



Formosan Entomologist

Journal Homepage: entsocjournal.yabee.com.tw

Notes on the Genus *Taiwanoserica* from Taiwan (Coleoptera: Scarabaeidae) 【Research report】

台灣絨毛金龜屬(*Taiwanoserica*) (鞘翅目：金龜子科)之註釋【研究報告】

Hirokazu Kobayashi* Ching-Kin Yu
小林裕和* 余清金

*通訊作者E-mail :

Received: 1999/08/13 Accepted: 2000/02/29 Available online: 2000/06/01

Abstract

Four new sericid species, *Taiwanoserica bihluhensis*, *T. monticola*, *T. sinuosa*, and *T. taiyal*, in Taiwan are described. A key to the Taiwanese species of this genus is provided.

摘要

本文敘述台灣產台灣絨毛金龜屬之四新種 *Taiwanoserica bihluhensis*, *T. monticola*, *T. sinuosa* 及 *T. taiyal*，並製作本屬已知種類之檢索表。

Key words: *Taiwanoserica*, Taiwan, new species.

關鍵詞: 台灣絨毛金龜屬、台灣、新種

Full Text:  [PDF\(0.21 MB\)](#)

下載其它卷期全文 Browse all articles in archive: <http://entsocjournal.yabee.com.tw>

Notes on the Genus *Taiwanoserica* from Taiwan (Coleoptera: Scarabaeidae)

Hirokazu Kobayashi* Shoin High School, Kitazawa 1-16-10, Setagaya-ku, Tokyo 155, Japan.
Ching-Kin Yu Muh Sheng Museum of Entomology, 6-2 Nantsun Road, Puli, Nantou, Taiwan, R.O.C.

ABSTRACT

Four new sericid species, *Taiwanoserica bihluhensis*, *T. monticola*, *T. sinuosa*, and *T. taiyal*, in Taiwan are described. A key to the Taiwanese species of this genus is provided.

Key words: *Taiwanoserica*, Taiwan, new species.

Introduction

The genus *Taiwanoserica* was established by S. Nomura in 1974 for *Taiwanoserica elongata* Nomura, 1974. During 1983 to 1993, Kobayashi added six species. Until now, fifteen species of this genus are known from Taiwan.

The holotypes designated in this study are deposited in the Insect Museum of Department of Entomology, National Taiwan University, Taipei, R.O.C. Other specimens are preserved in Kobayashi's collection.

Key to the known species of *Taiwanoserica*

- 1. Antennae 9-segmented 2
- . Antennae 10-segmented 5
- 2. Posterior femora opaque 3
- . Posterior femora shining 4
- 3. Pronotum broadest at basal one-fourth; clypeus coarsely punctate; each abdominal sternite with a row of

- hairs *T. elongata* Nomura
- . Pronotum broadest at base; clypeus rugosely punctate; each abdominal sternite with irregular rows of hairs *T. niitakana* (Sawada)
- 4. Clypeus almost flattened; pronotum with a median longitudinal smooth line originating from anterior margin; pygidium with a median longitudinal smooth line *T. shinanshana* H. Kobayashi
- . Clypeus with a median longitudinal elevation; pronotum with a faint median longitudinal smooth line; pygidium without longitudinal smooth line *T. kubotai* H. Kobayashi
- 5. Posterior femora opaque; frons bearing a few erect hairs in the middle; pronotal lateral margin evenly gently curved; each abdominal segment with a row of hairs *T. variegata* Nomura
- . Posterior femora shining 6
- 6. Each abdominal sternite with sparse hairs, or with irregular rows of hairs ... 7
- . Second to fourth abdominal sternites

