

Linzer biol. Beitr.	47/1	905-924	31.7.2015
---------------------	------	---------	-----------

Contributions to the knowledge of the Quediina (Coleoptera, Staphylinidae, Staphylinini) of China. Part 51. Genus *Quedius* STEPHENS, 1829. Subgenus *Distichalius* CASEY, 1915. Section 4

Aleš SMETANA

Abstract: Six new species of the subgenus *Distichalius* CASEY, 1915 are described, based on specimens from the People's Republic of China: *Q. tincticeps* nov.sp. (Yunnan), *Q. bipictus* nov.sp. (Guangxi, Zhejiang), *Q. gynaikos* nov.sp. (Sichuan), *Q. causarius* nov.sp. (Qinghai), *Q. laetepictus* nov.sp. (Guizhou) and *Q. iaculifer* nov.sp. (Gansu, Shaanxi). Each species is described, illustrated and all available distributional and bionomic data are given. *Quedius wolong* ZHENG, WANG & LIU, 2008 is redescribed. Female sexual characters are described for the first time for *Quedius regularis* BERNHAUER & SCHUBERT, 1916 and *Quedius stouraci* HROMÁDKA, 2003. Additional taxonomic, faunistic and bionomic data on numerous previously described species are presented.

Key words: Coleoptera, Staphylinidae, Staphylinini, Quediina, *Quedius*, subgenus *Distichalius*, taxonomy, new species, descriptions, geographical distribution, mainland China, Palaearctic Region.

Introduction

This is the fifty-first of a series of papers dealing with the Quediina of the People's Republic of China. It deals with the species of the subgenus *Distichalius* CASEY, 1915. Six species are described as new: *Q. tincticeps* nov.sp. (Yunnan), *Q. bipictus* nov.sp. (Guangxi, Zhejiang), *Q. gynaikos* nov.sp. (Sichuan), *Q. causarius* nov.sp. (Qinghai), *Q. laetepictus* sp. n. (Guizhou) and *Q. iaculifer* nov.sp. (Gansu, Shaanxi). *Quedius wolong* ZHENG, WANG & LIU, 2008 is redescribed. Additional taxonomic, faunistic and bionomic data on numerous previously described species are presented. Female sexual characters are described for the first time for *Quedius regularis* BERNHAUER & SCHUBERT, 1916 and *Quedius stouraci* HROMÁDKA, 2003.

The subgenus *Distichalius* contains at present 24 species in mainland China, including the new species described in this paper. Originally, only two species: *Q. regularis* and *Q. pretiosus* SHARP, 1874 were known from mainland China until 1998 when the first set of new species was published (SMETANA 1998). Two papers: SMETANA 2008 and ZHENG, WANG & LIU 2008 followed that brought the number of species to twenty. Numerous additional species certainly await discovery. Establishment of species groups within the subgenus, as well as a key to the species, will be presented in a review of the subtribe Quediina of mainland China which is nearing completion.

Material and methods

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

- APC..... Collection of Andreas Pütz, Eisenhüttenstadt, Germany
 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
 IZAS Institute of Zoology, Academia Sinica, Beijing, People's Republic of China
 MSC..... Collection of Michael Schülke, Berlin, Germany
 NMB Naturhistorisches Museum, Basel, Switzerland
 NMP..... National Museum (Natural History), Praha, Czech Republic
 NMW Naturhistorisches Museum, Wien, Austria
 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.

Descriptions and additional records

Quedius (Distichalius) tincticeps nov.sp. (Figs 1-7)

Type locality: China, Yunnan, E slope Cang Shan at Dali, 25°40.24'1"N 100°05'57.6"E, 3806 m.

Type material: Holotype (♂): CHINA: "P.R. CHINA, Yunnan, E slope Cang Shan at Dali, N25°40.24'1" E100° 05'57.6", 17.v.2010, 3806m, sifting 15, V. Grebennikov". Allotype (♀): CHINA: "P.R. CHINA, Yunnan, Cang Shan at Dali, N25°40'12" E100° 06'10", 3740 m, 05.vii.2011, sifting 37, V. Grebennikov". Holotype temporarily in CNC, allotype in ASC. Paratypes: same data as holotype, 3♂♂, 5♀♀ (ASC, IZAS); same data as allotype, 2♀♀; same data as holotype, but 25°40.01'9"N 100°05'45.5"E, 4063 m, 15.v.2010, sifting 13, V. Grebennikov, 1♂ (ASC); same data as holotype, but 25° 40'14.7"N 100°06'12.0"E, 3827 m, 17.V.2010, sifting16, V. Grebennikov, 1♀ (SNUC); same data as holotype, but 25°39'.54.7"N 100°06'04.5"E, 3815 m, 19.v.2010, sifting 19, V. Grebennikov, 1♀ (ASC); same data as allotype, 2♀♀ (ASC, IZAS).

Description: Head black, pronotum dark brownish to piceous, with lateral margins widely, and anterior and posterior margin very narrowly, testaceous, head and pronotum distinctly iridescent, scutellum piceous to black, elytra testaceous; abdominal tergites brunneous, each usually with posterior margin slightly paler, each markedly iridescent; tergite 2 (in front of first entirely visible tergite) pale testaceous anteriorly; maxillary and labial palpi piceous, antennae piceous-black to black; legs brunneous with all tibiae markedly darkened, almost black. Head of rounded shape, slightly wider than long (ratio 1.13), distinctly narrowed behind eyes, posterior angles entirely obsolete; eyes large, moderately convex, tempora considerably shorter than eyes seen from above

(ratio 0.58); two setiferous punctures between anterior frontal punctures; posterior frontal puncture situated quite close to posteriomedial margin of eye, separated from it by distance about equal to diameter of puncture, one additional puncture at posterior margin of eye; temporal puncture situated slightly to vaguely closer to posterior margin of eye than to posterior margin of head; two (rarely three unilaterally) punctures behind posterior frontal puncture at posterior margin of head; surface of head with extremely fine and dense microsculpture of transverse waves. Antenna moderately long, segment 3 longer than segment 2 (ratio 1.25), segments 4 and 5 slightly longer than wide, following segments about as long as wide to slightly wider than long, last segment about as long as two preceding segments combined. Pronotum vaguely wider than long (ratio 1.10), widest at posterior third, markedly narrowed anteriorly, with lateral margins continuously arcuate with broadly rounded base, transversely convex; dorsal rows each with three punctures, one, or rarely two unilaterally, additional punctures between dorsal and sublateral rows, sublateral rows each with two or three punctures, posterior puncture situated way behind large lateral puncture; microsculpture on pronotum similar to that on head, but even finer, denser and more superficial. Scutellum impunctate, with very dense and fine microsculpture of transverse waves. Elytra relatively long, at base somewhat narrower than pronotum at widest point, only vaguely widened posteriorly; at suture about as long as, at sides slightly longer than pronotum at midline (ratio 1.19); punctuation fine, evenly spaced, transverse interspaces between punctures larger than diameters of punctures; surface between punctures with microsculpture of dense microscopic punctulation; pubescence brownish. Wings fully developed. Abdomen with tergite 7 (fifth visible) bearing distinct whitish apical seam of palisade fringe; tergite two (in front of first entirely visible tergite) impunctate; punctuation of abdominal tergites much finer than that on elytra, becoming somewhat sparser toward apex of each tergite and in general toward apex of abdomen; pubescence piceous; surface between punctures with exceedingly fine and dense transverse striae.

Male. First four segments of front tarsus markedly dilated, each densely covered by tenent 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 wide and moderately deep, obtusely triangular medioapical emargination, small triangular area before emargination flattened and smooth (Fig. 1). Genital segment with tergite 10 narrow, markedly narrowed toward narrowly arcuate apex, with two longer setae near apex, otherwise very finely setose (Fig. 2); sternite 9 with robust basal portion, apical portion arcuate apically, with two slightly differentiated apical setae (Fig. 3). Aedoeagus (Figs 4-6) elongate; median lobe as in Fig. 5, anteriorly narrowed into subacute apex, without apical lobes, in lateral view with a quite minute dent below apex; paramere large and long, of characteristic shape with bilateral widening in basal two thirds, with narrowly arcuate apex about reaching apex of median lobe; four very fine setae at apex, lateral pair shifted posteriad from apex, two minute setae at each lateral margin below apex; underside of paramere with numerous sensory peg setae arranged into long group along each lateral margin of apical portion (Fig. 6).

Female. First four segments of front tarsus similar to those of male, but considerably less dilated, segment two narrower than apex of tibia. Genital segment with tergite 10 markedly narrowed toward slightly differentiated arcuate apical portion, with three long apical setae, otherwise sparingly setose with median portion asetose (Fig. 7).

Length 5.8-7.0 mm.

E t y m o l o g y : The specific epithet is a combination of Latin participle *tinctus* (colored) and the Greek noun κεφαλή (head). It refers to the distinctly iridescent head of the species.

