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Three Species of the Subgenus *Microsaurus* DEJEAN, 1833 of the Genus *Quedius* STEPHENS, 1829 (Coleoptera, Staphylinidae, Staphylinini: Quediina) from Northern Laos

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Abstract Two new species of the subgenus *Microsaurus* of the genus *Quedius* are described from northern Laos: *Q. masatakai* (from Phan province) and *Q. masasatoi* (from Hu Phan and Phongsaly provinces). *Quedius holzschuhi* SMETANA, 1999 is for the first time recorded from Laos, and from the Chinese province of Guizhou. The three species dealt with are the first representatives of the subgenus *Microsaurus* known from Laos.

Introduction

Recently, I obtained a small collection of specimens belonging to the subgenus *Microsaurus* DEJEAN, 1833 of the genus *Quedius* STEPHENS, 1829, taken in northern Laos. The specimens belonged to three species, one of them previously known from three provinces of mainland China, and the remaining two being undescribed species. All three species belong to the Palaearctic faunal element. In the following the previously known species, *Quedius holzschuhi*, is discussed, and the two new species are described.

Quedius (*Microsaurus*) *holzschuhi* SMETANA

Quedius holzschuhi SMETANA, 1999, 220
Quedius holzschuhi SMETANA, 2002, 140

New record. Northeastern Laos: Hu Phan prov., Ban Saleui, Pu Phan mts. 20°15′N 104°02′E, 1500–2000 m, 2.IV.–11.V. 2001, leg. D. Hauek, 1°, in the Naturhistorisches Museum, Wien, Austria.

Comments. The aedoeagus of this specimen agrees with those of the two males of the original series, but it is slightly smaller. Both tergite 10 and the characteristically asymmetrical sternite 9 of the male genital segment are identical, and the specimen also agrees in all external characters with the specimens of the original series.

Quedius holzschuhi was previously known from the type locality Emei Shan in

Sichuan (SMETANA, 1999, 222) and from Qinlingshan in Shaanxi (SMETANA, 2002, 140). An additional record from the province of Guizhou became available recently: Leishan Co., SE Kaili, NE Leishan, Leigong Shan, E-slope 26°22.74′N 108°12.99′N, pass 1700–1800 m, 14.–24.6.2001, leg. Schillhammer & Wang (7), 1°, in the Naturhistorisches Museum, Wien, Austria.

These are the first records of *Q. holzschuhi* from the province of Guizhou (People's Republic of China) and from Laos. The occurrence of *Q. holzschuhi* in Laos represents a significant southward extension of the distributional range of the species.

Quedius (*Microsaurus*) *masatakai* sp. nov.

(Figs. 1–5)

Description. In all characters very similar to *Q. becvari* SMETANA, 1996, but different as follows: head wider, more distinctly wider than long (ratio 1.23, corresponding ratio in *Q. becvari* 1.10), more distinctly narrowed toward neck; eyes more convex and somewhat larger, tempora more distinctly shorter than eyes seen from above (ratio 0.46, corresponding ratio in *Q. becvari* 0.58). Antenna shorter, appreciably thicker, segments four to seven about as long as wide, outer segments wider than long. Pronotum markedly wider, wider than long (ratio 1.16), distinctly narrowed anteriad. Punctation of elytra somewhat coarser and denser. Punctation of abdominal tergites similar, but distinctly coarser and denser, particularly at bases of tergites.

M a l e. First four segments of front tarsus markedly dilated, subbilobed, each with modified pale setae ventrally; segment 2 about as wide as apex of tibia; segment 4 slightly narrower than preceding segments. Sternite 8 with three long setae at each side, with moderately wide and deep, subarcuate medioapical emargination, triangular area before emargination flattened and smooth (Fig. 1). Genital segment with tergite 10 triangular, markedly narrowed toward arcuate apex, with several long setae at apical margin, and with only a few fine setae in front of them (Fig. 2); sternite 9 of characteristic shape, similar to that of *Q. becvari*, but with basal portion shorter (Fig. 3). Aedoeagus (Figs. 4, 5) of characteristic shape; median lobe with apical portion bearing on face adjacent to paramere an oblique carina fitting into apical emargination of paramere; paramere large, long, with apex distinctly not reaching apex of median lobe, apical portion somewhat asymmetrical, with deep, narrow medioapical emargination; underside of paramere without sensory peg setae, apical setae minute, one pair situated below apex at each side of medial emargination and one pair of even more minute setae situated below base of medial emargination; internal sac without larger sclerotized structures.

