

Contributions to the Knowledge of the Quediina  
(Coleoptera, Staphylinidae, Staphylinini) of China

Part 19. Genus *Quedius* STEPHENS, 1829.  
Subgenus *Microsaurus* DEJEAN, 1833. Section 11

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**Abstract** Taxonomic and faunistic data on the species of the genus *Quedius*, subgenus *Microsaurus*, from the People's Republic of China are provided. Three species are described as new: *Q. haw* (Sichuan), *Q. duh* (Shaanxi) and *Q. guey* (Shaanxi). The female of *Q. myau* is described for the first time. *Quedius adjacens* is for the first time recorded from Hunan, *Q. bito* from Yunnan, *Q. farkaci* from Sichuan and Xizang (Tibet) and *Q. ennius* from Sichuan.

*Quedius (Microsaurus) adjacens* CAMERON

*Quedius adjacens* CAMERON, 1926, 368.

*New records.* China: [Hunan]: “Zhang Jia Jie N.P., 1400–1600 m, 15.–17.VII.92, Holzschuh,” 1 ♂, in the Naturhistorisches Museum, Wien, Austria; [Sichuan]: “Emei Shan, 2500 m, 22.–24.VI.91, Holzschuh and Ji,” 1 ♂, in the SMETANA collection (Ottawa).

*Comments.* This is the first record of *Q. adjacens* from Hunan. It extends the Chinese distributional range of this species toward southeast. In China, the species was so far known from Sichuan and Shaanxi (SMETANA, 1996 a, 1; 1999 a, 214).

*Quedius (Microsaurus) bito* SMETANA

*Quedius bito* SMETANA, 1996, 7.

*New record.* China: [Yunnan]: “Yulong Mts., 3900 m, 16.–18.VI. 1993, 27.10N 100.13E, Bolm lgt.”, 1 ♀ in the Naturhistorisches Museum, Basel, Switzerland.

*Comments.* The species was until now known mainly from the mountains of western and northern Sichuan, with the distributional range extending north into south-western Gansu (SMETANA, 1996 a, 9). The above record, new for Yunnan, extends the range further south into northern Yunnan.

***Quedius (Microsaurus) chremes* SMETANA**

*Quedius chremes* SMETANA, 1996, 10.

*New records.* China: [Shaanxi]: “Qin Ling Shan, Houzhenzi, 2600 m, 7.VII.96; 3300 m, 8.VII.96, M. Janata”; same, “Houzhenzi to Taibai Shan, 3000 m, 29.VI.–2.VII.96, Jindra, Šafránek and Trýzna”, 1♂, 3♀♀, in the SMETANA collection (Ottawa).

*Comment.* *Quedius chremes* is at present known from the mountains of Gansu, Shaanxi and Sichuan.

***Quedius (Microsaurus) przewalskii* REITTER**

*Quedius przewalskii* REITTER, 1887, 211.

*New record.* China: [Sichuan]: “Ganzi Tibet. Aut. Pref., Kangding Co., Daxue Shan, Tsheto La Pass 30°05N 101°48E, 4300–4350 m, 25.VI.1999, M. Schülke”, 1♂, in the SCHÜLKE collection, Berlin.

*Comments.* The specimen bears the following habitat data: “Steine, Moss, Rhod.”.

***Quedius (Microsaurus) mukuensis* BERNHAUER**

*Quedius mukuensis* BERNHAUER, 1933, 40.

*New records.* China: [Sichuan]: “Sanggarpar [Sanggarmal??] env., 5.–8.VIII.91, J. Kaláb”, 2♂♂, in the Naturhistorisches Museum, Wien, Austria, and the SMETANA collection (Ottawa, Canada).

*Comments.* Only three specimens of this species were previously known, from Kangding (holotype) and from Gongga Shan massive (SMETANA, 1995 b, 233). The new record extends the range of this species considerably northwards.

