New Trechini from China (Coleoptera, Carabidae)

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Summary: In the present work, 8 new species of the genus *Queinnectrechus* Deuve (*Q. angusticollis* sp.n., *Q. brevis* sp.n., *Q. guttula* sp.n., *Q. humeralis* sp.n., *Q. incisus* sp.n., *Q. janatai* sp.n., *Q. micrangulus* sp.n. and *Q. miroslavi* sp.n.), 2 new species and one new subspecies of the genus *Sinotrechiama* Uéno (*S. pilifer* sp.n., *S. pilifer discicollis* ssp.n. and *S. imitator* sp.n.), 3 new species of the genus *Agonotrechus* Jeannel (*A. dubius* sp.n., *A. lunanshanus* sp.n. and *A. trechoides* sp.n.), one new species of the genus *Paragonotrechus* Uéno (*P. apterus* sp.n.), 2 new species and one new subspecies of the genus *Ushijimaella* Uéno (*U. lucida* sp.n., *U. lucida riparia* ssp.n. and *U. zvarici* sp.n.) and one new subspecies of the genus *Duvalioblemus* Deuve (*D. sichuanicus similis* ssp.n.) are described. Additionally, 2 new genera are introduced into science: *Protrechiama* gen.n. with 3 new species (*P. glabricollis* sp.n. – type species, *P. giganteus* sp.n. and *P. marginalis* sp.n.) and *Dactylotrechus* gen.n. with the only known species *D. setosus* sp.n. Except for *Agonotrechus dubius* sp.n. from Gansu, all the above taxa originate from different parts of Sichuan Province, southwestern China. Additional data on the distribution and variation of the earlier described species of the listed genera are provided. Members of the genera *Queinnectrechus, Sinotrechiama, Protrechiama* and *Ushijimaella* are keyed.

Recent entomological surveys in China have resulted in a lot of new Trechini described (Deuve, 1992a, Deuve, 1995, Uéno, 1995). A major part of newly described genera are still known only by a few species. This hampers a better understanding of the generic taxonomy of the tribe. The present paper focuses on such genera leaving aside available undescribed *Trechus* and *Epaphiopsis* species.

The measurements used here are the same as in previous articles (e.g. Belousov & Kabak, 2000). The body length was measured without mandibles, the width of the pronotal base at the narrowest point and both discal and umbillicate formulae are given in percent to the length of elytra. The latter was measured from the apex of the scutellum in *Queinnectrechus* and *Dactylotrechus* while from the anterior termination of the basal border in other groups. Under 'material' section the number of specimens studied is followed by the number of genitalic preparations given in parentheses. Under 'sexual dimorphism' section only morphometric differences in proportions are regarded.

Abbreviations used in the text are:

ZISP = Zoological Institute of Russian Academy of Sciences, St. Petersburg;

IZK = Institute of zoology of Ministry of Science and Education of Kazakhstan, Almaty;

MPU = Pedagogical University of Moscow;

cAG = collection of A. Gitzen, Neuhofen;

cAK = collection of A. Koval, St. Petersburg;

cBK = collection of the authors, St. Petersburg;

cBZ = collection of B. Zvarič, Most;

cMJ = collection of M. Janata, Praha;

cPM = collection of P. Moravec, Litomeřice;

cVZ = collection of V. Zieris, Pardubice;

AL = length of antennae;

EL = length of elytra;

EW = width of elytra;

EyL = length of eye;

HW = width of head;

L3 = length of antennomere 3;

PA = width of pronotum at anterior margin;
PB = width of pronotum at base;
PL = length of pronotum;
PW = width of pronotum;
TL = length of temple (=tempora, =gena);
x* = mean.

Genus *Queinnectrechus* Deuve, 1992

Queinnectrechus Deuve, 1992a: 354, type species: *Queinnectrechus excentricus* Deuve, 1992a.

The genus *Queinnectrechus* was established by Th. Deuve for a single species *Q. excentricus* Deuve (Deuve, 1992a). Since then, 4 more species have been discovered in Sichuan and Yunnan provinces (Uéno, 1995, 1998a, 1998b). In the present paper, a further 8 new species are introduced into science, all from Sichuan Province.

The diagnosis of the genus given by Th. Deuve is accurate and complete. Nonetheless, we give here a brief re-description of the genus modified in some points to include newly discovered species.

Length 3.90-4.60 mm. Body shape very characteristic: narrow pronotum, very strongly constricted at base and wide, extraordinarily convex, ovate-oblong elytra with oblique humeri. Color of upper-side comparatively dark, mostly amber reddish with dark brown or pitchy black disc of elytra. Light coloration of *Q. glaciale* Uéno is based on the teneral specimens (Uéno, 1998b) and needs further confirmation.

Head rather large, with complete frontal furrows somewhat impressed posteriorly, frons with parietal impression in posterior part, eyes comparatively small but convex. Two usual supraorbital setae, of which the anterior more or less strongly foveolate. Genae subconvex or plane depending on the species, always glabrous. Mandibular tooth of right mandible tridentate, with distinct premolar. Labial tooth rather variable in shape, even within limits of a single species, from simple and obtuse to either wide and truncate or more or less distinctly cleft at apex, always with longitudinal impression on ventral surface, bordered laterally and basally. Mentum fused with submentum forming a semi-circular convex structure, suture between them indistinct, at most hardly perceptible. 6 submental setae. Labial organ well-developed. Discal setae of mentum considerably closer to one another than pores of labial organ. Lateral lobes of mentum with inner surfaces attenuated in long spine-like processes. Maxillary palpi glabrous, their segments of subconical shape, rather long and robust. Penultimate segment of labial palpi quadrisetose. Paraglossae falcate, markedly surpassing anterior margin of ligula, the latter bearing 8 setae along anterior margin, the median pair of which is the longest.

Lateral border of pronotum reduced in posterior part. Marginal bead fine and narrow, widest and slightly reflexed near anterior lateral seta. Anterior angles rounded, posterior ones modified in characteristic digitiform processes, produced outward and backward. Base of pronotum deeply emarginate laterally, near hind angles (Figs 17-22). Basal surface smooth, basal foveae small but deep. Two usual lateral setae.

Elytra very convex and broad, ovate-oblong in shape, widest at or a little behind middle. Humeri obliquely cut. Discal setigerous pores in number 2-6 (exceptionally 1 - 7), all at site of stria 3. Apical triangle incomplete: preapical and sometimes angulo-apical pores lacking. Umbilicate series divided into 3 usual groups so characteristic for most Trechini: humeral group consisting of 4 pores, of which pore 1 is markedly displaced mediad, especially as compared with pore 2; median and preapical groups more or less well-defined. Pores 2, 6, 8 located closer to lateral margin and their setae are much longer than others. Base of elytra not bordered. Apical striole rather short and shallow, weakly carinate laterad. Both scutellar striole and pore present. Striation reduced, at most sutural and two adjacent inner striae partly perceptible in some species.

Microsculpture completely lacking, surface therefore strongly shining, with more or less clearly expressed iridescent luster. Both dorsal and ventral surfaces micropunctured throughout.

Episternites markedly to barely longer than wide (usually about 1.5 times as long as wide, barely longer in *Q. brevis* sp.n.), feebly carinate along outer margin in anterior part, smooth or with sparse and deeply engraved punctures. Abdominal sternites 2-3 completely fused, without distinct suture between them. Abdominal sternites, each with a pair of paramedian setae, anal sternite as a rule with a pair, rarely with two pairs of setae along its posterior margin in males and with two pairs in females.

Anterior tibiae from feebly flattened to distinctly grooved on external surface and clearly pubescent on anterior surface in apical part. Two basal segments of protarsi in male dilated and dentate inward, provided with adhesive appendages beneath.

Despite of strong interspecific differences in the genitalic structure of males, some common features may be recognized for members of the genus: the aedeagal tube is rather slightly bent; shaft short; median lobe depressed dorso-ventrally; apex slightly hooked; distal orifice large, often reaching the basal bulb; endophallus armature represented by two plates in horizontal plane, which both are usually pointed distally. Sagittal aileron varying according to species. Parameres of unequal length, the left one longer, each provided with ventral process and usually 4, more rarely 5 or 6, apical setae.

In general, sexual dimorphism is not strongly pronounced in species of the genus *Queinnectrechus*. More often, the males have somewhat longer antennae as compared with elytra. These differences were significant (p-level 0.05) in 4 species studied though the means differed only by 0.02-0.04 according to the species. Unexpectedly, another ratio that turned out to be significantly different in the males and females was the ratio of the pronotal width to the pronotal length which was a little narrower in the males (by 0.01-0.03). These differences were found to be significant in 4 species studied. Besides, in 3 species studied, the males were distinct in having wider elytra with differences in ratios ranging from 0.02 to 0.04. In other morphometric characters, either significant differences were revealed in one only species or tendencies discovered were discrepant in different species.

Hitherto known species of the genus inhabit high mountains in Sichuan and northwestern part of Yunnan provinces.

Queinnectrechus angusticollis Belousov & Kabak, sp.n.

Figs 10, 51.

Holotype: ♂ (ZISP), CH, NW Sichuan, NW of Lixian, 9 km W of Shangmeng, scree above timber-line 3700-3800 m, 25.07.2002 (Belousov & Kabak leg.) [31° 39’ N / 103° 00’ E].

Paratypes: 84(3) ♂, 53(1) ♀ (ZISP, IZK, MPU, cBK, cAG, cAK, cVZ, cBZ, cPM, cDW), collected with holotype. — 31(3) ♂, 21 ♀ (cBK, cAG), CH, NW Sichuan, NW of Lixian, 10 km WSW of Shangmeng, alp., scree 3850-4000 m, 27.07.2002 (Belousov & Kabak leg.) [31 39’ N / 103 00’ E].

40 specimen measured.

Description. Comparatively large-sized species, body length 4.07-4.71 (x*=4.39) mm. Rather narrow fore-body and wide, convex hind-body. Amber reddish with darker brownish, sometimes blackish elytra (except for lighter margins and suture) and middle part of head. Legs and antennae uniformlyuniformly reddish in color.

Head medium-sized (PW/HW: 1.16-1.27, x*=1.22). Eyes small and convex (EyL/L3: 0.82-1.00, x*=0.88). Genae (Fig. 10) rather convex. Frontal furrows arcuate, not angulate, more strongly impressed posteriorly. Frons convex, especially in posterior part. Few wrinkles located postero-mediad of anterior supraorbital seta. Antennae long and filiform, shorter than elytra (EL/AL: 0.89-0.99, x*=0.94); their third segment 2.43-2.92 (x*=2.68) times as long as wide.

Pronotum cordate, convex and very narrow (PW/PL: 1.07-1.14, x*=1.11); very strongly constricted toward base (PW/PB: 1.41-1.56, x*=1.47). Lateral sides sinuate before hind angles; latter produced in digitiform processes of medium size, directed backward and

outward. Anterior angles rounded. Basal margin convex medially, concave laterally on each side. Anterior margin weakly salient. Lateral border distinct in anterior part, surpassing the mid-length and often reaching basal third of pronotum. Marginal bead of pronotum average for genus, developed only in anterior part of pronotum. Basal transverse impression deep and relatively finely outlined. Apical transverse impression very shallow, located closely to anterior margin. Discal foveae absent. Basal surface smooth, with small and rather deep basal foveae. Median line distinct, deeper near base, reaching about apical transverse impression anteriorly and not reaching basal margin. Two usual lateral setae, of which the anterior one is situated in anterior 1/4 - 1/5 of pronotum.

Elytra very large (EW/PW: 1.80-2.01, x*=1.91; EW/HW: 2.23-2.45, x*=2.33); very broad (EL/EW: 1.26-1.38, x*=1.33), ovate-oblong in shape. Shoulders obliquely cut but marked. Marginal bead of elytra average, considerably wider than that of pronotum at level of anterior lateral seta. Elytral striation reduced: striae 1-3 vestigial and only partly discernible, others effaced, all striae without distinct punctures. Stria 1 more or less sharply impressed only on apical slope of elytra. Scutellar striole distinct, slightly carinate. Apical striole short and barely impressed. Usually only 2 discal pores at site of stria 3, more rarely 1 or 3 pores on one elytron, very rarely 3 pores on both elytra, in one specimen - 4 on one elytron. As a rule, all discal pores located in anterior half of elytra. Preapical pore always lacking. Angulo-apical pore vestigial. Angulo-apical pore, if present, located a little closer to suture than to exterior pore. Umbilicate pore 1 strongly shifted onto elytral disc, umbilicate pore 2 situated very closely to lateral margin, these pores normally closer to one another than other adjacent pores of umbilicate series within groups.

Foretibiae distinctly grooved on exterior surface.

Aedeagus (Fig. 51) rather large, bent step-like at basal quarter; apical lamella of triangular shape. Sagittal lobe well-developed. Parameres long and slender, each bearing 4 apical setae, left longer, provided with ventral apophysis. Endophallus armature large, vaguely outlined, especially in distal part.

Notes. The species considered is unique among all known members of the genus in having normally only two dorsal setae on the each elytron. Its aedeagus can be easily distinguished from those of other members of the genus by the strong dilation in the apical third when viewed laterally.

Distribution. This species is known only from the northern slopes of the mountain massif located to the west of the Shangmeng village not far from the town of Lixian in northern Sichuan.

Habitats. The species occurs in screes just above timber-line and in the low alpine zone at elevations of 3700-4000 m a.s.l.

Queinnectrechus brevis Belousov & Kabak, sp.n.

Figs 22, 33, 52.

Holotype: 1 male (ZISP), CH, S Sichuan, 37 km NNW Mianning, NW Lajiajia, 3900-4000 m, alpine zone, 6.08.2002 (Belousov & Kabak leg.) [28° 50' N / 102 ° 00' E].

Paratypes: 2 (2) ♂, 4 (1) ♀ (ZISP, cBK), collected together with holotype.- 3 (3) ♂, 2 ♀ (cBK), CH, S Sichuan, 37 km NNW Mianning, NW Lajiajia, alpine zone, H~4100 m, 7.08.2002 (Belousov & Kabak leg.). — 1 ♀ (cBK), CH, S Sichuan, 35 km NNW Mianning, NW Lajiajia, upper forest zone, H~3400 m, 4.08.2002 (Belousov & Kabak leg.) [28° 50' N / 102 ° 00' E].

13 specimens measured.

Description. Relatively small-sized species, body length 3.82-4.24 (x*=3.98) mm. Habitus robust and oval, with rather short and broadly ovate hind-body. Color pitchy black, suture and lateral margins of elytra, disc of pronotum along its median line and often base and apex of pronotum, head except for median transverse band tinted with reddish. In a few specimens, light reddish pattern of pronotum is so extended that only one median dark spot is left on each side. Legs and antennae uniformly reddish. Surface strongly iridescent, shining and regularly and finely micropunctured throughout.

Head medium-sized (PW/HW: 1.18-1.25, x*=1.21). Eyes rather prominent, of medium size, 1.20-1.40, on average 1.31 times as long as genae and 0.93-1.07, on average 0.99 times as long as antennomere 3. Genae rather short and convex. Frontal furrows almost subparallel in middle part, slightly impressed toward rather shallow transverse parietal impression. Anterior supraorbital seta foveolate. Antennae not very long, filiform, about as long as elytra (EL/AL: 0.97-1.03, x*=1.00). Tooth on right mandible with rather short base, premolar shorter and less massive than distal denticle of retinacle, well delimited from remainder of tooth.

Pronotum cordate, strongly c0onvex, moderately narrow (PW/PL: 1.14-1.25, x*=1.19), very strongly constricted toward base (PW/PB: 1.53-1.61, x*=1.57). Lateral sides strongly sinuate before hind angles; latter attenuated in medium-sized digitiform appendices directed backward and clearly outward, their external margins barely convex (Fig. 22). Base of pronotum narrow, basal margin straight medially, rather deeply incised laterally, near hind angles. Anterior margin of pronotum straight, without anterior angles. Marginal border of pronotum well-developed in anterior half, disappearing near middle of lateral sides, partly discernible near hind lateral pore. Anterior lateral seta about mid-length of marginal border of pronotum. Marginal bead rather wide at level of anterior lateral pore, progressively narrowing both anteriorly and posteriorly. Basal foveae small and deep. Basal transverse impression not deep, shallowing near middle, parallel to basal margin and comparatively close to it. Apical transverse impression finely engraved, more distinct laterally. Basal surface smooth. Median line distinct, reaching only anterior and posterior transverse impressions.