G e o g r a p h i c a l d i s t r i b u t i o n : *Quedius tincticeps* is at present known only from the Cang Shan in Yunnan.

B i o n o m i c s : Nothing is known about the collecting circumstances of the specimens of the original series except that they were sifted at very high elevations of 3806-4063 m.

R e c o g n i t i o n a n d c o m m e n t s : *Quedius tincticeps* may be easily distinguished from the congeners with regular elytral punctuation and with microsculpture of dense microscopic punctulation on surface between punctures by the coloration alone, in addition to the shape of the aedeagus.

Quedius vafer SMETANA, 1997 occurs at least in some habitats together with *Q. tincticeps* [sifting 16] (see SMETANA 2012: 93).

***Quedius (Distichalius) bipictus* nov.sp. (Figs 8-14)**

T y p e l o c a l i t y : China, Guangxi, Shangsi County, Shiwandashan Nature Reserve, 300-500 m.

T y p e m a t e r i a l : Holotype (♂) and allotype (♀): CHINA: "China: Guangxi Prov. Shangsi County, Shiwandashan N.R. 300-500 m, 23-IV-2011 ZHAI, PENG & ZHU leg.". Holotype in SNUC, allotype in ASC. Paratypes: same data as holotype: 2♂♂, 5♀♀ (ASC, SNUC); Zhejiang Prov., Zhuji City, Dongbaishan, alt. 300 m, 20-XI-2012, Tie-Xiong ZHAO leg., 1♂ (SNUC). Fujian: Wuyi Shan Nat. Res., Guadun hill (900-1300 m), 1.-2.VI.2001, Hlaváč & Cooter lgt./*Quedius* sp. aff. *meng* Smet. A. Solodovnikov det. 2003 / *Quedius* (*Distichalius*) sp. n. Det. A. Smetana 2004/, 1♂ (NMB).

D e s c r i p t i o n : Head and pronotum black, elytra yellow with black markings, usually with large, common black spot expanded laterad on each elytron, leaving lateral portion of each elytron (wide anteriorly, narrow posteriorly), narrow posterior edge and suture yellow, rarely black spot reduced to cover evenly medial half of each elytron and leaving narrow area along posterior margin yellow; abdominal tergites piceous-black, each usually with posterior margin slightly paler; tergite 2 (in front of first entirely visible tergite) dark yellowish; maxillary and labial palpi piceous, becoming paler toward apex, antennae piceous-black to black, with two basal segments at least partially slightly paler; legs pale brunneous, medial faces of middle and hind tibiae markedly darkened. Head of rounded shape, slightly wider than long (ratio 1.2), distinctly narrowed behind eyes, posterior angles entirely obsolete; eyes large, moderately convex, tempora markedly shorter than eyes seen from above (ratio 0.42); two setiferous punctures between anterior frontal punctures; posterior frontal puncture situated quite close to posteriomedial margin of eyes, separated from it by distance about equal to diameter of puncture, one additional puncture in front of posterior frontal puncture quite close to it and to medial margin of eye; temporal puncture situated closer to posterior margin of eye than to posterior margin of head; two (rarely three unilaterally) punctures behind posterior frontal puncture at posterior margin of head; surface of head with extremely fine and dense microsculpture of transverse waves. Antenna rather short, segment 3 longer than segment 2 (ratio 1.30), segment 4 slightly longer than wide, segment 5 about as long as wide, following segments vaguely to slightly wider than long, last segment about as long as two preceding segments combined. Pronotum slightly wider than long (ratio 1.13), widest at posterior third, markedly narrowed anteriorly, with lateral margins continuously

arcuate with broadly rounded base, transversely convex; dorsal rows each with three punctures, two additional punctures between dorsal and sublateral rows, sublateral rows each with two or three punctures, posterior puncture situated way behind large lateral puncture, one additional puncture anteriomedian of large lateral puncture; microsculpture on pronotum similar to that on head, but even finer and more superficial. Scutellum impunctate, with very dense and fine microsculpture of transverse waves. Elytra relatively long, at base somewhat narrower than pronotum at widest point, only vaguely widened posteriad; at suture slightly (ratio 1.15), at sides distinctly (ratio 1.31) longer than pronotum at midline; punctation moderately coarse, evenly spaced, transverse interspaces between punctures about as large as diameters of punctures; surface between punctures without microsculpture; pubescence piceous. Wings fully developed. Abdomen with tergite 7 (fifth visible) bearing distinct whitish apical seam of palisade fringe; tergite two (in front of first entirely visible tergite) impunctate; punctuation of abdominal tergites much finer than that on elytra, becoming somewhat sparser toward apex of each tergite and in general toward apex of abdomen; pubescence piceous; surface between punctures with exceedingly fine and dense transverse striae.

Male. First four segments of front tarsus markedly dilated, each densely covered by tenent setae ventrally; segment two vaguely wider than apex of tibia (ratio 1.10); segment four narrower than preceding segments. Sternite 7 vaguely, widely sinuate apically, with two long setae at each side of situation; sternite 8 with two long setae on each side, with wide and deep obtusely triangular medioapical emargination, small triangular area before emargination flattened and smooth (Fig. 8). Genital segment with tergite 10 narrow, markedly narrowed toward narrowly arcuate apex, setose as in Fig. 9; sternite 9 with short, narrow basal portion, apical portion subtruncate apically, with numerous long setae at apex (Fig. 10). Aedoeagus (Figs 11-13) quite narrow, elongate; median lobe parallelsided in middle portion, anteriorly with two apical lobes; paramere narrow and long, covering most of median lobe, with narrowly arcuate apex exceeding apex of median lobe; four fine setae at apex, medial pair longer than lateral pair, two similar setae at each lateral margin below apex; underside of paramere with very numerous sensory peg setae covering area below apex and extended as an irregular longitudinal group considerably backward (Fig. 13).

Female. First four segments of front tarsus similar to those of male, but less dilated, segment two vaguely narrower than apex of tibia. Genital segment with tergite 10 wide basally but from there conspicuously narrowed toward acute apex, with numerous long setae at and near apex, otherwise asetose (Fig. 14).

Length 7.5-8.5 mm.

E t y m o l o g y : The specific epithet is the combination of Latin adverb *bis* (twice) and the adjective *pictus*, *-a*, *-um* (painted). It refers to the coloration of the elytra of the species.

G e o g r a p h i c a l d i s t r i b u t i o n : *Quedius bipictus* is at present known from one locality in each Fujian, Guangxi and Zhejiang provinces.

B i o n o m i c s : Nothing is known about the collecting circumstances of the specimens of the original series except that they were taken at very low elevation of 300-500 m.

R e c o g n i t i o n a n d c o m m e n t s : *Quedius bipictus* may be easily recognized, in addition to both the male and female sexual characters, by the combination of the

coloration of the evenly punctate elytra and the characteristic chaetotaxy of both the head and pronotum.

Quedius bipictus occurs together with *Q. pretiosus* in the Shiwandashan Nature Reserve in Guangxi.

***Quedius (Distichalius) gynaikos* nov.sp. (Fig. 15)**

Type locality: China: Sichuan, 49 km N Songpan, road S 301 km 114, N Gongangling pass, 33° 04'31"N 103° 42'38"E, 3230 m.

Type material: Holotype (♀): CHINA: "CHINA: N-Sichuan [CH 12-21] 49 km N Songpan, road S 301 km 114, N Gongangling pass, 33° 04'31"N 103° 42'38"E, 3230 m, spruce forest, litter, moss & mushrooms sifted, 9.VIII.2012, leg. M. Schülke". In ASC. Paratype (♀): "CHINA [21] – N-Sichuan N Songpan, 33°04'31"N 103°42'38"E, 3230 m, spruce forest, sifted, 9.VIII.2012, V. Assing" (VAC).

Description: In all characters, including chaetotaxy on head and pronotum, similar to *Q. ladas* SMETANA, 2008 and different mainly by the quite characteristic tergite 10 of female genital segment. Body markedly larger and more robust, eyes somewhat larger, tempora therefore shorter (ratio of length of tempora to length of eyes 0.52, corresponding figure in *Q. ladas* 0.63); microscopic punctulation on elytra somewhat denser and more pronounced; punctuation of abdominal tergites similar, but somewhat denser.

Female. First four segments of front tarsus similar to those of female of *Q. ladas*, but slightly more dilated, but segment 2 not wider than apex of tibia. Tergite 10 of female genital segment quite different from that of *Q. ladas* (see Fig. 11 in SMETANA 2008: 225) and of quite characteristic shape, with three long, elevated carinae, two finer lateral ones and one setose, robust medial one that extends anteriad onto acute apical portion of tergite (Fig. 15).

Length 7.5-8.5 mm.

Etymology: The specific epithet is the Greek adjective γυναικος (womanish). It refers to the fact that only females of the species are known at present.

