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First Report of Genus *Hylis* Gozis, 1886 (Coleoptera: Eucnemidae) with a Species, *Hylis harmandi* (Fleutiaux, 1923) from Korea

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Hylis Gozis, 1886 (딱정벌레목: 어리방아벌레과)에 속하는 한국 미기록종 *Hylis harmandi* (Fleutiaux, 1923)에 대한 보고

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ABSTRACT: An eucnemid genus, *Hylis* Gozis, 1886, is firstly recognized based on a species, *Hylis harmandi* (Fleutiaux, 1923), from Korea. Redescription, images of diagnostic characters are provided.

Key words: Taxonomy, *Hylis*, *Hylis harmandi*, New record, Korea

초 록: 어리방아벌레과에 속하는 *Hylis* Gozis, 1886 속의 *Hylis harmandi* (Fleutiaux, 1923)가 한국에서 처음 확인되었다. 이 종에 대한 재기재와 중요한 형질 사진이 제시되었다.

검색어: 분류, *Hylis*, *Hylis harmandi*, 미기록종, 한국

The genus *Hylis* Gozis, 1886 is a genus belonging to tribe Epiphanini (Eucnemidae: Melasinae). They are widely distributed in Holarctic, Australian, and Oriental region. This group consists of 18 species worldwide, among them, 11 species are presented in Palaearctic region, including four Japanese species (Muona, 2007, 2011; Otto, 2016).

The members of *Hylis* are known as saproxylic beetles. Adults of several species were observed on *Carya*, *Fagus*, *Populus*, *Picea*, *Carpinus*, *Castaneus*, *Fraxinus*, *Quercus*, and *Tilia* (Blatchley, 1910; Leiler, 1976; Leseigneur, 1978; Muona, 1993).

In the present study, we firstly report the genus *Hylis* with a species, *Hylis harmandi* (Fleutiaux, 1923) from Korea. We provide redescription and images of diagnostic characters.

Materials and Methods

All samples examined for the present study were collected by the flight intercept traps (FIT, window trap) from Gangwon province in 2015. All collected samples were preserved in 95% ethyl alcohol (ETOH) and made into dried specimens by double mounted method. Morphological images were taken with a digital camera (EOS-600D, CANON, Japan) through MP-E 65 mm lens. All examined specimens are deposited in the insect collection of the College for Agriculture and Life Sciences, Seoul National University (CALS, SNU, Seoul, Korea).

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Systematic accounts

Family Eucnemidae Eschscholtz, 1829

Subfamily Melasinae Fleming, 1821

Tribe Epiphanini Muona, 1993

Genus *Hylis* Gozis, 1886

Hylis Gozis, 1886: 21. Type species: *Eucnemis procerulus* Mannerheim, 1823.

Diagnosis. Body oblong, narrowing craniad and caudad; antennae more or less serrate, antennomeres mostly keeled medially, antennomere IV shorter than II-III combined; hypomeron simple, without antennal groove; metepisternum gradually widened posterad; metacoxal plate expanded inward; aedeagus dorsoventrally compressed, median lobe deeply bifurcate apically (Bonvouloir, 1875; Fleutiaux, 1923, 1935; Hisamatsu, 1985; Muona 2000, 2011; Otto, 2016).

***Hylis harmandi* (Fleutiaux, 1923)**

Hypocoelus harmandi Fleutiaux, 1923: 326.

Redescription. *Male* (Fig. 1A, C, and D). Body length 3.4-3.9 mm with mostly black surface. Head weakly inserted into prothorax; frons with one distinct crest with dense hair; apical margin of frontoclypeal region broadly rounded, about 2.5 times wider than distance between antennal sockets (Fig. 1G). Antennae (Fig. 1E) weakly serrate; antennomere III about 1.45 times longer than wide, 1.85 times longer than II, and 1.2 times longer than IV; antennomeres IV-X gradually lengthened; apical antennomere about 2.9 times longer than wide, 1.65 times longer than X. Pronotum abruptly narrowed anterad from basal two-thirds, about 1.2 times wider than long; disc with one