***Quedius (Microsaurus) wrasei* SMETANA**

*Quedius wrasei* SMETANA, 1999 a, 226.

*New record.* China: [Sichuan]: “30 km W Nanping, Jiuzhaigou, 3100 m, 13.–15.VI.92, J. Turna”, 1♀, in the Naturhistorisches Museum, Wien, Austria.

*Comments.* The specimen is missing bilaterally the additional puncture, situated posteromedial of the posterior frontal puncture on the head, just like it was reported for one paratype of this species (see SMETANA, 1999 a, 229).

The species was until now known only from the Gongga Shan massive.

***Quedius (Microsauru) farkaci* SMETANA**

*Quedius farkaci* SMETANA, 1997 b, 464.

*New records.* China: [Sichuan]: “Luhuo–Sertar, pass 35 km NNE Luhuo, 3500–

4000 m, 26.–27.VII. 1994, J. Turna leg.”, 1 ♀, in the Naturhistorisches Museum, Wien, Austria; “Chola Shan mts., road Dege – Maniganggo, 40 km E Dege, 31°55N 98°53E, 4200 m, 19.VII.1997, J. Turna leg.”, 1 ♀, in the SCHÜLKE collection, Berlin; “Ganzi Tibet Aut. Pref. Batang Co. Shalui Shan, 55 km NE Batang, 30°17N 99°31E, 4300 m, 1.VII.1999, M. Schülke”, 1 ♂, in the SCHÜLKE collection, Berlin. [Tibet]: “road Jomda–Dege, pass 40 km NE Jomda, 31°38N 98°28E, 4245 m, 18.VII.1997, J. Turna”, 1 ♀, in the SMETANA collection, Ottawa. [Yunnan]: “Dégēn (spelled Dequen on the label), 3900 m, 10.–19.VII.1996”, 1 ♂, in the KUČERA collection, Soběslav, Czech Republic.

*Comments.* These are the first records of this species from Sichuan and Tibet. Based on the above records, *Q. farkaci* seems to be fairly widely distributed at high elevations in various mountain ranges in northern Yunnan, northwestern Sichuan and eastern Tibet. All collecting sites that give exact elevations are close to, or above 4,000 m. The specimens from Shalui Shan bear the following habitat data: “Rinde, Pilze, Nadelstreu”; the specimen from Tibet was taken in an alpine meadow.

In the male from Dégēn the paramere is only minutely notched medioapically, and the apex of median lobe is sharper than shown in figs. 32 and 33 in SMETANA, 1997 b, 466. However, this is considered to lie within the intraspecific variability of the species. The characteristic, large basal portion of sternite 9 of the male genital segment, is present in this specimen.

### *Quedius (Microsaurus) myau* SMETANA

(Fig. 1)

*Quedius myau* SMETANA, 1999 b, 535.

*New record.* China: [Sichuan]: “Emei Shan VI.1992”, 1 ♀, in the SMETANA collection, Ottawa, Canada.

*Comments.* Only males of this species (from Gongga Shan and Xiling Mt. in Sichuan) were known until now. As shown below, this female specimen differs markedly from the males by its rather pale coloration, but in all other ectoskeletal characters it matches them perfectly. Therefore I am reasonably sure, despite the fact that males of *Q. myau* have not yet been found on Emei Shan, that the specific assignment of the specimen is correct. The specimen is not teneral, so the pale color cannot be attributed to this. On the other hand, it cannot be excluded that the coloration is not natural until additional female specimens become available.

*Female.* Testaceo-brunneous, vertex of head markedly darkened, elytra vaguely, indefinitely darkened around scutellum, maxillary and labial palpi, and antennae rufotestaceous, antennae becoming vaguely, gradually darker toward apex; legs rufotestaceous, medial faces of middle and hind tibiae markedly darkened. First four segments of front tarsus similar to those of male, but slightly less dilated, segment 2 about as wide as apex of tibia. Genital segment with tergite 10 relatively short, markedly pigmented medioapically, with differentiated, rather robust apical portion bearing numer-

ous long setae at and near apex, with some shorter setae and minute, pale, peg-like setae in front of them (Fig. 1).

