

작은 세상의 다양성

The Diversity of Small Worlds

Volume II

Issue II

Sep. 2026

Jing-Zhi Lin. Little-Known Stag Beetles from Taiwan: Notes on *Lucanus chengyuani* Wang & Ko, 2018 (Coleoptera: Lucanidae), with Taxonomic Remarks. 1-18 pp.

Jing-Zhi Lin. New distributional records and biogeographical notes on the *Lucanus kanoi* species complex (Coleoptera: Lucanidae) in Taiwan. 19-24 pp.

장서준. 서평: 개미집살이꽃무지족의 소개. 25-26 pp.

장서준. 서평: 세계의 사슴벌레 -유럽사슴벌레종군-. 27-29 pp.

Gooyoung Jeong. Notes on *Megatharsis buckleyi* Waterhouse, 1891 (Coleoptera: Scarabaeidae: Scarabaeinae: Phanaeini). 30-37 pp.

김준형. 신대륙의 가을비 속 살아있는 화석을 찾아서. 38-45 pp.

Seo-Jun Chang. Taxonomic notes on *Figulus gestroi* Nagel, 1928 (Coleoptera: Lucanidae: Figulini) from New Guinea. 46-51 pp.

최준형. 흙줄풍뎅이 흑색형의 보고. 52 p.

Wonseok Choi. Recent changes in the taxonomy of Agaocephalini. 53-56 pp.

Seonjae Moon. Record of a Blue Morph of *Pseudotorynorrhina japonica* (Hope, 1841) from Gureopdo Island, Republic of Korea (Coleoptera: Scarabaeidae: Cetoniinae). 57-61 pp.

김은중. 동자바 아르고푸로산 채집기. 62-72 pp.

Publisher & Editor-in-Chief

최원석 Wonseok Choi e-mail: ws.choi@d-smallworld.com

Associate Editor

장서준 Seo-jun Chang e-mail: dorajil026@naver.com

원고 작성 요령은 출판사 사슴벌레연구소 누리집을 확인하십시오.

Manuscript preparation guidelines are available on the Stag Lab homepage.

<https://staglab.org>

작은 세상의 다양성은 곤충을 포함한 절지동물을 다루는 오픈 액세스 저널입니다. 학술적인 기사를 포함한 모든 글에 동료 평가가 이루어지지 않으며, 예외적으로 동료 평가를 거친 기사는 평가자와 내용이 명시됩니다.

The Diversity of Small Worlds is an open-access publication devoted to arthropods. Articles are generally not peer-reviewed. If the article has been peer-reviewed, reviewers and their opinions will be disclosed.

Copyright. This work © 2026 by Author(s) is licensed under Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International. To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc-nd/4.0/>

간행물 사업자 정보**작은 세상의 다양성**

대표 최원석
서울시 동작구 상도로 296-2 2층 101-S74호

간행물 신고 번호

동작, 사00022

간행물 신고 연월일

2025년 02월 25일

발행인

최원석

편집인

최원석

발행소

작은 세상의 다양성

발행일

2026년 08월 15일

ISSN

3059-1260

New distributional records and biogeographical notes on the *Lucanus kanoi* species complex (Coleoptera: Lucanidae) in Taiwan

JING-ZHI LIN¹

1. 林敬智. 2F, No. 3, Aly. 152, Ln. 68, Yangguang St., Neihu Dist., Taipei City 114, Taiwan (R. O. C.)
(e-mail: leslie9562@gmail.com) ORCID: 0009-0008-1787-2602

초록

본 연구에서는 대만 핑둥현 난다우산(Mt. Nandawushan)에서 *Lucanus kanoi* Kurosawa, 1966의 새로운 분포 기록을 보고하였다. 본 기록은 대만에서 알려진 본 종의 최남단 분포를 확장하며, 향후 *L. kanoi* 종 복합체의 보전 모니터링과 자원 관리에 활용될 기초 자료를 제공한다.

Abstract

This short note reports a new geographical distribution record of *Lucanus kanoi* Kurosawa, 1966 from Mt. Nandawushan in Pingtung County, successfully extending the known southernmost range of this species in Taiwan. This significant distribution landmark is herein archived to provide essential baseline data for the future conservation monitoring and resource management of the *L. kanoi* species complex.

