

**Contributions to the knowledge of the Quediina
(Coleoptera: Staphylinidae: Staphylinini) of China.
Part 55. Genus *Queskallion* gen. nov.**

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Abstract. *Queskallion* gen. nov. is established for the species assigned at present to the genus *Philonthus* Stephens, 1829: *Philonthus dispersepunctatus* Scheerpeltz, 1965 and for several new species. The main characters distinguishing the new genus from the genus *Quedius* Stephens, 1829 are presented and a key to all genera of the subtribe Quediina *sensu stricto* of mainland China, and a key to all species belonging to the new genus are attached. Four new species are described: *Q. tangi* sp. nov. (China: Xizang), *Q. schuelkei* sp. nov. (China: Yunnan), *Q. montanum* sp. nov. (China: Sichuan, Gansu) and *Q. seronatum* sp. nov. (Nepal). Each species is described, illustrated and all available distributional and bionomic data are given. *Queskallion dispersepunctatum* is redescribed and is for the first time recorded from Nepal and China (Yunnan).

INTRODUCTION

This is the fifty-fifth of a series of papers dealing with the Quediina of the People's Republic of China with additional information concerning Nepal. A new genus *Queskallion* gen. nov. is established for the species assigned at present to the genus *Philonthus* Stephens, 1829: *Philonthus dispersepunctatus* Scheerpeltz, 1965 and for several additional species described as new: *Queskallion tangi* sp. nov. (China: Xizang), *Q. schuelkei* sp. nov. (China: Yunnan), *Q. montanum* sp. nov. (China: Sichuan, Gansu), *Q. seronatum* sp. nov. (Nepal). The main characters distinguishing the new genus from the genus *Quedius* Stephens, 1829 are presented and a key to all genera of the subtribe Quediina *sensu stricto* of mainland China, and a key to all species belonging to the new genus are attached.

The genus *Queskallion* contains at present five species, one in Nepal and Myanmar, and three species in China (Gansu, Sichuan, Yunnan, Xizang). However, there were several female specimens in the material studied, that may represent additional new species, but their sexual characters (tergite 10 of genital segment in particular) were not significantly different to warrant establishment of new species. There is no doubt that additional species of this genus will be found in the distributional range of the genus that covers at present the Himalaya, Myanmar and mainland China.

MATERIAL AND METHODS

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

- ASC collection of Aleš Smetana, deposited at The National Museum of Nature and Science, Toshiba, Japan;
CNC Canadian National Collection of Insects and Nematodes, Ottawa, Canada;
MSC collection of Michael Schülke, Berlin, Germany;
NHMB Natural History Museum, Basel, Switzerland;
NKME Naturkunde Museum, Erfurt, Germany;
NMW Naturhistorisches Museum, Wien, Austria;
SMNH Swedish Museum of Natural History, Stockholm, Sweden;
SNUC collection of the Department of Biology, Shanghai Normal University, Shanghai, People's Republic of China;
VAC collection of Volker Assing, Hannover, Germany.

The measurement ratios given in the descriptions are average values when more than one specimen was available. Label data for holotypes and allotypes are quoted exactly as they appear on the label.

The photographs of *Queskallion* were taken using the following equipment: CANON EOS 60D camera with CANON EF 100mm f/2.8 lens, attached to a KAISER RS1 stand with camera arm RA1, COGNISYS STKS-C StackShot macro rail automated system (rail + controller). CANON Speedlite 6000EX-RT electronic flash. The raw photograph files have been adjusted in ADOBE Bridge CS6, then converted into TIFF files in ADOBE Photoshop CS6 and then combined in ZERENE Stacker 1.04, with final adjustment in ADOBE Photoshop CS6. The remaining photographs were taken with a CANON macro photo lens MP-E65 mm attached to CANON EOSS40D camera. The scale given on the photo plates is 1 mm, unless stated differently.

TAXONOMIC PART

Queskallion gen. nov.

(Figs. 50-52)

Type species. *Queskallion tangi* sp. nov. by original designation here.

Description. In all characters similar to *Quedius* Stephens, 1829, but different mainly by differently developed antennae, by the unique chaetotaxy of pronotum and by a few additional supporting characters.

General habitus resembling some species of the genus *Philonthus* Stephens, 1829. Head obtusely quadrangular, tempora markedly setose; no additional setiferous punctures between anterior frontal punctures on head and one setiferous puncture at each side in front of posterior margin of head. Antenna moderately long, second and third segment, in addition to usual long setae, with numerous short setae and with surface between them slightly granulose,

not quite shiny, therefore visually not obviously contrasting with dull granulose surface of following segments bearing dense appressed pubescence (Fig. 51). Pronotum with three to five additional setiferous punctures on posterior lateral area well behind the large lateral puncture (Fig. 52). Scutellum punctate. Surface of elytra with characteristic semigranulose microsculpture giving it sort of fat-glace appearance. Abdomen markedly narrowed toward apex, distinctly iridescent (Fig. 50). Male sternite 8 with minute, inconspicuous medioapical sinuation, no impunctate flattened area in front of it (Figs. 1, 10, 26, 33). Aedoeagi of the species resemble those of some species of the genus *Acylophorus* Nordman, 1837 (e.g., *A. furcatus* Motschulsky, 1858, or *A. daai* Smetana, 1988, see Figs. 320, 325 in Smetana 1988:442)

Discussion. The genus *Queskallion* is a member of the subtribe *Quediina* in restricted sense (Brunke *et al.* 2015). It is well defined by the characters mentioned in the description, and particularly by the unique chaetotaxy on the pronotum and by the development of the antennae. It is at present the only genus within the subtribe *Quediina* members of which have both second and third antennal segment densely setose. The chaetotaxy of the head of the species of *Queskallion* is simple, lacking any additional setiferous punctures unlike that of the apparently related genus *Quemetopon*, but the additional setiferous punctures are present on the pronotum (see above), and the two genera share the characteristic semigranulose microsculpture on the elytra, and the distinctly iridescent abdomen markedly narrowed toward apex.

One of the species of this genus matches the taxon “*Quedius* (*Raphirus*) sp.” appearing in the phylogeny in Brunke *et al.*, 2015) as sister to *Quedionuchus* (Brunke, personal communication). I was able to study the specimen that belongs to *Queskallion seronatum* sp. nov.

The genus *Queskallion* contains at present five species, all occurring in the area from the Himalaya in the west through several Chinese provinces to southern Yunnan and the neighboring area of Myanmar.

Etymology. The generic epithet is a combination of the part of the existing name *Quedius* and the Greek noun of neuter gender σκαλλιον, τό (small cup). Some sclerites of internal sacs of some species resemble to some extent small cup.