- with rows of hairs, sometimes second to third ones with sparse hairs 9
7. Pronotum without median longitudinal smooth line, lateral margins gently curved near base; posterior tarsi without setae on basal segment
..... *T. simillima* H. Kobayashi
- . Pronotum with an evident median longitudinal smooth line 8
8. Pronotum broadest behind middle, lateral margins strongly arcuate; median longitudinal smooth line originating from posterior margin and vanishing in middle; posterior tarsi without setae on 1st and 2nd segments *T. lishana* Nomura
- . Lateral margins of pronotum gently rounded; median longitudinal smooth line originating from posterior margin, reaching anterior one; posterior tarsus with two or three short setae on ventral side *T. pubisterna* Nomura
9. Pronotum broadest in the middle, lateral margins strongly arcuate, pygidium with a longitudinal line in the middle; middle femora slender, subparallel sided, posterior margin not sinuate; posterior tarsus with one or two short setae on ventral side *T. gracilipes* Nomura
- . Pronotum broadest near middle, very strongly arcuate; pygidium with a clear longitudinal elevated line in the middle; middle femora slender, posterior margin evidently sinuate at tip; posterior tarsus with two or three short setae on ventral side of apical two segments
..... *T. sinuosa* sp. nov.
- . Pronotum broadest near base or behind middle 10
10. Pronotum broadest near base, straightly convergent to front; pygidium with a longitudinal smooth line behind the middle; posterior tarsus with one or two short setae on ventral side
..... *T. yui* H. Kobayashi
- . Pronotum broadest at basal one-fifth, lateral margin gently convergent to front; pygidium without a longitudinal smooth line; posterior tarsus without setae on ventral side of basal two segments *T. monticola* sp. nov.
- . Pronotum broadest at basal two-fifths or one-third or one-fourth 11
11. Pronotum broadest at basal one-third, lateral margins strongly arcuate; elytra with blackish maculations near sutural area, lacking black maculation on basal half of 5th interval
..... *T. suturalis* Nomura
- . Elytra mottled evenly with black patches 12
12. Pronotum broadest at basal two-fifths, lateral margins with straight convergence to front; clypeus without transverse groove behind anterior margin; abdomen with 2nd to 4th sternites bearing a row of hairs on each side and with 2nd to 3rd ones with irregular row of hairs in the middle *T. bihluhensis* sp. nov.
- . Pronotum broadest at basal one-third, lateral margins gradually convergent to front; clypeus with a feeble transverse groove just behind anterior margin; abdomen with 2nd to 4th sternites bearing a row of hairs on each side and scattered hairs in the middle *T. taiyal* sp. nov.
- . Pronotum broadest at basal one-fourth 13
13. Clypeus with a transverse groove behind anterior margin 14
- . Clypeus without transverse groove .. 15
14. Antennal club long, 1.4 to 1.5 times as long as footstalk in male; 2nd to 4th abdominal sternites with two rows of setae; lateral margins of pronotum gently arcuate
..... *T. suzukii* H. Kobayashi
- . Antennal club short, longer than footstalk in male; 2nd to 4th abdominal sternites with a row of setae; lateral margins of pronotum strongly convergent to front
..... *T. anmashana* H. Kobayashi
15. Clypeus somewhat convergent to front; antennal club more than 1.5 times as long as footstalk in male, subequal to

- that in female *T. nitidipes* Nomura
 -. Clypeus evidently convergent to front, antennal club longer than footstalk in male, evidently shorter than that in female *T. ovata* Nomura

Description

Genus *Taiwanoserica* Nomura

Taiwanoserica Nomura, 1974. Tôhō-Gakuhô 24: 85.

Type species: *Taiwanoserica elongata* Nomura.

Diagnosis: The genus *Taiwanoserica* was allied to the genus *Serica* MacLeay, 1819, but the former genus is characterized by a serrated submarginal ridge behind the anterior margin of the posterior femora, as well as the apical half of posterior margin of posterior femora being finely serrate. Dorsal surface is mottled with small blackish patches. Antennae are 9 or 10 segmented, with the club composed of 3 lamellae in both sexes, but it is not very long in male.

Taiwanoserica anmashana H. KOBAYASHI
 鞍馬山台灣絨毛金龜

Taiwanoserica anmashana H. Kobayashi, 1993. Elytra 21(1): 71; Yu, Kobayashi et Chu, 1998. Scarab. Taiwan: 50, 82, 142, 219.

Specimens examined: TAICHUNG: Holotype, Mt. Anma, 12-VII-1992, C. Yu leg. Paratypes 10, 9, same data as holotype. NANTOU: 1, Sungkang, 30-IX-1989, C. Yu leg. 1, Sungkang, 22-VII-1990, C. Yu leg. 1, Tsuifeng, 19-VII-1987, C. Yu leg.

Taiwanoserica bihluhensis KOBAYASHI et YU, sp. nov. 碧綠台灣絨毛金龜
 (Figs. 1, 5)

Elongate oval, reddish brown to dark reddish brown, with clypeus, tibiae and tarsi reddish brown, posterior part of head

blackish brown, antennae yellowish brown, dorsal surface mottled with black patches, metasternum and abdomen darker. Surface of body opaque, with clypeus, antennae and legs (except for middle femora) shining.

