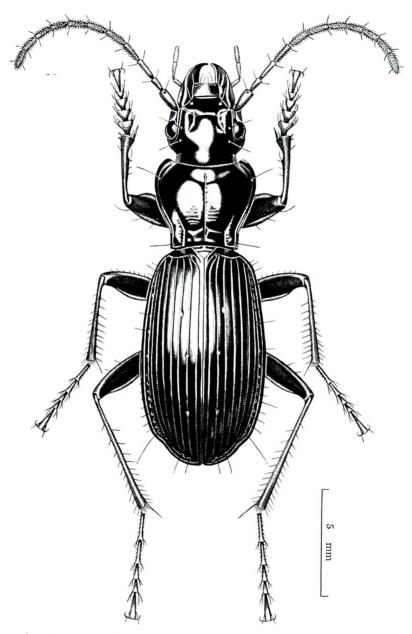


Fig. 1. Pterostichus (Nialoe) nishiyamai Kasahara, sp. nov., &, from Mt. Hanazono-san in Ibaragi Prefecture.

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

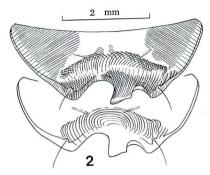


Fig. 2. Pterostichus (Nialoe) nishiyamai Kasahara, sp. nov.; terminal sternite in the male.

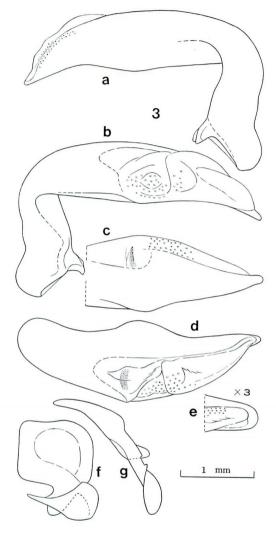


Fig. 3. Male genitalia of *Pterostichus* (*Nialoe*) *nishiyamai* Kasahara, sp. nov.: a-e, aedeagus; a, right lateral view; b, left lateral view; c, apical two-thirds in ventral view; d, dorsal view; e, apical part in dorsal view; f, left paramere; g, right paramere.

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. Hanazonosan, 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♀♀, Sadana-mi, 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. Niisatao 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.) tokejii 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 33, Sadanami, Ibaragi Pref., 16. IX. 1984, M. Tao leg. *Pterostichus* (?) *yoritomus* BATES

 $2 \circlearrowleft \circlearrowleft$ , Mt. Hanazono-san, Ibaragi Pref., 17. IX. 1984, M. Tao leg. *Pterostichus (Epinialoe) spiculifer spiculifer Ba*TES

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

Pterostichus (?) mirificus BATES

2  $\circlearrowleft$  , 14  $\circlearrowleft$  , Mt. Hanazono-san, Ibaragi Pref., 16–17. IX. 1984, S. Kasahara, M. Numata & M. Tao leg.; 1  $\circlearrowleft$  , Mt. Yamizo-san, Ibaragi Pref., 18–20. IX. 1984, A. Nishiyama leg.; 1  $\circlearrowleft$  , 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 *Petrostichus* from Japan (Carabidae, Coleoptera). *Kontyû*, *Tokyo*, 28: 184–186.

#### Tenebrionidae of East Asia

(II) A New Relative of the Genus *Plamius* with Descriptions of Three New Species

#### Kimio MASUMOTO

15-9, Higashikamigo, Totsuka, Yokohama, 247 Japan

**Abstract** A new tenebrionid genus with three new species is described from Southeast Asia. It belongs to the tribe Cnodalonini, and is allied to the genus *Plamius*, originally described from South India.

Through the courtesy of Mr. Kaoru Sakai, Tokyo, I had an opportunity of examining many tenebrionid specimens collected on the Cameron Highlands and the neighbouring areas, the Malay Peninsula. I found a strange species among them and asked the late Dr. Zoltán Kaszab, Természettudományi Múzeum, Budapest, for his opinion about its systematic position. After a careful examination, he informed me that the tenebrionid in question should be a new species belonging to a new genus, allied to the genus *Plamius* Fairmaire, 1896. At the same time, he offered me to examine another new species of the same genus from Borneo preserved in the collection of the Museum. Later, I found the other new species from Borneo in my collection. Thus, I am going to describe the new genus and three new species in this paper.

Before going into further details, I wish to express my sincere gratitude to Mr. K. Sakai for his kind offer of the material. I am also indebted to the late Dr. Z. Kaszab, who not only informed me of invaluable suggestion but also permitted me to examine specimens including the type of the genus *Plamius* for this study, and to Dr. Shun-Ichi Uéno, National Science Museum (Nat. Hist.), Tokyo, for his constant guidance and reading the original manuscript.

### Malayaplamius gen. nov.

Type species: Malayaplamius sakaii sp. nov.

Body small, oblong-oval, strongly convex above; either winged or apterous; mostly bluish and strongly shining above.

Head rather large, nearly horizontal against pronotum in repose; frons broad with fronto-clypeal border grooved, the groove extending backwards to occiput, thus forming noticeable — or inverted U-shaped sulcus on head; eyes rather small, strongly produced laterad; interocular space wide; antennae rather short, thickened to apex and somewhat club-like.

Pronotum medium-sized; apical margin not bordered; base clearly bordered, the

border interrupted in middle or not; sides arcuate laterad, with lateral margins bordered and very feebly crenulate; disc strongly convex above and punctate. Scutellum small.

Elytra about 1.5 times as long as broad, slightly broader than pronotum at base; dorsum strongly convex; disc punctate-striate; intervals feebly to moderately convex, scattered with small punctures; sides steeply declined, more or less arcuate laterad, with lateral margins bordered.

Mentum variable in shape; gula mostly triangular; terminal segment of maxillary palpus nearly securiform.

