Contribution to the knowledge of the genus Quedius STEPHENS, 1829 of Siberia and Russian Far East (Coleoptera: Staphylinidae: Staphylinini: Quediina)

Aleš Smetana & A. Alexey V. Shavrin

A b s t r a c t : Four new species of the genus *Quedius* STEPHENS, 1829 are described based on specimens from eastern Siberia and Russian Far East: *Quedius (Microsaurus) conviva* SMETANA nov.sp. (Irkutsk area), *Quedius (Microsaurus) amurensis* SMETANA nov.sp. (Amur Area), *Quedius (Raphirus) ryvkini* SMETANA nov.sp. (Maritime Province) and *Quedius (Raphirus) aedilis* SMETANA nov.sp. (Maritime Province). Each species is described, illustrated and all available distributional and bionomic data are given. New distributional records are given for *Q. sundukovi*, *Q. jenisseensis* and *Q. paraboops*.

K e y w o r d s : Coleoptera, Staphylinidae, Staphylinini, Quediina, *Quedius*, taxonomy, description, new species, geographical distribution, Siberia, Russian Far East, Palaearctic Region.

Introduction

This is the fourth contribution of the senior author to the knowledge of the genus *Quedius* STEPHENS, 1829 of the fauna of Siberia and Maritime Province (=Primorye) of Russia (see SMETANA 1976, 1978, 2003). It is based on recently collected material made available by the junior author and by A. B. Ryvkin, Moscow. Two new species are described in the subgenus *Microsaurus* DEJEAN, 1833, both from eastern Siberia, and two in the subgenus *Raphirus* STEPHENS, 1828, both from Primorie. New distributional records are given for three additional Siberian species.

Materials and methods

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

CSH..... collection of A.V. Shavrin, Daugavpils, Latvia

MSC collection of M. Schülke, Berlin, Germany

NSMT collection of Aleš Smetana, deposited at The Museum of Nature and Science, Toshiba, Japan (S. Nomura)

ZMM Zoological Museum of Moscow University, Moscow, Russia (A. A. Gusakov)

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

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Descriptions and additional records

Quedius (Microsaurus) conviva SMETANA nov.sp. (Figs 1-6, 22)

- T y p e locality: RUSSIA: E Siberia, Irkutskaya oblast, Angarsk, right side of Kitoy River, N52° 29'30,4" E103° 47'58,8", 410 m.
- T y p e m a t e r i a 1 : Holotype (♂) and allotype (♀): ROSSIA: "E Siberia, Irkutskaya oblast, Angarsk, right side of Kitoy R., 9.VI.2010 Enushchenko I.V. / the hole of Citellus undulatus / N52° 29'30,4" E103° 47'58,8". The holotype is deposited in ZMM, allotype in NSMT. Paratype (♀): "East Siberia, Irkutsk Area, Amgarsk, right side of Kitoy River, 52°29'30.4"N 103°47'58.8"E, 8.C.2017, Enushchenko I. V., 410 m a.s.l., the burrow of *Citellus undulatus*" (in ZMM).

Diagnosis. A distinctive species, characterized, in addition to the shape of the aedoeagus, by the dark coloration in combination with the chaetotaxy of the head (position of both the posterior frontal and temporal punctures), and of the pronotum (dorsal rows each with only two punctures, and sublateral rows missing). *Quedius citelli* KIRSHENBLAT, 1933, another species occurring in the burrows of the ground squirrel *Spermophilus dauricus* BRANDT, 1843 inTransbaikalia (Adun-Tshelon range (50° 33'N 116° 11'E), southeast of Chita Area), differs by the body coloration (appendages and elytra reddish), by the chaetotaxy of the pronotum (dorsal rows each with three punctures and sublateral rows present), and by the different aedoeagus (see BOHÁČ 1988: 550, Fig. 7).

