Notes on the Genus *Euconnus* (Insecta: Coleoptera: Scydmaenidae) from Tsumadaira Wetland, Fukui Pref., Honshu, Japan

Hideto Hoshina

Abstract. A new species, *Euconnus* (*Euconnus*) ohnoensis sp. nov., is described. *Euconnus* (*Pycnophus*) impar Sharp, 1886 is recorded for the first time from the Hokuriku Region, Japan.

Introduction

The genus *Euconnus* Thomson, 1859 is composed of about 2500 species world wide (Newton & Franz, 1998). Ten species have been recorded from Japan (Sharp, 1874; 1886; Franz, 1976; O'Keefe & Li, 1998; Hoshina et al., 2003; Hoshina & Arai, 2003). Some Japanese species of *Euconnus*, described by Sharp (1874 and 1886), probably inhabit marsh environments (Hoshina, 2003). However, those species are rare and rarely collected and in general the Japanese wetland fauna of Scydmaenidae is poorly known.

In 2003-2004, I carried out a field survey of eight visits at Tsumadaira Wetland, Fukui Pref., Honshu, Japan, and finally succeeded in collecting two specimens of *Euconnus*. Careful examination revealed one of these specimens belongs to a new species of *Euconnus*, and another is *Euconnus* (*Pycnophus*) *impar* Sharp, 1886 which has not previously been recorded from the Hokuriku Region including Fukui Pref. In this paper, I describe that new species under the name, *Euconnus* (*Euconnus*) *ohnoensis* sp. nov., and record a known species, *E.* (*P.*) *impar*, from Fukui Pref.

The holotype designated in this study is deposited in the collection of the Museum of Nature and Human Activities, Hyôgo (MNHA).

Euconnus (Euconnus) ohnoensis Hoshina, sp. nov. (Japanese name: Rokuroshi-hime-kokemushi) (Figs. 1-6)

Distribution. Japan: Honshu (Fukui Pref.).

Type series. Holotype: male, Tsumadaira Wetland, Minami-rokuroshi, Ôno City, Fukui Pref., 27. vi. 2003, H. Hoshina leg. (MNHA).

Related specimens examined. Eight syntypes of *Euconnus japonicus* (Sharp, 1874) (preserved in the collection of The Natural History Museum, London).

Diagnosis. *Euconnus* (*Euconnus*) ohnoensis sp. nov. has typical morphological features of subgenus *Euconnus* in general. Body is 1.4 mm in length and reddish brown. Dorsum impunctate. Head almost glabrous. Elytra have sparse long pubescence. Hind wings are well developed. Aedeagus has a large horny process.

Measurement: Body 1.4 mm long; head 0.22 mm long (from clypeus to base) and 0.30 mm wide; pronotum

Fukui University, Fukui City, 910-8507 Japan

Department of Regional Environment, Faculty of Education & Regional Studies,

0.40 mm long and 0.32 mm wide; elytra 0.80 mm long and 0.58 mm wide.

Coloration. Dorsum shining, almost concolorous, reddish brown; head a little lighter than pronotum and elytra; maxillary palpus very light brown; antennal segments brown but 1st segment a little darker than the rest; mesoand metasterna reddish brown except for a black median carina of mesosternum; venter otherwise brown; hind coxae slightly reddish brown, all tibiae and tarsi light brown, other parts of legs brown.

Head constricted behind eyes and lateral margins weakly curved towards base, slightly narrower than pronotum (Fig. 1), weakly and simply raised on vertex; surface of head smooth, impunctate, and almost glabrous except for a few setae on occiput; eyes oval, and about 0.33 times as long as head; inter-occipital distance about half as wide as the maximal width of head; labrum almost straight at anterior margin, bearing sparse long hairs; mentum smooth and impunctate; antennae 0.79 mm in length, with an indistinct four segmented club; all segments longer than wide; 11th segment long-oval with a pointed tip (Fig. 3).

Pronotum strongly convex, widest at near base, sparsely pubescent, impunctate, smooth, with dense, stiff and thick setae along lateral margins; anterior margin almost straight; lateral margins and posterior margin feebly curved; basal two foveae distinct (Fig. 2); basal transverse groove absent.

Elytra widest at about basal 2/5 in dorsal view, almost smooth, impunctate, and with long moderately scattered pubescence; pubescence of elytra longer than those of head and pronotum (Fig. 1); each elytron without basal depressions and with two small basal pits located closer to scutellum than lateral margins (Fig. 2); external pits situated more outlying than foveae of pronotum; sutural striae present only in the base towards the basal 1/4 of elytra (Fig. 2).



Fig. 1. Habitus of Euconnus (Euconnus) ohnoensis sp. nov. Scale: 1 mm.



Figs. 2-6. *Euconnus* (*Euconnus*) ohnoensis sp. nov. 2, body. 3, antenna. 4-6, aedeagus. 4, ventral view; 5, dorsal view; 6, lateral view. Scale A: 1 mm for Fig. 2. Scale B: 0.5 mm for Fig. 3. Scale C: 0.2 mm for Figs. 4-6.

Hind wings normal.

