

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

### Part 3. Genus *Quedius* STEPHENS, 1829. Subgenus *Microsaurus* DEJEAN, 1833. Section 3.

By

Aleš SMETANA

Centre for Land and Biological Resources Research,  
Biological Resources Division, Agriculture Canada,  
Ottawa, Ontario K1A 0C6, Canada

**Abstract** Taxonomic, faunistic and bionomic data on the species of the genus *Quedius*, subgenus *Microsaurus*, from the People's Republic of China are provided. Five new species are described: *Q. acco* (Gansu, Sichuan and Yunnan), *Q. bito* (Gansu, Sichuan), *Q. chremes* (Sichuan), *Q. decius* (Sichuan) and *Q. ennius* (Yunnan). *Quedius adjacens* (Sichuan) and *Q. beesoni* (Sichuan and Fujian) are recorded for the first time from the People's Republic of China. The *Apicicornis* Group of species is established and characterized, containing at present *Q. apicicornis*, *Q. bito*, *Q. chremes*, *Q. decius* and *Q. ennius*. A preliminary key to the Chinese species of the *Apicicornis* and *Beesoni* Groups is provided.

This is the third paper of the series of papers dealing with the Quediina of the People's Republic of China (for the first two papers see SMETANA, 1995 b, c). It deals with the species of the *Adjacens*, *Beesoni* and *Apicicornis* Groups. The first two groups were established in my revision of Taiwanese Quediini (SMETANA, 1995 a), the *Apicicornis* Group was merely mentioned; it is formally introduced and characterized here, based on the character analysis presented in my above paper (SMETANA, 1995 a). The species-group assignment of the species dealt with in this paper is as follows: *Adjacens* Group: *Q. adjacens*; *Beesoni* Group: *Q. beesoni*, *Q. acco*; *Apicicornis* Group: *Q. bito*, *Q. chremes*, *Q. decius* and *Q. ennius*. The formal characterization of the *Apicicornis* Group follows at proper place below.

#### *Quedius (Microsaurus) adjacens* CAMERON

(Figs. 1–2)

*Quedius adjacens* CAMERON, 1926, 368; 1932, 287; SMETANA, 1988, 205.

*New records.* China: [Sichuan]: 2♂♂, Emei Shan, 160 km SSW Chengdu,

1,530–1,700 m, 22.VI.94, HOLZSCHUH (Naturhistorisches Museum, Wien, and coll. SMETANA, Ottawa); 1 ♀, same data, but elevation 1,700–2,400 m, 21.VI.94, SCHILLHAMMER (Naturhistorisches Museum, Wien).

*Comments.* New records for China. Until recently, the species was known only from the western portion of the Himalaya (from Kashmir through Himachal Pradesh to Uttar Pradesh, see SMETANA, 1988, 206).

The Sichuan specimens agree in all important ectoskeletal characters, particularly in the chaetotaxy of the head and pronotum, with those from the Himalaya. On the other hand, the aedoeagus is slightly different, with the median lobe narrower, particularly anteriorly, and more curved; the paramere is less asymmetrical (Figs. 1–2). I believe that these differences fall within the intraspecific variability. The aedoeagi of the Sichuan specimens of *Q. adjacens* in fact resemble those of *Q. insulanus* CAMERON, 1949 from Taiwan, but in *Q. insulanus* the apex of the paramere almost reaches the apex of the median lobe and the paramere has only four sensory peg setae on the underside (see fig. 5 in SMETANA, 1995 a, 30).

The present wide gap between the two areas of occurrence of *Q. adjacens* (western portion of the Himalaya and Sichuan) is probably due to the lack of collecting and the apparent rarity of the species.

### *Quedius (Microsaurus) beesoni* CAMERON

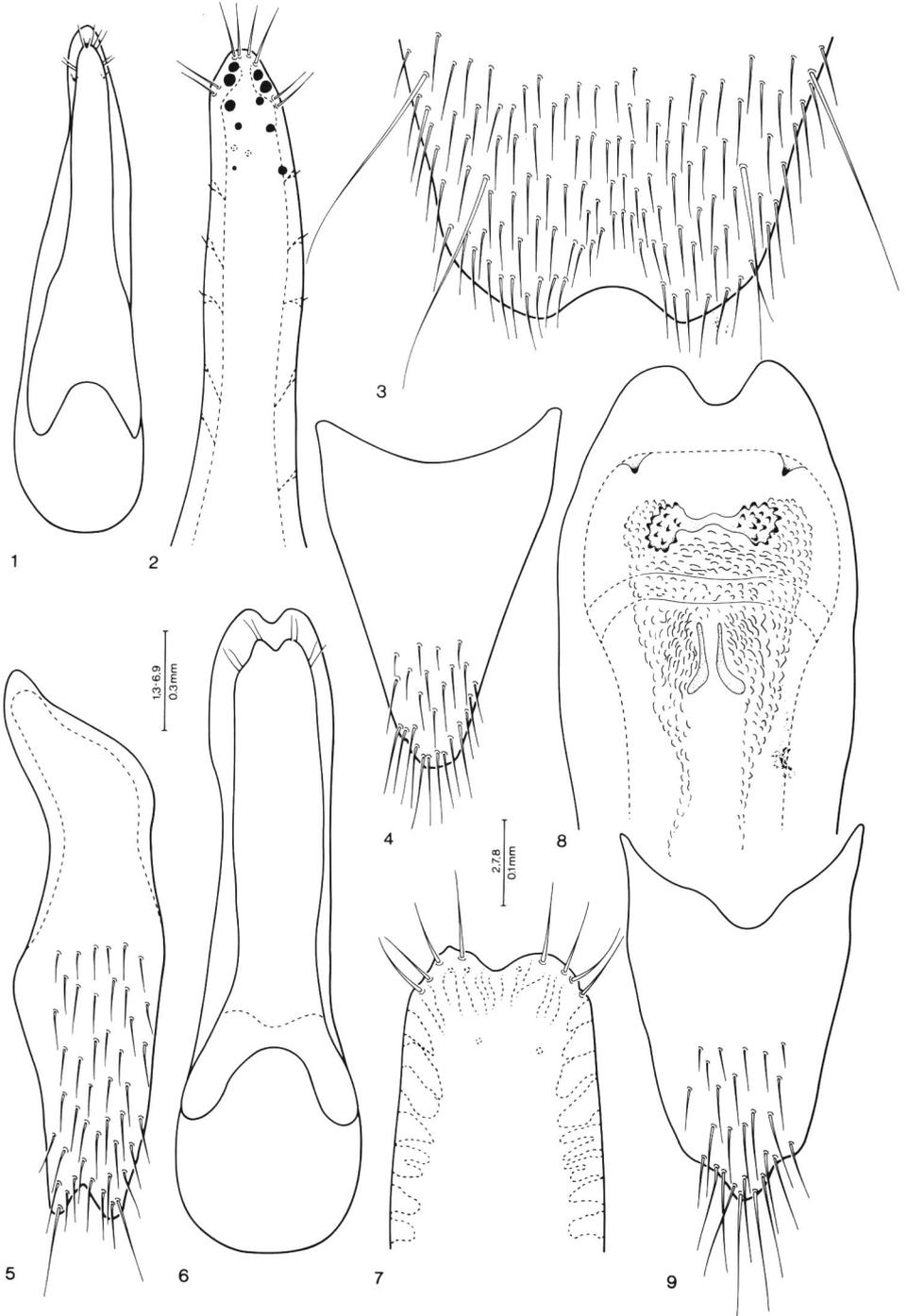
*Quedius beesoni* CAMERON, 1932, 285; SMETANA, 1988, 196; 1995 a, 31 (complete synonymy in latter two references).