Geographical distribution: *Quedius gynaikos* is at present known only from the mountain ranges around Songpan in northern Sichuan.

Bionomics: The holotype was taken in a spruce forest by sifting forest floor litter, moss and mushrooms at an elevation of 3230 m.

Recognition and comments: The unique shape of tergite 10 of the female genital segment allows positive identification of the species, the same way as usually the shape of the aedeagus does.

Quedius gynaikos is at present the largest *Distichalius* species in both the mainland China and Taiwan faunas.

***Quedius (Distichalius) causarius* nov.sp. (Figs 16-23)**

Type locality: China: Qinghai, Lang Shi Dang Jing Qu (Park), 75 km NW Honggu, 36°54'05.2"N 102°21'07.1E, 2925 m.

Type material: Holotype (♂): CHINA: "CHINA: Qinghai Prov. [CH 11-11a] Lang Shi Dang Jing Qu (Park), 75 km NW Honggu, 2925 m, 36°54'05.2"N 102° 21'07.1E, creek on overgrown scree, Populus and Betula for. with Rhodod., litter, 28.VI.2011, leg. Schülke". Allotype (♀): same data as holotype. Holotype in MSC, allotype in ASC. Paratypes: same data as holotype,

3♂♂, 2♀♀ (ASC, MSC); same, but 2896 m, 36°54'08.8"N 102°21'16.9"E, 28.VI.2011, [CH11-11], leg. Schülke, 4♀♀ (ASC, MSC); same, but D.W. Wrase, 2♀♀ (MSC); Qinghai, road 301 km 180, 43 km ESE Men Yuan, 37°09.32.6N 102°02'06.0"E, 2704 m, 5.VII.2011, [CH 11-19], M. Schülke, 2♀♀ (MSC).

Description: In all characters similar to *Q. menippus* SMETANA, 2008 and different only by the different aedoeagus and tergite 10 of female genital segment.

Male. First four segments of front tarsus markedly dilated, almost patellate, each densely covered with tenent setae ventrally; segment 2 markedly wider than apex of tibia (ratio 1.40), segment 4 markedly narrower than preceding segments. Sternite 8 rather densely setose, with two long setae on each side; with wide and deep medioapical emargination, small triangular area before emargination flattened and smooth (Fig. 16). Genital segment with tergite 10 rather narrow, narrowed toward arcuate apex, with three or four long setae at apex, otherwise only sparingly setose (Fig. 17); sternite 9 with wide and short basal portion, apical portion widely arcuate apically, with two slightly differentiated apical setae, otherwise finely setose (Fig. 18). Aedoeagus (Figs 19-22) rather large and robust; median lobe markedly, almost conically narrowed into narrowly arcuate apex, on face adjacent to paramere with short complex carina below apex; paramere large, shaped as in Figs 19, 22, with narrowly arcuate apex slightly exceeding apex of median lobe, with face adjacent to median lobe markedly excavate; two apical setae, one minute seta at each lateral margin below apex and two similar setae at each lateral margin still farther posteriad; sensory peg setae on underside quite small and few, usually three setae below apex and two or one on each side below apex, shifted quite close to lateral margin (Fig. 22).

Female. First three segments of front tarsus similar to those of male, but considerably less dilated; segment 2 about as wide as apex of tibia. Tergite 10 of genital segment quite characteristic, rather narrow with large pigmented middle portion and with distinct, setose medioapical carina and with numerous setae on apical portion, otherwise asetose (Fig. 23).

Length 6,0-7.0 mm.

Etymology: The specific epithet is the Latin adjective *causarius*, *-a*, *-um* (sickly, invalided). It refers to the drastic reduction of the sensory peg setae on the underside of the paramere.

Geographical distribution: The species is at present known from two localities in eastern Qinghai.

Bionomics: Specimens of the original series were taken on overgrown scree with *Populus* and *Betula* forest with rhododendrons by sifting forest floor litter, and on another overgrown scree with *Populus* and *Betula* forest by sifting litter between rocks. Overgrown screes seem to be the preferred habitat of the species.

Recognition and comments: *Quedius causarius* may be positively recognized only by the characteristic shape of the aedoeagus, including the location and the drastic reduction of both the number and size of the sensory peg setae on the underside of the paramere (Fig. 22), a character state unique among the *Distichalius*-species, as well as by the characteristic development of tergite 10 of the female genital segment.

The location and reduction of the number and size of the sensory peg setae on the paramere is apparently caused by the pronounced excavation of the face of the paramere adjacent to the median lobe.

***Quedius (Distichalius) laetepictus* nov.sp. (Figs 24-29)**

Type locality: China: "CHINA: Guizhou, Leishan Co. SE Kaili, NE Leishan, Leigong Shan E slope, 2.5 km E of pass, 26°23'39"N 108°13'33"E, ca. 1600 m.

Type material: Holotype (♂): CHINA: "CHINA: Guizhou, Leishan Co. SE Kaili, NE Leishan Leigong Shan, E – slope 26°23'39"N 108°13'33"E / 2.5 km E of pass 19.6.2001, ca. 1600 m leg. Schillhammer (14). In NMW.

Description: Head black, pronotum piceous with lateral margins widely and anterior and posterior margins very narrowly pale testaceous, scutellum black, elytra pale testaceous with large, common black spot covering medial third of each elytron, abdominal tergites testaceorufous, each with middle portion darkened, darkened area becoming gradually narrower toward apex of abdomen; tergite 2 (in front of first entirely visible tergite) testaceous; maxillary and labial palpi testaceous, antennae with segments 1-3 testaceous, following segments becoming gradually darkened, outer segments piceous; legs entirely pale testaceous. Head of rounded shape, wider than long (ratio 1.24), distinctly narrowed behind eyes, posterior angles entirely obsolete; eyes very large and convex, tempora considerably shorter than eyes seen from above (ratio 0.22); two setiferous punctures between anterior frontal punctures; posterior frontal puncture touching posteriomedial margin of eye; temporal puncture touching posterior margin of head; two punctures behind posterior frontal puncture at posterior margin of head; surface of head with very fine and dense microsculpture of transverse waves. Antenna moderately long, segment 3 slightly longer than segment 2 (ratio 1.19), segments 4 and 5 slightly longer than wide, following segments gradually becoming shorter, outer segments about as long as wide, last segment about as long as two preceding segments combined. Pronotum slightly wider than long (ratio 1.11), widest at posterior third, markedly narrowed anteriorly, with lateral margins continuously arcuate with broadly rounded base, transversely convex; dorsal rows each with three punctures, no additional punctures between dorsal and sublateral rows, sublateral rows each with two punctures, posterior puncture situated behind large lateral puncture; microsculpture on pronotum distinctly finer and denser than that on head. Scutellum impunctate, with fine, superficial microsculpture of transverse waves. Elytra relatively long, at base somewhat narrower than pronotum at widest point, only vaguely widened posteriorly; at suture as long as, at sides distinctly longer than pronotum at midline (ratio 1.32); each elytron very finely, irregularly, sparingly punctate and with three irregular rows of coarse punctures, each bearing short stiff seta; surface between punctures without microsculpture. Wings apparently fully developed. Abdomen with tergite 7 (fifth visible) bearing distinct whitish apical seam of palisade fringe; tergite two (in front of first entirely visible tergite) impunctate; punctuation of abdominal tergites moderately fine and sparse, becoming somewhat sparser toward apex of each tergite and in general toward apex of abdomen; pubescence testaceous, long stiff setae on each tergite black; surface between punctures with exceedingly fine and dense microsculpture of transverse striae.

Male. First four segments of front tarsus moderately dilated, each densely covered by tenent setae ventrally; segment two vaguely narrower than apex of tibia (ratio 0.90); segment four slightly narrower than preceding segments. Sternite 8 sparingly setose, with two long setae on each side; with narrow and rather deep, obtusely triangular medioapical emargination, small triangular area before emargination flattened and smooth (Fig. 24). Genital segment with tergite 10 narrow, markedly narrowed toward obtuse apex, with several setae of variable length at and near apex, otherwise asetose (Fig. 25);

sternite 9 very sparingly setose, slightly emarginated medioapically, with one long seta at each side of emargination (Fig. 26). Aedoeagus (Figs 27-29) elongate, quite narrow; median lobe without apical lobes, for most part parallelsided, anteriorly narrowed into rather long, split apical portion; paramere of characteristic shape, with subacute apex markedly exceeding apex of median lobe; two apical setae, one minute seta at each lateral margin and two similar setae at each lateral margin still farther posteriad; sensory peg setae on underside of paramere numerous, situated as in Fig. 29.

Female unknown

Length 7.0 mm.

E t y m o l o g y : The specific epithet is the combination of the two Latin adjectives: *laetus*, *-a*, *-um* (pleasant) and *pictus*, *-a*, *-um* (painted). It refers to the bright coloration of the species.