D e s c r i p t i o n . Black, elytra with vague metallic hue, apical margins of abdominal tergites vaguely, narrowly paler. Mandibles black, maxillary and labial palpi testaceous. Antennae dark brownish, with first three segments more or less darkened, legs, including tarsi, piceous, or with tarsi vaguely paler. Head of rounded quadrangular shape, visually as long as wide, but measured vaguely wider than long (ratio 1.07), about parallelsided behind eyes, posterior angles obsolete; eyes rather small and flat, feebly convex, tempora slightly longer than eyes seen from above (ratio 1.20); no additional setiferous punctures between anterior frontal punctures; posterior frontal puncture shifted markedly posteriad, situated closer to posterior margin of head than to posteriomedial margin of eye; temporal puncture shifted posteriad, separated from posterior margin of eye by distance about twice as long as distance from posterior margin of head; two basal punctures at posterior margin of head on each side (see Comments); surface of head with fine and dense transverse to slightly oblique waves, with distinct micropunctulation; neck with microsculpture finer and denser than that on head and with a few scattered micropunctulae. Antennae short, slightly incrassate apicad, segment 3 slightly longer than segment 2, segment 4 as long as wide, segments 5-10 gradually becoming shorter and wider, outer segments 9 and 10 slightly wider than long, last segment about as long as two preceding segments combined. Pronotum wider than long (ratio 1.16), widest at about posterior third, markedly narrowed anteriad, with lateral margins continuously arcuate with broadly rounded base, transversely convex, lateral portions not explanate; dorsal rows each with two setiferous punctures; sublateral rows missing; microsculpture similar to that on head, but slightly finer and denser, with micropunctulation less apparent. Scutellum impunctate, surface with very fine and dense microsculpture of transverse waves. Elytra moderately long, at base narrower than pronotum at widest point, not appreciably dilated posteriad, at suture as long as, at sides slightly longer than pronotum at midline (ratio 1.11); punctation fine, dense, transverse interspaces between punctures mostly somewhat larger than diameters of punctures; pubescence piceous; surface between punctures without microsculpture; wings fully developed. Abdomen with tergite 7 (fifth visible) with fine whitish apical seam of palisade setae; tergite 2 (in front of fully visible tergite 3) impunctate, but with micropunctulae along posterior margin; punctation of abdominal tergites moderately fine and dense, more or less evenly covering each tergite, becoming in general gradually sparser toward apex of abdomen; pubescence piceous; surface between punctures with exceedingly fine microsculpture of broken striae.

Male. First four segments of front tarsus moderately dilated, sub-bilobed, each densely covered with tenent setae ventrally; segment 2 about as wide as apex of tibia; segment 4 narrower than preceding segments. Sternite 8 with two macrosetae on each side, apical margin with wide, moderately deep, obtusely triangular medioapical emargination, small triangular area before emargination flattened and smooth (Fig. 1). Genital segment with tergite 10 markedly, evenly narrowed toward arcuate apex, with two stronger and a few finer setae at apex and with a few fine setae in front of them (Fig. 2); sternite 9 with basal portion small; apical portion with slightly emarginated apex, densely and finely setose (Fig. 3). Aedoeagus (Figs 4, 5) small, short; median lobe with wide, parallelsided apical portion with wide, slightly, asymmetrically, arcuate apex; paramere of characteristic shape, with apex not reaching apex of median lobe; four apical setae and two shorter setae at right margin and one shorter seta at left margin below apex; sensory peg setae on underside numerous, situated as in Fig. 5.

Female. First four segments of front tarsus similar to those of male, but less dilated, segment 2 slightly narrower than apex of tibia (ratio 0.90). Tergite 10 of genital segment with slightly differentiated apical portion and medioapical portion markedly pigmented; with several long apical setae and with shorter setae along each lateral margin of pigmented portion of tergite (Fig. 6).

Length 8.5-9.0 mm.

E t y m o l o g y .The specific epithet is the Latin masculine noun *conviva*, *-ae*, m. (a guest) in apposition. It refers to the "guest" occurrence of the species in rodent burrows.