*New records.* China: [Sichuan]: 1 ♂, 1 ♀, Emeishan, 160 km SSW Chengdu, 1,530–1,700 m, 22.VI.94, HOLZSCHUH (Naturhistorisches Museum, Wien, and coll. SMETANA, Ottawa). [Fujian]: 2 ♀ ♀, Kuantun, 40°N, 117°40'E, 2,300 m, 4. and 19.III.38, J. KLAPPERICH (Naturhistorisches Museum, Wien, and coll. SMETANA, Ottawa); 1 ♂, 1 ♀, Kuantun, 8. and 12.IV.46, TSCUNG sen. (Naturhistorisches Museum, Wien, and coll. SMETANA, Ottawa).

*Comments.* Until now, *Quedius beesoni* was known only from two quite disjunct areas: the Himalaya, from Uttar Pradesh through Nepal to West Bengal (Darjeeling Distr.) and from Taiwan (SMETANA, 1988, 198; 1995 a, 31). These are the first records of this species from People's Republic of China, that confirm my prediction that the species will be eventually found in the mountains of mainland China (SMETANA, 1995 a, 33).

---

Figs. 1–9. — 1–2. *Quedius adjacens*: 1, aedoeagus, ventral view; 2, apical portion of underside of paramere. — 3–9. *Quedius acco*: 3, apical portion of male sternite 8; 4, tergite 10 of male genital segment; 5, sternite 9 of male genital segment; 6, aedoeagus, ventral view; 7, apical portion of underside of paramere; 8, apical portion of median lobe with internal sac; 9, tergite 10 of female genital segment.



Figs. 1-9.

*Quedius beelsoni* is quite variable in the coloration of the apical portion of the antennae and of the apex of the abdomen (see SMETANA, 1988, 198 for details). The specimens from both Sichuan and Fujian have the antennae and apex of the abdomen uniformly dark, unlike those from Taiwan with the antennae consistently uniformly dark and the apex of the abdomen yellow (see also SMETANA, 1995 a, 34).

*Quedius (Microsaurus) acco* sp. nov.

(Figs. 3–9)

*Description.* Piceous-black, head often variably paler anteriorly, elytra sometimes with suture and apical margin narrowly paler, abdominal segment 8 (sixth visible) usually with basal half or two-thirds yellowish; abdomen iridescent; maxillary and labial palpi brunneo-testaceous, antennae testaceo-brunneous, usually becoming gradually paler toward apex, segment 1 sometimes darkened, legs piceous with paler tarsi, medial faces of front tibiae usually paler. Head of rounded quadrangular shape, wider than long (ratios 1.25–1.29), distinctly narrowed posteriad behind eyes, posterior angles entirely obsolete; clypeus usually with two shallow, rounded impressions; eyes large and convex, protruding from lateral contours of head, tempora shorter than eyes seen from above (ratios around 0.70); no additional setiferous punctures between anterior frontal punctures; posterior frontal puncture situated close to postero-medial margin of eye, separated from it by distance only slightly larger than diameter of puncture, two punctures between it and posterior margin of head; temporal puncture separated from posterior margin of head by distance about twice as large as diameter of puncture; tempora with numerous fine punctures; surface of head with extremely fine and dense, submeshed microsculpture. Antenna robust in male, less so in female, segment 3 longer than segment 2 (ratio 1.28), segments 4–10 longer than wide, gradually becoming shorter and wider, segment 10 slightly wider than long, last segment shorter than two preceding segments combined. Pronotum rather large, wider than long (ratio 1.22), widest around middle, narrowed anteriorly, with lateral margins continuously arcuate with broadly rounded base, transversely convex, lateral portions moderately explanate; dorsal rows each with three punctures; sublateral rows each with one to three (usually two) punctures, posterior puncture situated before or at level of large lateral puncture; microsculpture similar to that on head but not submeshed, rather consisting of transverse waves with occasional longitudinal junctions. Scutellum impunctate, to various extent and degree transversely rugose on basal portion. Elytra moderately long, at base distinctly narrower than pronotum at widest point, no more than slightly widened posteriad, at suture about as long as, at sides slightly longer than pronotum at midline (ratio 1.1); punctation and pubescence moder-

ately fine, dense, slightly asperate, transverse interspaces between punctures mostly about as large as diameters of punctures; pubescence piceous-black to black; surface between punctures with variably developed, mostly quite distinct, rugulose microsculpture, so that surface of elytra is to various extent, usually distinctly, dull. Wings fully developed. Abdomen with tergite 7 (fifth visible) bearing distinct whitish apical seam of palisade fringe; punctation and pubescence of abdominal tergites distinctly finer, about equally dense or somewhat sparser than that on elytra, gradually becoming somewhat sparser toward apex of each tergite and in general toward apex of abdomen; tergite 3 (first visible) evenly punctate, without impunctate middle area; pubescence piceous-black to black; surface between punctures with exceedingly dense and fine microsculpture of transverse striae.

**Male.** First four segments of front tarsus considerably dilated, subbilobed, each densely covered with modified pale setae ventrally; segment two wider than apex of tibia (ratio 1.2); segment four narrower than preceding segments. Sternite 8 with two long setae on each side; with moderately wide and rather shallow, arcuate medio-apical emargination, small triangular area before emargination flattened and smooth (Fig. 3). Genital segment with tergite 10 triangular, narrowly arcuate apically, without differentiated apical or subapical setae (Fig. 4); sternite 9 elongate, with rather robust basal portion, apex deeply emarginate, with one slightly differentiated apical seta at each side of emargination (Fig. 5). Aedoeagus (Figs. 6–8) large, elongate; median lobe parallel-sided in middle portion, anteriorly dilated into robust, large apical portion, rather narrowly emarginate medio-apically; apical portion of median lobe on side opposite to paramere markedly excavated, with sharp, backward directed latero-apical tooth on each side. Paramere elongate, more or less parallel-sided, not quite reaching apex of median lobe, apical margin with minute medio-apical emargination; four fine setae at apex on each side of medio-apical emargination; underside of paramere without sensory peg setae. Internal sac as in Fig. 8.

**Female.** First four segments of front tarsus similar to those of male, but somewhat less dilated; segment two slightly wider than apex of tibia (ratio 1.12). Genital segment with tergite 10 more or less abruptly attenuated into subacute triangular apex, without differentiated apical or subapical setae (Fig. 9).

Length 8.8–10.5 mm.

**Type material.** Holotype (male) and allotype (female): China: "CHINA, Sichuan, Gongga Shan, Lake abv. Camp 2 2,750 m, 24.VII.1994 A. Smetana [C20]". In the SMETANA collection, Ottawa, Canada.

**Paratypes:** China: [Sichuan]: same data as holotype, 2♂♂, 3♀♀, in the National Science Museum, Tokyo and in the SMETANA collection, Ottawa; same data as holotype, but elevation 2,800 m and date 25.VII.94, [C21], 1♀, in SMETANA collection; Sichuan Prov., Gongga Shan, 7.92, coll. TERLUTER, 1♀ in

Naturhistorisches Museum, Wien. [Gansu]: Xinlong Shan, cca 70 km S Lanzhou, 2,225–2,380 m, 7.VIII.94, A. SMETANA, 1♂, in SMETANA collection. [Yunnan]: Habashan Mts., 27.20°N 100.11°E, 2,000–3,000 m, 10.–13.VII.92, V. KUBAN, 1♀ in Naturhistorisches Museum Basel; Heishui, 35 km N Lijiang, 27.13°N 100.19°E, 1.–19.VII.92, S. BECVAR, or E. JENDEK, 1♂, 1♀ in Naturhistorisches Museum, Wien.

