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New Record of Two Powderpost Beetles (Coleoptera-Bostrichidae) to Korean Fauna

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한국산 개나무좀과 (딱정벌레목)의 2미기록종에 대한 보고

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ABSTRACT: Two species, *Lyctoxylon dentatum* (Pascoe, 1866) and *Melalgus batillus* (Lesne, 1902), belong to the family Bostrichidae are reported in Korea for the first time. We provide the brief diagnosis and information on the species and their photographic images.

Key words: Taxonomy, Bostrichidae, *Lyctoxylon dentatum*, *Melalgus batillus*, Korea

초 록: 개나무좀과 (Bostrichidae)에 속하는 *Lyctoxylon dentatum* (Pascoe, 1866)(가슴각진개나무좀; 신칭), *Melalgus batillus* (Lesne, 1902)(큰머리개나무좀; 신칭)을 채집하여 한반도에서 처음으로 보고한다. 본 연구는 이들에 대한 간단한 진단형질과 종 정보 및 사진자료를 제공하고자 한다.

검색어: 개나무좀과, 가슴각진개나무좀(신칭), 큰머리개나무좀(신칭), 한국

The family Bostrichidae contains about 6 hundreds of species in 90 genera. Many kinds of species in the family Bostrichidae have caused significant economic losses in woods and have been detected through the quarantine process of the imported hardwoods and wood products (Borowski and Węgrzynowicz, 2012).

In the Korean Peninsula, 14 species in 10 genera had been recorded up to now (Park et al., 2015; Kang and Park, 2016, Park et al., 2020). Three species in the genus *Lyctoxylon* and 22 species in the genus *Melalgus* have been recorded in the world (Borowski and Węgrzynowicz, 2007; 2012). In this paper, we report two species, *Lyctoxylon dentatum* (Pascoe, 1866) and *Melalgus batillus* (Lesne, 1902) for the first time in the Korean fauna.

Materials and Methods

The materials for this study were collected with Lindgren funnel trap and the materials are deposited in the collection of Research Institute of Forest Insect Diversity (**RIFID**, Namyangju, Korea), National Institute of Biological Resources (**NIBR**, Incheon, Korea) and Honam National Institute of Biological Resources (**HNIBR**, Mokpo, Korea). The important morphological characters were studied using a stereoscopic microscope (S8Apo, Leica, Heerbrugg, Switzerland). Photographs were taken with Canon 5D digital camera and Canon Macro Photos Lens MP-E 65 (Canon, Tokyo, Japan).

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Taxonomic Accounts

Family Bostrichidae 개나무좀과

Subfamily Lyctinae Billberg, 1820 넓적나무좀아과

Tribe Lyctini Billberg, 1820

Genus *Lyctoxylon* Reitter, 1879

***Lyctoxylon dentatum* (Pascoe, 1866) 가슴각진개나무좀** (신칭) (Fig. 1: A-B, G; 2: A)

Minthea dentata Pascoe, 1866: 141.

Lyctoxylon japonum Reitter, 1879: 199.

Lyctus seriehispidus Kiesenwetter, 1879: 319.

Diagnosis. Body length 1.5-2.8 mm. Body elongated and flattened, yellowish brown to reddish. Antennae 11 segmented with 2 segments of club. Each segment of club elongated and rectangular. Frons much wider than long and fronto-clypeal suture widely emarginated. Outer margin of clypeus, side of frons and upper margins of eyes with tufts of erected squamiform setae. Frons closely covered with distinct punctures. Pronotum almost quadrate and closely covered with shallow but distinct punctures. Each puncture of pronotum with one short hairs. Lateral margin of pronotum with one line of erected squamiform setae. Anterior angle of pronotum somewhat dull but posterior angle. Elytra two times longer than wide, parallel-sided and widely rounded at posterior margin. Elytral strioles elongated and distinct. Strioles at basal area punctate irregularly but gradually changed regularly. Elytral striloes and intervals covered with short decumbent hairs. Fifth ventrite of male with a tuft of long hairs at middle of posterior margin.

Specimens examined. 10 ♂♂, Bogwang-dong, Yongsan-gu, Seoul, 14.vi.2023, S.J. Cho; 3♂♂, 9♀♀, Sinrim-dong, Gwanak-gu, Seoul, 20.i.2019, S. Park; 1 ♀, Seodun-dong, Gwonseon-gu, Suwon-si, Gyeonggi-prov., 4.vii.2001, S. Park.

Distribution. Korea (new record), Japan, China, England, Germany, Netherlands, Afrotropical Region, Australian Region, Nearctic Region, Neotropical Region, Oriental Region (Borowski and Wegrzynowicz, 2007).

Remarks. Most of specimens were collected from the bamboo for the nest of pollinating bees in the park. This species is a quarantine pest under the Plant Quarantine Act in Korea and usually found from imported bamboo products and herbal medicine (Animal and Plant Quarantine Agency website, N.D).