B i o n o m i c s . Specimens were collected from the burrows of *Urocitellus undulatus* (PALLAS, 1778) on right side of Kitoy river, up-stream of mouth of Malaya Yelovka river, on 1st floodplain's terrace; edge of *Pinus sylvestris* forest, with grasses (*Calamagrostis* spp.); sandy soil with river's alluvium (Fig. 22). The paratype was collected together with specimens of *Coprophilus sibiricus* BERNHAUER, 1915 and *Bisnius* sp.

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 conviva* is at present known only from the type locality northwest of Irkutsk in the vicinity of Angarsk, south-eastern Cisbaikalia.

C o m m e n t s . The female allotype bears an additional, small setiferous puncture between the posteriomedial margin of eye and the posterior frontal puncture on left side.



Figs 1-11: 1-6. Quedius conviva nov.sp. (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 underside of paramere with sensory peg setae; (6) tergite 10 of female genital segment. 7-11. Quedius amurensis nov.sp. (7) apical portion of male sternite 8; (8) tergite 10 of male genital segment (9) sternite 9 of male genital segment; (10) aedoeagus, ventral view; (11) apical portion of underside of paramere with sensory peg setae.





Figs 12-21: 12-16. Quedius ryvkini nov.sp. (12) apical portion of male sternite 8; (13) tergite 10 of male genital segment; (14) sternite 9 of male genital segment; (15) aedoeagus, ventral view; (16) apical portion of underside of paramere with sensory peg setae. 17-21. Quedius aedilis nov.sp. (17) apical portion of male sternite 8; (18) tergite 10 of male genital segment; (19) sternite 9 of male genital segment; (20) aedoeagus, ventral view; (21) apical portion of underside of paramere with sensory peg setae.

Quedius (Microsaurus) amurensis SMETANA nov.sp. (Figs 7-11, 23)

- T y p e locality. RUSSIA: Amurskaya obl., Skovorodinskiy r-n., lev. ber. r. Urka, ok 8 km S p. Erofei Pavlovich, N 54° 02'24.84'' E 121° 58' 30.69'', h=552 m.
- T y p e m a t e r i a l . Holotype (♂), RUSSIA: "Amurskaya obl., Skovorodinskiy r-n., lev. ber. r. Urka, ok 8 km S p. Erofei Pavlovich, 54° 02'24.84" N ♀ 121° 58' 30.69"E, h=552 m, 28-29.08.2014, A.V. Shavrin, I. V. Enushchenko". [Amur Area, Skorovodinskiy District, left side of Urka river, about 8 km N Yerofey Pavlovitch, 54° 02'24.84 N / 121° 58' 30.69"E, h=552 m, 28-29.08.2014, A.V. Shavrin, I. V. Enushchenko]. Deposited in ZMM.

D i a g n o s i s . Species similar in external characters to both Q. simulans SHARP, 1874 and Q. klapperichi SMETANA, 1996, but different mainly by the aedoeagus with paramere wide, covering the entire median lobe.

D e s c r i p t i o n . In all external characters similar to Q. *klapperichi*, but different as follows: size smaller than average specimens of Q. *klapperichi*, head shorter and wider, distinctly wider than long (ratio 1.20, corresponding ratio for Q. *klapperichi* 1.12); microsculpture distinctly finer and more superficial; antenna similar to that of Q. *klapperichi*, but distinctly more slender and shorter, with outer segments 7-10 distinctly transverse. Pronotum shorter and wider, more markedly wider than long (ratio 1.19, corresponding ratio for Q. *klapperichi* 1.10); left dorsal row with only two, right one with three punctures; scutellum with only a few punctures; elytra markedly shorter than those of Q. *klapperichi*, at suture about as long as, at sides longer than pronotum at midline (ratio 1.15); punctation and setation less dense than in Q. *klapperichi*; punctation of abdominal tergites similar to that of Q. *klapperichi*, but in general somewhat less dense.