F e m a l e unknown.

Length 8.00 mm.

Type material. Holotype (male): Laos: "LAOS-NE HU PHAN prov.; BAN SALEUI; Pu Phan Mt.; 20°15′N 104°02′E; 1500–2000 m; D. Hauck leg.; 2.iv.–11.v.

2001". In the SMETANA collection, Ottawa, Canada.

Geographical distribution. *Quedius masatakai* is at present known only from the type locality in northeastern Laos.

Bionomics. Nothing is known about the collecting circumstances of the holotype. However, since all species of the *ripicola*-group (SMETANA, 2001, 212), to which *Q. masatakai* belongs (see below), prefer habitats near running water (edges of brooks and creeks), it is assumed that the holotype was taken under similar circumstances.

Recognition and comments. *Quedius masatakai* is the fourth member of the *ripicola*-group, that included so far two species from the Himalaya (*Q. ripicola* CAMERON, 1926 and *Q. milansaar* SMETANA, 1988) and *Q. becvari* from mainland China (Sichuan and Yunnan). It differs from all of them by the distinctive shape of the aedoeagus, by the shorter antenna with outer segments wider than long, and by the wide pronotum that is markedly narrowed anteriad.

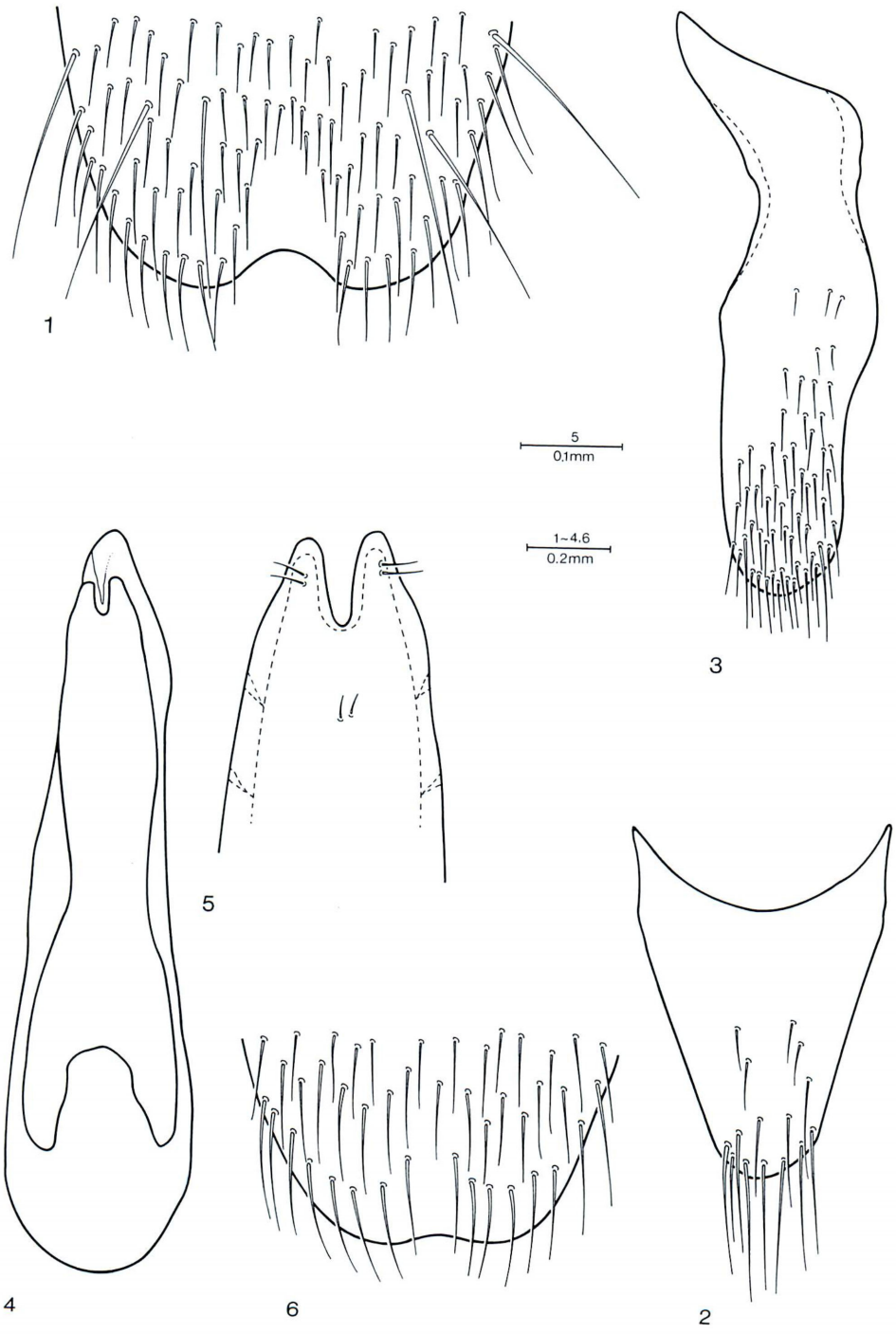
Etymology. Patronymic, named in honor of the late Dr. Masataka SATÔ, the renowned Japanese coleopterist.

