

Contributions to the Knowledge of the Quediini (Coleoptera, Staphylinidae, Staphylinini) of China. Part 43. Genus *Quedius* STEPHENS, 1829. Subgenus *Microsaurus* DEJEAN, 1833. Section 20.

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Abstract Four species of the genus *Quedius* are described as new: *Q. tarvos* (Yunnan), *Q. eripao* (Yunnan), *Q. telesto* (Sichuan), and *Q. albiorix* (Sichuan). The female genital segment is described and illustrated for the first time for *Q. haw* SMETANA, 2001, *Q. jyr* SMETANA, 2006 and *Q. katerinae* SMETANA, 1997. *Quedius klapperichi* SMETANA, 1996 is recorded for the first time from Hubei. Descriptive comments and additions are presented for *Q. hailuogou* SMETANA, 1999 and *Q. myau* SMETANA, 1999.

Key words: Coleoptera, Staphylinidae, Staphylinini, *Quedius*, Palaearctic, mainland China, taxonomy, description, new species, descriptive additions, geographical distribution.

Introduction

This is the forty-third of a series of papers dealing with the Quediina of the People's Republic of China. It presents the descriptions of further four new species of the subgenus *Microsaurus* DEJEAN, 1833, descriptive additions and/or new distributional data to several species of the subgenus. Most specimens dealt with in this paper were collected by Dr. Vasily Grebennikov, Canadian Food Inspection Agency, Ottawa, during the years 2009 and 2010.

The acronyms used in text when referring to the deposition of the specimens are as follows:

ASC	Collection of Aleš SMETANA, Ottawa, Canada
APC	Collection of Andreas Pütz, Eisenhüttenstadt, Germany
CNC	Canadian National Collection of Insects, Arachnids and Nematodes, Ottawa, Canada
IZB	Institute of Zoology, Chinese Academy of Sciences, Beijing, P. R. China
MSC	Collection of Michael Schülke, Berlin, Germany
NMW	Naturhistorisches Museum, Wien, Austria

***Quedius (Microsaurus) leang* SMETANA, 2006**

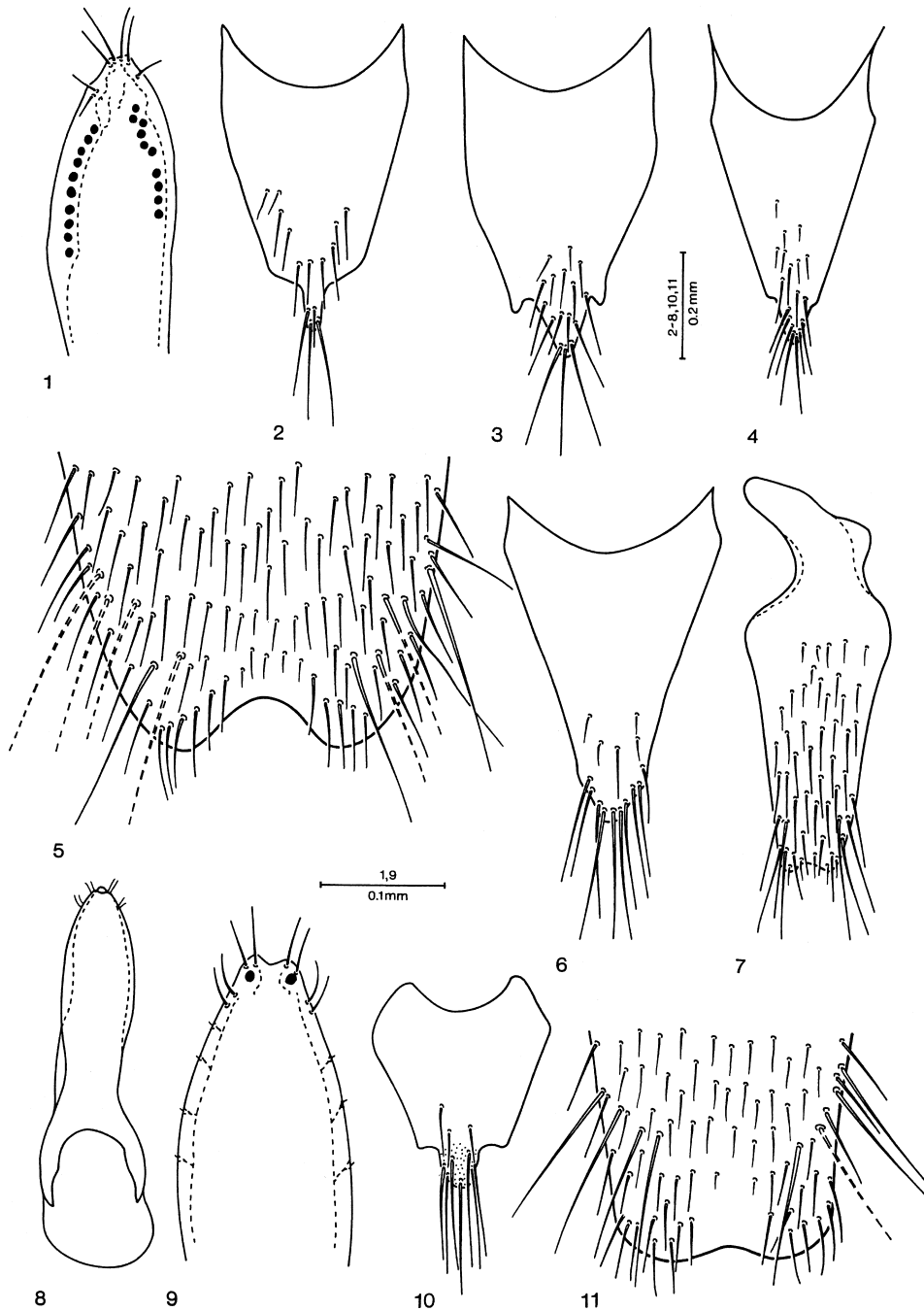
Quedius leang SMETANA, 2006, 72.

