

Notes on the Genus *Callirhipis* (Coleoptera, Callirhipidae)
from the Ryukyu Islands and Taiwan

Masataka SATÔ

Biological Laboratory, Nagoya Women's University,
Mizuho-ku, Nagoya 467, Japan

Abstract Three species of the genus *Callirhipis* from the Ryukyu Islands and Taiwan are dealt with. One of them from Okinawa-hontô is new to science and is described under the name of *C. kurosawai*. Females of all the species are described for the first time. A key to the species is provided.

Through the courtesy of Dr. Y. KUROSAWA, I was able to examine a remarkable species of the genus *Callirhipis*, collected by himself on Okinawa-hontô of the Ryukyu Islands in 1984. This was a male specimen and recorded by KUROSAWA (1984) under the name of *Callirrhypis formosanus* PIC based on the knowledge at that time. Later, he carefully restudied the specimen and concluded that it might belong to a new species. However, he kindly gave me the opportunity to describe this interesting specimen, together with additional material including females obtained from decayed trees. According to my detailed study, it was proved that KUROSAWA's inference was correct. It is different not only from *C. formosana* PIC but also from *C. miwai* NAKANE in the structure of head, elytra, pronotum and male genitalia, as will be shown in the following description and a key to the species. The new name to be given is *C. kurosawai*.

At this opportunity, two previously known species of *Callirhipis* from the Yaeyama Islands and Taiwan will also be dealt with. Their females will be described for the first time and their male genitalia will be illustrated. These three species will be diagnosed in a key.

I wish to express my deep gratitude to Dr. Yoshihiko KUROSAWA for his kindness in giving me the opportunity to study the interesting material, to Dr. Shun-Ichi UÉNO for not only critically reading the manuscript of this paper but also examining the specimen, and to Dr. S. HISAMATSU, Dr. M. OWADA, Dr. M. SAKAI, Mr. H. FUJITA and Mr. Y. TAGAWA for their kind support in the literature and material.

Callirhipis kurosawai M. SATÔ, sp. nov.

(Figs. 1–3)

Callirrhypis [sic] *formosanus*: KUROSAWA, 1984, *Coleopt. News*, Tokyo, (66): 7.

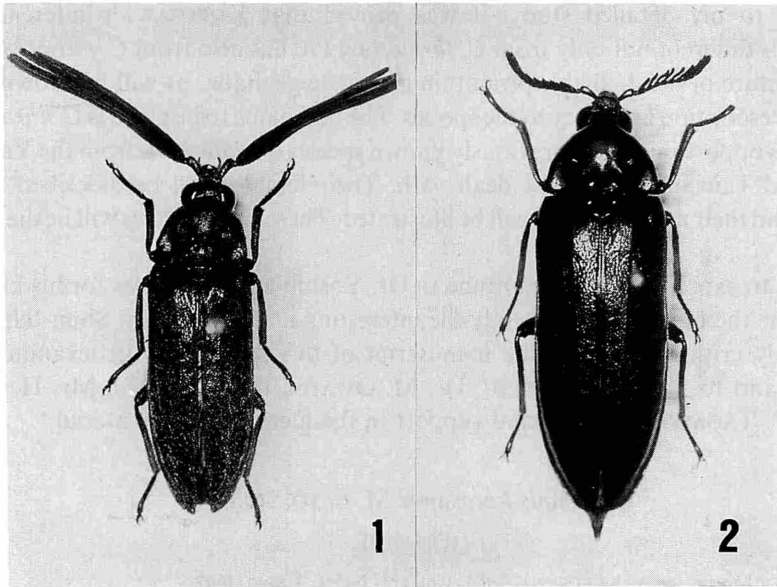
Male. Body elongate, subparallel-sided, well convex, rather shining, closely

covered with long, recumbent and bombycinous hairs above and with short, recumbent and flavescens hairs beneath. Colour mostly dark brown; head black; antennae, legs and ventral surface dark reddish brown, but the palpi and posterior margins of abdominal sternites are more or less light.

Head small, closely and somewhat rugosely punctate; vertex shallowly concave, with a distinct medium sulcus in front; margin of antennal cavities moderately ridged; clypeus transverse, microreticulate, with raised sides; labrum semicircular, rugosely punctate; eyes large, prominent, the distance between them about 1.7 times the breadth of an eye; antennae lamellate, long, 1st segment stout, 2nd short, 3rd to 10th rather short, each furnished with a long slender appendage, 11th very long.

Pronotum semicircular in outline, about 1.6 times as broad as long; surface closely, strongly and somewhat rugosely punctate, provided with a round fovea on each side just behind the middle and with a pair of round foveae just in front of scutellum, basal area depressed near the hind corners. Scutellum round, shallowly hollowed, finely and closely punctate.