Clypeus subtrapezoidal, rather densely punctate, bearing dense erect hairs, anterior margin rather deeply emarginate; fronto-clypeal suture distinct, angulate in the middle. Frons sparsely punctate, bearing scattered erect or semi-erect hairs. Eyes rather large and prominent, two-fifths as broad as frons in male, moderately sized, less than two-fifths as that in female. Antennae 10-segmented, with club the same length as the footstalk in male, a little shorter than that in female.

Pronotum finely, sparsely punctate, bearing very scattered scale-like setae and short hairs, lateral margins most widely separated at basal two-fifths, straightly convergent to front, gently rounded to base, anterior angles produced, subrectangular, posterior ones dull angulate. Elytra bearing scattered slender scale-like setae, with intervals feebly convex, sparsely punctate. Pygidium almost flattened above, coarsely and rather densely punctate, with a clear longitudinal line at basal half, bearing rather long hairs on entire disk.

Abdomen with 2nd to 4th sternites bearing a row of hairs on each side and with 2nd to 3rd ones with irregular row of hairs in the middle. Anterior tibiae bidentate, somewhat dilated behind 2nd tooth. Posterior femora 3.3 times () or 3.1 times () as long as its breadth, sparsely punctate. Posterior tibia slender, 4.5 times () or 4.3 times () as long as its breadth, longitudinally rugose. Posterior tarsi with two or three short setae on ventral side of apical three segments. Male genitalia as shown in Fig. 5.

Length: 10.0 mm; breadth: 6.0 mm.

Holotype: , HUALIEN: Bihluh-shenmu, 22-VI-1992, C. Yu leg. Paratypes:

1 ♀, same locality as holotype, 9-VII-1993, C. Yu leg. 1 ♀, same locality as holotype, 26-VIII-1992, C. Yu leg. NANTOU: 1 ♀, Sungkang, 25-VIII-1992, C. Yu leg.

Diagnosis: This species is somewhat allied to *T. suturalis* Nomura, 1974, but it may be separated from the latter by the following points: elytra mottled evenly with black patches; pronotum broadest at basal two-fifths; and lateral margins straightly convergent to front.

Etymology: This new species is named *bihluhensis* after one of the places it was captured.

Taiwanoserica elongata NOMURA 細台灣絨毛金龜

Taiwanoserica elongata Nomura, 1974. Tôhō-Gakuhō, 24: 86; Yu, Kobayashi et Chu, 1998. Scarab. Taiwan: 50, 81, 140, 218, 219.

Specimens examined: NANTOU: 1 ♀, Sungkang, 28-VI-1991, C. Yu leg. CHIAI: 1 ♀, Mt. Ali, 30-VII-1973.

Taiwanoserica gracilipes NOMURA 大禹嶺台灣絨毛金龜

Taiwanoserica gracilipes Nomura, 1974, Tôhō-Gakuhō 24: 88; Yu, Kobayashi et Chu, 1998. Scarab. Taiwan: 82, 142, 219.

Specimens examined: TAICHUNG: 1 ♀, Lishan, 3-VIII-1986, H. Kobayashi leg. NANTOU: 1 ♀, Sungkang, 4-IX-1986, C. Yu leg. 1 ♀, Sungkang, 30-IX-1986, C. Yu leg.

Taiwanoserica kubotai H. KOBAYASHI 久保田台灣絨毛金龜

Taiwanoserica kubotai H. Kobayashi, 1983. New Entomol. 32(3): 16; Yu, Kobayashi et Chu, 1998. Scarab. Taiwan: 50, 82, 141, 218, 219.

Specimens examined: NANTOU: Holotype ♀, near Tsuifeng, 1-VI-1976, M. Kubota leg. ILAN: 1 ♀, Shyuanakou, 25-VI-1993, J. Lo leg.

Taiwanoserica lishana NOMURA 梨山台灣絨毛金龜

Taiwanoserica lishana Nomura, 1974. Tôhō-Gakuhō 24: 87; Miyake, Nakamura et Kojima, 1991. Mis. Rep. Hiwa Mus. Nat. Hist. 29: 7; Yu, Kobayashi et Chu, 1998. Scarab. Taiwan: 50, 82, 414, 218, 219.

