

Description of a New Species of the Genus *Euconnus* (Coleoptera, Staphylinidae, Scydmaeninae) from Central Honshu, Japan

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Abstract A new species, *Euconnus (Euconophron) iouzensis* HOSHINA et NAKATA, sp. nov., is described from central Honshu, Japan. Consequently, the number of Japanese species of *Euconnus* becomes seventeen.

Introduction

The genus *Euconnus* THOMSON, 1859 of the subfamily Scydmaeninae of the family Staphylinidae is composed of about 2,500 species worldwide (NEWTON & FRANZ, 1998). In Japan, sixteen species of *Euconnus* are recorded (SHARP, 1874, 1886; REITTER, 1891; CSIKI, 1919; FRANZ, 1976; O'KEEFE & LI, 1998; HOSHINA, 2004 a, b, 2006, 2007, 2013, 2015; HOSHINA *et al.*, 2003; HOSHINA & ARAI, 2003; HOSHINA & NAGANO, 2005). Most species of *Euconnus* are distributed in the litter layers of forests but some species are found in wetlands (HOSHINA, 2006).

In 2009, second author installed ten flight intercept traps for two to three weeks each month from May to October, at Mt. Iouzen, Ishikawa Pref., central Honshu, Japan. In May 2009, three unidentified specimens of the genus *Euconnus* were collected. Our careful examination showed that the specimens were an undescribed species. Here, we describe the new species under the name, *Euconnus (Euconophron) iouzensis* sp. nov.

The holotype designated in this study is deposited in the collection of the Museum of Nature and Human Activities, Hyôgo (MNHAH). Paratypes are preserved in Fukui University (FU).

Description

Euconnus (Euconophron) iouzensis HOSHINA et NAKATA, sp. nov.

[Japanese name: Kanazawa-hime-kokemushi]

(Figs. 1–5)

Diagnosis. Body length 1.70–1.80 mm. Dorsum slightly reddish brown. Hind wings dimorphic, fully developed or absent. Aedeagus robust in general. Median lobe of aedeagus bearing a distinct square projection with a few fine setae near a ventro-apical corner in lateral view.

Description. Measurement of holotype: Body 1.80 mm in length; head 0.33 mm in length and 0.32 mm in width; pronotum 0.43 mm in length and width; elytra 1.00 mm in length and 0.75 mm in width.

M a l e and *f e m a l e*. Coloration. Dorsum of body almost concolorous and slightly reddish brown; maxillary palpus light brown; antennae brownish; antennomeres 1–7 slightly reddish brown; antennomeres 8–11 brown; meso- and metaventrites slightly reddish brown except for a black median carina of mesoventrite; abdominal ventrites brown; legs brown with light brown tarsi; pubescence of dorsum yellowish light brown.

Body 1.70–1.80 mm in length, about 2.40 times as long as wide (Fig. 1), densely and thinly pubescent on dorsum as other Japanese forestal species of the genus.

Head not showing sexual dimorphism, and about as long as wide; length of head about 0.76 times as long as that of pronotum; width of head about 0.75 times as long as that of pronotum; surface of head smooth and almost without discal punctures; setal socket punctures minute or indistinct; vertex weakly and simply convex; eyes oval, about 2.40 times as long as wide in dorsal view; antennomeres 1–2 and 4–7, each longer than wide; antennomeres 8–11 each wider than long; antennomere 3 almost as long as wide (Fig. 2); relative lengths of antennomeres 2 to 11 as follows: 2.1 : 1.1 : 1.3 : 1.2 : 1.1 : 1.8 : 1.8 : 1.6 : 1.6 : 2.3.

Pronotum smooth, wholly convex, about as long as wide, almost without discal punctures, widest near base; length of pronotum about 0.43 times as long as that of elytra; width of pronotum about 0.57 times as long as that of elytra; anterior and posterior margins almost straight; lateral margins very weakly curved; setal socket punctures very minute or indistinct; basal grooves absent; four antebasal pits strongly impressed (Fig. 1).

Scutellum smooth, impunctate, and glabrous.

Elytra about 1.30 times as long as wide, widest at about basal 1/3 or 2/5 (Fig. 1), smooth, almost without discal punctures; setal socket punctures distinct and stronger than those of head and pronotum; each elytron with two basal fovea near the middle of anterior margin (Fig. 1).