Quedius (*Microsaurus*) *masasatoi* sp. nov.

(Figs. 6–12)

Description. Head dark rufopiceous to piceous, with each anteriolateral area to various extent paler; pronotum dark rufopiceous to piceous with lateral margins widely and basal margin narrowly paler, scutellum and elytra rufous, elytra with common, dark medioapical area of various extent, often extended basad along suture, or rarely almost to entirely missing; abdomen pale rufous, visible tergite 3 with small medioapical piceous area, visible tergite 4 with piceous area extensive, that of visible tergites 5 and 6 covering entire tergite except for all margins, apical half of visible tergite 7 piceous; abdomen distinctly iridescent; maxillary and labial palpi testaceous, antennae dark brownish to piceous, first three antennal segments rufobrunneous, last segment more or less paler; legs rufobrunneous. Head rounded, wider than long (ratios between 1.25–1.34), markedly narrowed toward neck behind eyes, posterior angles entirely absent; eyes large, convex, tempora shorter than eyes seen from above (index 0.56); no additional setiferous punctures between anterior frontal punctures; posterior frontal puncture situated close to posteriomedial margin of eye, separated from it by distance slightly shorter than diameter of puncture, two punctures between it and posterior margin of head, situated close to posterior margin; temporal puncture situated slightly closer to posterior margin of eye than to posterior margin of head; tempora with a few very fine punctures; surface of head with extremely fine, dense microsculpture of mostly transverse waves with intermixed microscopic punctures. Antenna moderately long, moderately widened

Figs. 1–6. —— 1–5. *Quedius masatakai*: 1, apical portion of male sternite 8; 2, tergite 10 of male genital segment; 3, sternite 9 of male genital segment; 4, aedoeagus, ventral view; 5, apical portion of underside of paramere. —— 6. *Quedius masasatoi*: apical portion of male tergite 8.