Elytra (Fig. 33) large and convex (EW/PW: 1.71-1.82, x*=1.76; EW/HW: 2.06-2.21, x*=2.13), very broad (EL/EW: 1.21-1.28, x*=1.25), ovate-oblong in shape, with maximum width a little behind middle, broadly rounded in apical portion and strongly narrowed toward base, usually strongly impressed along suture. Shoulders obliquely rounded. Marginal gutter of elytra broad, wider than that of pronotum. Elytral striae effaced, only stria 1 rather sharply engraved near apex, inner striae up to stria 4 may be partly traced. Scutellar striole weakly engraved, rather short, slightly carinate externally, with scutellar pore near its anterior end. On site of 3rd stria, 4-6 (usually 5) discal setae (3 on one elytron in one specimen examined), the anterior of which is located near level of umbilicate pore 1, the posterior one before or behind level of umbilicate pore 6. Preapical pore lacking. Apical striole relatively long, slightly impressed, almost rectilinear in anterior half, without distinct outer carina. Humeral group of umbilicate series rather regularly aggregated, pore 2 much closer to lateral margin and pore 1 clearly shifted mediad. Umbilicate pores 7 and 8 wider spaced than pores 5 and 6. Angulo-apical seta almost twice shorter than exterior one, though variable in position, usually in middle between exterior apical pore and suture of elytra.

Anal sternite weakly longitudinally rugose in middle, normally with a pair (seldom two pairs) of setae in males and two pairs in females settled along its posterior margin.

Legs rather thick and short. Foretibiae distinctly grooved externally, densely pubescent on anterior surface near apex. Inner denticle of the first article in male protarsi narrow, that of segment 2 rather stout.

Aedeagus (Fig. 52) strongly depressed dorso-ventrally, with short shaft and barely hooked apex. Maximum width of median lobe about its mid-length, with sides gradually convergent toward apex in dorsal view. Sagittal aileron of moderate size. Parameres rather stout, the left a little longer, provided with ventral apophysis, each bearing 4-5 apical setae. Distal orifice almost reaching sagittal lobe. Endophallus armature made up of two plates, of which upper one is more developed, with distal apex characteristically expanded and dentate (Fig. 52 d), clearly protruding outward. Lower plate weakly sclerotized, rather narrow, pointed apically and almost completely overlapped by upper plate.

Female genitalia: hemisternite usually with 3-4 setae, stylus rather thick, tapered.

Notes. Externally the new species is similar to *Q. globipennis* Uéno, 1998a from Yunnan. Both species share the same broadly ovate habitus with rather short elytra. Nonetheless, the new species can be easily distinguished by its larger size (3.82-4.24, x*=3.98 mm vs. 3.4 mm), greater number of discal pores (on average, 5 on each elytron instead of 4 in *Q. globipennis*), less strongly produced hind angles of pronotum, directed

mostly backward and narrower elytra which only 1.71-1.82 (x*=1.76) times as wide as pronotum vs. 1.99 times in *Q. globipennis*. As far as the male genitalia is concerned, the new species is similar to *Q. miroslavi* sp.n. (especially so in dorsal aspect) and *Q. guttula* sp.n. (especially in lateral view) but differs from both these species by its smaller size and wider elytra as well as characteristically modified apex of the endophallus armature. Among all known members of the genus studied in this respect, *Q. brevis* sp.n. is distinct in having an extremely large lamella of the aedeagus which is equal to ca. 1/3 its total length (Fig. 52).

Distribution. The type locality of the new species (southern Sichuan, northwest of Mianning) lies approximately 22 km southeast of the type locality of *Q. micrangulus* sp.n. within the limits of the same mountain range.

Habitats. The new species was found in the upper forest and alpine zones at elevations between 3400 and 4100 m.

Queinnectrechus guttula Belousov & Kabak, sp.n.

Figs 17, 34, 53.

Holotype: ♂ (ZISP) - China, C. Sichuan, 70 km W of Ya'an, right bank of Dadu He River, Duobaishui Valley, near Vasygou (=Wasigou) village, NE slope of Mt. "6089", H~4000 m, 26.05.2001 (Belousov & Korolev) [29° 58' N / 102° 03' E].

Paratypes: 7(5) ♂, 1 ♀ (ZISP, cBK, cAG, cAK), collected together with the holotype. – 6(2) ♂ (cBK, cAG), the same locality but 27.05.2001 (Belousov & Korolev).

15 exemplars measured.

Description. Rather large-sized species, body length 4.02-4.55 (x*=4.38) mm. Pitchy-black, with reddish head, pronotum, suture and margins of elytra. Legs and antennae uniformly reddish. In a few specimens, almost all body reddish brown. Surface strongly iridescent.

Head medium-sized (PW/HW: 1.22-1.30, x*=1.25). Eyes subconvex, of medium size (EyL/TL: 1.10-1.45, x*=1.23). Genae rather short and subconvex. Head with transverse parietal impression. Antennae long and filiform, a little shorter than elytra (EL/AL: 1.02-1.08, x*=1.05). Right mandible with distinct premolar, appeared as third, the most proximal denticle. Labial tooth distinctly cleft at apex.

Pronotum strongly convex, rather narrow (PW/PL: 1.15-1.21, x*=1.18), cordate, strongly constricted toward base (PW/PB: 1.40-1.46, x*=1.44). Lateral sides deeply sinuate before hind angles, latter produced in medium-sized or small digitiform processes acuminated apically and directed backward and a little outward (Fig. 17). Base of pronotum narrow, basal margin salient medially, with long and not sharp incision near hind angles. Anterior margin slightly salient, without trace of anterior angles. Both marginal bead and lateral border of pronotum disappearing in posterior third of lateral sides. Anterior lateral seta nearly at mid-length of lateral border, sometimes latter traceable in hind angles. Basal foveae deep but not large. Basal transverse impression rather sharp, approximately parallel to basal margin. Basal surface smooth. Median line distinct, not reaching both anterior and posterior margins of pronotum.

Elytra (Fig. 34) very large and convex (EW/PW: 1.85-1.98, x*=1.91; EW/HW: 2.31-2.48, x*=2.39); very broad (EL/EW: 1.24-1.36, x*=1.30), ovate-oblong in shape, with maximum width a little behind middle. Marginal gutter of elytra of average width, wider than that of pronotum. Elytral striae completely effaced. Scutellar pore located near anterior end of scutellar striole, adjacent part of elytral disc clearly impressed. On site of 3-rd stria 4-7 discal setae (usually 6-7), the most posterior of which is situated at level of umbilicate pore 6 or displaced a little anteriad. Preapical pore lacking. Apical striole short and slightly impressed, without well-developed outer carina. Umbilicate pores 1 and 2 closest, pores 3 and 4 most spaced in humeral group. Umbilicate pores 7 and 8 wider spaced as pores 5 and 6. Umbilicate pore 2 considerably closer to lateral border of elytra than other umbilicate pores. Angulo-apical pore usually a little more distant from elytral suture than from outer pore.

Foretibiae flattened on exterior surface.

Aedeagus (Fig. 53) of medium size, strongly depressed dorso-ventrally; viewed laterally, somewhat triangular in median part; apical portion clearly attenuated in parallel-sided lamella moderately hooked apically. Apex variable (Fig. 53 e). Sagittal aileron rather small. Parameres relatively stout, the left one clearly longer, with well-developed ventral process; each paramere usually bearing 5 apical setae. Endophallus armature rather short, about twice shorter than aedeagus length, consisting of two plates of which lower one distinctly longer and acuminate apically. Proximal part of endophallus armature with characteristic undulate bend.

Notes. Doubtless the new species is most closely related to *Q. smetanai* Uéno, 1995 that is confirmed not only by the morphological characters (especially an increased number of the dorsal setae, shape of the aedeagus with attenuated apical part in lateral view) but also by their distribution (the species inhabit different parts of the same mountain range, Daxue Shan). Despite of this similarity, the new species is easily distinguished in having a larger number of discal setae (4-7, on average, 6 instead of 4, more rarely 5 in its counterpart) and another form of the aedeagus: its median lobe with well-defined lamella which is almost parallel-sided when viewed dorsally (Fig. 53).

Distribution. The type locality of the new species lies on the northeastern slope of peak "6089" within the southern third of the Daxue Shan Mountain Range, not far from Luding. Thus the species occupies the part of the range located northeast of the type locality of *Q. smetanai* Uéno and east of those of *Q. glacialis* Uéno, 1998b and of *Q. zheduoshanus* Uéno, 1998b. Such a high species density on the rather small area suggests a lot of species to be discovered in the future.

Habitats. Most of the specimens were collected in the alpine zone, under rock walls with dropped water from melted snow. A few more specimens were obtained by sifting the litter in bushes near the upper limit of the forest belt.

Queinnectrechus humeralis Belousov & Kabak, sp.n.

Figs 18, 35, 54.

Holotype: ♂ (ZISP) - China, Sichuan, Qunlaishan Mt. Range, WSW of Lixian, W of Mt. "5892", H~3000 m, 11.07.2000 (Belousov & Kabak leg.) [31° 19' N / 103° 00' E].

Paratypes: 17(5) ♂, 13 ♀ (ZISP, cBK, cAG, cAK), collected together with the holotype. – 3(2) ♂, 4 ♀ (cBK), same locality, 2900-3000 m, 10.07.2000 (Belousov & Kabak leg.). - 1(1) ♂, 1 ♀ (cBK), same locality, H~3500 m, 11.07.2000 (Belousov & Kabak leg.). - 2(1) ♂, 1 ♀ (cBK), same locality, 3500-3600 m, 12.07.2000 (Belousov & Kabak leg.). - 5 ♂, 4 ♀ (cBK), same locality, 3000-3200 m, 13.07.2000 (Belousov & Kabak leg.).

36 exemplars measured.

Description. Rather large-sized species, body length 3.97-4.59 (x*=4.22) mm. Pitchy-black, with reddish head, pronotum, suture and margins of elytra, seldom all upper-side uniformly reddish-brown, though disc of pronotum and suture of elytra lighter. Legs and antennae uniformly reddish. Surface strongly iridescent and shining.

Head medium-sized (PW/HW: 1.16-1.26, x*=1.21). Eyes subconvex, of medium size (EyL/TL: 1.10-1.38, x*=1.24). Genae rather long, somewhat convergent posteriad, plane in anterior part and subconvex in posterior part. Frontal furrows arcuate. Head with a transverse parietal impression. A small fovea located postero-mediad of anterior supraorbital seta. Antennae long and filiform, a little longer than elytra (EL/AL: 0.90-1.00, x*=0.95). Tooth on right mandible with rather short base, premolar small and weakly delimited from remainder of tooth.

Pronotum cordate, strongly convex, rather narrow (PW/PL: 1.11-1.22, x*=1.17); strongly constricted toward base (PW/PB: 1.38-1.51, x*=1.45). Lateral sides strongly sinuate before hind angles; latter attenuated in very large digitiform processes directed backward and outward (Fig. 18). Base of pronotum narrow, basal margin salient medially, with deep and long incision near hind angles. Anterior margin salient, without anterior angles. Marginal bead of pronotum disappearing near mid-length of lateral sides, curved somewhat inward posteriorly. Anterior lateral seta in middle or in anterior third of marginal

border. Basal foveae small and shallow but distinct. Basal surface smooth. Median line distinct, not reaching both anterior and posterior margins of pronotum, deepest before transverse prebasal impression, latter parallel and close to basal margin. Apical transverse impression also close to anterior margin of pronotum.

Elytra very large and convex (EW/PW: 1.78-1.99, x*=1.87; EW/HW: 2.14-2.37, x*=2.27); broad (EL/EW: 1.30-1.41, x*=1.35), ovate-oblong in shape, with maximum width markedly behind middle, broadly rounded in apical portion and very strongly narrowed toward base. Humeriobliquely rounded, anterior part of elytral disc with shoulder-like convexity markedly projecting beyond outlines of elytra (Fig. 35). Marginal gutter of elytra average, wider than that of pronotum. Elytral striae completely effaced. Scutellar pore located near anterior end of scutellar striole, latter shallow. On site of 3-rd stria 3-5 discal setae (usually 4), the most posterior of which is located near level of umbilicate pore 6 or somewhat anterior of it. Preapical pore lacking. Apical striole exceptionally short and very slightly impressed, ovate, without distinct external carina. Umbilicate pores 1 and 2 closest in humeral group, umbilicate pores 7 and 8 approximately as distant from one another as pores 5 and 6. Angulo-apical pore is completely reduced and therefore only one pore located mediad of apical striole, situated just in middle between elytral apex and umbilicate pore 8 or somewhat closer to the latter.

Foretibiae shallowly grooved on exterior surface in apical part.

Aedeagus (Fig. 54) medium-sized, step-like bent, in dorsal view parallel-sided and distinctly constricted before apex. Sagittal lobe of medium size, well-sclerotized. Parameres slender, normally each with 4 apical setae. Endophallus armature rather large, about half as long as aedeagus length, consisting of two sclerotized plates, the upper one narrower, acuminate and more strongly sclerotized (Fig. 54).

Notes. The new species is easily distinguished from all hitherto known congeners by the reduction of angulo-apical pore of elytra. A shoulder-like convexity at the basal part of the elytra is more salient, clearly hanging over the humeral margins in *Q. humeralis* sp.n. (Fig. 35), barely salient in other species. The type locality of the new species is comparatively closely located to that of *Q. excentricus* Deuve, 1992a, b. In addition to the above characters, the new species differs from *Q. excentricus* by a greater number of elytral discal setae (usually 4 instead of 3) and disposition of the posterior discal seta which levels to the median group of the umbilicate series while it is much closer to the elytral apex in *Q. excentricus* being situated at the level of the umbilicate pores 7-8. As far as the male genitalia concerned, the new species is distinctive in having the median lobe with a strong preapical constriction in dorsal view.

Distribution. The type locality of the new species lies on the western slope of peak "5892" within the Qunlaishan Mountain Range westsouth of the town of Lixian in Sichuan Province.

Habitats. The new species appears to be rather muscicolous and inhabits mainly banks of brooks in the upper forest and low alpine zones (at elevations of 2900-3600 m), being more common near timber-line.

Queinnectrechus incisus Belousov & Kabak, sp.n.

Figs 9, 55.

Holotype: ♂ (ZISP), CH, NW Sichuan, NE of Lixian, N Tonghua, basin of the river near Pingshitou, S of Shibanpengzi, E slope, H~3900 m, 22.08.2002 (Belousov & Kabak leg.) [31° 44' N / 103° 23' E].

Paratypes: 21(1) ♂, 16(2) ♀ (ZISP, IZK, MPU, cBK, cAG, cAK, cBZ, cDW, cVZ, cPM), collected together with holotype. — 12(4) ♂, 1 ♀ (cBK), CH, NW Sichuan, NE of Lixian, N of Tonghua, basin of the river near Pingshitou, 3300-3400 m, 19.08.2002 (Belousov & Kabak leg.). — 6(1) ♂ (cBK), CH, NW Sichuan, NE of Lixian, N Tonghua, basin of the river near Pingshitou S of Shibanpengzi H~4100 m, 21.08.2002 (Belousov & Kabak leg.). — 1(1) ♂, 2 ♀ (cBK), CH, NW Sichuan, NE of Lixian, N Tonghua, basin of the river near Pingshitou, S of Shibanpengzi, E slope, H~3850 m, 20.08.2002 (Belousov & Kabak leg.).

48 specimen measured.

Description. Very large-sized species, body length 4.20-4.88 (x*=4.54) mm. Rather narrow head and pronotum, ample and convex elytra. Amber reddish with darker brownish or even blackish middle part of head and elytra (except for lighter margins and suture). Legs and antennae uniformly reddish.

Head medium-sized (PW/HW: 1.14-1.24, x*=1.20). Eyes small and convex (EyL/L3: 0.81-0.94, x*=0.87). Genae (Fig. 9) plane. Frontal furrows gradually arcuate. Few wrinkles located postero-mediad of anterior supraorbital seta. Antennae long and filiform (EL/AL: 0.90-1.01, x*=0.94); their third segment 2.43-2.74 (x*=2.61) times as long as wide.