Male. First four segments of front tarsus moderately dilated, sub-bilobed, each densely covered with tenent setae ventrally; segment 2 about as wide as apex of tibia; segment 4 narrower than preceding segments. Sternite 7 with slight medioapical sinuation; sternite 8 with four macrosetae at right side and three on left side, apical margin with wide, moderately deep, obtusely triangular medioapical emargination, a long, narrow area before emargination, reaching basal third of sternite, devoid of pubescence (Fig. 7); tergite 10 evenly narrowed toward arcuate apex, with a few long setae at apex and some shorter setae in front of them (Fig. 8); sternite 9 not appreciably different from that of Q. *klapperichi* (Fig. 9). Aedoeagus (Figs 10, 11) markedly different from those of both Q. *simulans* and Q. *klapperichi*; median lobe narrow, subparallelsided, anteriorly narrowed into narrow apical part with acute apex; paramere large, wide, entirely covering median lobe; four apical setae, medial pair considerably longer than lateral pair and two short setae at each lateral margin close to apex; underside with numerous sensory peg setae, forming irregular long row along each lateral margin of apical portion of paramere.

Female unknown.

Length 6.8 mm.

E t y m o l o g y. The specific epithet is the Latinized adjective derived from the name of the river Amur and by adding the suffix *-ensis*, denoting the place of origin.

Geographical distribution. *Quedius amurensis* is at present known only from the type locality in Amur area.

B i o n o m i c s . The specimen was sifted from litter and mosses at swampy site along a forest road with *Ledum palustre*, *Vaccinium uliginosum*, *Calamagrostis purpurea*, *C. obtusata*, *Carex* spp. and *Sphagnum* spp. in a mixed forest with *Larix gmelinii*, *Betula fruticosa*, *B. platyphylla* and *Salix* spp. (Fig. 23).



Figs 22-23: (22) Type locality of *Quedius conviva* nov.sp.; (23) Type locality of *Quedius amurensis* nov.sp.

C o m m e n t s . The holotype bears an additional, small setiferous puncture anteriomediad of right posterior frontal puncture and it is missing the last segment of right front tarsus.

Quedius (Raphirus) ryvkini SMETANA nov.sp. (Figs 12-16)

T y p e 1 o c a 1 i t y . RUSSIA: Primorie Schutzgebiet Sichote-Alin, Kordon Kabaniy.

T y p e m a t e r i a 1. Holotype (♂), ROSSIA: "Rußland: Primorie (S9) Schutzgebiet Sichote-Alin, Kordon Kabanyi 7.-13.VII.1998 leg. J. Sundukov / Coll. M. Schülke Berlin Ankauf Sundukow 1998", green plate. Deposited in MSC. Paratypes (2♂♂): "Primorskyi krai, Sikhote-Alinskyi zapovednik, Kabanyi kliuch. 45° 07'N 135° 52'E, 500 m. okonnye lovushki. 24-27.04.2015. D.E. Shcherbakov" / "Quedius (Raphirus) sp.nov. 1 A. B. Ryvkin det. 2015". [Maritime Province, Sikhote-Alinskiy Nature Reserve, Kabanyi source, 45° 07'N 135° 52'E, 500 m. window traps 24-27.04.2015. D. E. Shcherbakov]. Deposited in ZMM.

D i a g n o s i s . Species distinctive among the "larger" members of *Raphirus* with third antennal segment longer than the second, by the coloration of the body and appendages, in addition to the shape of the aedoeagus. Head black, pronotum piceous with each lateral margin rufotestaceous, elytra rufobrunneous to rufotestaceous, abdomen predominantly piceous-black to black; mandibles rufotestaceous, palpi, antennae and legs uniformly pale testaceous. Due to the coloration of the pronotum, the species resembles somewhat the specimens of the European *Q. collaris* ERICHSON, 1840 with lateral portions of pronotum paler, but it differs, in addition to the different aedoeagus, by the smaller, much less convex eyes.