KEY TO THE GENERA OF THE SUBTRIBE QUEDIINA *SENSU STRICTO* OF MAINLAND CHINA

1. Mandibles each with longitudinal mandibular brush, in addition to mandibular prostheta (Fig. 41). First four visible abdominal tergites each with elevated middle keel bordered at each side by an impression (Fig. 43). Habitus Fig. 40 *Anthosaurus* Smetana, 2015
- Mandibles each with mandibular prostheta only (Fig. 42). First four abdominal tergites each without elevated middle keel (Figs. 44, 47) 2
2. Elytra without regular setation, visually appearing glabrous, with scarce punctures bearing short, stiff setae, either forming two indistinct longitudinal rows on each elytron, or present as a few scattered punctures on posterior half of each elytron; elytral surface leather-like wrinkled (Fig. 45). Hind femora with a row of spines at hind margin (Fig. 46). Habitus Fig. 44 *Quedionuchus* Sharp, 1884

- Elytra with regular, more or less dense setation (Fig. 48), visually appearing “pubescent”, character of punctuation variable, if scarce and irregular, then two additional setiferous punctures between anterior frontal punctures on head are present; elytral surface not leather-like wrinkled (Figs. 47,48) . Hind femora without a row of spines at hind margin (Fig. 49) 3
- 3. Second and third, or at least third, segment of antenna, in addition to usual long setae, with numerous short setae and with surface among setae slightly granulate, not quite shiny, therefore visually not obviously contrasting with dull granulate surface of following segments bearing dense appressed pubescence (Figs. 51, 55) 4
- First three segments of antenna with only usual long setae and with surface among them smooth, shiny, therefore visually markedly contrasting with dull granulate surface of following segments bearing dense appressed pubescence (Fig. 56) 6
- 4. Antenna very long with all segments distinctly longer than wide, only third antennal segment densely setose (Figs. 53, 55) 5
- Antenna moderately long, with segments 4-8 slightly longer than wide and with outer segments 9 and 10 about as long as wide, second and third antennal segment densely setose (Figs. 50, 51) . Habitus Fig. 50 *Queskallion* gen. nov.
- 5. Scutellum impunctate, Head with two additional setiferous punctures between anterior frontal punctures, characteristically shifted posteriad, i. e. not aligned with anterior frontal punctures to form a transverse row of four punctures (Fig. 54). Habitus Fig. 53 *Quemetopon* Smetana, 2015
- Scutellum punctate (Fig. 59). No additional setiferous punctures between anterior frontal punctures (Fig. 58). Habitus Fig. 57 *Korgella* Özdikmen, 2005
- 6. First three segments of front tarsus in both sexes conspicuously enlarged, patellate, with first segment largest and widest and segment four minute (Fig. 61); last maxillary and labial segments pubescent. Habitus Fig. 60 ..
..... *Quetarsius* Smetana, 1996
- First four segments of front tarsus variably developed, if considerably dilated, then second segment widest and segment four smaller than preceding segments, but not minute (Fig. 62); last maxillary and labial segments not pubescent, with macrosetae only. Habitus Fig. 47 *Quedius* Stephens, 1829

KEY TO SPECIES OF THE GENUS *QUESKALLION*

1. Last puncture of dorsal rows on pronotum shifted considerably posteriad toward posterior third of pronotal length, each dorsal row with four punctures, with first puncture sometimes missing. Paramere of aedoeagus quite narrow and elongate; sensory peg setae on underside not numerous, most situated near apex of paramere (Fig. 7). Length 6.5-7.5 mm. *Q. dispersepunctatum* (Scheerpeltz, 1965)
- Last puncture of dorsal rows on pronotum not shifted posteriad, situated before or at middle of pronotal length, each dorsal row with three punctures. Paramere of aedoeagus of different shape, in general much wider, sensory peg setae on underside numerous and located differently (Figs. 15, 23) 2
2. Sensory peg setae on underside of paramere characteristically arranged into two sorts of S-like figures (Fig. 15). Tergite 10 of female genital segment deeply emarginated (Fig. 17). Length 6.0- 7.0 mm *Q. tangi* sp. nov.
- Sensory peg setae on underside of paramere arranged differently (Figs. 23, 31, 38) 3
3. Apical portion of median lobe of aedoeagus parallelsided with apex slightly emarginated, aedoeagus in general relatively short (Figs. 21, 22). Length 6.0- 7.0 mm *Q. schuelkei* sp. nov.
- Apical portion of median lobe of aedoeagus at least slightly narrowed toward arcuate apex, aedoeagus in general longer (Figs. 29, 30, 36, 37) 4
4. Aedoeagus in general quite narrow, elongate, apical portion of paramere moderately dilated, elongate-oval in shape (Figs. 36-38). Length 6.0- 7.2 *Q. seronatum* sp. nov.
- Aedoeagus in general broader, less elongate, apical portion of paramere markedly dilated, broadly-oval in shape (Figs. 29-31). Length 6.0-7.0 mm *Q. montanum* sp. nov.

Queskallion dispersepunctatum Scheerpeltz, 1965

(Figs. 1- 9)

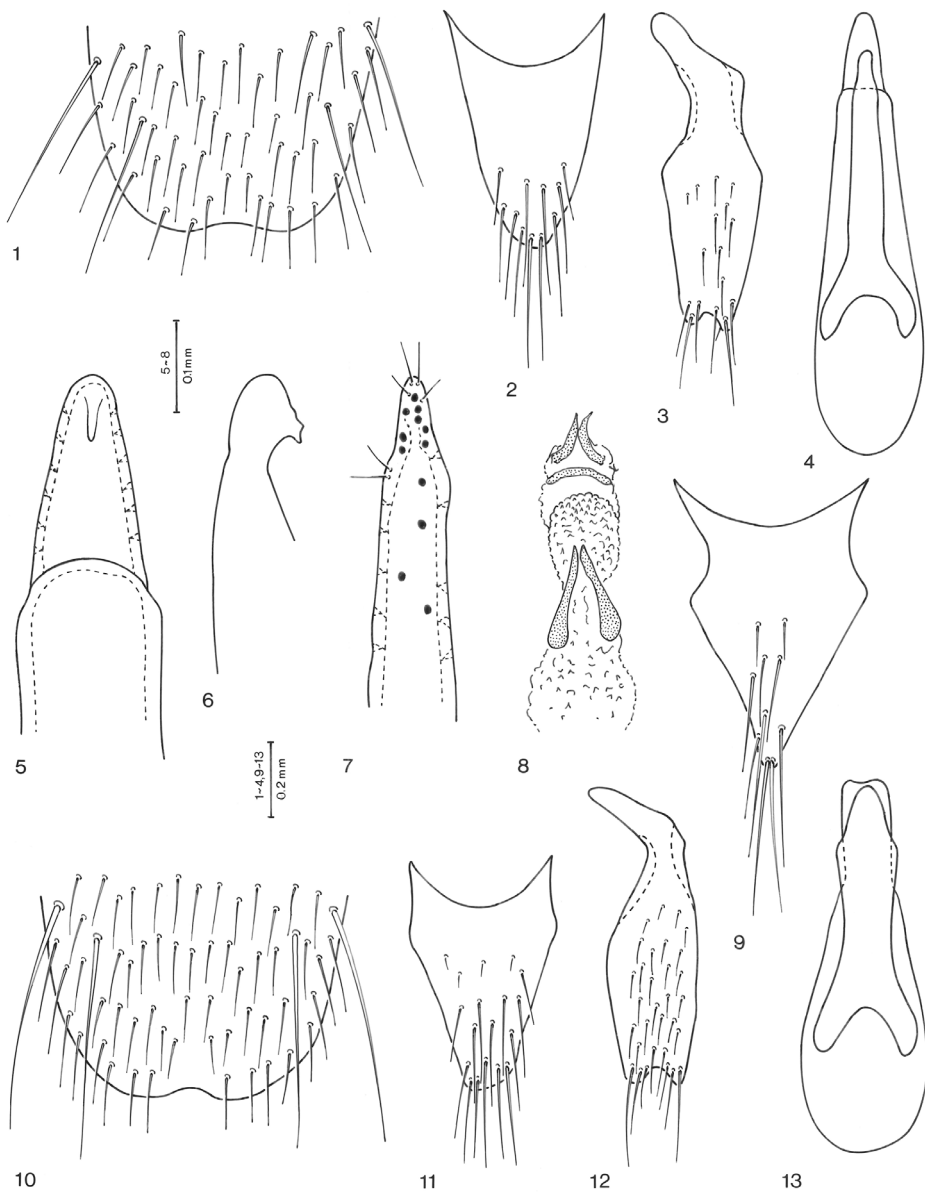
dispersepunctatum Scheerpeltz, 1965: 209 (*Philonthus*; description).