Pronotum convex and very narrow (PW/PL: 1.06-1.15, x*=1.10); cordate, very strongly constricted toward base (PW/PB: 1.41-1.53, x*=1.46). Lateral border complete in anterior part, surpassing the mid-length and often reaching basal third of pronotum. Lateral sides sinuate before hind angles; latter produced in processes of medium size, directed backward and outward. Anterior margin weakly salient, anterior angles effaced. Basal margin convex medially, concave laterally. Marginal bead of pronotum average for the genus. Basal transverse impression deep and relatively fine; apical transverse impressionshallow; basal foveae small, deep and smooth. Discal foveae absent. Basal surface smooth. Median line distinct, deeper near base. Anterior lateral setae in anterior 1/4 of pronotum.

Elytra very large (EW/PW: 1.85-1.98, x*=1.91; EW/HW: 2.20-2.39, x*=2.30); very broad (EL/EW: 1.29-1.42, x*=1.35), ovate-oblong in shape. Shoulders oblique but distinguished. Marginal gutter of elytra average, considerably wider than that of pronotum at level of anterior lateral seta. Elytral striation reduced: striae 1-3 vestigial and only partly distinguished, others effaced; all striae without distinct punctures. Stria 1 more or less sharply impressed only near elytral apex. Scutellar striole distinct, slightly carinate. Scutellar pore present. Apical striole short and barely impressed. 2-4 (usually 3) discal pores. Posterior discal pores usually located at level behind mid-length of elytra. Preapical pore present: apical triangle complete. Angulo-apical pore a little closer to suture than to exterior pore. Umbilicate pore 1 shifted inward, umbilicate pore 2 situated very closely to lateral margin, both these pores normally closer to one another than other adjacent pores of umbilicate series.

Foretibiae distinctly grooved on anterior surface.

Aedeagus (Fig. 55) very large, S-shaped, apical lamella well-defined, especially in dorsal view. Sagittal aileron rather large and strongly sclerotized. Parameres robust, each bearing 4-6 apical setae. Left paramere a little longer, with distinct ventral process. Endophallus armature consisting of two plates, of which one with deep emargination anteriorly, upper plate narrow and pointed apically.

Notes. Externally the new species is most similar to *Q. angusticollis* sp.n., differing from it basically by the more plane genae (Fig. 9 vs. Fig. 10) rectilinearly convergent posteriad and normally by 3 dorsal setae on the elytra. Nonetheless, the male genitalic structure and especially a quite different endophallus armature does not suggest a close relationships between the two species (Figs 55 and 51). In this respect, the species under consideration seems to be strongly isolated within the genus, though one should take into account that some taxa are known only for females.

Distribution. This species is known only from the mountain massif located northward of the Tonghua village not far from the town of Lixian in northern Sichuan.

Habitats. The species abounds in the upper forest zone at elevations of 3300-3900 m, a few specimens were obtained also in the low alpine zone at an elevation about 4100 m a.s.l. All specimens were collected in the moist litter or from under stones not far from banks of rivers and small springs.

Queinnectrechus janatai Belousov & Kabak, sp.n.

Figs 21, 36, 56.

Holotype: ♂ (cMJ), China, C. Sichuan, Jintang, Jiajin Shan, 3400 m, [N 30° 22.451 / E 102° 16.644] 15.06.2002 (M. Janata leg.).

1 specimen measured.

Description. Small-sized species, body length 3.5 mm. Color dark amber brown, with reddish suture and margins of elytra, base and apex of pronotum, these reddish areas vaguely connected along median line. Head somewhat lighter at base and in apical part except median part of labrum. Legs and antennae uniformly reddish, though femora vaguely obscured. Surface strongly iridescent. Dorsum with sparse micropunctures disseminated throughout.

Head rather large (PW/HW: 1.13). Eyes medium-sized, rather convex, 1.44 times as long as genae and 0.93 times as long as antennomere 3. Genae rather long, somewhat convergent posteriad, plane anteriorly and subconvex posteriorly. Frontal furrows irregular, nearly subparallel in middle, clearly bent and more deeply impressed at levels of anterior supraorbital pore and parietal impression, latter shallow but distinct. Anterior supraorbital seta moderately foveolate. A small scratchy impression mediad of posterior supraorbital seta. Antennae nearly as long as elytra (EL/AL: 1.01), their 3rd antennomere 2.15 times as long as wide. Tooth of right mandible tridentate, "premolar" rather distinctly separated from remainder of tooth, median denticle well-developed but clearly shorter than both outer denticles. Labial tooth deeply cleft at apex. 6 submental setae.

Pronotum cordate, strongly convex, very narrow (PW/PL: 1.16); moderately (compared to other members of the genus) constricted toward base (PW/PB: 1.40). Lateral sides strongly rounded anteriorly, somewhat angulate at level of anterior lateral setiferous pore, then straight or nearly so, sinuate only just before hind angles; latter attenuated in medium-sized digitiform processes directed mainly backward, their carina weakly sinuate (Fig. 21). Base of pronotum narrow, basal margin salient medially, rather deeply incised laterally, near hind angles. Anterior margin of pronotum nearly straight, without anterior angles. Marginal border distinct in anterior part of pronotum, disappearing clearly behind its mid-length. Marginal bead narrow, though a little widened near anterior lateral setiferous pore. Basal foveae small and rather deep. Basal surface smooth. Median line distinct, reaching only apical and prebasal transverse impressions. Latter curved near basal foveae, as shown in Fig. 21.

Elytra rather large (EW/PW: 1.87; EW/HW: 2.12); broad (EL/EW: 1.38), ovate-oblong, with maximum width a little behind middle, broadly rounded in apical portion, attenuated and narrowed forward (Fig. 36), their disc convex, weakly impressed near base. Humeri obliquely truncated and barely marked, set at level between umbilicate pores 1 and 2. Lateral sides with slight but perceptible preapical sinuation. Marginal gutter of elytra relatively broad, wider than that of pronotum. Elytral striae effaced, though 4 inner striae discernible in their median parts. Scutellar pore situated mediad of anterior end of scutellar striole, latter rather distinct, carinate interiorly. Each elytron with a range of 4 discal setiferous pores, of which both anterior and posterior located on interspace 2, others associated with stria 3. Striae 2 and 3 anastomosing near anterior discal pore. Anterior discal pore clearly before level of umbilicate pore 1, posterior one at or behind level of umbilicate pore 7. Preapical pore lacking (see discussion below under "Notes"). Apical striole short and very shallow. Umbilicate pores 1 and 2 closest in humeral group. Umbilicate pores 7 and 8 wider spaced than pores 5 and 6. Angulo-apical seta distinctly shorter than exterior, more distant from the latter than from elytral suture.

Anal sternite of only known male specimen with a pair of setae along its posterior margin.

Groove on exterior surface of foretibiae perceptible only in apical half. Inner tooth of first article of male protarsi rather small and narrow, that of second article very small, both articles with asymmetrical adhesive appendages beneath.

Aedeagus (Fig. 56) rather small, tubular, with well-defined shaft, its maximum width just before apical third, without distinct sagittal lobe. In dorsal view, median lobe nearly parallel-sided, with triangularly shaped apical portion and clearly attenuate lamella. Parameres stout, each with 4 apical setae, the left one a little longer, provided with ventral apophysis. Endophallus armature rather short, occupying about one third of median lobe, consisting of two usual plates (Fig. 56).

Notes. Among all known members of the genus, *Q. janatai* sp.n. seems to be most similar to *Q. excentricus* Deuve (1992a, b), since both these species are distinct in having a derived position of the posterior discal pores, which are strongly displaced posteriad (Fig. 36 vs. Figs 33-35 and 37-38). In this respect, it is worth noting that *Q. janatai* sp.n. possesses the posterior discal pore set on interspace 3, i.e. in the position characteristic of the preapical pore rather than discal ones. Nonetheless, bearing in mind that both the above species are known each only by one specimen, it seems untimely to insist on the validity of this feature and to estimate its phylogenetic significance. From *Q. excentricus*, *Q. janatai* sp.n. differs by 4 discal setiferous pores instead of 3. Taking into account a great distance between the type localities of these species and the fact that this area is inhabited by independent species, it seems to be unlikely that the species considered are really closely related.

Distribution. The type locality of the new species (the Jiajin Shan Mountains near Jintang) is located approximately 50-60 km northeast of the type localities of *Q. guttula* sp.n., *Q. zheduoshanus* Uéno, 1998b and *Q. glacialis* Uéno, 1998b and is separated from these by the deep valley of the river Dadu He.

Habitats. *Q. janatai* sp.n. was found at an elevation of 3400 m a.s.l.

Derivatio nominis. It is a great pleasure for us to name this species after our friend and colleague Miroslav Janata (Praha).

Queinnectrechus micrangulus Belousov & Kabak, sp.n.

Figs 20, 37, 58.

Holotype: ♂ (ZISP), China, Sichuan, SSW of Shimian, SE slope of Mt. "4977", W of Lijipin (=Liziping), 3000-3900 m, 5.07.2000 (Belousov & Kabak leg.) [28° 59' N / 102° 10' E].

Paratypes: 45(7) ♂, 15(2) ♀ (ZISP, IZK, MPU, cBK, cAG, cAK, cBZ, cDW, cVZ, cPM), collected with the holotype. - 1 ♀ (cBK) China, Sichuan, SSW of Shimian, SE slope of Mt. "4977", W of Lijipin, H~2700 m, 4.07.2000 (Belousov & Kabak leg.).

20 exemplars measured.

Description. Species of medium size, body length 3.93-4.22 (x*=4.08) mm. Pitchy-black, suture and margins of elytra and partly head and pronotum tinged with reddish. Seldom, head and pronotum completely reddish brown. Legs and antennae uniformly light reddish-brown, femora vaguely obscured. On the whole, color of upper-side rather dark and contrasting to color of legs and antennae. Surface strongly iridescent and shining.

Head medium-sized (PW/HW: 1.18-1.30, x*=1.23). Eyes subconvex or plane, of medium size (EyL/TL: 1.13-1.37, x*=1.23). Genae subconvex and rather short. Head with a transverse parietal impression. Antennae long and filiform, a little shorter than elytra (EL/AL: 0.98-1.08, x*=1.04). Right mandible with distinct premolar, appeared as third, the most proximal denticle.

Pronotum strongly convex, rather narrow (PW/PL: 1.15-1.26, x*=1.22); cordate, very strongly constricted toward base (PW/PB: 1.45-1.59, x*=1.52). Lateral sides strongly sinuate before hind angles and parallel here to longitudinal axis of body (Fig. 20). Hind angles attenuated in very small-sized digitiform appendices directed backward (Fig. 20). Base of pronotum narrow, basal margin salient medially, deeply and briefly incised near hind angles. Anterior margin of pronotum salient, without traces of anterior angles. Marginal bead of pronotum disappearing in posterior half of lateral sides, anterior lateral seta at middle or in posterior third of lateral border. Basal foveae deep but not large. Basal surface smooth. Median line distinct, not reaching both anterior and posterior margins of pronotum.

Elytra (Fig. 37) very large and convex (EW/PW: 1.68-1.80, x*=1.74; EW/HW: 2.08-2.20, x*=2.14); comparatively broad (EL/EW: 1.23-1.34, x*=1.29), ovate-oblong, somewhat flattened on disc, their maximum width a little behind middle. Shoulders oblique, rather distinct though weakly prominent. Marginal gutter of elytra comparatively wide, wider than that of pronotum. Elytral striae completely effaced, though partly visible as series of small, fine and spaced punctures. Scutellar pore is located near anterior end of scutellar striole. On site of 3-rd stria 3-5 (usually 4) discal setae, the most posterior of which is situated near level of umbilicate pores of median group. Preapical pore lacking. Apical striole short and slightly impressed, without well-developed outer carina. Umbilicate pores 1 and 2 closest, pores 3 and 4 most spaced in humeral group. Umbilicate pore 2 is considerably closer to lateral border of elytra. Angulo-apical pore distinctly closer to elytral suture than to outer pore.

Foretibiae flattened on exterior surface.

Aedeagus (Fig. 58), large, S-shaped, nearly parallel-sided in dorsal view, with widely truncated and rounded apex. Sagittal lobe large and well-sclerotized. Parameres comparatively slender, each with ventral process and 5-6 apical setae; the left paramere clearly longer. Endophallus armature consisting of two extremely narrow spine-like sclerotized plates of subequal size (Fig. 58).

Notes. In the number of dorsal setae the new species is more similar to *Q. smetanai* Uéno, 1995 than to other known congeners. This similarity seems to be confirmed by the distribution patterns of both species, since *Q. micrangulus* sp.n. inhabits the same mountain range, approximately 75 km south of the type locality of *Q. smetanai*. Nevertheless bearing in mind a great variability of the chaetotaxy that is so commonly observed in different Chinese carabids, it seems better to more guardedly treat the affinities of these species. Indeed, the conformation of the male genitalia does not suggest their closeness. *Q. micrangulus* sp.n. is unique within the genus in having large and evenly sinuate aedeagus, which is almost parallel-sided in dorsal view. Externally *Q. micrangulus* sp.n. is easily distinguishable from *Q. smetanai* by the much smaller digitiform appendices in the hind angles of the pronotum which are directed basically backward (somewhat outward in its counterpart). From *Q. globipennis* Uéno, 1998a, in addition to the other number of the discal setae, the new species is readily distinguished by the narrower hind-body. From *Q. excentrus* Deuve, 1992a, b, the new species differs, first of all, by the number (4 pores on each elytron instead of 3) and disposition of the discal pores. The posterior discal pore is located approximately at the level of umbilicate pores 5-6 while in *Q. excentrus* the posterior discal pore is located abnormally apically (maybe for this reason, Th. Deuve considered it as the preapical pore). In addition, the digitiform appendices in the hind angles of the pronotum are smaller and directed backward in *Q. micrangulus* sp.n. while they are larger and directed backward and outward in *Q. excentrus.*

Distribution. The type locality of the new species lies on the eastern slope of peak "4977" on the southern extension of the Daxue Shan Mountain Range not far from the town of Shimian (=Nunchang). Thus the species inhabits mountains situated south of the type locality of *Q. smetanai* Uéno and north of the type locality of *Q. brevis* sp.n.

Habitats. One specimen of this species was collected on a clay bank of river in the forest zone at an elevation about 2700 m, whereas all other specimens were collected on the grassy and stony slopes with trickled water in the low alpine zone and on the grassy banks of river in the upper forest zone at elevations of 3900 and 3000 m correspondingly. Thus the species was met with in a wide belt of altitudes, under saprophylous and humicolous conditions.

Queinnectrechus miroslavi Belousov & Kabak, sp.n.

Figs 19, 38, 57.

Holotype: ♂ (cMJ), China, SW Sichuan, Sabde, 4200 m, [29°04.168'N / 101°25.720'E] 25.06.2001 (M. Janata leg.).

Paratypes: 14 (2) ♂, 1 ♀ (ZISP, cBK, cMJ), collected together with holotype.

7 specimens measured.

Description. Rather large-sized species, body length 4.17-4.59, x*=4.35 mm. Color variable, from uniformly amber testaceous in a few specimens to dark amber reddish with pitchy-black elytra except rather wide suture, margins and sometimes elytral base which are reddish. Legs and antennae uniformly reddish. Surface strongly iridescent and throughout micropunctured.

Head medium-sized (PW/HW: 1.15-1.24, x*=1.20). Eyes subconvex, of medium size (EyL/TL: 1.14-1.40, x*=1.30; L3/EyL: 1.11-1.25,x*=1.16). Genae rather long, somewhat convergent posteriad, plane in anterior part and subconvex in posterior part. Frontal furrows almost subparallel in middle part. Head with a shallow transverse parietal impression. Anterior supraorbital setae foveolate. Antennae filiform, not very long, a little shorter than elytra (EL/AL: 1.05-1.08, x*=1.06). Tooth on right mandible with rather short base, premolar well-defined, shorter and less massive than distal denticle of retinacle. Mentum with long lateral lobes. Labial tooth wide and massive, either truncated or slightly cleft at apex, bordered laterally and basally. 6 submental setae. Mentum fused with submentum forming a semi-circular convex structure, suture invisible. Labial organ well-developed, median setae situated closely to one another.