*Geographical distribution.* *Quedius acco* is at present known from the mountains in western Sichuan, northern Yunnan and in central Gansu.

*Bionomics.* The specimens from Gongga Shan, collected by the author, were taken in wet moss intermixed with grassy vegetation along the edges of a shallow forest lake. One specimen was also found in a pile of rotting mushrooms near the lake.

*Recognition, variation and comments.* *Quedius acco* may be rather easily recognized, in addition to the sexual characters, by the large size and dark coloration, in combination with the basally rugose scutellum and the dull elytra. The sexual dimorphism of the antenna is also characteristic.

The extent of the pale coloration of the abdominal segment 6 varies, the segment may rarely be entirely yellowish (specimen from Gansu), or almost entirely black (one specimen from Yunnan). The character of the microsculpture on the elytra also varies. The specimens from Yunnan tend to have the microsculpture less pronounced than in those from Sichuan and Gansu.

*Quedius acco* is a member of the *Beesoni* Group (SMETANA, 1995 a, 31), having the two synapomorphies of the group, i.e. the presence of transverse rugae on the basal portion of the impunctate scutellum, and the shape of the aedeagus with the paramere lacking sensory peg setae. Within the group, it is most closely related to the two Taiwanese species *Q. noboruitoi* HAYASHI, 1992 and *Q. syh* SMETANA, 1995 a.

*Etymology.* The specific name is that of *Acco*, *-onis*, m., a chieftain of the Senones, in apposition.

### *Apicicornis* Group

*Diagnosis.* The group is characterized by the following combination of character states: size large; last segment of both maxillary and labial palpus glabrous; labial palpus not sexually dimorphic; no additional setiferous puncture between posterior frontal puncture and postero-medial margin of eye; eyes large; tempora not densely punctate and pubescent; lateral portions of pronotum no more than moderately explanate; surface of pronotum with microsculpture; scutellum glabrous, impunctate, without transverse rugae on basal portion; front tarsus not patellate, with second segment widest, dorsal side of first four segments setose; elytra evenly punctate; apical portion of median lobe of aedeagus

symmetrical, without tooth on face adjacent to paramere; paramere fully developed, without sensory peg setae; tergite 10 of female genital segment slightly modified.

*Monophyly.* This is a monophyletic group, based on two synapomorphies: 1) the absence of the sensory peg setae from the underside of the paramere of the aedeagus, and 2) the slightly modified tergite 10 of the female genital segment (Figs. 16, 31, 33).

*Comments.* The first synapomorphy is shared with the species of the *Beesoni* Group and with the single Himalayan species of the *Flavocaudatus* Group, but the species of these two groups differ by the apomorphic character state of the presence of transverse rugae on the basal portion of the glabrous, impunctate scutellum, and by the plesiomorphic character state of the simple, unmodified tergite 10 of the female genital segment (figs. 16, 25 in SMETANA, 1995 a).

*Distribution and diversity.* At present, the group includes one Himalayan species (*Q. apicicornis* EPPELSHEIM, 1895) and four species in the mountains of the provinces of Gansu, Sichuan and Yunnan in western China (*Q. bito*, *Q. chremes*, *Q. decius* and *Q. ennius*).

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

(Figs. 10–16)

*Description.* Black, apical fourth of abdominal segment 7 (fifth visible) and apex of abdomen rarely reddish-yellow; head, pronotum and abdomen iridescent, abdomen slightly more so; maxillary and labial palpi piceous, with last segments variably paler; antennae and legs piceous-black, front tarsi somewhat paler. Head of rounded quadrangular shape, wider than long (ratio 1.28), distinctly narrowed behind eyes, posterior angles entirely obsolete, indistinct; eyes moderately large and convex, tempora slightly shorter than eyes seen from above (ratio 0.82); no additional setiferous punctures between anterior frontal punctures; posterior frontal puncture situated close to postero-medial margin of eye, separated from it by distance distinctly larger than diameter of puncture; three (rarely two or four unilaterally) additional punctures between it and posterior margin of head, situated quite close to posterior margin; temporal puncture situated closer to posterior margin of eye than to posterior margin of head; tempora with numerous fine punctures; surface of head with extremely fine and dense microsculpture of transverse striae. Antenna moderately long, rather slender, only slightly thickened toward apex, segment 3 slightly longer than segment 2, segments 4–6 slightly longer than wide, segments 7–10 about as long as wide, last segment shorter than two preceding segments combined. Pronotum somewhat wider than long (ratio 1.13), widest at about posterior third, narrowed anteriorly, with lateral margins continuously arcuate with broadly rounded base; transversely convex, lateral

portions slightly explanate posteriorly; 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. Scutellum impunctate, smooth, with extremely fine and dense microsculpture of transverse striae. Elytra moderately long, at base somewhat narrower than pronotum at widest point, slightly widened posteriad; at suture vaguely (ratio 1.14), at sides more appreciably longer than pronotum at midline (ratio 1.19); punctation and pubescence fine and dense, transverse interspaces between punctures mostly no larger than diameters of punctures; pubescence black; surface between punctures without microsculpture. Wings fully developed. Abdomen with tergite 7 (fifth visible) bearing distinct whitish apical seam of palisade fringe; punctation and pubescence of abdominal tergites about same as that on elytra, almost evenly covering surface of each tergite, in general becoming vaguely sparser toward apex of abdomen; middle portion of tergite 3 (first visible) impunctate; pubescence black; surface between punctures with exceedingly dense and fine microsculpture of transverse striae.

**Male.** First four segments of front tarsus strongly dilated, sub-bilobed, each densely covered with modified pale setae ventrally; segment two slightly wider than apex of tibia (ratio 1.15); segment four narrower than preceding segments. Sternite 8 with two long setae on each side; with moderately wide and deep, almost arcuate medio-apical emargination, small triangular area before emargination flattened and smooth (Fig. 10). Genital segment with tergite 10 narrowly arcuate apically, with numerous apical and subapical setae (Fig. 11); sternite 9 elongate, with fairly robust basal portion, apex emarginate; with weakly differentiated apical and subapical seta at each side of emargination (Fig. 12). Aedoeagus (Figs. 13–15) large, elongate; median lobe slightly attenuate in about anterior third and then dilated into spoon-shaped apical portion with arcuate, or minutely emarginate apex; apical portion of median lobe markedly excavated on side opposite to paramere. Paramere very narrow, elongate, vaguely dilated in middle portion and then somewhat attenuate before variably emarginate apex, apex well short of apex of median lobe; four setae at each side of apical emargination; underside of paramere without sensory peg setae. Internal sac as in Fig. 15.

**Female.** First four segments of front tarsus similar to those of male, but markedly less dilated; segment two about as wide as apex of tibia. Genital segment with tergite 10 wide, triangular, slightly pigmented medio-apically, with angulately differentiated, narrowly arcuate apical portion; without differentiated apical or subapical setae (Fig. 16).

Length 9.1–10.0 mm.

*Type material.* Holotype (male) and allotype (female): China: “CHINA, Gansu, Mts. 25 km E Xiahe, 2,805–2,925 m, 3.VIII.1994 A. Smetana [C28]”. In

the SMETANA collection, Ottawa, Canada.