New record. [Yunnan]: E slope N Gaoligongshan, N27°46.8' E98°33.1', 12 to 15–VI–2009, 200–3000 m, sifting 1–7, V. GREBENNIKOV, 1 ♀ (ASC).

Comments. This is the first subsequent record since the species was described. The species is at present known only from Gaoligong Shan.

***Quedius (Microsaurus) klapperichi* SMETANA, 1996**

Quedius klapperichi SMETANA, 1996, 123.



Figs. 1–11. 1, *Quedius hailuogou*: apical portion of underside of paramere with sensory peg setae; 2, *Quedius haw*: tergite 10 of female genital segment; 3, *Quedius jyr*: tergite 10 of female genital segment; 4, *Quedius katerinae*: tergite 10 of female genital segment. — 5–9, *Quedius tarvos*: 5, apical portion of male sternite 8; 6, tergite 10 of male genital segment; 7, sternite 9 of male genital segment; 8, aedeagus, ventral view; 9, apical portion of underside of paramere with sensory peg setae. — 10, *Quedius erriapo*: tergite 10 of female genital segment. — 11, *Quedius telesto*: apical portion of male sternite 8.

New record. [Hubei]: SW Hubei Mulu Shan, Jiugongshan, 29.4N 114.7E, 3–V to 9–VI–2005, leg J. TURNA, 1 ♂ (NMW).

Comments. The specimen was taken from a pitfall trap, but nothing is known about the habitat the pitfall trap was set in. This is the first record of this species from Hubei, it was previously known from Fujian and Hebei.

***Quedius (Microsaurus) hailuogou* SMETANA, 1999**

(Fig. 1)

Quedius hailuogou SMETANA, 1999, 232.

New records. [Sichuan]: W-Sichuan (5), Daxue Shan, Mu Ge Cuo NW Kangding, 30.10.57N 101.52.09E, 3200–3400 m, 21–V–1997, M. SCHÜLKE, 1 ♂ (MSC); Ganzi pref. Daxue Shan, Mugecuo ca. 26 km NW Kangding, 101.52E 30.11.N, 3200–3400 m, 21–V–1997, leg. A. PÜTZ, 1 ♂ (APC); W-Sichuan (4), Daxue Shan, Bachtal 5 km E Kangding, 30.03.28N 102.00.15E, 2500–2800 m, 20–V–1997, M. SCHÜLKE, 1 ♂ (ASC).

Comments. *Quedius hailuogou* was until now known only from the male holotype from Gongga Shan (Hailuogou, above Camp 3). The above three specimens are paler in body coloration: all margins of pronotum are appreciably pale, each elytron is to variable extent pale laterally, and the apical margins of abdominal tergites are markedly pale. In all remaining character states, particularly in the shape of the aedeagus, the specimens agree with the holotype, except for the slightly more numerous sensory peg setae on the underside of the paramere (Fig. 1), which very likely falls within the intra-specific variability.

***Quedius (Microsaurus) vafer* SMETANA, 1997**

Quedius vafer SMETANA, 1997 b, 130; 2008, 314.

New record. [Yunnan]: E slope Cangshan at Dali, N25°40'14.7" E100°06'12.0", 3827 m, 17–V–2010, sifting 16, V. GREBENNIKOV, 2 ♂♂ (ASC, CNC); same but N25°40'07" E100°06'14.04", 3890 m, 4–VII–2011, sifting 35, V. GREBENNIKOV, 3 ♀♀ (ASC, CNC).

Comments. These are additional specimens from Cangshan. The species is apparently endemic to the high elevation habitats of Cangshan.

Two females of the specimens studied have four punctures in each of the dorsal rows on the pronotum.

***Quedius (Microsaurus) emei* SMETANA, 1997**

Quedius emei SMETANA, 1997 a, 67.

New records. [Sichuan]: Emei Shan, 3035 m, 29°30'46"N 103°19'57.0", 14–VI–2010, sifting 28, V. GREBENNIKOV [12] (ASC, CNC, IZB); same but 29°30'54.2"N 103°19'50.8"E, sifting 29 [13] (ASC, CNC, IZB); same but 2926 m, 29°31'36.8"N 103°19'52.1"E, sifting 31 [2] (CNC); same but 2748 m, 29°31'52.9"N 103°19'57.1"E, 15–VI–2010, sifting 32 [1] (CNC).

Comments. These are additional specimens of this species that is characteristic for Emei Shan, but that was recently discovered also in Jiajin Shan, a mountain range located at considerable distance toward northwest from Emei Shan (SMETANA, 2006, 71).

***Quedius (Microsaurus) haw* SMETANA, 2001**

(Fig. 2)

Quedius haw SMETANA, 2001, 185.

