

## Some New Sericid Beetles (Coleoptera, Scarabaeidae) from Taiwan

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**Abstract** Six new sericid beetles are described from Taiwan. They are: *Trichomaladera yasutoshii*, *Maladera taoyuanensis*, *Amiserica nitididorsis*, *A. loi*, *Gastroserica formosana* and *Hoplomaladera monticola*. Key to the Taiwanese species are provided for the genera *Amiserica* and *Gastroserica*.

Before going further, the author wishes to express his sincere appreciation to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his critical reading of the original manuscript, and also to Messrs. Yasutoshi SHIBATA, Jiin-iyi LO and Kiyoyuki MIZUSAWA for their kindness in entrusting those valuable specimens to the author for investigation. The types designated in this study are preserved in the author's collection.

*Trichomaladera yasutoshii* H. KOBAYASHI, sp. nov.

[Japanese name: Zuguro-ubuge-biroudo-kogane]

(Figs. 4, 8)

Elongate, light brown, with antennal club yellowish brown, margins of pronotum, anterior tibiae and tarsi light reddish brown, dorsal surface reddish brown, head blackish brown. Surface of body opaque, with clypeus, antennae, tibiae and tarsi shining.

Clypeus subtrapezoidal, coarsely, densely punctate, covered with erect hairs, with anterior margin reflexed and feebly emarginate. Head sparsely, finely punctate, covered with erect hairs on frons, somewhat sparsely on vertex. Eyes rather large and protruding, two-thirds as broad as frons between them. Antennae 10-segmented, with club 2.2 times as long as footstalk in male.

Pronotum somewhat densely, faintly punctate, covered with sparse erect hairs, fringed with long bristles on anterior and lateral margins; lateral margins weakly curved just before the middle, gradually convergent to front, nearly straight behind, anterior angles somewhat acute, posterior ones subrectangular. Scutellum almost of the same length as its breadth, sparsely and finely punctate. Elytra bearing scattered subrecumbent and erect hairs, with sulci rather densely punctate, the punctures somewhat forming a row in each sulcus; intervals moderately convex, very sparsely punctate. Pygidium moderately convex, sparsely and finely punctate, bearing sparse hairs.

Propleuron deeply sulcate behind. Abdominal sternites with a row of setigerous punctures, middle of basal sternite with somewhat dense short hairs. Posterior femur elliptical, 3.3 times as long as its breadth, sparsely punctate, with a row of rather long hairs along anterior margin, two rows of rather long hairs before and behind the middle, apical half of posterior margin slightly sinuate and feebly serrate. Posterior tibia slender, 4.6 times as long as its breadth, sparsely, longitudinally punctate, with outer terminal spur 0.6 times as long as basal tarsal segment. Posterior tarsi punctate, without setae on ventral side.

Length: 13.0 mm; breadth: 5.5 mm.

Holotype: ♂, Akuatuo, near Kuanshan (2,714 m alt.), Kaohsiung Hsien, 19-VIII-1987, Y. SHIBATA leg.

This species is closely allied to *Trichomaladera rufofusca* KOBAYASHI et NOMURA, 1979, but it may be separated from the latter by the following points: elongate body; hairs of dorsal surface more scattered than in *T. rufofusca*; posterior tibia 4.6 times as long as its breadth.

*Maladera taoyuanensis* H. KOBAYASHI, sp. nov.

[Japanese name: Tôen-biroudo-kogane]

(Figs. 5, 9)