Type locality. MYANMAR: N. Burma, Kambaiti, 2000 m.

Type material. Holotype (♂): MYANMAR: “N. E. BURMA Kambaiti, 2000 m 1/6.1934 *Malaise* / TYPUS *Philonthus disperse-punctatus* O. Scheerpeltz [red label] / HOLOTYPUS [red label] / *Philonthus dispersepunctatus* nov.spec. det Scheerpeltz 1941 / 4674 E91 [blue label] / NHRS-JLKB 000023311”. In SMNH. The specimen was dissected and the tergite and sternite 8, the genital segment and the aedeagus were mounted on transparent plate attached to the beetle. Paratypes: 1 (♂): “N. E. BURMA Kambaiti, 2000 m, 2000 m 16/5. 1934 *Malaise* / COTYPUS *Philonthus disperse-punctatus* O. Scheerpeltz [red label] / 4675 E91 [blue label] / NHRS-JLKB 000023312” (SMNH); the specimen was dissected and the tergite and sternite 8, the genital segment and the aedeagus were mounted on transparent plate attached to the beetle. The specimen is missing left antenna except for two basal segments and right front tibia and tarsus. 1 ♀: “♀ / N. E. BURMA Kambaiti, 2000 m 9/6.1934 *Malaise* / Schwedische Indien-Burma-Expedition 1934 / ex coll. Scheerpeltz [blue label] / COTYPUS *Philonthus dispersepunctatus* O. Scheerpeltz [red label] / *disperse-punctatus* Scheerp. “ (NMW). The specimen was dissected and genital segment was mounted on transparent plate attached to the beetle. 2 ♀♀ with the same labels, except for the date 27/5/1934 and 4/6/1934 (NMW). The specimen with the date 27.V. is missing left antenna except for the first segment, the right middle and the left hind tarsus; the specimen with the date 4. VI. is missing segments 2-4 of right antenna, left front tibia and tarsus, and middle tarsus.

Additional material studied. NEPAL: distr. Kathmandu: Phulcoki, 2500 m, 28-29.IV.84, Löbl & Smetana, 1 ♀ (MHNG); CHINA: Yunnan: Lushi County, Pianma, 2400 m, 24.VI. 2010, Liang Tang leg, 1 ♂ (SNUC). These are the first records of the species from Nepal and China/Yunnan.

Redescription. Entirely black, mouthparts brownish, antennae black, becoming gradually paler toward apex in some specimens, legs piceous-black with paler tarsi; head and pronotum moderately, abdomen markedly, iridescent. Head relatively narrow, obtusely quadrangular, about as long as wide, markedly narrowed posteriad behind eyes, posterior angles entirely obsolete; eyes moderately large and convex, tempora about as long as eyes seen from above; no setiferous punctures between anterior frontal punctures; posterior frontal puncture situated slightly closer to posteriomedian margin of eye than to posterior margin of head, temporal puncture separated from posterior margin of eye by distance slightly larger than diameter of puncture, one puncture behind posterior frontal puncture at posterior margin of head; tempora distinctly, finely setose; surface of head with extremely fine and dense, superficial microsculpture of mostly transverse waves. Antenna moderately long, segment 3 vaguely longer than segment 2, segments 4-8 longer than wide, gradually becoming shorter, outer segments 9 and 10 about as long as wide, last segment about as long as two preceding segments combined. Pronotum slightly wider than long (ratio 1.12), widest at posterior fourth, markedly narrowed anteriorly, with lateral margins continuously arcuate with broadly rounded base, transversely convex; dorsal rows each with four punctures, last puncture shifted considerably posteriad toward posterior third of pronotal length; sublateral rows each with two punctures, posterior puncture situated well before large lateral puncture; three to five additional setiferous punctures on posterior lateral area well behind the large lateral puncture; microsculpture of rudimentary waves excessively fine. Scutellum punctate, with extremely fine microsculpture of transverse striae. Elytra moderately long, at base somewhat narrower than pronotum at



Figs. 1-13. *Queskallion dispersepunctatum*: 1- apical portion of male sternite 8; 2- tergite 10 of male genital segment; 3- sternite 9 of male genital segment; 4- aedoeagus, ventral view; 5- apical portion of median lobe, ventral view, paramere removed; 6- apical portion of median lobe, lateral view, paramere removed; 7- apical portion of underside of paramere with sensory peg setae; 8- main part of internal sac of aedoeagus; 9- tergite 10 of female genital segment. *Queskallion tangi*: 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.

widest point, slightly widened posteriad; at suture vaguely shorter (ratio 0.93), at sides about as long as pronotum at midline; punctuation fine and sparse, transverse interspaces between punctures markedly larger than diameters of punctures; pubescence piceous; surface between punctures with characteristic semigranulose microsculpture, described in generic description. Wing fully developed. Abdomen with tergite 7 (fifth visible) bearing fine whitish apical seam of palisade fringe; tergite two (in front of first fully visible tergite) impunctate; punctuation of abdominal tergites coarser than that on elytra, becoming markedly sparser toward apical margin of each tergite, and in general toward apex of abdomen; pubescence piceous; surface between punctures with excessively fine and dense, superficial microsculpture of transverse striae.

Male. First four segments of front tarsus slightly dilated, subbilobed, each with tenent setae ventrally, segment two about slightly narrower than apex of tibia, segment four narrower than preceding segments. Sternite 8 with two long setae on each side, with minute, inconspicuous medioapical sinuation, no impunctate flattened area in front of it (Fig. 1). Genital segment with tergite 10 rather narrow, narrowed toward arcuate apex, setose as in Fig. 2; sternite 9 with narrow basal portion, apical portion markedly emarginate medioapically, with one long seta at each side of emargination, otherwise sparingly setose (Fig. 3). Aedoeagus (Figs. 4-8) small, narrow and elongate; median lobe anteriorly with markedly differentiated apical portion gradually narrowed toward narrowly arcuate apex in ventral view, but dorsally with characteristic medial structure appearing as sharp, curved claw in lateral view (Fig. 6). Paramere narrow, elongate, with apex by far not reaching apex of median lobe; four apical setae, medial pair somewhat longer than lateral pair, two similar setae at each lateral margin below apex; sensory peg setae on underside not numerous, situated as in Fig. 7. Somewhat schematic main part of internal sac as in Fig. 8.