***Quedius (Microsaurus) ennius* SMETANA**

*Quedius ennius* SMETANA, 1996, 16.

*New record.* China: [Sichuan]: “30 km NW Muli (Bowa) 28°07'N 101°05'E, about 3500 m, 1.–2.VII.98, J. Turna”, 1 ♀, in the Naturhistorisches Museum Wien, Austria.

*Comments.* This is the first Sichuan record of this species that was until now known only from Yunnan. The locality Muli is in southern Sichuan.

***Quedius (Microsaurus) euander* SMETANA**

*Quedius euander* SMETANA, 1997 a, 63.

*New records.* China: [Sichuan]: “Ya’an Prefecture, Tianquan Co. E Erlang Shan Pass, 2900 m, 9 km SE Luding, 29°59'N 102°18'E, 20.–22.VI.1999, leg. M. Schülke”, 2 ♂♂, 3 ♀♀, in the SCHÜLKE (Berlin) and SMETANA (Ottawa) collections.

*Comments.* This is the first record of this species that is located outside the Hailuogou valley and its vicinity in Gongga Shan. Erlang Shan is on the other (east) side of the valley of the Dadu He River.

***Quedius (Microsaurus) ephialtes* SMETANA**

*Quedius ephialtes* SMETANA, 1997 a, 60.

*New records.* China: [Sichuan]: “Ganzi Tibet. Aut. Pref., Kangding Co. Daxue Shan, Mu Ge Cou, 2 km oberh. unt. See 30°11'N 101°52'E, 5.VII.1999, leg. M. Schülke”, 1 ♀; same, “Bachtal 5 km E Kangding, 2500–2600 m 30°03'N 102°00'E, 24.VI.1999, leg. M. Schülke”, 1 ♂, 1 ♀. In the SCHÜLKE (Berlin) and SMETANA (Ottawa) collections.

***Quedius (Microsaurus) euryalus* SMETANA**

*Quedius euryalus* SMETANA, 1997 a, 52.

*New records.* China: [Sichuan]: “Ganzi Tibet. Aut. Pref., Luding Co. W Erlang Shan Pass, 2600 m, 7 km SSE Luding, 29°51'N 102°15'E, 22. or 29.VI.1999, leg. M. Schülke”, 2 ♀♀. In the SCHÜLKE (Berlin) and SMETANA (Ottawa) collections.

*Comments.* This is the first record of this species that is located outside the Hailuogou valley and its vicinity in Gongga Shan. Erlang Shan is on the other (east) side of the valley of the Dadu He River (see also under *Q. euander*).

*Quedius (Microsaurus) haw* sp. nov.

(Figs. 2–6)

*Description.* In all external characters, including coloration, quite similar to *Q. faang* SMETANA, 1999 c and different only by the male sexual characters.

*Male.* First four segments of front tarsus not appreciably different from those of *Q. faang*. Sternite 8 with five long setae on each side; with shallow and rather narrow, subarcuate medioapical emargination, triangular area before emargination flattened and smooth (Fig. 2). Genital segment with tergite 10 triangular, similar to that of *Q. faang*, but narrower and more markedly narrowed toward more acute apex and with less numerous setae at and near apex (Fig. 3); sternite 9 with short basal portion, subtruncate apically, with two subapical setae and setation characteristically arranged into two longitudinal groups, in a similar way as those of *Q. faang* (Fig. 4). Aedoeagus (Figs. 5, 6) relatively large, elongate; median lobe gradually narrowed anteriorly to about anterior fourth and then dilated into narrowly spoon-shaped apical portion with broadly rounded apex, and with small tooth on face adjacent to paramere. Paramere large and wide, covering most of median lobe, distinctly not reaching apex of median lobe, anteriorly rather suddenly tapered into short, narrow apical portion with apex bearing minute medioapical emargination; two fine setae at apex on each side of medioapical emargination, two slightly shorter setae at each lateral margin below apex; underside of paramere with four peg setae forming a transverse group with two setae on each side of midline; internal sac without larger sclerotized structures.