Pronotum cordate, strongly convex, very narrow (PW/PL: 1.10-1.17, x*=1.14); strongly constricted toward base (PW/PB: 1.52-1.58, x*=1.55). Lateral sides deeply sinuate before hind angles; latter attenuated in medium-sized digitiform processes directed backward and clearly outward, their external margins barely convex (Fig. 19). Base of pronotum narrow, basal margin salient medially, rather deeply and widely incised laterally, near hind angles, and provided with distinct denticle here. Anterior margin of pronotum weakly salient, anterior angles effaced. Marginal bead of pronotum disappearing near mid-length of lateral sides, anterior lateral seta approximately in anterior quarter of pronotum. Marginal border partly perceptible near posterior lateral pore. Basal foveae small and rather deep. Basal surface smooth. Median line distinct, reaching only apical and prebasal transverse impressions. Median part of the latter parallel to basal margin and located comparatively close to it.

Elytra large and convex (EW/PW: 1.90-1.98, x*=1.95; EW/HW: 2.28-2.42, x*=2.34); broad (EL/EW: 1.30-1.33, x*=1.32), ovate-oblong in shape, with maximum width a little behind middle, broadly rounded in apical portion and strongly narrowed toward base (Fig. 38), usually strongly impressed along suture. Marginal gutter of elytra broad, wider than that of pronotum. Elytral striae completely effaced, though sites of 3 inner striae discernible. Scutellar pore located near anterior end of scutellar striole, latter shallow, distinct only in anterior part. On site of 3rd stria, 3-4 (rarely 5) discal setae, the most posterior of which is situated at level of median group of umbilicate series. Preapical pore lacking. Apical striole short and very slightly impressed, without distinct outer carina. Umbilicate pores 1 and 2 closest in humeral group. Umbilicate pore 7 usually in middle between pores 6 and 8 or somewhat closer to the latter. Umbilicate pores 7 and 8 wider spaced than pores 5 and 6. Angulo-apical pore much closer to elytral suture than to exterior pore.

Anal sternite of male normally with a pair of setae along its posterior margin.

Foretibiae shallowly grooved on exterior surface in apical half. Inner denticle of the first article of male protarsi rather narrow, that of second article rather stout, both with adhesive and asymmetrical appendages beneath.

Aedeagus (Fig. 57), rather small and feebly and gradually arcuate, with characteristic lamella, obliquely truncate at apex in lateral view and triangular in shape in dorsal view. Sagittal aileron small, but distinct. Parameres with 4-5 apical setae. Endophallus armature very long, occupying almost all volume of aedeagal tube, consisting of two sclerotized plates (Fig. 57) of which the longest is acuminate apically and less sclerotized. Distal end of longer plate just in middle between that of shorter plate and summit of lamella.

Notes. The new species belongs to the most abundant species group possessing 3-4 discal setae on each elytron. It seems to be rather close to *Q. smetanai* Uéno, 1995 sharing with it a slender and regularly arched aedeagus, but is distinct in having the aedeagal apex obliquely truncated and endophallus armature consisting of long unequal plates placed along the same axis, one above another. From *Q. zheduoshanus* Uéno, 1998b so far known only for two female specimens, *Q. miroslavi* sp.n. differs by its larger size (4.17-4.59 mm vs.

4.00-4.05 mm), subconvex genae and by details of the elytral chaetotaxy: the pore attached to the apical striole is located just in the middle between umbilicate pore 8 and angulo-apical pore, umbilicate pore 7 – in the middle between pores 6 and 8 of the umbilicate series. The ranges of these species are separated by that of *Q. guttula* sp.n., strikingly different from *Q. miroslavi* sp.n. in both the genitalic structure and external characters.

Distribution. The type locality of the new species (SW Sichuan, Sabde) lies approximately 70 km southwest of Mount Gongga Shan and at the same distance west of the type locality of *Q. micrangulus* sp.n.

Habitats. The new species was found in the alpine zone at an elevation of 4200 m.

Derivatio nominis. It is a great pleasure for us to name this species after our colleague Miroslav Janata (Praha) who kindly provided us with very important material.

The following key for determination is provisional, aimed to facilitate the recognition of so far known species of the genus.

Key for determination of *Queinnectrechus* Deuve, 1992

1 Angulo-apical pore lacking (Fig. 35). Humeri completely effaced, instead, basal part of elytra strongly prominent and developed in a shoulder-like structure (Fig. 35). A small fovea present located postero-mediad of anterior supraorbital pore. Normally 4 discal pores on elytra, of which the postrerior one located at level of umbilicate pore 6. Aedeagus (Fig. 54) strongly constricted before apex in dorsal view. Sichuan: Qunlaishan Mountain Range.

***Q. humeralis* sp.n.**

- Angulo-apical pore present (Figs 33-34 and 36-38). Basal part of elytra less strongly protruding. Head without additional foveolae postero-mediad of anterior supraorbital pore. Aedeagus without characteristic preapical constriction in dorsal aspect (Figs 51-53 and 55-57).

2

2 Usually 6-7 discal setae on each elytron (Fig. 34). In dorsal projection, aedeagus (Fig. 53) with apical portion strongly attenuated in narrow parallel-sided lamella (Fig. 53 b). Sichuan: Daxue Shan Mountain Range.

***Q. guttula* sp.n.**

- Usually 2- 4 discal setae on each elytron. In all species studied in this aspect, aedeagus either without clearly cut, parallel-sided lamella (Fig. 51-52 and 55-57) or lamella is broad (Fig. 55).

3

3 Normally only 2 dorsal setiferous pores on each elytron. Viewed laterally, aedeagus with maximum width in apical third and convex ventral side (Fig. 51). Sichuan: mountains northwest of Lixian

***Q. angusticollis* sp.n.**

- 3-4 pores on each elytron. If aedeagus clearly dilated in apical third, its ventral side straight or concave.

4

4 Posterior discal setiferous pore located closely to apex of elytra, approximately at level between umbilicate pores 7 and 8.

5

- Posterior discal setiferous pore far removed from elytral apex, approximately at level between umbilicate pores 5 and 6.

6

5 4 discal pores on each elytron (Fig. 36). Pronotum less strongly constricted at base, with lateral sides nearly straight in posterior part (Fig. 21). Sichuan: Jiajin Shan Mountains.

***Q. janatai* sp.n.**

- 3 discal pores on each elytron. Pronotum more strongly constricted at base, with lateral sides more rounded in posterior part. The Min Shan Mountains.

***Q. excentricus* Deuve**

6 Elytra extraordinarily broad, 1.21-1.28 times as long as wide, only slightly narrowed in anterior half.

7

- Elytra of usual shape, more elongate, 1.29-1.44 times as long as wide, more strongly narrowed in anterior half.

8

7 Species of larger size, body length 3.7-4.1 mm (data adjusted by the length of labrum to be comparable with S.-I. Uéno's data for *Q. globipennis*). Digitiform processes of pronotum less strongly produced outward, directed mostly backward. Usually 5 discal setiferous pores on each elytron. Elytra narrower compared with pronotum (EW/PW: 1.71-1.82). Southern Sichuan: mountains northwest of Mianning.

***Q. brevis* sp.n.**

- Species of smaller size, body length 3.4 mm. Digitiform processes of pronotum more strongly produced outward. Usually 4 discal setiferous pores on each elytron. Elytra wider compared with pronotum (EW/PW: 1.99). Yunnan: Xue Shan Mountain Range.

***Q. globipennis* Uéno**

8 Hind angles of pronotum attenuated in very small digitiform processes directed basically backward (Fig. 20). Aedeagus very large, sinuate in lateral view, parallel-sided in dorsal view, plates of endophallus armature narrow, spine-like (Fig. 58). Sichuan: mountains southwest of Shimian.

***Q. micrangulus* sp.n.**

- Hind angles of pronotum attenuated in large or medium-sized digitiform processes directed backward and outward (Figs 17-19 and 21-22). Aedeagus smaller, not S-shaped, triangular in dorsal view, plates of endophallus armature wider (Figs 55, 57).

9

9 Small and narrow species (body length 3.85-4.05 mm) with paler (?) color of upper-side. Genae long and plane. Aedeagus triangular in lateral view, with apex not attenuated and without sagittal lobe. Sichuan: Zheduo Shan.

***Q. glacialis* Uéno**

- Medium-sized species (body length 4.0-4.88 mm) with darker color of upper-side. Genae subconvex.

10

10 Usually 5 discal setae on each elytron. Genae distinctly convex. Aedeagus barely arcuate, its distal part parallel-sided and rounded apically in lateral view. Sichuan: Gongga Shan.

***Q. smetanai* Uéno**

- Usually 3-4 discal setae on each elytron.

11

11 Genae subconvex. Digitiform processes in hind angles of pronotum more strongly produced (Fig. 19). Aedeagus with characteristically truncate apex (Fig. 57). Sichuan: Mountains approximately 70 km southwest of Gongga Shan Mountains.

***Q. miroslavi* sp.n.**

- Genae plane (Fig. 9). Digitiform processes in hind angles of pronotum smaller.

12

12 Species of larger size, body length 4.07-4.75 mm (data adjusted by the length of labrum to be comparable with the following species). Head more elongate, with more conic eyes (Fig. 9). Antennae considerably longer. Aedeagus (Fig. 55) with large broad lamella and deeply emarginate plate in endophallus armature. Sichuan: north of Tonghua village.

***Q. incisus* sp.n.**

- Species of smaller size, body length 4.0-4.05 mm. Head less elongate, with less conic eyes. Antennae shorter. Sichuan: Zheduo Shan.

Q. zheduoshanus **U**é**no**

Genus *Kozlovites* Jeannel, 1935

Kozlovites Jeannel, 1935: 279, type species: *Kozlovites caviceps* Jeannel, 1935.

Description. Labial tooth bidentate. 6 submental setae. Segments of both maxillary and labial palpi rather stout and subconical. Segment 2 of maxillary palpi with a seta in median part, other segments glabrous. Penultimate segment of labial palpi quadrisetose, others glabrous.

Pronotum (Fig. 26) narrow, cordiform, lateral border extraordinarily fine, especially in posterior half where it is hardly distinguishable, but complete, reaching the posterior lateral seta of pronotum. Two lateral pores on each side. Hind angles of pronotum rather large, though base strongly truncated laterally. Prebasal transverse impression deep but not sharply outlined.

Elytra (Fig. 40) oblong-ovate, with effaced humeri. Striation shallow, only striae 1-3 more or less continuous, all striae without distinct punctures. Stria 3 with numerous (6) discal setae not counting preapical pore. Latter located on interspace 2, markedly behind anterior end of apical striole. 3 usual groups of umbilicate series, all pores of which attached to marginal bead, pores of humeral group equidistant, umbilicate pores 7 and 8 most spaced.

Anterior tibiae shallowly grooved externally and densely pubescent on anterior surface in their apical part.

Abdominal sternites 2-4 with 14-18 setae along their posterior edge arranged principally in one transverse row, as in members of the subgenus *Blepharoplataphus* Netolitzky (genus *Bembidion* Latreille), 1-2 pairs of paramedian setae hardly perceptible among these setae, sternite 1 with a small group of 4-5 setae in its median part. Anal sternite with 6 setae along its posterior edge, of which the exteriors are longest and the interiors are divided in pairs.

Notes. This genus was described the first among the members of the *Stevensius*-complex with numerous discal setae on the elytra. Unfortunately so far it remains known only from a single female specimen. For this reason, its taxonomic position among allied genera remains still unclear. Nevertheless, despite a certain similarity in the conformation of pronotum with some *Sinotrechiama* (see below), this genus is quite distinct in having foretibiae densely pubescent. Thus, we agree completely with S.-I. Uéno who based on this difference has assigned *Kozlovites* Jeannel to the *Stevensius*-complex and created for *Kozlovites tronqueti* Deuve, 1995 a separate genus placed closely to *Trechiama* Jeannel, 1927 (Uéno, 2000).

Within the *Stevensius*-complex, the members of the genus *Deuveotrechus* Uéno, 1995 seem to be most closely related to *Kozlovites*. Their differences given by S.-I. Uéno are valid except for the lateral border of the pronotum must be specified as complete though extremely fine in *Kozlovites* (Fig. 26).

Kozlovites caviceps Jeannel, 1935

Figs 26, 40.

Kozlovites caviceps Jeannel, 1935: 280 (type locality – Dae-Tshu).

Material examined: **holotype**: ♀ (ZISP), «басс. Меконга: р. Даэ-чю. 11.000'. Нач. IX. 1900. Эксп. Козлова».

We content ourselves with giving here the figures of pronotum (Fig. 26) and elytra (Fig. 40).

Genus *Dactylotrechus* Belousov & Kabak, gen. n.

Type species: *Dactylotrechus setosus* sp.n.

Description. Oculate and well-pigmented apterous trechine beetles of medium size. Body very convex, strongly constricted at base of pronotum. Surface strongly shining due to the lack of microsculpture.

Frontal furrows deep and continuous, somewhat angulate at middle. Parietal transverse impression barely perceptible. Eyes well-developed, considerably larger than genae, latter rather short and subconvex, glabrous. Two supraorbital pores of which the anterior one is foveolate. Tooth on right mandible with rather short base, divided into premolar and retinacle. Labrum with widely emarginate anterior margin, sexsetose. Mentum fused with submentum, though suture is perceptible. Tooth of mentum short, clearly cleft apically. 6-7 submental setae, sometimes a few additional smaller setae are perceptible. Maxillary palpi glabrous. Penultimate segment of labial palpi quadrisetose, ultimate glabrous.

Pronotum cordiform, rather transverse, extraordinarily strongly constricted toward base, its lateral margins deeply sinuate before hind angles, which are attenuated backward and outward in digitiform processes. Anterior angles of pronotum distinct though broadly rounded. Lateral border well-developed in anterior half and completely effaced posteriorly, bearing usually 4 (seldom 5) setae on each side of pronotum. One more lateral seta in hind angles. Marginal bead very wide in anterior half of pronotum. Prebasal transverse impression variable, vaguely delimited, often consisting of a few small isolated longitudinal foveae.

Elytra wide and convex, somewhat quadriangular due to well-developed and angulate humeri. Marginal gutter of elytra rather wide, basal border of elytra lacking. Elytral striae strongly reduced, but stria 1 rather clear, stria 2 at least partly perceptible. Scutellar pore located near anterior end of scutellar striole, the latter rather shallow. Disc with numerous setiferous pores arranged mostly in 3 irregular rows on each elytron: inner row situated on interspace 2, some of its pores associated with stria 1, others with stria 2. Only a few pores on site of striae 3-4, a lot of pores on site of stria 5 and around. Number and position of discal pores variable. Apical triangle complete, consisting of 3 pores. Preapical seta usually near level of anterior end of apical striole, the latter of medium length though rather shallow. Pores of umbilicate series arranged in three usual groups, all pores lying in marginal bead though umbilicate pore 2 somewhat closer to lateral margin.

Anterior tarsi of male with 2 strongly dilated proximal articles.

Foretibiae clearly grooved externally, sparsely pubescent on anterior surface near apex. Hyaline appendages of 4th article well-developed.

One pair of paramedian setae on each abdominal sternite except for anal sternite of female bearing 4 setae along its posterior margin.

Aedeagus of medium size, rather slender, with simple slightly hooked apex. Endophallus armature small, weakly sclerotized, without distinct plates. Sagittal aileron large. Parameres slender, truncated apically, left one longer, with ventral apophysis, each bearing 3 or mostly 4 apical setae.

Notes. The generic classification of the *Stevensius*-complex is very far from being satisfactory mainly due to the fact that our knowledge of the group from mainland China is still too fragmentary.