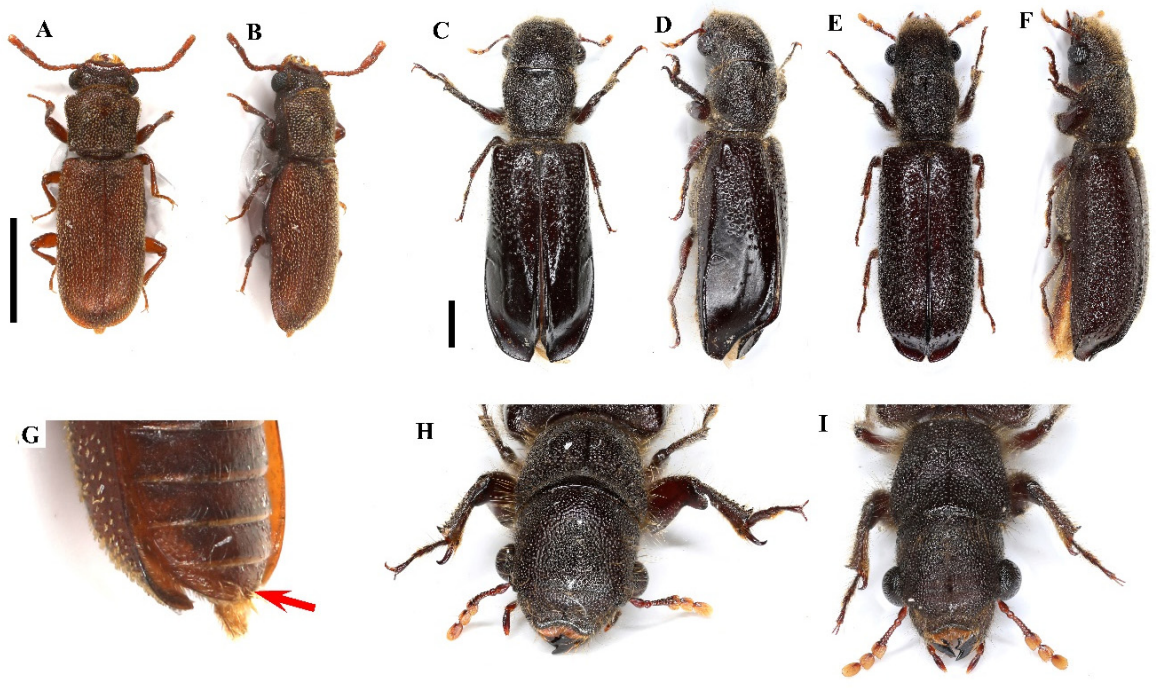

Fig 1. Habitus of adults. A-B, G: *Lyctoxylon dentatum*; C-F, H-I: *Melalgus batillus* (C-D, H: male; E-F, I: female); A, C, E: Dorsal aspects; B, D, F: Lateral aspects; G: Ventrite of male; H-I: Head. (Scale bar=1 mm).

Fig 2. Habitus of male genitalia. A: *Lyctoxylon dentatum*, B-C: *Melalgus batillus*.

Subfamily Polycaoninae Lesne, 1896 큰머리개나무좀아과 (신칭)

Genus *Melalgus* Dejean, 1833

***Melalgus batillus* (Lesne, 1902) 큰머리개나무좀** (신칭) (Fig. 1: C-F, H-I; 2: B-C)

Heterathron batillum Lesne, 1902: 223.

Heterathron talpula Lesne, 1911: 47.

Diagnosis. Body 10.0-18.0 mm, dark reddish brown to black and glossy. Antennae with 11 segments. 3rd to 8th antennomere wider than long and gradually widened. Antennal club asymmetrical and weakly gibbous at inner margin. Head entirely and closely punctured with dense and much longer hairs in female and long but relatively short hairs in male. Rostrum short and wide. Pronotum semi-quadrate, widest at just behind anterior angle and rapidly narrowing posteriorly. Pronotum shallowly depressed at middle, densely covered with granules and sulcated longitudinally from middle to basal margin. Basal margin of pronotum deeply sulcated horizontally. Lateral margin of pronotum round and not carinated. Elytra cylindrical and 2.0-2.3 times as long as wide. Dorsal surface of elytra in male irregularly punctated, tuberculated and covered with sparse long hairs at basal half and glabrous at posterior half. Sutural area of elytra in male distinctly carinated from middle to declivital concave area. Almost all surface of elytra in female irregularly but closely punctated, tuberculated and covered with long hairs except declivital globrous and concave area. Sutural area of elytra in female distinctly carinated from beginning area of declivity to posterior margin.

Specimens examined. 5♂♂, 6♀♀, Is. Gageo, Gageodo-ri, Heuksan-myeon, Sinan-gun, Jeollanam-prov., 9.vi-25.vii. 2022, S. Park & W. Ki; 1♂, *ibid*, 10.i.2017, S. Lee (collected with larval stage and emerged adult indoors).

Distribution. Korea (new record), China, India, Vietnam (Borowski and Węgrzynowicz, 2012).

Remarks. This species was emerged from the cut down branch of *Mallotus japonicus.*

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Statements for Authorship Position & Contribution

Park, S.: Research Institute of Forest Insect Diversity, Researcher, Ph. D; Designed the research, wrote the manuscript and examined specimens.

Hong, K.-J.: Sunchon National University, Professor, Ph. D; Examined specimens and designed the research.

Lee, H.-S.: Animal and Plant Quarantine Agency, Ph. D; Collected specimens and wrote the Quarantine information.

Ki, W.: Sunchon National University, Researcher; Collected specimens.

All authors read and approved the manuscript.

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