Elytra subparallel-sided, gently narrowed posteriad, about 1.1 times as broad as pronotum, about 2.4 times as long as broad; surface somewhat closely and strongly punctate and furnished with variable, transverse or oblique, scar-like depressions which are pronounced in apical two-thirds, the punctures becoming sparser and smaller towards lateral and apical areas; each elytron provided with 5 vague costae and with a short longitudinal impression inside humerus, 1st costa short, oblique and recognized at base just lateral to scutellum.



Figs. 1-2. *Callirhipis kurosawai* M. SATÔ, sp. nov.; 1, male; 2, female.

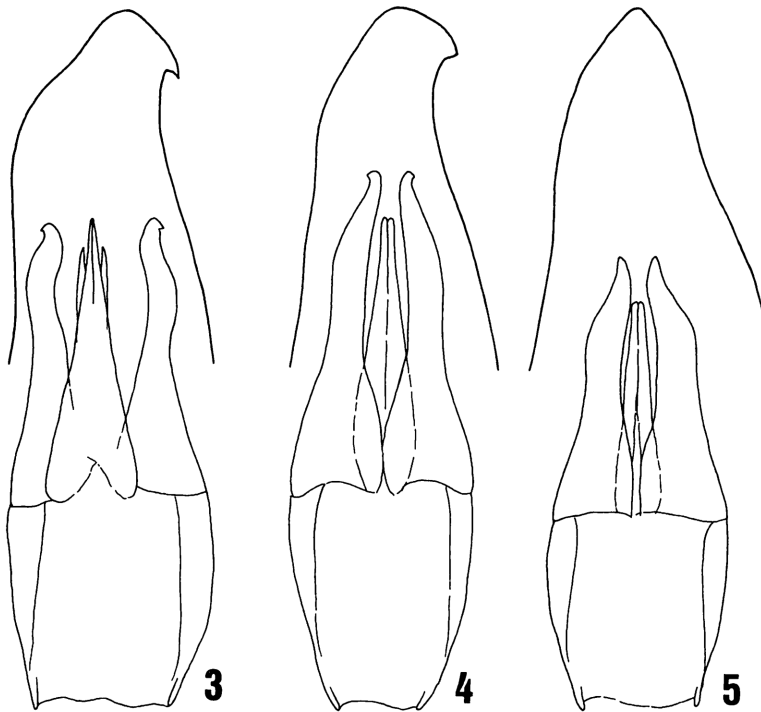
Ventral surface closely and distinctly punctate; prosternal process long, extending to between coxae, with dully pointed apex; mesosternum provided with a median pit for receiving prosternal process and with a pair of round hollows for receiving front trochanter in front and joining median furrow behind; metasternum with a median line; abdomen with 5 visible sternites, 1st narrowly projected at anterior middle to between hind coxae, 2nd to 5th rimmed at antero-lateral sides. Legs long, slender, closely covered with short flavescent hairs; femora closely, transversely and rugosely wrinkled; tibiae almost straight.

Male genitalia stout; median lobe strongly tapered, with short apical carina; lateral lobes distinctly sinuate with angulate apex.

Length: 15.3–17.2 mm (from front margin of pronotum to elytral apices); breadth: 5.2–5.7 mm.

Female. Body robust, subparallel-sided, distinctly convex, well shining and sparsely covered with fine pubescence. Colour almost dark reddish brown, but the antennae, palpi, legs and ventral surface are reddish brown.

Head somewhat small; vertex shallowly concave; the distance between eyes about 1.3 times as the breadth of an eye; antennae pectinate, somewhat short, 1st segment



Figs. 3–5. Male genitalia and close up of the apex of lateral lobe. — 3, *Callirhipis kurosawai* M. SATŌ, sp. nov.; 4, *C. miyai* NAKANE; 5, *C. formosana* PIC.

stout, 2nd small, 3rd to 10th short, each furnished with a long appendage which becomes gradually longer apicad, 10th about twice as long as 3rd and about 1.5 times as long as 4th, 11th long.

Pronotum about 1.6 times as broad as long; surface closely and finely punctate, integument microreticulate. Elytra about 1.2 times as broad as pronotum, about 2.4 times as long as broad; surface somewhat closely and distinctly punctate, intervals of punctures being rugose.

Ventral surface finely and closely punctate, closely covered with fine, short and flavescent hairs.

Female genitalia well sclerotized, large, elongate, upper coxite short, narrowed apically with dully pointed apex; lower coxite long.

Length: 16.8–21.7 mm (from front margin of pronotum to elytral apices); breadth: 6.0–7.3 mm.

Holotype: ♂, Yona, Okinawa-hontô, Ryukyus, 11 ~ 12-VII-1984, Y. KUROSAWA leg. Allotype: ♀, Nago Park, Okinawa-hontô, Ryukyus, 14-VII-1984, H. FUJITA leg. Paratypes: 1 ♂, same data as for the holotype; 1 ♀, same data as for the allotype.

