

[研究文章 Research Article]

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Two Dung Beetles of the Genus *Onthophagus* (Coleoptera: Scarabaeidae: Scarabaeinae) in Kinmen Islands: New Distribution Record

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Abstract. This study firstly reports the occurrence of two species of *Onthophagus* dung beetles, *O. (Gibbonthophagus) proletarius* Harold, 1875 and *O. (Paraphanaeomorphus) trituber* (Wiedemann, 1823) in Kinmen Islands.

Key words: Scarabaeinae, *Onthophagus*, new record, Kinmen Islands, Taiwan

Introduction

Up to date, the faunistic studies of dung beetles are still poorly known in Kinmen Islands, which is adjacent to mainland China, with eight species recorded in Kinmen Island and Lieyu Island by Chang (2011, 2017) in his popular science books, and one of *Onthophagus* officially reported by Ho (2017) in Kinmen Island.

In April 2018, the author further collected two specimens of *Onthopagus (Paraphanaeomorphus) trituber* (Wiedemann, 1823) during the faunistic survey of dung beetles in the Kinmen Islands. Simultaneously, five *O. (Gibbonthophagus) proletarius* Harold, 1875 specimens collected from Kinmen Islands were discovered during the examination on the collection of National Museum of Natural Science (Taichung, Taiwan) and the other private collections. After the comparison with the literatures and determined specimens, the species identification was confirmed and the both species are therefore the new records of the Kinmen Islands.

Material and methods

The specimens was examined using a Leica EZ4 stereomicroscope. All photographs were taken by OLYMPUS O-MD EM5 mark II Camera and an OLYMPUS M. ZUIKO DIGITAL ED 60mm F2.8 Macro lens with two Kawasaki DF-480 SPEEDLITE flashlights. The specimens cited in this paper are deposited in the National Museum of Natural Science, Taichung, Taiwan (NMNS) and B.-H. Ho's private collection, Taipei, Taiwan (BHPC).

Results

Onthophagus (Gibbonthophagus) proletarius Harold, 1875

Chinese name: 普羅駝屎蜣、紅斑糞金龜
(Figs. 1–3)

Onthophagus (Gibbonthophagus) proletarius Harold, 1875

Onthophagus mendicus Gillet, 1924

Material examined. 2♂ 2♀, TAIWAN: Kinmen Co., Huangcuo (黃厝), Lieyu Is., cow dung, 6.X.2014, Y.-C. Qiu leg. (BHPC, NMNS); 4♂ 2♀, TAIWAN: Pingtung Co., Wanjin (萬金), Wanluan, human dung, 25.XI.2017, B.-H. Ho leg. (BHPC); 1♂ 1♀, TAIWAN: Pingtung Co., Xiangtan (餉潭), Xinpi, dog dung, 26.XI.2017, B.-H. Ho leg. (BHPC); 1♂ 5♀, TAIWAN: Taipei City, Shanzhuhu (山豬湖), Shilin Dist., dog dung, 30.V.2017, B.-H. Ho leg. (BHPC); 1♀, Youzihu, Lutao Is., TAIWAN, 23.VI.2014, T.-C. Wang leg. (NMNS); 1♀, Mt. Nioutou-shan, Lutao Is., TAIWAN, 23.VI.2014, T.-C. Wang leg., *Onthophagus (Gibbonthophagus) proletarius* Harold, 1875, det. K. Masumoto, 2014 (NMNS); 1♀, Fuchien, Chimen, 12-13.VI.1995, W.-I. Chou leg., *Onthophagus (Gibbonthophagus) proletarius* Harold, 1875, det. B.-H. Ho, 2018, NMNS ENT 6001-5090 (NMNS).

