# Notes on the Species of Staphylinidae (Coleoptera) from Japan

XVIII. The Description of a New Species of the Genus *Philonthus* from the Ryukyus, with a Little Knowledge of its Relatives

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**Abstract** *Philonthus shoueni* T. ITO, sp. nov. is described from the Ryukyus. Aedeagi of *Philonthus daimio* SHARP are illustrated for the first time based on the specimens from several localities in Japan. *Philonthus vulgatus* CASEY is new recorded from Russia.

*Philonthus daimio* SHARP was described in 1889 from Hokkaido (Otaru and Hakodate) in Japan based on two female specimens (SHARP, 1889). Afterwards the present species has been hardly intended for the succeeding examination. In the present paper, I illustrate the aedeagi of *P. daimio* from the several localities from Hokkaido to Kinki District in central Honshu for the first time, and present the record of *Philonthus vulgatus* CASEY, 1915 newly from the Far East and Central Russia, and describe a new species which is allied to *P. daimio* from the Ryukyus in Japan.

Before going further, I would like to express my cordial thanks to especially Dr. Yoshihisa KUSUI (Naha City), and Mr. Shigehiko SHIYAKE (Osaka Museum of Natural History) for their kindly offering me the valuable materials used in the present paper and to Mr. Yasuhiko HAYASHI (Kawanishi City) and Dr. Aleš SMETANA for kindly help to have a chance of examining a specimen of *P. vulgatus* from Canada, and also to all the colleagues whose names are printed in the sections of type series and specimens examined.

### Philonthus daimio SHARP, 1889

(Fig. 1 a-c)

*Philonthus daimio* Sharp, 1889: 42. — Herman, 2001: 2798. — Löbl & Smetana, 2004: 641. — Shibata *et al.*, 2013: 166. — Hayashi, 2013: 210.

Specimens examined. 2  $\Im$ , 1  $\bigcirc$ , Memanbetsu, Abashiri, Hokkaido, 11.VI.2008, T. KATO leg.; 1  $\bigcirc$ , Ôzora-cho, Abashiri, Hokkaido, 3.VII.2008, T. KATO leg.; 3  $\Im$ , 2  $\bigcirc$ , Sapporo, Hokkaido, 30, 31.V, and 3, 13.VI.1939, H. Aoki leg.; 4  $\Im$ , 10  $\bigcirc$ , Amimachi, Ibaragi Pref., 3–8.VI.1968, Y. KIMU-RA leg.; 1  $\bigcirc$ , Tennami, Narita Airport, Chiba Pref., 28.VI.1979, Y. KUSUI leg.; 1  $\Im$ , Haneda, Tokyo Metr., no data of date and month, 1977, Y. KUSUI leg.; 1  $\Im$ , 1  $\bigcirc$ , Maruno-chô, Yamanashi Pref., 13. IX.1989 and 12.VI.1991, K. HOSODA leg.; 1  $\Im$ , Riv. Tama, Chôfu, Tokyo Metr., 12.VI.1974, H. OHI-SHI leg.; 1  $\bigcirc$ , Shin-asahimachi, Takashima, Shiga Pref., 8.VI.1994,Y. MIYATAKE leg.; 1  $\bigcirc$ , Ono, Ôtsu-shi, Shiga Pref., 2.VII.1994, S. SHIYAKE leg.; 1  $\Im$ , 1  $\bigcirc$ , Makino, Hirakata, Osaka Pref., 5.IV.1968, Y. IMAI leg.; 1  $\Im$ , same locality, 5.V.1968, T. ITO leg.; 1  $\Im$ , Takashino-hama, Osaka Pref., 17.IX.1973, M. GOTO leg.

Distribution. Japan (Hokkaido, Honshu).

Notes. The distribution of this species is rather wide area from Hokkaido to Kinki District (Hon-

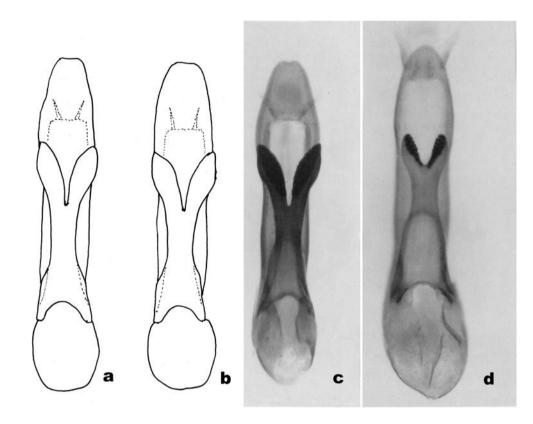


Fig. 1. Aedeagi. — a, *Philonthus daimio* SHARP from Abashiri (Hokkaido); b, ditto from Amimachi (Ibaragi); c, ditto from Hirakata (Osaka); d, *Philonthus vulgatus* CASEY from Russia (Far East).

shu), but the shapes of the aedeagi are considerably stable. There are few variations in the shape as seen from ventral views (Fig. 1a–c).

#### Philonthus vulgatus CASEY, 1915

(Fig. 1 d)

Philonthus vulgatus Casey, 1915: 442; Smetana, 1995: 456; Herman, 2001: 3003; Hayashi, 2013: 210.

