Occurrence of Epuraea muehli REITTER (Coleoptera, Nitidulidae) in Japan

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Abstract *Epuraea muehli* REITTER is recorded from Japan for the first time and is redescribed. Dorsal habitus, male genitalia, and other important diagnostic characters of the species are illustrated. **Key words:** *Epuraea muehli*, New record, Nitidulidae, Japan.

Introduction

Epuraea muehli REITTER, 1908 is widely distributed from Europe to Russian Far East (KIREJT-SHUK, 1992; JELÍNEK & AUDISIO, 2007), however, there were no previous records from Japan prior to this study. During my study on the nitidulid fauna of Japan, several specimens of Honshu and Hokkaido were identified as *E. muehli*. Here I record the species from Japan for the first time.



Fig. 1. Epuraea (Epuraea) muehli. — 1, Dorsal habitus (3, Tomuraushi, Hokkaido, Japan).

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Material and Methods

Specimens examined are deposited in the following collections: EUM–Ehime University Museum; AKCC–Akira KASHIZAKI Coleoptera Collection; SHCC–Sadatomo HISAMATSU Coleoptera Collection.

External structures were observed using a Zeiss Stemi 2000 stereoscopic microscope with magnification from $10 \times to 50 \times$, and small structures, such as antennae and genitalia were observed using a Nikon Alphaphot-2 YS2 compound microscope with magnification from $40 \times to 200 \times$. In preparing illustrations, an entire specimen was placed in hot water for 1–2 hrs, then antennae and male and female genitalia were removed. Genitalia were removed from apical parts of the abdomen using fine forceps. Digital photographs were prepared using a Hozan digital camera (L-835) attached to the above-mentioned microscopes and were combined using Helicon soft Helicon Focus 5.3 Lite software. Genitalia and mesotibiae drawings were made with a drawing attachment on a Nikon Alphaphot-2 YS2 compound microscope. These images were scanned by Brother MFC-J827DN and plates constructed using Adobe Photoshop CS2.

Results

Epuraea (Epuraea) muehli REITTER, 1908

[Japanese name: Toge-hirata-keshikisui]

Epuraea mühli (emend. *muehli*) REITTER, 1908: 245. Type locality. Tatra Mountains. [= mountain range between Slovakia and Poland.]

Epuraea muehli: Кікејтsник, 1992: 155, pl. 76, figs. 7–11 [in key, figure]; AUDISIO, 1993: 354, figs. 79h, 89d, e, f [in key, figure]; JELÍNEK & AUDISIO, 2007: 461 [catalogue].

Material examined. Ukraine. 3 ♂♂, Dolina ř. Pihy. Op or 9.VI.1911, LOKAY leg. (SHCC). Japan. [Hokkaido] 2 ♂♂, Tomuraushi, Shintoku-chô, Kamikawa-gun, 18.VII.2016, А. КАЅНІZАКІ leg. (AKCC); [Yamanashi] 1 ♂, Tsubakizori, Minobu-chô, 14.VII.2010, S. TSUYUKI leg. (SHCC); [Gifu] 3 ♂♂, Asashichô-kurumishima, Takayama-shi, 11.VII.2014, K. TOYOSHIMA leg. (SHCC); 3 ♂♂, Nigorigo-onsen, Gero-shi, 11.VII.2009, Y. HAYASHI leg. (SHCC); 3 ♀♀, Takane-mura, Ohno-mura, 17. VII.2005, K. KANNO leg. (SHCC); 1 ♂, Hirugano, Takasu-chô, Kôriyama-shi, 7.VI.2014, K. TOYOSHI-MA leg. (SHCC).

Redescription. Length 3.0–3.7 mm. M a l e. Body (Fig. 1) oval; dorsum and venter shining; dorsum densely covered with fine, recumbent yellowish setae. Coloration fully reddish-brown, except blackish antennal club.

Head densely punctate; punctures on disc about as large as eye-facet at middle, separated by <1 diameter; interspaces smooth. Antennal grooves shallow, strongly arcuately converging posteriorly, and indistinctly connected to each other at posterior end.

Pronotum transverse, 1.83–2.00 times as wide as long (n = 6); widest at basal 1/3, then strongly converging anteriorly, and moderately narrowing posteriorly; lateral margins widely explanate, distinctly wider than the greatest width of protibia at mid-length; anterior angles moderately prominent, with apices rounded; posterior angles subrectangular; punctures on disc larger than diameter of an eye-facet at middle, very dense, separated by less than their diameter; interspaces smooth.

Elytra conjointly 1.21–1.33 times as long as wide, 2.53–2.67 times as long as pronotum (n = 6); lateral margins widely explanate, about as wide as greatest width of protibia at mid-length, subparal-



Figs. 2–5. Epuraea (Epuraea) muehli (♂, Nigorigô-onsen, Gifu). — 2, Tegmen, lateral view; 3, ditto, ventral view; 4, median lobe, ventral view; 5, male right mesotibia.

lel-sided at basal 2/3, then moderately converging posteriorly; punctures on disc about as large as those on pronotum at middle.

Prosternum not convex along the middle; prosternal process in ventral view strongly expanded behid coxae, apical margin widely rounded. Metaventrite convex, metathoracic discrimen visible entire length of metathorax; punctures on disc distinctly smaller than those on head at middle, separated by ≤ 1 diameter, becoming denser laterally. Legs slender; protibiae simple, slightly narrower than antennal club; mesotibiae (Fig. 5) simple.

Male genitalia with tegmen (Figs. 2 & 3) possessing lateral margins subparallel-sided in ventral view; apical margin of sclerotized area of median lobe (Fig. 4) strongly prominent at middle in ventral view. Apical margin of abdominal tergite VII truncated.

F e m a l e. Apical margin of abdominal tergite VII widely rounded.

Bionomics. According to AUDISIO (1993), this species is collected from under bark, on stumps, trunks, and fallen branches of *Abies alba* MILLER (Pinales) and *Picea excelsa* (L.) KARSTEN (Pinales), especially damaged by cerambycid and/or scolytine beetles. The adults are reported as attracted to vinegar traps, scolytine pheromones, and various inflorescences especially of Umbelliferae, at the edge of coniferous forests in Europe.

Distribution. Europe, Turkey, Russian Far East (JELÍNEK & AUDISIO, 2007) and Japan. New record.

Note. This species is closely allied to the following species but can be distinguished: from *Epuraea argus* REITTER, 1894, known from Europe, China (Northeast Territory), West and East Siberia, Russian Far East, and Japan, by the simple mesotibiae of male, widely rounded apical margin of ab-

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dominal tergite VII of female, and the shape of median lobe; from *E. biguttata* (THUNBERG, 1784), known from Europe, Turkey, Cyprus, Kazakhstan, Mongolia, West and East Siberia, Russian Far East, and Japan, by the widely explanate lateral margins of pronotum, simple mesotibiae, and the shape of median lobe.

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