Paratypes: China: [Gansu]: same data as holotype, 14♂♂, 7♀♀, in the National Science Museum, Tokyo (2♂♂ and 1♀) and in the SMETANA collection, Ottawa (12♂♂, 6♀♀). [Sichuan]: Langmusi, 3,500–3,600 m, 13.VII.94 [C14], 1♂ in the SMETANA collection, Ottawa; Gongga Shan, above Camp 3, 3,050 m, 22.VII.94, A. SMETANA [C18], 1♂ in the SMETANA collection, Ottawa; Gongga Shan, Hailuogou, 29.35°N 102.00°E, 2,900–3,200 m, 3.–6.VII.94, D. KRÁL and J. FARKAČ, 3♂♂, in the SMETANA collection, Ottawa; NW Sichuan, Luhuo–Sertar, pass 35 km NNE Luhuo, 3,000–3,500 m, 29.VII.94, J. TURNA, 1♀ in Naturhistorisches Museum, Wien; Mts. cca 20 km NNW Sabdé, 2,000–3,500 m, 18–26.VI.94, J. KALÁB, 2♂♂, in Naturhistorisches Museum, Wien and in the SMETANA collection, Ottawa; Litang–Yajiang, pass 20 km W Yajiang, 3,200–3,500 m, 23–25.VII.94, J. KALÁB, 1♀ in Naturhistorisches Museum, Wien.

*Geographical distribution.* *Quedius bito* seems to be widely distributed in the mountains of western and northern Sichuan, with the distributional range extending north into southwestern Gansu.

*Bionomics.* The long series of specimens from near Xiahe was taken, together with *Q. epytus* SMETANA, 1995 b and *Q. nireus* SMETANA, 1995 b, in a mixed deciduous and coniferous forest by sifting moist debris and needles under a pile of branches left behind from a cut down *Picea* tree. The paratype from Langmusi was collected under similar circumstances, together with *Q. chremes*. The paratype from the pass between Luhuo and Sertar was taken in a mixed “*Picea* and *Thuya*” forest.

*Recognition, comparisons and variation.* *Quedius bito* may be best recognized by the combination of the following characters, in addition to the large size, the coloration, and the shape of the aedoeagus: chaetotaxy of the head, particularly presence of three punctures on each side at posterior margin (only rarely one puncture missing unilaterally), antenna rather slender and only moderately thickened toward apex, posterior puncture of sublateral rows on pronotum situated before level of large lateral puncture, scutellum impunctate, without transverse rugae, abdominal tergite 3 (first visible) with impunctate middle portion.

*Quedius bito* is similar to the Himalayan species *Q. apicicornis* EPPELSHEIM, 1895, but the latter species differs, in addition to the different aedoeagus (see fig. 7 in SMETANA, 1988, 392), by the pale tip of the antenna, the bluish tint of the elytra, and by the presence of only two punctures on each side at posterior margin of the head.

The abdomen is uniformly black in all specimens of *Q. bito*, except in all specimens from Sichuan the apical portion of abdominal segment 7 (fifth visible) and apex of abdomen are reddish yellow. The extent of the impunctate medial area on the first visible abdominal tergite varies to some extent; it is quite

extensive in most specimens from Gansu and often extends along the basal margin of the tergite almost to the lateral margin; on the other hand, the impunctate area is rather small in most specimens from Sichuan and is restricted to the middle of the tergite.

*Etymology.* The specific name is that of *Bito*, *-onis*, m., a son of the Argive priestess Cydippe, in apposition.

*Quedius (Microsaurus) chremes* sp. nov.

(Figs. 17–23)

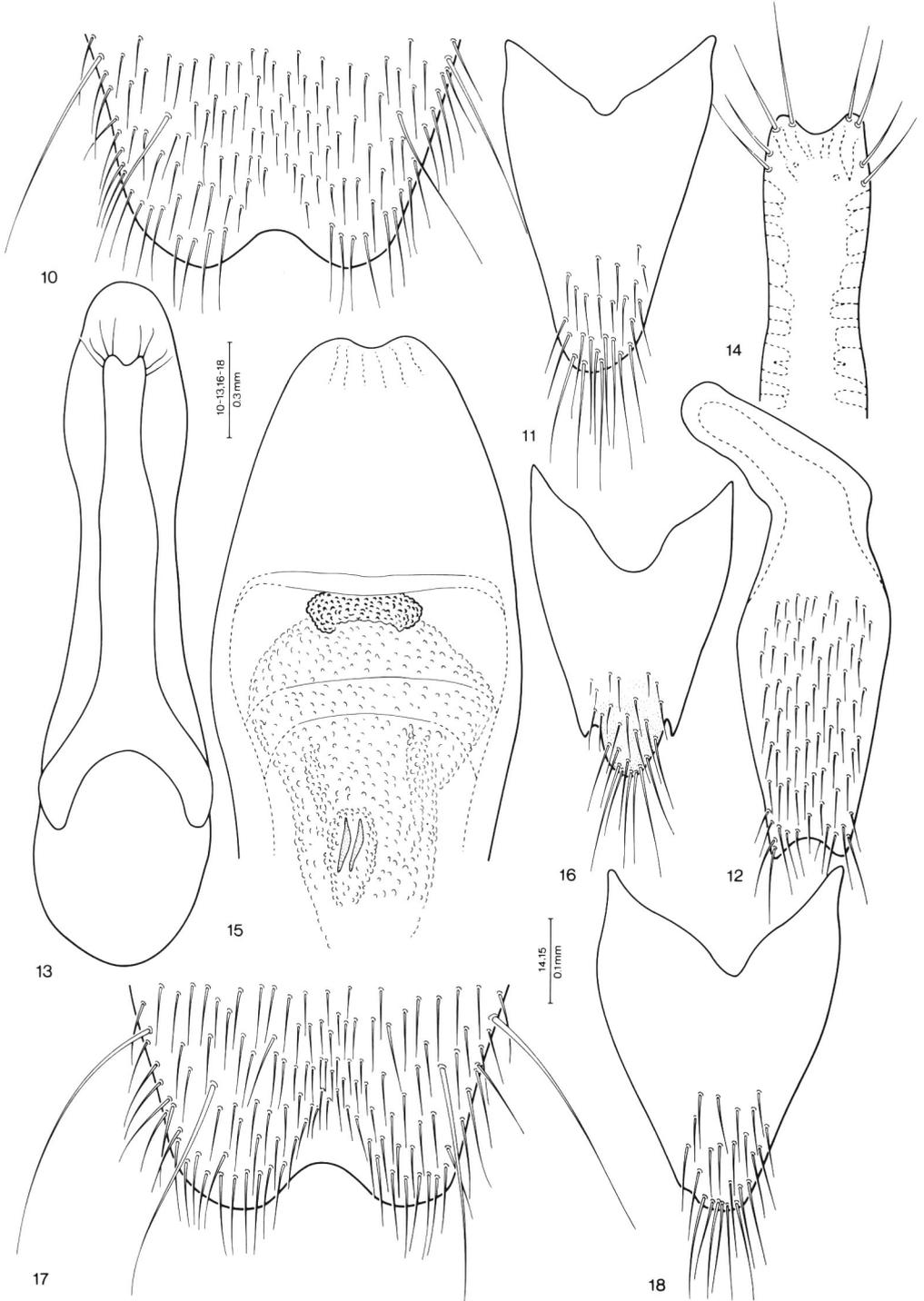
*Description.* In all characters very similar to *Q. bito*, but different as follows: body, including tip of abdomen, entirely black. Head more distinctly wider than long (ratio 1.34); eyes relatively larger, tempora more distinctly shorter than eyes seen from above (ratio 0.70); posterior frontal puncture situated quite close to postero-medial margin of eye, separated from it by distance equal to diameter of puncture, only two punctures at posterior margin on each side, temporal puncture situated close to posterior margin of eye, separated from it by distance hardly larger than diameter of puncture; microsculpture of dorsal surface of head less dense. Pronotum less narrowed anteriorly, with lateral portions hardly explanate posteriorly; microsculpture same as that on head. First visible abdominal tergite evenly punctate and pubescent, without impunctate middle area.

