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## 【Research report】

### 臺灣產歪鰓金龜屬 (*Cyphochilus*) 之註釋 【研究報告】

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## Abstract

### 摘要

歪鰓金龜屬為1867年Waterhouse 設立的吹粉金龜亞科中之一屬，至今台灣記錄者有白歪鰓金龜、褐歪鰓金龜、大白歪鰓金龜共三種。經著者等之詳查白歪鰓金龜中發現一新亞種，在本文中除述該新亞種外，並製作台灣產歪鰓金龜屬種之索表。

### Key words:

關鍵詞: 台灣、歪鰓金龜屬新亞種、台北歪鰓金龜。

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

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## ABSTRACT

A new subspecies of melolonthid, *Cyphochilus crataceus taipeiensis* subsp. nov. is described from Taiwan. Key to the Taiwanese species is provided.

**Key words:** New melolonthid subspecies, *Cyphochilus crataceus taipeiensis*.

## 臺灣產歪鰓金龜屬(*Cyphochilus*)之註釋

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## 摘要

歪鰓金龜屬為 1867 年 Waterhouse 設立的吹粉金龜亞科中之一屬，至今台灣記錄者有白歪鰓金龜、褐歪鰓金龜、大白歪鰓金龜共三種。經著者等之詳查白歪鰓金龜中發現一新亞種，在本文中除敘述該新亞種外，並製作台灣產歪鰓金龜屬種之檢索表。

**關鍵詞：**台灣，歪鰓金龜屬新亞種，台北歪鰓金龜。

## Introduction

The genus *Cyphochilus* was established by Waterhouse in 1867 with *Melolontha candida* Olivier, 1789. Those bear asymmetric labrum and very differ from close groups of Taiwanese Melolonthine so that it is not difficult to tell this genus from others.

In Taiwan, the first species described from "Kosempo (Chiasien)" in Kaohsiung Hsien by Moser, named *Cyphochilus insulanus* in 1918, and second species described from "Puli" in Nantou Hsien by Niijima et Kinoshita, named *Lepidiota crataeae* in 1923. After that, the third species which named *Cyphochilus unidentatus*, described by Nomura in 1977, from "Palin" in Taoyuan Hsien. Thus, three species of this genus have been known from Taiwan until now. The holotype designated in this study is deposited in the Insect Museum of Department of Plant Pathology and Entomology, National Taiwan University, Taipei, R.O.C. Other specimens are preserved in the author's collection.

### Key to the species of *Cyphochilus* from Taiwan

1. Anterior tibia bidentate or unidentate in male, tridentate in female; anterior margin of clypeus almost straight or faintly rounded. .... 2
- Anterior tibia tridentate in both sexes (third outer tooth always indistinct in male); anterior margin of clypeus gently rounded. ....  
..... *C. crataeae* (Niijima et Kinoshita)  
(a) Distributed in Central to South Taiwan;  
in male, lateral margins of elytra sometimes covered with light coloured scales; both parameres of male genitalia view from laterally, gently expanded in front and apex protruding but not acute; 18–22 mm. (Fig. 1,1–4; Fig. 2,1) .... *C. crataeae crataeae* (Niijima et Kinoshita)
- (b) Distributed in North Taiwan; in male, lateral margins of elytra and pronotum bordered with yellowish white scales (Sometimes anterior margin of pronotum dressed with same coloured scales); both

- parameres of male genitalia view from laterally, angularly expanded in front and apex slender, prolonged; 21–26mm. (Fig. 1,5–6; Fig. 2,2). ....  
..... *C. crataeae taipeiensis* subsp. nov.
2. In male, dorsal surface densely covered with brown to dark brown scalse; anterior tibia unidentate and without outer tooth; clypeus nearly rectangle, anterior angles rounded, With widely depression on disk in male, evidently broader than its length in female. 19–23mm. (Fig. 1,9–12; Fig. 2,4) ....  
..... *C. unidentatus* Nomura
- In male, dorsal surface densely covered with white scales (sometimes covered with light yellowish white scales); lateral margins of elytra and pronotum bordered with slightly yellowish white scales; anterior tibia bidentate; clypeus gently rounded in both sexes. 24–30mm. (Fig. 1,7–8; Fig. 2,3). ....  
..... *C. insulanus* Moser