New records. [Sichuan]: Emei Shan, 2748 m, 31°52'9"N 103°19'57.1", 15–VI–2010, sifting 32, V. GREBENNIKOV [1], same but 2266 m, 29°33'09.9"N 103°20'39.1"E, sifting 34 [1] (CNC); same but 14–VI–2010, 2298 m, 29°32'57.1"N 103°20'37.7"E, sifting 35 [2] (ASC, CNC); same but 17–VI–2010, 29°32'48.4"N 103°20'06.3"E, sifting 36 [15] (ASC, CNC, IZB).

Comments. The species was known until now only from the male holotype from Leidongping on Emei Shan. The female of the species was not known, the description therefore follows below.

F e m a l e. The first four segments of front tarsus similar to those of male, but less dilated, segment 2 about as wide as apex of tibia. Genital segment with tergite 10 relatively long, markedly narrowed toward differentiated, rod-like apical portion; three to four long setae at apex of apical portion, otherwise with only a few short setae, located as in Fig. 2.

***Quedius (Microsaurus) jyr* SMETANA, 2006**

(Fig. 3)

Quedius jyr SMETANA, 2006, 77.

New records. [Sichuan]: NE slope Gongga Shan, 2765 m, 29°48'15"N 102°03'44"E, 6–VI–2011, sifting 11 [2] (ASC, CNC); same but 3170 m, 29°50'50"N 102°0'2'28", 9–VI–2011, sifting 14 [2]" (CNC, IZB); same but 3019 m, 29°50'05"N 102°02'53"E, 9–VI–2011, sifting 14 [2] (ASC, CNC); same but 11–VI–2011, sifting 15 [3] (ASC, CNC); same but 3620 m, 29°52'10"N 102°02'01"E, 12–VI–2011, sifting 16 [2] (CNC, IZB); same but 3554 m, 29°55'31"N 101°58'46"E, 17–VI–2011, sifting 19 [6] (ASC, IZB); same but 3660 m, 29°56'20"N 101°58'50"E, 17–VI–2011, sifting 20 [3] (ASC, CNC); same but 3170 m, 29°50'50"N 102°02'28"E, 18–VI–2011, sifting 21 [6] (ASC, CNC); same but 21–VI–2011, sifting 23 [5] (ASC, CNC); same but 2946 m, 29°49'29"N 102°03'24"E, 21–VI–2011, sifting 29 [3] (ASC, IZB).

Comments. The species was known until now only from two male specimens collected in Gongga Shan in an area close to the above collecting sites. The female of the species was not known, the description therefore follows below.

F e m a l e. The first four segments of front tarsus markedly dilated but less so than those in male, segment 2 less distinctly wider than apex of tibia than that of male. Genital segment with tergite 10 of quite characteristic shape with triangular apical portion delimited at each side by distinct, angular indentation; with usually three long setae at apex of apical portion, otherwise with a few short to minute setae, located as in Fig. 3.

Quedius (Microsaurus) biann* SMETANA, 2006Quedius biann* SMETANA, 2006, 78.

New records. [Sichuan]: NE slope Gongga Shan, 3886 m, 29°53'23"N 102°01'31"E, 8–VI–2011, sifting 13, V. GREBENNIKOV [53] (ASC, CNC, IZB); same but 4143 m, 29°54'40"N 102°00'37"E, 13–VI–2011, sifting 17 [12] (ASC, CNC, IZB); Daxue Shan, Mu Ge Cuo NW Kanding, 3200–3400 m, 30.11N 101.52E, 21–V–1997, W. WRASE, 1 ♂ (MSC); pass N of Jiulong, J-Zhou Shan, 4400–4500 m, alpine region, 13 to 21–VI–2004, leg. R. FABBRI, 1 ♂ (MSC).

Comments. The specimens from Gongga Shan are copious additional specimens of this species

that was originally described from areas close to the above collecting sites. Most specimens of the original series were in bad shape, apparently due to the prolonged exposure to the fluids of pitfall traps. The record from N of Jiulong is the first record of this species away from Daxue/Gongga Shan.

***Quedius (Microsaurus) erythras* SMETANA, 1997**

Quedius erythras SMETANA, 1997 a, 58; 1999, 216.

New records. [Sichuan]: NE slope Gongga Shan, 3846 m, 29°53'23"N 102°01'31"E, 8–VI–2011, sifting 13, V. GREBENNIKOV [19] (ASC, CNC, IZB); same but 4143 m, 29°54'40"N 102°00'37"E, 13–VI–2011, sifting 17 [16] (ASC, CNC, IZB); same but 3170 m, 29°50'50"N 102°02'28"E, 18–VI–2011, sifting 21 [2] (ASC, CNC).

Comments. These are the first specimens of this species collected directly in the Gongga Shan massive. The species is at present known from southwestern Gansu (mountains 25 km east of Xiahe) and from the mountain ranges of Daxue Shan.

***Quedius (Microsaurus) katerinae* SMETANA, 1997**

(Fig. 4)

Quedius katerinae SMETANA, 1997 a, 54.

New record. [Sichuan]: NE slope Gongga Shan, 2684 m, 29°47'49"N 102°03'49"E, 14–VI–2011, sifting 18, V. GREBENNIKOV, 1 ♂, 1 ♀ (ASC).

Comments. The species was known until now only from the male holotype from Hailuogou valley in Gongga Shan. The female of the species was not known, the description therefore follows below.

