

Coeliodes gokani, a New Species of the Ceutorhynchinae (Coleoptera, Curculionidae) from Taiwan

Hiraku YOSHITAKE

Laboratory of Entomology, Tokyo University of Agriculture, Sakuragaoka 1–1–1,
Setagaya-ku, Tokyo, 156–8502 Japan

Abstract *Coeliodes (Coeliodes) gokani*, a new ceutorhynchine weevil is described from Taiwan. This new species is closely related to *C. (Coeliodes) amamianus* YOSHITAKE, but can be distinguished from the latter by the front tibiae lacking distinct expansion at the apical part, the aedeagus with truncate tip and the characteristic spicules in the internal sac.

Introduction

The curculionid genus *Coeliodes* SCHOENHERR belongs to the tribe Ceutorhynchini of the subfamily Ceutorhynchinae, and contains about 50 species in the world, fifteen of which, belonging to three subgenera, have hitherto been known from East Asia (HUSTACHE, 1916; KÔNO, 1935; VOSS & CHÛJÔ, 1960; KOROTYAEV, 1997; YOSHITAKE, 1999). Only two species of the genus have so far been reported from Taiwan, viz., *C. (C.) gressitti* KOROTYAEV from the northern and central parts, and *C. (C.) castaneus* KOROTYAEV from the central part.

Through his recent study on the Asian Ceutorhynchinae, the author found a peculiar *Coeliodes* species obtained from Central Taiwan. This species belonging to the nominotypical subgenus seems to be a close relative of *C. (C.) amamianus* YOSHITAKE from the Ryukyu Islands, southwestern Japan, for the reason of having the characteristic vestiture on the elytra, configuration of tibial apex in the male, and structure of the genital organ in the male. However, it differs from the latter in some taxonomically important features.

It is therefore recognized as an undescribed species and will be described in the following lines as a third species of the genus from Taiwan under the name of *Coeliodes (Coeliodes) gokani*.

It is my great pleasure to be able to dedicate this small paper to Professor Dr. Nobuo GOKAN on the commemorative occasion of his retirement from Tokyo University of Agriculture in March, 2000.

Materials and Methods

Specimens. This study is based on the materials collected by Mr. S. IMASAKA in May, 1977 and Dr. and Mrs. KOJIMA in March, 1995 in Central Taiwan.

Preparation, examination and drawing of genitalia. The specimens macerated in hot water were dissected under a stereoscopic microscope: the abdomen was first removed from the body, and then cleaned in hot 10% KOH solution for 10 to 15 minutes. Genitalia were picked out from the abdomen and mounted on slide glasses with glycerol (male) or water (female), observed through the optical microscope and sketched with the aid of an attached drawing tube.

Examination and drawing of external structure. External structures were observed and illustrated with a stereoscopic microscope equipped with a drawing tube.

Type depository. The holotype will be preserved in the Entomological Laboratory, Faculty of Agriculture, Kyushu University (ELKU), and the paratypes are in the private collections of H. KOJIMA (PCHK) and K. EMOTO (PCKE).

Description

Coeliodes (Coeliodes) gokani YOSHITAKE, sp. nov.

(Figs. 1-4)

Male. Dark brown; apical third of rostrum tinged with red; antero-marginal part of pronotum reddish brown; elytra with slightly darker transverse basal, premedian and postmedian bands in entire width, the former two being longitudinally connected by a dark area between the first and fifth intervals, pre- and postmedian ones being arcuate posteriorly on each side, suture, margins and subapical calli blackish; meso- and metasterna, coxae, venter and pygidium blackish; femora, tibiae and tarsi reddish.