G e o g r a p h i c a l d i s t r i b u t i o n : *Quedius laetepictus* is at present known only from the type locality in southern Guizhou.

B i o n o m i c s : Nothing is known about the collecting circumstances of the holotype, except that it was taken at low elevation of about 1600 m.

R e c o g n i t i o n a n d c o m m e n t s : *Quedius laetepictus* may be easily recognized by the coloration, and by the characteristic shape of the aedoeagus.

Quedius (Distichalius) iaculifer nov.sp. (Figs 30-36)

T y p e l o c a l i t y : China: S. Gansu W Qinling Shan 47 km N Chengxian, 34° 10'20"N 105 42'19"E, 1830 m.

T y p e m a t e r i a l : Holotype (♂): CHINA: "CHINA (S Gansu) W Qinling Shan, 47 km N Chengxian 1830 m 34°10'20"N / 105°42'19"E (creek valley with secondary deciduous forest, moist litter sifted) 29.VII.2012 D. V. Wrase [06A]". Allotype (♀): "CHINA [6]- S-Gansu, N Chengdian, W-Qinling Shan, 34°10'20"N, 105°42'10"E, 1830 m, 29.VII.2012, V. Assing". Holotype in MSC, allotype in ASC. Paratypes: Gansu: same data as holotype, 5♂♂, 5♀♀ (ASC, MSC); same as holotype, but 34°10'17"N 105° 42'56"E, 1850 m, 29.VII.2012, [CH 12-05], M. Schülke, 3♀♀ (ASC, MSC); W-Qinling Shan, 43 km N Chengxian, 34°08'16"N 105°46'42"E, 1760 m, 28.VII.2012, [CH-12-04], M. Schülke, 1♀ (MSC); same, but 34°10'20"N 105°42'19"E, 1830 m, 29.VII.2012, [CH 12-06], M. Schülke, 1♂, 2♀♀ (MSC); same data as allotype, 1♂, 2♀♀ (ASC, VAC); same, but 34°10'17"N 105°42'56"E, 1850 m, 29.VII.2012, [5], V. Assing, 2♂♂, 1♀ (ASC, VAC); same, but 34°08'16"N 105°46'42"E, 1760 m, 28.VII.2012, [4], V. Assing, 2♂♂, 3♀♀ (ASC, VAC). Shaanxi: Qinling Shan, 42 km SW Meixian, 34°01'32"N 107° 24'13"E, 1875 m, 26.VII.2012, [02A], D.W. Wrase, 1♂ (MSC); same, but [2], V. Assing, 1♂ (ASC).

D e s c r i p t i o n : In all characters similar to *Q. quinctius* SMETANA, 1998, but different by a few external characters and particularly by the shape of the aedoeagus and tergite 10 of female genital segment. Average size smaller and body narrower; abdominal tergites piceous-black to black, with apical margins only indistinctly paler; antenna piceous-black with first three segments paler, more or less testaceous, in general shorter, particularly middle segments 4 to 6.

Male. First four segments of front tarsus similar to those of *Q. quinctius*, but relatively more distinctly dilated. Sternite 8 with two long setae on each side, with medioapical emargination similar to that of *Q. quinctius*, but somewhat wider and deeper (Fig. 30). Genital segment with tergite 10 narrower, with numerous long setae at and near apex, otherwise asetose (Fig. 31); sternite 9 not appreciably different from that of *Q. quinctius*. Aedoeagus (Figs 32-35) similar to that of *Q. quinctius*, including median lobe with apical

lobes (Fig. 33), and different mainly by the shape of the paramere, which exceeds with its quite acute apex more distinctly apex of median lobe; number of sensory peg setae on underside of paramere varies to some extent (Figs 34, 35).

Female. First four segments of front tarsus similar to those of *Q. quinctius*, but somewhat less dilated, segment 2 narrower than apex of tibia (ratio 0.85). Genital segment with tergite 10 wider than that of *Q. quinctius*, with minute, acute apex, with numerous apical setae of variable length, missing the longitudinal row of fine setae in front of apical setae, present in *Q. quinctius* (Fig. 35 and Fig. 28 in SMETANA 1998: 329).

Length 5.8-6.5 mm.

E t y m o l o g y : The specific epithet is a combination of Latin noun *iaculum*, -i, m (dart, javelin) and the verb *fero* (to bear, to carry). It refers to the quite acute apex of the paramere of the aedeagus.

G e o g r a p h i c a l d i s t r i b u t i o n : *Quedius iaculifer* is at present known from several localities in Qinling Shan, both in Gansu and Shaanxi.

B i o n o m i c s : Specimens were collected at relatively low elevations below 2000 m in a creek valley with secondary deciduous forest by sifting moist forest floor litter, at a margin of a mixed secondary forest by sifting floor litter, and in a secondary deciduous forest on north slope by sifting litter and grass near a creek.

R e c o g n i t i o n a n d c o m m e n t s : *Quedius iaculifer* is also similar to *Q. quiris* SMETANA, 1998, but the latter differs, in addition to the different aedeagus (Figs. 40-43 in SMETANA 1998: 329), by the more dilated first four segments of the male front tarsus, by the dark maxillary and labial palpi and by the darker three basal segments of the antenna.

Numerous specimens of the original series are teneral, two in bad shape were not included in the paratype series.

***Quedius (Distichalius) wolong* ZHENG, WANG & LIU, 2008 (Figs 37-42)**

wolong ZHENG, WANG & LIU, 2008: 670 (*Quedius*; subgenus *Distichalius*; description; habitat)

N e w r e c o r d . CHINA: Sichuan: Mt. Emei, 17-VII-2003, Li Zhenli leg., 1♂ (SNUC).

R e d e s c r i p t i o n : Head black, pronotum piceous- black, both with metallic sheen, scutellum coppery, elytra brownish with coppery sheen; abdominal tergites dark brown, each becoming paler toward apical margin; tergite 2 (in front of first entirely visible tergite) dark brown; maxillary and labial palpi brown, antennae piceous, becoming black toward apex; legs pale testaceous, with all tibiae markedly blackened. Head of rounded shape, slightly wider than long (ratio 1.20), distinctly narrowed behind eyes, posterior angles entirely obsolete; eyes very large, convex, tempora considerably shorter than eyes seen from above (ratio 0.15); two setiferous punctures between anterior frontal punctures; posterior frontal puncture touching posteriomedial margin of eye; temporal puncture fine, touching posterior margin of eye; two punctures behind posterior frontal puncture at posterior margin of head; surface of head with extremely fine and dense microsculpture of transverse waves. Antenna rather short, segment 3 about as long as segment 2, segments 4 and 5 slightly longer than wide, following segments becoming gradually shorter, outer segments 9 and 10 about as long as wide, last segment slightly shorter than two preceding segments combined. Pronotum about as long as wide, widest at posterior third, markedly narrowed anteriorly, with lateral margins continuously arcuate with

broadly rounded base, transversely convex; dorsal rows each with three punctures, no additional punctures between dorsal and sublateral rows, sublateral rows each with two punctures, posterior puncture situated way behind large lateral puncture, one additional puncture anteriomedian of large lateral puncture; microsculpture on pronotum similar to that on head, but even finer and more superficial. Scutellum impunctate, with very dense and fine microsculpture of transverse waves. Elytra moderately long, at base somewhat narrower than pronotum at widest point, slightly widened posteriad; at suture vaguely (ratio 1.10), at sides distinctly (ratio 1.23) longer than pronotum at midline; punctuation fine and dense, slightly asperate, evenly spaced, transverse interspaces between punctures about as large as diameters of punctures; surface between punctures without microsculpture; pubescence yellowish-golden. Wings apparently fully developed. Abdomen with tergite 7 (fifth visible) bearing distinct whitish apical seam of palisade fringe; tergite two (in front of first entirely visible tergite) impunctate; punctuation of abdominal tergites markedly finer than that on elytra, moderately dense, becoming somewhat sparser toward apex of each tergite and in general toward apex of abdomen; pubescence yellowish-golden; surface between punctures with exceedingly fine and dense transverse striae.

Male. First four segments of front tarsus markedly dilated, each densely covered by tenent setae ventrally; segment two vaguely wider than apex of tibia (ratio 1.10). Sternite 7 vaguely, widely sinuate apically; sternite 8 densely setose, with two long setae on each side, with wide and deep obtusely triangular medioapical emargination, small triangular area before emargination flattened and smooth (Fig. 37). Genital segment with tergite 10 rather narrow, markedly narrowed toward narrowly arcuate apex, setose as in Fig. 38; sternite 9 sparingly setose, with long basal portion of characteristic shape, apical portion narrowly arcuate apically, with two differentiated setae (Fig. 39). Aedoeagus (Figs 40-42) elongate, markedly asymmetrical; median lobe anteriorly broadly widened before markedly narrowed into narrow elongate apical portion apex of which is hook-like curved toward paramere; paramere large and long, with asymmetrical apical portion covering almost entirely apical half of median lobe except for very apex; four fine setae at apex, medial pair longer than lateral pair, two finer setae at each lateral margin below apex; underside of paramere with very numerous sensory peg setae situated along apical margin and extended as a long, irregular row along each lateral margin (Fig. 42).