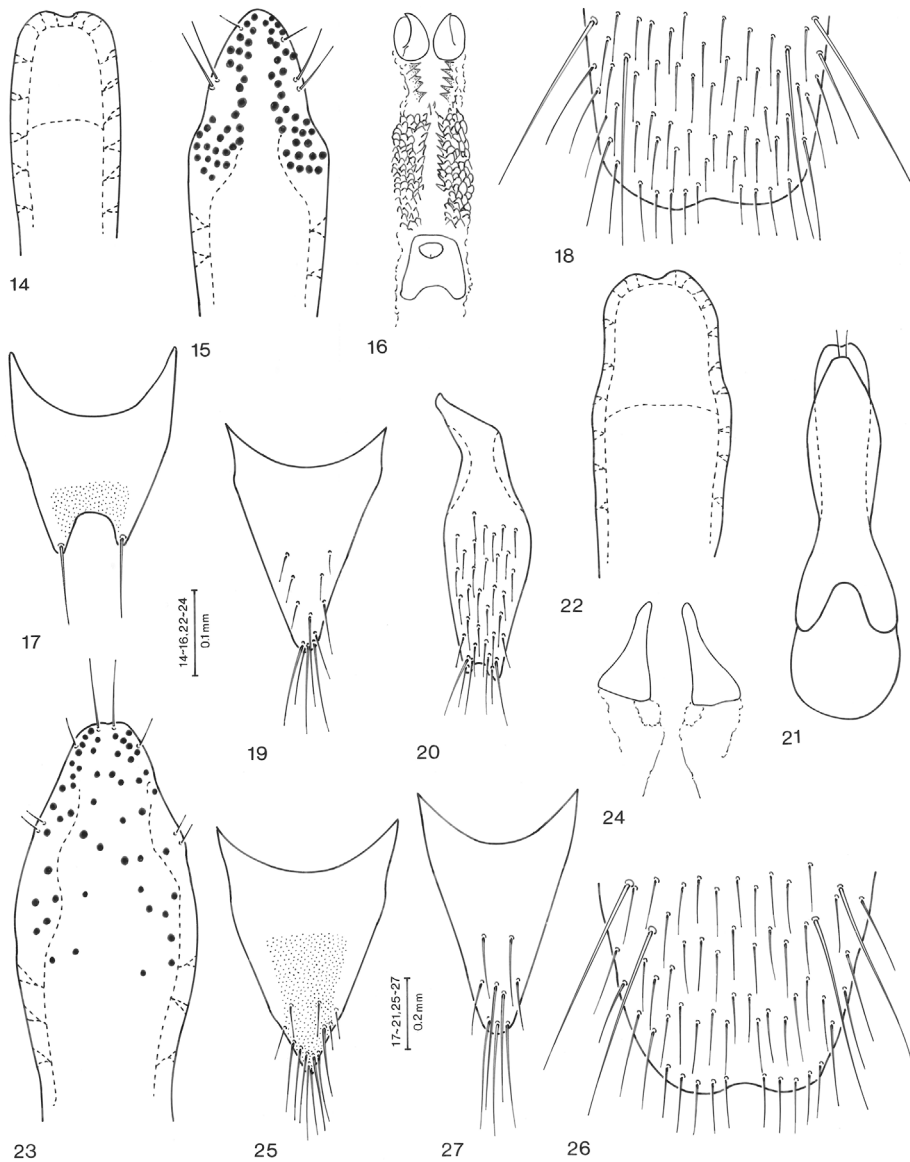
Female. First four segments of front tarsus similar to those of male, but vaguely less dilated. Genital segment with tergite 10 conspicuously narrowed toward acute apex, with two long strong setae at apex, and with several somewhat shorter and thinner setae on apical portion, and with two short setae around middle of tergite (Fig. 9).
Length 6.5-7.5 mm.

Geographical distribution. *Queskallion dispersepunctatum* is at present known from northeastern Myanmar, western Yunnan west of Mekong river and from central Nepal.

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

Comments. Scheerpeltz (1965: 211) considered all five specimens of the original series to be males, however, three specimens are females (see above).

The setation of the two available specimens of sternite 9 of the male genital segment was damaged, therefore only the present setae are shown in Fig. 3.



Figs. 14-27. *Queskallion tangi*: 14- apical portion of median lobe, ventral view, paramere removed; 15- apical portion of underside of paramere with sensory peg setae; 16- main part of internal sac of aedeagus; 17- tergite 10 of female genital segment. *Queskallion schuelkei*: 18 apical portion of male sternite 8; 19- tergite 10 of male genital segment; 20- sternite 9 of male genital segment; 21- aedeagus, ventral view; 22- apical portion of median lobe, ventral view, paramere removed; 23- apical portion of underside of paramere with sensory peg setae; 24- hook-like sclerites of internal sac of aedeagus; 25- tergite 10 of female genital segment. *Queskallion montanum*: 26- apical portion of male sternite 8; 27- tergite 10 of male genital segment.

***Queskallion tangi* sp. nov.**

(Figs. 10- 17)

Type locality. CHINA: Xizang Autonomous Region (Tibet): Motuo county, Hanmi, 2200 m.

Type material. Holotype (♂): CHINA: “Hanmi Motuo Coun. Xizang A. R. alt. 2200 m 19-VIII-2005 TANG Liang leg.” (SNUC). Allotype (♀): same data as holotype (ASC). Paratypes: (2 ♂♂): same data as holotype, (ASC, SNUC).

Description. In all characters similar to *Q. dispersepunctatum*, but different by a few external characters, and particularly by the shape of the aedoeagus and tergite 10 of female genital segment. Head wider, somewhat wider than long (ratio 1.10), less narrowed posteriad behind eyes. Each dorsal row on pronotum with three punctures, last puncture situated before middle of pronotal length. Punctuation of elytra slightly denser and coarser.

Male. First four segments of front tarsus similar to those of *Q. dispersepunctatum*, but slightly more dilated, but segment 2 still slightly narrower than apex of tibia, segment four narrower than preceding segments. Sternite 8 with two long setae on each side, with similar, minute, inconspicuous medioapical sinuation, and no impunctate flattened area in front of it (Fig. 10). Genital segment with tergite 10 shaped differently, setose as in Fig. 11; sternite 9 with narrower basal portion, setose as in Fig. 12. Aedoeagus (Figs. 13- 16) more robust and shorter than that of *Q. dispersepunctatum*, median lobe with markedly differentiated, subparallelsided apical portion with truncate, medially slightly sinuate apex, dorsally without medial, claw-like structure, characteristic for *Q. dispersepunctatum*. Paramere of characteristic shape, with apex not quite reaching apex of median lobe; medial pair of apical setae missing, lateral pair fine, two long setae at each lateral margin way below apex; sensory peg setae on underside numerous, characteristically arranged into two sort of S-like figures (Fig. 15). Somewhat schematic main part of internal sac as in Fig. 16.

Female. First four segments of front tarsus similar to those of male, but slightly less dilated. Genital segment with tergite 10 short, narrowed toward deeply emarginated apex, with one long seta at each side of emargination, otherwise asetose, medioapical area of tergite pigmented (Fig. 17).