Female. The first four segments of front tarsus similar to those of male, but less dilated, segment 2 about as wide as apex of tibia. Genital segment with tergite 10 rather narrow, markedly narrowed toward vaguely differentiated apical portion with acute apex, with numerous fairly long setae at apex and on apical portion, otherwise with only a few, mostly fine setae in front of apical portion (Fig. 4).

***Quedius (Microsaurus) zheduo* SMETANA, 1999**

Quedius zheduo SMETANA, 1999, 235.

New record. [Sichuan]: NE slope Gongga Shan, 4145 m, 29°54'40"N 102°00'37", 13–VI–2011, V. GREBENNIKOV, 1 ♂ (ASC).

Comments. This is an additional specimen collected close to the type locality of the species (Zheduo Shankou). The species is at present known from the pass Zheduo Shankou (or Tsheto La pass, see SMETANA, 2002, 141) and from the Qionghai Shan near Barkam (SMETANA, 2006, 71).

***Quedius (Microsaurus) euryalus* SMETANA, 1997**

Quedius euryalus SMETANA, 1997 a, 52.

New record. [Sichuan]: E slope Gongga Shan, 3136 m, 29°34'06"N 101°58'57"E, 3–VI–2011, sifting 9, V. GREBENNIKOV, 1 ♂ (ASC).

Comments. This is an additional record from Gongga Shan. The species is at present known only from Gongga Shan and from Erlang Shan, a mountain range located on the other (east) side of

the valley of the Dadu He river. Several other species occurring mainly in the main Gongga Shan range have been also recorded from Erlang Shan (e.g., *Q. euander* SMETANA, 1997).

***Quedius (Microaurus) euanderoides* SMETANA, 2004**

Quedius euanderoides SMETANA, 2004, 101.

New record. [Yunnan]: WQ slope N Niushan, Dima-luo, 3167 m, 27°57'538"N 98°43'900"E, 19–VI–2009, sifting 08, V. GREBENNIKOV, 1♂, 2♀ (ASC, CNC).

Comments. *Quedius euanderoides* was until now known only from Meilixue Shan in northern Yunnan.

***Quedius (Microsaurus) guey* SMETANA, 2001**

Quedius guey SMETANA, 2001, 188.

New record. [Shaanxi]: N slope Qin Ling Shan, 1700–2200 m, 34°01'07"N 107°51'50"E, 17–V–2011, sifting 02, V. GREBENNIKOV [1] (CNC).

Comments. This is an additional specimen from near the type locality of the species. The species is at present known from Shaanxi and Hubei.

***Quedius (Microsaurus) myau* SMETANA, 1999**

Quedius myau SMETANA, 1999 b, 535; 2001, 183.

New records. [Sichuan]: NE slope Gongga Shan N29°47'41" E102°03'37", 2583 m, 7–VI–2011, sifting 12, V. GREBENNIKOV, 2♂♂ (ASC, CNC); same but N29°50'50" E102°02'28", 3170 m, 8–VI–2011, sifting 14, V. GREBENNIKOV, 1♀ (ASC).

Comments. Most known specimens of *Q. myau* are males. Only one female, taken on Mt. Emei, was known until now. It differs from males by different body coloration, described in SMETANA, 2001, 183, where also the description and illustration of tergite 10 of the genital segment is presented. The female from Gongga Shan differs in body coloration, but tergite 10 of the genital segment agrees perfectly with that of the female from Emei Shan. The female from Gongga Shan agrees in body coloration with paler colored males, except for the head, which is testaceo-brunneous with vertex piceous-black. That seems to be the real difference in coloration between the males and females of *Q. myau*. The female from Emei Shan may be an unusual discolored specimen. This, of course, has to be confirmed when additional females of this species become available for study. The sexually different coloration of the head is known in some other species of the genus, e.g., *Q. tikta* SMETANA, 1988.

Quedius myau is at present known from Gongga Shan, Emei Shan and Mt. Xiling in Sichuan.

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

(Figs. 5–9)

Description. Entirely deep black with pale red elytra, maxillary and labial palpi piceous-black, antennae black with base of second segment dark brownish-red, legs black with medial faces of front tibiae paler, front tarsi dark testaceous, middle and hind tarsi becoming paler toward apex, with last segment almost testaceous. Head of rounded quadrangular shape, slightly wider than long (ratio 1.13), with posterior angles entirely indistinct; eyes moderately large and convex, tempora longer than eyes from above (ratio 1.2); no additional setiferous punctures between fine anterior frontal punctures; pos-

terior frontal puncture situated away from posteriomedial margin of eye by distance about as large as diameter of puncture, two fine punctures between it and posterior margin of head; temporal puncture situated distinctly closer to posterior margin of head than to posterior margin of eye, tempora with a few very fine setiferous punctures; surface of head with very fine and very dense microsculpture of transverse waves, with numerous intermixed micropunctulae. Antenna short and rather stout, third segment longer than second (ratio 1.55), segment 4 slightly wider than long, following segments becoming gradually more robust and more distinctly wider than long, last segment slightly shorter than two preceding segments combined. Pronotum vaguely wider than long (ratio 1.06), widest at about posterior third, distinctly narrowed anteriorly, 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 well before level of large lateral puncture; microsculpture similar to that on head, but slightly finer and denser, with intermixed punctulae finer and less conspicuous. Scutellum impunctate, with extremely dense and fine microsculpture of transverse striae, with a few micropunctulae on apical half. Elytra moderately long, at base somewhat narrower than pronotum at widest point, slightly widened posteriorly, at suture slightly (ratio 0.83), at sides vaguely (ratio 0.94) shorter than pronotum at midline; punctation moderately coarse, becoming finer towards and on declivous portion, transverse interspaces between punctures about as large as diameters of punctures; pubescence extremely fine, piceous; surface between punctures without microsculpture. Wings fully developed. Abdomen with tergite 7 (fifth visible) with distinct whitish apical seam of palisade fringe; punctation on middle area of first visible tergite extremely fine, minute, moderately fine and dense on each lateral portion, punctation on following tergites about same as that on lateral portions of first visible tergite, more or less evenly covering each tergite, except becoming somewhat sparser toward apical margin of visible tergites four and five; pubescence black; surface between punctures with excessively fine microsculpture of transverse striae.