Female. Not available for study.

Length 5-6 mm (by ZHENG, WANG & LIU 2008). Studied male: 6.0 mm.

G e o g r a p h i c a l d i s t r i b u t i o n : *Quedius wolong* is at present known from two localities in Sichuan: Wolong (original series) and Emei Shan.

B i o n o m i c s : Nothing is known about the habitat preferences of this species.

R e c o g n i t i o n a n d c o m m e n t s : The species is easy to recognize in male sex thanks to the quite characteristic shape of the aedoeagus, but since the original description of some characters (particularly the chaetotaxy of the head and pronotum) is not quite accurate, the species is redescribed here to allow proper alignment with the related species.

***Quedius (Distichalius) regularis* BERNHAUER & SCHUBERT, 1916**

regularis BERNHAUER & SCHUBERT, 1916: 432 (*Quedius*; replacement name for *Q. seriatus* EPPELSHEIM, 1889, not HORN, 1878); catalogue); SMETANA 1998: 315 (*Quedius*; subgenus *Distichalius*; redescription)

New records : CHINA: Gansu: Lenglong Ling Mts., 80 km NNW Honggu, 37°03'47.0''N 102°39'32.6''E, 3439 m, 1.VII.2011, M. Schülke leg., [CH 11-22], 1 ♀ (MSC). Qinghai: Yunning Si (lamasery), 2890 m, 36°45.6'N 102°10.6'E, 1.-2.VII.2005, J. Hájek, D. Král & J. Růžicka leg., 1 ♀ (ASC); Daban Shan, 25 km ESE Menyuan, 37°16'21.6''N 101°52'37.4''E, 2795 m, 6.VII.2011, M. Schülke leg., [CH 11-22], 1 ♂, 1 ♀ (ASC, MSC). Sichuan: Ganzi Tibet. Aut. Pref., Batang Co., Shalui Shan, 55 km NE Batang, 30°17'N 99° 31'E, 4300 m, 1.-3.VII.1999, D.W. Wrase, 1 ♂ (MSC).

Comments : The female of the species was not known, the description therefore follows: first four segments of front tarsus considerably less dilated than those of male, segment 2 slightly narrower than apex of tibia. Genital segment with tergite 10 rather short and wide, markedly narrowed toward narrowly arcuate apex, sparingly setose as in Fig. 43.

The specimens from Daban Shan were taken on loamy field edges; the specimen from Gansu was taken on alpine pasture by sifting litter under *Rhododendron* and azalea bushes, the specimen from Sichuan was taken in a meadow in a "pine-tree forest relict". This is the first record of the species from Gansu and Sichuan. It was previously known only from Qinghai and Tibet.

***Quedius (Distichalius) pretiosus* SHARP, 1874**

pretiosus SHARP, 1874: 26 (*Quedius*; description); SMETANA 1998c: 317 (*Quedius*; subgenus *Distichalius*; redescription; habitat; faunal records: Fujian, Guizhou, Sichuan, Zhejiang); ZHENG, WANG & LIU 2008: 672 (*Quedius*; *Distichalius*; faunal records: Chongqing, Fujian, Guizhou, Sichuan, Zhejiang)

New records : CHINA: Guangxi: Shangsi County, Shiwandashan Nature Reserve, 300-500m, 23.IV.2011, Zhai, Peng & Zhu leg., 1 spec. (SNUC). Hubei: Yidu, 4.V.2004, Li-Zhen LI leg., 1 spec. (SNUC). Jiangxi: Mt. Sanqing, 700-1000 m, 4.V.2005, Hu & Tang leg., 6 spec. (ASC, SNUC).

Comments : These are the first records of *Q. pretiosus* from Guangxi, Hubei and Jiangxi. The species is at present known from Chongqing, Fujian, Guangxi, Guizhou, Hubei, Jiangxi, Sichuan and Zhejiang.

***Quedius (Distichalius) daedalus* SMETANA, 2008**

daedalus SMETANA, 2008: 235 (*Quedius*; subgenus *Distichalius*; description; habitat)

New records : CHINA: Shaanxi: Mei county, Taibai-Shan, Kaitianguan, 34° 00'692"N 107°51.415'E, 1853 m, 22-23.V.2008, HUANG Hao & XU Wang leg., 1 ♂ (SNUC); Foping Conv., 2065 m, 21.VIII.2004, Tang & Hu & Zhu leg., 1 ♂ (SNUC).

Comments : These are the first records of *Q. daedalus* from Shaanxi. The species was until now known only from Sichuan.

***Quedius (Distichalius) gyges* SMETANA, 2008**

gyges SMETANA, 2008: 238 (*Quedius*; subgenus *Distichalius*; description; habitat)

New records : CHINA: Gansu: Lenglong Ling. Mts., 60 km NNW Honggu, Jin Sha Gorge, 36°51'56.9"N 102°38'55.3"E, 12.VII.2011, [CH 11-27], M. Schülke, 8 spec. (ASC, MSC). Qinghai: Daban Shan, 60 km NW Honggu, 36° 49'10.7''N 102°31'22.8''E, 2366-2400 m, 11.VII.2011, [CH0 11-08a], M. Schülke, 2 spec. (MSC); same, but 25.VI.2011, [CH 11-08], M. Schülke, 9 spec. (ASC, MSC); Daban Shan, 62 km NNW Honggu, 36°51'15-28''N 102° 36'34''E, 2236-2350 m, 26.VI.2011, [CH 11-09], M. Schülke, 9 spec. (ASC, MSC); same, but 36°51'28''N

102°37'07.6"E, 2240 m, 26-29.VI.2011, [09 A], D. W. Wrase, 8 spec. (MSC). **Shaanxi**: Daba Shan mtn. Range N pass 22 km NW Zhenping, 32°01'N 109°21'E, 2850 m, 14.VII.2001, [C103], A. Smetana, 1♂ (ASC); Qinling Shan, mtn. range W pass on road Xi'an-Shagoujie, 45 km SSW Xi'an, 32°52'N 108°46'E, 2675 m, [CO1-20a], M. Schülke, 2 spec. (MSC); Zhouzhi coun., Qinling, Daoban, 38.43.645N 107.58.147, 1900 m, 4.V.2008, HUANG Hao & XU Wang, 1♂ (SNUC).

C o m m e n t s : These are the first records of *Q. gyges* from Qinghai and Shaanxi. The species was until now known from Gansu and Yunnan.

Specimens were collected at moderate elevations of 1900-2850 m in mixed forests (*Betula*, *Populus*, *Picea*) by sifting forest floor litter, dead wood, moss and mushrooms, some were also taken in the same habitat from vinegar baited pitfall traps.

***Quedius (Distichalius) rabirius* SMETANA, 1998**

rabirius SMETANA, 1998: 321 (*Quedius*; subgenus *Distichalius*; description; habitat)

N e w r e c o r d . CHINA: **Sichuan**: Mt. Emei, 500-1200 m, 29°30'N 103°20'E, 4.-18.V.1989, S. & J. Kolibáč leg., 2♂♂ (NMB).

C o m m e n t s : This is the first record of *Q. rabirius* from Sichuan. The species was until now known only from the two specimens of the original series from Zhejiang.

***Quedius (Distichalius) rhinton* SMETANA, 1998**

rhinton SMETANA, 1998: 324 (*Quedius*; subgenus *Distichalius*; description; habitat)

N e w r e c o r d s : CHINA: **Gansu**: Dagcanglhamo (=Langmusi) env., 34. 04.6-05.1N 102 37'.7-38.1E, 3464-3644 m, 25.VI.2005, D. Král & J. Růžička leg., 1 spec. (NMP). **Hubei**: Daba Shan mtn. range NE Muyuping, creek valley 4 km N Muyuping, 1700 m, 21.VII.2001, [C 116], A. Smetana, 1 spec. (ASC). **Shaanxi**: border Shaanxi/Sichuan, Daba Shan, pass 20 km SSE Zhenping, 31°44'N 108°35'E, 1700-1800 m, 9.VII.2001, M. Schülke leg., 8 spec. (ASC, MSC); same, but A. Smetana leg., 7 spec. (ASC).

C o m m e n t s : These are the first records of *Q. rhinton* from Hubei and Shaanxi, the species was until now known only from the original series taken at "Langmusi".

Specimens were collected in a wet coniferous forest (*Picea*, *Abies*, *Rhododendron*) on a northern slope (in Dagcanglhamo), and in a young dry mixed forest in a small creek valley by sifting moss (pass SSE Zhenping).