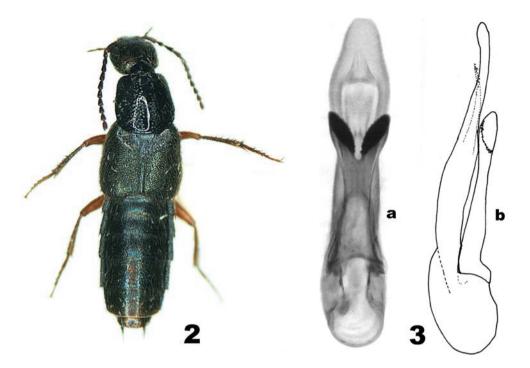
Specimens examined. 1 ♂, N. Burgess Twp., Lanark Co., Ont., Canada, 25.VI.1967, D. M. WOOD leg. (Det. A. SMETANA); 1 ♂, Primorskij, nr. Chernigovka NW 10 km Ilistaya, Chernigovsky distr., Russia, 12–13.VIII.2001, S. SHIYAKE leg.; 1 ♂, 5 ♀♀, Tver reg., Lesnoye Vill., C. Russia, 7. VIII.1998.

Distribution. Canada, USA, Russia\*(Central and Far East).\* New record.

Philonthus shoueni T. ITO, sp. nov.

(Figs. 2, 3a-b)

Body moderate in size, robust, pitchy black; mouth parts, apical two segments of antennae and legs except for darkened coxae, reddish brown to brown; pubescence on body dark brownish black,



Figs. 2–3. *Philonthus shoueni* T. ITO, sp. nov. — 2, Habitus (paratype); 3, aedeagus (a: ventral view; b: lateral view).

those on appendices yellowish brown to dark brown. Length : 8.0-8.5 mm.

Head subquadrate, almost as long as wide (the widest point being at eyes), coarsely, deeply and sparsely punctate except that the top of vertex and frons are scanty, with a feebly silky reflection caused by microsculpture at base; eyes very large, the longitudinal diameter much longer than a length of postgena (1 : 0.68); postgenae a little narrowed basally and then widely angulated toward neck; antennae long, reaching the base of pronotum, three basal segments polished, the remainings ciliate and dull, all segments distinctly longer than wide, 1st segment largest, very robust and twice as long as 2nd which is a little shorter than the succeeding, each of 4th to 6th longer than 3rd and subequal in length, 6th to 10th gradually shortened distad, 11th conical and longer than the preceding one. Ventral surface of head coarsely, sparsely and rather uniformly punctate on both sides of gular plate, with a microsculpture similarly to the dorsal one.

Pronotum quadrate, as long as wide, longer (1.23 : 1) and wider (1.16 : 1) than head, subparallel-sided, widest at basal third, thence feebly linearly narrowed apicad and circularly so basad, coarsely, closely and rather regularly punctate, the punctures a little coarser and closer than on head; surface wholly with a median smooth line, scarcely with a trace of discernible microsculpture; lateral and apical margins invisible near apical angles when viewed from above, but thick throughout as well as basal margins.

Elytra quadrate (humeral length / widest width), subparallel at sides, scarcely widened apicad, distinctly wider (1.33 : 1) and longer (1.26 : 1) than pronotum; surface with punctures apparently finer than on pronotum, more or less uniformly arranged throughout, with a scratch-like microsculpture and with a bronze luster. Wings well developed and functional. Scutellum similarly with sculpture to on elytra.

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Abdomen slightly expanded laterad, increasing in width gently toward 5th segment, then decreasing in width rather rapidly toward the apicalmost segment; all segments scarcely microsculptured and iridescent; each base of tergites with punctures coarse, obsolete and becoming finer and sparser posteriad, those on each sternite coarser than on the opposite tergite. Male 8th sternite widely and rather shallowly excised at apical margin in middle. Legs with basal three segments of protarsus moderately dilated, sub-bilobed, each furnished with modified pale setae ventrally in both sexes, but in female less remarkable than in male.

Aedeagus moderately sclerotized except dorsal side; median lobe narrow and elongated, subparallel-sided in about middle portion, tapered apicad into symmetrical apical portion with narrowly arcuate apex; lateral lobe moderately long, divided into two diverging branches; each branch provided with sensory peg setae on underside of lateral lobe numerous (Fig. 3 a, b).

*Type series*. Holotype:  $\mathcal{C}$ , Dana, Iheya Is., Okinawa Pref., 2.VIII.1978, Y. KUSUI leg. (coll. to be eventually deposited in the Osaka Natural History Museum). Paratypes: 1  $\mathcal{Q}$ , same locality and datum as holotype; 1  $\mathcal{C}$ , 3  $\mathcal{Q}\mathcal{Q}$ , Maedomari, Iheya Is., Okinawa Pref., 22.III.1982, K. HARUSAWA & O. TOMINAGA leg.; 1  $\mathcal{C}$ , Serikyaku, Izena Is., Okinawa Pref., 4.VIII.1978, Y. KUSUI leg.

Distribution. Japan (Okinawa Pref.: Iheya Is., Izena Is.).

*Notes.* Although the present new species is closely allied to *Philonthus daimio* and *P. vulgatus*, it is apparently distinguishable from the latters by the aedeagus with the lateral lobe divided into two branches in different manner, except its characteristics, from *P. daimio* by the head of silky reflection at base and the pronotum with a trace of discernible microsculpure, from *P. vulgatus* by the head and pronotum without distinct lineolate microsculpture.

*Etymology.* The specific name of the new species is dedicated to SHOUEN (尚円) who was one of the King of the Ryukyu Dynasty and whose native place was Izena Island.

## 要 約

伊藤建夫:日本産ハネカクシ科(鞘翅目)甲虫の覚え書き,18. — コガシラハネカクシ属(Philonthus) のダイミョウコガシラハネカクシの雄交尾器を図示し,近似の1新種,Philonthus shoueni T. Iro, sp. nov. を沖 縄から記載命名した.和名にはリュウキュウコガシラハネカクシを提唱する.また北米のP. vulgatus をロシ アから記録した.

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