### Genus *Cyphochilus* Waterhouse

*Cyphochilus* Waterhouse, 1867. Ent. Monthly Mag., 4: 141. Type specimens: *Melolontha candida* Olivier, 1789

*Cyphochilus crataeae crataeae* (Niijima et Kinoshita) 白亞鰐金龜(Fig. 1,1–4; Fig. 2,1)

*Lepidiota crataeae* Niijima et Kinoshita, 1923: 75, p1.I,f.16; p1.II,f. 12, 13.

*Cyphochilus insulanus*: Niijima et Kinoshita, 1927: 16 (nec Moser); Kondo, 1940: 619.

*Cyphochilus insulanus* var. *miawai* Nakabayashi, 1939: 139 (nec Moser).

*Cyphochilus crataeae*: Nomura, 1974: 4; Nomura, 1977: 101; Kobayashi, 1985: 21.

**Specimens examined:** NANTOU: Nanshanchi(南山溪), 7♂ ♂, 1♀, 15-V-1989, C. K. Yu leg.; 10♂ ♂, 1♀, 12~15-VI-1990, C. K. Yu leg.; 1♂, 31-V-1990, C. K. Yu leg.; 12♂ ♂, 2♀, 29~30-V-1992, C. K. Yu leg.; 1♂, 25-V-1976, T. Shimomura leg.; 4♂ ♂, 22-IV-1977, S. Saito leg.; Lienhwachi(蓮花池), 11♂ ♂, 15~16-V-1976, T. Shimomura leg.; 2♀ ♀, 23-IV-1976, M. Kubota leg.; 1♂, 1♀, 11-V-1976, K. Akiy-