***Quedius (Distichalius) quinctius* SMETANA, 1998**

quinctius SMETANA, 1998: 323 (*Quedius*; subgenus *Distichalius*; description; habitat)

N e w r e c o r d s : CHINA: **Beijing Shi**: Lingshan, 1600 m, 40°03'N 115°29'E, 4-31.X.2010, J. Turna leg., 8 spec. (ASC, NMW). **Shanxi**: Jiaocheng Co., Pangquangou Nat. Res., Erzezhuang, 1700 m, 10.IX.2011, PENG Zhong leg., 2 spec. (SNUC); same but 8.IX.2011, ZHU Jian-Qing leg., 5 spec. (ASC, SNUC); same but 9.IX.2011, MA W.L. & CHEN Y. leg., 2 spec. (ASC, SNUC).

C o m m e n t s : These are the first records of *Q. quinctius* from Shanxi. The species is at present known from Beijing Shi, Shanxi and Sichuan.

***Quedius (Distichalius) quiris* SMETANA, 1998**

quiris SMETANA, 1998: 326 (*Quedius*; subgenus *Distichalius*; description; habitat)

N e w r e c o r d s : CHINA: **Gansu**: W-Qingling Shan, 132 km NW Longnan, Lazikou pass, 34°14'32"N 103°54'29"E, 3000 m, 2.VIII.2012, [CH 12-10], M. Schülke or V. Assing leg., 12 spec.

(ASC, MSC, VAC); same, but 34°08'14"N 103°51'57"E, 2300 m, 3.VIII.2012, V. Assing, 1 spec. (VAC); Lenglong Ling Mts., 60 km NNW Honggu, Jinsha Gorge, 36°51'56.9"N 102°38'55.3"E, 14/15.VII.2011, [CH 11-27a], M. Schülke, Qinghai: Daban Shan, 62 km NNW Honggu, 36°51'15-28"N 102°36'34-37'07"E, 2236-2350 m, 26.VI.2011, [CH 11-09], M. Schülke, 5 spec. (ASC, MSC); same, but 36°51'26.8"N 102° 36'50.2"E, 2275 m, 26/29.VI.2011 [09E], D. W. Wrase, 1 spec. (MSC); same, but 36°58'40.7"N 102°26.01.2"E, 2350-2450 m, 27.VI.2011, [10A], D. E. Wrase, 1 spec. (MSC); same, but 36°49'10.7"N 102°31'22.8"E, 2366-2400 m, 11.VI.2011, [CH 11-08a], M. Schülke, 1 spec. (MSC); road 301 km 180, 43 km ESE Men Yuan, 37°09'32.6"N 102°02'06.0"E, 2704 m, 5.VII.2011, [CH 11-19], M. Schülke, 2 spec. (ASC, MSC). Sichuan: 40 km N Songpan, road S 301 km 118, N Gongangling pass, 33°03'15"N 103°43'36"E, 3390 m, 9.VIII.2012, [C12-19], M. Schülke or V. Assing, 2 spec. (MSC, VAC).

C o m m e n t s : These are the first records of *Q. quiris* from Qinghai and Sichuan. The species was previously known only from Gansu.

Specimens were taken on a northern slope pasture with shrubs by sifting debris under shrubs (in Qinling Shan), in a creek valley with *Picea*, *Populus* and *Betula* forest by sifting forest floor litter, dead wood and moss and under stones along the creek (Jinsha Gorge and in Daban Shan), and in a spruce forest with shrubs by sifting forest floor litter, moss and mushrooms (in Gongangling pass).

***Quedius (Distichalius) menippus* SMETANA, 2008**

menippus SMETANA, 2008: 234 (*Quedius*; subgenus *Distichalius*; description; habitat)

N e w r e c o r d s : CHINA: Sichuan: 23 km E Songpan, 32°37'51N 103°49'32"E, 28.V.2012, 3775 m, sifting 13, V. Grebennikov, 15 spec. (ASC, CNC); same, but 32°37'47"N 103°49'25"E, 28.V.2012, 3826 m, sifting 14, V. Grebennikov, 11 spec. (ASC, CNC); same, but 32°37'57"N 103°49'20"E, 28.V.2012, 3761 m, sifting 12, V. Grebennikov, 4 spec. (ASC, CNC).

C o m m e n t s : No details about the habitats the specimens were sifted from are available, but note that all collecting sites are well above 3500 m.

These are the first records of *Q. menippus* from Sichuan.

***Quedius (Distichalius) stouraci* HROMÁDKA, 2003 (Fig. 44)**

stouraci HROMÁDKA, 2003: 135 (*Quedius*; subgenus *Microsaurus*; description); SMETANA 2015 (*Quedius*; subgenus *Distichalius*)

N e w r e c o r d s : CHINA: Shaanxi: Qinling Mts., Houzhenzi, 2600 m, 7.VII.1996, M. Janata, 1 spec. (ASC); Qin Ling Shan, road Hou Zen-Zi to Taibai Shan, 3500 m, 2-4.VII.1998, Jindra, Safránek and Trýzna leg., 2 spec. (ASC); Qinling Mts., NW of Houzhenzi, 2600 m, VII.1996, M. Häckel, 1 spec. (ASC); Qin Lin Shan, 33°51'N 108°47'E, mountain W pass autoroute km 70, 47 km S Xian, 2500-2600 m, 26-27.VIII.1995, A. Pütz leg., 2 spec. (APC, ASC); same, but 2300-2500 m, 26-30.VIII.1995, A. Pütz leg., 1 spec. (ASC); same, but M. Schülke leg., 3 spec. (ASC, MSC); Mei Co., Mt. Taibai Nat. Res., 2350-3350 m, 12.VII.2004, Hu & Tang leg., 2 spec. (ASC, SNUC). Qinghai: Menda conv., 2200-2500 m, 24.VII.2004, Hu, Tang & Zhu leg. 2 spec. (ASC, SNUC).

C o m m e n t s : These are the first records of *Q. stouraci* from Shaanxi. The species was previously known only from the male holotype taken at Heimaha in Qinghai.

Nothing is known at present about the habitat requirements of the species.

The female of the species was not known, the description therefore follows: first four segments of front tarsus similar to those of male, but less dilated, segment two vaguely wider than apex of tibia (ratio 1.1). (First four segments of male front tarsus are markedly dilated, almost patellate, with segment two markedly wider than apex of tibia,

ratio 1.35). Genital segment with tergite 10 relatively long, with differentiated, narrow apical portion with two long, strong setae at apex, otherwise very sparingly setose (Fig. 44).

Acknowledgments

I thank Lubomír Hromádka, Praha, Czech Republic, for making the holotype of *Quedius stouraci* available for study, and Volker Assing, Hannover, and Michael Schülke, Berlin, Germany, for allowing me to keep numerous specimens in my collection. The line drawings were finished by Mr. Go Sato, Agriculture and Agri-Food Canada, Ottawa, Canada.

Zusammenfassung

Sechs Arten der Untergattung *Distichalius* CASEY, 1915 der Gattung *Quedius* STEPHENS, 1829 werden aus China beschrieben und abgebildet: *Q. tincticeps* nov.sp. (Yunnan), *Q. bipictus* nov.sp. (Guangxi, Zhejiang), *Q. gynaikos* nov.sp. (Sichuan), *Q. causarius* nov.sp. (Qinghai), *Q. laetepictus* nov.sp. (Guizhou) and *Q. iaculifer* nov.sp. (Gansu, Shaanxi). *Quedius wolong* ZHENG, WANG & LIU, 2008 wird redeskribiert und abgebildet. Die bisher unbekanntenen weiblichen Sexualmerkmale von *Quedius regularis* BERNHAUER & SCHUBERT, 1916 and *Quedius stouraci* HROMÁDKA, 2003 werden beschrieben und abgebildet. Für zehn Arten werden weitere Nachweise aus China gemeldet.