Hind wings dimorphic, fully development in holotype and one male paratype, absent in one female paratype.

Legs without sexual dimorphism, normal shape in the genus.

Metaventrite pubescent, smooth, convex, almost impunctate; abdominal ventrites pubescent, weakly microreticulate.

M a l e. Aedeagus robust (Figs. 3–5); median lobe round, about 1.20 times as long as wide in ventral and dorsal views (Figs. 3 and 4), sharply curved ventrally and bearing a distinct square projection with a few fine setae near a ventro-apical corner in lateral view (Fig. 5); both parameres almost symmetrical and slender (Fig. 3); each paramere weakly curved in lateral view (Fig. 5), with a few apical setae.

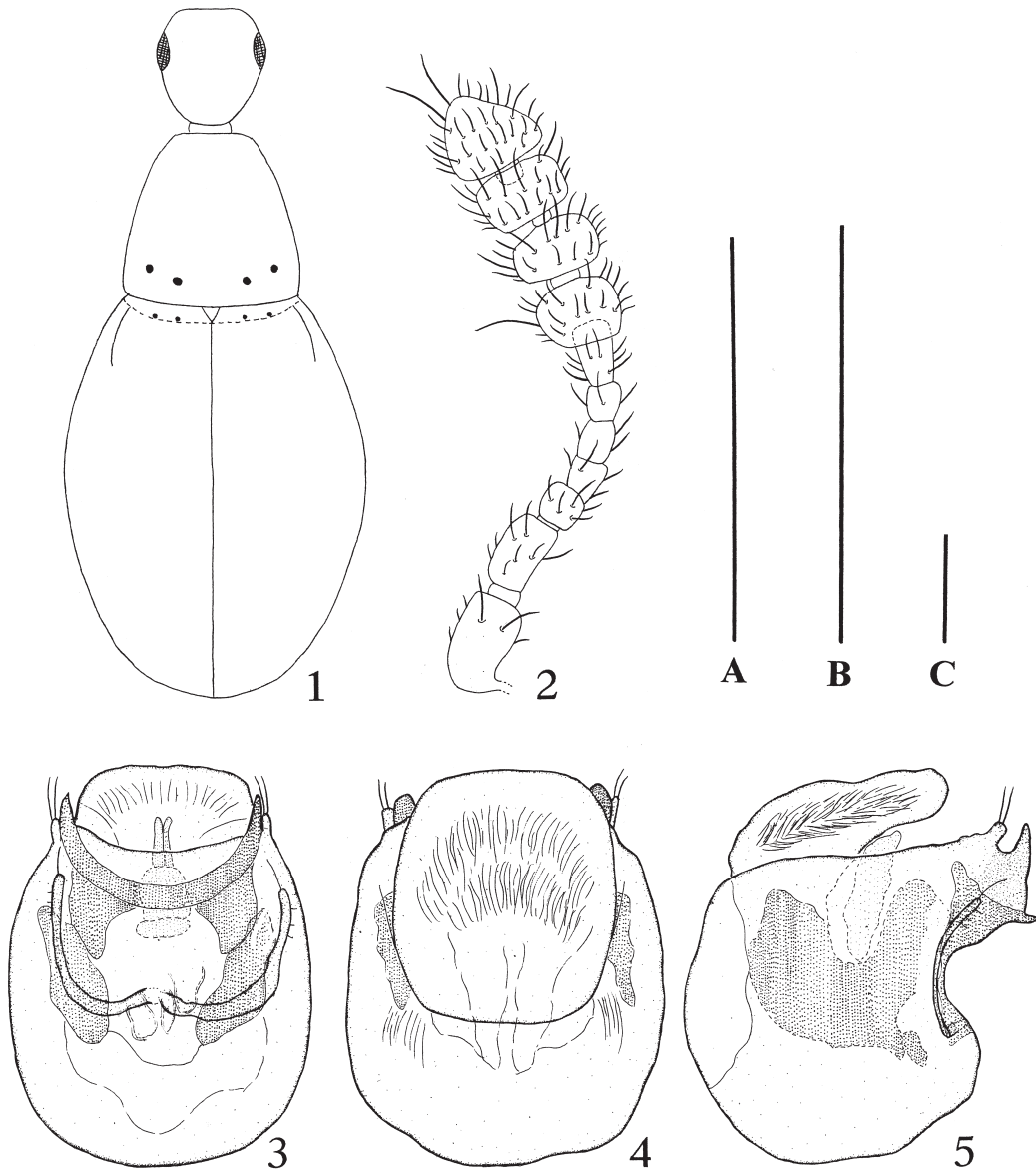
Distribution. Japan: central Honshu (Ishikawa Pref.).