*Male.* First four segments of front tarsus considerably dilated, sub-bilobed, each densely covered with modified pale setae ventrally; segment two wider than apex of tibia (ratio 1.22); segment four narrower than preceding segments. Sternite 8 with two long setae on each side, medio-apical emargination slightly deeper (Fig. 17). Genital segment with tergite 10 and sternite 9 similar to those of *Q. bito*, as in Figs. 18–19. Aedoeagus (Figs. 20–22) rather robust; median lobe widely constricted in middle portion, with triangular, subacute apical portion. Paramere quite narrow and very elongate, slightly dilated in middle portion, its narrowly truncate apex distinctly not reaching apex of median lobe; four rather fine setae at apex and one modified, thickened short seta at each latero-apical angle, and two conspicuously long setae at each lateral margin below apex. Internal sac as in Fig. 22.

*Female.* First four segments of front tarsus similar to those of male, but slightly less dilated; segment two wider than apex of tibia but not as much (ratio 1.19). Genital segment with tergite 10 similar to that of *Q. bito*, but angulately

---

Figs. 10–18. — 10–16. *Quedius bito*: 10, apical portion of male sternite 8; 11, tergite 10 of male genital segment; 12, sternite 9 of male genital segment; 13, aedoeagus, ventral view; 14, apical portion of underside of paramere; 15, apical portion of median lobe with internal sac; 16, tergite 10 of female genital segment. — 17–18. *Quedius chremes*: 17, apical portion of male sternite 8; 18, tergite 10 of male genital segment.



Figs. 10-18.

differentiated apical portion narrower and with setae less numerous (Fig. 23).

Length 9.0–9.8 mm.

*Type material.* Holotype (male): China: “CHINA, Sichuan Langmusi, 3,500–3,600 m, 13.VII.94 A. Smetana [C14]”.

Allotype (female): China: “CHINA, NW Sichuan S of Langmusi, forest 3,400–3,600 m, 13–14.VII.1994, K. W. Anton”.

Both holotype and allotype in the SMETANA collection, Ottawa, Canada.

Paratype: China: [Sichuan]: same data as holotype, 1 ♀, in the SMETANA collection.

*Geographical distribution.* *Quedius chremes* is at present known only from the type locality in north-central Sichuan.

*Bionomics.* The specimens of the original series were taken in a coniferous forest (mostly *Abies* sp.), together with one specimen of *Q. bito*, by sifting moist debris and needles under branches left behind from a cut down tree.

*Recognition, comparisons and comments.* *Quedius chremes* may be easily distinguished from *Q. bito* by the characters given in the description. The shape of the aedoeagus of *Q. chremes* is diagnostic. The modified, thickened short setae on the underside of the paramere resemble those present on the underside of paramere of *Q. beasoni* (see SMETANA, 1988, 393, fig. 13; 1995 a, 36, fig. 12).

The holotype is missing the last two segments of the right antenna and the right tarsus.

The type locality Langmusi is also known under the name Dacanglhamo. It lies quite close to the border between Gansu and Sichuan.

*Etymology.* The specific name is that of *Chremes*, *-etis*, m., the name of an old miser in the Andria.

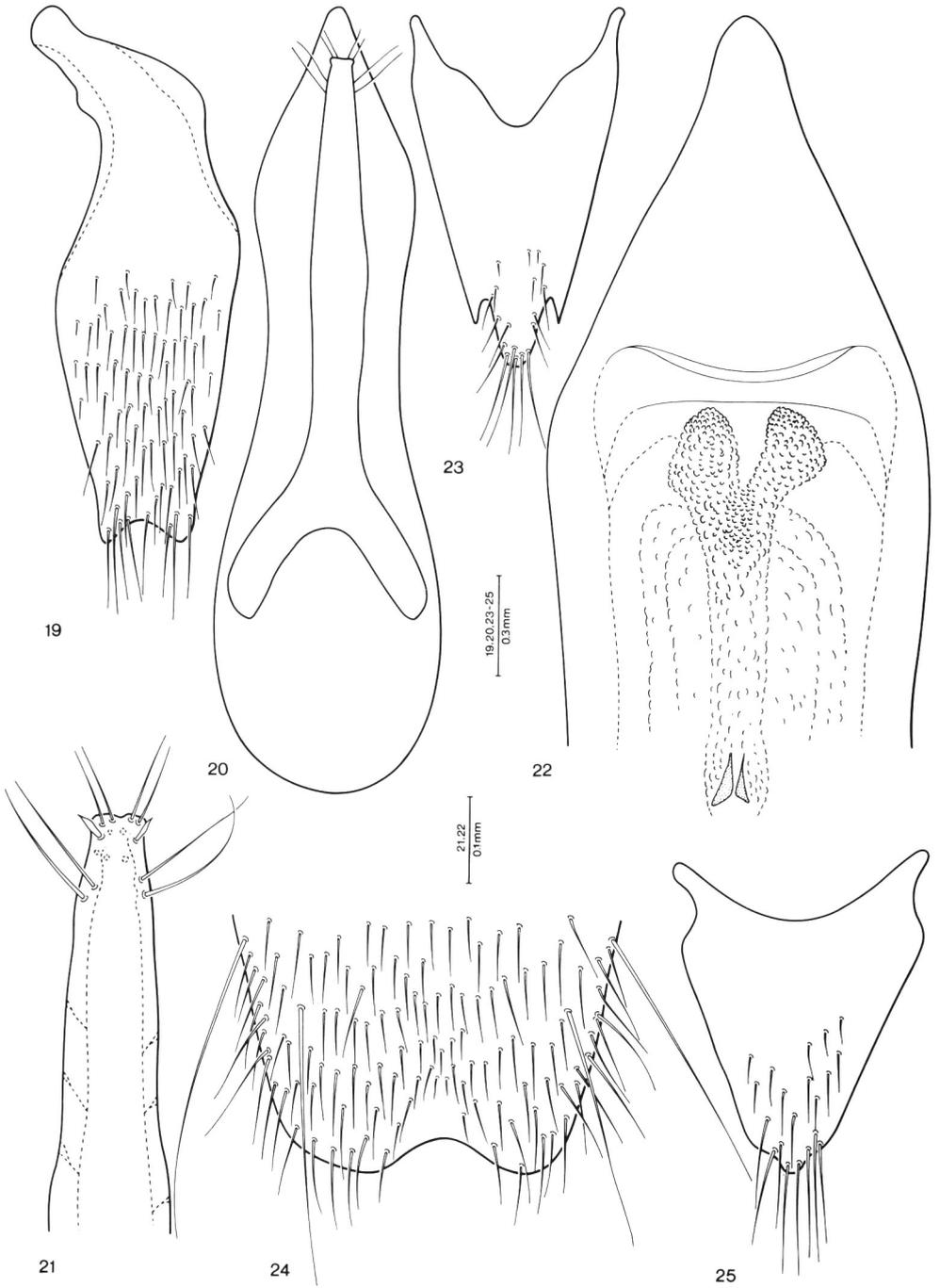
### *Quedius (Microsaurus) decius* sp. nov.