Prosternum medium-sized, rather widely, moderately raised between coxae, with apical margin neither bordered nor edged, prosternal process variable in shape; mesosternum mostly short, depressed anteriorly, raised in V-shape in posterior portion; metasternum medium-sized to rather short and wide, with a median groove. Abdomen medium-sized and punctate, anal sternite with rounded apical margin in both sexes.

Legs short and rather stout; femora simply thickened and not spined; tibiae rather short; tarsi rather long as compared with tibiae; claws medium-sized and falciform.

Male genitalia mostly simple.

Notes. The present genus is classified into the tribe Cnodalonini and allied to the genus *Plamius* Fairmaire, 1896, described from South India, but can be distinguished from it by the following characteristics: 1) body small and strongly convex above; 2) head noticeably grooved in — or inverted U-shape; 3) eyes rather small and strongly protruded laterad; 4) pronotum with clearly bordered base (the border interrupted in middle in a species); 5) scutellum very small; 6) elytra with lateral margins clearly bordered; 7) antennae rather short; 8) protibiae simple in male, while in *Plamius*, they are noticeably bent in apical portion in some species; 9) male genitalia mostly short and simple; 10) winged or apterous (e.g., Malayaplamius sakaii sp. nov.).

# Malayaplamius sakaii sp. nov.

(Figs. 1-3)

Body oblong oval, rather strongly constricted between the bases of pronotum and elytra, strongly convex above; apterous; dark blue, with antennae, mouth-parts and tarsi blackish brown, under surface with violet tinge; upper surface strongly shining and under surface moderately so.

Head rather large and a little broader than long, nearly horizontal against pronotum in repose, moderately declined forwards, feebly microshagreened, rather shallowly punctate; frons broad, with fronto-clypeal border nearly straight and noticeably grooved, the groove extending backwards and reaching occiput, thus forming —shaped suclus; clypeus somewhat transversely elliptic, moderately convex above in middle; genae medium-sized, dilated and finely separated from other portions of head, with outer margin roundly produced laterad; eyes small and rather transverse, notice-

ably protruded laterad, distance between them about 6 times their diameter. Antennae rather short, hardly reaching the middle of pronotum, 5 apical segments noticeably thickened and somewhat club-like, 11th disc-shaped, ratio of the length of each segment from basal to apical: 0.4, 0.2, 0.4, 0.3, 0.3, 0.3, 0.4, 0.4, 0.4, 0.4, 0.5.

Pronotum somewhat shortly barrel-shaped, slightly broader than long, broadest at middle, roundly narrowed towards base and apex; apical margin weakly arcuate, not bordered; base widely V-shaped, very slightly sinuous on each side, clearly bordered; sides rather steeply declined, with lateral margins finely bordered, microscopically, feebly crenulate, barely visible from above, feebly emarginate before base; front angles obtuse and not angulate; hind angles obtusely angulate; disc strongly convex above, rather strongly punctate, the punctures sparsely set in middle. Scutellum small and triangular.

Elytra 1.5 times as long as broad, 2.4 times length and a little more than 1.4 times breadth of pronotum, broadest at middle, moderately roundly narrowed towards bases, strongly, roundly so towards apices, and slightly produced at apices; dorsum strongly convex above, thickest a little behind basal 1/3; disc noticeably punctate-striate, the punctures in striae rather strongly pitted, distance between them about 1–2.5 times their diameter, becoming sparser in lateral portions; intervals feebly to moderately convex, scattered with punctures, which are about 1/4 times size of those in striae; sides steeply declined and enveloping hind body, with lateral margins deeply bordered though invisible from above; humeral portions rather slender.

Mentum nearly semicircular and asperate, raised antero-medially; gula triangular, transversely microreticulate, impressed at apex on each side; terminal segment of maxillary palpus medium-sized and securiform, with outer and inner sides rounded.

Prosternum medium-sized, feebly microshagreened, rather sparsely scattered with large shallow punctures, rather widely, moderately raised between coxae and shallowly depressed longitudinally, with apical margin neither bordered nor edged, prosternal process widely truncate at apex and barely produced posteriad; mesosternum short and very feebly microshagreened, moderately depressed in anterior 2/3, gradually raised in remaining portion and somewhat V-shaped; metasternum rather short and wide, smooth and sparsely scattered with punctures, microshagreened laterally, with fine median groove. Abdomen medium-sized, scattered with punctures (each with a short hair), which become finer towards apex.

Legs short and rather stout, feebly microshagreened and punctate; femora rather thickened; tarsi rather long as compared with tibiae, ratio of the length of each tarsal segment of pro-, meso- and metatarsi from basal to apical: 0.4, 0.2, 0.2, 0.2, 1.5; 0.4, 0.2, 0.2, 0.2, 1.5; 0.8, 0.2, 0.2, 1.7; claws medium-sized and falciform.

Male genitalia simple as shown in Figs. 2 and 3.

Body length: ca. 4 mm.

Holotype:  $\circlearrowleft$ , Tanah Rata, Cameron Highlands, Pahang, Malaysia, 19. III. 1976, K. Sakai leg. (in National Science Museum (Nat. Hist.), Tokyo). Paratypes: 3 exs.,

same data as the holotype; 1 ex., 3. III. 1976, 1 ex., 16. III. 1976, same locality and collector as the holotype.

## Malayaplamius uenoi sp. nov.

(Figs. 4-6)

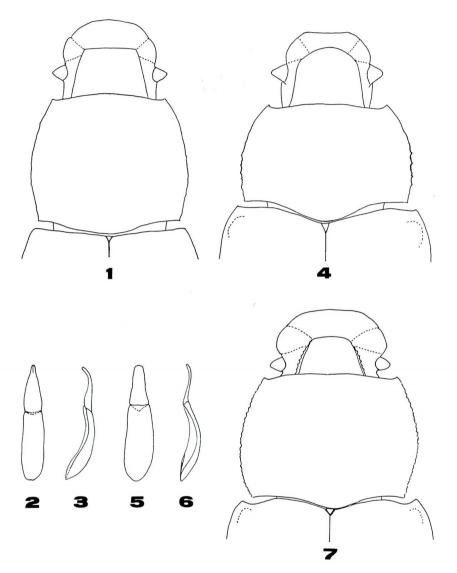
This new species resembles the preceding one, but can be distinguished from the latter by the following characteristics:

Body broader and more noticeably widened posteriad, more strongly convex above, less strongly constricted between the bases of pronotum and elytra; winged; head and pronotum dark blue, elytra metallic purple with violet tinge in humeral portions, under surface rather blackish.