Type series. Holotype: ♂, Mt. Iouzen (alt. 600 m), Kanazawa City, Ishikawa Pref., 6–24.V.2009, K. NAKATA leg. (MNHAH). Paratypes, 1 ♂, 1 ♀, same data as the holotype (FU).

Related specimens examined. *Euconnus (Napochus) lewisii* SHARP, 1886: 6 syntypes, Nagasaki, early spring of 1881, G. LEWIS leg. *Euconnus (Euconophron) kojiroi* HOSHINA, 2004: holotype & 3 paratypes, Ichijō-daki Falls, Fukui City, Fukui Pref., Honshu, Japan, 4.VI.2002, H. HOSHINA leg.

Comparative comments. The present new species is similar to *Euconnus (Napochus) lewisii* SHARP, 1866, but is separated by having a slightly reddish brown dorsum, relatively large body (1.70–1.80 mm), and the median lobe of aedeagus relatively sharply curved ventrally in lateral view (Fig. 5). In contrast, *E. (N.) lewisii* has a brown dorsum, relatively small body (1.40–1.50 mm), and the median lobe relatively weakly curved ventrally in lateral view. Moreover, *E. (Euconophron) iouzensis* sp. nov. also resembles *E. (E.) kojiroi* HOSHINA, 2004 in shape, but can be distinguished from it by the relatively small head which is about 0.76 times as long as the pronotum, and the pronotum about 0.43 times as long as the elytra. In contrast, *E. (E.) kojiroi* has a relatively large head which is about 0.90 times as long as the pronotum, and the pronotum about 0.51 times as long as the elytra.

Dimorphism on the hind wings. *E. (E.) iouzensis* sp. nov., *E. (E.) kojiroi*, and *E. (E.) kumejimensis* HOSHINA, 2013 show dimorphism on the hind wings. In those species, males have normal hind wings and females have no or vestigial wings (HOSHINA, 2004 a; 2013). It is possible that the dimorphism on the hind wings in three species is sexual dimorphism.



Figs. 1–5. *Euconnus (Euconophron) iouzensis* HOSHINA et NAKATA, sp. nov. — 1, Body; 2, right antenna; 3, aedeagus, ventral view; 4, ditto, dorsal view; 5, ditto, lateral view. Scale A: 1.0 mm for Fig. 1. Scale B: 0.5 mm for Fig. 2. Scale C: 0.1 mm for Figs. 3–5.

Subgeneric position. The definitions of many subgenera of *Euconnus* are not well established. Therefore, many species of *Euconnus* were described without subgenera (NEWTON & FRANZ, 1998). Recently, JALOSZYŃSKI (2017) redefined the subgenus *Euconophron* REITTER, 1909. As a matter of convenience, we put the present new species in the subgenus *Euconophron* to which *E. iouzensis* sp. nov. is close, though the number of antebasal pits of pronotum is different in *E. iouzensis* sp. nov. and in the type species of the subgenus *Euconophron*, *E. promptus* (COQUEREL, 1860).

Etymology. This specific name is derived from the type locality, Mt. Iouzen.

要 約

保科英人・中田勝之：本州中部からのハネカクシ科コケムシ亜科ヒメコケムシ属（鞘翅目）の1新種の記載。——石川県金沢市医王山から *Euconnus* 属（ヒメコケムシ属）の1新種が発見され、本稿にて *Euconnus* (*Euconophron*) *iouzensis* sp. nov. (和名：カナザワヒメコケムシ) と命名記載した。本新種は同属の *E.* (*Napochus*) *lewisii* SHARP, 1886 や *E.* (*E.*) *kojiroi* HOSHINA, 2004 らと似るが、前者とは体サイズが大きいことや雄交尾器の形態の差、後者とは前胸背板に対する頭部の長さの比が小さいことなどで区別できる。また、カナザワヒメコケムシ、コジロウヒメコケムシ、クメジマヒメコケムシの3種はオスが完全な後翅を持つのに対して、メスは後翅を欠くか痕跡的な後翅となる。後翅に見られるこの二形は性的二形の可能性がある。

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