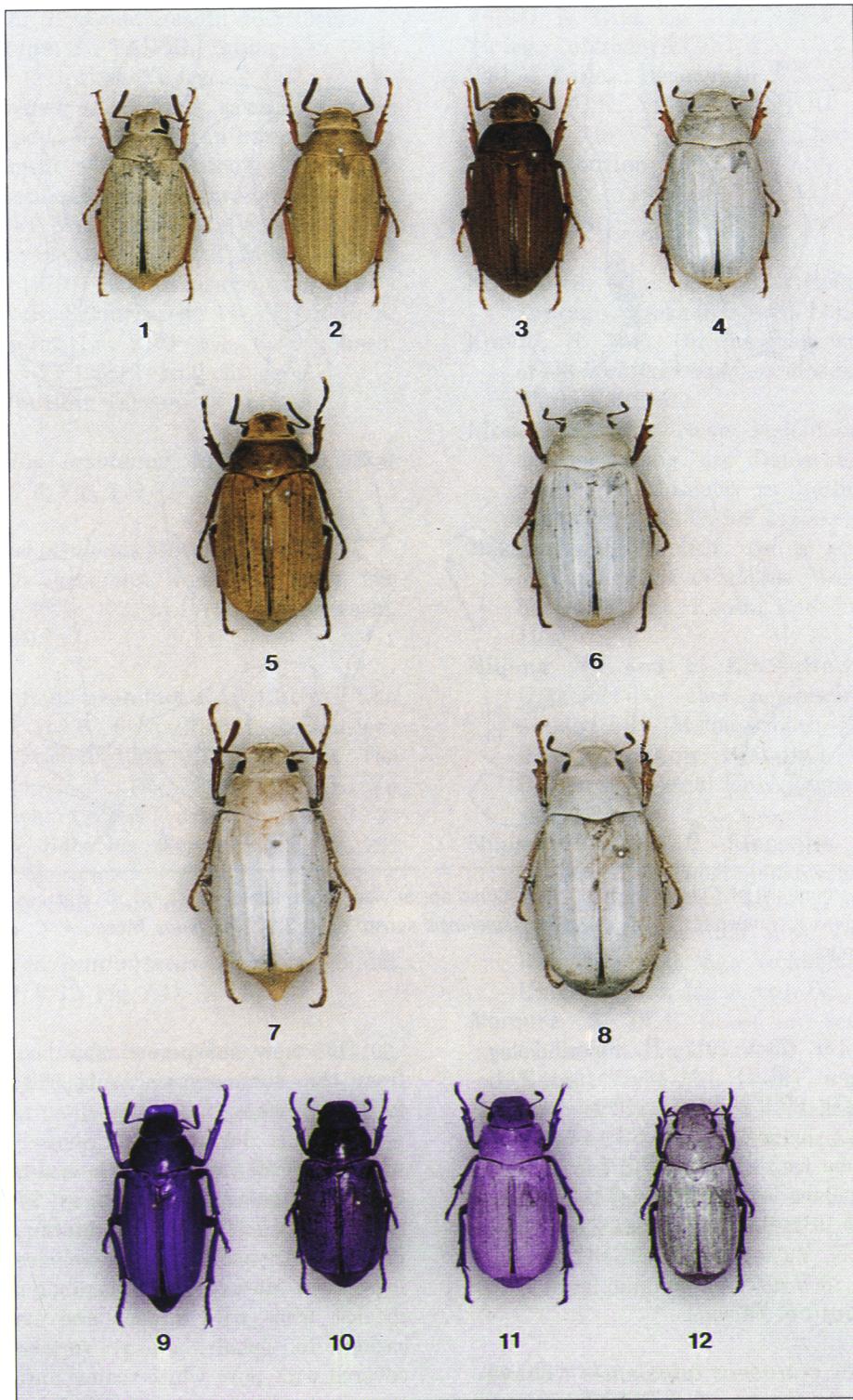


Fig. 1. 1-4, *C. crataeus crataeus* (Niijima et Kinoshita); 5-6, *C. crataeus taipeiensis* subsp. nov.; 7-8, *C. insulanus* Moser; 9-12, *C. unidentatus* Nomura; 1-3, 5, 7 & 9, male; 4, 6, 8, & 10-12, female.