Female unknown.

Length 7.7 mm.

*Type material.* Holotype (male): China: “Mt. Emei Shan Leidongping 2,365 m alt. Sichuan”/“SW China 2–XI–1995 S. Uéno leg.” Temporarily in the SMETANA collection, Ottawa, Canada – to be eventually deposited in the collection of the National Science Museum, Tokyo, Japan.

*Geographical distribution.* *Quedius haw* is at present known only from the Emei Shan in western Sichuan.

*Bionomics.* The specimen recorded above was sifted out from humus accumulated in a forest of deciduous and evergreen (*Rhododendron*) broadleaved trees.

*Recognition and Comments.* *Quedius haw* becomes the third species of the *Q. euryalus* complex with the setation of the male sternite 9 characteristically arranged into two longitudinal groups (*Q. euryalus* and *Q. faang* SMETANA, 1999 b are the two other species). It may be distinguished from *Q. faang* by the characters given above; *Q. euryalus* differs from *Q. haw* by the larger size, and by the male sexual characters, particularly by the longer paramere (reaching apex of median lobe), and by the differently shaped sclerites of the male genital segment (see figs. 2–6 in SMETANA, 1997). In addition, *Q. euryalus* seems to be restricted to the Gongga Shan massive.

*Etymology.* The specific epithet is a variant of the Chinese verb “hao” (to like, to be fond of). It refers to the appearance of the species.

*Quedius (Microsaurus) duh* sp. nov.

(Figs. 7–12)

*Description.* In all external characters similar to *Q. erythras* SMETANA, 1997a but different as follows: coloration somewhat paler, pronotum brunneopiceous, gradually becoming markedly paler toward posterior and lateral margins, elytra brunneous to rufobrunneous, apical margins of abdominal tergites markedly paler. Head with eyes smaller, tempora therefore less distinctly shorter than eyes seen from above (ratio 0.51, compared to ratio 0.34 in *Q. erythras*).

*Male.* First four segments of front tarsus not appreciably different from those of *Q. erythras*, segment two slightly wider than apex of tibia (ratio 1.17). Sternite 8 with six long setae on each side (see *Comments*); with moderately wide and deep, almost arcuate medioapical emargination, rather large triangular area before emargination flattened and smooth, apical margin with densely set, moderately long setae, general setation of sternite fine (Fig. 7). Genital segment with tergite 10 moderately widely triangular, narrowly arcuate apically, with five apical setae and a few additional setae in front of them (Fig. 8); sternite 9 with wide, short basal portion, apical portion wide, subparallel-sided, with apex widely subtruncate, without differentiated subapical setae, all setae very fine (Fig. 9). Aedoeagus (Figs. 10, 11) moderately large, in general rather narrow; median lobe gradually, evenly narrowed toward acute apex, with small apical tooth on face adjacent to paramere. Paramere large, covering most of median lobe; markedly, arcuately widened in apical third and then narrowed into short, almost parallel-sided, narrowly and fairly deeply emarginate apical portion that markedly exceeds apex of median lobe; two minute setae at apex on each side of medioapical emargination and two quite minute setae at each lateral margin below apex; underside of paramere with numerous sensory peg setae, 10–12 on each side of medioapical emargination; internal sac without larger sclerotized structures.

*Female.* First four segments of front tarsus similar to those of male, but markedly less dilated; segment 2 vaguely narrower than apex of tibia (ratio 0.88). Genital segment with tergite 10 of characteristic shape, narrow in apical half, with slightly differentiated, minute apex bearing two apical setae, several additional setae in front of apical setae (Fig. 12).