Head narrower, noticeably strongly convex above and microshagreened in inner basal portion, nearly flat and rather horizontal in apical portion and metallically shining, more noticeably punctate; frons a little broader, rather steeply declined, with fronto-clypeal border slightly arcuate and grooved, the groove extending backwards and reaching occiput, forming inverted U-shaped sulcus; clypeus rather short, truncate at apex, weakly convex postero-medially; genae smaller, with outer margin slightly rounded and not so produced as in *M. sakaii*; eyes a little larger, distance between them about 5 times their diameter. Antennae a little shorter, reaching basal 1/4 of pronotum, 6 apical segments more noticeably thickened, 11th rather ovoid, ratio of the length of each segment from basal to apical: 0.6, 0.2, 0.3, 0.3, 0.3, 0.4, 0.4, 0.4, 0.5, 0.8.

Pronotum more transverse, a little less than 1.6 times as broad as long, broadest at apical 2/5, rather strongly and roundly narrowed towards apex and weakly so towards base; apical margin more widely and weakly arcuate; base more widely V-shaped, more clearly bordered, and more distinctly sinuous on each side; sides moderately declined and obliquely explanate laterally, with lateral margins more clearly bordered and slightly crenulate, visible from above; front angles with rounded corner; hind angles obtusely angulate; disc moderately strongly, somewhat transversely convex above, feebly microshagreened, more finely and closely punctate. Scutellum isosceles triangular, scattered with a few fine punctures.

Elytra broader and shorter, 1.4 times as long as broad, a little less than 3 times length and 1.4 times breadth of pronotum, broadest at middle, weakly narrowed towards bases, and roundly so towards apices, which are feebly, roundly produced; dorsum more strongly, somewhat semispherically convex above, thickest at middle, weakly depressed obliquely from basal 1/6 of the middle to basal 1/3 of lateral portions; disc more finely punctate-striate, the punctures in striae a little smaller and closely set, often intermixed with smaller ones; intervals less strongly convex, scattered with finer punctures, feebly, irregularly wrinkled; sides nearly vertically declined, not enveloping hind body, noticeably bordered, narrowly explanate and finely rimmed along lateral margins; humeral portions rather distinctly swollen.



Figs. 1-7. — 1-3. *Malayaplamius sakaii* gen. et sp. nov.; 1, fore body; 2, ditto, male genitalia (dorsal view); 3, ditto, male genitalia (lateral view). — 4-6. *Malayaplamius uenoi* sp. nov.; 4, fore body; 5, ditto, male genitalia (dorsal view); 6, ditto, male genitalia (lateral view). — 7. *Malayaplamius kaszabi* sp. nov.; fore body.

Mentum widely subcordate and asperate, ridged medially, with basal margin rimmed; gula triangular, microscopically alutaceous, impressed in a crescent-shape near apex; terminal segment of maxillary palpus more strongly dilated and securiform.

Prosternum a little shorter, coarsely punctate and rather tuberculate, sparsely covered with fine hairs, moderately raised between coxae and weakly depressed medial-

ly, with prosternal process obtusely pointed; mesosternum rather short and coriaceous, strongly depressed in anterior 2/3, raised in remaining portion and ridged in V-shape along hind border; metasternum medium-sized, scattered with punctures (each with a hair), which become larger to lateral portions, rather smooth in middle and microshagreened laterally, with median groove in posterior 2/3. Abdomen shorter, more closely punctate, each puncture bearing a hair, more feebly microshagreened.

Legs shorter, more noticeably, coarsely punctate and sculptured; ratio of the length of tarsal segment from basal to apical: 0.3, 0.2, 0.2, 0.2, 1.3; 0.4, 0.3, 0.2, 0.2, 1.4; 0.6, 0.3, 0.3, 1.5, respectively.

Male genitalia wider, truncate at apex.

Body length: 3.6 mm.

Holotype: 3, 15 miles northwest of Keningau (900 m alt.), Borneo, East Malaysia, 15–19. VIII. 1983, Y. Notsu leg. (in Natn. Sci. Mus. (Nat. Hist.), Tokyo).

# Malayaplamius kaszabi sp. nov.

(Fig. 7)

This new species also resembles M. sakaii sp. nov., but can be distinguished from it by the following characteristics:

Body slightly larger, less convex above, less strongly constricted between the bases of pronotum and elytra; winged; upper surface indigo-bluish, under surface blackish brown with weak bluish tinge; upper surface more metallically shining.

Head more closely punctate and microshagreened, more strongly raised in inner basal portion, gradually declined forwards to apex; frons a little narrower, with frontoclypeal border more shortly and more finely grooved, the groove roundly curved to rear and reaching occiput, thus forming inverted U-shaped sulcus, which becomes much deeper and feebly serrated in lateral portions; clypeus broader, flattened on each side, truncate at apex, with outer margin roundly, continuously extending to genal margin; genae larger and more strongly dilated, flattened, with outer margin roundly produced laterad; eyes nearly of the same shape and size as those of *M. sakaii*, distance between them 7 times their transverse diameter. Antennae slightly shorter, reaching basal 1/4 of pronotum, 5 apical segments more strongly thickened to apex, 11th rather transverse-elliptic, ratio of the length of each segment from basal to apical: 0.7, 0.3, 0.6, 0.4, 0.4, 0.4, 0.5, 0.5, 0.6, 0.6, 0.8.