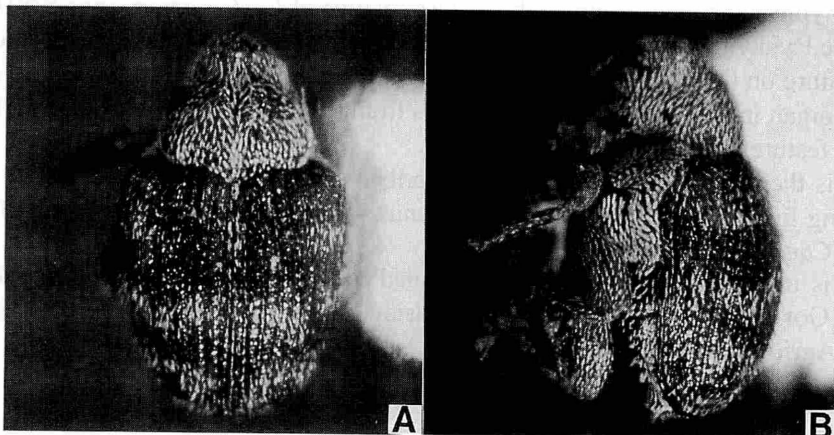


Fig. 1. *Coeliodes (Coeliodes) gokani* YOSHITAKE, sp. nov., holotype male; A, dorsal view; B, lateral view.

Head coarsely and closely reticulate-punctate, clothed with recumbent brownish and yellowish grey scales, forehead with subrecumbent scales along inner margin of each eye. Eyes somewhat convex from outline of head. Rostrum 1.08 times as long as pronotum, weakly and evenly curved. Antennae inserted a little before the middle of rostrum, funicle with first segment as long as second, third a little shorter than second, as long as fourth, fifth to seventh subequal in length to one another, each shorter than fourth, seventh almost as long as broad, club oblong-ovate, finely pubescent in apical third.

Prothorax 1.23 times as wide as long, widest near the base, slightly narrowed toward the apical third, then rapidly narrowed toward subapical constriction; dorsum reticulate-punctured, with a shallow subapical median depression, clothed with dense recumbent or subrecumbent yellowish-grey subrectangular scales, posterior margin with whitish oval ground scales.

Scutellum lanceolate, keeled, with whitish oval ground scales.

Elytra 1.10 times as long as wide, subparallel-sided in basal halves, then almost straightly narrowed toward subapical calli; dorsum with whitish oblong ground scales, which make up three indefinite bands in subbasal, median and apical parts; each interval with a median row of yellowish grey scales, which are subrecumbent, slender, slightly dilated distad, truncated at the apex and are mingled with blackish ones in the brownish area and margins; subapical calli with several pointed tubercles each bearing a dark slender scale.

Pygidium coarsely and sparsely punctate, and thinly clothed with fine recumbent setae, the lower margin fringed with suberect setae, which are internally curved.

Legs clothed with whitish recumbent hairy scales; each tibia mucronate at the

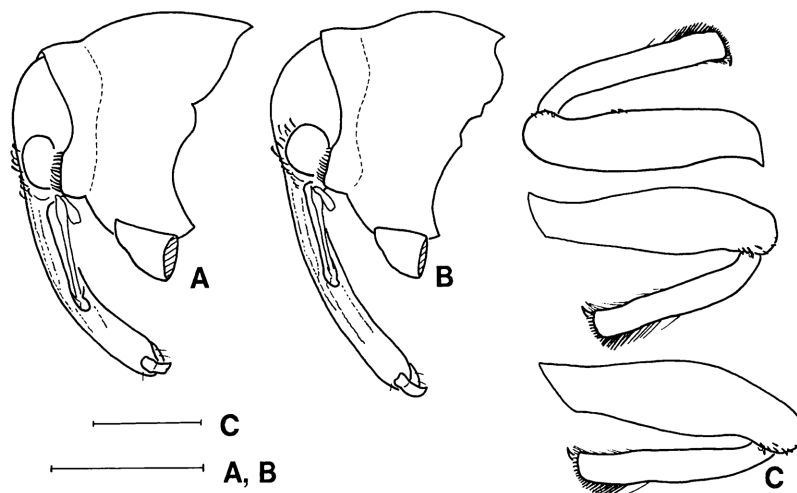


Fig. 2. *Coeliodes gokani* sp. nov.; A, head and prothorax, lateral view, male; B, ditto, female; C, femora and tibiae, male. Scale line=0.5 mm.

apex; front tibia hardly dilated outward in apical part.

Mesepisterna, mesepimera and metepisterna densely clothed with yellowish oblong scales.