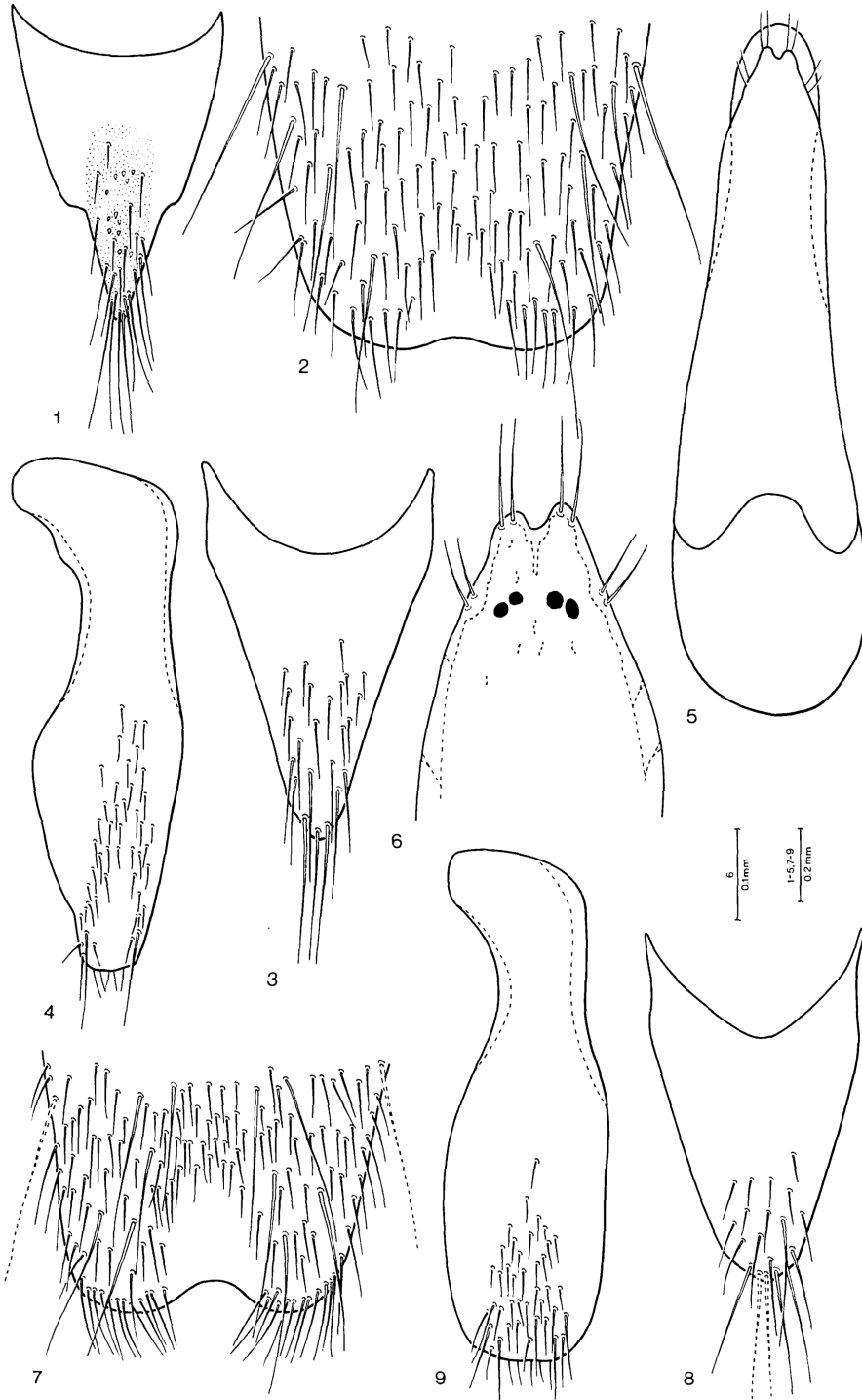
Length 7.6–7.8 mm.

