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Short Communication

Two new records of false click beetle (Coleoptera: Eucnemidae) from Korea

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ABSTRACT

Two eucnemid species, *Otho sphondyloides* (Germar 1818) and *Hylochares harmandi* Fleutiaux, 1900, belonging to subfamily Melasinae (Coleoptera: Eucnemidae) are reported for the first time from Korea. Full redescriptions and photographs of diagnostic structures for each species are provided.

Introduction

Otho Lacordaire, 1857 and *Hylochares* Latreille, 1834 are the genera belonging to tribe Calyptocerini and Hylocharini of subfamily Melasinae (Coleoptera: Eucnemidae), respectively. Both genera are small groups. *Otho* consists of eight species including four Palaearctic species:, among them, three species are distributed in Japanese fauna (Nakane 1987; Muona 2007, 2011). *Hylochares* is comprised of eight species worldwide with three Palaearctic species (Muona 2007, 2011; Brüstle and Muona 2009). Until now, no species of these genera has been recognized from Korean Peninsula.

Otho is easily recognized by following combinations of characters: body elongate and cylindrical; frons with a mediolongitudinal keel; antennae pectinate or strongly serrate; third antennomere small and subequal to second; pronotum strongly convex with a median groove; hypomeral antennal grooves absent; metacoxal plate subparallel-sided; aedeagus bulbous with triangular median lobe (Lacordaire 1857; Bonvouloir 1875; Fleutiaux 1935; Hisamatsu 1985; Muona 1993).

Hylochares is morphologically identified by following diagnostic characters: body oblong and cylindrical; antennae weakly serrate or moniliform; third antennomere about twice longer than second; pronotum with transverse impression at middle; elytral striae well-developed with regular rows of punctures; hypomeral antennal grooves absent; metacoxal plate parallel-sided; aedeagus bulbous with apically broad median lobe (Latreille 1834; Bonvouloir 1875; Fleutiaux 1935; Hisamatsu 1985; Muona 2000).

In case of *Hylochares*, *Hylochares cruentatus* (Gyllenhal) has been known as a specialist of large standing dead wood with white rot, such as willow (Mannerheim 1823; Kangas and Kangas 1944). Another species, *Hylochares nigricornis* (Say) were observed from trunk of dead tree of beech, elm, and willow (Blatchley 1910; Knull 1946). Additionally, Muona and Brüstle (2008) described in detail the biology of *H. cruentatus* from Southern Finland.

In this study, we firstly report two species of Melasinae, *Otho sphondyloides* (Germar 1818) and *Hylochares harmandi* Fleutiaux, 1900 from Korea. Redescriptions and photographs of diagnostic characters for each species are provided.

Materials and methods

Most samples examined for the present study were collected by the flight intercept traps (FIT, window trap) or with naked eye between 2015 and 2016. All collected samples were preserved in 99% alcohol (ETOH) and made into dried specimens by double

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mounted method. Photographs for each species were taken by a digital camera (EOS-600D, CANON, Japan) through MP-E 65 mm lens. Samples for the present study are deposited in the insect collection of the College for Agriculture and Life Sciences, Seoul National University (CALS, SNU, Seoul, Korea).

The abbreviations for collection localities are as follows: GG, Gyeonggi-do; GW, Gangwon-do; CN, Chungcheongnam-do; JJ, Jeju-do (Is.).

Systematic accounts

Family Eucnemidae Eschscholtz, 1829
Subfamily Melasinae Fleming, 1821
Tribe Calyptocerini Muona, 1993
Genus *Otho* Lacordaire, 1857

Otho Lacordaire, 1857: 113.
Type species: *Melasis sphondyloides* Germar, 1818.

***Otho sphondyloides* (Germar, 1818)**
(Figure 1 A–I)
Melasis sphondyloides Germar, 1818: 235.
Hypocoelus sibiricus Motschulsky, 1845: 34.