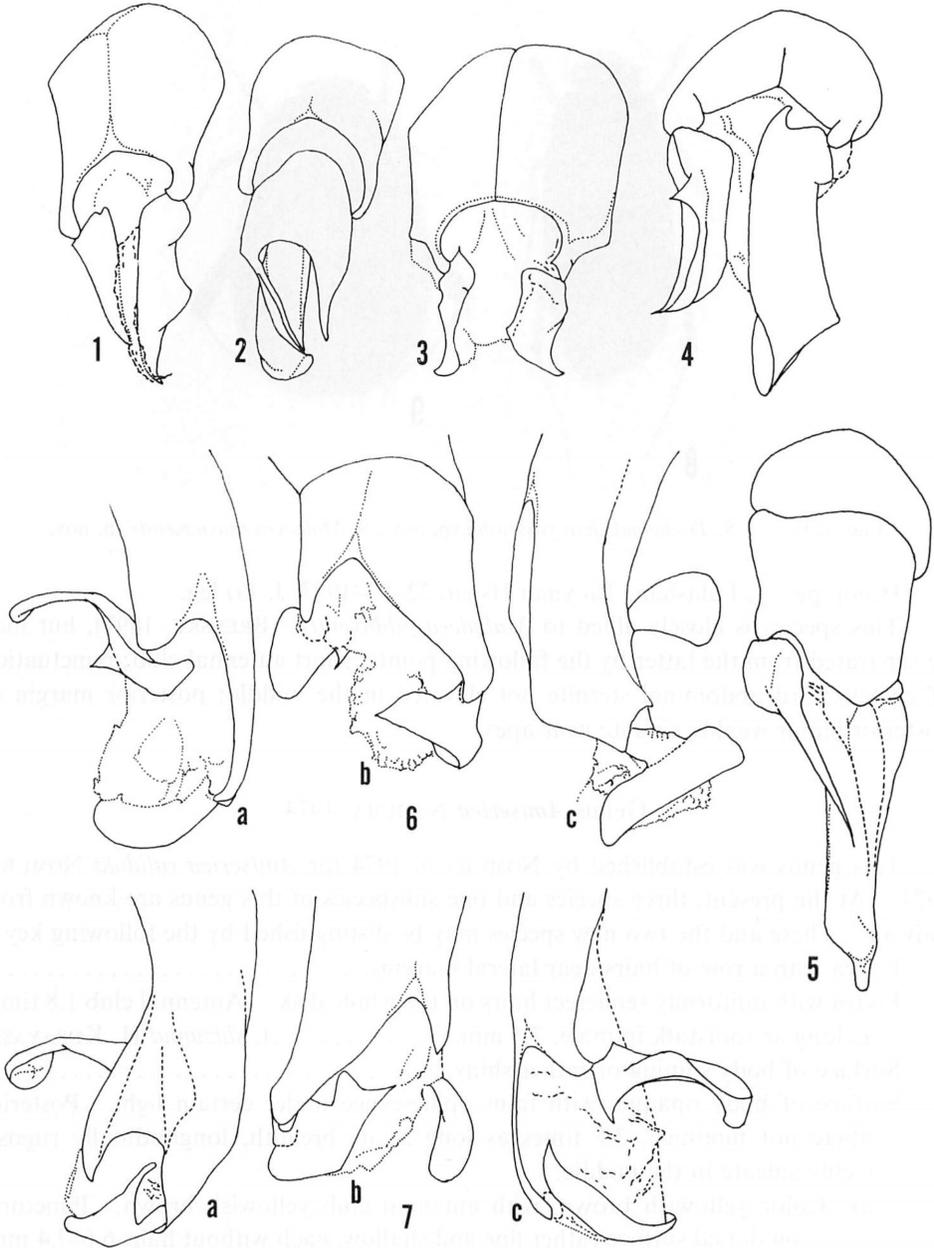
Elongate oval, dark reddish brown, with antennal club reddish brown, dorsal surface blackish brown. Surface of body opaque, with a slight opalescence under certain light, clypeus, antennae, tibiae and tarsi shining.

Clypeus densely and rather finely punctate in the middle, densely and rather coarsely punctate on each side, almost flattened above, with several, rather long, erect hairs on apical half, with anterior margin broadly and weakly emarginate; fronto-clypeal suture angulate in the middle. Frons faintly, sparsely punctate, bearing a few erect hairs near eyes, with a very faint longitudinal line in the middle. Antennae 10-segmented, with club longer than footstalk in male.