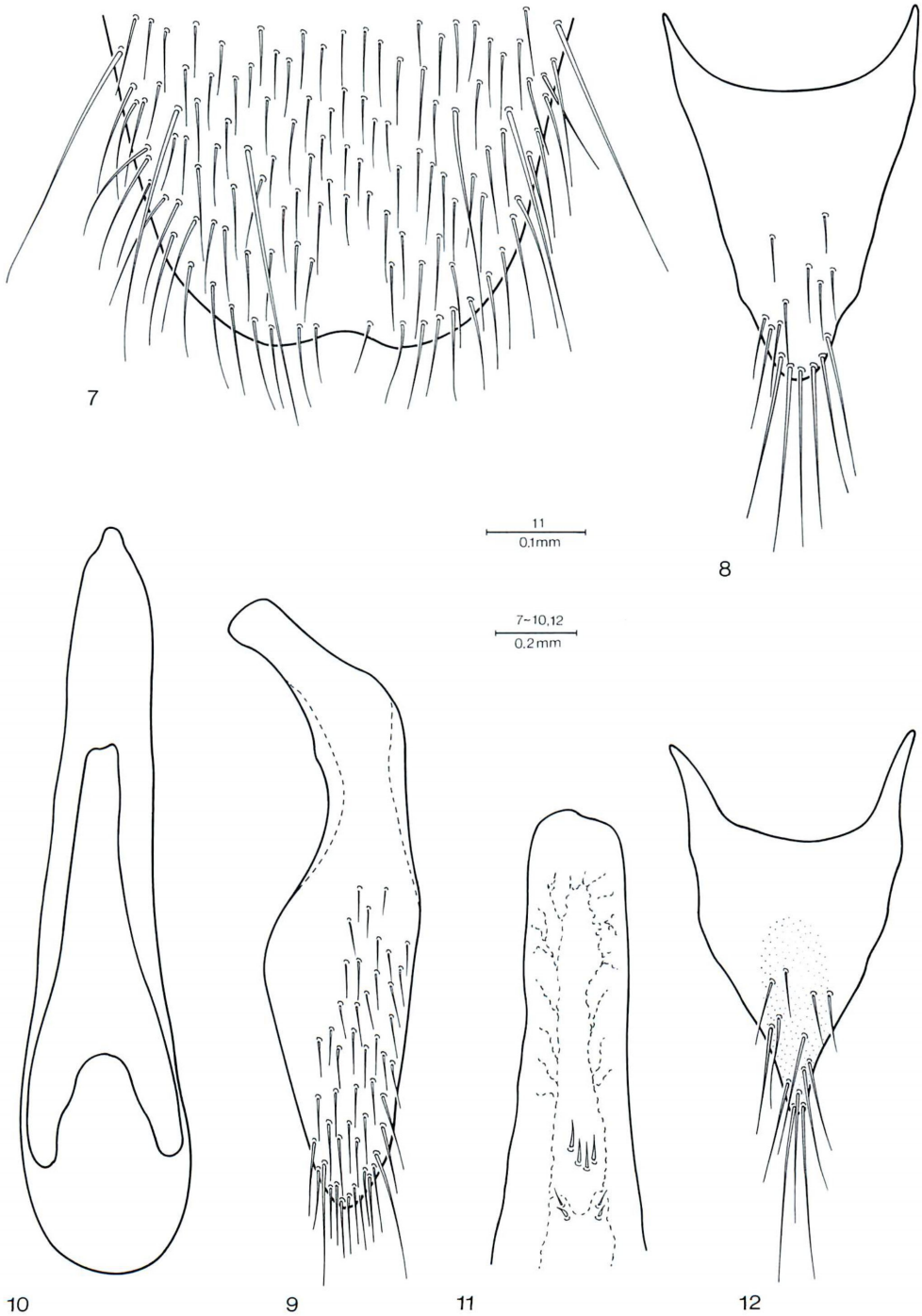

1
5
0.1mm
1~4.6
0.2mm
3
5
4
6
2

toward apex, segment 3 longer than segment 2 (index 1.35), segment 4 vaguely longer than wide, segment 5 as long as wide, following segments gradually becoming shorter, outer segments wider than long, last segment about as long as two preceding segments combined. Pronotum wider than long (index 1.14), widest at about posterior third, distinctly more narrowed anteriad than posteriad, with lateral margins continuously arcuate with broadly rounded base, transversely convex, lateral portions not explanate; dorsal rows each with three punctures; sublateral rows each with two punctures, posterior puncture situated slightly in front of level of large lateral puncture; microsculpture similar to that of head but still finer and denser. Scutellum impunctate, with extremely fine and dense microsculpture of transverse waves. Elytra relatively long, at base slightly narrower than pronotum at widest point, scarcely widened posteriad, at suture vaguely (index 1.06), at sides moderately longer (index 1.19) than pronotum at midline; punctation and pubescence moderately coarse and dense, transverse interspaces between punctures mostly larger than diameters of punctures; pubescence brunneous; surface between punctures without microsculpture. Wings fully developed. Abdomen with tergite 7 (fifth visible) bearing whitish apical seam of palisade fringe; punctation of abdominal tergites similar to that on elytra, but finer, rather evenly covering each tergite except middle area of first visible tergite impunctate; pubescence brunneous; surface between punctures with excessively fine and dense microsculpture of transverse striae.