Male. First four segments of front tarsus dilated, sub-bilobed, each densely covered with tenent setae ventrally; segment 2 about as wide as apex of tibia; segment 4 narrower than preceding segments. Sternite 8 with five long setae on each side, with wide and deep, almost semicircular medioapical emargination, usual flattened and smooth triangular area before emargination absent (Fig. 5). Genital segment with tergite 10 narrow, markedly narrowed toward subacute apex, with long setae at and near apex, otherwise asetose, except for a few minute setae (Fig. 6); styli of tergite 9 wide, robust, copiously setose; sternite 9 with short basal portion. apical portion slightly emarginate apically, with several long setae on each lateroapical portion (Fig. 7). Aedoeagus (Figs. 8, 9) small, median lobe somewhat asymmetrical with subacute apex; paramere large, covering most of median lobe but exposing very apex, slightly emarginate apically; two fine setae at each side of apical emargination and two similar setae at each lateral margin below apex; underside of paramere with two sensory peg setae, situated as in Fig. 9.

Female. Unknown.

Length 10.0 mm.

Type material. Holotype (male): China: "P. R. CHINA, Yunnan, E slope Gaoligongshan, N27°45.446' E098°35.359', 15-VI-2009, 2944 m, sifting 056, V. Grebennikov". Temporarily in The Canadian National Collection of Insects, Ottawa, Canada; to be eventually deposited in the Institute of Zoology, Chinese Academy of Sciences, Beijing, Peoples Republic of China.

Geographical distribution. *Quedius tarvos* is at present known only from the type locality in Gaoligong Shan, a mountain range west of the Salween river near the Myanmar border.

Bionomics. The holotype was taken by sifting forest floor litter, no details are available.

Recognition and comments. *Quedius tarvos* is in all aspects a very distinctive species, due to the

coloration, the chaetotaxy of the head and pronotum, the short and rather stout antennae, the punctuation of the first visible abdominal tergite (see the description), by the secondary male sexual characters on the sternite 8, the sclerites of the male genital segment (particularly the shape and setation of tergite 10 and the robust styli of tergite 9) and the characteristic features of the small aedeagus. It cannot be confused with any other species of the genus *Quedius* of mainland China.

Etymology. The specific epithet is the name of Tarvos, one of the moons of Saturn, in apposition.

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

(Fig. 10)

Description. Head deep black, pronotum piceous with all margins and anterior angles to great extent paler, elytra brownish-red, abdomen piceous-black, with apical margins of tergites, apical half of fifth visible tergite and entire sixth visible tergite paler; maxillary and labial palpi piceous-black, with most of last segment of each paler; antenna with first three segments black with base of second segment testaceous, remaining segments brownish; legs piceous with all tarsi and medial faces of front tibiae paler. Head of rounded quadrangular shape, slightly wider than long (ratio 1.16), with posterior angles entirely indistinct; eyes fairly large, moderately convex, tempora shorter than eyes from above (ratio 1.57); no additional setiferous punctures between anterior frontal punctures; posterior frontal puncture almost touching posteriomedial margin of eye, two punctures between it and posterior margin of head; temporal puncture separated from posterior margin of eye by distance about equal to diameter of puncture, a few fine setiferous punctures behind it; surface of head with very fine and very dense microsculpture of transverse waves, with some intermixed micropunctulae. Antenna moderately long, third segment longer than second (ratio 1.155), segments 4 to 7 longer than wide, gradually becoming shorter and wider, segments 8–10 about as long as wide, last segment as long as two preceding segments. Pronotum slightly wider than long (ratio 1.14), widest at about posterior fourth, distinctly narrowed anteriorly, 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 shifted considerably posteriorly, situated long way behind level of large lateral puncture; microsculpture similar to that on head, but still finer and denser, micropunctulae absent. Scutellum impunctate, with dense and fine microsculpture of transverse striae. Elytra rather long, at base somewhat narrower than pronotum at widest point, slightly widened posteriorly, at suture slightly (ratio 1.20), at sides distinctly (ratio 1.31) longer than pronotum at midline; punctuation coarse, becoming somewhat finer towards and on declivous portion, transverse interspaces between punctures mostly somewhat smaller than diameters of punctures; pubescence piceous; surface between punctures without microsculpture. Wings fully developed. Abdomen with tergite 7 (fifth visible) with whitish apical seam of palisade fringe; punctuation of tergites markedly finer and sparser than that on elytra except for bases of first three visible tergites with punctuation coarser than that on rest of tergites, punctuation in general becoming finer and sparser toward apex of abdomen; pubescence piceous; surface between punctures with excessively fine microsculpture of transverse striae.