Specimens examined: TAICHUNG: Paratypes 3 ♀, 1 ♀, Kukuan, 15-VIII-1974, Y. Kishida leg. 1 ♀, Lishan, 25-VII-1978, T. Shimomura leg. 1 ♀, Lishan, 4-VIII-1987, H. Kobayashi leg. 1 ♀, Chiayan, 10-VIII-1990, C. Yu leg. NANTOU: 2 ♀, Piluchi, 5-VIII-1986, K. Baba leg. 1 ♀, Mt. Guandao, 12-VI-1988, C. Yu leg. ILAN: 1 ♀, Shuyuan, 23-VII-1994, J. Lo leg. HUALIEN: 1 ♀, Bihluh-shenmu, 26-VIII-1992 C. Yu leg.,

Taiwanoserica monticola KOBAYASHI et YU, sp. nov. 深山台灣絨毛金龜 (Figs. 2, 6)

Elongate oval, dark reddish brown to blackish brown, with legs reddish brown, clypeus and posterior part of head blackish brown, antennae yellowish brown, dorsal surface mottled with blackish patches, sides of metasternum and abdomen blackish brown or dark colored. Surface of body opaque, clypeus, antennae and legs (except for middle femora) shining.

Clypeus subtrapezoidal, rather coarsely and densely punctate, bearing dense erect hairs; fronto-clypeal suture distinct, roundly curved in the middle. Frons sparsely and finely punctate, bearing scattered scale-like setae. Eyes one-third as broad as frons between them in male, smaller in female. Antennae 10-segmented, with club a little longer than footstalk in male, as long as the 2nd to 7th segments combined in female.

Pronotum somewhat sparsely punctate, bearing scattered slender scale-like setae and short hairs, lateral margins most widely separated at basal

one-fifth, gently convergent to front and to base, anterior angles produced but not acute, posterior ones dull angulate. Elytra bearing scattered, rather short scale-like setae, with intervals feebly convex, sparsely punctate. Pygidium gently convex, somewhat coriaceous, bearing slender or short hairs on entire disk.

Abdomen with 2nd to 4th sternites bearing a row of hairs on each side and scattered hairs in the middle. Anterior tibiae bidentate, somewhat dilated behind 2nd tooth. Posterior femora narrow, 4 times () or 3.4 times () as long as its breadth, sparsely punctate. Posterior tibiae 4.2 times () or 4.0 times () as long as its breadth, longitudinally rugose. Posterior tarsi obtusely carinate, without setae on ventral side of basal two segments. Male genitalia as shown in Fig. 6.

Length: 7.8-8.2 mm; breadth: 4.8-5.0 mm.

Holotype: , TAICHUNG: Mt. Anma, 29-IX-1993, C. Yu leg. Paratypes: 1 , 2 , same data as holotype.

Diagnosis: This species is most similar to *T. yui* H. Kobayashi, 1993, but it may be separated from the latter by the following points: pronotum broadest at basal one-fifth, lateral margin gently convergent to front; pygidium without a longitudinal smooth line; and posterior tarsus without setae on ventral side of basal two segments.

Etymology: This new species inhabits in Central Mountain Range of Taiwan, and so it is named *monticola*.

Taiwanoserica niitakana (SAWADA) 玉山台灣絨毛金龜

Serica niitakana Sawada, 1939. Nippon no Kôchû 3: 49.

Taiwanoserica niitakana: Nomura, 1974. Tôhō-Gakuhô 24: 86; Yu, Kobayashi et Chu, 1998. Scarab. Taiwan: 50, 82, 141, 218, 219.

Specimens examined: NANTOU: 2 , 1 , Mt. Houfuan, 8-VIII-1974, Y. Kishida leg. 4 , 8 , Mt. Houfuan, 30-VII-1983, Y. Shibata leg. HUALIEN: 3 , 4 , Dayuling ("Tai Wu Ling" on label), 5-VIII-1986, K. Baba leg. 1 , Bihluh-shenmu, 13-VII-1987, C. Yu leg.

Taiwanoserica nitidipes NOMURA 彩虹台灣絨毛金龜

Taiwanoserica nitidipes Nomura, 1974. Tôhō-Gakuhô 24: 89; Yu, Kobayashi et Chu, 1998. Scarab. Taiwan: 82, 142, 219.