Length 6.0- 7.0 mm.

Geographical distribution. *Queskallion tangi* is at present known only from the type locality in Xizang.

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

Comments. One of the paratypes has two setiferous punctures at the left posterior margin of the head.

Etymology. The specific epithet is patronymic, honoring Liang Tang, Shanghai Normal University, Shanghai, who collected all specimens of the original series and whose exciting company we enjoyed during his study stay in Ottawa.

Queskallion schuelkei spec. nov.

(Figs. 18- 25, 50-52)

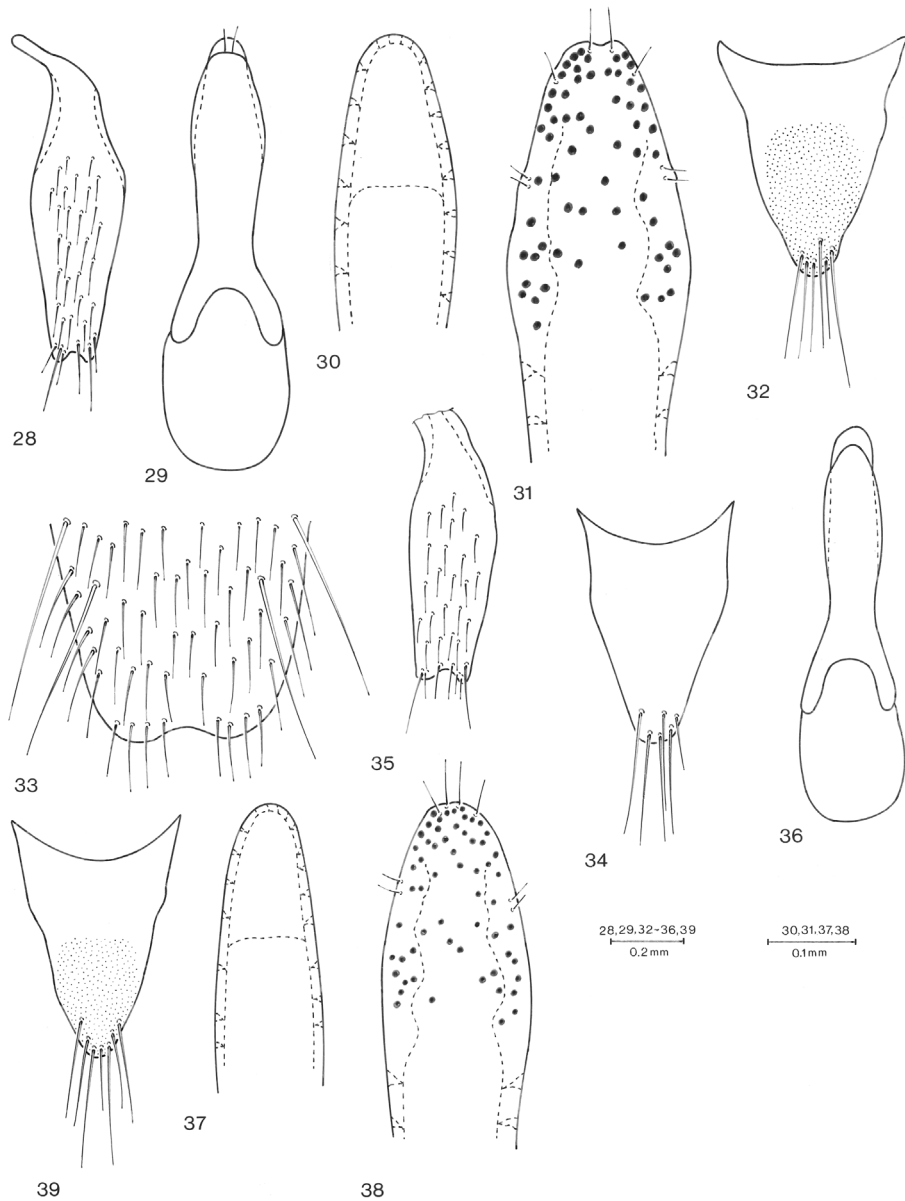
Type locality. CHINA: Yunnan, Diqing Tibetan Autonomous Prefecture, Deqin County, Meili Xue Shan, E side, 14 km W Deqin, 2580 m, 28°27.47'N 98° 46.35'E.

Type material. Holotype (♂): CHINA: "CHINA: N-Yunnan [C205-09] Diqing Tibet. Aut. Pref., Deqin Co., Meili Xue Shan, E-side, 14 km W Deqin, 2850 m / 28°27.47'N 98° 46.35'E, creek valley below glacier, mixed forest, leaf litter, moss, dead wood , sifted, 11.VI. 2005, M. Schülke [C22005-09]", (MSC). Allotype (♀): CHINA: "CHINA: same data as holotype, but A. Smetana [C 158], (ASC). Paratypes: (1 ♂): China: same data as holotype, (SMC); (1 ♀): N-Yunnan Nujiang Lisu Aut. Pr. Gongshan Co. Gaoligong Shan, snowfield at 2500 m 27°45.404'N 98° 35.749'E 21.VI. 05 A. Smetana [C 170], (ASC); (1 ♂): Yunnan, W slope N Nushan, Dimaluo, 27°57.538'N 98°48.900'E, 3167 m, 19.VI.2009, sifting 08, V. Grebennikov, (CNC).

Description. In all characters similar to *Q. dispersepunctatum*, but different by several external characters, and particularly by the shape of the aedoeagus and tergite 10 of female genital segment. Head wider, somewhat wider than long (ratio 1.10), less narrowed posterior behind eyes, therefore appearing more square; eyes larger and slightly more convex, tempora somewhat shorter than eyes seen from above (ratio 1.20); microsculpture on anterior half of head somewhat coarser, forming here and there more or less isodiametric meshes. Pronotum with lateral margins subparallelsided in posterior two thirds and then markedly narrowed anteriorly; each dorsal row with three punctures, last puncture situated before middle of pronotal length. Elytra longer, at suture vaguely (ratio 1.08), at sides slightly (ratio 1.19) longer than pronotum at midline; punctuation of elytra finer and markedly denser, microsculpture on surface between punctures more pronounced.

Male. First four segments of front tarsus similar to those of *Q. dispersepunctatum*, but markedly more dilated, segment 2 as wide as apex of tibia, segment 4 narrower than preceding segments. Sternite 8 with two long setae on each side, with minute, inconspicuous medioapical sinuation, no impunctate flattened area in front of it (Fig. 18). Genital segment with tergite 10 conspicuously narrowed toward subacute apex, setose as in Fig. 19; sternite 9 with narrower basal portion, setose as in Fig. 20. Aedoeagus (Figs. 21- 24) with subparallelsided apical portion of median lobe with truncate, slightly medially sinuate apex, dorsally without medial, claw-like structure, characteristic for *Q. dispersepunctatum*. Paramere large, broadly fusiform, markedly exceeding lateral margins of middle portion of median lobe, with apex distinctly not reaching apex of median lobe; four apical setae, medial pair markedly longer and stronger than lateral pair; two minute setae at each lateral margin way below apex; sensory peg setae on underside numerous, widely spread over most of the fusiform part of paramere (Fig. 23). Internal sac in middle portion with a pair hook-like sclerites (Fig. 24).