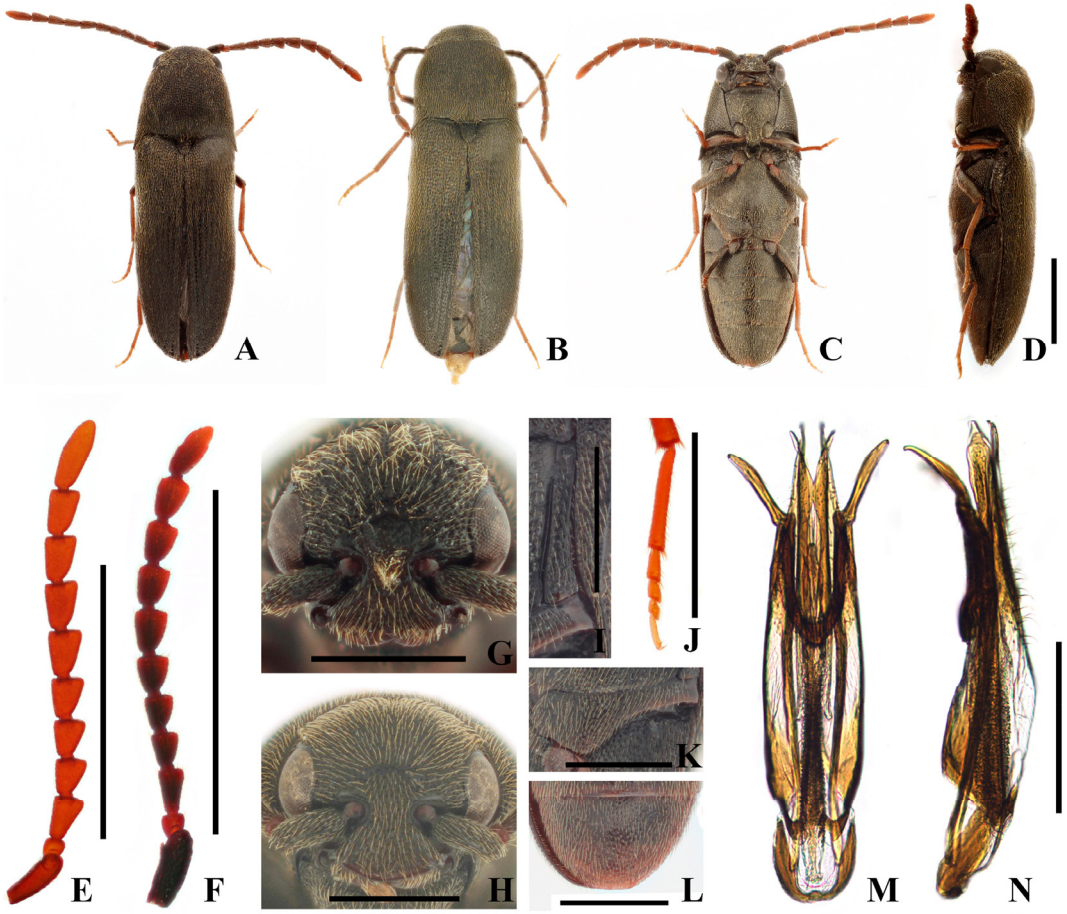

Fig. 1. *Hylis harmandi* (Fleutiaux, 1923). A, C-E, G, I-N, male; B, F, H, female. A-B, dorsal habitus; C, ventral habitus; D, lateral habitus; E-F, antenna; G-H, frons; I, metepisternum; J, metatarsi; K, metacoxal plate; L, abdominal ventrite 5; M-N, aedeagus (scale bar for A-F: 1 mm; G-N: 0.5 mm).

weak medio-longitudinal groove at basal half. Elytra gradually narrowed posterad; ratio length to combined width about 2.3. Prosternum gradually widened anterad. Hypomeron simple, without antennal groove. Metepisternum (Fig. 1I) gradually widened posterad. Metacoxal plate (Fig. 1K) expanded inward, medially about 2.3 times wider than laterally. Legs slender; metatarsomere I about 1.4 times longer than II-IV combined; metatarsomere II about 1.4 times longer than III; metatarsomere V about 1.1 times longer than II (Fig. 1J). Abdomen strongly connate; abdominal ventrite V truncate at apex (Fig. 1L). Aedeagus (Fig. 1M and N) about 4.6 times longer than wide, pubescent at dorsal surface; median lobe elongate, deeply bifurcate at apex; lateral lobes slender, with inward apical tooth. *Female* (Fig. 1B). Similar to male, but can be distinguished from male by following characters: Body length 3.9-4.7 mm; frons with indistinct crest, simply pubescent; frontoclypeal region wider at base, anterior edge about 2.2 times wider than distance between antennal sockets (Fig. 1H); antennomere III about 1.5 times longer than wide, about 1.7 times longer than II and IV; antennomeres IV-X more stubby; apical antennomere about twice longer than wide (Fig. 1F).

Specimens examined. 1♂1♀, Yeongheung-ri, Yeongwol-eup, Yeongwol-gun, Gangwon-do, Korea, 19.vi-02.vii.2015, J.B. Seung and S.H. Lee leg., on FIT; 1♀ Yeongheung-ri, Yeongwol-eup, Yeongwol-gun, Gangwon-do, Korea, 02-16.vii. 2015, J.B. Seung and S.H. Lee leg., on FIT; 1♂ Yeongheung-ri, Yeongwol-eup, Yeongwol-gun, Gangwon-do, Korea, 16-30.vii. 2015, J.B. Seung and S.H. Lee leg, on FIT.

Distribution. Korea (New record), China (Northeast), Japan, Russia (Far East).

Remarks. *Hylis harmandi* is easily distinguished from other eucnemids by densely hairy crest on frons in male. Hisamatsu (1985) described that combined length of antennomeres IV-V about 1.7-1.9 times longer than III. In the result of present study, ratio 1.7 is corresponded to male and 1.9 is relevant to female.

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