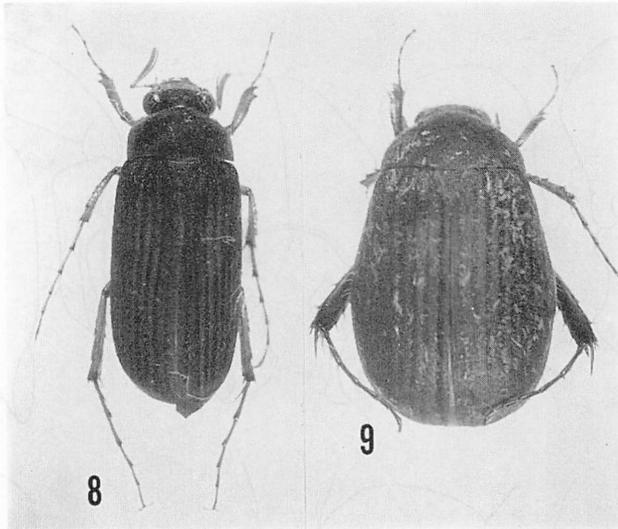
Pronotum sparsely, finely punctate, fringed with sparse hairs on each side of anterior margin and along the lateral ones; lateral margins broadest at base, roundly convergent to front, anterior angles protruded but not acute, posterior ones sub-rectangular. Scutellum sparsely punctate. Elytral intervals weakly convex, sparsely and finely punctate. Pygidium feebly convex, faintly and sparsely punctate, bearing scattered erect hairs near apical margin.

Abdominal sternites sparsely punctate, each with a transverse row of setae. Posterior femur sparsely punctate, 2.5 times as broad as its length, with two transverse rows of hairs near anterior and posterior margins; posterior margin weakly sinuate near apex, without fine serration. Posterior tibia somewhat dilated, 2.7 times as long as its breadth, rather coarsely, though shallowly, punctate on basal half, almost impunctate on apical half; outer terminal spur 0.8 times as long as basal tarsal segment.

Length: 10.5 mm; breadth: 6.0 mm.



Figs. 1-7. Male genitalia, left lateral view (a), dorso-apical view (b) and right lateral view (c).  
 — 1, *Gastroserica marginalis puncticollis* BRENSKE; 2, *Gastroserica formosana* sp. nov.;  
 3, *Hoplomaladera monticola* sp. nov.; 4, *Trichomaladera yasutoshii* sp. nov.; 5, *Maladera taoyuanensis* sp. nov.; 6, *Amiserica nitididorsis* sp. nov.; 7, *Amiserica loi* sp. nov.



Figs. 8-9. — 8, *Trichomaladera yasutoshii* sp. nov.; 9, *Maladera taoyuanensis* sp. nov.

Holotype: ♂, Lalashan, Taoyuan Hsien, 22-VI-1987, J. LO leg.

This species is closely allied to *Maladera gibbiventris* (BRENSKE, 1897), but may be separated from the latter by the following points: short antennal club; punctuation of clypeus; 3rd abdominal sternite not elevated in the middle; posterior margin of posterior femur weakly sinuate near apex.

#### Genus *Amiserica* NOMURA, 1974

This genus was established by NOMURA in 1974 for *Amiserica rufidula* NOMURA, 1974. At the present, three species and one subspecies of this genus are known from Taiwan. These and the two new species may be distinguished by the following key:

1. Elytra with a row of hairs near lateral margins. . . . . 2
- Elytra with uniformly semierect hairs on the whole disk. Antennal club 1.8 times as long as footstalk in male. 7.5 mm. . . . . *A. shizumui* H. KOBAYASHI
2. Surface of body shining or rather shiny. . . . . 3
- Surface of body opaque, with faint opalescence under certain light. Posterior tibiae not modified, 3.5 times as long as its breadth, longitudinally rugose, feebly sulcate in the middle.
  - a) Color yellowish brown, with antennal club yellowish brown. Punctures on dorsal surface rather fine and shallow, each without hair. 6.6-7.4 mm. . . . . *A. rufidula rufidula* NOMURA
  - b) Color black to dark reddish black, ventral surface reddish to dark reddish black. Punctures on dorsal surface fine and distinct, each with a short but conspicuous hair. 6.5-6.7 mm. . . . . *A. rufidula piceola* NOMURA