Female. First four segments of front tarsus similar to those of male, but markedly less dilated, segment 2 narrower than apex of tibia. Tergite 10 of genital segment markedly narrowed toward subacute apex, medioapical triangular portion pigmented, with numerous unequally long setae at and near apex, otherwise asetose (Fig. 25).
Length 6.0- 7.0 mm.



Figs. 28-39. *Queskallion montanum*: 28- sternite 9 of male genital segment; 29- aedoeagus, ventral view; 30- apical portion of median lobe, ventral view, paramere removed; 31- apical portion of underside of paramere with sensory peg setae; 32- tergite 10 of female genital segment. *Queskallion seronatum*: 33- apical portion of male sternite 8; 34- tergite 10 of male genital segment; 35- sternite 9 of male genital segment; 36- aedoeagus, ventral view; 37- apical portion of median lobe, ventral view, paramere removed; 38- apical portion of underside of paramere with sensory peg setae; 39- tergite 10 of female genital segment.

Geographical distribution. *Queskallion schuelkei* is at present known from two localities in northwesternmost Yunnan.

Bionomics. The specimens from Meilixue Shan were collected in a small creek valley in a mixed forest below the glacier, by sifting various debris along the edges of the creek and by sifting leaf litter, moss and dead wood, The specimen from Gaoligong Shan was taken by sifting moist to wet debris along the edges of a snowfield.

Comments. The apical portion of the median lobe of the aedoeagus is somewhat similar to that of *Q. tangi*, but the parameres of the two species are entirely different (Figs. 15, 23).

The pronotum of the holotype has an artificial, large impression in posterior half.

Etymology. Patronymic. The species was named to honour my distinguished colleague and valued friend Michael Schülke, Berlin, Germany, to commemorate our exciting times during our collecting trips to China in the past.

***Queskallion montanum* spec. nov.**

(Figs. 26-32)

Type locality. CHINA: Sichuan, Gongga Shan, Hailuogou, above Camp 3, 3200 m, 29°35'N 102°00'E.

Type material. Holotype (♂): CHINA: "CHINA, Sichuan, Gongga Shan, Hailuogou, above Camp 3, 3200m, 7.VII.96 29°35'N 102°00'E C 54 / collected by A. Smetana, J. Farkač, and P. Kabátek", (ASC). Allotype (♀): CHINA: "CHINA Sichuan Emei Shan, Jioyin 2500 m, 18.VII.1996 29°32'N 103°21'E C 65 / collected by A. Smetana, J. Farkač, and P. Kabátek", (ASC). Paratypes: (1 ♂, 2 ♀♀): China: Sichuan: same data as allotype, (ASC); (1 ♂): W Sichuan Kangding, 2800 m, 30°04'N 101°58'E, 21.VII.1998, A. Smetana [C 88], (ASC); (1 ♂): Gansu: S-Gansu, [CH 12-07] Mts. 36 km SE Longnan, 33°13'20"N 105°15'10"E, 2170 m, 31.VII.2012, leg. M. Schülke, (MSC); (1 ♂): S-Gansu, S Longnan, Min Shan, 33°03'13"N 104°40'57"E, 2200 m, 6.VIII.2012, V. Assing, (VAC).

Description. In all external characters similar to *Q. schuelkei* but dissimilar by the different both male and female sexual characters, particularly by differently shaped aedoeagus and tergite 10 of female genital segment.

Male. First four segments of front tarsus markedly dilated, similar to those of *Q. schuelkei*, segment 2 as wide as apex of tibia, segment 4 narrower than preceding segments. Sternite 8 with two long setae on each side, with minute, inconspicuous, medioapical situation, no impunctate flattened area in front of it (Fig. 26). Genital segment with tergite 10 not appreciably different from that of *Q. schuelkei* but differently setose, with all setae, especially those away from apex longer (Fig. 27); sternite 9 similar to that of *Q. schuelkei* but longer and with basal portion still narrower (Fig. 28). Aedoeagus (Figs. 29-31) similar to that of *Q. schuelkei*, but in general longer, apical portion of median lobe narrower, narrowed anteriorly and with arcuate apex (Fig. 30). Paramere with fusiform anterior portion narrower; slightly exceeding lateral margins of middle portion of median lobe; apical setae similar to those of *Q. schuelkei*, but shorter and finer; sensory peg setae on underside equally numerous as those of *Q. schuelkei* and distributed in a similar way (Fig. 31). Internal sac with a pair of hook-like sclerites similar to those of *Q. schuelkei*.

Female. First four segments of front tarsus similar to those of male, but markedly less dilated, segment 2 narrower than apex of tibia. Tergite 10 of genital segment similar to that of

Q. schuelkei, but distinctly less narrowed toward narrowly arcuate apex, with less numerous setae at and near apex, otherwise asetose, medioapical pigmented portion wider (Fig. 32). Length 6.0- 7.0 mm.

Geographical distribution. *Queskallion montanum* is at present known from several localities in Sichuan and in southern Gansu.

Bionomics. The specimens from Gongga Shan were taken by sifting dead grass, old needles and other debris under accumulated branches of a felled *Abies* tree. The specimen from around Kangding and specimens from Emei Shan were taken under similar circumstances as those from Gongga Shan. The specimens from Gansu were taken on a northern slope with shrubs and scattered coniferous trees by sifting various floor litter and mushrooms.

Comments. See comments under *Q. seronatum* concerning the similarity of the two species *Q. montanum* and *Q. seronatum*.

Etymology. The specific epithet is the Latin adjective *montanus*, - a, um (of mountains). It refers to the fact that the specimens of this species occur in several mountain ranges in China.

***Queskallion seronatum* sp. nov.**

(Figs. 33-39)

Type locality. NEPAL: Bagmati province, Malemchi, 2800 m.

Type material. Holotype (♂): NEPAL: "NEPAL (Prov. Bagmati) Malemchi, 2800 m 17.IV.81 27 b Löbl & Smetana", (ASC). Allotype (♀): NEPAL: same data s holotype (ASC). Paratypes: (1 ♀): NEPAL: Prov. Bagmati, below Thare Pati, 3300 m, 10.IV.81, 18 c, Löbl & Smetana, (ASC); (1 ♂): Ost-Nepal, Jumbesi, 3000 m, 25.IV. 1993, leg. A. Kleeberg, (NHM); (1 ♀): W Dhaulagiri, env. Dhule, 3400-3500 m, 28°42'10N 82°52'53"E, 18.IX.2012, leg. J. Schmidt, (NKME).

Description. In all characters similar to *Q. schuelkei*, but different by the somewhat smaller, narrower head, but mainly by the differently shaped aedoeagus and tergite 10 of female genital segment.

