HOKKAIDO UNIVERSITY

Title	Taxonomic revision of the subfamily Histerinae in the Philippine Archipelago and the genus Atholus in Far Eastern Asia and Oriental region(Coleoptera, Histeridae) [an abstract of dissertation and a summary of dissertation review]
Author(s)	dela Cruz, Ian Niel Bulor
Degree Grantor	北海道大学
Degree Name	博士(農学)
Dissertation Number	甲第15771号
Issue Date	2024-03-25
Doc URL	https://hdl.handle.net/2115/92638
Rights(URL)	https://creativecommons.org/licenses/by/4.0/
Type	doctoral thesis
File Information	Ian Niel Bulor dela Cruz_abstract.pdf, 論文内容の要旨

Hokkaido University Collection of Scholarly and Academic Papers : HUSCAP

学位論文内容の要旨

博士の専攻分野名称：博士（農学）　　氏　名：Ian Niel Bulor dela Cruz

学位論文題名

Taxonomic revision of the subfamily Histerinae in the Philippine Archipelago and the genus *Atholus* in Far Eastern Asia and Oriental region (Coleoptera, Histeridae)

（フィリピン産エンマムシ亜科および極東・東洋区産ムナクボエンマムシ属の分類学的再検討）

Beetles of the family Histeridae serve as key components to ecosystem structure and have been considered as an appropriate tool for ecological studies. They occupy a wide range of habitats mostly of heterotrophic systems. Histerid beetles are also generalist predators to flies and other beetles which help reduce the number of agricultural pests, and have been employed as one of the successful control agent that limits dipteran populations.

However, despite their ecological importance, the taxonomy and systematics of Histeridae in the Oriental Region still remains poor, despite its rich biodiversity. To date, the current level of understanding the diversity of many histerid beetles is still insufficient, particularly in the Philippine Archipelago. This study is focused on reviewing the subfamily Histerinae (Histeridae) from the Philippines, and the genus *Atholus* from Far Eastern Asia and the Oriental Region. The main goal of this research is to generate a decent taxonomic resource that can be utilized for a better systematic understanding of histerid beetles occurring in the Oriental realm, including the Philippines and its extra-limital areas towards the Far Eastern Asia.

1. Taxonomy of Histerinae Gyllenhal, 1808 (Coleoptera, Histeridae) in the Philippine Archipelago

New records of the three genera – *Notodoma*, *Mesostrix* and *Kanaarister* in the Philippines have been determined here for the first time. Seven new species from the Philippines have also been originally described – *Notodoma ifugao* sp. nov., *Platylister hiraya* sp. nov., *Platylister manawari* sp. nov., *Platylister oharus* sp. nov., *Kanaarister ichi* sp. nov., *Eurylister azuki* sp. nov., and *Platysoma platypinensis* sp. nov. To date, 56 species of Philippine Histerinae are recorded, and 23 of these species are re-described in this study.

In addition, seven species of Philippine Histerinae are provided here supplemented with illustrations in the structures of their male genitalia for the first time.

2. Review of the Oriental and Far Eastern Asian Species of the genus *Atholus* Thomson, 1859 (Histeridae, Histerinae, Histerini)

Two new species of the genus *Atholus* – *Atholus masumotoi* sp. nov. from Thailand, and *Atholus tibethanus* sp. nov. from Tibet have also been presented here. Currently, there are 79 species of *Atholus* worldwide, with 41 species are distributed in both Oriental and Far Eastern Asian Regions. Eleven of these species are re-described in this study, while nine species are supplemented with illustrations and SEM images. Moreover, this study has generated the detailed structures of antennae and mouthparts in *Atholus*, and has shown two types in the gonocoxite structures of their female genitalia, which might become a useful tool for morphological diagnosis among the *Atholus* in the future.