*Type material.* Holotype (male): China: “China: Shaanxi, Qin Ling Shan 108°47E 33°51N, Mountain W pass at Autoroute km 70, 47 km S Xian 2300–2500 m, sifted 26.–30.08 1995. leg. A. Pütz”. In the SMETANA collection, Ottawa, Canada.

Allotype (female): China: [Shaanxi]: same data as holotype, but “26.–27.08.1995

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Figs. 1–9. — 1. *Quedius myau*: tergite 10 of female genital segment. — 2–6. *Quedius haw*: 2, apical portion of male sternite 8; 3, tergite 10 of male genital segment; 4, sternite 9 of male genital segment; 5, aedoeagus, ventral view; 6, apical portion of underside of paramere. — 7–9. *Quedius duh*: 7, apical portion of male sternite 8; 8, tergite 10 of male genital segment; 9, sternite 9 of male genital segment.



leg. M. Schülke". In the SCHÜLKE collection, Berlin.

*Geographical distribution.* *Quedius duh* is at present known only from the Qin Ling Shan mountains in southern Shaanxi.

*Bionomics.* No details are available about the collection circumstances of the two specimens of the original series.

*Recognition and comments.* *Quedius duh* may be distinguished from *Q. erythras* and the other similar species by the characteristic aedeagus and tergite 10 of the female genital segment. Two of the large setae on the male sternite 8 are missing, but their sockets are present. They are shown by dotted lines in the drawing (Fig. 7).

*Etymology.* The specific epithet is the Chinese verb *duh*, a variant of "du" (to envy, to be jealous of).

### *Quedius (Microsaurus) guey* sp. nov.

(Figs. 13–18)

*Description.* In all external characters quite similar to *Q. koei* and different by both the male and female sexual characters.