Male. First four segments of front tarsus markedly dilated, similar to those of *Q. schuelkei*, segment 2 as wide as apex of tibia, segment 4 narrower than preceding segments. Sternite 8 with two long setae on each side, with minute medioapical sinuation, no impunctate flattened area in front of it, sinuation slightly more distinct than that of *Q. schuelkei* (Fig. 33). Genital segment with tergite 10 less narrowed toward broadly arcuate apex, slightly less setose, but with setae longer and stronger (Fig. 34); sternite 9 as in Fig. 35 (see comments). Aedoeagus (Figs. 36-38) similar to that of *Q. montanum*, but in general quite narrow and elongate, apical portion of median lobe narrower; apical portion of paramere narrowly fusiform; four apical setae, medial pair longer than lateral pair, two minute setae at each lateral margin below apex; sensory peg setae on underside of paramere distributed in a similar way as those of *Q. montanum* (Fig. 38). Internal sac with a pair of hook-like sclerites similar to those of *Q. montanum*.

Female. First four segments of front tarsus similar to those of male, but significantly less



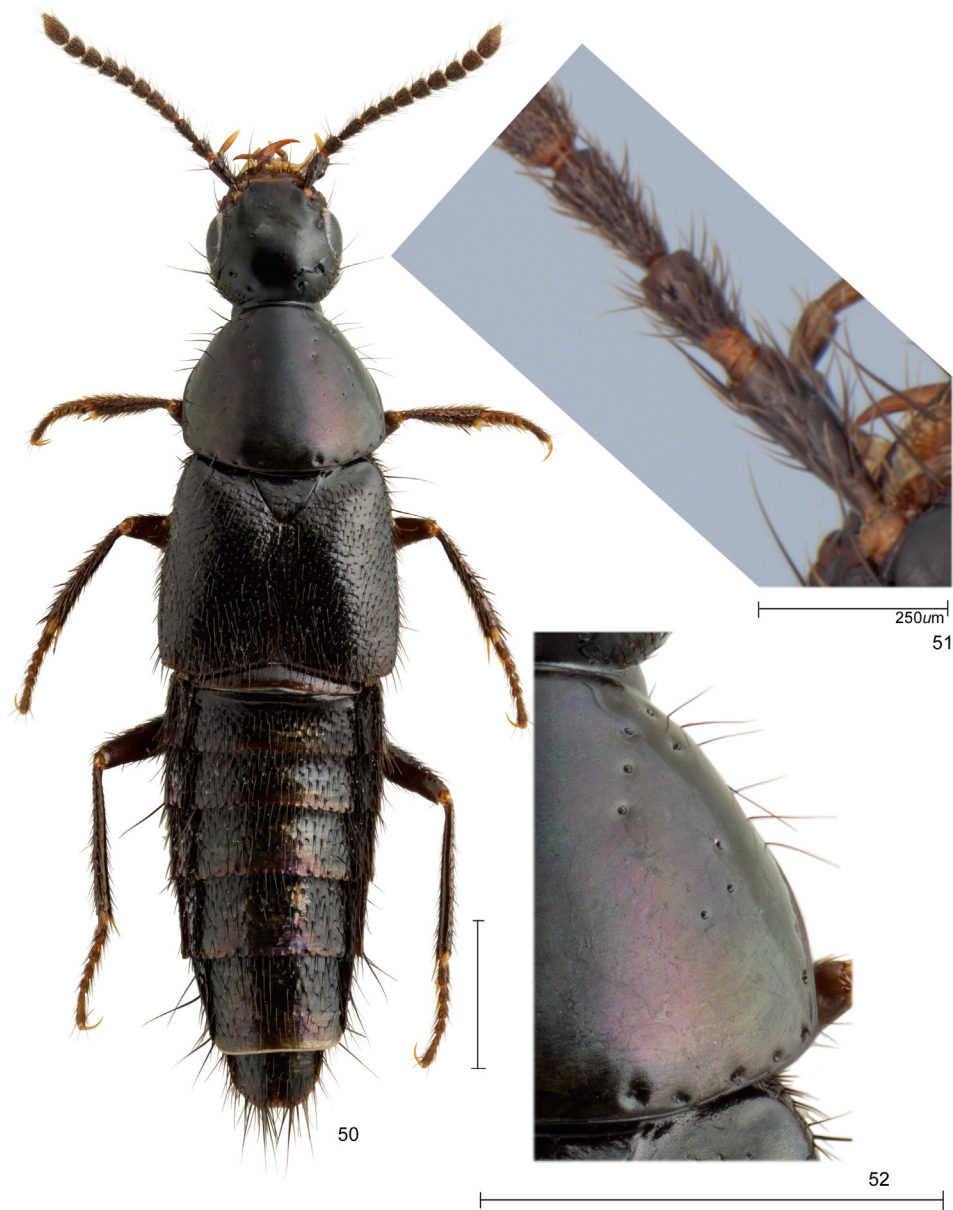
Figs. 40-43. *Anthosaurus caelestis*: 40- habitus; 41- mouthparts showing ventral mandibular brush; 42- first three abdominal tergites. 43: *Quedius (Raphirus) herbicola*: mouthparts showing absence of mandibular brush.



Figs. 44-46. *Quedionuchus reitterianus*: 44- habitus; 45- elytra; 46- right hind femur with row of spines.



Figs. 47- 49. *Quedius (Microsaurus) moeris*: 47- habitus; 48- elytra; 49 right hind femur lacking row of spines.



Figs. 50-52. *Queskalion schuelkei*: 50- habitus; 51- first three segments of left antenna; 52 – right half of pronotum showing the chaetotaxy.



Figs. 53. *Quemetopon grandipenis*: habitus.