3. Surface of body shining. Color reddish brown to dark reddish brown. Antennae 10-segmented, with club 1.6 times as long as footstalk in male. . . . . 4  
 — Surface of body rather shiny, elytra somewhat opalescent under certain light. Color dark reddish brown below, almost black above. Antennae 9-segmented, with club 1.3 times as long as footstalk in male. Pygidium without a smooth longitudinal line on disk. 8.0 mm. . . . . *A. babai* H. KOBAYASHI
4. Color reddish brown to dark reddish brown. Intervals finely and somewhat densely punctate. Abdominal sternites 2nd to 5th each with faint ridge on posterior margin, bearing a row of hairs on the middle, 2nd to 4th scattered with some short hairs on the middle and at the sides. 7.5–8.6 mm. . . . .  
 . . . . . *A. nitididorsis* sp. nov.
- Color dark reddish brown. Intervals coarsely, rather densely punctate, somewhat irregularly and agglutinately in part. Each abdominal sternite almost flattened, bearing a row of long hairs at the middle, hairs of 5th sternite a little shorter than its length. 8.0 mm. . . . . *A. loi* sp. nov.

*Amiserica nitididorsis* H. KOBAYASHI, sp. nov.

[Japanese name: Tsuya-chibi-biroudo-kogane]

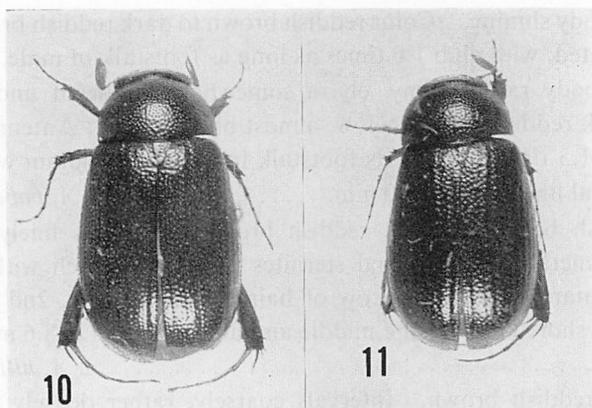
(Figs. 6 a–c, 10)

Elongate oval, reddish brown to dark reddish brown or blackish brown above and beneath, with antennal club yellowish brown to reddish brown. Surface of body shining.

Clypeus strongly narrowed to front, coarsely, densely punctate, with anterior margin reflexed and feebly sinuate at the middle, bearing rather long scattered erect hairs on the disk. Fronto-clypeal suture widely arcuate, somewhat angulate at the middle. Frons rather densely punctate, bearing several long erect hairs near eyes. Antennae 10-segmented, with club composed of 3 lamellae, 1.6 times as long as footstalk in male, and of the same length as the latter in female.

Pronotum 1.9 times as broad as its length, broadest at the base, evenly and rather densely punctate; lateral margins weakly curved at the middle, gradually convergent to front, almost subparallel-sided behind, feebly sinuate near the base; anterior angles somewhat protruded but not acute, posterior ones subrectangular; lateral and anterior margins fringed with long sparse hairs. Scutellum a little broader than its length, sparsely punctate near margins, almost impunctate at the middle. Each elytron with a row of erect hairs near the side, sulci finely and sparsely punctate, intervals finely and somewhat densely punctate, lateral margins fringed rather densely with hairs except near apex. Pygidium most highly convex near apical margin in both sexes, coarsely, rather densely punctate, with a feeble smooth longitudinal line at the middle, bearing scattered rather long hairs near the posterior margin.

Abdominal sternites rather finely, sparsely punctate, 2nd to 5th faintly ridged on



Figs. 10–11. — 10, *Amiserica nitididorsis* sp. nov.; 11, *Amiserica loi* sp. nov.

each posterior margin, each with a row of hairs at the middle (2nd to 4th bearing some short hairs on the middle and the sides), anal sternite rather densely covered with long tawny hairs except at the middle. Posterior femur ellipsoidal, 2.3 times as long as its breadth, broadly sinuate on apical half of posterior margin, coarsely and sparsely punctate on apical two-thirds, almost impunctate behind, with two rows of hairs and a serrate transverse ridge just behind anterior margin. Posterior tibia somewhat dilated, 2.3 times as long as its breadth, coarsely, sparsely punctate, widely sulcate in the middle, with a serrate longitudinal ridge extending from base to apical third on the outer side, longer terminal spur being just shorter than basal tarsal segment.