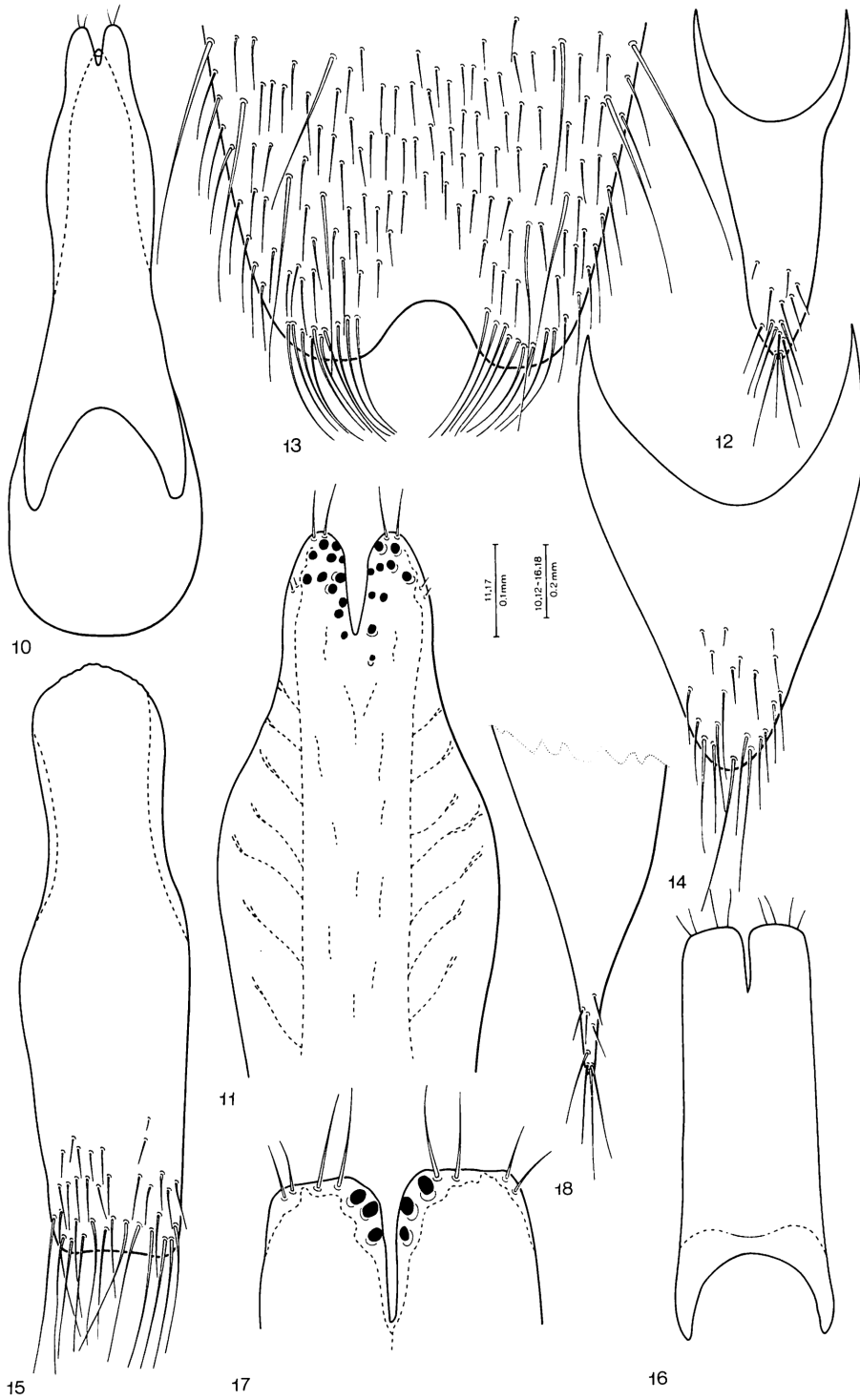
*Male.* First four segments of front tarsus not appreciably different from those of *Q. koei*, segment 2 somewhat wider than apex of tibia (ratio 1.16). Sternite 8 with 5 long setae on each side; with wide and rather deep, obtusely triangular medioapical emargination, triangular area before emargination flattened and smooth; apical margin with numerous, densely set long setae curved mediad (Fig. 13). Genital segment with tergite 10 triangular, rather wide and short, with several unequally long setae at apical margin, and with additional shorter setae in front of them (Fig. 14); sternite 9 with quite short basal portion, apical portion widely truncate apically, without differentiated subapical setae but with numerous long setae (Fig. 15). Aedeagus (partially damaged) moderately large; median lobe with apex narrowly arcuate, with distinct medial carina below apex on face adjacent to paramere. Paramere large, conspicuously wide, with deep and very narrow medioapical emargination; four fine setae at apical margin on each side of medioapical emargination; underside of paramere with three sensory peg setae situated along apical half of each margin of the medioapical emargination; internal sac without larger sclerotized structures (Figs. 16, 17).

*Female.* First four segments of front tarsus similar to those of male, but slightly less dilated, segment 2 about as wide as apex of tibia. Genital segment with tergite 10 (basal portion missing) apparently rather narrow, gradually tapered into narrow and long, but not quite rod-like differentiated, apical portion; with one long apical seta and with three shorter setae near it, and with several minute setae on narrow por-

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Figs. 10–18. — 10–12. *Quedius duh*: 10, aedeagus, ventral view; 11, apical portion of underside of paramere; 12, tergite 10 of female genital segment. — 13–18. *Quedius guey*: 13, apical portion of male sternite 8; 14, tergite 10 of male genital segment; 15, sternite 9 of male genital segment; 16, paramere, ventral view; 17, apical portion of underside of paramere; 18, apical portion of tergite 10 of female genital segment.





tion in front of them (Fig. 18).

Length 7.8–8.0 mm.