Distribution. Taiwan, Lutao Island, Kinmen Islands (new record), S. China, Hongkong, Myanmar, Thailand, Hinterindien. (Harold, 1875; Matsumura, 1938; Chen, 2002; Wang & Masumoto, 2014; Ziani & Bezděk, 2016)

Onthopagus (Paraphanaeomorphus) trituber (Wiedemann, 1823)

Chinese name: 三胸突衍彰形漂蟻、三瘤糞金龜

(Figs. 4–6)

Onthopagus (Paraphanaeomorphus) trituber (Wiedemann, 1823)

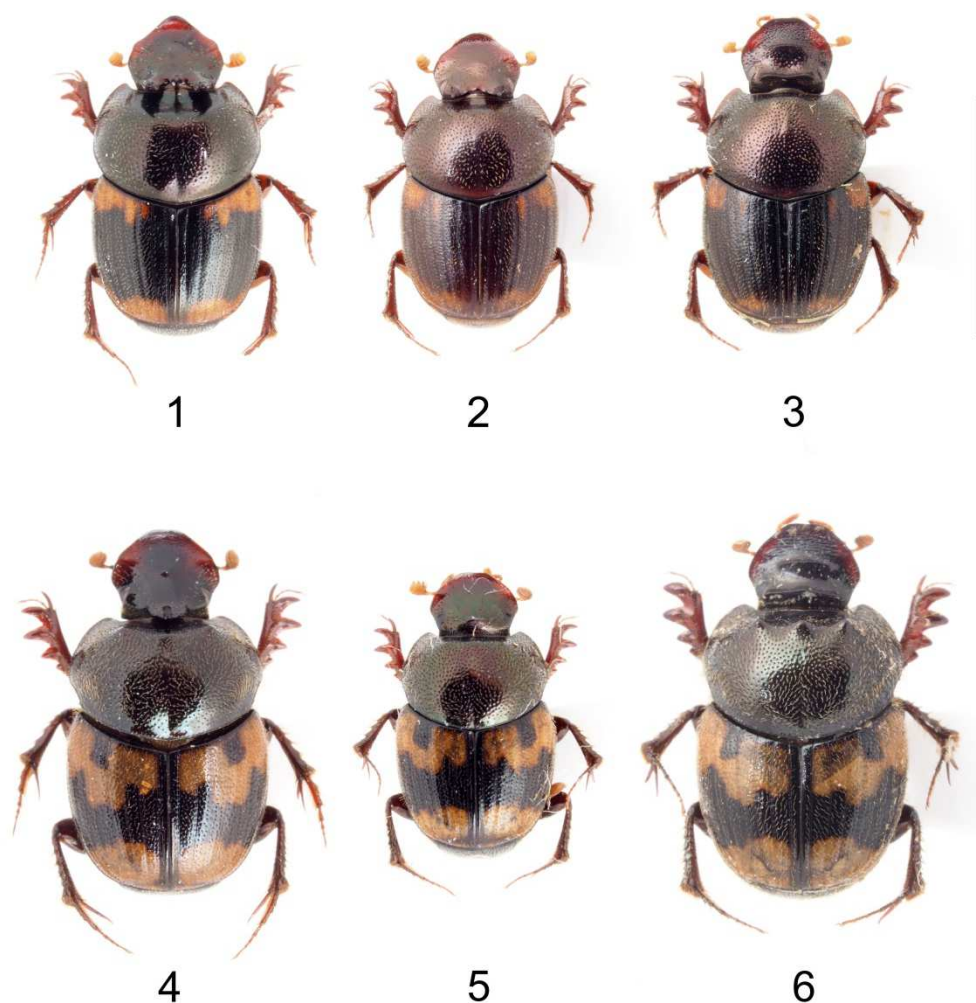
Copris trituber Wiedemann, 1823

Onthopagus suturalis White, 1844

Onthopagus umenoi Matsumura, 1938

Material examined. 1♀, TAIWAN: Kinmen Co., Shamei (沙美), Jinsha, dog dung, 12.IV.2018, B.-H. Ho leg. (BHPC); 1♂, TAIWAN: Kinmen Co., Tianpu Reservoir (田浦水庫), Jinsha, cow dung, 9.IV.2018, B.-H. Ho & R.-H. Liou leg. (NMNS); 3♂ 2♀, TAIWAN: Pingtung Co., Wanjin (萬金), Wanluan, human dung, 26.XI.2017, B.-H. Ho leg. (BHPC); 1♂, TAIWAN: Pingtung Co., Xinghai (興海), Manzhou, buffalo dung, 15.IV.2017, B.-H. Ho leg. (BHPC); MALAYSIA: BORNEO: Kota Kinabalu, Sabah, dog dung, 2.X.2015, B.-H. Ho leg. (BHPC); 1♂ 1♀, TAIWAN: Changhua Hsien, Wangkung (王功), dog dung, 23.VII.1998, Y.-Y. Lien leg., *Onthopagus (Paraphanaeomorphus) trituber* (Wiedemann, 1823), det. Y.-Y. Lien (NMNS); 1♀, TAIWAN: Taipei Co., 新店 (Xindian), 17.VI.1985, W.-I. Chou leg. (NMNS).

Distribution. Taiwan, Kinmen Islands (new record), Japan, S. China, Philippines, Vietnam, Thailand, Malay Peninsula, Borneo, Sunda Islands. (Wiedemann, 1823; Matsumura, 1938; Chen, 2002; Ziani & Bezděk, 2016)



Figures 1–6. Dorsal habitus of *Onthopagus* spp., scale bar: 5 mm. 1-3. *O. (Gibbonthopagus) proletarius* Harold, 1875; 1. male specimen from Taiwan; 2-3. A pair of specimens from Kinmen Islands; 2. male; 3. female. 4-6. *O. (Paraphanaeomorphus) trituber* (Wiedemann, 1823); 4. male specimen from Taiwan; 5-6. A pair of specimens from Kinmen Islands; 5. male; 6. female.