Pronotum clearly transverse, a little less than 1.2 times as broad as long, broadest at middle, roundly narrowed towards base and apex; apical margin more widely, weakly arcuate forwards; base more noticeably V-shaped and bisinuous, with medial 1/3 roundly produced to rear and not bordered though lateral 1/3 is clearly bordered on each side; sides less steeply declined and narrowly, obliquely explanate, with lateral margins finely rimmed and microscopically, bluntly crenulate, visible from above, very slightly emarginate before base; front angles rather obtuse, with corner not angulate; hind angles obtuse and clearly angulate; disc less strongly convex above, more closely,

a little coarsely punctate, microshagreened in lateral portions. Scutellum smaller, triangular.

Elytra about 1.5 times as long as broad, 2.4 times length and a little less than 1.3 times breadth of pronotum, broadest a little behind basal 1/3, feebly narrowed towards bases, feebly so towards rear, then roundly narrowed to apices; dorsum rather strongly, somewhat semispherically convex above, thickest at middle, slightly depressed obliquely in basal 1/5 of lateral portions; disc more strongly, noticeably punctate-striate, the punctures in striae nearly equidistantly and rather closely set, strongly notching intervals; intervals feebly to moderately convex above, scattered with microscopic punctures; sides nearly vertically declined and not enveloping hind body, clearly bordered, narrowly, obliquely explanate and finely rimmed along lateral margins; humeral portions rather prominent.

Mentum widely subcordate and truncate at apex, coriaceous and sparsely pubescent, raised antero-medially; gula rather triangular, transversely microreticulate; terminal segment of maxillary palpus nearly securiform, with outer and inner sides rounded.

Prosternum a little broader, microshagreened, rugose and sparsely pubescent, moderately and more widely raised between coxae and shallowly bisulcate, with prosternal process slightly, obtusely produced to rear; mesosternum short and feebly microshagreened, depressed in major anterior portion, raised in wide V-shape at middle of hind border; metasternum short and wide, sparsely scattered with punctures, microshagreened laterally. Abdomen a little broader, hardly microshagreened, more strongly punctate, the punctures becoming finer towards apex (each with a hair).

Legs a little more slender, rather coarsely sculptured; tibiae nearly straight (more or less curved in *M. sakaii*); tarsi shorter and slightly thicker, ratio of the length of tarsal segments from basal to apical: 0.4, 0.2, 0.2, 0.3, 1.3; 0.2, 0.2, 0.2, 0.3, 1.4; 0.5, 0.3, 0.3, 1.4, respectively.

Body length: 3.9-4.1 mm.

Holotype:  $\bigcirc$ , Sandakan, Borneo, (no collecting data), Baker leg. (in Természettudományi Múzeum, Budapest). Paratype: 1 ex., near Kuala Kubu Bahru, Selangor, Malaysia, 27. III. 1976, K. Sakai leg.

#### 摘 要

ゴミムシダマシ科 Tenebrionidae のニジゴミムシダマシ族 Cnodalonini に属する新属 *Malayaplamius* とそれに含まれる新種,M. sakaii,M. uenoi,M. kaszabi を記載した。本属は当初,南インドから記載され,東アジアに広く分布するヒメキマワリモドキ属 *Plamius* に近縁と考えられる。

# The True Identity of *Dihamus fulvicornis hachijoensis* GRESSITT (Coleoptera, Cerambycidae)

#### Hiroshi MAKIHARA

Forestry and Forest Products Research Institute, P. O. Box 16, Tsukuba Norin Kenkyu Danchi-nai, Ibaraki, 305 Japan

#### and

#### Tatsuya NIISATO

Laboratory of Entomology, Tokyo University of Agriculture, 1-1, Sakuragaoka 1-chome, Setagaya-ku, Tokyo, 156 Japan

**Abstract** Acalolepta mikurensis Hayashi is treated as a synonym of A. hachijoensis (Gressitt).

Acalolepta hachijoensis (GRESSITT) (1956, p. 113, fig. 13 b) is a lamiine cerambycid originally described as a subspecies of Dihamus fulvicornis (PASCOE) (=Acalolepta sejuncta BATES), from the Island of Hachijô-jima off central Honshu. According to HAYASHI (1984), this species occurs in the southern part of the Izu-shichitô Islands, i.e. Hachijô-jima, Miyake-jima and Kouzu-shima. On the other hand, it is well known that a relative of this species, A. mikurensis HAYASHI (1969, p. 64) occurs on Hachijô-jima and Mikura-jima, though the true status of the two forms has not yet been clarified. Recently, we were able to re-examine GRESSITT's type of the former deposited in the California Academy of Sciences. Our comparative study has revealed that it is a species actually agreeing with A. mikurensis. In the following lines, we are going to give the result of this study.

We wish to express our deep gratitude to Dr. Shun-Ichi Uéno of the National Science Museum (Nat. Hist.), Tokyo, for his constant guidance and reading the original manuscript of this short paper, to Drs. Norman D. Penny and David H. Kavanaugh of the California Academy of Sciences, for their kind arrangement of the loan of Gressitt's type specimen, and to Drs. Y. Hirashima and M. Shiga, Messrs. H. Fujita, M. Hasegawa, S. Hirose, T. Ichikawa, Y. Ito, K. Nagata, J. Ôkuma and S. Saito for their kindness in submitting their specimens to our study. The junior author, T. Niisato, wishes to express his hearty thanks to Professors Hiromasa Sawada and Yasuaki Watanabe of the Laboratory of Entomology, Tokyo University of Agriculture, for their constant guidance, and to Dr. Toshio Senoh of the same laboratory for taking photographs inserted in this paper.