D e s c r i p t i o n . Head black, pronotum piceous with each lateral margin rufotestaceous, elytra rufobrunneous to rufotestaceous, abdomen piceous-black to black with apical margins of tergites more or less narrowly paler. Mandibles rufotestaceous, palpi, antennae and legs uniformly pale testaceous. Head rounded, slightly wider than long (ratio 1.15); eyes large, moderately convex, tempora considerably shorter than length of eyes seen from above (ratio 0.31), no additional setiferous punctures between anterior frontal punctures; posterior frontal puncture separated from posteriomedial margin of eye by distance about equal to diameter of puncture; one basal puncture on each side; temporal puncture quite small, touching posterior margin of eye; surface of head with very fine and very dense microsculpture of mostly transverse waves. Antenna moderately long, slim, segment 3 longer than segment 2, segments 4 to 8 longer than wide, gradually becoming shorter, segment 9 and 10 about as long as wide, segment 11 about as long as two preceding segments combined. Pronotum visually as long as wide, but measured vaguely wider than long (ratio 1.08), widest at about midlength, narrowed anteriad, with lateral margins continuously arcuate with broadly rounded base, transversely convex, lateral portions not explanate; dorsal rows each with three punctures; sublateral rows each with one puncture situated before level of large lateral puncture; surface of pronotum with microsculpture similar to that on head, but even finer and denser, almost disappearing on lateral portions. Scutellum densely punctate/setose on apical half, surface with rudimentary microsculpture. Elytra moderately long, at base slightly narrower than pronotum at widest point, vaguely dilated posteriad; at suture slightly shorter (ratio 0.89) and at sides about as long as pronotum at midline; punctation very fine and very dense, transverse interspaces between punctures mostly about as large as diameters of punctures; surface between punctures with microscopic micropunctulation, elytra therefore appearing slightly opaque; pubescence testaceous. Wings fully developed. Abdomen with tergite 2 (in front of first fully visible tergite) only with fine setiferous punctures at apical margin, otherwise impunctate; tergite 7 (fifth visible) with fine apical seam of palisade setae; punctation of tergites similar to that on elytra, becoming somewhat sparser toward apical margin of each tergite and in general toward apex of abdomen;

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pubescence piceous; surface between punctures with excessively fine microsculpture of transverse striae.

Male. First four segments of front tarsus moderately dilated, sub-bilobed, each with tenent setae ventrally; segment 2 about as wide as apex of tibia; segment 4 narrower than preceding segments. Sternite 8 with three strong setae at each side, with narrow, obtusely triangular medioapical emargination, narrow triangular area before emargination flattened and smooth (Fig. 12). Genital segment with tergite 10 evenly narrowed toward arcuate apex, with several long setae at apex and numerous short setae in front of them (Fig. 13); sternite 9 with small, wide basal portion, apical portion subarcuate at apex, with stronger apical seta in each lateroapical corner, otherwise finely and densely setose (Fig. 14). Aedoeagus (Figs 15, 16) narrow, elongate, median lobe slightly, widely attenuated at about apical third, anteriorly narrowed into apical portion with narrowly arcuate apex; paramere large, elongate, covering median lobe except for narrow lateral portions, anteriorly narrowed into subacute apex, apex not quite touching apex of median lobe; four apical setae, median pair markedly longer than lateral pair and two long setae at each lateral margin close to apex; underside.

Female. unknown.

Length 7.5-8.0 mm.

E t y m o l o g y. Patronymic, the species was named in honor of our colleague Alexandr B. Ryvkin, Moscow, Russia, who correctly recognized its taxonomic status and gratuitously made the specimens available to senior author.

Geographical distribution. *Quedius ryvkini* is at present known only from the type locality in Sikhote-Alin range in the Maritime Province of the Russian Far East.

B i o n o m i c s . Two of the known three specimens were taken from window traps, but it is not known in what habitat the traps were set.

C o m m e n t . The setation of sternite 9 of male genital segment was damaged, Fig. 14 shows the preserved setation.