Length: 7.5–8.6 mm; breadth: 4.5–5.0 mm.

Holotype: ♂, Herwangshan, Nantou Hsien, 18–VI–1984, J. LO leg. Paratypes: 1 ♂, Shihtzutou, Nantou Hsien, 3–V–1984, J. LO leg.; 1 ♂, same locality, 18–III–1985, J. LO leg.; 1 ♀, Sungkang, Nantou Hsien, 27–IV–1986, J. LO leg.; 2 ♀♀, Iahau, near Wulai, Taipei Hsien, 5–V–1968, K. TAKAHASHI leg.

*Amiserica loi* H. KOBAYASHI, sp. nov.

[Japanese name: Nise-tsuya-chibi-biroudo-kogane]

(Figs. 7 a–c, 11)

This species resembles very closely the preceding species, but differs from the latter in the following points: intervals coarsely, rather densely punctate, somewhat irregularly and agglutinately in part; pygidium densely punctate, bearing rather long scattered hairs on apical half; each abdominal sternite almost flattened, rather sparsely punctate, bearing a row of long hairs at the middle, hairs of 5th sternite a little shorter than its length, anal sternite rather densely covered with semierect hairs, some of them situated at the sides being very long.

Length: 8.0 mm; breadth: 4.5 mm.

Holotype: ♂, Shihtzutou, Nantou Hsien, 3–V–1984, J. LO leg.

Genus *Gastroserica* BRENSKE, 1897

In 1923, *Gastroserica bicolor* was described for the first time from Taiwan by NIJIMA and KINOSHITA. After that, the author added *G. marginalis puncticollis* BRENSKE to the Taiwanese fauna in 1983, a species that had theretofore been known from Mainland China. These two species and a new species may be distinguished by the following key:

1. Each abdominal sternite with scattered hairs and besides a transverse row of hairs. . . . . 2
- Each abdominal sternite only with a transverse row of hairs. Dorsal surface yellowish brown to reddish brown, middle of pronotum and odd number intervals blackish brown to black. Antennae 9-segmented, with club composed of 4 lamellae, twice as long as footstalk in male. 6.0–6.3 mm. . . . . *G. formosana* sp. nov.
2. Elytra either black or with reddish brown 3rd and 5th intervals, feebly iridescent under certain light. Antennae 10-segmented, with club composed of 3 lamellae and 7th segment about a half as long as each club segment in male, of 3 lamellae and 7th segment much shorter than that but pointed in female, shorter than footstalk in both sexes. 7.5–9.0 mm. (Fig. 1) . . . . . *G. marginalis puncticollis* BRENSKE
- Elytra almost uniformly yellowish brown to reddish brown, or reddish brown, with black stripes along elytral suture and margins, or entirely black. Dorsal surface almost opaque. Antennae 10-segmented, with club composed of 4 lamellae in male, of 3 lamellae and 7th segment about a half as long as each club segment in female, 1.8 times as long as footstalk in male, subequal to it in female. 6.5–7.9 mm. . . . . *G. bicolor* NIJIMA et KINOSHITA

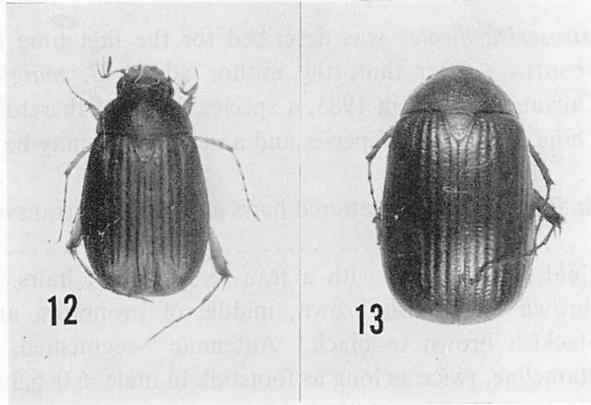
*Gastroserica formosana* H. KOBAYASHI, sp. nov.