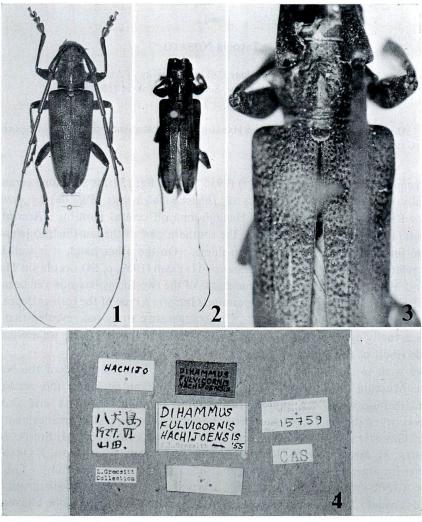
# Acalolepta hachijoensis (GRESSITT, 1956)

(Figs. 1-4)

Dihamus fulvicornis hachijoensis Gressitt, 1956, Ins. Micronesia, 17, p. 113, fig. 13 b; type locality: Hachijojima Is., just north of Micronesia.

Acalolepta hachijoensis: Онвауаsні, 1963, Ісоп. Ins. Japon. Col. nat. ed., 2, p. 303, pl. 152, figs. 3 а-b (рагt); Колма & Науаsні, 1969, Ins. Life Japan, 1, p. 130, pl. 41, fig. 6 (рагt); Науаsні, 1984, Coleopt. Japan Col., Osaka., 4, p. 113, pl. 23, fig. 5 (рагt).

Acalolepta mikurensis HAYASHI, 1969, Ent. Rev. Japan, 21, p. 64; type locality: Mikurajima Is. of Izu



Figs. 1-4. Acalolepta hachijoensis (GRESSITT). — 1, A. hachijoensis, male, from Hachijô-jima Is.; 2, Dihamus fulvicornis hachijoensis (=A. hachijoensis), holotype, male; 3, same, showing scutellum and punctuation of elytra; 4, labels for the same specimen.

ISIS.; KOJIMA & HAYASHI, 1969, Ins. Life Japan, 1, p. 131, pl. 42, fig. 6; HAYASHI, 1984, Coleopt. Japan Col., Osaka, 4, p. 113, pl. 23, fig. 3. [Syn. nov.]

Acalolepta fraudatrix mikurensis: Kusama, 1973, List Ecol. Dist. Japan. Ceramb., p. 111; Takakuwa, 1979, Gekkan-Mushi, (104), p. 39, fig. 13; Kusama et al., 1984, Longicorn-beetles Japan Col., Tokyo, p. 437, pl. 70, fig. 486 e-f.

As shown in Fig. 4, GRESSITT's type bears eight labels, of which a white label inscribed by Chinese characters is somewhat questionable. The first line must be read "Hachi-jo-jima", though it was written as "Hachi-inu-jima", since the Chinese characters "jô" and "inu" are similar in shape. The specimen is not in a very good condition; the left side of occiput, much of metasternum, and the right hind femur were damaged by dermestids, and the right mid leg, the left hind tarsus, the left antennal segments except for the scape, and the apical part of the right antennal segment 11 are missing.

Type depository. California Academy of Sciences, San Francisco.

Specimens examined. Hachijô-jima Is: 1  $\circlearrowleft$  (holotype), no further locality name, VI. 1927, Yamada leg.; 1  $\updownarrow$ , Mitsune-Kantoyama, 30. V. 1964, Y. Hirashima & M. Shiga leg.; 1  $\updownarrow$ , Kashidate, 8. VII. 1975, T. Ichikawa leg.; 1  $\circlearrowleft$ , Mt. Hachijô-fuji, 10. VII. 1975, J. Ôkuma leg.; 1  $\updownarrow$ , Sueyoshi, 12. VII. 1977, Y. Ito leg.; 1  $\updownarrow$ , 10. VII. 1983, H. Fujita leg.; 1  $\circlearrowleft$ , 1  $\updownarrow$ , no further locality name, 13. VII. 1985, K. Nagata leg. Mikura-jima Is.: 1  $\circlearrowleft$ , 1  $\updownarrow$ , Kawada, 28. VI. 1973, H. Fujita leg.; 2  $\circlearrowleft$   $\circlearrowleft$ , 1  $\updownarrow$ , no further locality name, VII. 1974, S. Saito leg.; 1  $\circlearrowleft$ , same locality, 9. VI. 1983, M. Hasegawa leg.; 1  $\circlearrowleft$ , 1  $\updownarrow$ , 10. VI. 1983, same locality, S. Hirose leg.; 1  $\circlearrowleft$ , 1  $\updownarrow$ , same locality, 22. VI. 1983, S. Hirose leg.

Distribution. Southern part of the Izu-shichitô Islands (Hachijô-jima Is. and Mikura-jima Is.), off central Honshu, Japan.

#### 摘 要

Acalolepta hachijoensis (GRESSITT) ハチジョウビロウドカミキリは、伊豆八丈島から Dihamus fulvicornis (=Acalolepta sejuncta) ニセビロウドカミキリの 1 亜種として記載されたが、大林 (1963) 以降独立種として扱われている。一方、伊豆御蔵島から、HAYASHI (1969) によって記載された Acalolepta mikurensis ミクラビロウドカミキリは、現在、御蔵島と八丈島より分布が知られているが、この種と A. hachijoensis との関係について検討されたことは、これまでほとんどなかった。最近われわれは、GRESSITT の種の基準標本を実検し、伊豆諸島南部の Acalolepta 属の標本と詳細に比較検討した結果、A. mikurensis は A. hachijoensis のシノニムであるとの 結論を得た。したがって、伊豆八

文島, 御蔵島に分布する A. fraudatrix 種群のビロウドカミキリに対しては、 今後 A. hachijoensis (GRESSITT) の種名が用いられることになる.