Quedius (Raphirus) aedilis SMETANA nov. sp. (Figs 18-21)

- T y p e locality. ROSSIA: Primorskyi krai, Sikhote-Alinskyi zapovednik, Kabanyi kliuch. 45° 07'N 135° 52'E, 500 m.
- T y p e m a t e r i a 1. Holotype (♂), ROSSIA: "Primorskyi krai, Sikhote-Alinskyi zapovednik, Kabaniy kliuch. 45° 07'N 135° 52'E, 500 m. zheltye tarepky. 24-27.04.2015. D. E. Shcherbakov" / "Quedius (Raphirus) sp. nov. 2 A. B. Ryvkin det. 2015". [Maritime Province, Sikhote-Alinskiy Nature Reserve, Kabaniy source, 45° 07'N 135° 52'E, 500 m, yellow pan traps, 24-27.04.2015. D. E. Shcherbakov.] Deposited in NSMT.

D i a g n o s i s . A species in all characers similar to *Q*. *ryvkini* nov.sp., but different by darker body coloration and by the differently shaped aedoeagus.

D e s c r i p t i o n . Head black, pronotum uniformly piceous, elytra piceous, abdomen piceous-black to black with apical margins of tergites more or less narrowly paler. Mandibles rufotestaceous, palpi, antennae and legs uniformly pale testaceous but first three antennal segments vaguely, indefinitely darkened.

Male. First four segments of front tarsus similar to those of Q. ryvkini, but less dilated,

but segment two as wide as apex of tibia, as in Q. ryvkini. Sternite 8 with four strong setae on right side and three on left side; with medioapical emargination similar, but more acute and less deep (Fig. 17). Both tergite 10 and sternite 9 of genital segment not appreciably different from those of Q. ryvkini (Figs 18, 19). Aedoeagus (Figs 20, 21 with median lobe similar in shape to that of Q. ryvkini but narrower; paramere similar in shape, but markedly narrower, with subacute apex not reaching apex of median lobe; four apical setae, median pair markedly longer than lateral pair and two long setae at each lateral margin close to apex; sensory peg setae on underside less numerous, forming a narrow field on apical portion.

Female_unknown.

Length 7.5 mm.

E t y m o l o g y. The specific epithet is the Latin masculine noun *aedilis*, *-is*, m (an aedile, official in ancient Rome).

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 aedilis* is at present known only from the type locality in Sikhote-Alin range in the Maritime Province of the Russian Far East.

B i o n o m i c s .The holotype was taken from a yellow pan trap, but it is not known in what habitat the traps were set. It is apparent that Q. ryvkini and Q. aedilis share the same habitat.

Quedius (Quedius) sundukovi SMETANA, 2003

sundukovi SMETANA, 2003: 189 (Quedius; subgenus Quedius; description).

N e w r e c o r d s . RUSSIA: Irkutsk area, Bodaibinskiy District, Vitimskiy Nature Reserve, lake Oron, left bank of Labazniy stream, 15.06.215, I. V. Enushchenko, 1♂ (NSMT); Chita area, Kalarskiy District, Udokan Range, valley of Baronka river, thickets of *Alnus* sp. near stream, 56° 27'59.3''N 117° 08'45.0''E, 1233 m, 04.07.2014. I. V. Enushchenko, 1♀ (NSMT); same District and same range, left bank of Eimnakh river, 56° 19'48.3''N 117° 12'4.37⁺'E, 738 m, 05.07.2014, I. V. Enushchenko, 1♂ (NSMT).

C o m m e n t s . The species was until now known only from Khabarovsk Territory. The new records extend the distributional range of the species significantly westwards.