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References

- Chang, Y.-J. 2011. Six-legged elves from golden islands. Kinmen National Park, Kinmen, Taiwan. 552 pp. (in Chinese)
- Chang, Y.-J. 2017. A Field Guide to the Insects of Lieyu. Kinmen National Park, Kinmen, Taiwan. 343 pp. (in Chinese)
- Chen, K.-M. 2002. An Introduction to Scarabaeinae of the World. Owl Publishing House, Taipei, Taiwan. 303 pp. (in Chinese)
- Harold, E.von. 1875. Diagnosen neuer Arten. A)Coprophenen, *Coleopterologische Hefte* 13: 88-94.
- Ho, B.-H. 2017. Notes on *Onthophagus (Colobonthophagus) lunatus* Harold, 1868 (Coleoptera: Scarabaeidae: Scarabaeinae), a new record in Kinmen, Taiwan. *Taiwanese Journal of Entomological Studies* 2(3): 5-7. (in Chinese)
- Matsumura, S. 1938. Onthophagid-insects from Formosa. *Insecta Matsumurana* 12(2-3): 53-63.
- Wang, T.-C. & Masumoto, K. 2014. Records of dung beetles from Lutao Is., Taiwan. *Saikaku Tsûshin* 29: 87-89. (in Japanese)
- Wiedemann, C.R.W. 1823. Zweihundert neue Käfer von Java, Bengalen, und dem Vorgebirge der guten Hoffnung, Akademische Buchhandlung: Kiel Zoologische Magazin Vol.2. Part 1: 1-133.
- Ziani, S. & Bezděk, A. 2016. Tribe Onthophagini Burmeister, 1846. pp 180-204. In: Löbl I, Löbl D (eds). Catalogue of Palaearctic Coleoptera, Volume 3. Revised and Updated Edition. Brill, Leiden, Holland / Boston, United States.

兩種金門群島產屎蜣屬糞金龜之分布新紀錄 (鞘翅目：金龜子科：蜣螂亞科)

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摘要: 本研究首度報導普羅駝屎蜣 *Onthophagus (Gibbonthophagus) proletarius* Harold, 1875 與三胸突衍彰形屎蜣 *O. (Paraphanaeomorphus) trituber* (Wiedemann, 1823) 在金門群島的分布紀錄。

關鍵詞: 蜣螂亞科、屎蜣屬、新紀錄、金門群島、臺灣