#### Literature Cited

- GRESSITT, J. L., 1956. Coleoptera: Cerambycidae. Ins. Micronesia, 17: 61-183.
- HAYASHI, M., 1969. Studies on Cerambycidae from Japan and its adjacent regions (Col.), XVII. Ent. Rev. Japan, 21: 61-66.
- 1984. Cerambycidae. In Hayashi, M., et al. (eds.), The Coleoptera of Japan in Color, 4: 1–116, pls. 1–28. Hoikusha, Osaka. (In Japanese.)
- Kojima, K., & M. Hayashi, 1979. Cerambycidae. *Ins. Life Japan*, 1, 295 pp., 56 pls. Hoikusha, Osaka. (In Japanese.)
- Kusama, K., 1973. A List of Ecological and Distributional Data for the Japanese Cerambycidae. 160 pp. (In Japanese.)
- Kusama, K., et al., 1984. Longicorn-beetles of Japan in Color. 565 pp., 96 pls. Kodansha, Tokyo. (In Japanese.)
- Ohbayashi, K., 1963. Cerambycidae. In Nakane, T., et al. (eds.), Iconographia Insectorum Japonicorum Colore naturali edita, 2 (Coleoptera): 267–318, pls. 134–159. Hokuryukan, Tokyo. (In Japanese.)
- TAKAKUWA, M., 1979. The origin of the cerambycid fauna of the Izu Islands. *Gekkan-Mushi*, (104): 35–40. (In Japanese.)

# 日本産ウバタマコメツキ類の鱗状毛の形態

## 大 平 仁 夫

Notes on the Morphology of Scale-like Setae in the Paracalais-species from Japan

#### Hitoo ŌHIRA

National Institute for Physiological Sciences, Okazaki, 444 Japan

ウバタマコメッキ属 (Paracalais) に所属する種は、日本に3種分布しているが、それぞれ明瞭な特徴が存在しているので種の識別は容易である。筆者は、日本産の種の体表面に生じている鱗状毛と、雌第7腹節の末端部に叢生する剛毛の形態について調査することができたので、ここに報告する。

#### 分布·生態

ウバタマコメッキ Paracalais berus (Candèze, 1864) は、長崎からの標本にもとづいて新種の記載がなされた種で、現在では本州から台湾にいたる各地に広く分布している。幼虫は、本州では松の枯木 (朽木) の樹皮下に入ることが判明しているが、琉球や台湾での寄主植物は不明である。幼虫は捕食性で、老熟した個体は樹皮下で頻室を作って蛹になり、新成虫はそのまま頻室内にとどまって冬を越すようである。

オオウバタマコメッキ Paracalais yamato (NAKANE, 1957) は、奈良県の春日山からの標本にもとづいて新種の記載がなされた種であるが、現在では香川県、岡山県、福岡県の一部にも分布することが判明している。幼虫は広葉樹の枯木 (朽木) の樹皮下に入るようで、梅谷 (1959) は春日山で、倒木の朽木 (ブナ科の 1 種) の内方部から越冬中の成虫を見い出している。また、佐藤 (1975) は、広葉樹の倒木の樹皮下で越冬中の成虫を見い出している。しかし、幼虫はまだ明らかになっていない。

フタモンウバタマコメツキ Paracalais larvatus pini (Lewis, 1894) は,主として本州の中部以南の暖地に分布し,基亜種の産地は中国 (上海) である。幼虫は,本州あたりでは主として松の枯木 (朽木)の樹皮下で見い出されているが,越冬成虫はコナラやイチイガン類の樹皮下でも得られている。 琉球では,主としてリュウキュウマツの枯木 (朽木) の樹皮下で幼虫が見い出されている。

#### 鱗状毛と雌第7腹節末端部の剛毛

本属の種の体表面には鱗状毛が生じていて、その鱗状毛の生え方や形態には 種による特徴がみられる. 鱗状毛は、一般に長円錐形または長楕円形で、表面には何本もの隆条が存在している.

ウバタマコメツキの鱗状毛は、図 1 A, B に示したような形態を有する. 本種の翅鞘上には 2 型の鱗状毛が存在し、一般に白色または灰白色の鱗状毛は翅鞘上に倒伏した状態で生じ、幅広くて長楕円形をしている (図 1B の中央) が、褐色または黒褐色 (黒色) をした鱗状毛は、半ば直立した状態で生じ、

より細長くて先端部は細まってとがる(図 1 A). これら 2 型の鱗状毛の組合せによって,本種特有の斑紋が形成されるが,両鱗状毛とも基本的な形態は相同で,隆条は谷間に向かって多くのひだを生じている。また,図 1 A 型の鱗状毛では,隆条は途中で他の隆条と融合しているが,図 1 B 型では隆条はそのまま先端まで延びていることが多い.

雌第7腹節末端部に叢生する剛毛の先端部の外形は、図1Cに示したようで、末端部のしゃもじ形の表面は平滑、他の種にみられるようなひだや凹陥部は存在しない。

オオウバタマコメツキの鱗状毛は、図 1 D, E に示したような形態を有し、翅鞘上には倒伏してうろこ状に重なって密に生ずる楕円形状の鱗状毛(図 1 D, E)と、黒色でやや直立して生ずるより細長い鱗状毛とを有するが、これら両型の外形や隆条には、ウバタマコメツキにみられるような顕著な差がない、鱗状毛はウバタマコメツキのものより楕円形で、隆条の数も多いし、隆条から谷間に向かって生ずるひだもより深くて明瞭である。

雌第7腹節末端部に叢生する剛毛の先端部の外形は、図1Fに示したようで、末端部のしゃもじ形の表面の中央部にはへそ状の凹陥部が存在する。

フタモンウバタマコメツキの鱗状毛は、図 1 G, H に示したような形態を有し、翅鞘上には倒伏して密生するやや細長い鱗状毛(図 1 H)と、やや直立して生ずるより細長い褐色または 黒色の鱗状毛(図 1 G)とがある。より細長い鱗状毛は、ウバタマコメツキの場合のようには先端に向かって顕著に細まらないが、隆条は途中で何本もが融合している。しかし、どちらの型でも、隆条から谷間に向かって生ずるひだはきわめて不明瞭である。

雌第7腹節末端部に叢生する剛毛の先端部の外形は、図1Iに示したようで、末端のしゃもじ状になった中央部から不規則に放射状の凹溝を生じている.

#### その他

サビキコリ亜科 (Pyrophorinae) の種の体表面は一般に鱗状毛でおおわれ,各鱗状毛はそれぞれ種特有の形態を有する.また,この鱗状毛を有する仲間は,これをもたない他の亜科の種のそれとは異質の系統にあるものと判断される.