(Figs. 24–31)

*Description.* In all characters very similar to *Q. bito*, but different as follows: body entirely black, apical portion of abdominal segment 7 (fifth visible), segment 8 and apex of abdomen reddish-yellow; segments 8–11 of antennae whitish-yellow. Head distinctly more narrowed behind eyes; eyes considerably larger and more convex, distinctly protruding from lateral contours of head, tempora distinctly shorter than eyes seen from above (ratio 0.70); posterior frontal puncture situated close to postero-medial margin of eye, separated from it by

---

Figs. 19–25. — 19–23. *Quedius chremes*: 19, sternite 9 of male genital segment; 20, aedoeagus, ventral view; 21, apical portion of underside of paramere; 22, apical portion of median lobe with internal sac; 23, tergite 10 of female genital segment. — 24–25. *Quedius decius*: 24, apical portion of male sternite 8; 25, tergite 10 of male genital segment.



Figs. 19-25.

distance about equal to diameter of puncture, only two punctures at posterior margin on each side; tempora with only a few fine punctures; dorsal side of head with microsculpture of coarser and distinctly sparser transverse waves, becoming more or less confused on clypeus. Pronotum in apical third more narrowed anteriorly, with less prominent front angles, lateral portions scarcely explanate; surface with microsculpture similar to that on head, but somewhat finer and denser, but still distinctly coarser and less dense than that on pronotum of *Q. bito*. Elytra somewhat narrower and more parallel-sided; punctation slightly coarser and sparser, transverse interspaces between punctures mostly about twice as large as diameters of punctures. Punctation and pubescence of abdominal tergites finer and denser than that on elytra, but becoming appreciably sparser toward apex of each tergite and in general toward apex of abdomen; small middle area of tergite 3 (first visible) impunctate.

**Male.** First four segments of front tarsus markedly dilated, sub-bilobed, each densely covered with modified pale setae ventrally; segment two wider than apex of tibia (ratio 1.15); segment two narrower than preceding segments. Sternite 8 with medio-apical emargination somewhat shallower and more arcuate (Fig. 24). Genital segment with tergite 10 somewhat wider, with slightly differentiated, subacute apex (Fig. 25); sternite 9 similar to that of *Q. bito*, but apex subtruncate, with two distinctly differentiated subapical setae and with fine, short setae less numerous (Fig. 26). Aedoeagus (Figs. 27–29) very similar to that of *Q. apicipennis*, but distinctly larger, wider and in general appearing considerably more robust; internal sac with strongly sclerotized structure similar to that of *Q. apicornis*, but larger, wider and more deeply emarginate basally (Fig. 29).

**Female.** First four segments of front tarsus similar to those of male, but distinctly less dilated; segment two slightly narrower than apex of tibia (ratio 0.92). Genital segment with accessory sclerite generally elongate-triangular in shape (Fig. 30); tergite 10 in general similar to that of *Q. bito*, but angularly differentiated, pigmented medio-apical portion somewhat wider, with two pairs of strong apical setae (Fig. 31).

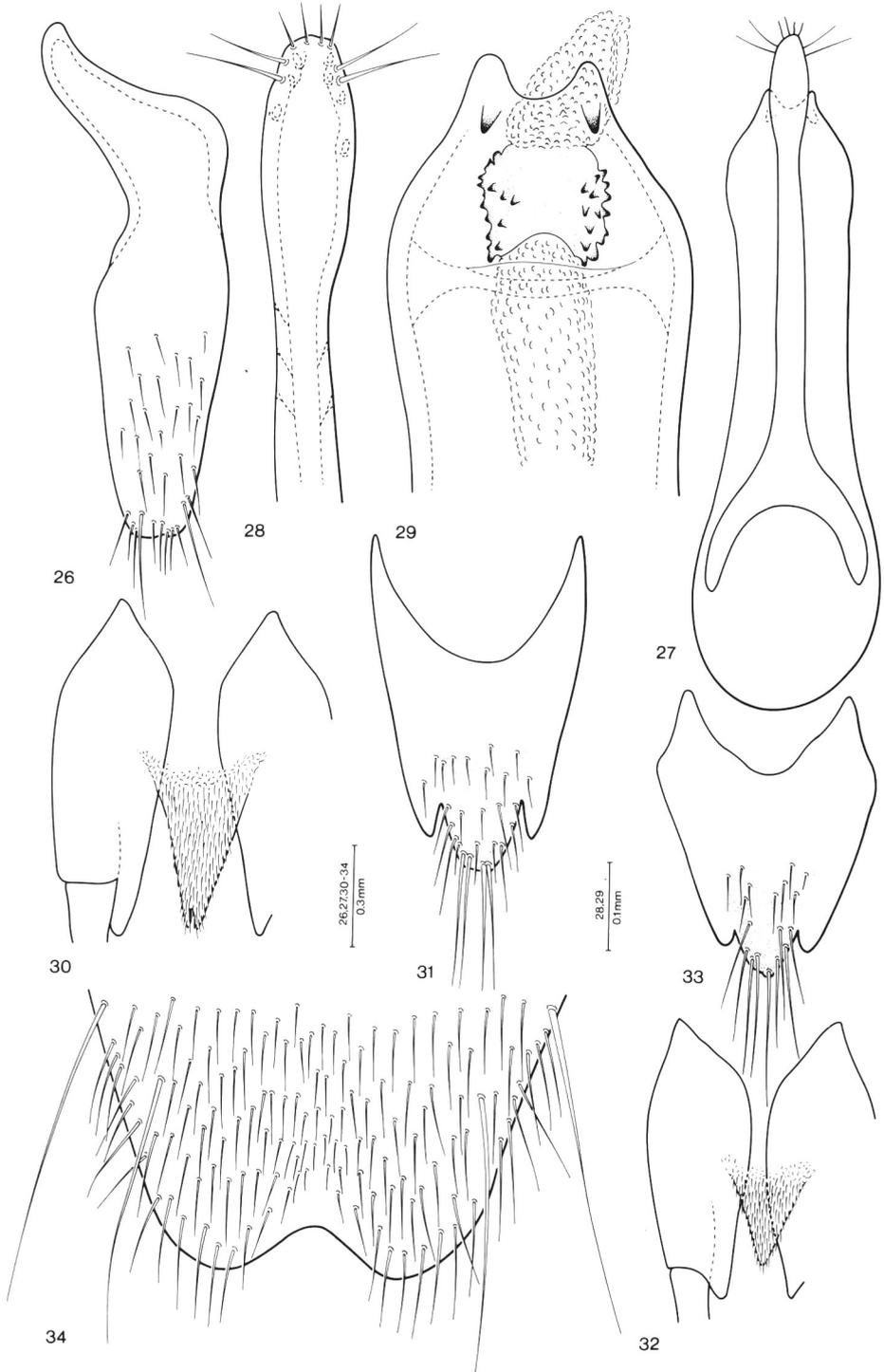
Length 9.8–10.6 mm.

**Type material.** Holotype (male) and allotype (female): China: "CHINA, Sichuan prov. 27.VI.–3.VII.1991 Z. Kejval leg." / "Liziping env. near Shimien 200 km SW of Ya'an". In Naturhistorisches Museum, Wien.