[Japanese name: Taiwan-harige-biroudo-kogane]

(Figs. 2, 12)

Oval and compact, ventral surface and sides of pygidium blackish brown to black, with antennal club, head and the middle of pronotum black, clypeus yellowish brown, legs, antennal footstalk and margins of pronotum yellowish brown to reddish brown, elytra yellowish brown to reddish brown, with odd number intervals blackish brown to black. Surface of body dully lustrous, feebly opalescent under certain light on elytra, with clypeus and legs (except at the middle of femora) shining.

Clypeus oblong, densely punctate, with a round elevation in the middle near apical margin, bearing rather dense erect hairs on the whole disk; anterior angles widely rounded, anterior margin reflexed and almost straight. Fronto-clypeal suture somewhat angulate at the middle. Frons sparsely punctate, bearing a few long erect hairs near eyes. Antennae 10-segmented, with club composed of 4 lamellae, twice



Figs. 12–13. — 12, *Gastroserica formosana* sp. nov.; 13, *Hoplomaladera monticola* sp. nov.

as long as footstalk in male.

Pronotum 1.8 times as broad as its length, finely and sparsely punctate, each puncture with a microscopic hair; lateral margins faintly curved at the middle, convergent to front, feebly so behind, anterior angles obtusely angulate, posterior angles subrectangular, sides of anterior margin and lateral margins fringed with long sparse hairs. Scutellum longer than its breadth, sparsely punctate at the sides, almost impunctate at the middle. Each elytron covered with much scattered, rather short hairs on disk and two or three long bristles near apex, each sulcus finely and rather densely punctate, intervals convex, sparsely punctate, each puncture with a microscopic hair; lateral margins fringed rather densely with hairs except near apex. Pygidium gently convex, sparsely and shallowly punctate, bearing rather long sparse hairs along the sides.

Each abdominal sternite with a transverse row of hairs on apical third or the middle, very sparsely, finely punctate, each puncture with a microscopic hair, anal sternite with a longitudinal sulcus at the middle. Posterior femur ellipsoidal, 2.6 times as long as its breadth, lower posterior margin produced at the middle, very sparsely and finely punctate, finely serrate on apical third, and with two inconspicuous rows of hairs. Posterior tibia broadest at apical third, 3.5 times as long as its breadth, very faintly punctate, and finely serrate on inner apical half, with longer terminal spur of about a half length of basal tarsal segment. Posterior tarsus somewhat distinctively carinate from 1st to 3rd segments, without setae on ventral side.

Length: 6.0–6.3 mm; breadth: 3.3–3.5 mm.

Holotype: ♂, Guangaushan, Nantou Hsien, 14–IV–1984, J. Lo leg. Paratypes: 1 ♂, Nanshanchi, Nantou Hsien, 12–IV–1985, J. Lo leg.; 1 ♂, same locality, 7–IV–1987, J. Lo leg.; 2 ♂♂, Sungkang, Nantou Hsien, 29–IV–1986, J. Lo leg.

*Hoplomaladera monticola* H. KOBAYASHI, sp. nov.

[Japanese name: Miyama-mizo-biroudo-kogane]

(Figs. 3, 13)

Oblong-oval, light reddish brown above and beneath, with antennal club blackish brown, margins of middle and posterior tibiae dark-colored. Surface of body with dull lustre.

Clypeus subtrapezoidal, with anterior margin widely sinuate, very densely and somewhat rugosely punctate, with a feeble transverse impression and a row of sparse erect hairs in front. Fronto-clypeal suture somewhat angulate at the middle. Frons finely and sparsely punctate, with a feeble longitudinal line at middle, bearing several rather long hairs near eyes. Antennae 10-segmented, with club composed of 3 lamellae, 1.6 times as long as footstalk in male.

Pronotum twice as broad as its length, broadest at the base, rather sparsely punctate, lateral margins gradually convergent to front and feebly arcuate near anterior angles, anterior angles protruded, posterior ones subrectangular, sides of anterior margin and lateral ones fringed with short sparse hairs. Scutellum almost of the same length as its breadth, very finely, sparsely punctate at the sides, impunctate at the middle. Elytra with scattered rather long or short hairs, striae rather densely punctate, intervals moderately convex, smooth. Pygidium broad triangular, feebly convex, sparsely punctate, somewhat densely bearing hairs on the sides and apical half of the middle.