F e m a l e. First four segments of front tarsus dilated, sub-bilobed, each with some tenent setae ventrally; segment two about as wide as apex of tibia. Genital segment with tergite 10 of quite characteristic shape, wide and short, truncate apically with small apical portion exposed in middle as a small, slightly pigmented lobe; several long setae on apical lobe, otherwise only with a few minute setae in front of apical lobe (Fig. 10).

M a l e. Unknown.

Length 7.00 mm.

Type material. Holotype (female): China: "P. R. CHINA, Yunnan, E slope N Gaoligongshan, N27°46.8' E0.98°33.1', 12~15-VI-2009, 2000-3000 m, sifting 1-7, V. Grebennikov". Temporarily in The Canadian National Collection of Insects, Ottawa, Canada; to be eventually deposited in the Institute of Zoology, Chinese Academy of Sciences, Beijing, Peoples Republic of China.

Geographical distribution. *Quedius erriapo* is at present known only from the type locality in Gaoligong Shan, a mountain range west of the Salween river near the Myanmar border.

Bionomics. The holotype was taken by sifting forest floor litter, no details are available.

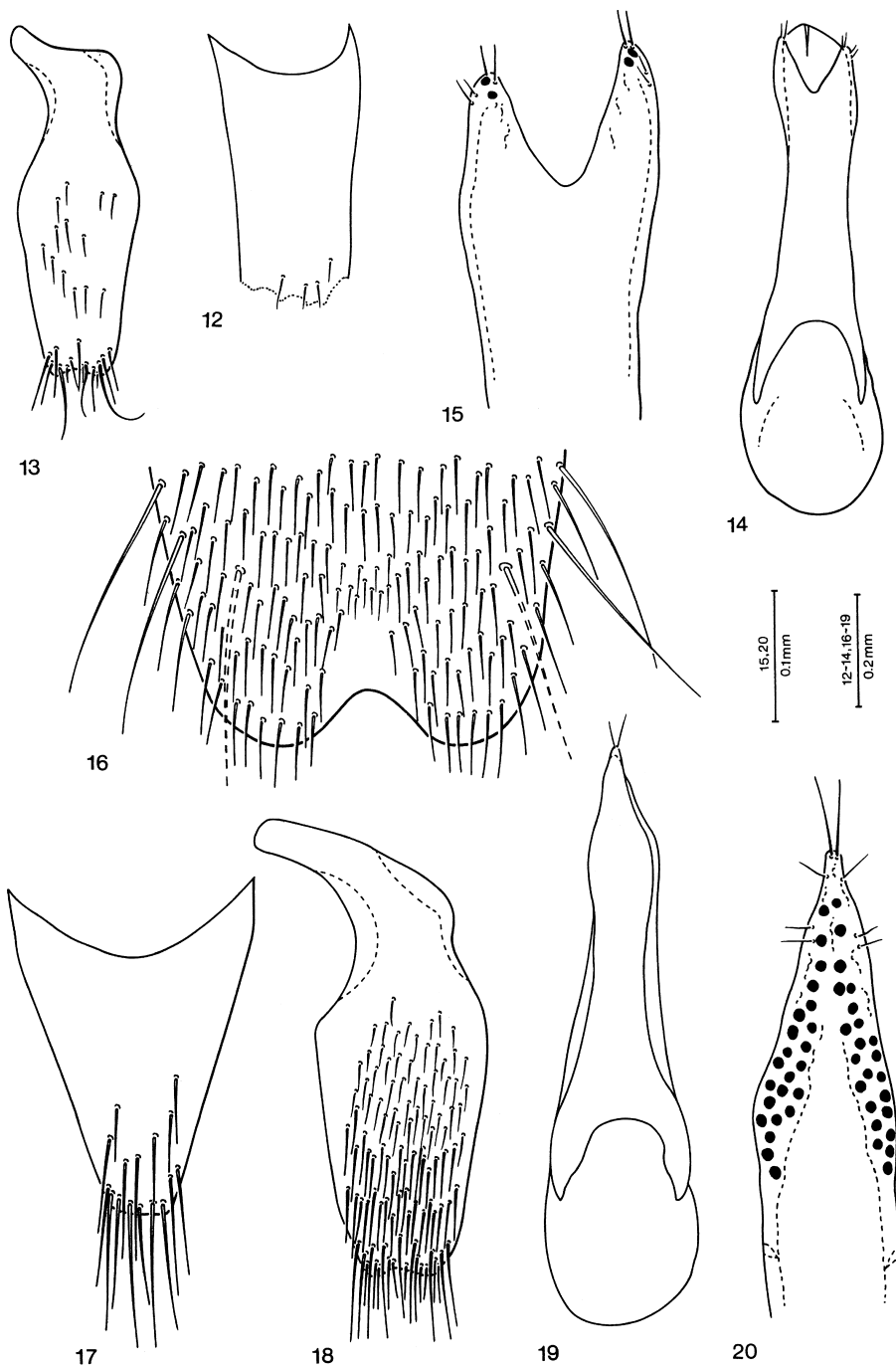
Recognition and comments. *Quedius erriapo* is in all aspects a very distinctive species, due to the coloration, the chaetotaxy of the head and pronotum, and the quite characteristic tergite 10 of the female genital segment (see above). The last character state was the main reason why the species was described as new based on female sexual characters.

Etymology. The specific epithet is the name of Erriapo, one of the moons of Saturn, in apposition.