All the specimens of the type series are preserved in the collection of the Natn. Sci. Mus. (Nat. Hist.), Tokyo.

This new species is closely related to *C. miwai* NAKANE, but is distinguished from it by having shallowly concave vertex and angulated apex of the lateral lobes of male genitalia.

I dedicate this species to Dr. Y. KUROSAWA, who is an eminent coleopterologist and the discoverer of this interesting species.

Callirhipis miwai NAKANE, 1985

(Fig. 4)

Callirhipis miwai NAKANE, 1985, Rhopal. Mag., **8** (8): 36.

Callirhipis [sic] *formosanus*: MIWA, 1933, Trans. nat. Hist. Soc. Formosa, **23**: 9.

Callirhipis [sic] *marmorea*: CHÛJÔ, 1972, Mem. Fac. Educ., Kagawa Univ., (2), (208): 8.

This species was first recorded from "Is. Iriomote" by MIWA (1933) under the name of *C. formosanus* PIC. NAKANE (1985) considered that it was a new species and gave it a new name, *C. miwai* based on a male specimen collected at "Banna-dake, Ishigaki Is."

On the other hand, CHÛJÔ (1972) recorded *C. marmorea* FAIRMAIRE from "Mt. Ban'na-dake, Is. Ishigaki" and noted that a comparison with *C. formosanus* is necessary.

Judging from the descriptions and locality records in addition to the present knowledge, all the Yaeyama specimens had better be considered conspecific.

I was able to examine a specimen of hitherto unknown female of this species, which will be described for the first time.

Male. Distance between eyes about 1.6 times the breadth of an eye. Pronotum

about 1.5 times as broad as long. Elytra slightly wider than pronotum, about 2.5 times as long as broad.

Length: 16.0 mm (from front margin of pronotum to elytral apices); breadth: 5.0 mm.

Female. Body robust, subparallel-sided, distinctly convex, well shining and sparsely covered with fine pubescence. Colour almost dark reddish brown, but the antennae, palpi, legs and ventral surface are reddish brown.

Head rather small; vertex uneven, distinctly concave, closely and rugosely punctate; the distance between eyes about 1.6 times the breadth of an eye; antennae pectinate, somewhat short, 1st segment stout, 2nd small, 3rd to 10th short, each furnished with a long appendage which becomes gradually longer towards apex, 10th about 2.2 times as long as 3rd and about 1.7 times as long as 4th, 11th long.

Pronotum about 1.5 times as broad as long; surface closely and finely punctate, integument obsoletely microreticulate. Elytra about 1.2 times as broad as pronotum, about 2.4 times as long as broad; surface closely and distinctly punctate, intervals of punctures being rugose and aciculate.

Ventral surface finely and closely punctate, closely covered with fine, short and flavescent hairs.

Female genitalia well sclerotized, large, elongate, upper coxite short, narrowed apically with dully pointed apex; lower coxite long.

Length: 20.0 mm (from front margin of pronotum to elytral apices); breadth: 6.7 mm.

Specimens examined. 1 ♂, Mt. Banna-dake, Ishigaki-jima, Ryukyus, 5-VII-1984, H. FUJITA leg.; 1 ♀, Omoto, Ishigaki-jima, Ryukyus, 30~31-VII-1981, M. OWADA leg.

Callirhipis formosana PIC, 1912

(Fig. 5)

Callirhipis [sic] *formosana* PIC, 1912, Échange, **28** (325): 5. — EMDEN, 1924, Ent. Mitt., **13**: 30. — MIWA, 1928, Trans. nat. Hist. Soc. Formosa, **18**: 372.

Callirhipis formosana: NAKANE, 1985, Rhopal. Mag., **8** (8): 34.

This species was described by PIC (1912) from "Ile Formosa". Since then, it has been recorded by EMDEN (1924) from "Kosempo, Formosa". Both the records were based on male specimens only. This may be due to the fact that the males are more easily collected than the females, as the males are often attracted to light at night.

Recently, I had an opportunity to examine a female specimen of this species collected by Dr. S.-I. UÉNO "nr. Fen-chi-hu, Taiwan". I will describe it in the following lines.

Male. Distance between eyes about 1.8 times the breadth of an eye. Pronotum about 1.5 times as broad as long. Elytra about 1.1 times as broad as pronotum, about 2.6 times as long as broad.

Length: 14.7 mm (from front margin of pronotum to elytral apices); breadth: 4.7 mm.

Female. Body somewhat slender, subparallel-sided, well convex, shining and sparsely covered with fine pubescence. Colour almost dark reddish brown, but the antennae, palpi, legs and ventral surface are reddish brown.