Quedius (Raphirus) jenisseensis J. SAHLBERG, 1880

- *jenisseensis* J. SAHLBERG, 1880:72 (*Quedius*; subgenus *Raphirus*; description); SMETANA, 1976: 24 (*Quedius*; subgenus *Raphirus*; characters; lectotype designation); SMETANA, 1995:85 (*Quedius*; subgenus *Raphirus*; comments)
- N e w r e c o r d s. RUSSIA: Yamalo-Nenets Autonomous Region, Priuralskiy District, Shchuchva river, near Shchuchye trading station, 14.08-21.09.1980, E, M. Veselova, 1 (ZMM); Irkutskaya Area, Bodaibinskiy District, Vitimskiy Nature reserve, lake Oron, right bank of Pravaya Polovinka river, about 500 m down-stream of second right tributary, 57° 07'3.60''N 116° 36' 69.2"E,08.06. 2015, I. V. Enushchenko, 1 (NSMT); same data, below second right tributary (left bank), 57° 07'46"N 116° 37'13.1"E, mosses in *Betula* forest in river valley, I. V. Enushchenko 1 (NSMT); Krasnoyarsk Territory, Turukhanskiy District, Central Siberian Biosphere Reserve, Bol'shaya Raskosaya river, moss and litter on glade with tree undergrowth (*Picea obovata, Betula* sp., *Populus tremula, Pleurozium schreberi, Polytrichum commune, Sphagnum* spp., etc.), 07.06. 1992, V. B. Semenov, 1 (NSMT); Iu Yamal, faktoriia Sredne-Shchuch'e. 14.8.-21.9.1980, E. M. Veselova, 1 (NSMT).

C o m m e n t s . The species is widely distributed in the north from the Lena river basin

westward to Kanin Peninsula, southwards to Irkutsk Area and Krasnoyarsk Territory in the south.

Quedius (Raphirus) paraboops COIFFAIT, 1975

- paraboops COIFFAIT, 1975: 34 (Quedius; subgenus Raphirus; desctiption); SMETANA, 1976: 27 (Quedius; subgenus Raphirus; comments; characters; characters in key); SMETANA, 1978: 86 (Quedius; subgenus Raphirus; distribution); DRUGMAND, 1988:209 (Quedius; subgenus Raphirus; aedoeagus illustration; characters in table)
- N e w r e c o r d s . Irkutsk Area, Nizhneudinskiy District., East Sayan, Tofalaria, 1300 m, Tantal-Niobium field "Zashihinskoye", Khailama river, 24.07. - 03.08. 2012, R. Hailama, I. Y. Enuschenko leg., 23 spec. of both sexes (CSH, NSMT); Chita Area, Kalarskiy District, Udokan Range, left bank of Eimnakh river, 5 km below mouth of Aku stream (left ttributary of Eimnakh river), 56° 17'08.7''N 117° 22'26.1''E, 868 m, 06.-07.2014, I. V. Enushchenko, 1♂, 1♀ (NSMT); same range, crossing of Baronka river and Kuanda River, 56° 22'32.5''N 117° 08.28.7^TE, 984 m, 05.07.2014, I. V. Enushchenko, 1♀ (NSMT); Amur Area, Skovorodinskiy District, left side of Urka river, 16 km N Yerofey Pavlovitch, 54° 06'20.95''N 121° 58' 03.91''E, h=568 m, young (about 5-7 years) growth of *Betula* sp. with mixed *Alnus* sp. and *Salix* spp. undergrowth of *Vaccinium uliginosum, Ledum palustre, Rubus* sp., *Calamagrostis purpurea* and free standing large *Larix ghmelinii* trees, 31.8 – 1. 9. 2014, A. V. Shavrin, I. V. Enushchenko, 1♂ (NSMT).

C o m m e n t s . The species is widely distributed in Siberia, in the north from Ob river in the west to Lena river basins in the east, southwards to Irkutsk, Chita and Amur regions.

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Zusammenfassung

Quedius (Microsaurus) conviva SMETANA nov.sp. (Irkutsk area), Quedius (Microsaurus) amurensis SMETANA nov.sp. (Amur Area), Quedius (Raphirus) ryvkini SMETANA nov.sp. (Maritime Province) and Quedius (Raphirus) aedilis SMETANA nov.sp. (Maritime Province) werden beschrieben und abgebildet. Weitere Nachweise von drei Arten werden gemeldet.

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Authors' addresses:

Aleš SMETANA

Agriculture and Agri-Food Canada, Central Experimental Farm K.W. Neatby Building, Ottawa, Ontario K1A 0C6, Canada E-mail: ales.smetana@agr.gc.ca

Alexey V. SHAVRIN Institute of Life Sciences and technologies, Daugavpils University Vienibas 13, Daugavpils, LV-54 E-mail ashavrin@hotmail.com

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