

First Record of the Polypore Fungus Beetle Genus *Eustrophus* (Coleoptera: Tetratomidae: Eustrophinae) in Korea

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ABSTRACT

The family Tetratomidae Billberg occurs in most parts of the world but many species are discovered from Australia and New Zealand. The family contains 13 genera and over 150 described species in five subfamilies, Eustrophinae, Hallomeninae, Penthinae, Piseninae and Tetratominae. Among the eustrophine genera, a genus *Eustrophus* Illiger includes four species in the Holarctic region including three Palaearctic species, *E. dermestoides* (Fabricius), *E. niponicus* Lewis and *E. yunnanensis* Nikitsky. In this study, the genus *Eustrophus* and its a single species, *E. niponicus*, are newly discovered from the Korean fauna. A diagnosis, habitus photographs and illustrations of diagnostic characters including aedeagus of the species are provided.

Keywords: Coleoptera, Tenebrionoidea, Tetratomidae, Eustrophinae, *Eustrophus niponicus*, Korea

INTRODUCTION

The genus *Eustrophus* Illiger, 1802 includes four species worldwide (Nikitsky, 1998; Pollock, 2012). Three species are distributed in the Palaearctic [*E. dermestoides* (Fabricius) in Europe; *E. niponicus* Lewis in Japan, northeastern China and Russian Far East; *E. yunnanensis* Nikitsky in southern China] and one (*E. tomentosus* Say in Canada and United States) in Nearctic region. However, any specimen of this genus has not been discovered from the Korean peninsula yet. They have been known to be usually found under the bark or on polypore fungus (Lawrence and Leschen, 2010; Pollock, 2012).

While working on diversity of beetles in Gwangneung forest protected as the 4th UNESCO biosphere reserve, the genus *Eustrophus* Illiger and one species of the genus, *E. niponicus* Lewis, is identified for the first time in the Korean Peninsula. We present habitus photographs, diagnosis and illustrations of diagnostic characters of the species including genital structure.

All specimens are deposited in the Entomological Col-

lection of Korea National Arboretum (KNAE), Pocheon, Korea. The morphological terminology used here follows Pollock (2012).

SYSTEMATIC ACCOUNTS

Order Coleoptera Linnaeus, 1758
Family Tetratomidae Billberg, 1820
Subfamily Eustrophinae Gistel, 1848

¹* Genus *Eustrophus* Illiger, 1802

Eustrophus Illiger, 1802: 301. Type species: *Mycetophagus dermestoides* Fabricius, 1792.

Diagnosis. Body oval; prosternal process elongate; posterior margin of pronotum with slight lobe only; prothoracic episterna without transverse suture elytral punctures fine, not forming obvious striae; outer surface of meso- and metatibiae with numerous oblique, comb-like ridges (Young and Pollock, 2002).

Korean name: ¹*민무늬애버섯벌레붙이속(신칭)