日本に分布する上記3種の鱗状毛の形態は、ウバタマコメツキとオオウバタマコメツキではかなりよく似ているが、フタモンウバタマコメツキではやや異なった位置にあるように判断される。雌第7腹節末端部に 叢生する剛毛の 末端部のしゃもじ形と、その表面に生ずる凹陥や凹溝の 機能については、まだよく判明していない。今後、外国産のものも含めて、より多くの種の鱗状毛などについて調査を行ない、日本に産する種の系統上の位置なども明らかにしていきたいと思う。

#### Summary

Morphological features of the scale-like setae on the elytra of three *Paracalais*-species from Japan are studied by SEM. There are two kinds of scale-like setae, i.e. suberect elongate ones (Fig. 1 A, G) and decumbent oblong-ovate ones (Fig. 1 B, D, E, H). Spoon-like setae on the 7th abdominal sternite of these species are shown in Fig. 1 C, F, I.

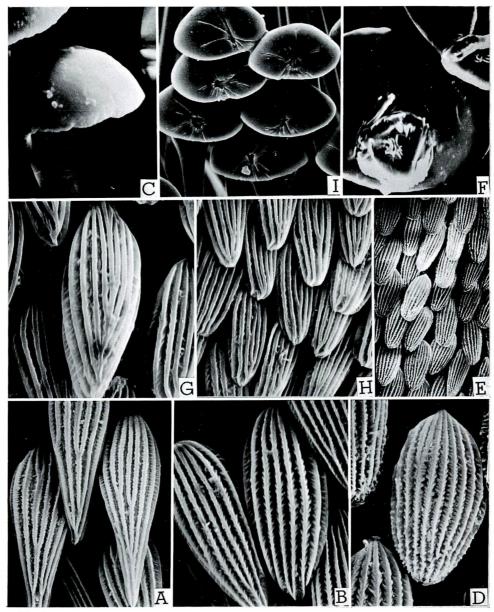


Fig. 1. — A-B, D-E, G-H, Scale-like setae on elytra; C, F, I, spoon-like setae of the 7th abdominal sternite in female. — A-C, *Paracalais berus* (CANDÈZE, 1864); D-F, *P. yamato* (NAKANE, 1957); G-I, *P. larvatus pini* (LEWIS, 1894).

# 引 用 文 献

佐藤正昭, 1975. 香川県象頭山の甲虫類 (4). 月刊むし, (49): 26-29. 梅谷信太郎, 1959. オオウバタマコメツキの知見. 京都昆虫同好会会報, 5(1): 1.

# より高度な蒐集・研究は文献から!

チュレパノフ 『北アジアのカミキリムシ』 (第6分冊)

Lamiinae: Saperdini-Tetraopini(フトカミキリ亜科 3)

B5, 255頁, 154図, cl. 本文 ロシア語,

¥6,170(〒300).M

《既刊在庫》 第2・3分冊(カミキリ亜科) 2冊セット ¥14,480(〒400).M 第4分冊 (フトカミキリ亜科1) ¥4,400(〒300).M; 第5分冊 (フトカミキリ亜科2) ¥4,640(〒300).M

本文はロシア語ですが成虫全形図、幼虫・蛹の全形および部分図が豊富に掲載されており、日本に近い地域でもあり、大変参考になります。第6分冊をもって完結致しました。第1分冊(ハカナミキリ亜科など)は、既に絶版ですが、ご希望者が40名を越せば復刻版を出す予定です。 既に復刻版の出版許可は、ソ連から得ております。

ソ連の学術書は計画出版で再版は殆どありません。出来るだけ早期のご購入をおすすめ致します。なお、第1分冊 (ハナカミキリ亜科) については、ソ連から復刻許可を得ております。ご予約が40冊を越えれば直ちに出版出来ます。

Linsley E.G., J.A. chemsak The Cerambyidae of N.Ameria Part VII No.1: Taxonomy and Classification of the Subfamily Lamiinae, Tribe Paramannii through Acanthoderini. -1985-B5, x+258 pp. 56 figs. pap. (UC-202) ¥7,720(¬300).M

張 芝利(編著)(1984) 中国経済昆虫誌 第二十八冊 コガネムシ科幼虫 B5,vi+107頁,21図版,pap.

¥840(\(\pi\)250).

股 恵奇·黄 夏生·季 兆麟(編著)(1984) 中国経済昆虫志 第二十九冊 翰翃目 小蠹科(Scolytidae) B5, x+205頁, 19 図版, pap. ¥1,380(〒300).

貨 立中(編)(1982) 中国天牛昆虫名録 B5,2+158頁,pap.

¥1,000(\(\tau\)250).

貨 立中(訳)J.L.Gressitt(著)(1983) 中国天牛科昆虫検索表 B5,1+vii+354頁,23図版,pap. =Longicorn Beetles of China(1951)から訳出したもの=

¥2,400(\(\tau\)300).

◆最近の円高により洋書・中国本の一部の円換算が大幅に下がりました。この機会にご利用下さい。

#### -『日本産甲虫目録』 (甲虫談話会) -

第1集(MO.1~7)(1976): クワガタムシ・クロツヤムシ・ハンミョウ・ホソガムシ・マルドロムシ・ヒラタドロムシ各科) B5,26頁,pap. 7冊セット. ¥800(〒200).

第2集(NO.8~14)(1977): ドロムシ・ヒメドロムシ・ダエンマルトゲムシ・コメツキムイ(1)・ミジンキスイムシ・ホソカタムシ・カクホソカタムシ各科

B5, 28頁, pap. 7冊セット.

¥800(\(\bar{7}200\).

第3集(N0.15~17)(1979): コガネムシ(1)・カミキリムシ(1)・ハムシ(1)各科

B5, 29頁, pap. 3冊セット

¥900(\(\tau\)200).

第4集(NO.18~19)(1980): ハムシ(2)・カミキリムシ(2)各科

B5, 38頁, pap. 2冊セット

¥1,500(\(\bar{7}250\)).