Paratype: China: [Sichuan], same data as holotype, 1♂, in the SMETANA

---

Figs. 26–34. — 26–31. *Quedius decius*: 26, sternite 9 of male genital segment; 27, aedoeagus, ventral view; 28, apical portion of underside of paramere; 29, apical portion of median lobe with internal sac; 30, gonocoxites of female genital segment with accessory sclerite; 31, tergite 10 of female genital segment. — 32–33. *Quedius apicornis*: 32, gonocoxites of female genital segment with accessory sclerite; 33, tergite 10 of female genital segment. — 34. *Quedius ennius*: apical portion of male sternite 8.



Figs. 26-34.

collection, Ottawa, Canada.

*Geographical distribution.* *Quedius decius* is at present known only from the type locality in southwestern Sichuan.

*Bionomics.* Nothing is known about the collection circumstances of this species.

*Recognition, comparisons and comments.* *Quedius decius* is easily distinguished from the specimens of *Q. bito* with the pale tip of the abdomen, by the different shape of the aedoeagus and the absence of the accessory sclerite of the female genital segment, and by the characters given in the description. The different shape of the head, the larger and more convex eyes, and the whitish-yellow four terminal antennal segments are immediately noticeable.

The aedoeagus of *Q. decius* is remarkably similar to that of *Q. apicicornis* (see above). However, the specimens of *Q. apicicornis* differ in several external characters, such as the bluish tint of the elytra (only rarely missing), the distinctly sparser punctuation of the elytra and of the abdominal tergites, and by the different, acutely triangular shape of the accessory sclerite and the shape of tergite 10 of the female genital segment (Figs. 32, 33). In addition, the specimens of *Q. apicicornis* are on average smaller and less robust.

The male paratype has a slightly anomalous abdomen in that the tergites are obtusely elevated along the midline.

*Etymology.* The specific name is the name of an eminent plebeian gens at Rome, in apposition.

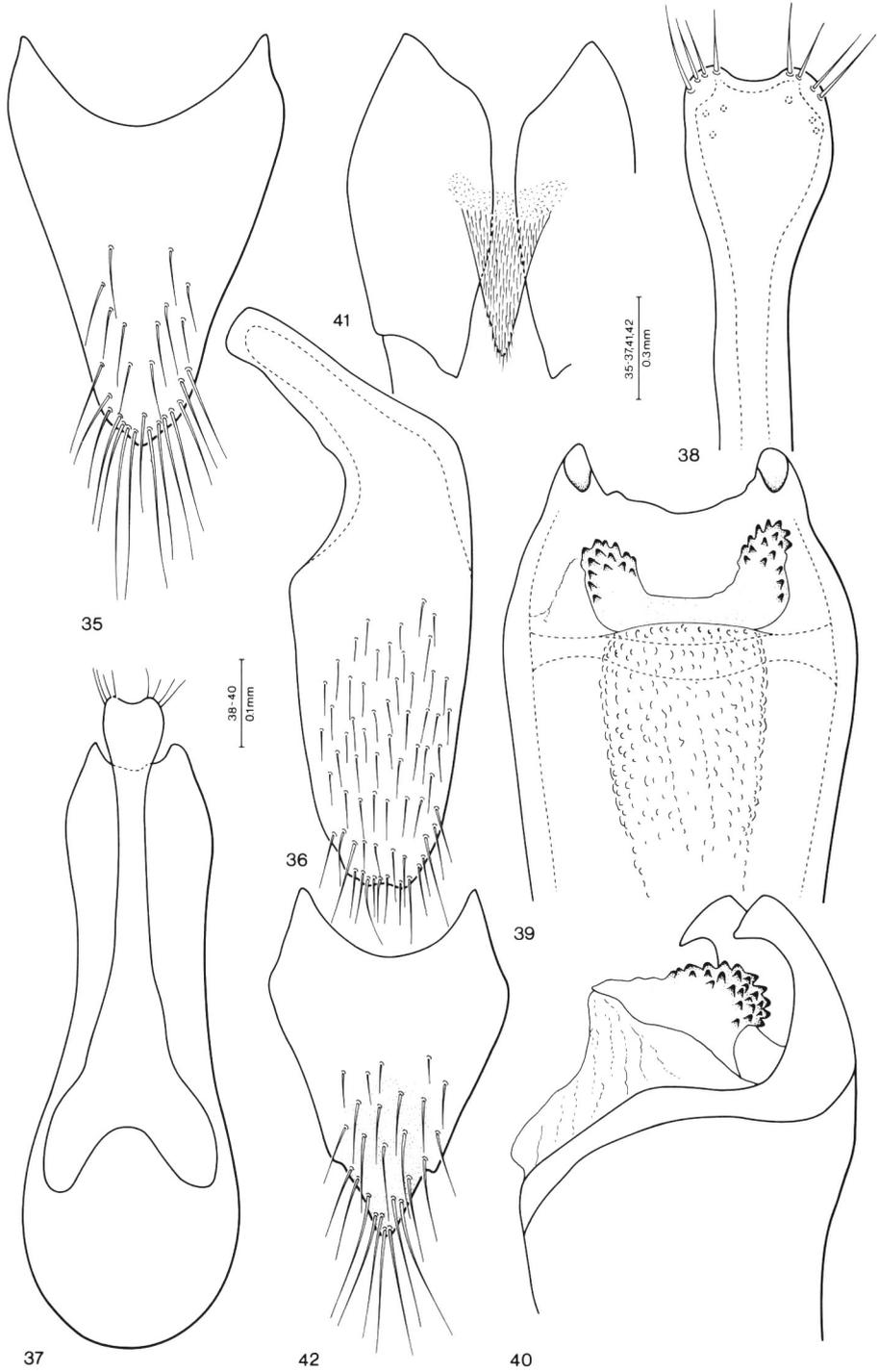
*Quedius (Microsaurus) ennius* sp. nov.

(Figs. 34–42)

*Description.* In all characters similar to *Q. bito*, but different as follows: head along anterior margin of clypeus and sometimes along antero-medial margin of eyes, labrum and basal portions of mandibles inconspicuously paler, dark reddish-brown; apical fourth of abdominal tergite 7 (fifth visible) and basal third to half of segment 8 reddish-yellow; maxillary and labial palpi entirely rufo-testaceous or piceous with last segment rufo-testaceous, antennae piceous-black, gradually becoming paler toward apex, legs piceous-black with distinctly paler tarsi. Eyes relatively smaller, tempora appreciably longer than eyes seen from above (ratios 1.19–1.21) in male, about as long as eyes seen from above in female. Two punctures between posterior frontal puncture and posterior margin

---

Figs. 35–42. *Quedius ennius*: 35, tergite 10 of male genital segment; 36, sternite 9 of male genital segment; 37, aedoeagus, ventral view; 38, apical portion of underside of paramere; 39, apical portion of median lobe with internal sac, ventral view; 40, apical portion of median lobe with internal sac, lateral view; 41, gonocoxites of female genital segment with accessory sclerite; 42, tergite 10 of female genital segment.



Figs. 35-42.

of head. Antenna robust in male, less so in female, segment 3 distinctly longer than segment 2.