Meso- and metasterna and venter clothed with whitish oblong scales. Pectoral canal reaching the middle of metasternum. Basal two ventrites depressed in the middle and thinly covered with fine whitish scales; fifth ventrite transversely becoming hollowed in the middle and almost devoid of scales, the posterior margin of the hollow being fringed with a pair of combs of long erect brownish setae, which are internally curved, and the posterior wall of the hollow with a pair of tufts of long setae, which stretch posteriorly and curved downward.

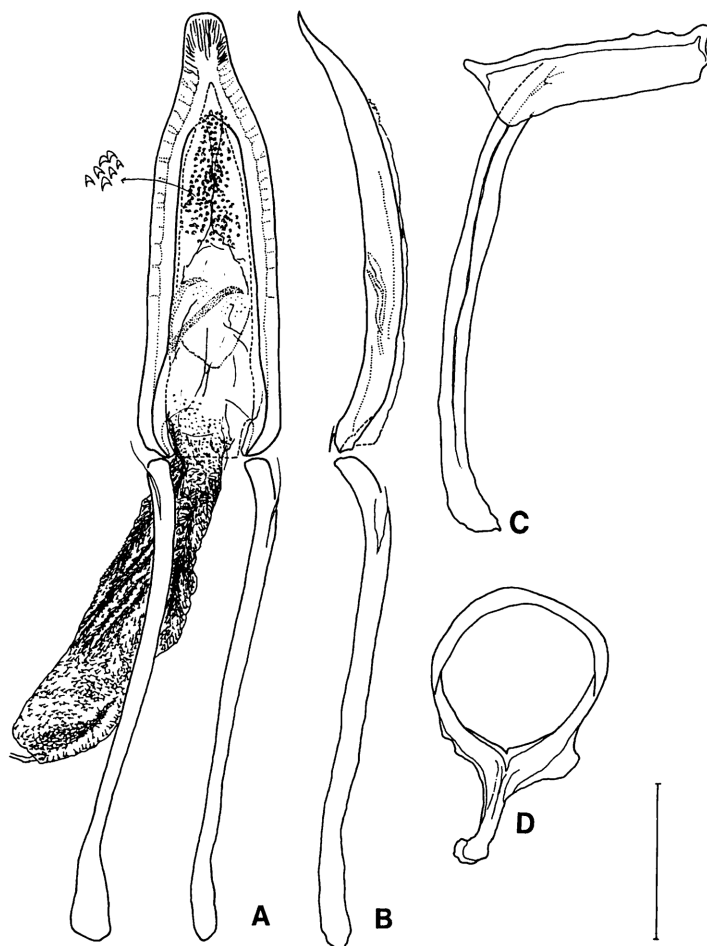


Fig. 3. Male genitalia of *Coeliodes gokani* sp. nov.; A, aedeagus, dorsal view; B, ditto, lateral view; C, 9th sternite; D, tegmen. Scale line=0.2 mm.

Aedeagal body slender, gradually narrowed apicad, and truncate at the tip; internal sac with a pair of slender sclerites, numerous fine, acute spicules and many round spicules; acute spicules and round spicules forming spiculate areas near the orifice and in apical half of internal sac, respectively.

Female. Rostrum much longer than in male, 1.24 times as long as pronotum. Antennae inserted at the middle of rostrum. Each tibia not mucronate at the apex. Pygidium depressed. Pectoral canal reaching the posterior margin of metasternum. Venter with basal two ventrites slightly inflated, fifth ventrite without depression. Sternite 8 and spermatheca as illustrated.

Length: 1.94–2.38 mm.

Holotype ♂, [Taiwan] Nantou Hsien, Nanshanchi, 20~23-III-1995, H. KOJIMA & M. SUEHIRO leg. (ELKU). Paratypes: [Taiwan] 2♂♂, 7♀♀, same data as the holotype (PCHK); 1♀, Nantou Hsien, Meifeng, 20-V-1977, S. IMASAKA leg. (PCKE).

Distribution. Central Taiwan.

Etymology. This new species is named in honor of Dr. Nobuo GOKAN, an eminent specialist of the compound eye morphology in the Coleoptera.