The new genus is well recognized among all related taxa in having the supernumerary setae on the pronotum and elytra. Of a great importance is the fact that except the outer series, the most complete inner series of the discal setae are associated with interspace 2, a unique feature among all Chinese trechines with numerous discal setae. *Dactylotrechus* gen.n. seems to be closely related to the genus *Queinnectrechus* Deuve, 1992a sharing with it the convex body, strongly constricted at pronotal base and a peculiar shape of the pronotum with partly reduced marginal border and hind angles attenuated in digitiform processes. Nevertheless, the new genus differs markedly from *Queinnectrechus* by the supernumerary lateral setae of the pronotum, several series of discal setiferous pores

on the elytra, of which the inner one is partly associated with stria 1, presence of the preapical pore, less sharply outlined basal transverse impression of pronotum, and by the more developed humeri. On the other side, the new genus externally is very similar to *Deuveotrechus yinae* Uéno, 1996. Both taxa share a rather robust habitus with hind angles of pronotum modified in digitiform processes directed backward and outward. Apart from the above mentioned supernumerary setae on the pronotum and series of setae on the elytra, the new genus differs from all known *Deuveotrechus* Uéno, 1995 by the reduction of the lateral border in the posterior part of the pronotum and is, therefore, more similar to *Queinnectrechus* in this respect.

At last, the affinities of the new genus with *Kozlovites* Jeannel deserve a special attention. Both genera have the foretibiae strongly pubescent on the exterior surface, lateral border of the pronotum more or less reduced (Figs 16 and 26), numerous discal setae and well developed preapical pore on the elytra (thus, the apical triangle of pores is complete, Figs 39 and 40). But the difference in the chaetotaxy of the elytra (compare Figs 39 vs. 40) and pronotum (Figs 16 vs. 26) is too essential to place the two taxa in one genus.

Dactylotrechus setosus Belousov & Kabak, sp.n.

Figs 16, 39, 59.

Holotype: ♂ (ZISP) - China, NW Yunnan, Yunling Mt. R., 30 km E Weixi, 3000-3300 m, 11.08.1996 (Miroshnikov, Zamotajlov, Fedorenko leg.).

Paratypes: 2(2) ♂, 5(1) ♀ (cBK, cAG, cAZ, cDF), collected together with the holotype.

8 exemplars measured.

Description. Medium-sized species, body length 3.83-4.49 (x*=4.26) mm. Upper-side from reddish brown to pitchy-black, with lighter reddish suture and margins of elytra. Legs and antennae uniformly reddish. In a few specimens, almost all body reddish brown. Surface iridescent and shining. Supernumerary setae on pronotum and elytra well-developed, about as long as supraorbital ones. Apart from these setae, upper-side glabrous, with very small, hardly perceptible micropunctures.

Head medium-sized (PW/HW: 1.27-1.32, x*=1.31). Eyes subconvex, of medium size (EyL.TL: 1.20-1.56, x*=1.38). Genae rather short and slightly convex. Frontal furrows subangulate at the middle, barely impressed in posterior part. Antennae of medium length, a little shorter than elytra (EL/AL: 1.02-1.12, x*=1.05). Right mandible with distinct premolar, appeared as third, the most proximal denticle.

Pronotum strongly convex, transverse (PW/PL: 1.15-1.31, x*=1.26), cordate, extraordinarily strongly constricted toward base (PW/PB: 1.70-1.91, x*=1.81). Lateral sides deeply sinuate before hind angles, latter attenuated in rather large digitiform processes directed backward and outward (Fig. 16). Anterior angles salient though broadly rounded. Apical and basal margins rectilinear, the latter with short and deep emargination near hind angles. Marginal border of pronotum well-developed in anterior half, then completely reduced, becoming again rather distinct before hind angles. Marginal bead wide in anterior part. Usually 4 lateral setae on each side of pronotum in anterior half (5 setae on one side in one specimen studied). Basal foveae very deep, of medium size. Basal surface weakly rugose. Median line distinct, deepest at base, reaching posterior margin of pronotum and disappearing anteriorly. Discal foveae of pronotum faint.

Elytra very large and convex, rather short, with well-developed humeri (Fig. 39), broadest in the middle (EW/PW: 1.67-1.77, x*=1.72; EW/HW: 2.20-2.34, x*=2.25; EL/EW: 1.27-1.34, x*=1.30). Lateral margins rather widely beaded and reflexed. Elytral striae strongly reduced, but stria 1 rather clear, especially in apical half, stria 2 at least partly perceptible, others effaced. Scutellar pore located near anterior end of scutellar striole, the latter rather shallow. 3 irregular rows of setae on each elytron. These setae similar to umbilicate ones in length. Inner row consisting of 7-13 (usually 9) setae on site of second interval, its setiferous pores adjoining mainly stria 2, but a few pores (up to 5) located on interspace 2 much closer to stria 1, sometimes even attached to it. Median row consisting of 3-8 (mostly 4-5) setae and outer one of 6-12 (usually 7-8) setae. Within each row, pores are arranged in irregular manner, so that some pores are difficult to be assigned to a certain row.

Preapical seta well-developed, longer than angulo-apical one. Apical triangle elongate. Apical striole of medium length, rather shallow but clearly impressed, with well-developed outer carina. Umbilicate pores 1 and 2 closest in humeral group, all humeral pores in aggregate condition. Umbilicate pore 2 a little closer to lateral border of elytra. Pores of median group of umbilicate series (pores 5 and 6) much closer to one another than those of preapical group (pores 7 and 8).

Aedeagus (Fig. 59) medium-sized, rather thin, gradually arched, its apical portion clearly attenuated, lamella parallel-sided in dorsal view. Apex simple, not modified, only slightly hooked. Sagittal lobe well-developed. Parameres slender, the left one longer, with ventral apophysis, each bearing 3 or mostly 4 apical setae. Endophallus armature vaguely defined, appeared as blurry spot.

Distribution. *Dactylotrechus setosus* sp.n. is known from the Yunling Shan Mountain Range, 30 km east of Weixi (northwestern Yunnan).

Habitats. The species was found on the banks of a small spring in the upper forest zone.

Genus *Sinotrechiama* Uéno, 2000

Sinotrechiama Uéno, 2000: 347, type species: *Kozlovites tronqueti* Deuve, 1995.

Description. Oculate and well-pigmented apterous trechine beetles of large size. Body convex or rather flat according to species, strongly constricted at the base of pronotum, appendages very long. Surface strongly shining and iridescent on elytra and pronotum.

Frontal furrows deep and continuous, widely arcuate, almost subparallel in middle portion, or somewhat divergent toward parietal transverse impression which is almost always well-defined. Eyes well-developed, larger than genae, latter rather long and more or less convex, glabrous or with a few sparse hairs (*S. pilifer* sp.n.). Tooth on right mandible with base of medium length, divided into premolar and retinacle. Labrum with widely emarginate anterior margin, sexsetose. Suture between mentum and submentum perceptible. Tooth of mentum short, clearly cleft apically. 6-7 submental setae, subangular ones often redoubled (in this case 8 submental setae). Maxillary palpi glabrous. Penultimate segment of labial palpi quadrisetose, ultimate glabrous. Two supraorbital pores of which anterior one strongly foveolate.

Pronotum cordiform, its lateral margins sinuate before hind angles, the latter strongly varying according to species: from nearly completely reduced in *S. tronqueti* (Deuve, 1995) to rather well-developed, though small in most of species, their summits often directed somewhat outward due to base of pronotum obliquely incised laterally. Disc of pronotum with 2-11 setae arranged mostly in one longitudinal range on each side of pronotum, thought in middle part it may be expanded up to 2 or even 3 setae. Lateral border well-developed, though narrow in some species (*S. tronqueti* and *S. imitator* sp.n.), usually reaching posterior lateral seta of pronotum (only in *S. imitator* sp.n. lateral border reduced in its median part). One lateral seta in anterior third of pronotum and another one just in hind angles. Prebasal transverse impression vaguely delimited, basal foveae of medium size or small, moderately deep.

Elytra large, either ovate or oblong, with more or less oblique humeri, depressed on disk, with maximum width at or behind middle. Marginal gutter of elytra rather wide and complete in some members, narrow and shortened anteriorly in others (*S. tronqueti, S. imitator* sp.n.). Basal border of elytra lacking. Elytral striation strongly varying interspecifically. In some species, all discal striae developed and rather roughly punctured, in others only inner striae complete and all striae nearly smooth. Stria 1 always deep and continuous. Scutellar pore present and located near anterior end of scutellar striole. Disc with numerous setiferous pores arranged mainly in 2 more or less regular longitudinal rows on each elytron: inner row consisting of 3-14 pores and outer row consisting of 2-16 pores.

Pores of inner row adjoining mostly stria 3, only anterior one often on interspace 2 and posterior (=preapical pore) in anastomosis of stria 2 and 3. Setiferous pores of exterior row attached mainly to stria 5 or to site of stria 5, only second pore shifted mediad onto interval 5 and in some specimens may even adjoin stria 4. Apical triangle complete, consisting of 3 pores. Preapical seta located at or near level of anterior end of apical striole; the latter of medium length, well-engraved. All pores of umbilicate series in marginal bead, only in *S. tronqueti* anterior umbilicate pore markedly displaced mediad.

Anterior tarsi of male with 2 strongly dilated proximal articles.

Foretibiae strongly grooved on exterior surface in *S. tronqueti*, moderately grooved in other species, glabrous, only with a few very small and sparse hairs on anterior surface just near apex. Hyaline appendages of 4th article well-developed.

Apart from one-two pairs of paramedian setae, some further setae of smaller size settled along posterior margin of abdominal sternites. Anal sternite of female with 4 setae, that of male – with 2-4 setae along its posterior edge.

Aedeagus large and thick, usually more or less strongly bent at basal part and almost straight in distal part. Apex more or less strongly hooked or even button-shaped. Sagittal aileron of medium size or lacking. Endophallus armature represented by pairweise plate-like structure (often partly wriggled) and scaly patch.

Notes. S.-I. Uéno (2000) created this genus for *Kozlovites tronqueti* Deuve, 1995 based mainly on the following points discriminating it from *Kozlovites* Jeannel, 1935: - its right mandible with a distinct premolar tooth; - pronotum completely bordered at the sides though finer near the hind angles; - hind angles of pronotum reduced; - each side of the pronotum with a longitudinal row of setae; - each elytron with two series of setiferous pores in striae 3 and 5; - protibiae glabrous on anterior face and grooved on exterior one. The discovery of new species as well as additional specimens of *S. tronqueti* allows us to confirm the validity of the above characters except for the above difference in the lateral border of the pronotum. This diagnostic feature does not appear to be kept because: firstly, even within *Sinotrechiama* Uéno there is an obvious evolutionary trend from species with the normal well-developed marginal border and hind angles of pronotum to those with reduced lateral border and hind angles; secondly, the marginal border of the pronotum is continuous though very fine and reaching the hind angle of the pronotum in *Kozlovites caviceps* Jeannel. In this respect, the matter concerns rather the parallelism in the evolution of the above genera. From *Trechiama* Jeannel, 1927 and its relatives, the genus *Sinotrechiama* was distinguished by S.-I. Uéno (2000) in having the following characters: - the microsculpture practically absent on pronotum and elytra; - hind angles of pronotum reduced; - pronotum each side with longitudinal row of setae; - elytra with lateral border reduced basally; - each elytron with an increased number of discal pores in two series in stria 3 and 5; - visible sternites except the anal with supernumerary 6-10 setae apart from one or two pairs of the paramedian setae. Of all these diagnostic features, the reduction of hind angles of pronotum must be discarded as a discriminative feature in view of newly discovered species, though in all *Sinotrechiama*, the base of the pronotum is strongly and obliquely truncated and/or emarginate on sides and thus the hind angles are distinctly shifted anteriad.

From the viewpoint of sexual dimorphism, all the members of the genus *Sinotrechiama* appear to be identical to most of *Trechus* species: the males have averages significantly larger in size (these differences were found in all species studied) and greater elytra. The latter feature is most clearly manifested in the ratio of the elytral width to the head width (in 5 species studied, differences were significant), and, to a lesser degree, in the ratio of the elytral length to the pronotal length (differences were found to be significant in 4 species studied) and in the ratio of the elytral width to the pronotal width. Significant differences in the latter case were, nonetheless, observed only in 3 species that is likely due to the discrepant tendency in the ratio of the pronotum width to the head width which weakened the considered ratio.

Sinotrechiama tronqueti (Deuve, 1995)

Figs 27, 42, 65.

Kozlovites tronqueti Deuve, 1995: 9 (type locality – Juding Shan).

Material: 2(2) ♂, 1 ♀ (cBK), China, N Sichuan, WSW of Beichuan, Mt. Qianfoshan, source of river, H~2000 m, 1.06.2001 (Belousov & Korolev leg.). - 10(3) ♂, 12(1) ♀ (cBK), China, N Sichuan, WSW of Beichuan, Mt. Qianfoshan, source of river, H~2400 m, 3.06.2001 (Belousov & Korolev leg.) [31° 45' N / 104° 11' E]. - 3(1) ♂, 3 ♀ (cBK), China, Sichuan, Xiling Mt., 2900 m, under stone near stream 1.08.1996 (S. Kurbatov leg.). - 2(2) ♂, 2 ♀ (cBK), China, C Sichuan, Xiling Snow Mts, 2100-3100 m, 1-3.08.1996 (S. Kasantsev leg.). – 1 ♀ (cVZ), China, C Sichuan, Wenchuan, 2000 m, 18.06.1996 (M. Janata leg.).

32 specimens measured.

Though this species was precisely described by Th. Deuve (1995) and later by S.-I. Uéno (2000) we repeat here some points either important for comparison with new species or based on additional material derived from new localities.

Description. Medium-sized species, body length 6.14-7.12 mm (males larger, x*=6.67 mm vs. x*=6.28 mm in females). Upper-side usually pitchy-black, with reddish base of pronotum and of elytra, and anterior part of head. Sometimes color much lighter (especially in specimens from Xiling); in this case, upper-side amber reddish, with darker posterior part of elytra and posterior part of head. Appendages reddish, legs with strongly obscured femora. Antennae varying from more or less uniformly reddish to clearly obscured beginning with antennomeres 2-5 (usually from antennomere 4). Dorsum strongly iridescent.

Head medium-sized (PW/HW: 1.12-1.27, x*=1.19). Eyes rather salient, of medium size (EyL/TL: 1.19-1.55, x*=1.33). Genae subconvex, temples with clear transverse wrinkles behind eye. Frontal furrows widely arcuate, subparallel in middle portion, well-impressed in posterior part, parietal transverse impression rather deep. Antennae very long and filiform, markedly longer than elytra (EL/AL: 0.83-0.88, x*=0.85), antennomere 3 considerably longer than diameter of eye (L3/EyL: 1.30-1.59, x*=1.43). Premolar of right mandible separated by distinct suture but not clearly cut from rest of tooth, so that appearing as proximal tooth of retinacle, latter either widely emarginate or bidentate according to specimen. Segments of maxillary palpi long and subcylindrical, fusiform, glabrous.

Pronotum (Fig. 27) convex, very narrow (PW/PL: 1.08-1.19, x*=1.14), strongly constricted toward base (PW/PB: 1.49-1.74, x*=1.60). Base of pronotum narrow (PA/PB: 0.99-1.15, x*=1.06). Lateral sides broadly rounded anteriorly, strongly but not deeply sinuate before hind angles; latter reduced, not completely covering from above lateral parts of prothorax. Marginal gutter very narrow, both lateral border and marginal bead reaching the posterior lateral setiferous pore of pronotum. Disc of pronotum with 3-7 setae on each side. Anterior lateral seta in anterior third of pronotum, posterior one just in hind angles, and together with the latter strongly displaced anteriad. Anterior margin of pronotum rectilinear or very slightly concave, anterior angles rounded. Posterior margin straight, obliquely truncated on sides. Basal transverse impression rather deep but relatively vaguely delimited. Basal foveae very small and shallow. Base of pronotum longitudinally rugose. Median line distinct, deeper toward base, not reaching anterior margin. Anterior surface of pronotum with a few weak longitudinal wrinkles. Anterior transverse impression vague.