Keywords: *Lucanus*, *Lucanus kanoi*, new record, Taiwan.

The stag beetle *Lucanus kanoi* Kurosawa, 1966 (Coleoptera: Lucanidae) is a small- to medium-sized species endemic to Taiwan, assigned to the *L. maculifemoratus* species group (*sensu* Lin, 2025). Historically, this species was characterized as a typical faunal element of mid-altitude cloud forests in central and northern Taiwan, with its southernmost distribution boundary conventionally drawn in Nantou County (Chang, 2006, 2024). In January 2026, Wu et al. described a newly discovered population from Pingtung County in southern Taiwan as a distinct subspecies. Conversely, Lin (2026) later disputed this subspecific status, demonstrating that this southern population represents merely a geographical morphological variant rather than a valid subspecies, and formally relegated the taxon to a junior synonym of the nominate species.

Mount Nandawushan (maximum elevation 2,841 m a.s.l.) spans the border between Taiwu Township (Pingtung County) and Jinfeng Township (Taitung County), representing the second-highest peak in Pingtung County and a core topographic feature of the southernmost section of the Central Mountain Range (Fig. 2). The entirety of this alpine habitat is strictly enclosed within the boundaries of the Tawushan Nature Reserve. In strict compliance with regional conservation legislation and academic research ethics, no physical specimens were collected or removed from the site during this investigation. All empirical records of the *Lucanus kanoi* complex compiled in this study rely exclusively on non-invasive, in situ photographic vouchers, with morphological identification verified against diagnostic literature (Wu et al., 2026; Lin, 2026).

***Lucanus kanoi* Kurosawa, 1966 (Figs. 1A–D)**

Photographed field observations. TAIWAN: Pingtung County, Taiwu Township, Mt. Nandawushan (南大武山): 1 ♂ (field observation), alt. 2,150 m, 5.VII.2026; 1 ♀ (field observation), same locality, alt. 2,080 m, 4.VII.2026, observed by Lin.

***Lucanus cf. kanoi* Kurosawa, 1966 (Fig. 3)**

Photographed field observations. TAIWAN: Taitung County, Haiduan Township, Southern Cross-Island Highway(南橫公路): 1 ♂ (field observation), V.2017, observed by Nein-Tse Fuh.

Remark. A field photographic record provided by Mr. Nein-Tse Fuh documents a medium-sized male *Lucanus* species from the montane cloud forest of Haiduan Township, Taitung County, Taiwan. Based on the diagnostic key by Wu et al. (2026), this individual exhibits the following key features: 1) clypeolabrum with lateral and frontal ridges not markedly protruding, relatively long and narrow, with the labrum not clearly separated from the clypeus laterally, and clypeus lacking lateral angles; 2) body coloration chocolate-brown; 3) elytral tint reddish-brown to blackish; 4) mandibles shorter, more robust, and more strongly arcuate, with apical teeth sharply and similarly furcate, sparse denticles featuring a well-marked apical fork, and the basal tooth not closely associated with other teeth.

The author tentatively identifies this male as *Lucanus kanoi* Kurosawa, 1966. However, as definitive identification within the *L. maculifemoratus* species group heavily relies on male genitalia or molecular data, its exact taxonomic status remains tentative until physical voucher specimens become available.

Discussion. Regarding the spatial distribution of this southern population, Wu et al. (2026) stated that the taxon was "currently known to be distributed only in the highland primeval broad-leaved forest areas near Kuaigu on Mt. Beidawushan, with an altitude range of ca. 2000 to 2200 meters a.s.l." Nevertheless, they further noted that "based on observations and descriptions from climbers, it is believed that this subspecies is also present on Mt. Nandawushan (Pinayuanan: Itamililingan), though confirmation is needed."