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

(Figs. 11-15)

Description. Head piceous-black with apical margin paler, pronotum piceous with lateral margins rather widely and posterior margin narrowly paler, paler coloration not sharply delimited; elytra piceous, with suture and apical margin narrowly and humeral area more widely paler; abdomen piceous-black, with apical margins of tergites narrowly paler, head, pronotum and elytra with slight metallic hue, abdomen moderately iridescent; maxillary and labial palpi and antennae rufotestaceous; front and middle legs testaceo-brunneous with medial faces of front and middle tibiae piceous (less distinctly so on front tibiae), hind legs piceous with tarsi testaceo-brunneous. Head of rounded quadrangular shape, about as long as wide, markedly narrowed behind eyes, with posterior angles entirely indistinct; eyes fairly large, moderately convex, tempora slightly shorter than eyes from above (ratio 0.83); no additional setiferous punctures between anterior frontal punctures; posterior frontal puncture separated from posteriomedial margin of eye by distance about equal to diameter of puncture, two punctures between it and posterior margin of head; temporal puncture situated a touch closer to posterior margin of eye than to posterior margin of head, small additional puncture at posterior margin of eye between it and posterior frontal puncture; tempora with some fine punctures; surface of head with very fine and very dense microsculpture of transverse waves gradually changing into irregular meshed microsculpture on clypeus. Antenna rather long, third segment longer than second (ratio 1.44), following segments longer than wide, gradually becoming shorter and wider, last segment slightly shorter than two preceding segments combined. Pronotum about as long as wide, widest at about posterior fourth, subparallelsided in posterior half to about anterior third and from there narrowed anteriorly, with lateral margins continuously arcuate with arcuate base, transversely convex, lateral portions not explanate; dorsal rows each with three punctures, sublateral rows each with three punctures, posterior two punctures shifted considerably posteriorly with last puncture situated long way behind level of large lateral puncture; microsculpture similar to that on head, but still finer and denser. Scutellum impunctate, with dense and fine microsculpture of transverse striae. Elytra rather long, at base somewhat narrower than pronotum at widest point, slightly widened posteriorly, at suture slightly (ratio 1.14), at sides distinctly (ratio 1.28) longer than pronotum at midline; punctation moderately fine and dense, becoming somewhat finer towards and on declivous portion, transverse interspaces between punctures mostly about as large as diameters of punctures; pubescence piceous; surface between punctures without microscu-



Figs. 12–20. 12–15, *Quedius telesto*: 12, tergite 10 of male genital segment; 13, sternite 9 of male genital segment; 14, aedoeagus, ventral view; 15, apical portion of underside of paramere with sensory peg setae. — 16–20, *Quedius albiorix*: 16, apical portion of male sternite 8; 17, tergite 10 of male genital segment; 18, sternite 9 of male genital segment; 19, aedoeagus, ventral view; 20, apical portion of underside of paramere with sensory peg setae.

liture. Wings fully developed. Abdomen with tergite 7 (fifth visible) with distinct whitish apical seam of palisade fringe; punctuation of tergites markedly finer and sparser than that on elytra, middle of first visible tergite almost impunctate, punctuation of remaining tergites becoming slightly sparser toward apex of each tergite, and in general toward apex of abdomen; pubescence piceous; surface between punctures with excessively fine microsculpture of transverse striae.

Male. First four segments of front tarsus moderately dilated, sub-bilobed, each densely covered with tenent setae ventrally; segment 2 about as wide as apex of tibia; segment 4 narrower than preceding segments. Sternite 8 with four long setae on each side, with inconspicuous, shallow, subarcuate medioapical emargination, large triangular area before emargination flattened and smooth, general setation of tergite short and sparse (Fig. 11). Genital segment with tergite 10 long, subparallelsided, almost asetose, apical portion apparently destroyed, therefore not available for description (Fig. 12); sternite 9 with short basal portion, apical portion slightly emarginate apically, with two differentiated apical setae, in general very sparingly setose (Fig. 13). Aedoeagus (Figs. 14, 15) quite characteristic; median lobe with asymmetrical apex, on face adjacent to paramere with short medial carina; paramere large, covering most of median lobe, anteriorly divided into two widely separated, unequally long branches; two fine setae at each side of apical emargination and two similar setae at each lateral margin below apex; underside of paramere with two sensory peg setae at apex of each branch (Fig. 15); internal sac without larger sclerotized structures.

Female. Unknown.

Length 8.0 mm.

Type material. Holotype (male): China: "P. R. CHINA, Sichuan, NE slope Gongga Shan N29°47'41" E102°03'37", 07-VI-2011, 2583 m, sift 2, V. Grebennikov". Temporarily in The Canadian National Collection of Insects, Ottawa, Canada; to be eventually deposited in the Institute of Zoology, Chinese Academy of Sciences, Beijing, Peoples Republic of China.

Geographical distribution. *Quedius telesto* is at present known only from the type locality in Gongga Shan in Sichuan.

Bionomics. The holotype was taken by sifting forest floor litter, but no details are available.

Recognition and comments. *Quedius telesto* may be easily recognized by the unique shape of the aedoeagus. In external characters (particularly the head which is narrowed behind the eyes, the long antennae and the rather long elytra) it is similar to *Q. myau* SMETANA, 1999 occurring also on Gongga Shan, but the latter species differs by the differently shaped aedoeagus (see Figs. 4–6 in SMETANA, 1999). Only the setae that are present on male sternite 9 are shown in Fig. 13.