References

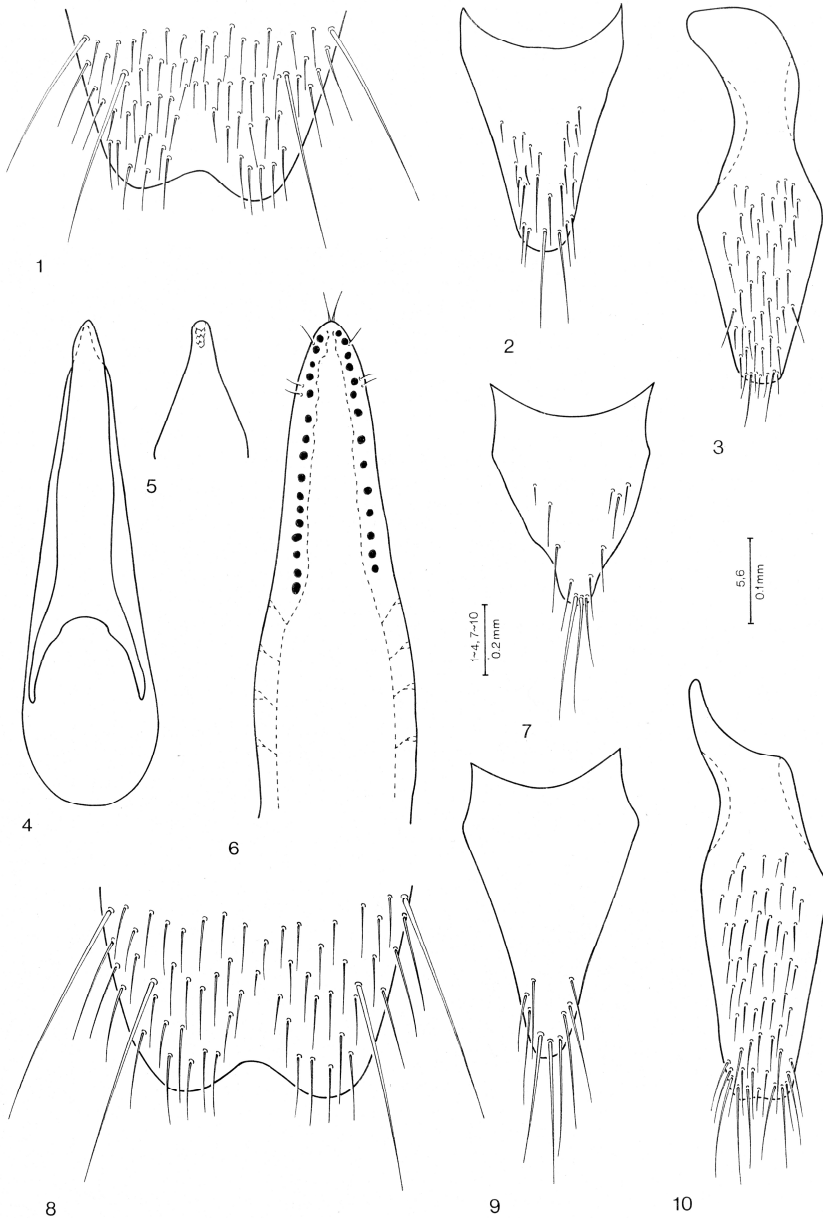
- BERNHAEUER M. & K. SCHUBERT (1916): Staphylinidae V (pars 67), p. 409-498. — In: JUNK W. & S. SCHENKLING (eds), Coleopterorum Catalogus. Volumen V., 998 pp. W. Junk, Berlin.
- CASEY T. (1915): Studies on some staphylinid genera of North America, p. 395-460. — Memoirs on the Coleoptera VI. Lancaster, Pennsylvania: The New Era Printing Co., 460 pp.
- EPPELSHEIM E. (1889): Insecta, a Cl. G. N. Potanin in China et in Mongolia novissime lecta. V. Neue Staphylinen. — Horae Societatis Entomologicae Rossicae **23**: 169-183.
- HORN G.H. (1878): Synopsis of the Quediini of the United States. — Transactions of The American Entomological Society **7**: 149-167.
- HROMÁDKA L. (2003): Zwei neue Arten der Gattung *Quedius* aus Nepal und China (Insecta: Coleoptera: Staphylinidae: Staphylininae). — Entomologische Abhandlungen **60**: 133-137.
- SHARP D. (1874): The Staphylinidae of Japan. — The Transactions of the Entomological Society of London **1874**: 1-103.
- SMETANA A. (1998): Contributions to the knowledge of the Quediina (Coleoptera, Staphylinidae, Staphylinini) of China. Part 11. Genus *Quedius* STEPHENS, 1829. Subgenus *Distichalius* CASEY, 1915. Section 1. — Elytra (Tokyo) **26**: 315-332.
- SMETANA A. (2008): Contributions to the knowledge of the Quediina (Coleoptera, Staphylinidae, Staphylinini) of China. Part 32. Genus *Quedius* STEPHENS, 1829. Subgenus *Distichalius* CASEY, 1915. Section 2. — Studies and Reports of District Museum Prague-East, Taxonomical Series **4**: 223-240.
- SMETANA A. (in press): Staphylinidae. P. — In: LÖBL I. (ed.), Catalogue of Palaearctic Coleoptera. Volume 2, New Edition. Leiden: Brill.

STEPHENS J.F. (1829): The nomenclature of British Insects; being a compendious list of such species as are contained in the Systematic Catalogue of British Insects, and forming a guide to their classification. — London: Baldwin & Cradock, 68 columns.

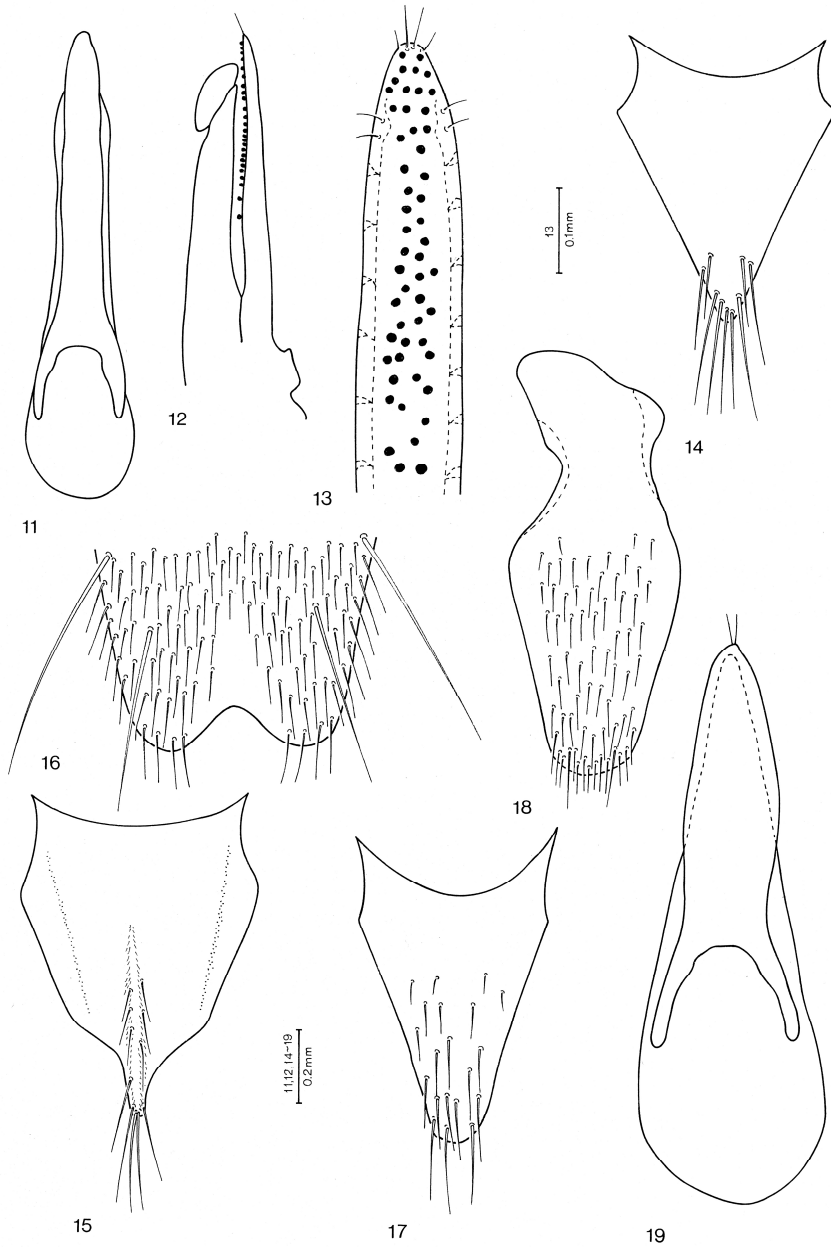
ZHENG F.K., WANG Z.J. & Z.P. LIU (2008): Three new species of the subgenus *Distichalius* of the genus *Quedius* from Sichuan, China (Coleoptera, Staphylinidae, Staphylininae). — *Acta Zootaxonomica Sinica* **33**: 667-673.