*Type material.* Holotype (male): China: “CHINA (Shaanxi) Qin Ling Shan/ 107°56E 33°45N, autoroute km 93 S Zhouzhi, 108 km SW Xian, mount. forest 1650 m/1.–2.IX.95 Wrase”. In the SMETANA collection, Ottawa.

Allotype (female): China [Shaanxi]: same data as holotype, but additional “sifted”, and “leg. M. Schülke”. In the SCHÜLKE collection, Berlin.

*Geographical distribution.* *Quedius guey* is at present known only from the Qin Ling Shan mountains in southern Shaanxi.

*Bionomics.* No details are available about the collection circumstances of the two specimens of the original series, except that they were sifted in a “mountain forest”.

*Recognition and comments.* *Quedius guey* is quite well characterized by both the shape of the paramere and the tergite 10 of the female genital segment. Both specimens of the original series are teneral, with the surface of both pronota (particularly of that of the allotype) showing numerous irregular impressions. The aedoeagus of the holotype was received fairly damaged, therefore it is not illustrated in the customary way, since the middle portion of the median lobe is in bad shape. The paramere was separated from the median lobe, therefore it was not possible to establish the relative positions of the tip of the median lobe and that of the paramere. Despite the damages to the aedoeagus, the shape of the paramere combined with the position of the apical setae, and location of the sensory peg setae, as well as the shape and setation of the apical portion of tergite 10 of the female genital segment leave no doubt about the validity of this species.

*Quedius guey* occurs in the Qin Ling Shan mountains together with *Q. duh*. The data available at present suggest that the two species are likely separated ecologically. The two specimens of *Q. duh* come from a forest at an elevation well above 2,000 m, whereas those of *Q. guey* come from a forest at distinctly lower elevation of 1,650 m.

*Etymology.* The specific epithet is the Chinese word “guey”, a variant of “gui”, which in one of its meanings means dear, precious.

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My colleagues D. E. BRIGHT and A. DAVIES, Agriculture and Agri-Food Canada, Research Branch, Ottawa, reviewed the original draft of the manuscript and their comments eventually led to its improvement. Mr. Go SATO from the same establishment carefully finished the line drawings.

### 要 約

A. SMETANA : 中国産ツヤムネハネカクシ亜族に関する知見. 19. ツヤムネハネカクシ属 *Microsaurus* 亜属の 11. — 中国産 *Microsaurus* 亜属のツヤムネハネカクシ類に関する新知見をま

とめ、既知の12種について新産地を記録するとともに、そのうちの1種については新たに雌を記載した。また、四川省と陝西省から3新種を記載し、それらに *Quedius haw*, *Q. duh* および *Q. guey* の新名を与えた。

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- 1997b. Ditto. Part 9. Genus *Quedius* STEPHENS, 1829. Subgenus *Microsaurus* DEJEAN, 1833. Section 7. *Elytra, Tokyo*, **25**: 451–473.
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- 1999b. Ditto. Part 16. Genus *Quedius* STEPHENS, 1829. Subgenus *Microsaurus* DEJEAN, 1833. Section 10. *Ibid.*, **27**: 535–551.

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*Elytra, Tokyo*, **29** (1): 191–192, June 15, 2001

## Cholevine Beetles (Leiodidae) Found in Nest Boxes for Wild Birds at Obihiro, Hokkaido, North Japan

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Many beetles have already been recorded from birds' nests as one of their habitats. HICKS (1959) compiled them as a check-list, of which 25 species are cholevine beetles, and ABUDULAH (1974) enumerated nine genera cited from it: *Catops*, *Nemadus*, *Ptomaphagus*, *Dissochaetus*, *Dreposcia*, *Nargus*, *Prionochoeta* and *Sciodrepa* [sic!]. Recently, PERREAU (1998) reported two *Catops* species from the nests of alcid birds.

Some years ago, the second author investigated the insect fauna of nest boxes for wild