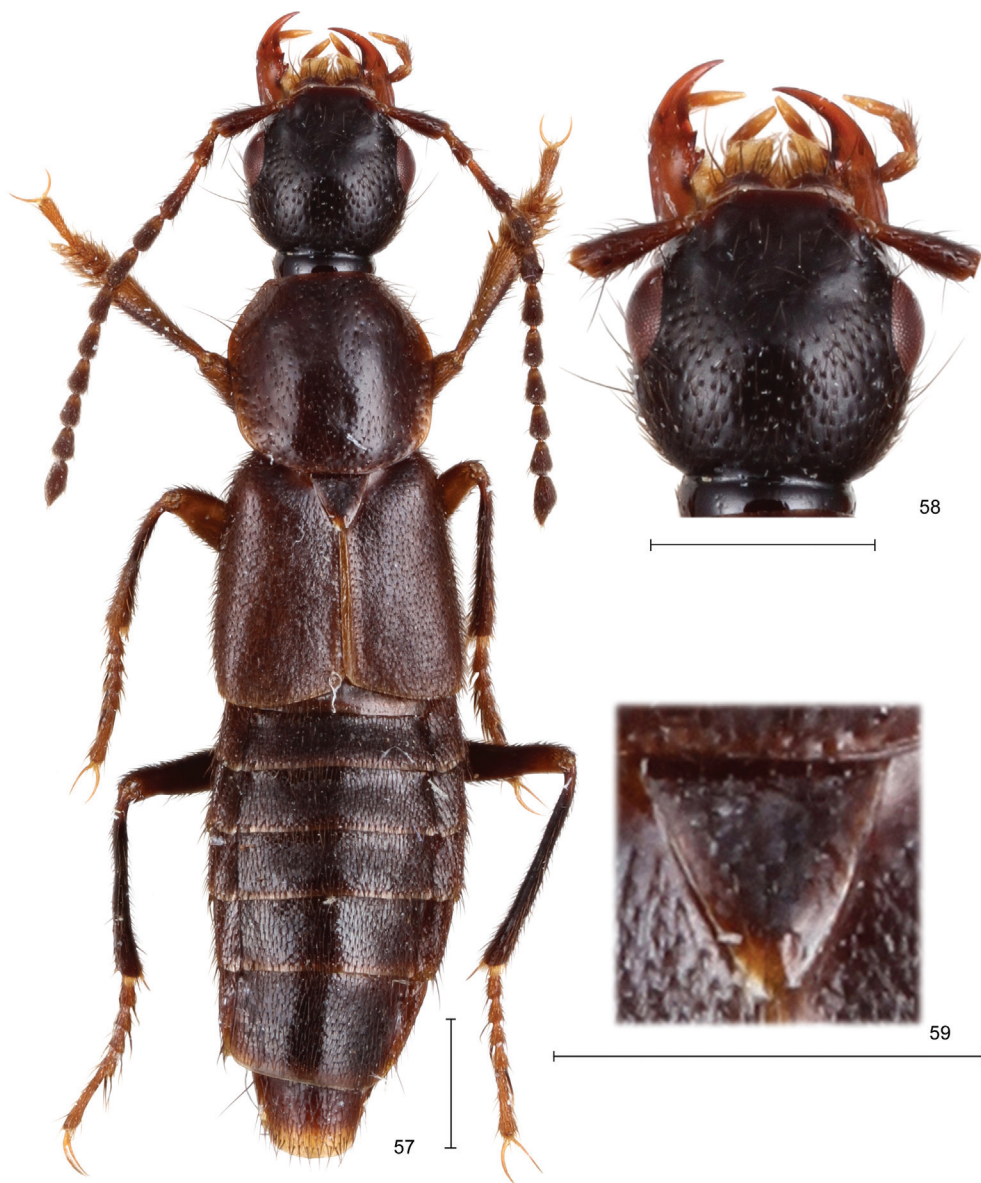
Figs. 54-56. *Quemetopon grandipenis*: 54- head with chaetotaxy ; 55- first three segments of left antenna. 56. *Quedius (Microsaurus) jyr*: first three segments of left antenna.

dilated, segment two markedly narrower than apex of tibia. Tergite 10 of genital segment similar to that of *Q. montanum* (Fig. 39).
Length 6.0-7.2 mm.

Geographical distribution. *Queskallion seronatum* is at present known from Nepal Himalaya.

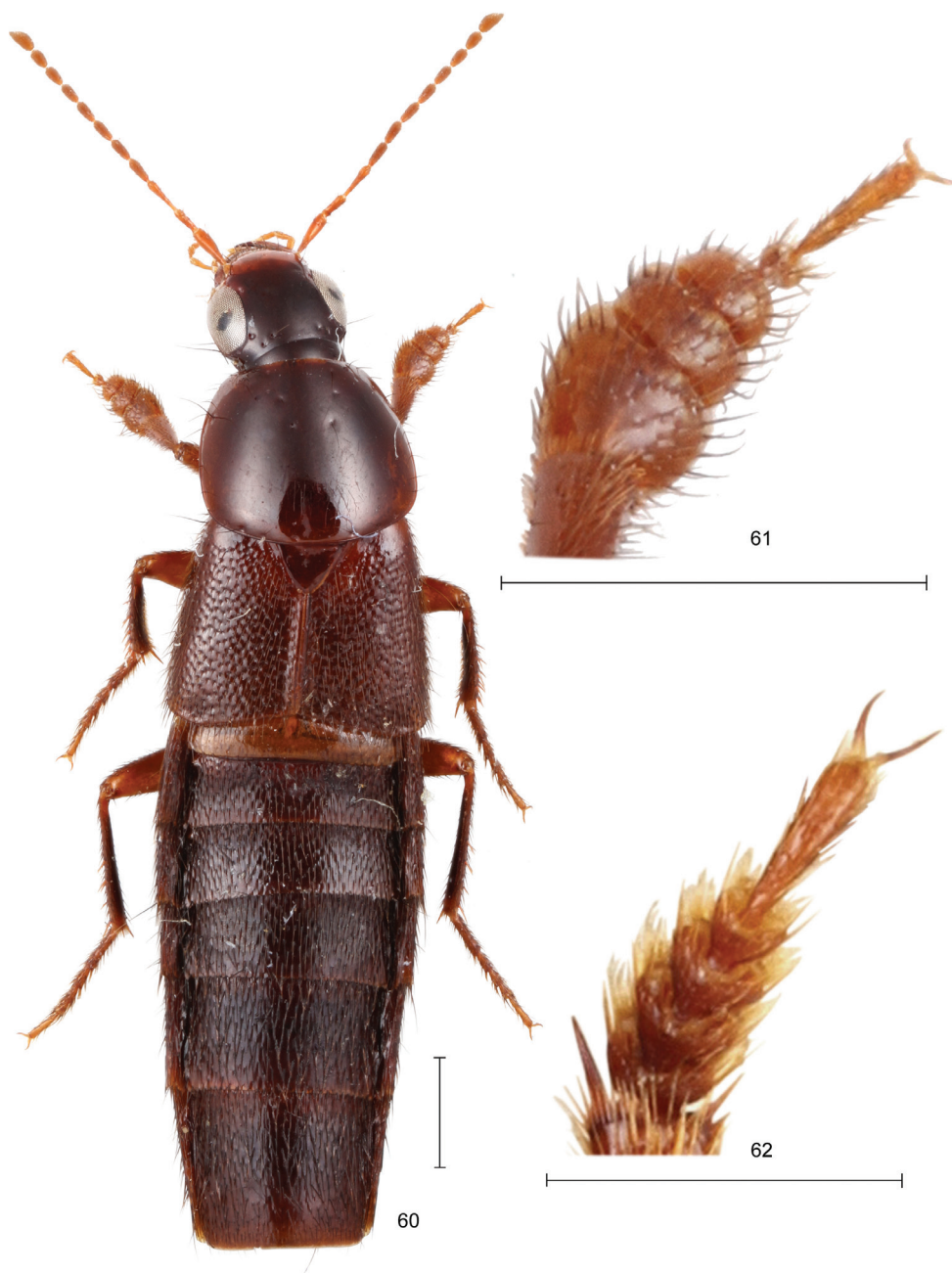
Bionomics. The specimens from Malemchi were taken in a *Quercus* forest by sifting pile of mouldy wood splinters, sawdust and other debris. Specimen from below Thare Pati was taken in an *Abies* forest by sifting moist moss on fallen trees and on bases of huge standing *Abies* trees.

Comments. Despite the differences in the sexual characters of *Q. montanum* and *Q. seronatum* there is a possibility that one somewhat variable species may be involved. Additional material from the Himalaya should clarify the matter.



Figs. 57- 59. *Korgella sichuanensis*: 57- habitus; 58- head with chaetotaxy; 59- scutellum.

Etymology. The specific epithet is a combination of Latin adverb *sero* (late) and adjective *natus*, *-a*, *-um* (born). It refers to the long period between the time the Himalayan specimens were collected and the time the species was named.



Figs. 60- 62. *Quetarsius peteri*: 60- habitus; 61- right front tarsus. 62- *Quedius (Microsaurus) moeris*: left front tarsus.

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