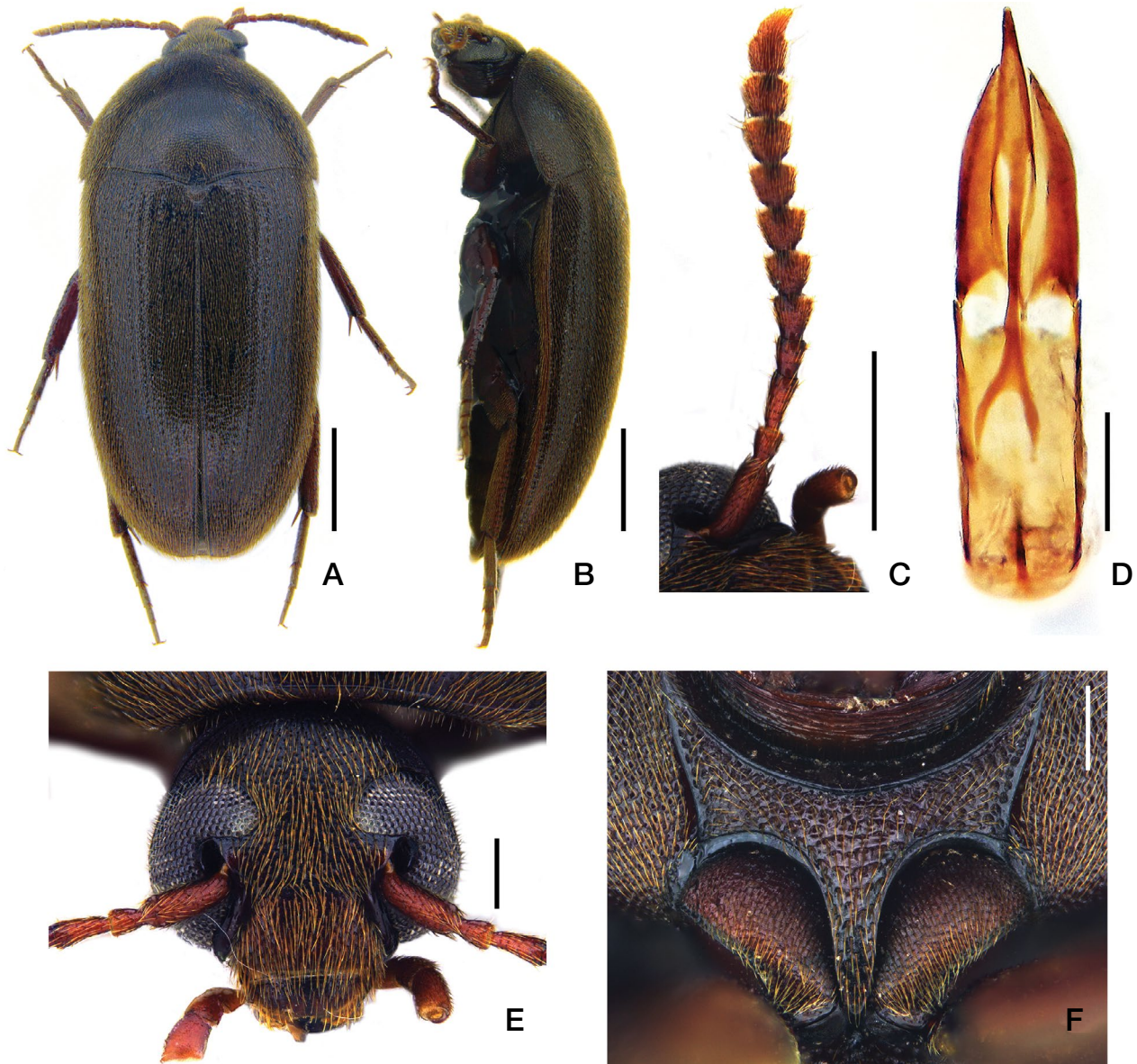


Fig. 1. *Eustrophus niponicus*. A, Habitus (dorsal aspect); B, Habitus (lateral aspect); C, Antenna; D, Aedeagus (ventral aspect); E, Head; F, Prosternum (ventral aspect). Scale bars: A, B=1.0 mm, C=0.5 mm, D-F=0.2 mm.

Distribution. Korea, Japan, Russian Far East, Southern China, Europe and North America.

¹*Eustrophus niponicus* Lewis, 1895 (Fig. 1A–F)
Eustrophus niponicus Lewis, 1895: 259.

Material examined. 11 exx., Korea: Gyeonggi province, Pocheon-si, Soheul-eup, Korea National Arboretum, Gwangneung forest, 37°44'53.58"N, 127°09'59.01"E, Alt.

125 m, 9–27 Jun 2017, Lee SG, Choi S leg., Flight intercept trap (KNAE).

Diagnosis. Length 5.0–6.5 mm; body (Fig. 1A, B) elongate oval, subparallel-sided, distinctly convex dorso-ventrally, about 2.2–2.3 times as long as wide; dorsal color dark brown, with dense and sheen golden-pubescence; ventral aspect, antennae and legs reddish brown; eyes (Fig. 1E) large, moderately separated and about as long as antennomere 1, inner margin deeply emarginate; antennomeres 2–10 slight-

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ly widened at apex, antennomere 2 shortest, 3 distinctly longer than 2, 5–10 subequal in size and shape, 11 subtriangular to nearly quadrate (Fig. 1C); pronotum semicircle-shape, distinctly transverse, 1.7–1.8 times wider than long, widest at apex, slightly wider than elytral width, posterior margin distinctly sinuate; prosternal process (Fig. 1F) pointed at apex, almost extended to posterior margin of procoxae; elytron about 3.2 times as long as wide, with fine punctures arranged in longitudinal striae. Aedeagus as in Fig. 1D.

Distribution. Korea (new record), Japan, Northeastern China, and Russian Far East.

Remarks. All specimens were collected by FIT in Gwangneung Forest.

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