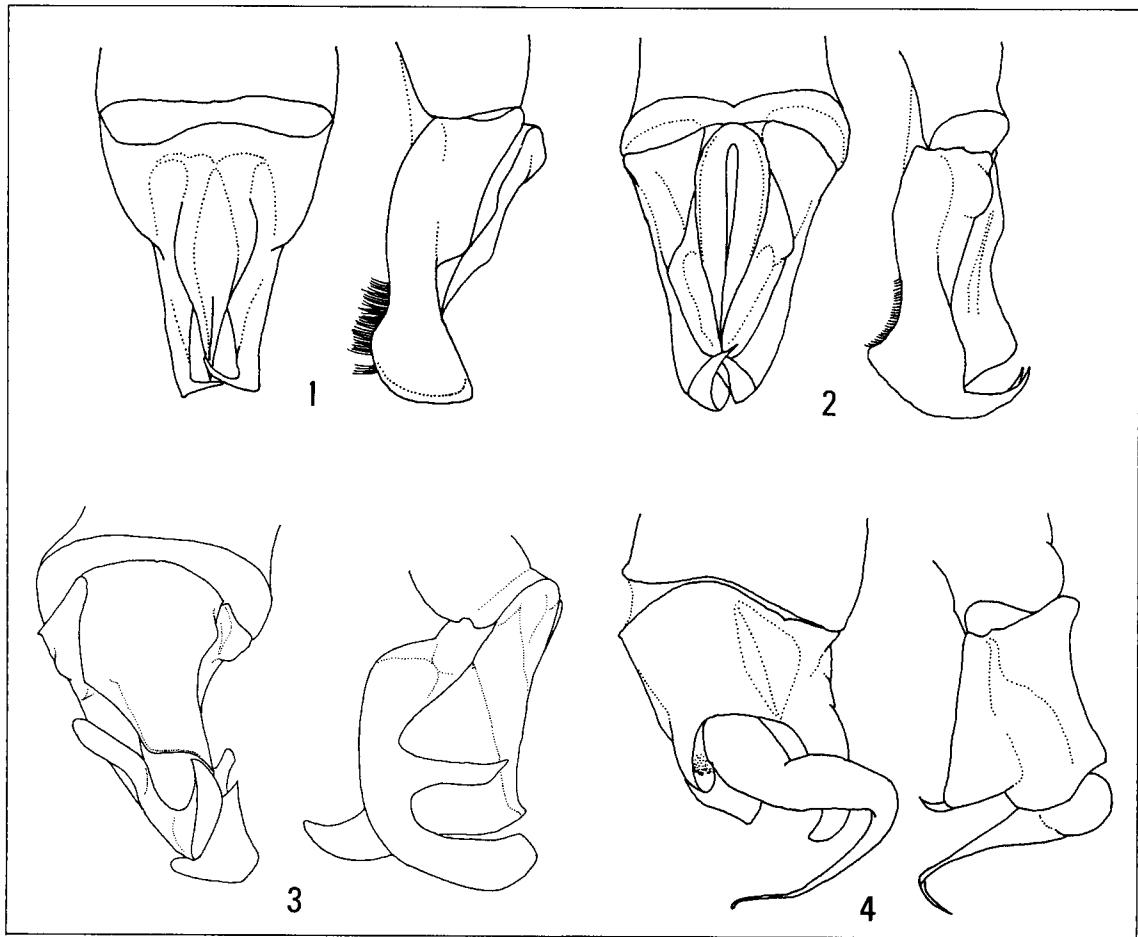


Fig. 2. Male genitalia of *Cyphochilus* spp.: left, dorso apical view; right, lateral view. —1, *C. crataeius crataeius* (Niijima et Kinoshita); 2, *C. crataeius taipeiensis* subsp. nov.; 3, *C. insulanus* Moser; 4, *C. unidentatus* Nomura.

ama leg.; 1♂, 23-V-1977, H. Sakaino leg.; Herwangshan(合望山), 1♂, 18-IV-1984, J. Lo leg.; Tehuashe(德化社), 1♂, 20-IV-1981, S. Tsuyuki leg.; Guandaoshan(關刀山), 1♀, 12-VI-1987, K. Baba leg.; Lushan (廬山溫泉), 1♀, 9-VI-1987, K. Baba leg.; Chusheh(卓社), 5♂♂, 2♀♀, 28-VII-1982, C.K. Yu leg.; 2♂♂, 3♀♀, 5-VI-1992, C.K. Yu leg. KAOHSIUNG: Liukuei (六龜), 1♂, 28-V-1977, H. Sakaino leg.

**Distribution:** Taiwan.

***Cyphochilus crataeius taipeiensis* Kobayashi et Yu subsp. nov. 臺北歪鰐金龜**(Fig. 1,5-6; Fig. 2,2)

This new subspecies may be separated from the nominotypical subspecies by the following points:

In male, dorsal surface densely covered with yellowish gray scales; lateral margins of elytra and pronotum are bordered with yellowish white scales (sometimes anterior margin of pronotum dressed with same coloured scales); legs more darker than nominotypical subspecies; frons with a deep and evident sulcation. In female, dorsal surface densely covered with pure white scales; anterior tibia stout and more broad, apical tooth large and blunt.

Length: 21–26mm; breadth: 10.5–13mm.