Etymology. The specific epithet is the name of Telesto, one of the moons of Saturn, in apposition.

Quedius (Microsaurus) albiorix sp. nov.

(Figs. 16–20)

Description. Head black, pronotum, elytra and abdomen piceous-black, abdomen slightly iridescent; maxillary and labial palpi and first two segments of antennae rufotestaceous, rest of antennae brownish-piceous; legs brownish-piceous with medial faces of front tibiae, front tarsi and last segments of middle and hind tarsi rufotestaceous. Head of rounded quadrangular shape, about as long as wide, with posterior angles entirely indistinct; eyes small and rather flat, tempora longer than eyes from above (ratio 1.50); no additional setiferous punctures between anterior frontal punctures; posterior frontal puncture removed far from posteriomedial margin of eye, situated at about midway between it and posterior margin of head, two punctures between it and posterior margin of head and one additional puncture in front of it on left side (this puncture missing on right side); temporal puncture situ-

ated considerably closer to posterior margin of head than to posterior margin of eye; tempora with some fine punctures; surface of head with very fine and very dense microsculpture of transverse waves with intermixed micropunctulae, gradually becoming confused on clypeus. Antenna rather short, third segment longer than second (ratio 1.50), segments 4 and 5 slightly longer than wide, following segments about as long as wide, gradually becoming shorter and wider, last segment slightly shorter than two preceding segments combined. Pronotum slightly wider than long (ratio 1.12), widest at about posterior third, markedly narrowed anteriorly, with lateral margins continuously arcuate with broadly rounded base, transversely convex, lateral portions explanate; dorsal rows each with three punctures, sublateral rows each with two punctures, posterior puncture situated before level of large lateral puncture; microsculpture similar to that on head, but still finer and denser, with micropunctulae becoming indistinct. Scutellum with numerous setiferous punctures medioapically, with dense and fine microsculpture of transverse striae. Elytra rather long, at base somewhat narrower than pronotum at widest point, slightly widened posteriorly, at suture about as long as, at sides longer (ratio 1.15) than pronotum at midline; punctation moderately fine and dense, transverse interspaces between punctures mostly slightly larger than diameters of punctures; pubescence piceous; surface between punctures without appreciable microsculpture. Wings fully developed. Abdomen with tergite 7 (fifth visible) with distinct whitish apical seam of palisade fringe; punctation of tergites about same as that on elytra, becoming slightly sparser toward apex of each tergite, and in general toward apex of abdomen; pubescence piceous; surface between punctures with excessively fine microsculpture of transverse striae.

Male. First four segments of front tarsus moderately dilated, sub-bilobed, each densely covered with tenent setae ventrally; segment 2 about as wide as apex of tibia; segment 4 narrower than preceding segments. Sternite 8 with three long setae on each side, with rather wide, deep, obtusely triangular medioapical emargination, triangular area before emargination flattened and smooth (Fig. 16). Genital segment with tergite 10 with apex subtruncate, with numerous setae at and before apex, otherwise almost asetose (Fig. 17); sternite 9 with long basal portion, apical portion subemarginate apically, without appreciably differentiated apical or subapical setae (Fig. 18). Aedoeagus (Figs. 19, 20) of characteristic shape; median lobe attenuate at about apical third and from there dilated into apical portion with acute apex; paramere elongate, shaped as in Fig. 19, with acute apex vaguely exceeding apex of median lobe; two setae at apex, one minute seta at each side just below apex, and two minute setae at each lateral margin way below apex; underside of paramere with numerous sensory peg setae situated as in Fig. 20; internal sac without larger sclerotized structures.

Female. Unknown.

Length 9.5 mm.

Type material. Holotype (male): China: "P. R. CHINA, Sichuan. Emei Shan, N29°32'57.2" E103°20'37.7", 16-VI-2010, 2289 m, sifting 35, V. Grebennikov". Temporarily in The Canadian National Collection of Insects, Ottawa, Canada; to be eventually deposited in the Institute of Zoology, Chinese Academy of Sciences, Beijing, Peoples Republic of China.

Geographical distribution. *Quedius albiorix* is at present known only from the type locality in Emei Shan in Sichuan.

Bionomics. The holotype was taken by sifting forest floor litter, but no details are available.

Recognition and comments. *Quedius albiorix* is in general habitus similar to *Q. kiangsiensis* BERNHAUER, 1916, but the latter differs, in addition to the differently shaped aedoeagus, by the still shorter, incrassate antenna with segments 4 to 10 transverse.

It remains to be established, when more material becomes available, whether the presence of the additional puncture on the head in front of posterior frontal puncture on left side is diagnostic and its absence on right side is accidental, or whether the presence of this puncture on left side is just acci-

dental.

Etymology. The specific epithet is the name of Albiorix, one of the moons of Saturn, in apposition.

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要 約

A. SMETANA: 中国産ツヤムネハネカクシ族(鞘翅目ハネカクシ科)に関する知見. 43. ツヤムネハネカクシ属 *Microsaurus* 亜属の20. — ツヤムネハネカクシ属の4新種, *Quedius tarvos*, *Q. eriapo*, *Q. telesto*, *Q. albiorix* を記載した. *Q. haw*, *Q. jyr*, *Q. katerinae* の3種については雌交尾器を図示した. *Q. klapperichi* を湖北から初めて記録し, *Q. hailuogou* と *Q. myau* については短い記載と追加の記録を付した.

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