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A New Species of the Genus *Quedius* Stephens from Honshu, Japan (Coleoptera, Staphylinidae, Staphylininae, Quediina)

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Abstract A new species of the genus *Quedius* Stephens, 1829 is described from Honshu, Japan under the name of *Quedius* (*Raphilus*) *kurosai* sp. nov. The new species belongs to the *Q. boops* species group of the subgenus *Raphilus* Stephens, 1829.

Up to the present more than 300 species of the subgenus *Raphilus* Stephens, 1829 of the genus *Quedius* Stephens, 1829 have been recorded from the Palaearctic Region (Schülke & Smetana, 2015), but only seven species have been known in the Japanese fauna (Shibata *et al*., 2013). Recently I noticed that there is an unidentified *Quedius* species in my cabinet, which belongs to the subgenus *Raphilus*, and is rather commonly collected from broad areas within Japan. After close examination in detail, I concluded that it is new to science. In this paper I describe it as new under the name of *Quedius* (*Raphilus*) *kurosai* sp. nov.

Before going into further detail, I wish to express my deep gratitude to Dr. K. Ando, Faculty of Agriculture, Ehime University for his kindness to critically read the manuscript of this paper.

Main terminology used here should be referred to Hayashi (1993). Abbreviation used in the description are as follows: HW — maximum width of head; HL — maximum length of head; PW — maximum width of pronotum; PL — maximum length of pronotum; EW — maximum width of elytra; EL — maximum length of elytra. The ratio in the description excluding body size are based on measurements of the holotype.

Quedius* (*Raphilus*) *kurosai sp. nov.

(Figs. 1–7)

Body slender, blackish brown to black, strongly shiny, without metallic luster in fore body; head deep black; pronotum and abdomen blackish brown; elytra dark brown to blackish brown; abdomen iridescent with pinky luster, narrowly reddish on posterior margin of each tergite and slightly widely so on that of each ventrite; mouth parts, antennae and legs yellowish brown; tibiae a little darkened. Body length: 4.8–6.3 mm.

Head transversely elliptical, considerably wider than long (HW/HL 1.24), weakly convex medially, weakly bisinuate on front margin, nearly straight on basal margin, and rounded on sides; dorsal surface impunctate except peripheral sockets (sensu Hayashi, 1993), with fine distinct striate microsculpture. Eyes very large, strongly convex, and more than six times as long as temple. Antennae moderately long; antennomeres 1st to 7th and 11th each longer than wide; 8th to 10th each as long as wide; antennomeres with the following relative length from 1st to 11th: 40 : 25 : 25 : 20 : 20 : 16 : 16 : 15 : 15 : 15 : 30.

Pronotum slightly wider than long, widest at basal third, rather strongly narrowed anteriad, widely rounded posteriorly, slightly wider and considerably longer than head (PW/HW 1.21, PL/HL 1.38), weakly bisinuate on front margin; sides nearly straight in anterior half; disc longitudinally convex, not deplanate laterally, almost impunctate except ordinary rows of punctures, with fine and oblique striate

Fig. 1. *Quedius* (*Raphilus*) *kurosai* sp. nov., male habitus.

microsculpture; dorsal rows each composed of three coarse punctures, sublateral ones each composed of two or rarely three punctures but frequently lacking all; antero-lateral socket (macroseta) placed behind the hindmost puncture of sublateral row.

Scutellum nearly flat, sparsely punctured in hind half, with transversely striate faint microsculpture.