M a l e. First four segments of front tarsus dilated, sub-bilobed, each densely covered with modified pale setae ventrally; segment 2 about as wide as apex of tibia, segment 4 narrower than preceding segments. Tergite 8 vaguely sinuate in middle of apical margin (Fig. 6). Sternite 8 with three long setae on each side, with moderately wide, very shallow, subarcuate medioapical emargination, triangular area before emargination flattened and smooth (Fig. 7). Genital segment with tergite 10 narrow, evenly narrowed toward narrowly arcuate apex, with several long setae at apical margin, otherwise with only a few fine setae (Fig. 8); sternite 9 long, with long basal portion, apical portion long, asymmentrical, with narrowly arcuate apex, with a pair of differentiated subapical setae (Fig. 9). Aedoeagus (Figs. 10, 11) moderately large, elongate; median lobe narrow, gradually narrowed into slightly differentiated, subacute apex. Paramere narrow, slightly narrowed toward irregularly truncate apex, apex situated considerably below apex of median lobe; no sensory peg setae on underside of paramere, but two groups of very fine setae on basal portion of underside; no apical setae; internal sac simple, without larger sclerotized structures.

F e m a l e. First four segments of front tarsus not appreciably different from those of male. Tergite 8 with rather wide and deep, arcuate medioapical emargination. Genital segment with tergite 10 narrow, pigmented medioapically, markedly narrowed

Figs. 7–12. *Quedius masasatoi*: 7, apical portion of male sternite 8; 8, tergite 10 of male genital segment; 9, sternite 9 of male genital segment; 10, aedoeagus, ventral view; 11, underside of apical portion of paramere; 12, tergite 10 of female genital segment.


7
8
11
0.1mm
7~10,12
0.2mm
10
9
11
12

into acute apex bearing two long apical setae (Fig. 12).

Length 7.5–8.5 mm.

Type material. Holotype (male) and allotype (female): Laos: "LAOS: Phongsaly Prov. Phongsaly env., – 1500 m 21°41-2′N 102°06-8′E 6.–17.5. 2004 leg. C. Holzschuh". In the Naturhistorisches Museum, Wien, Austria.

Paratypes: Laos: same data as holotype, 4♂♂, 5♀♀, in the Naturhistorisches Museum, Wien, Austria, and in the SMETANA collection, Ottawa, Canada; NE-LAOS: Hu Phan prov. Ban Saleui, Pu Phan mts., 20°15′N 104°02′E, 1500–2000 m, 2.IV.–11.V.2001, leg. D. Hauck, 1♂, 2♀♀, in the SCHÜLKE collection, Berlin, Germany, and in the SMETANA collection, Ottawa, Canada.

Geographical distribution. *Quedius masasatoi* is at present known from two localities in northeastern Laos.

Bionomics. Nothing is known about the collecting circumstances of the specimens of the original series.

Recognition and comments. *Quedius masasatoi* is a distinctive species, due to its coloration, the secondary male and female sexual characters, and the shape of the aedoeagus. The dark marking on the elytra may be variably reduced; it is missing in a couple of specimens. The emargination of the female tergite 8 is reduced in one specimen.

Etymology. Patronymic, the species is dedicated to the late Dr. Masataka SATÔ, the renowned Japanese coleopterist. The specific epithet is a partial combination of the names Masataka and SATÔ.

Acknowledgments

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要　　約

A. SMETANA: ラオス北部産ツヤムネハネカクシ属 *Microsaurus* 亜属の 3 種. —— ラオス北部の山地から，*Microsaurus* 亜属のツヤムネハネカクシ 3 種を記録した．うち 1 種は，中国南西部から知られていた *Quedius holzschuhi* SMETANA に同定されたが，他の 2 種は新種だと判定されたので，昨年の夏に亡くなった佐藤正孝博士に捧げて，*M. masatakai* および *Q. masasatoi* と命名した．

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