Redescription. Female (Figure 1 A–C) 6.1~8.5 mm long and 2.0~2.8 mm wide. Body elongate, cylindrical, and strongly convex; mostly black; antennae, mouthparts, frontoclypeal region, elytral humeri, femur, and tibiae ferruginous; tarsi chestnut to yellowish brown; surfaces fairly glossy, covered with yellowish gray pubescence. Head strongly inserted into prothorax, barely visible in dorsal view; surfaces mostly with circular and dense punctures, becoming rougher and more irregular near frontoclypeal region; with a medio-longitudinal keel from vertex to apical margin of frontoclypeal region, indistinct near vertex; frontoclypeal region (Figure 1E) transversely depressed, weakly bifurcated at apical margin, width of apical margin about 2.3 times wider than distance between antennal sockets. Antennae (Figure 1D) serrate, not reaching metacoxal plate, covered with yellowish brown pubescence; first antennomere oblong and robust; second obconical and short, about 1.8 times longer than third; third shortest and transverse; fourth widened toward apex, about 1.5 times longer than wide, approximately 1.4 times longer than second~third combined, and about 1.4 times longer than fifth; fifth~tenth subequal, strongly toothed; apical antennomere oblong, about 2.5 times longer than wide, and about 1.9 times longer than tenth. Pronotum strongly convex, about 1.25 times wider than long, subparallel-sided near base, abruptly narrowed anteriad from basal half, and arcuate anteriorly; surfaces mostly with fine, dense, and rough punctures, becoming larger and sparser at lateral and posterior regions; disc with a distinct medio-longitudinal groove extending full length of pronotum; with symmetrical, transverse depressions at middle; a pair of deep dimples presented at base; antescutellar lobe broadly truncated; pronotal posterior angles short, sharply projecting, and almost exceeding posterior margin of antescutellar lobe. Scutellum triangular, about 1.5 times wider than long; gradually narrowed posteriad, and slightly rounded apically; surface barely punctate and pubescent, fairly glabrous. Elytra conjointly with width to length as about 1 to 2.4, parallel-sided, gradually attenuated near apices; disc distinctly striated, with rough and deep punctures; interstriae strongly convex; several large and deep punctures present near apices; simply rounded apically. Prosternum strongly transverse, gradually widened anteriad; mostly with fine and sparse punctures, becoming sparser laterally; prosternal process stout, gradually narrowed and slanted posteriad; hypomeron mostly with large, irregular, and rough punctures, becoming larger and sparser posteriorly; with coarse surface at posterior fossae; hypomeral antennal groove absent. Mesosternum with fine and irregular punctures; mesopleuron with sparse punctures, especially at anteriorly. Metasternum with fine, regular, and dense punctures; with a medio-longitudinal groove extending full length of metasternum; metepisternum (Figure 1F) gradually widened posteriad, widest width about 1.3 times wider than outer margin of metacoxal plate; metacoxal plate (Figure 1H) gradually expanded outward, laterally about 1.5 times wider than medially. Legs (Figure 1G) moderate in length, fairly slender; first metatarsomere about 1.4 times longer than second~fourth combined; second about 1.3 times longer than third; fifth about 1.4 times longer than second; claws simple. Abdomen with punctures as those of matasternum; each ventrite convex medially; fifth ventrite gradually narrowed posteriad, weakly projected at apical margin (Figure 1I). Male unavailable specimen in this study.

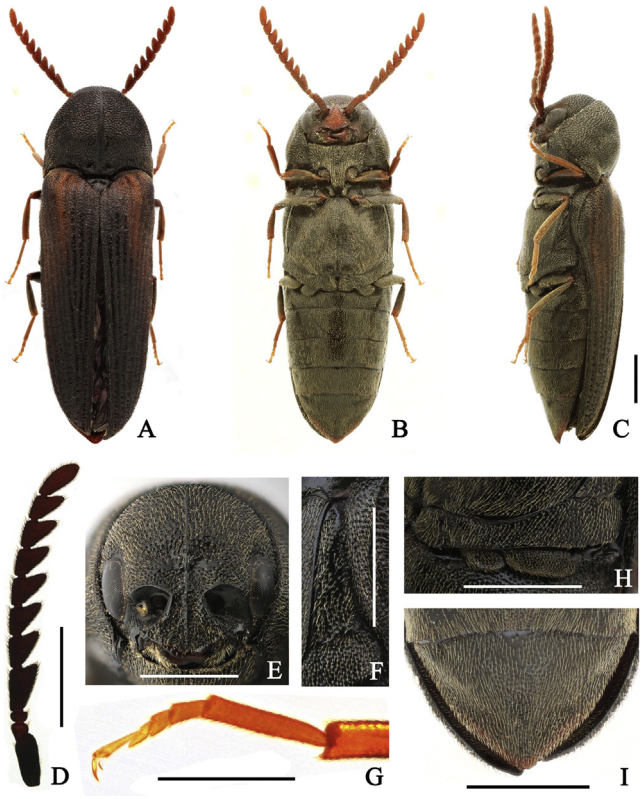

Figure 1. *Otho sphondyloides* (Germar, 1818). A–I, female: A, dorsal habitus; B, ventral habitus; C, lateral habitus; D, antenna; E, frons; F, metepisternum; G, metatarsi; H, metacoxal plate; I, fifth abdominal ventrite <scale bar: 1 mm (A–F and H–I); 0.5 mm (G)>.

Specimens examined. <GW> 2 ♀, Osaek-ri, Seo-myeon, Yangyang-gun, 20 vi 2015 (leg. S. H. Lee); 1 ♀, Wangsan-ri, Wangsan-myeon, Gangneung-si, 5-29 vi 2016 (leg. Seung and Jung by FIT).

Distribution. Korea (New record), Japan, Europe (Austria, Belarus, Bulgaria, Croatia, Germany, Hungary, Latvia, Romania, Russia, and Ukraine).

Remarks. O. sphondyloides similar to *Otho amamiensis* and *Otho nipponicus* from Japan but can be distinguished by serrate antennae of female, while other two Japanese species have strongly pectinate antennae. Individual variation is observed in coloration of elytral humeri and frontoclypeal region, blackish brown to ferruginous.