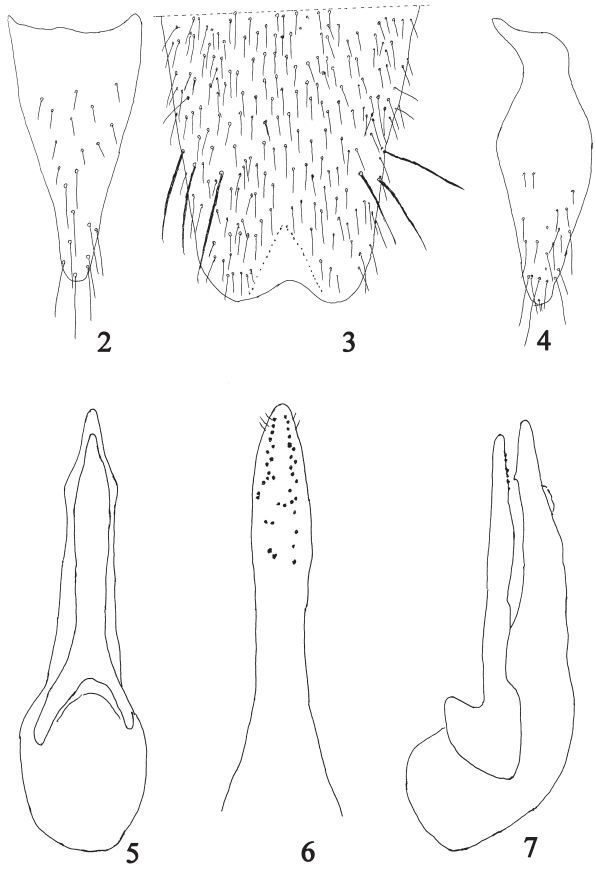
Elytra subtrapezoidal, weakly dilated posteriad, nearly straight on sides, widely rounded at posterior corners, weakly emarginate at apices, slightly wider than long (EW/EL 1.10), slightly longer and wider than pronotum (EL/PL 1.11, EW/PL 1.10); surface finely and moderately densely punctured, with dark brownish pubescence, without microsculpture, and transverse interstice between punctures more than twice as wide as the diameter of puncture.

Abdomen elongate-fusiform; punctation of each tergite considerably fine and dense, though the density gradually become sparser from 3rd to 8th tergites; punctures of each tergite become slightly sparser from base to apical portion; punctures on ventrites much larger and sparser than those on tergites; 7th tergite with pale apical seam of palisade setae on apical margin.

M a l e. Tenth tergite (Fig. 2) elongate triangular, narrowly truncate at apex, which bears several sparse setae; 8th ventrite (Fig. 3) obtusely emarginate on apical margin, with glabrous and triangular flattened area before apical margin; 9th ventrite (Fig. 4) subelliptical, simple at base, sparsely pubescent, narrowly truncate at apex. Protarsomeres 1st to 4th moderately dilated. Male genitalia (Figs. 5–7) symmetrical, slender; penis gradually tapering apicad, steeply emarginate from apical fifth to subacute apex, with small denticle at about apical fourth of ventral face; parameres elongate, extending near apex of penis, subfusiform in apical half, with underside bearing about 20 peg setae arranged along each lateral side of apical half.

F e m a l e. Tenth tergite very similar to that of male; 8th ventrite subtruncate on apical margin; protarsomeres 1st to 4th less dilated than those of male.

Type series. Holotype: ♂, Hasedera, Nara Pref., 5.V.1966, Y. HAYASHI leg. Paratypes: 1 ♂, Ya-



Figs. 2–7. *Quedius* (*Raphilus*) *kurosai* sp. nov., male. —— 2, Tenth tergite; 3, 8th ventrite; 4, 9th ventrite; 5, genitalia in ventral view; 6, underside of paramere; 7, genitalia in lateral view.