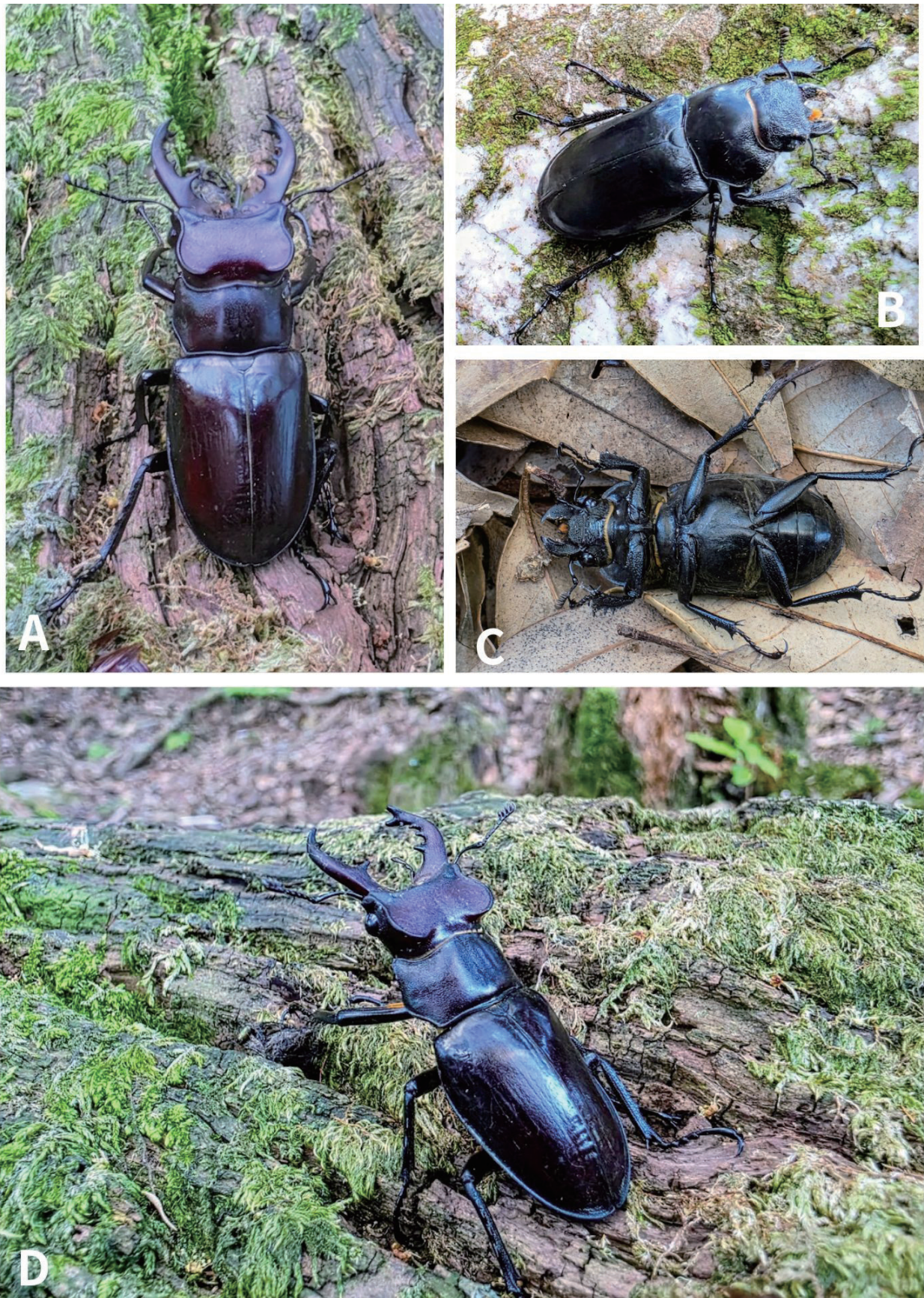


Figure 1. *In situ* field observations of *Lucanus kanoi* Kurosawa, 1966 on Mt. Nandawushan, Pingtung County, Taiwan. (A) large male; (B) female, dorsal view; (C) female, ventral view; (D) male, lateral view. Field data: 1 ♂, alt. 2150 m, 5.VII.2026; 1 ♀, same locality, alt. 2080 m, 4.VII.2026; observed and photographed by Lin (images not to scale).



Figure 2. Natural habitat of *Lucanus kanoi* Kurosawa, 1966 on Mt. Nandawushan. (A) general view of the cloud forest zone at an elevation of 2150 m a.s.l.; (B) an adult male discovered on the forest floor during daytime survey; (C) cloud forest habitat environment at an elevation of 2080 m a.s.l.