Vertex moderately concave, closely and distinctly punctate; the distance between eyes about twice the breadth of an eye; antennae pectinate, somewhat short, 1st segment stout, 2nd small, 3rd to 10th short, each furnished with a long appendage which is almost of the same length, 10th about 1.6 times as long as 3rd and about 1.2 times as long as 4th, 11th long.

Pronotum about 1.5 times as broad as long; surface closely and finely punctate. Elytra about 1.2 times as broad as pronotum, about 2.6 times as long as broad; surface rather sparsely and finely punctate, interspaces being irregularly rugose and aciculate; costae obsolete.

Ventral surface finely and closely punctate, closely covered with fine, short and flavescent hairs.

Female genitalia well sclerotized, large, elongate, upper coxite short, narrowed apically with dully pointed apex; lower coxite long.

Length: 19.5 mm (from front margin of pronotum to elytral apices); breadth: 6.0 mm.

Specimens examined. 1 ♂, Nanshanchi, Nantou Hsien, Taiwan, 4-VI-1981, Y. TAGAWA leg.; 1 ♀, Ha-li-wei, nr. Fen-chi-hu, Taiwan, 8-VII-1961, S.-I. UENO leg.

Key to the Species of the Genus *Callirhipis* from the Ryukyu Islands and Taiwan

- 1 (6) Dorsum closely covered with bombycinous hairs. Antennae lamellate. [Males]
- 2 (5) Body stout. Distance of antennal cavities rather broad.
- 3 (4) Vertex moderately concave; lateral sides of clypeus moderately ridged. Elytra distinctly punctate. *C. kurosawai* M. SATÔ, sp. nov.
- 4 (3) Vertex distinctly concave; lateral sides of clypeus distinctly ridged. Elytra strongly punctate. *C. miwai* NAKANE
- 5 (2) Body somewhat slender. Distance of antennal cavities narrow. *C. formosana* PIC
- 6 (1) Dorsum sparsely pubescent. Antennae pectinate. [Females]
- 7 (10) Elytra closely and distinctly punctate. Antennal appendages rather long and gradually becoming longer towards apex.
- 8 (9) Head shallowly concave; antero-lateral margins of antennal cavities and lateral sides of clypeus moderately ridged. *C. kurosawai* M. SATÔ, sp. nov.
- 9 (8) Head distinctly concave; antero-lateral margins of antennal cavities and

- lateral sides of clypeus evidently ridged. *C. miwai* NAKANE
 10 (7) Elytra rather sparsely and finely punctate. Antennal appendages short and
 almost of the same length. *C. formosana* PIC

要 約

佐藤正孝：琉球列島および台湾産ナガクシヒゲムシ属に関する覚え書。——ナガクシヒゲムシ属の種として、琉球列島から3種、台湾から1種が従来、知られていた。それらの記載と記録を、最近得られた標本とあわせて検討した結果、次の3種に整理した。それらのうち、1種を新種として記載するとともに、従来、雄だけしか知られていなかった既知の2種について雌を記載し、雄の交尾器も図示した。

Callirhipis kurosawai M. SATO オキナワナガクシヒゲムシ 分布：沖縄本島。黒沢（1984）によって *C. formosanus* PIC として記録されていた。

Callirhipis miwai NAKANE ナガクシヒゲムシ 分布：八重山群島。MIWA（1933）により *C. formosanus* PIC として、また CHÛJÔ（1972）により *C. marmorea* FAIRMAIRE として、それぞれ記録されていた。

Callirhipis formosana PIC タイワンナガクシヒゲムシ 分布：台湾。

References

- CHÛJÔ, M., 1972. Coleoptera of the Loo-choo Archipelago (IV). *Mem. Fac. Educ. Kagawa Univ.*, (2), (208); 1–28.
- EMDEN, F. VAN, 1924. H. SAUTER's Formosa-Ausbeute, Sandalidae (Col.). *Ent. Mitt.*, **13**: 27–34.
- FAIRMAIRE, M. L., 1878. Coléoptères de Cochinchine recueillis par M. le docteur MORICE. *Annls. Soc. ent. France*, (5), **8**: 269–274.
- KUROSAWA, Y., 1984. Two species of beetles new to Okinawa-Honto Is. *Coleopt. News, Tokyo*, (66): 7. (In Japanese.)
- MIWA, Y., 1928. On the Rhipiceridae of Japan. *Trans. nat. Hist. Soc. Formosa*, **18**: 371–376. (In Japanese with English summary.)
- 1933. An enumeration of Coleoptera from the Island Iriomote in Loochoo, with descriptions of new species. *Ibid.*, **23**: 4–15.
- NAKANE, T., 1985. Notes on some Japanese Coleoptera (2), Rhipiceridae & Callirhipidae. *Rhopal. Mag.*, **8** (8): 33–37. (In Japanese with English description.)
- PIC, M., 1912. Coléoptères exotiques nouveaux ou peu connus (Suite). *Échange*, **28** (325): 5–6.