Specimens examined: NANTOU: 2 , Tsuifeng, 19-VII-1987, C. Yu leg. 1 , Tsuifeng, 10-VI-1988, C. Yu leg. 1 , Sungkang, 21-VII-1987, C. Yu leg. 1 , near Yushih, 23-VI-1987, J. Lo leg. HUALIEN: 1 , Bihluh-shenmu, 26-VIII-1992, C. Yu leg.

Taiwanoserica ovata NOMURA 圓型台灣絨毛金龜

Taiwanoserica ovata Nomura, 1974. Tôhō-Gakuhô 24: 89; Yu, Kobayashi et Chu, 1998. Scarab. Taiwan: 82, 142, 219.

Specimens examined: NANTOU: 1 , near Meifeng, 17-VII-1976, M. Kubota leg. 1 , Chusheh, 30-VI-1992, C. Yu leg. 1 , Meifeng, 5-IX-1989, C. Yu leg. HUALIEN: 1 , Bihluh-shenmu, 26-VIII-1992, C. Yu leg. 1 , Tzuen, 16-IX-1992, C. Yu leg.

Taiwanoserica pubisterna NOMURA 胸毛台灣絨毛金龜

Taiwanoserica pubisterna Nomura, 1974. Tôhō-Gakuhô 24: 87; Yu, Kobayashi et Chu, 1998. Scarab. Taiwan: 82, 142, 219, 220.

Specimens examined: NANTOU: 1 , near Tsuifeng, 26-VII-1974, Y. Shibata leg. 1 , Sungkang, 30-IX-1989, C. Yu leg. 1 , Sungkang, 19-VIII-1990, C. Yu leg.

Taiwanoserica shinanshana H. KOBAYASHI

YASHI 桃源台灣絨毛金龜

Taiwanoserica shinanshana H. Kobayashi, 1988. Trans. Essa ent. Soc. 65: 57; Yu, Kobayashi et Chu, 1998. Scarab. Taiwan: 50, 82, 140, 218, 219.

Specimen examined: KAOHSIUNG: Holotype , Shinanshan, near Liukuei, 28-VII-1986, K. Baba leg.

Taiwanoserica simillima H. KOBAYASHI 紅台灣絨毛金龜

Taiwanoserica simillima H. Kobayashi, 1983. New Entomol. 32(3): 18; Yu, Kobayashi et Chu, 1998. Scarab. Taiwan: 50, 82, 141, 218, 219.

Specimens examined: NANTOU: Holotype , near Tsuifeng, 25-VIII-1974, Y. Shibata leg. Paratypes 1 , 1 , same data as holotype. Paratype 1 , Tsuifeng, 29-VII-1978, W. Suzuki leg. 1 , Tsuifeng, 29-VII-1987, W. Suzuki leg.

Taiwanoserica sinuosa KOBAYASHI et YU, sp. nov. 曲腿台灣絨毛金龜 (Figs. 3, 7)

Elongate oval, light to medium reddish brown. Clypeus, tibiae and tarsi reddish brown, frons and vertex blackish brown, antennae yellowish brown, dorsal surface mottled with blackish patches, abdomen darker. Surface of body opaque, with clypeus, antennae and legs (except for middle femora) shining.

Clypeus subtrapezoidal, densely, somewhat rugosely punctate, bearing dense erect hairs, with a faint transverse groove just behind anterior margin, anterior margin roundly emarginate; fronto-clypeal suture distinct, angulate in the middle. Frons finely and sparsely punctate, bearing scattered erect or semierect hairs. Eyes small, one-fourth as broad as frons between them in both sexes. Antennae 10-segmented, with club the same length as the footstalk in male, shorter than that in female.

Pronotum somewhat sparsely

punctate, bearing scattered slender scale-like setae and short hairs, lateral margins most widely separated near middle, very strongly arched, anterior angles produced but not acute, posterior ones sub-rectangular. Elytra bearing scattered slender scale-like setae, with intervals feebly convex, sparsely punctate. Pygidium gently convex in male, more convex in female, densely and somewhat rugosely punctate, with a clear longitudinal elevated line in the middle, bearing rather long hairs near posterior margin.

Abdomen with 2nd to 4th sternites bearing a row of hairs on each side and scattered hairs in the middle. Anterior tibiae bidentate, somewhat dilated behind 2nd tooth. Middle femora slender, 5.0 times () to 4.8 times () as long as its breadth, posterior margin evidently sinuate at tip. Posterior femora narrow, 3.3 times () to 3.1 times () as long as its breadth, very sparsely punctate. Posterior tibiae slender, 3.6 times () to 3.2 times () as long as its breadth, longitudinally rugose. Posterior tarsi with two or three short setae on ventral side of apical two segments. Male genitalia as shown in Fig. 7.