Mesosternal process protruding, rounded at the tip. Abdominal sternites finely and rather densely punctate, each with a row of short hairs. Posterior femur 2.6 times as long as its breadth, broadened at the middle and very sparsely punctate. Middle and posterior femur with each posterior margin feebly sinuate and finely serrate on apical third. Posterior tibia rather slender, feebly sulcate and longitudinally punctate, outer terminal spur a little shorter than basal tarsal segment. Posterior tarsi impunctate, without setae on ventral side.

Length: 7.5 mm; breadth: 4.5 mm.

Holotype: ♂, Guandaoshan, Nantou Hsien, 10-IV-1984, J. Lo leg.

This species is closely allied to *Hoplomaladera shibatai* Nomura, 1974, but may be separated from the latter by the following points: small-sized body; dully lustrous surface of body; posterior tarsi without setae on the ventral side.

## 要 約

小林裕和: 台湾産ピロウドコガネの数新種。——ピロウドコガネ類に含まれる6種のコガネムシの新種を、台湾から記載するとともに、台湾に分布している *Amiserica* 属および *Gastroserica* 属の検索表を作成した。また、それぞれの新種を次のように命名した: *Trichomaladera yasutoshi*, *Maladera taoyuanensis*, *Amiserica nitididorsis*, *A. loi*, *Gastroserica formosana*, *Hoplomaladera monticola*.

## References

- BRENSKE, E., 1897. Die *Serica*-Arten der Erde, I. *Berl. ent. Z.*, **1897**: 345-438.
- KOBAYASHI, H., 1980. Description of some sericid-beetles from Taiwan. *New Entomol.*, Ueda, **29** (1): 15-21.
- 1984. Description of some sericid-beetles from Taiwan III. *Ibid.*, **34** (3/4): 10-15.
- 1988. List of Formosan Scarabaeidae collected by Dr. K. BABA I. *Trans. Essa ent. Soc.*, Niigata, (65): 53-61.
- NOMURA, S., 1974. On the Sericini of Taiwan. *Tôhō-Gakuhô, Kunitachi*, **24**: 81-115.
- & H. KOBAYASHI, 1979. Notes on some sericid-beetles from Taiwan. *Ibid.*, **29**: 7-13.

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*Elytra*, Tokyo, **19** (2): 220, November 15, 1991

## 新刊紹介

「中国弧丽金龟属志 (鞘翅目: 丽金龟科) [中国昆虫图志之一]」 林 平著. 71 pp.+25 pls. 1988. 天則出版社. [The *Popillia* of China (Coleoptera Rutelidae) [Illustrataj Ĉinaj Insekt-Faŭnoj: I]. By LIN Ping. Tianze Eldonejo.

中国に分布している *Popillia* 属のモノグラフがこの本の内容である。本文は中国語であるが、最後の方に種の検索表と新種の記載が載っていて、この部分だけが英文となっている。12 種の新種を含む 57 種について、個体変異や地域変異についてもカラーの図版が 10 ページにわたって付いているほか、雌雄の交尾器についても線画あるいは写真で紹介されている。あまり知ることのできない地域のものであり、内容的には、かなり充実した研究の成果をまとめたものとして評価できるものと考えられる。惜しむらくは、全編を通して校正が果たして行われたのかどうか、と疑わせるほど誤植が多い。また、原記載中に指示されている図版番号がほとんど間違っていて、そのままでは違う種の図を示しているのので、注意が必要である。

この本によると、台湾に分布し今までに *Popillia cyanea* HOPE, 1831, として日本で記録してきた種は、実は中国大陸に広く分布している *P. mutans* NEWMAN, 1838, であること、さらに、同じく *P. histeroidea* GYLLENHAL, 1817, または *P. coerulea* BOHEMAN, 1858, としてきた種は、*P. livida* LIN, 1988, という台湾に固有の新種であることがわかった。

著者からは私信で、次回には *Anomala* 属についてまとめたい、とってきている。広大な中国全土にわたって、種類の多いこの属についての論文が完成すれば、最近、標本の集まりつつある周辺の地域の研究に大いに役立つものと期待される。

(小林裕和)