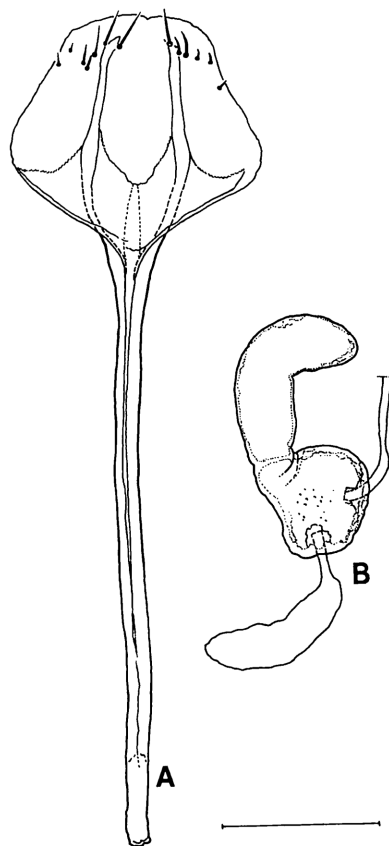


Fig. 4. Female genitalia of *Coeliodes gokani* sp. nov.; A, 8th sternite; B, spermatheca. Scale line=0.2 mm.

Biology. Unknown.

Remarks

The present new species is closely related to *C. (C.) amamianus* YOSHITAKE, because of having such common features as the presence of a median scaly row on each elytral interval, the mucronate tibiae in the male, the slender aedeagus, and a pair of sclerites in the internal sac, which are not present in any other members from East Asia. However, it can be readily distinguished from the latter by the following points: tibiae hardly dilated in apical parts; aedeagal body truncate at the apex; internal sac with many round spicules near the orifice.

Acknowledgement

I wish to express my special thanks to Dr. Katsura MORIMOTO, Emeritus Professor at Kyushu University, and Dr. Hiroaki KOJIMA for their kindness in supplying me with the materials and in giving me constant guidance, and to Prof. Yasuaki WATANABE of the Laboratory of Entomology, Tokyo University of Agriculture for his kindly reading the manuscript and constant guidance. My thanks are also due to Mr. Kenichi EMOTO for his kind offer of the invaluable specimens and various cooperation.

要 約

吉武 啓：台湾産アカサルゾウムシ属の1新種。——台湾中部の南投縣で採集されたアカサルゾウムシ属 *Coeliodes* の1新種を、*C. (C.) gokani* と命名して記載した。本種は最近、琉球列島から記載された *C. (C.) amamianus* に近縁のものと考えられ、上翅の各間室に1列の細長い鱗片を装うこと、雄の各脛節が先端に棘状突起を有すること、および雄交尾器が細長く、内袋に1対の細長い交尾片を有することなどの共通の特徴をもつが、以下の3点で容易に識別できる。1) 前脛節外縁はほとんど拡がらない。2) 雄交尾器は先端がやや裁断状で、3) 内袋の開口部付近にある小節片は先端で尖らず、丸みを帯びる。なお、本種は、KOROTYAEV (1997) によって記載された *C. (C.) gressitti* および *C. (C.) castaneus* の2種に次ぐ、台湾第3番目の種ということになる。

References

- HUSTACHE, A., 1916. Synopsis des Ceuthorrhynchini du Japon. *Annls. Soc. ent. Fr.*, **85**: 107–144.
 KONO, H., 1935. Die Rüsselkäfer aus den Kurilen. *Ins. matsum.*, **9**: 99–107.
 KOROTYAEV, B. A., 1997. Review of the weevil genus *Coeliodes* SCHOENH. (Coleoptera, Curculionidae) of the Far East. *Ent. obozr.*, **76**: 613–630. (In Russian, with English title.)
 VOSS, E., & M. CHŪJŌ, 1960. Curculionid-beetles of Niigata Prefecture, Honshu, Japan, collected by Dr. K. BABA (IV). *Niponius, Takamatsu*, **1** (3): 1–10.
 YOSHITAKE, H., 1999. A new *Coeliodes* (Coleoptera, Curculionidae, Ceutorhynchinae) from the Ryukyu Islands, Southwest Japan. *Elytra, Tokyo*, **27**: 87–94.