Length: 7.8-8.5 mm; breadth: 4.5-4.7 mm.

Holotype: , TAICHUNG: Mt. Anma, 29-IX-1993, C.Yu leg. Paratypes: 1 , 1 , same data as holotype, 1 , 1 , same locality as holotype, 12-VII-1992, C.Yu leg.

Diagnosis: This species is very similar to *T. pubisterna* Nomura, 1974, but it may be separated from the latter by the following points: pronotum broadest near middle, lateral margins very strongly arcuate; middle femora slender, posterior margin evidently sinuate at the tip; and posterior tarsus with two or three short setae on ventral side of apical two segments.

Etymology: This new species has a sinuate middle femur, so it is named *sinuosa*.

Taiwanoserica suturalis NOMURA 條紋台灣絨毛金龜

Taiwanoserica suturalis Nomura, 1974. Tôhō-Gakuhō 24: 88; Yu, Kobayashi et Chu, 1998. Scarab. Taiwan: 50, 82, 140, 219.

Specimens examined: NANTOU: 1, near Tsuifeng, 2-VIII-1977, T. Shibata leg. 2, 1, Meifeng, 8-IX-1989, C. Yu leg. 1, 1, Meifeng, 5-IX-1989, C. Yu leg. 1, Sungkang, 16-VI-1982, J. Lo leg. 4, Sungkang, 19-VIII-1990, C. Yu leg. 1, Sungkang, 28-VI-1991, C. Yu leg. 3, Sungkang, 30-IX-1989, C. Yu leg.

Taiwanoserica suzukii H.KOBAYASHI 鈴木台灣絨毛金龜

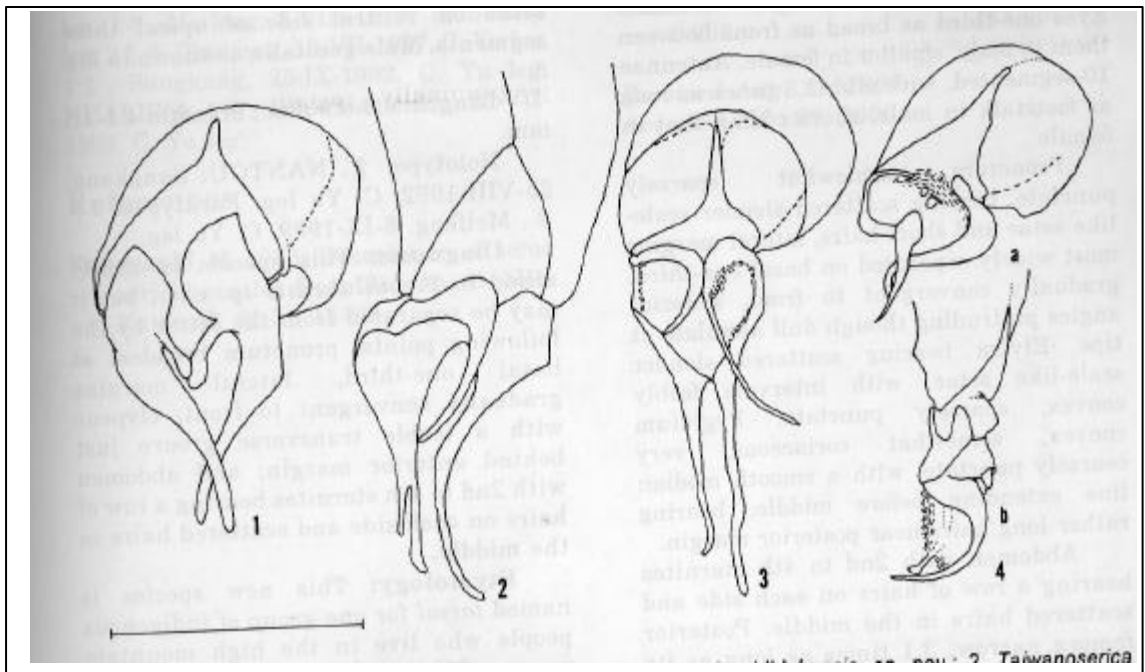
Taiwanoserica suzukii H. Kob-ayashi, 1983. New Entomol. 32(3): 17; Yu, Kobayashi et Chu, 1998. Scarab. Taiwan: 50, 82, 141, 219.