Elytra large (EW/PW: 1.68-1.95, x*=1.80; EW/HW: 2.00-2.27, x*=2.14), in males greater (EW/PW: x*=1.82 in males vs. x*=1.79 in females; EW/HW: x*=2.18 in males vs. 2.10 in females), narrow (EL/EW: 1.48-1.58, x*=1.54), oblong-ovate, broadest near middle (Fig. 42), subconvex, sometimes impressed along suture. Humeri oblique and rounded though developed. Lateral sides slightly sinuate behind umbilicate pore 8. Marginal gutter of elytra narrow, reduced before humeri, its anterior termination appearing as a small fovea, without clear hook. Elytral striae reduced, only stria 1 complete though shallow, stria 2 shortened anteriorly and posteriorly, striae 3 and 4 (if present) only partly perceptible, so that setiferous pores of outer row completely isolated, all striae without punctures, intervals flat. Scutellar striole deep. Apical striole distinct, rather long, regularly arcuate; apical

carina well-developed and sharply delimited, especially in posterior part. Scutellar pore present. On each elytron, 8-12 (usually 9-11) foveolate setiferous pores arranged in two irregular longitudinal series. Inner series, not counting preapical pore, consisting of 3-7 (usually 5-6) setae, outer one of 2-5 (mostly 4) setae. Their disposition as follows: anterior pore of inner series either in stria 3 or more rarely on interval 3, other pores in stria 3. Preapical pore in anastomosis of striae 2 and 3 near apex, seldom attached to stria 2. Second pore of outer row shifted more or less strongly mediad, adjoining stria 4 or placed on interval 5. Umbilicate pore 2 approached to marginal bead, umbilicate pore 1 clearly shifted mediad. Pores 3 and 4 settled progressively farther from lateral border. Umbilicate pores 5 and 6 about as spaced as pores 7 and 8. Median umbilicate group markedly behind mid-length. Apical triangle subequilateral or slightly elongate.

Microsculpture very fine, comprised of well-engraved rather small isodiametric meshes on head, very irregular transverse meshes on pronotum and consisting of fine transverse lines on elytra. All upper-side finely micropunctured.

Metepisterna clearly longer than wide. Abdominal sternites with two pairs of paramedian setae. Anal sternite bisetose or quadrisetose in male, normally quadrisetose in female.

Legs long, foretibiae sharply grooved externally, with hardly perceptible short and sparse hairs on anterior surface near apex.

Aedeagus (Fig. 65) large, step-like bent, its distal part almost straight, apex modified in relatively symmetrical button. Viewed dorsally, apical lamella rather long and well-defined. Sagittal lobe of medium size. Basal orifice weakly emarginate. Parameres narrow, slightly curved, left with 5, right with 4 apical setae; left paramere provided with ventral apophysis. Endophallus armature rather large, but not heavily sclerotized, represented by a spatulate pairwise structure along right wall of aedeagal tube.

Variation. The population from Xiling Mountains differs in having smaller body length (x*=6.65 mm vs. 6.72 mm in males and x*=6.28 mm vs. 6.33 mm in females); proportionally smaller pronotum (PW/HW: x*=1.17 in males, 1.15 in females vs. x*=1.20 in males, x*=1.18 in females; EW/PW: 1.80-1.95, x*=1.85 vs. 1.72-1.87, x*=1.78); mostly 5 setae (4-7) on each side of pronotum vs. 4 setae (3-6) in the population from Mount Qianfoshan and usually smaller number of elytral setae: 18-23 (mostly 20) vs. 20-24 (usually 22) in its counterpart. In addition, this population is distinct in having a little shorter apex of the aedeagus.

Notes. The species is easily recognized among all hitherto known relatives in having reduced hind angles of pronotum and fine though complete lateral border of pronotum. Doubtless it is most closely related to *S. imitator* sp.n. For their differences see below.

Distribution. All so far known localities of this species are situated in mountains along the western border of Sichuan Basin: the species was described from Mount Jiuding Shan, and was collected later in Mount Qianfoshan within the same mountain range, in the vicinity of the town of Wenchuan, and in the Xiling Mountains.

Habitats. The species occurs on banks of mountain brooks at a wide belt of altitudes between 2000 and 3810 m within the forest zone.

Sinotrechiama imitator Belousov & Kabak, sp.n.

Fig.66.

Holotype: ♂ (ZISP), CH, NW Sichuan, NE of Lixian, N of Tonghua, basin of river near Pingshitou, S of Shibanpengzi, H~3800 m, 22.08.2002 (Belousov & Kabak leg.).

Paratypes: 23(6) ♂, 8 ♀ (ZISP, IZK, MPU, cBK, cAG), collected together with holotype. — 6(6) ♂, 6 ♀ (cBK), CH, NW Sichuan, NE of Lixian, N of Tonghua, basin of the river near Pingshitou, 3400-3500 m, 19.08.2002 (Belousov & Kabak leg.).

26 specimens measured.

Description. Medium-sized species, body length 6.38-7.36 mm (x*=6.96, males on average larger: x*=7.04 vs. x*=6.83 in females). Upper-side usually pitchy-black, with reddish base of pronotum, base and apex of elytra, anterior part of head and sometimes

occipital area. Antennae reddish, obscured beginning with apical portion of antennomeres 2-4. Legs brown-reddish with dark brown femora. Elytra and pronotum strongly iridescent.

Head medium-sized (PW/HW: 1.16-1.24, x*=1.19; males have larger pronotum: x*=1.20 vs. x*=1.18 in females). Eyes moderately convex, of medium size (EyL/TL: 1.03-1.27, x*=1.16). Genae subconvex. Frontal furrows complete, widely arcuate, subparallel in middle portion, well-impressed in posterior part, parietal transverse impression rather distinct. Antennae very long and filiform, markedly longer than elytra (EL/AL: 0.79-0.86, x*=0.82), antennomere 3 considerably longer than diameter of eye (L3/EyL: 1.64-2.0, x*=1.81 in males vs. x*=1.76 in females) and 3.98-4.31 (x*=4.15) times as long as wide. Premolar of right mandible separated by distinct suture but not clearly cut from remainder of tooth, usually closer to median denticle than the latter to distal one. Segments of maxillary palpi long and subcylindrical, fusiform, glabrous; penultimate segment of labial palpi quadrisetose.

Pronotum convex, very narrow (PW/PL: 1.07-1.17, x*=1.12), strongly constricted toward base (PW/PB: 1.49-1.66, x*=1.57). Base of pronotum narrow (PA/PB: 0.97-1.15, x*=1.05). Lateral sides broadly rounded anteriorly, recilinearly convergent posteriorly, strongly but not deeply sinuate before hind angles; latter reduced, not completely covering from above lateral parts of prothorax. Lateral gutter very narrow, though rather variable in different specimens, as a rule, completely interrupted behind mid-length, but rather well-developed near hind angles, appearing as a vague carina or groove but never as border. On each side, disc of pronotum with 2-5 (mostly 3-4) setae, which are arranged mainly in irregular longitudinal row, only supernumerary setae set abreast. Anterior lateral seta in anterior third of pronotum, posterior one just in hind angles, together with the latter strongly shifted anteriad. Anterior margin of pronotum rectilinear or very slightly concave, anterior angles rounded. Posterior margin straight, obliquely truncated on sides. Basal transverse impression relatively vaguely delimited. Basal foveae very small and shallow. Base of pronotum smooth. Median line distinct, deeper toward base, not reaching anterior margin. Anterior surface of pronotum weakly rugose. Anterior transverse impression vague.

Elytra large (EW/PW: 1.87-2.04, x*=1.97; EW/HW: 2.22-2.51, x*=2.34), in males greater (EW/PW: x*=1.99 vs. x*=1.94 in females; EW/HW: x*=2.38 vs. x*=2.28 in females), narrow (EL/EW: 1.46-1.59, x*=1.52), oblong-ovate, broadest near mid-length, convex, depressed or even impressed along suture. Humeri oblique and rounded though prominent. Lateral sides slightly sinuate behind umbilicate pore 8. Apex somewhat sinuate, sutural angle slightly prominent. Marginal gutter of elytra narrow, reduced before humeri, its anterior termination reduced or hardly perceptible. Elytral striae shallow, though rather variable according to specimen: one to four inner striae traceable, more sharply engraved in posterior half of elytra. Available striae finely but distinctly punctured. Umbilicate pores 5-8 adjoining stria 8 which is interrupted anteriorly of umbilicate pore 5. Apical striole of medium length, well-engraved, gradually arcuate and sharply engraved, its anterior end markedly surpassing level of preapical pore and joining stria 5 anteriorly. Scutellar pore present, scutellar striole shallow. On each elytron, 7-13 (usually 8-10) foveolate setiferous pores arranged in two irregular longitudinal series. Inner series, not counting preapical pore, consisting of 4-8 (usually 4-6) pores, outer series of 3-5 (mostly 4) pores. Their disposition within each row as follows: anterior pore of inner row usually attached to stria 3, rarely set on interspace 3 or in anastomosis of striae 2 and 3, other pores located in stria 3, though either one or both of the two posterior pores may migrate to interspace 2 or seldom even to to stria 2. Preapical pore in anastomosis of stria 2 and 3 near apex, seldom adjoining stria 2. Anterior pore and sometimes posterior one of outer series may set either on interspace 5, or even in stria 4. All pores of umbilicate series divided into tree widely spaced usual groups: humeral (4 pores), median (2 pores) and preapical (2 pores). Umbilicate pore 2 approached to marginal bead, umbilicate pore 1 clearly shifted mediad, pores 3 and 4 settled progressively farther from lateral border. Umbilicate pores 5 and 6 markedly behind midlength, about as widely spaced as pores 7 and 8. Apical triangle slightly elongate, angulo-apical and preapical pores situated on line subparallel to suture of elytra.

Microsculpture very fine, comprised of well-engraved rather small isodiametric meshes on head, poorly impressed irregular transverse meshes on pronotum and consisting of fine transverse lines on elytra causing the surface strongly iridescent. All upper-side finely micropunctured.

Aedeagus (Fig. 66) very large, step-like bent, its distal part almost straight, with apex hooked in lateral view. Viewed dorsally, median lobe is somewhat S-spaped. Sagittal aileron rather small. Basal orifice weakly emarginate. Parameres robust, slightly arcuate, each usually with 4 apical setae; left paramere longer, narrower and provided with ventral process. Endophallus armature very large, but not heavily sclerotized, consisting of scaly patches.

Variation. The specimens derived from higher altitudes (H~3800 m) are characterized by narrower and longer elytra (EW/HW: x*=2.32 vs. 2.37 for the sample from elevations of 3400-3500 m; EW/PW: x*=1.96 vs. 1.98, EL/PL: x*=3.34 vs. 3.31).

Notes. Doubtless *S. imitator* sp.n. is most closely related to *S. tronqueti* (Deuve, 1995). Both species share the similar habitus, the same type of chaetotaxy, reduced hind angles and very narrow marginal bead of the pronotum, shallow striation of the elytra and similarily shaped aedeagus. The new species is easily distinguished from the above species by the marginal border of pronotum interrupted behind mid-length, marginal border of elytra more strongly reduced anteriorly, smooth basal surface of pronotum (rugose in *S. tronqueti*) and some minor features, including a few ratios: antennae longer (EL/AL: x*=0.82 vs. x*=0.85 in *S. tronqueti*), eyes smaller (L3/EyL: 1.64-2.0, vs. 1.30-1.59 in *S. tronqueti*), elytra larger (EW/PW: x*=1.99 in males and x*=1.94 in females in *S. imitator* vs. x*=1.82 in males and x*=1.79 in females in *S. tronqueti*; EW/HW: x*=2.38 in males and x*=2.28 in females vs. x*=2.18 in males and x*=2.10 in females respectively). The chaetotaxy is less abundant in the new species, setiferous pore in stria 4 (or interspace 4), if present, set anteriad of the anteriormost pore of exterior series (posteriad – in *S. tronqueti*). The aedeagus of *S. imitator* sp.n., though similar to that of *S. tronqueti*, is distinctive in its S-like shape in dorsal view and apex deprived of ventral projection in lateral view (Fig. 66 vs. Fig. 65).

Distribution. The new species is known only from the type locality, situated in the basin of the river near Pingshitou, a small village north of the Tonghua village, northeast of the town of Lixian (northwestern Sichuan).

Habitats. The species occurs on the banks of mountain brooks at altitudes between 3400 and 3800 m within the forest zone.

Sinotrechiama pilifer Belousov & Kabak, sp.n.

Figs 11, 28, 41, 67.

Description. Large-sized species, body length 6.18-7.26 mm (males larger, x*=6.98 mm vs. x*=6.60 mm in females). Upper-side dark reddish brown, with blackish posterior part of head and elytra. On the latter, basal part, narrow margins and suture in apical third reddish. Appendages uniformly reddish, only legs with vaguely obscured femora. Elytra strongly iridescent.

Head medium-sized (PW/HW: 1.23-1.34, x*=1.28). Eyes rather salient, of medium size (EyL/TL: 1.18-1.35, x*=1.26). Genae rather short and subconvex, temples with clear transverse wrinkles behind eye, covered by a few sparse and short hairs. Frontal furrows complete, widely arcuate, subangulate, impressed in posterior part, parietal transverse impression well-developed. Antennae very long and filiform, much longer than elytra (EL/AL: 0.84-0.90, x*=0.87), 3rd antennomere considerably longer than diameter of eye (L3/EyL: 1.35-1.58, x*=1.48). Tooth on right mandible uncertainly divided by rather vague suture into premolar and retinacle, latter with long and massive distal denticle and more or less strongly reduced median one, thus premolar and distal denticle of retinacle are widely spaced (Fig. 11). Labial tooth weakly prominent, vaguely bidentate. Subangular submental setae mostly redoubled (in this case, number of submental setae 8). Ligula octosetose, the median pair of setae is only a little longer.

Pronotum flat, moderately narrow (PW/PL: 1.13-1.28, x*=1.20), very strongly constricted toward base (PW/PB: 1.57-1.74). Base of pronotum narrow (PA/PB: 0.96-1.09, x*=1.03). Lateral sides broadly rounded anteriorly and either rectilinear or broadly rounded posteriorly, distinctly sinuate before hind angles; latter variable, usually acute, protruding outward and more or less strongly shifted anteriad (Fig. 28). Marginal bead rather wide, strongly reflexed, especially in posterior part, extended upward near hind angles. Anterior margin of pronotum rectilinear, anterior angles salient and broadly rounded. Posterior margin straight, obliquely incised laterally. Basal transverse impression shallow and located closely to posterior margin. Basal foveae small and deep. Basal surface longitudinally rugose. Median line distinct, deeper toward base, not reaching anterior margin. Apart from two usual lateral setae, pronotum with 5-11 setae on each side of its disc.

Elytra very large (EW/PW: 1.68-1.85, x*=1.77; EW/HW: 2.17-2.39, x*=2.27) and long (EL/EW: 1.48-1.58, x*=1.52), flat, strongly impressed along suture, broadest distinctly behind mid-length (Fig. 41). Each elytron rounded separately in males, truncate in females. Humeri prominent though rounded. Lateral sides broadly arcuate, slightly sinuate behind umbilicate pore 8. Apical slope of elytra rather convex. Marginal gutter narrow, strongly reflexed, basal border joining stria 5 anteriorly. Elytral striae 1-4 well-developed and roughly punctured (striae 1-3 deep), a row of isolated pores instead of stria 5, striae 6 and 7 effaced, inner intervals subconvex. Scutellar striole deep, scutellar pore present. Apical striole distinct, rather long, bending inward anteriorly, apical carina well-developed, especially sharp in posterior part. On each elytron, 15-25 foveolate setiferous pores arranged in two irregular rows on interspaces 3 and 5: 7-14 (mostly 10) setiferous pores in inner row and 7-16 pores according to subspecies in outer row. Anterior pore of inner row normally located in anastomosis of striae 2 and 3, more seldom in stria 3. Second discal pore of inner row often displaced laterad and located on interspace 4. Similarly, second discal pore of outer row often shifted mediad and situated on interspace 5 or even in stria 4. Median umbilicate group unusual in being strongly shifted posteriad. Within each of umbilicate groups, pores are remarkably aggregated. Umbilicate pores 7 and 8 rather close to one another but not so strongly as pores 5 and 6. All pores of apical triangle present, the exterior one attached to the apical striole at about its mid-length. Within slightly elongate apical triangle, angulo-apical and preapical pores most spaced. Microsculpture comprised of well-engraved rather small isodiametric meshes on head, lightly impressed irregular transverse meshes on pronotum and elytra. All upper-side finely micropunctured.

Metepisterna clearly longer than wide. Abdominal sternites 4-5 with 6-8 setae of which 1-2 median setae from each side are longer, abdominal sternite 3 with 6-8 setae subequal in length, abdominal sternite 2 with 4, more seldom 5 rather short setae, situated in middle part of sternite. Anal sternite bisetose in male, quadrisetose (as an exception, one of inner setae redubled) in female.