Figure 3. *In situ* field observation of *Lucanus* cf. *kanoi* Kurosawa, 1966 from Haiduan Township, Taitung County, Southern Cross-Island Highway: 1 ♂, V.2017, observed by Nein-Tse Fuh.

The field data presented herein formally validate this biogeographical hypothesis. In July 2026, with the invaluable cooperation of local mountain climbers, the author secured unambiguous photographic records and *in situ* field observations of adult individuals inhabiting Mt. Nandawushan. This discovery successfully extends the documented geographical range of the *L. kanoi* complex further south along the Central Mountain Range. Consequently, this note formally documents this critical distributional landmark, establishing essential baseline data for the future conservation monitoring and resource management of the Lucanidae fauna of Taiwan.

Wu et al. (2026) initially argued that the Pingtung population was characteristically isolated from the historically known northern populations in Nantou County, a premise they used to justify its subspecific status. Concurrently, however, they noted that the mid-altitude cloud forests above 2000 m a.s.l. along the spine of the Central Mountain Range remain largely continuous from Nantou to Pingtung. The discovery of *Lucanus kanoi* on Mt. Nandawushan presented in this study, together with an unverified field observation of a male from the cloud forest of Haiduan Township, Taitung County (see Remarks herein), provides new biogeographical context for this conundrum. Should the Taitung record receive formal validation, these localities would collectively suggest a near-continuous distribution corridor along the southern Central Mountain Range, rendering the perceived distributional disjunction more consistent with a sampling artifact than a genuine vicariant barrier. It is therefore probable that additional populations persist in the poorly surveyed intermediary peaks of this region. Future systematic

field surveys across these elevational gradients are warranted to clarify the full distributional extent of the *L. kanoi* complex throughout the cloud forest zone of Taiwan.

Acknowledgements

The author expresses sincere gratitude to the enthusiastic mountain climbers who generously provided the critical photographic materials that made the documentation of this exceptional locality record possible. Cordial thanks are due to Mr. and Mrs. Lin for their invaluable support during this study, and to Mr. Nein-Tse Fuh (傅念澤) for kindly providing his precious field photographs. Special thanks are also extended to the Taiwu Township Office and the Laiyi Township Office for their essential administrative assistance and facilitation during the field investigations. Furthermore, the author is deeply indebted to Mr. Chang-Chin Chen (Tianjin, China) for his profound inspiration and continuous encouragement, which first kindled the author's passion for the taxonomy of Lucanidae.

Reviewer Disclosure

This article has been reviewed by Mr. Seo-Jun Chang (Bucheon Si, Korea).

References

- Chang, Y. J. (2006). *Stag beetles 54*. Yuan-Liou Publishing Company. 160 pp. (In Chinese)
- Chang, Y. J. (2024). *Stag beetles 58*. Yuan-Liou Publishing Company. 191 pp. (In Chinese)
- Lin, J. Z. (2025). Revisionary Notes on the Stag Beetle Genus *Lucanus* Scopoli, 1763 (Coleoptera: Lucanidae) in Taiwan, with New Records and Nomenclatural Changes. *The Diversity of Small Worlds*, 1(2), 53–65. <https://doi.org/10.23332/DOSW.2025.1.2.53>
- Lin, J.-Z. (2026). Taxonomic inflation and inconsistent standards: A re-evaluation of the nested phylogeny and biogeography of *Lucanus kanoi kavulunganus* Wu, Tsai, Chien, Chung, Lai, Hou & Hwang, 2026 (Coleoptera: Lucanidae). *Zootaxa*, 5807(1), 197–200. <https://doi.org/10.11646/zootaxa.5807.1.12>
- Wu, S. P., Tsai, Y. F., Chien, T. Y., Chung, Y. T., Lai, C. J., Hou, T. H. & Hwang, C. C. (2026). Systematic revision and biogeography of the endemic *Lucanus kanoi* species complex (Coleoptera, Lucanidae) from Taiwan. *ZooKeys*, 1267, 77–117. <https://doi.org/10.3897/zookeys.1267.160494>