Specimens examined: TAOYUAN: Holotype, Mt. Lala, 21-VII-1978, W. Suzuki leg. Paratypes 2, same data as holotype.

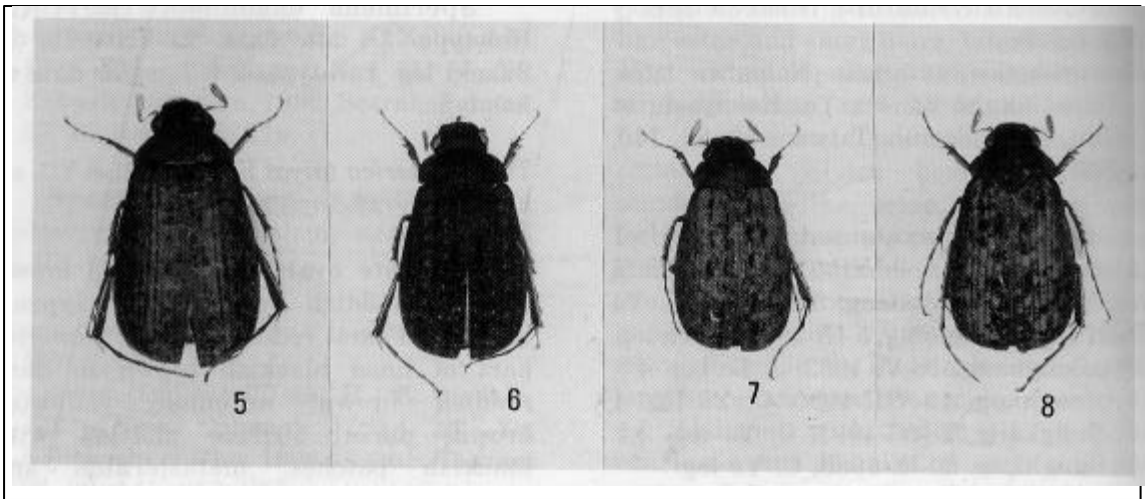
Taiwanoserica taiyal KOBAYASHI et YU, sp. nov. 泰雅台灣絨毛金龜 (Figs. 4, 8)

Elongate oval, light reddish brown or dark reddish brown, with clypeus, tibiae and tarsi reddish brown, posterior part of head blackish brown to dark reddish brown, antennae yellowish brown, dorsal surface mottled with blackish patches, metasternum and abdomen darker. Surface of body opaque, with clypeus, antennae and legs (except for middle femora) shining.

Clypeus subtrapezoidal, rather densely punctate, bearing dense erect hairs, with a feeble transverse groove just behind anterior margin, anterior margin rather deeply emarginate; fronto-clypeal



Figs. 1-4 Male genitalia of *Taiwanoserica* spp. - 1, *Taiwanoserica bihluhensis*, sp. nov.; 2, *Taiwanoserica monticola*, sp. nov.; 3, *Taiwanoserica sinuosa*, sp. nov.; 4, a, apico-dorsal view; b, lateral view, *Taiwanoserica taiyal*, sp. nov. (Scale: 1 mm).



Figs. 5-8 *Taiwanoserica* spp. - 5, *Taiwanoserica bihluhensis*, sp. nov.; 6, *Taiwanoserica monticola*, sp. nov.; 7, *Taiwanoserica sinuosa*, sp. nov.; 8, *Taiwanoserica taiyal*, sp. nov.

suture distinct, angulate in the middle. Frons sparsely and faintly punctate, bearing scattered erect or semierect hairs. Eyes one-third as broad as frons between them in male, smaller in female. Antennae 10-segmented, with club 1.3 times as long as footstalk in male, shorter than that in female.

Pronotum somewhat sparsely punctate, bearing scattered slender scale-like setae and short hairs, lateral margins most widely separated on basal one-third, gradually convergent to front, anterior angles protruding though dull angulate at tips. Elytra bearing scattered slender scale-like setae, with intervals feebly convex, sparsely punctate. Pygidium convex, somewhat coriaceous, very coarsely punctate, with a smooth median line extending before middle, bearing rather long hairs near posterior margin.