**Male.** First four segments of front tarsus markedly dilated, sub-bilobed, each densely covered with modified pale setae ventrally; segment two slightly wider than apex of tibia (ratio 1.13); segment four narrower than preceding segments. Sternite 8 with two long setae on each side; with fairly wide and deep, obtusely triangular medio-apical emargination, small triangular area before emargination flattened and smooth (Fig. 34). Genital segment with tergite 10 subacute apically, with numerous, long apical setae (Fig. 35); sternite 9 with apex subtruncate, with two weakly differentiated subapical setae on each side (Fig. 36). Aedoeagus (Figs. 37–40) robust and relatively short; median lobe with apical portion broadly, arcuately emarginate apically; apical portion of median lobe on side opposite to paramere markedly excavated, with sharp, backward directed latero-apical tooth on each side. Paramere very narrow and elongate, club-like dilated apically, exceeding apex of median lobe, with apical margin slightly emarginate; four setae at each side of medio-apical emargination; internal sac with characteristic, bilobed structure, as in Figs. 39–40.

**Female.** First four segments of front tarsus similar to those of male, but markedly less dilated; second segment about as wide as apex of tibia. Genital segment with narrowly triangular accessory sclerite (Fig. 41); tergite 10 rather wide, slightly pigmented medio-apically, with slightly, angulately delimited, subacute apical portion, without differentiated apical or subapical setae (Fig. 42).

Length 10.5–12.2 mm.

**Type material.** Holotype (male): China: “CHINA, YUNNAN prov. HEISHUI 35 km N Lijiang 18.6.–4.7.1993 27.13°N, 100.19°E lgt. S. Becvar”.

Allotype: “CHINA–Yunnan 24.–29.6.1993 60 km N Lijiang, Yulongshan Nat. Res. E. Jendek & O. Sausa leg.”. Both holotype and allotype in the Naturhistorisches Museum, Wien.

Paratypes: China: same data as holotype, but date 1.–19.7.1992, 1♂, 1♀. In the Naturhistorisches Museum, Wien (♀) and in the SMETANA collection, Ottawa (♂).

**Geographical distribution.** *Quedius ennius* is at present known only from the broader vicinity of Lijiang in northwestern Yunnan.

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

**Recognition, comparisons and comments.** *Quedius ennius* shares the character state of the robust, sexually dimorphic antenna with *Q. acco*. It differs, in addition to the different sexual characters, particularly the different aedoeagus (Figs. 6–8, 37–40) and the presence of the accessory sclerite of the female genital segment (Fig. 41), by many external characters, such as the distinctly smaller eyes and the simple surface of the elytra between the punctures (surface with rugulose

microsculpture in *Q. acco*), etc.

The aedoeagus of this species resembles those of *Q. apicicornis* and *Q. decius*, but it differs from both mainly by the distinctly shorter, more robust shape, by the widely emarginate apex of the median lobe and by the different shape of the large sclerotized structure of the internal sac (Figs. 27, 29), and figs. 7–9 in SMETANA, 1988, 392).

*Quedius ennius* shares the character state of the presence of the accessory sclerite of the female genital segment with *Q. decius*, but *Q. decius* differs abundantly, in addition to the sexual characters, by the markedly larger and more convex eyes, by the sexually not dimorphic antennae, with four outer segments conspicuously whitish-yellow.

*Quedius ennius* seems to vary markedly in size. The holotype, allotype and the male paratype, attaining at least 12.0 mm, are the largest specimens of all Chinese species of the *Apicicornis* Group, but the female paratype is a distinctly smaller specimen of 10.5 mm length.

*Etymology.* The specific name is that of *Ennius*, -ii, m., a celebrated Roman poet, in apposition.

The Chinese species of the *Apicicornis* and *Beesoni* Groups, mainly dealt with in this paper, are rather large and conspicuous members of the genus *Quedius* that seem to be frequently collected. I am therefore presenting a preliminary key to aid in their identification. The definitive identification key will be published later within a complete key to all known Chinese species of *Quedius*.

1. Scutellum with fine sculpture of irregular transverse rugae on basal portion (*Beesoni* Group). . . . . 2
- Scutellum smooth, without sculpture of irregular transverse rugae on basal portion (*Apicicornis* Group). . . . . 3
2. Surface of elytra between punctures without microsculpture, shiny. Antenna slender, not sexually dimorphic. Aedoeagus as in figs. 11–14 in SMETANA, 1995 a. Length 8.0–12.0 mm. . . . . *Q. beesoni* CAMERON
- Surface of elytra between punctures to various extent dull due to variably developed rugulose microsculpture. Antenna sexually dimorphic, robust in male, less so in female. Aedoeagus as in Figs. 6–8. Length 8.8–10.5 mm. . . . . *Q. acco* sp. nov.
3. Abdominal tergite 3 (first visible) with smooth impunctate area in middle. Apical portion of median lobe of aedoeagus with apex arcuate or variably emarginate (Figs. 13, 27, 37). . . . . 4
- Abdominal tergite 3 (first visible) evenly punctate, without smooth impunctate area in middle. Apical portion of median lobe of aedoeagus narrowed into subacute apex (Fig. 20). Length 9.0–9.8 mm. . . . .

- .....*Q. chremes* sp. nov.
4. At least three punctures (at least unilaterally) on each side of head in front of posterior margin. Paramere of aedoeagus well short of apex of median lobe, apex of median lobe no more than minutely emarginate (Figs. 13, 15). Female genital segment without accessory sclerite. Length 9.1–10.0 mm. ....*Q. bito* sp. nov.
- Two punctures on each side of head in front of posterior margin. Paramere of aedoeagus exceeding apex of median lobe, apex of median lobe distinctly emarginate (Figs. 27, 37). Female genital segment with accessory sclerite (Figs. 30, 41). ..... 5
5. Antennal segments 8–10 whitish-yellow, conspicuously differing in colour from rest of antenna. Antenna slender, not sexually dimorphic. Aedoeagus as in Figs. 27–29. Length 9.8–10.6 mm. ....*Q. decius* sp. nov.
- Antenna becoming gradually paler toward apex, segments 8–10 not conspicuously differing in colour from rest of antenna. Antenna sexually dimorphic, robust in male, less so in female. Aedoeagus as in Figs. 37–40. Length 10.5–12.2 mm. ....*Q. ennius* sp. nov.

### Acknowledgments

My colleagues, Dr. Y. BOUSQUET and Mr. A. DAVIES, Biological Resources Division, CLBRR, 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.

### References

- CAMERON, M., 1926. New species of Staphylinidae from India. Part II. *Trans. r. ent. Soc. London*, 1925: 341–372.
- 1932. Coleoptera. Staphylinidae. Vol. III. *The Fauna of British India, including Ceylon and Burma*. XIII+433 pp., 4 pls. London.
- EPPELSHEIM, E., 1895. Zur Staphylinidenfauna Ostindiens. *Dtsch. ent. Z.*, 1895: 385–408.
- HAYASHI, Y., 1992. Notes on Staphylinidae from Taiwan, VIII. *Ent. Rev. Japan*, 47: 107–113.
- SMETANA, A., 1988. Revision of the tribes Quediini and Atanygnathini. Part II. The Himalayan region (Coleoptera: Staphylinidae). *Quaest. ent.*, 24: 163–464.
- 1995 a. Revision of the tribes Quediini and Tanygnathini. Part III. Taiwan. (Coleoptera: Staphylinidae). *Special Publication No. 6*. 145 pp. National Museum of Natural Science, Tai-chung.
- 1995 b. Contributions to the knowledge of the Quediina (Coleoptera, Staphylinidae, Staphylinini) of China. Part 1. Some species of the genus *Quedius* STEPHENS, 1829, subgenus *Microsaurus* DEJEAN, 1833. *Elytra, Tokyo*, 23: 235–244.
- 1995 c. Ditto. Part 2. Subgenus *Microsaurus* DEJEAN, 1833. Section 2. *Bull. natn. Sci. Mus., Tokyo*, (A), 21: 231–250.