Aedeagus (Fig. 67) very large and thick, bent mainly at proximal third and almost straight in remainder part. Apex distinctly hooked. Apical lamella triangular in dorsal view. Sagittal lobe missing. Sides of basal orifice barely emarginate. Parameres stout, both with 5-6 apical setae, ventral process of the left paramere very long. Endophallus armature hypertrophied, complex, pairwise, consisting of moderately sclerotized wriggled plates and scaly patch.

Notes. The new species is easily distinguishable from *S. tronqueti* (Deuve) in having the elytral striae 3-4 well-developed (Fig. 41 vs. Fig. 42), hind angles of the pronotum large and acute (Fig. 28 vs. Fig. 27), lateral margins of both the pronotum and elytra wider as well as by a quite different shape of the aedeagus (Fig. 67 vs. Fig. 65).

Distribution. *Sinotrechiama pilifer* sp.n. seems to be widespread over the basins of the Niuzhihe and Lianghegou rivers, southern Sichuan.

Habitats. The species was encountered on the banks of brooks at elevations of 2400-2750 m.

Sinotrechiama pilifer pilifer s. srt.

Figs. 11, 28, 41, 67.

Holotype: ♂ (ZISP), China, Sichuan, right bank of Niuzhihe River, E of Pusiun (=Pouxiong) village, 2500-2700 m, 17.06.2000 (Belousov & Kabak leg.) [28° 32' N / 102° 42' E].

Paratypes: 19(5) ♂, 19(2) ♀ (IZK, MPU, cBK, cAG, cAK, cMJ, cVZ), collected together with holotype. - 3(2) ♂, 5 ♀ (cBK), same locality, 2600 m, 16.06.2000 (Belousov & Kabak leg.). - 1(1) ♂, 1 ♀ (cBK), China, S Sichuan, 5 km SW Bijishan village, sources of Lianhegou (=Lianghegou) River, 2750 m, 19.06.2000 (Belousov & Kabak leg.) [28° 33' N / 102° 46' E].

25 specimens measured.

Notes. The nominotypical subspecies is characterized by the shape of pronotum which is more strongly constricted toward base (PW/PB: x*=1.67). Each elytron with 8-14 (mostly 10) setae in the inner row and 7-16 (usually 12) setae in the outer one.

Sexual dimorphism. Antennae longer in males (L3/EyL: x*=1.52 vs. x*=1.44 in females).

Distribution. The nominotypical subspecies was found in the mountains between the Niuzhihe and Lianghegou rivers, south of the town of Ganluo (southern Sichuan).

Habitats. This form is met with on the banks of brooks at elevations of 2600-2750 m.

Sinotrechiama pilifer discicollis Belousov & Kabak, ssp. n.

Holotype:♂ (ZISP), China, S Sichuan, right tributary of Lianhegou (=Lianghegou) River, W of Mt. Ubaoshan, Bolo env., 2400-2700 m, 27.06.2000 (Belousov & Kabak leg.) [28° 44' N / 102° 54' E].

Paratypes: 3(3) ♂, 8 ♀ (cBK), collected together with holotype.

12 specimens measured.

Notes. This subspecies may be easily distinguished by the shape of the pronotum which is less strongly constricted toward its base (PW/PB: x*=1.62 vs. x*=1.67 in the nominotypical subspecies); its lateral sides are more broadly rounded and strongly sinuate before the hind angles. Normally the base of the pronotum is more strongly oblique on sides, thus the hind angles of the pronotum are more strongly displaced anteriad and more clearly directed outward in *S. pilifer discicollis* ssp. n. Additionally, the elytra are shorter, especially in the males (EL/EW: x*=1.49 vs. x*=1.53 in the nominotypical subspecies), and each elytron bears only 7-12 (usually 9) less strongly foveolate setiferous pores in the outer row vs. 7-16 (mostly 12) in the nominotypical subspecies.

Distribution. *S. pilifer discicollis* ssp. n. was met with on the right bank of the Lianghegou River on the western slope of Mount Ubaoshan, located 30 km southeast of the town of Ganluo (southern Sichuan).

Habitats. The subspecies was found on the banks of brooks at elevations of 2400-2700 m.

Sinotrechiama sp.n. Moravec & Wrase, in litt.

Figs 12, 29, 43, 68.

Material: Paratypes: 10(3) ♂, 10 ♀ (cMJ, cBK), China, C Sichuan (Tianguan) pass between Tianguan-Luding 3000 m, 22.07.2000 (M. Janata leg.) [29° 51'73 N / 102° 16'85 E].

18 specimens measured.

This species is now under description by our colleagues P. Moravec and D. Wrase. Taking into account a restricted number of specimens known we give here a detailed description of the available material.

Description. Medium-sized species, body length 5.66-7.01 mm; males larger, x*=6.78 mm vs. x*=6.22 in females. Upper-side usually pitchy-black, with reddish labrum, mandibles, margins and suture of elytra in their apical half. Appendages reddish, legs with strongly obscured femora. Antennae uniformly reddish. Elytra and pronotum strongly iridescent.

Head medium-sized (PW/HW: 1.17-1.29, x*=1.22). Eyes rather salient, of medium size (EyL/TL: 1.29-1.58, x*=1.42). Genae subconvex, temples with clear transverse wrinkles postero-mediad of eye. Frontal furrows complete, widely arcuate, subparallel in middle portion, well-impressed in posterior part, parietal transverse impression rather deep. Antennae very long and filiform, a little longer than elytra (EL/AL: 0.88-0.95, x*=0.91), 3rd antennomere considerably longer than diameter of eye (L3/EyL: 1.32-1.49, x*=1.37). Premolar of right mandible separated by distinct suture but not clearly cut from remainder of tooth (Fig. 12), so that appears as proximal tooth of retinacle, latter either widely emarginate or bidentate according to specimen. Segments of maxillary palpi long and subcylindrical, fusiform, glabrous; penultimate segment of labial palpi quadrisetose. Labial tooth bedentate. 6 submental setae.

Pronotum convex, very narrow (PW/PL: 1.14-1.24, x*=1.18), strongly constricted toward base (PW/PB: 1.48-1.60, x*=1.53). Base of pronotum narrow (PA/PB: 0.95-1.08, x*=1.00). Lateral sides rounded anteriorly, rectilinear (more seldom widely convex) in posterior part, briefly and not deeply sinuate before hind angles; latter small and rectangular, directed backward and sometimes somewhat outward (Fig. 29). Lateral gutter narrow. Disc of pronotum with 3-6 (usually 3-4) setae on each side. Anterior lateral seta in anterior third of pronotum, posterior one just in hind angles, shifted together with the latter anteriad. Anterior margin rectilinear, anterior angles rounded but perceptible. Posterior margin straight, obliquely incised laterally. Basal transverse impression rather vaguely delimited, located close to basal margin. Basal foveae small and shallow, but distinct. Base of pronotum smooth or in a few cases weakly longitudinally rugose. Median line distinct, deeper toward base, not reaching anterior margin. Anterior surface of pronotum with weakly rugose. Anterior transverse impression obsolete.

Elytra very large (EW/PW: 1.70-1.90, x*=1.80; EW/HW: 2.10-2.33, x*=2.19), narrow (EL/EW: 1.47-1.59, x*=1.53), ovate, broadest a little behind middle (Fig. 43), convex, sometimes impressed along suture. Humeri oblique and rounded though marked. Lateral sides barely sinuate behind umbilicate pore 8 and just before apex of elytra, the latter is hence slightly attenuated in a small tooth. Marginal gutter of elytra distinct, not narrowing to base of elytra and hooked near site of stria 5. Elytral striae 1 and 2 deep and roughly punctured, stria 3 shallow, shortened anteriorly and posteriorly, punctured in anterior third or half, others effaced, at most barely perceptible, sometimes striae 5 and 6 discernible in apical part of elytra. Intervals flat. Scutellar striole deep. Apical striole distinct, rather long, weakly bent, either interrupted or joining stria 4 or 5 anteriorly (Fig. 43); apical carina well-developed and sharply delimited, especially in posterior part. Scutellar pore present. On each elytron, 9 (rarely 10 or 8) foveolate setiferous pores arranged in two irregular rows in striae 3 and 5. Inner row, except for preapical pore, with 5 (rarely with 4 or 6) pores, outer row with 3 (rarely 4, one specimen with 2) pores, their disposition within each row rather stable, being as follows: anterior pore of inner row almost always on interval 3 (striae 2 and 3 often anastomosing here), other pores in stria 3, preapical pore in anastomosis of striae 2 and 3 near apex, rarely adjoining stria 2. Seldom second pore of outer row displaced mediad and located on interval 5. Umbilicate pore 2 approached to marginal bead, umbilicate pore 1 shifted mediad, pores 3 and 4 settled progressively farther from lateral border. Umbilicate pores of median group located markedly behind mid-length and about as spaced as umbilicate pores 7 and 8. Apical triangle elongate. Preapical pore a little closer to elytral apex than to anterior end of apical striole.

Microsculpture very fine, comprised of well-engraved rather small isodiametric meshes on head, lightly impressed irregular transverse meshes on pronotum and fine transverse lines on elytra. All upper-side finely micropunctured.

Metepisterna clearly longer than wide. Abdominal sternites with 4-10 setae (including a pair of paramedian ones) approximately along their posterior edge. Anal sternite bisetose in male, normally quadrisetose in female.

Legs long, foretibiae with a few very short and sparse hairs on anterior surface near apex.

Aedeagus (Fig. 68) of medium size, slightly curved, its distal part almost straight, apex with very small button,; apical portion subtriangular in dorsal view. Sagittal aileron small, but distinct. Basal orifice widely emarginate. Parameres relatively thick, straight or slightly curved, left one with 4, right with 3-4 apical setae; both parameres with ventral processes, more developed in left paramere. Endophallus armature consisting of a pair of plate-like pieces and scaly patch.

Notes. Doubtless in the chaetotaxy and pronotum shape, this species is most closely related to *S. pilifer* sp.n. but is easily distinguished by the darker color of upper-side; more convex and glabrous genae; narrower marginal gutter of pronotum; shallower elytral striae: striae 3-4 fragmentary marked (well-developed in *S. pilifer* sp.n.); smaller number of discal setiferous pores of elytra (8-10 pores on each elytron vs. 15-25 in *S. pilifer* sp.n.) and by the male genitalia (Figs 68 and 67 respectively). The latter character supports the closeness of this species to *S. pilifer* sp.n. despite of a certain external similarity with *S. tronqueti* (Deuve).

Distribution. The specimens studied originate from the pass between Tianguan and Luding villages (central Sichuan).

Habitats. The species was found at an elevation of 3000 m a.s.l.

Protrechiama Belousov & Kabak, gen.n.

Type species: *Protrechiama glabricollis* sp.n.

Description. Oculate and well-pigmented apterous trechine beetles of large size. Body rather flat, distinctly constricted at base of pronotum, appendages very long. Surface strongly shining, elytra iridescent.

Frontal furrows complete. Premolar of right mandible distinguishable. Labial tooth bidentate, longitudinally grooved beneath. 6 submental setae. Submental suture straight and distinct. Segments of maxillary palpi long and subcylindrical, fusiform, glabrous; penultimate segment of labial palpi quadrisetose.

Pronotum flat, more or less transverse, moderately constricted toward base. Lateral sides broadly rounded anteriorly, moderately sinuate before hind angles; latter well-developed (Figs 30-32). Lateral margins moderately to widely beaded and reflexed. Disc of pronotum glabrous. Anterior lateral seta in anterior third of pronotum, posterior one just in hind angles, only barely shifted anteriad. Posterior margin straight, emarginate on sides. Basal transverse impression rather deep but vaguely delimited. Basal foveae large and deep. Base of pronotum longitudinally rugose. Median line distinct, deeper toward base, not reaching anterior margin.

Elytra large and flat, widest at or behind their mid-length (Figs 44-46). Humeri prominent though rounded. Lateral sides distinctly sinuate behind umbilicate pore 8. Marginal gutter of elytra of moderate width, reflexed, lateral border joining stria 5 anteriorly. Elytral striae rather deep and continuous, usually even stria 7 distinguishable though shallow; all striae strongly punctured, intervals convex. Both scutellar and apical strioles deep, the latter joining stria 5 anteriorly; apical carina well-developed, especially in posterior part. Scutellar pore present. On each elytron, 8-12 (usually 11) foveolate setiferous discal pores arranged in two irregular rows located on interspaces 3 and 5 respectively. Their disposition within each row rather stable, being as follows. 5 (as an exception 3 or 4) pores in inner row of which the anterior one adjoining stria 2, others attached to stria 3, pores of inner row divided into two groups, one a little behind basal third, another at beginning of apical third of elytra. 5-7 (usually 5-6) pores in outer row of which the second one either attached to stria 4 or located on interval 4, and the posterior one on interval 5, others associated with stria 5. Seldom some pores of inner row disposed on interval 4. Preapical pore in anastomosis of striae 2 and 3 near elytral apex. Apical triangle subequilateral, its exterior pore attached to apical striole at about its posterior third. All pores of umbilicate series aggregated, attached to marginal bead of elytra at the same distance from lateral margin and arranged into tree widely spaced usual groups: humeral (4 pores), median (2 pores) and preapical (2 pores).

Metepisterna clearly longer than wide. Abdominal chaetotaxy instable, each sternite with two pairs of paramedian setae and variable number (up to 6, usually 2-4) of shorter supplementary setae. Anal sternite bisetose or quadrisetose in male, quadrisetose or sexsetose in female.

Legs long, foretibiae externally grooved, glabrous or with hardly perceptible small hairs on anterior surface near apex.

Notes. The new genus combines the diagnostic features of three genera: *Sinotrechiama* Uéno, *Trechiama* Jeannel and *Trechiotes* Jeannel. It appears to be more closely related to *Trechiama* sharing with it most of the important characters, but can be easily distinguished by an increased number of the discal setiferous pores on the elytra and additional setae on the abdominal sternites. Of great importance is the fact that the anterior discal pore is always located in stria 2, a character state, which is quite unusual for members of the genus *Trechiama* (with one only exception, *T. crassiceps* Uéno, also originated from mainland China, which taxonomic position must be revised with regard to new data). In the position of the anterior discal pore, *Protrechiama* gen.n. is similar to *Trechiotes* but is sharply distinct from macropterous and macrophthalmic members of this genus in the general facies (apterous, body elongate, with sharp constriction at the base of pronotum, humeri oblique, eyes small and so on) and supernumerary chaetotaxy of both the elytra and venter (Deuve, 1995, 1999; Uéno, 1995). In the characters above, it seems to be closer to *Sinotrechiama*, but can be easily distinguished by the absence of setae on the disc of pronotum, as well as by the pronotum less constricted at base, with more or less straight basal margin and lateral margins rather widely beaded and reflexed.

As far as could be determined on the basis of the limited available material, sexual dimorphism of *Protrechiama* species seems to be quite similar to that in members of the genus *Sinotrechiama*: the males are significantly greater and have larger elytra.

Protrechiama glabricollis Belousov & Kabak, sp.n.

Figs 30, 44, 70.

Holotype: ♂ (ZISP), China, S Sichuan, NW of Mt. Yuanbaoshan, right bank of Lianhegou (=Lianghegou) River, 3550-3600 m, 20.06.2000 (Belousov & Kabak leg.) [28° 36' N / 102° 52' E].

Paratypes: 4(3) ♂, 4 ♀ (cAG, cBK), collected together with holotype.

8 specimens measured.

Description. Medium-sized species, body length 6.06-6.62 (x*=6.32) mm. Upper-side from reddish brown to blackish, in the latter case, anterior part of head, margins of elytra and their suture in apical third reddish. Appendages uniformly reddish, only legs with distinctly obscured femora. Dorsum strongly iridescent.