madera, Yamagata Pref., 27.V.1957, J. KAMEI leg.; 1 ♂, Mt. Utatsu-yama, Kanazawa, Ishikawa Pref., 27.III.1959, Y. HAYASHI leg.; 1 ♂, Bijôzan, Ishikawa Pref., 6.IX.1977, S. TAKABA leg.; 1 ♂, Yamashina, Kanazawa, Ishikawa Pref., 24.V.1964, Y. HAYASHI leg.; 1 ♂, Mt. Noda-yama, Kanazawa, Ishikawa Pref., 24.X.1962, Y. HAYASHI leg.; 1 ♀, ditto except collecting date is 10.III.1964; 2 ♀♀, ditto except collecting date is 30.V.1964; 1 ♀, Mt. Takao-san, Kanazawa-shi, Ishikaswa Pref., 22.X.1961, Y. HAYASHI leg.; 2 ♀♀, Kojoro Vall., Mt. Hôrai, Shiga Pref., 4.V.1994, M. YAMAMOTO leg.; 1 ♂, 1 ♀, Mizunomi, Mizuho, Kyoto Pref., 11.VI.1994, Y. HAYASHI leg.; 1 ♂, Kitayama, Kamiôkubo, Mizuho-chô, Kyoto Pref., 1.V.1999, Y. HAYASHI leg.; 3 ♂♂, 1 ♀, Sarabikino, Mizuho-chô, Kyoto Pref., 29.VI.1996, Y. HAYASHI leg.; 1 ♀, Shizushi, Mizuho-chô, Kyoto, 3.V.1997, Y. HAYASHI leg.; 1 ♂, Mt. Amaishi-yama, Sasayama-shi, Hyogo Pref., 16.III.1986, Y. HAYASHI leg.: 1 ♂, ditto except collecting date is 26.V.1996: 1 ♂, 1 ♀, ditto except collecting date is 25.V.1996; 2 ♀♀, ditto except collecting date is 23.IX.1979; 1 ♀, Agatamori, Sasayama-shi, Hyogo Pref., 13.VII.1993, Y. HAYASHI leg.; 1 ♂, Akazai Vall., Haga-chô, Hyogo Pref., 19. VIII.1979, Y. HAYASHI leg.; 4 ♂♂, 6 ♀♀, same data as the holotype; 1 ♂, 1 ♀, same locality as the holotype, 15.V.1966, Y. HAYASHI leg.; 2 ♀♀, Kitamatagawa, Kawakami-mura, Nara Pref., 28.VI.2003, Y. HAYASHI leg. The holotype and some paratypes designated in this study are preserved in the collection of the Osaka Museum of Natural History.

Remarks. The new species belongs to the *Quedius boops* species group (sensu COIFFAIT, 1978), and is closely allied to *Quedius* (*Raphilus*) *aereipennis* BERNHAUER, 1929 (SMETANA, 1996) from China in similar appearance. In the present new species, the fore body is lacking a metallic luster, the elytra are moderately densely punctured, with the transverse interstice between punctures is more than twice as wide as the diameter of a puncture, and the penis is steeply emarginate toward the subacute apex in apical fifth, while those in *Q*. (*R*.) *aereipennis* the fore body has a distinct metallic luster, the elytra are very densely punctured, the interstice between punctures is subequal in width to the diameter of a puncture, and the penis is gently and evenly narrowed apicad. The present new species is also very similar to *Quedius* (*Raphilus*) *goang* SMETANA, 1995 from Taiwan in general appearance and structures of the male genitalia, but the latter has paired patches of dense yellow pubescence on the sides of each abdominal tergite, while the new species does not have such patches.

Bionomics. This species is mainly captured from leaf litters in low to subalpine areas of Honshu, Japan.

Distribution. Japan (Honshu: Tôhoku to Kinki Districts).

Etymology. The specific name is cordially dedicated to the late Dr. Kazuyoshi KUROSA. I heard, through he bred 3,000 specimens of *Paederus fuscipes* CURTIS, and clarified complete life cycle of this beetle. He also contributed on epidemiology and parasite of its imago.

要　　約

林　靖彦：日本産ツヤムネハネカクシ属の 1 新種（鞘翅目ハネカクシ科）．――――本邦各地から比較的普通に得られている種名不詳のツヤムネハネカクシを検討した結果，新種と判断したので，*Quedius* (*Raphilus*) *kurosai* sp. nov.（クロサオオメツヤムネハネカクシ：和名新称）と命名記載した．本種は台湾産の *Q. goang* SMETANA に外観および雄交尾器の形態が極めてよく似ているが，後者は腹背板の両端に黄色の毛斑を持つことから容易に区別できる．主に低山地から中山地の落葉下から得られる．種小名は，本年他界された故黒佐和義博士に献名した．黒佐博士は，衛生害虫のアオバアリガタハネカクシ *Paederus fuscipes* CURTIS の生活史や疫学の研究業績で著名である．

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