Author's address:

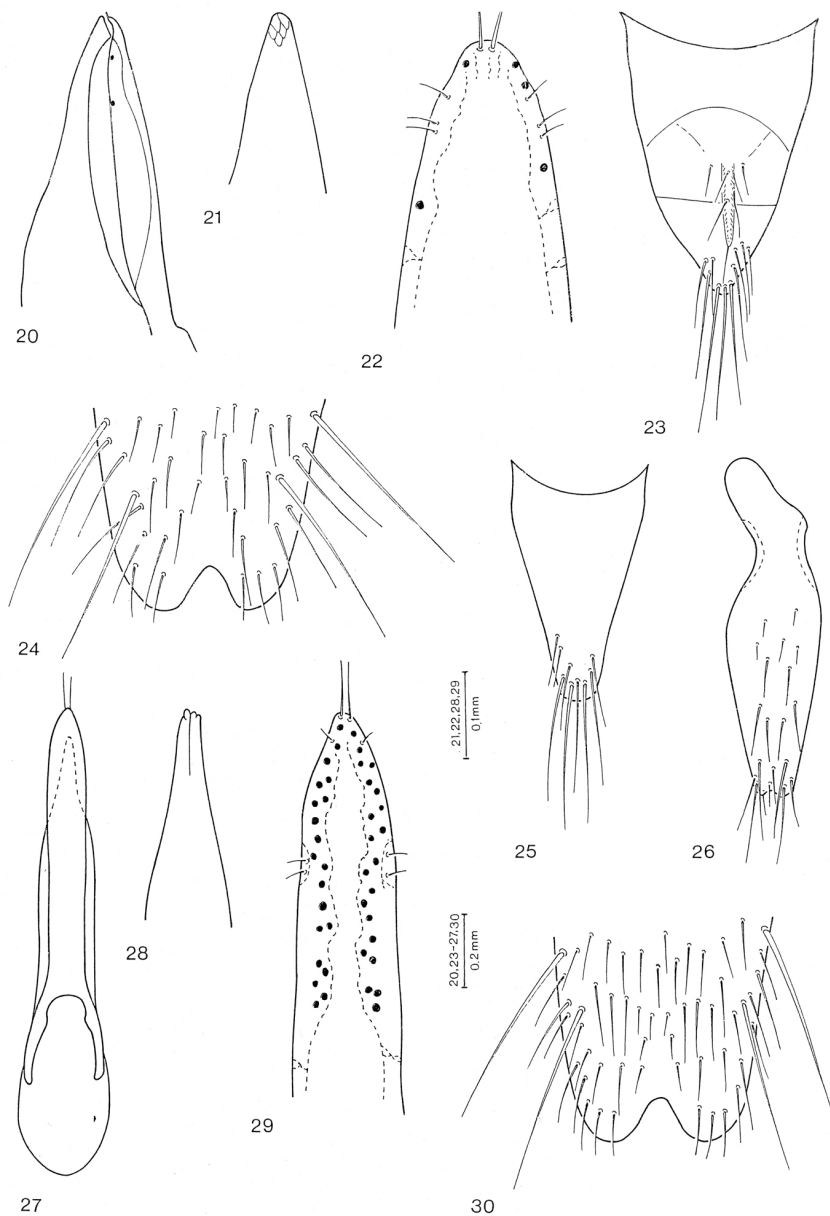
Aleš SMETANA
Agriculture and Agri-Food Canada, Biodiversity,
Central Experimental Farm, K. W. Neatby Bldg.
Ottawa, Ontario. K1A0C6
E-mail: ales.smetana@agr.gc.ca



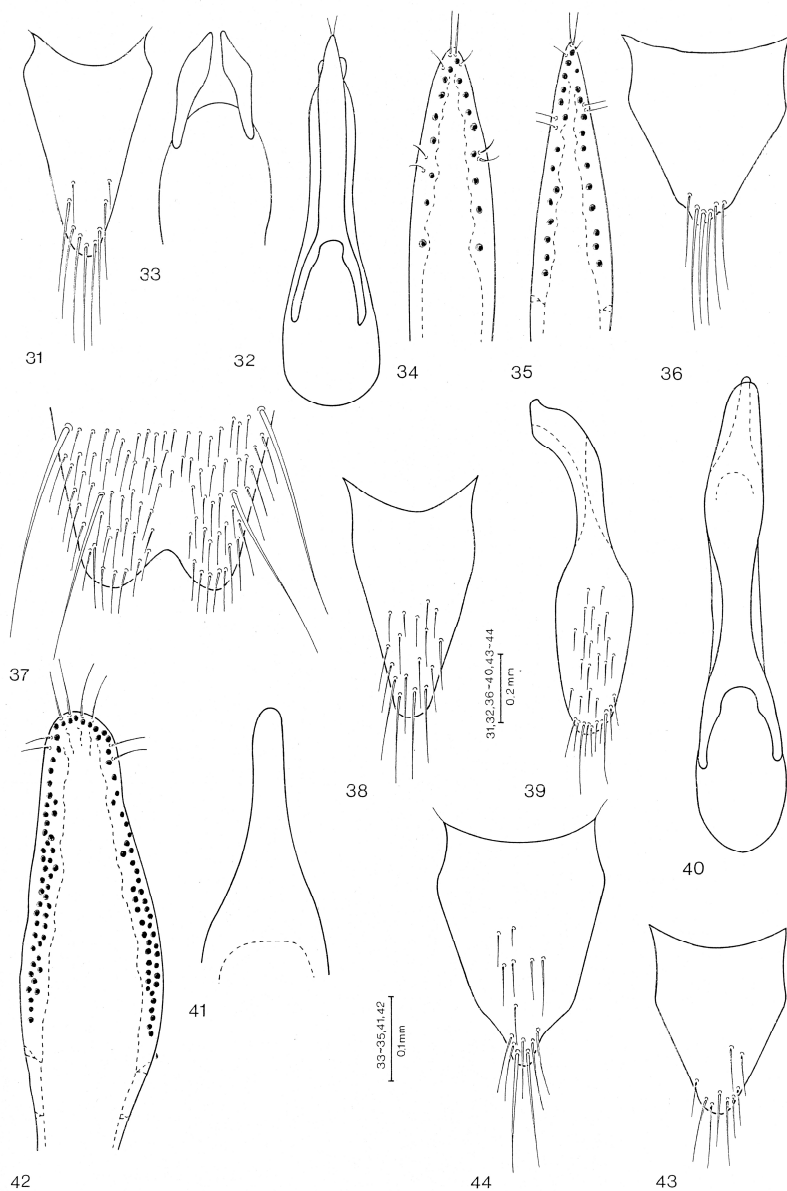
Figs 1-10: 1-7: *Quedius tincticeps* sp. nov.: (1) apical portion of male sternite 8; (2) tergite 10 of male genital segment; (3) sternite 9 of male genital segment; (4) aedeogagus, ventral view; (5) apical portion of median lobe, paramere removed; (6) apical portion of underside of paramere with sensory peg setae; (7) tergite 10 of female genital segment. 8-10: *Quedius bipictus* sp. nov.: (8) apical portion of male sternite 8; (9) tergite 10 of male genital segment; (10) sternite 9 of male genital segment.



Figs 11-19: 11-14: *Quedius bipictus* sp. nov.: (11) aedeagus, ventral view; (12) apical portion of aedeagus, lateral view; (13) apical portion of underside of paramere with sensory peg setae; (14) tergite 10 of female genital segment. *Quedius gynaios* sp. nov.: (15) tergite 10 of female genital segment. 16-19: *Quedius causerius* sp. nov.: (16) apical portion of male sternite 8; (17) tergite 10 of male genital segment; (18) sternite 9 of male genital segment; (19) aedeagus, ventral view.



Figs 20-30: 20-23: *Quedius causarius* sp. nov.: (20) apical portion of aedeagus, lateral view; (21) apical portion of median lobe, paramere removed; (22) apical portion of underside of paramere with sensory peg setae; (23) tergite 10 of female genital segment. 24-29: *Quedius laetepictus* sp. nov.: (24) apical portion of male sternite 8; (25) tergite 10 of male genital segment; (26) sternite 9 of male genital segment; (27) aedeagus, ventral view; (28) apical portion of median lobe, paramere removed; (29) apical portion of underside of paramere with sensory peg setae. *Quedius iaculifer* sp. nov.: (30) apical portion of male sternite 8.



Figs 31-44: *Quedius iaculifer* sp. nov.: (31) tergite 10 of male genital segment; (32) aedeagus, ventral view; (33) apical portion of median lobe, paramere removed; (34, 35) apical portion of underside of paramere with sensory peg setae; (36) tergite 10 of female genital segment. *Quedius wolong*: (37) apical portion of male sternite 8; (38) tergite 10 of male genital segment; (39) sternite 9 of male genital segment; (40) aedeagus, ventral view; (41) apical portion of median lobe, aedeagus removed; (42) apical portion of underside of paramere with sensory peg setae. *Quedius regularis*: (43) tergite 10 of female genital segment. *Quedius stouraci*: (44) tergite 10 of female genital segment.

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Linzer biologische Beiträge](#)

Jahr/Year: 2015

Band/Volume: [0047_1](#)

Autor(en)/Author(s): Smetana Ales

Artikel/Article: [Contributions to the knowledge of the Quediina \(Coleoptera, Staphylinidae, Staphylinini\) of China. Part 51. Genus Quedius STEPHENS, 1829. Subgenus Distichalius CASEY, 1915. Section 4 905-924](#)