Legs similar to those of other species of subgenus *Euconnus*; hind coxae distant from each other at intervals of half of length of hind coax; front tibiae almost as long as middle tibiae; hind tibiae about 1.2 times as long as front tibiae; all tibiae thin, sharply narrowed from about basal 1/3 position towards base.

Metasternum strongly convex, moderately pubescent but almost glabrous on central area, smooth, and impunctate; venter densely pubescent and weakly microreticulate.

Aedeagus robust (Figs. 4-6); length of median lobe about 0.32 mm and width 0.18 mm in ventral view; apex of median lobe deeply and broadly emarginated with protuberant apico-lateral corners, and moderately curved along lateral margins in ventral and dorsal views, strongly and apically expanded as a horn near the middle of apical

margins in ventral view; each paramere slender, not pointed at apex, with two apical setae, and sinuate in ventral view and strongly curved in lateral view; horny process large and triangular in dorsal view and feebly reflexed dorsally in lateral view.

Remarks. *Euconnus (Euconnus) ohnoensis* sp. nov. is similar to *Euconnus japonicus* (Sharp, 1874), but the body is 1.4 mm in length, dorsal color reddish brown, and the median lobe of aedeagus robust, 1.8 times as long as wide in ventral view. In contrast, *Euconnus japonicus* has the body about 1.6 mm in length, light brown to brown dorsal color, and the slender median lobe about 2.5 times as long as wide.

Etymology. This specific epithet is derived from the type locality, Ôno City.

Euconnus (Pycnophus) impar Sharp, 1886

(Japanese name: Bandô-tsuya-hime-kokemushi)

Euconnus impar Sharp, 1886, 46; Csiki, 1919: 49; Franz, 1976: 59; O'Keefe & Li, 1998: 159; Hoshina & Arai, 2003: 11.

Euconnus (Pycnophus) otorii: Hoshina et al., 2003: 30; Hoshina & Arai, 2003: 11 (= Euconnus impar).

Specimens examined. 1 male, Tsumadaira Wetland, Minami-rokuroshi, Ôno City, Fukui Pref., 29. vi.-6. vii. 2004, H. Hoshina leg. (collected by the flight intercept traps).

Note. This is the first record of this species from the Hokuriku Region.

Acknowledgements

I wish to express my sincere gratitude to Mr. Jonathan Cooter (England) who kindly read my early draft. I also owe thanks to Dr. Martin Brendell (The Natural History Museum, London) who provided me with the opportunity to examine the type specimens.

要約

保科英人:福井県大野市妻平湿原から採集された鞘翅目コケムシ科 Euconnus 属 (ヒメコケムシ属) に関する 知見

2003~2004 年にかけて、大野市南六呂師妻平湿原で、採集を行ったところ、湿地性コケムシ科 *Euconnus* 属 (ヒメコケムシ属) の 2 個体が採集された。このうち、1 頭は未記載種であることが判明し、*Euconnus* (*Euconnus*) *ohnoensis* sp. nov. (和名:ロクロシヒメコケムシ) と命名・記載した。また、残りの 1 頭は、 北陸地域未記録の種 *Euconnus* (*Pycnophus*) *impar* Sharp, 1886 であることがわかり、本稿にて記録した。

References

- Csiki, E., 1919. Scydmaenidae. In: Schenkling, S. (ed.). Coleopterorum Catalogus, pars 12: 1-106. W. Junk, Berlin.
- Franz, H., 1976. Neue Scydmaeniden aus Japan, sowie Bemerkungen zu bekannten Arten. Entomologische Blätter für Biologie und Systematik der Käfer, 72: 51-60.
- Hoshina, H., 2003. Notes on the genus *Euconnus* (Coleoptera: Scydmaenidae) from Japan, part I. *Coleopterists'* News, Tokyo, (143): 7-11. (in Japanese)

- Hoshina, H., S. Arai, & H. Ushijima, 2003. Descriptions of two new species of the genus *Euconnus* (Coleoptera: Scydmaenidae) from Japan. *The Entomological Review of Japan*, **58**: 27-33.
- Hoshina, H. & S. Arai, 2003. Taxonomic note on the genus Euconnus (Coleoptera: Scydmaenidae) from Japan. Memoirs of the Faculty of Education and Regional Studies, Fukui University, Series II (Natural Science), (55): 11-12.
- Newton, A. F. & H. Franz, 1998. World catalog of the genera of Scydmaenidae (Coleoptera). *Koleopterologische Rundschau*, **68**: 137-165.
- O'Keefe, S. T. & K.-J. Li, 1998. Review of the Scydmaenidae (Coleoptera) of eastern Asia, with particular reference to *Scydmaenus*, and description of the first scydmaenid from Hainan Island, China. *Journal of the New York Entomological Society*, **106**: 150-162.
- Sharp, D., 1874. The Pselaphidae and Scydmaenidae of Japan. *Transactions of the Entomological Society of London*, (1874): 105-129.
- Sharp, D., 1886. The Scydmaenidae of Japan. Entomologist's Monthly Magazine, 23: 46-51.

Key words: Coleoptera, Scydmaenidae, the genus Euconnus, new species, Tsumadaira Wetland, Japan