第5集(NO.20~24)(1983): ナガハナノミ・テントウムシダマシ・ハムシ(3)・チビシデムシ・カミキリムシ (3)各科 B5,54頁, pap. 5冊セット ¥2,500(〒300)。

で注文はハガキに署名捺印の上(18才未満は保護者印)、お送り下さい。直ちにお送り致します。 代金は到着後7日にご送金下さい。送料は2冊以上になると安くなります。

お近くの方は直接小社へ(小田急・国鉄南武線 登戸駅7〜8分) 一駅前の案内図と電柱広告でご案内していますー

定休: 金曜・祝日・ 平日 9時半~19時; 日曜 13~17時。 JCB・VISA カード加盟店 ・常時4,000タイトル以上在庫・ T T S 昆虫図書 214 川崎市多摩区登戸新町14 TEL 044-911-8511(代);911-5961 郵便振替東京0-73156



新製品/最上質ステンレス製シガ有頭昆虫針 VV. 00. 0. 1. 2. 3. 4. 5. 6号発売中

子川市バンロノのリ 女型が 140円 営業種目 採集瓶・採集箱・幼虫胴乱・採集バンド・展翅板類・ 専門用カタログあり 要郵券 140円 四本注口 15年11 同日田が、現取域、保予相付恒・二円ノーク・浦出桐・保予瓜・恒 物採集用具・殺虫管・プレパラート製作用具・名箋・ピンセット・ 平均台・液浸用管瓶・ルーベ類・コルク類・その他

営業時間:9時~18時 日:毎日職、祝祭日、10月1日

# さいしのことは むし社へ!

#### ○月刊むし

「月刊むし」は、1971年3月の0号を創刊号とする昆虫専門月刊誌で、1983年8月に150号を数えました。蝶、蛾、トンボ、セミ、甲虫などを中心に、解説記事、入門の手引き、採集記、同好会紹介、ニュース、短報記録が満載されています。定価は1冊850円ですが、予約購読の場合は送料無料で、次のように誌代を割引しております。

3ヶ月前納の場合は……2,550円を2,500円に(誌代割引) 6ヶ月前納 " ……5,100円を4,800円に( " ) 12ヶ月前納 " ……10,200円を9,500円に( " )

◎バックナンバーも全号揃っています (含むコピー版)。

#### ○むし社の昆虫用品

あくまで虫屋さんの立場に立って製作した、使いやすく丈夫な昆虫用品 を比較的安価で販売しております。

▶取り扱い品目:ドイツ型標本箱(大型、中型)、ユニットボックス式ドイツ箱、標本箱ダンス(10箱用、24箱用)、蝶額、傾斜展翅板(生展翅用、軟化展翅用)、四折金具、スプリング金具、ネット、つなぎ竿(6m、7.5m、ミニつなぎ竿)、ビーティングネット、三角紙……その他。

#### ○むし社標本部

むし社の標本部では、日本産の昆虫はもとより、世界各地の昆虫標本を、 愛好者の皆さんに比較的廉価で販売しております。ぜひ一度、当社の標本 部より標本をお買い求め下さい。詳しくは当社標本部発行の「標本ニュー ス」(年6回発行、年間予約1500円)をご購読下さい。

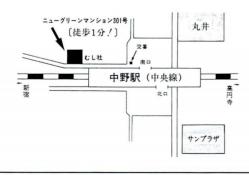


▲「月刊むし」



▲標本箱ダンス(10箱用)

# ※) 詳しくは60円切手を添えて、当社パンフレットをご請求下さい。



#### お申し込み先

○本社連絡先:〒164 東京都中野区中野郵便局 私書箱10番、衛むし社

○振替口座:東京6一159262番、예むし社

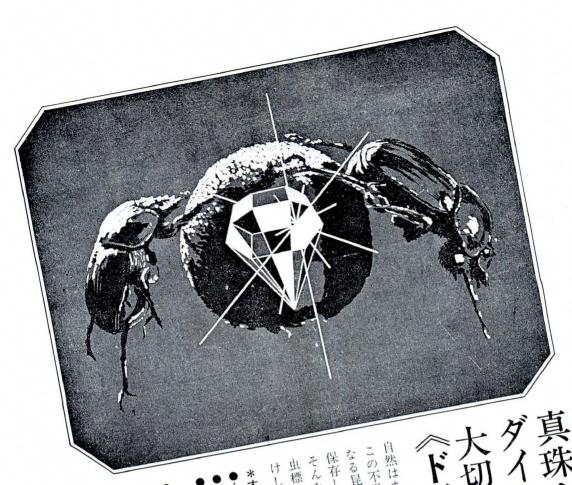
#### 営業時間

○編集部:9:00~17:00 Tel.03(383)1462

○昆虫用品部:14:00~19:00 Tel.03(383)1462

○標本部:12:00~19:00 Tel.03(383)1461

休日――日曜・祭日はお休みです。



ダイヤより価値がある 《ドイツ型標本箱》 自然はますます大切なものとなってきました。 **八切な標本を永久に守る** この不思議な世界を解明する貴重な手掛りと なる昆虫標本は、価値あるものとして永久に 保存したいものです。 そんな願いをこめて、タツミ製作所では、昆 虫標本の保存に最適なドイツ型標本箱をお届 けします。 \*すばらしい特長 ●くるいのこない良質な木材を使用 ●パラゾールにも変化せず、標本がより美しく見え る白色プラスチック底

昆虫器材力タログ、昆虫関係輸入図書・委託図書リストもあり。※標本箱のほか、展翅板など昆虫標本作成に必要な器材もあり。 郵便振替 東京一一三四七九 〇三(八一一)四五四七十四四 東京都文京区湯島二二二一二五 〇三(八一一)四五四七十 ●高級ニス塗装の丈夫で美しい仕上げ 有タツミ製作所

大型 5,000円 (送料別) 中型 4,500円 (送料別) この価格は昭和59年9月現在のものです