Abdomen with 2nd to 4th sternites bearing a row of hairs on each side and scattered hairs in the middle. Posterior femora narrow, 3.1 times as long as its breadth, sparsely punctate in both sexes. Posterior tibia slender, 5.0 times () to 4.8 times () as long as its breadth,

longitudinally rugose. Posterior tarsi almost impunctate with one or two short setae on ventral side of apical three segments. Male genitalia as shown in Fig. 8.

Length: 8.3-8.9 mm.; breadth: 4.1-4.5 mm.

Holotype: , NANTOU: Sungkang, 25-VIII-1992, C. Yu leg. Paratypes: 3 , Meifeng, 8-IX-1989, C. Yu leg.

Diagnosis: This species is closely allied to *T. bihluhensis* sp. nov., but it may be separated from the latter by the following points: pronotum broadest at basal one-third, lateral margins gradually convergent to front; clypeus with a feeble transverse groove just behind anterior margin; and abdomen with 2nd to 4th sternites bearing a row of hairs on each side and scattered hairs in the middle.

Etymology: This new species is named *taiyal* for one group of indigenous people who live in the high mountain ranges of Taiwan.

Taiwanoserica variegata NOMURA 阿里山台灣絨毛金龜

Taiwanoserica variegata Nomura, 1974. Tôhō-Gakuhō 24: 86; Yu, Kobayashi et Chu, 1998. Scarab. Taiwan: 82, 142, 218, 220.

Specimens examined: CHIAI: 2 , Mt. Ali, 8-VIII-1978, Y. Shibata leg. HUALIEN: 1 , Bihluh-Shenmu, 22-VI-1992, C. Yu leg.

Taiwanoserica yui H. KOBAYASHI 木生台灣絨毛金龜

Taiwanoserica yui H. Kobayashi, 1993. Elytra 21(1): 70; Yu, Kobayashi et Chu, 1998. Scarab. Taiwan: 50, 82, 142, 219.

Specimens examined: TAICHUNG: Holotype , Mt. Anma, 12-VII-1992, C. Yu leg. Paratypes 3 , 2 , same data as holotype. NANTOU: 1 , Guandaoshan, 15-VI-1993, J. Lo leg. 1 , Sungkang, 17-V-1982. 1 , Sungkang, 30-IX-1989, C. Yu leg. 1 , Meifeng, 3-VIII-1978, W. Suzuki leg. 2 , Tsuifeng, 19-VII-1987, C. Yu leg. 1 , Sungkang, 25-IX-1992, C. Yu leg. HUALIEN: 1 , Bihluh-shenmu, 20-VII-1993, C. Yu leg.

References

- Kobayashi, H.** 1983. Description of some sericid-beetles from Taiwan, II. New Entomol. 32(3): 15-20.
- Kobayashi, H.** 1988. List of Formosan Scarabaeidae, collected by Dr. K. Baba I. Trans. Essa ent. Soc. 65: 53-61.
- Kobayashi, H.** 1993. Some new Sericid and Melolonthid beetles (Coleoptera, Scarabaeidae) from central Taiwan. Elytra 21(1): 67-75.
- Miyake, Y. S. Nakamura, and K. Kojima,** 1991. The Scarabaeoidea of Taiwan preserved Hiwa Museum for Natural History, with description of two new species (Coleoptera: Polyphaga). Mus. Rep. Hiwa Mus. Nat. Hist. 29: 1-41.
- Nomura, S.** 1974. On the sericini of Taiwan (Col., Scarabaeidae). Tôhō-Gakuhō 24: 81-115.
- Sawada, H.** 1939. Some Lamellicorn beetles of the subfamily Sericinae. Nippon no Kôchû 3: 48-51.
- Yu, C. K., H. Kobayashi, and Y. I. Chu.** 1998. The Scarabaeidae of Taiwan. Mu-Sheng Entomol. Corp., Taipei. 1-263.

Received Aug. 13, 1999

Accepted Feb. 29, 2000

台灣絨毛金龜屬 (*Taiwanoserica*) (鞘翅目：金龜子科) 之註釋

小林裕和* 松蔭高等學校 日本東京都世田谷區北澤 1-16-10

余清金 木生昆蟲博物館 南投縣埔里鎮南村路 6-2 號

摘 要

本文敘述台灣產台灣絨毛金龜屬之四新種 *Taiwanoserica bihluhensis*, *T. monticola*, *T. sinuosa* 及 *T. taiyal*, 並製作本屬已知種類之檢索表。

關鍵詞：台灣絨毛金龜屬、台灣、新種。