**Holotype:** ♂, TAIPEI, Tatungshan (大屯山), 15-IV-1981, C. K. Yu leg.

**Paratypes:** 2♂♂, 2♀♀, same data as for the holotype (1♀ deposited in Insect Museum of Department of Plant Patholgy and Entomology, National Taiwan University, (R.O.C); 1♂, TAIPEI, Wulai(烏來), 31-V-1968, K.Takahashi leg.; 1♂, 13-VI-1968, K. Mizusawa leg.; 1♂, VII-1970, K. Mizusawa leg.; 1♂, 13-V-1977, H. Sakaino leg.; 1♀, VII-1968, K. Mizusawa leg.; 1♀, 2-VI-1968, K. Takahashi leg.; 1♀, 18-VI-1968, T. Kikuchi leg.

**Distribution:** Taiwan.

***Cyphochilus insulanus* Moser** 大白歪鰐金龜(Fig. 1, 7–8; Fig. 2,3)

*Cyphochilus insulanus* Moser, 1918: 242

*Cyphochilus insulanus*: Nomura, 1974: 4; Nomura, 1977: 102, p1.IV, f.39; Kobayashi, 1985: 20.

**Specimens examined:** KAOHSIUNG: Liukuei(六龜), 11♂♂, 6-VI-1976, M. Kubota leg.; 3♂♂, 1♀, 30-III-1986, K. Baba leg.; Tiegchih(藤枝), 2♂♂, 1♀, 12-V-1991, C.K. Yu leg.; Tsaitiehku(彩蝶谷), near Liukuei, 1♀, 2-VI-1986, K. Baba leg.; Senpei(扇平), 1♀, 28-IV-1985, S. Saito leg.

**Distribution:** Taiwan.

***Cyphochilus unidentatus* Nomura** 褐歪鰐金龜(Fig. 1, 9–12; Fig. 2,4)

*Cyphochilus unidentatus* Nomura, 1977: 102, p1.IV, f.38, p1.VII, f.67,68.

*Cyphochilus unidentatus*: Kobayashi, 1985: 21.

**Specimens examined:** TAOYUAN: Sulin(四陵), 1♂, 1-V-1981, T. Shimomura leg.; Palin(巴陵), 1♂, 18-IV-1986, J. Lo leg.; 1♂, 28-

V-1987, K. Baba leg.; 3♀♀, 28-V-1988, C.K. Yu leg.; Lalashan(拉拉山), 3♂, 4♀♀, 4~7-VI-1987, J. Lo leg.; Hsuanyuan(萱源), 1♂, 1♀, 7-VII-1988, C.K. Yu leg. NANTOU: Sungkang(松崙), 1♀, 18-VI-1988, C.K. Yu leg.

**Distribution:** Taiwan.

## References

- Kobayashi, H. 1985. Scarabaeidae from Taiwan 12. Gekkan-Mushi, 173: 20–24.
- Kondo, H. 1940. On the male and female of *Cyphochilus insulanus* Moser. Entomol. World 8: 619–622.
- Moser, J. 1918. Neue Melolonthiden aus der Sammlung des Deutschen Entomologischen Museums zu Berlin-Dahlem. Stett. Ent. Zeit. 79: 209–247.
- Nakabayashi, H. 1939. On a new variety of *Cyphochilus insulanus* Moser, Scarabaeidae. Trans. Kansai Ent. Soc. 8: 139–140.
- Niijima, Y., and E. Kinoshita 1923. Die Untersuchung über japanische Melolonthiden (II). Melolonthiden Japans und ihre Verbreitung. Res. Bull. Coll. Agr. Hokkaido Imperial Univ. Sapporo, Japan, vol. II, No. 2.
- Niijima, Y., and E. Kinoshita 1927. Die Untersuchung über japanische Melolonthiden (III). Erster Nachtrag der Melolonthiden Japans und ihre Verbreitung. Res. Bull. Coll. Agr. Hokkaido Imperial Univ. Sapporo, Japan, vol. IV.
- Nomura, S. 1974. Notes on Scarabaeidae of Taiwan. (in Japanese). Coleopterists' News, 17–18: 4.
- Nomura, S. 1977. On the Melolonthini of Taiwan (Coleoptera, Scarabaeidae). Toho -Gakuho 27: 85–109.
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