Head very small (PW/HW: 1.33-1.40, x*=1.36). Eyes salient, of medium size (EyL/TL: 1.49-1.73, x*=1.62). Genae rather short and subconvex, temples with clear transverse wrinkles behind eye. Frontal furrows widely arcuate, almost parallel in middle portion, well-impressed in posterior part, parietal transverse impression present. Antennae very long and filiform, about as long as elytra (EL/AL: 0.96-1.01, x*=0.98), 3rd antennomere considerably longer than diameter of eye (L3/EyL: 1.05-1.23, x*=1.14). Mandibles rather long and weakly curved. Premolar of right mandible separated by distinct suture but not clearly cut from remainder of tooth, and appearing as proximal denticle of retinacle, the median denticle of the latter variable. Labial tooth bidentate, longitudinally grooved beneath.

Pronotum flat, transverse (PW/PL: 1.23-1.33, x*=1.30), moderately constricted toward base (PW/PB: 1.40-1.51, x*=1.43). Lateral sides broadly rounded anteriorly and nearly rectilinear posteriorly, moderately sinuate before hind angles; latter mostly rectangular (Fig. 30). Marginal gutter of medium width, strongly reflexed. Disc of pronotum glabrous. Anterior lateral seta in anterior third of pronotum, posterior one just in hind angles, only barely shifted anteriad. Anterior margin of pronotum rectilinear, anterior angles broadly rounded. Posterior margin straight, emarginate on sides. Basal transverse impression rather deep but vaguely delimited. Basal foveae large and deep. Base of pronotum longitudinally rugose. Median line distinct, deeper toward base, not reaching anterior margin.

Elytra relatively large (EW/PW: 1.51-1.71, x*=1.58; EW/HW: 1.91-2.16, x*=2.01) and narrow (EL/EW: 1.51-1.58, x*=1.55), broadest near mid-length (Fig. 44), rather flat, sometimes impressed along suture. Humeri prominent though rounded. Lateral sides slightly sinuate in anterior part, broadly rounded in middle portion, distinctly sinuate behind umbilicate pore 8, commonly rounded and somewhat truncated at apex. Marginal gutter of elytra of moderate width, reflexed, basal border joining stria 5 anteriorly. Elytral striae deep, even stria 7 distinguishable though shallow, all striae strongly punctured. Intervals convex. Scutellar striole deep. Apical striole distinct, rather long, weakly arcuate, joining stria 5 anteriorly; apical carina well-developed, especially in posterior part. Scutellar pore present. On each elytron, 8-12 (usually 11) foveolate discal setiferous pores arranged in two irregular rows on interspaces 3 and 5 respectively. Their disposition within each row rather stable, being as follows. 5 (as an exception 3 or 4) pores in inner row of which the anterior one adjoining stria 2, others attached to stria 3, inner series divided into two groups, one a little behind anterior third, another at beginning of apical third. 5-7 (usually 5-6) pores in outer row of which the second one either attached to stria 4 or located on interval 4, and the posterior one on interval 5, others attached to stria 5. Seldom some pores of inner row disposed on interval 4. Preapical pore situated in anastomosis of stria 2 and 3 near apex. Within each of umbilicate groups, pores are regularly aggregated. Umbilicate pores 7 and 8 wider spaced as compared with pores 5 and 6. Median umbilicate group strongly shifted posteriad. Apical triangle subequilateral, exterior pore attached to apical striole at about its posterior third.

Microsculpture comprised of well-engraved rather small isodiametric meshes on head, shallow irregular transverse meshes on pronotum and elytra. All upper-side finely micropunctured.

Aedeagus (Fig. 70) rather short, slightly curved, its distal part almost straight, apex simple, only barely dilated and rounded; apical lamella rather short, subtriangular in dorsal view. Sagittal lobe small, but distinct. Basal orifice deeply emarginate. Parameres narrow, slightly curved, left with 5-6, right with 4-5 apical setae; left paramere with ventral process. Endophallus armature consisting of two pieces: proximal one weakly sclerotized, spatulate, situated mostly near right wall of aedeagal tube, distal one represented by a pair of well-defined scaly patches.

Notes. Affinities of this species are discussed below.

Distribution. The species was found in the basin of the Lianghegou River, northwest of Mount Yuanbaoshan located SSE of the town of Ganluo (southern Sichuan).

Habitats. The species occurs on the banks of brooks at elevations of 3550-3600 m within the upper forest zone.

Protrechiama marginalis Belousov & Kabak, sp.n.

Figs 13, 31, 45, 71.

Holotype: ♂ (ZISP), China, S Sichuan, NE of Mt. Yuanbaoshan, Lianhegou (=Lianghegou) River, 3000-3400 m, 23.06.2000 (Belousov & Kabak leg.) [28° 36' N / 102° 54' E].

Paratypes: 2(1) ♀ (cBK), collected together with holotype.

3 specimens measured.

Description. Large-sized species, body length 6.76-6.82 (x*=6.78) mm. Upper-side dark reddish brown, with blackish posterior part of head and elytra. Appendages uniformly reddish, only legs with vaguely obscured femora. Elytra strongly iridescent.

Head very small (PW/HW: 1.33-1.40, x*=1.36). Eyes salient, of medium size (EyL/TL: 1.29-1.63, x*=1.45). Genae rather short and subconvex, temples with clear transverse wrinkles behind eye. Frontal furrows widely arcuate, almost parallel in middle portion, well-impressed in posterior part, parietal transverse impression present. Antennae very long and filiform, much longer than elytra (EL/AL: 0.87-0.93, x*=0.90), antennomere 3 considerably longer than diameter of eye (L3/EyL: 1.32-1.39, x*=1.35). Premolar of right mandible separated by distinct suture but not clearly cut from remainder of tooth (Fig. 13), retinacle either widely emarginate or bidentate according to specimen.

Pronotum flat, transverse (PW/PL: 1.25-1.30, x*=1.27), moderately constricted toward base (PW/PB: 1.40-1.47, x*=1.43). Lateral sides broadly rounded, barely sinuate before hind angles, latter obtusangular and somewhat rounded at apices (Fig. 31). Marginal bead very wide, lateral margins extraordinarily strongly reflexed, especially in posterior part, extended upward near hind angles. Anterior margin of pronotum rectilinear, anterior angles salient and broadly rounded. Posterior margin straight, oblique on sides. Basal transverse impression rather deep but vaguely delimited. Basal foveae large and deep. Base of pronotum longitudinally rugose. Median line distinct, deeper toward base, not reaching anterior margin.

Elytra large (EW/PW: 1.57-1.64, x*=1.60; EW/HW: 2.13-2.24, x*=2.19) and long (EL/EW: 1.47-1.52, x*=1.49), flat, strongly impressed along suture. Humeri prominent though rounded. Lateral sides subparallel in middle part, broadly rounded in apical portion, distinctly sinuate behind umbilicate pore 8 (Fig. 45). Marginal gutter of elytra wide, strongly reflexed, basal border joining stria 5 anteriorly. Elytral striae deep, even stria 7 distinguishable though shallow, all striae strongly punctured, intervals convex. Scutellar striole deep. Apical striole distinct, rather long, parallel to suture in anterior part, joining stria 5 anteriorly; apical carina well-developed, especially in posterior part. Scutellar pore present. On each elytron, 9-11 foveolate setiferous pores arranged in two irregular rows on interspaces 3 and 5 respectively. Their disposition within each row, though varying in different specimens, may be interpreted in the following way. 4-5 pores in inner row of which the anterior one adjoining stria 2, others attached to stria 3. 5-7 (usually 6) pores in outer row of which second one and posterior one (seldom two posterior pores) – on interval 5, others attached to stria 5. As exception, some pores of inner row located oninterval 4. Preapical pore in anastomosis of striae 2 and 3, considerably closer to elytral apex than anterior end of apical striole. Median umbilicate group strongly shifted posteriad. Within each of umbilicate groups, pores completely aggregated. Apical triangle wider than long, exterior pore attached to apical striole at about its mid-length. Within apical triangle, angulo-apical and preapical pores most spaced.

Microsculpture comprised of well-engraved rather small isodiametric meshes on head, faint irregular transverse meshes on pronotum and elytra. All upper-side finely micropunctured.

Aedeagus (Fig. 71) rather long, regularly arched, apex strongly depressed in sagittal plane, axe-like. Sagittal aileron heavily sclerotized and redoubled. Basal orifice briefly, but deeply incised. Parameres rather stout, both with 6-7 apical setae, ventral process of left paramere well-developed. Endophallus armature as in *P. glabricollis* sp.n., but distal symmetrical part more strongly developed and proximal one more elongate.

Notes. The new species is most closely related to *P. glabricollis* sp.n., sharing with it all the most important characters including a peculiar chaetotaxy but *P. marginalis* sp.n. may be easily distinguished by the larger size (6.76-6.82 mm vs. 6.06-6.62), more strongly depressed elytra, and pronotum with wider marginal bead and obtusangular hind angles. The aedeagus of the new species is quite different: its median lobe is larger, more strongly arched, its apex hooked, distal symmetrical piece of the endophallus armature is more heavily sclerotized (Figs 71 vs. 70). It is surprising to find such strong differences in close species inhabiting the same mountain massif.

Distribution. *P. marginalis* sp.n. was found in the basin of the Lianghegou River, northeast of Mount Yuanbaoshan situated southeast of the town of Ganluo (southern Sichuan).

Habitats. The species was encountered on the banks of brooks at elevations of 3000-3400 m.

Protrechiama giganteus Belousov & Kabak, sp.n.

Figs 32, 46, 69.

Holotype: ♂ (ZISP), China, S Sichuan, right tributary of Lianhegou (=Lianghegou) River, W of Mt. Ubaoshan, Bolo env., 2700 m, 27.06.2000 (Belousov & Kabak leg.) [28° 44’ N / 102° 54’ E].

1 specimens measured.

Description. Very large species, body length 8.44 mm. Upper-side pitchy black, anterior part of head, pronotum and base of elytra reddish. Appendages uniformly reddish, only legs with clearly obscured femora. Elytra strongly iridescent.

Head large (PW/HW: 1.23), strongly impressed in parietal area and constricted behind temples. Eyes rather small and salient (EyL/TL: 1.04). Genae long and plane, temples with weak wrinkles behind eye. Frontal furrows widely arcuate, weakly convergent toward parietal transverse impression. Antennae very long and filiform, longer than elytra (EL/AL: 0.92), its 3rd antennomere 1.59 times as long as diameter of eye. Mandibles slender, premolar of right mandible small but well-defined and clearly separated from bidentate retinacle; distal denticle of retinacle most developed.

Pronotum (Fig. 32) flat, weakly transverse (PW/PL: 1.22), moderately constricted toward base (PW/PB: 1.38). Lateral sides broadly rounded anteriorly, weakly sinuate in middle part, then convex and briefly incised before hind angles. The latter acutangular, directed outward and backward. Marginal gutter of medium width, strongly dilated and reflexed posteriorly. Disc of pronotum glabrous. Anterior lateral seta in anterior third of pronotum, posterior one just in hind angles, only barely shifted anteriad. Anterior margin rectilinear, anterior angles broadly rounded. Base of pronotum narrow, 0.84 times as wide as anterior margin, deeply incised laterally. Basal transverse impression rather deep but vaguely delimited. Basal foveae large and deep. Basal surface longitudinally rugose. Median line distinct, deeper toward base, not reaching anterior margin.

Elytra ovate and very large (EW/PW: 1.86; EW/HW: 2.29; EL/EW: 1.60), subconvex, flattened only on disc, widest near mid-length (Fig. 46). Humeri broadly rounded. Each elytron separately rounded at apex. Marginal bead of elytra rather narrow, basal border joining stria 5 anteriorly. Elytral striae deep, even stria 7 distinguishable though shallow, all striae strongly punctured. Intervals convex. Scutellar striole deep. Apical striole distinct, rather long, weakly arcuate, directed forward and outward, joining stria 5 anteriorly; apical carina well-developed, especially in posterior part. Scutellar pore present. Discal pores moderately foveolate. On each elytron, 16-17 discal setiferous pores arranged in two irregular rows on interspaces 3 and 5 respectively. In inner row, 8-9 pores of which the anterior one adjoining stria 2 and others attached to stria 3. In outer row, 8 pores attached to stria 5, sinuate inward at level of second pore. Preapical pore in anastomosis of striae 2 and 3. Umbilicate pores 7 and 8 wider spaced as compared with pores 5 and 6. Median umbilicate group strongly behind mid-length of elytra. Within humeral group of umbilicate series pores perfectly aggregated. Apical triangle slightly elongate.

Microsculpture comprised of well-engraved rather small isodiametric meshes on head, faintly engraved irregular transverse meshes on pronotum and fine transverse lines on elytra. All upper-side finely micropunctured.

Abdominal sternites apart from 1-2 pairs of usual paramedian setae with 2-4 smaller setae on each side. Anal sternite with 3 setae in the only known male specimen.

Legs long, foretibiae flattened exteriorly, but without distinct groove, with very sparse and brief hairs on anterior surface near apex.

Aedeagus (Fig. 69) medium-sized, mostly bent at basal third, its distal part somewhat attenuated downward in lateral view, apex barely hooked, apical lamella short, triangular in dorsal view, truncated at apex. Distal orifice rather small, about half as long as aedeagal length. Sagittal lobe well-developed. Basal orifice deeply insiced. Parameres straight, each bearing 6 apical setae; left one longer and narrower apically, with ventral apophysis. Distal piece of endophallus armature scaly, well-sclerotized, situated near dorsal wall of aedeagus, proximal one hardly discernable.

Notes. The new species is easily distinguished from the two allied species described above first of all by its larger size (8.44 mm vs. 6.06-6.82 mm), more numerous discal pores on elytra (17-18 vs. 10-13 in counterparts), head more strongly constricted posteriorly, with the frontal furrows more convergent poseriad, less developed eyes (L3/EyL: 1.59 in *P. giganteus* sp.n. vs. 1.05-1.39 in its counterparts), longer antennae and other conformation of the endophallus armature: anisotopous in *P. giganteus* sp.n. and pairwise symmetrical in the two other species (Fig. 69 vs. Figs 70-71).

Distribution. *Protrechiama giganteus* sp.n. was found on the right bank of the Lianghegou River on the western slope of Mount Ubaoshan situated southeast of the town of Ganluo (southern Sichuan).

Habitats. The species was collected under rocks, on the stony bank of the mountain river at the elevations of 2700 m in the forest zone.

Key for determination of *Sinotrechiama* Uéno, 2000 and *Protrechiama* gen.n.

1 Pronotum (Figs 27-29) with supernumerary setae on its disc, base of pronotum strongly oblique and/or emarginate on sides, so that base is somewhat lobed and posterior angles shifted anteriad. Exterior striae of elytra reduced, anterior foveolate setae of inner row in stria 3 or in anastomosis of striae 2 and 3 (Figs 41-43). Marginal bead of both elytra and pronotum very narrow.
***Sinotrechiama* Uéno, 2000.**

2

- Pronotum (Fig. 30-32) glabrous on disc, base of pronotum at most slightly oblique on sides. Exterior striae of elytra distinguishable though stria 7 shallow, anterior foveolate setae of inner row in stria 2 (Figs 44-46). Marginal bead of elytra wide, that of pronotum especially strongly expanded near hind angles.
***Protrechiama* gen.n.**

5

2 Hind angles of pronotum reduced and rounded (Fig. 27), its marginal bead extremely narrow, elytral striae shallow. Marginal border of elytra effaced anteriorly (Fig. 42).

3

- Hind angles of pronotum well-developed, though small and often shifted anteriorly (Figs 28 and 29). Marginal bead of pronotum wider. Marginal border of elytra complete, directed to stria 5 or its site anteriorly (Figs 41 and 43). Elytral striae deeply impressed, inner striae roughly punctured.

4

3 Lateral border of pronotum complete though fine, its basal surface usually rugose (Fig. 27). Aedeagus smaller, straight in dorsal view, its apical button with ventral projection (Fig. 65). Sichuan: Chaping Shan Mountain Range.
***S. tronqueti* (Deuve)**

- Lateral border of pronotum interrupted behind middle, its basal surface smooth. Aedeagus considerably larger, S-shaped in dorsal view, its apical button without ventral projection (Fig. 66). Sichuan: mountains north of Tonghua village.
***S. imitator* sp.n.**

4 All striae of elytra deep, even stria 7 visible. Aedeagus (Fig. 67). Southern Sichuan: basin of Lianghegou River, south of Ganluo.
***S. pilifer* sp.n.**

a each elytron in outer row with, on average, 12 more strongly foveolate setiferous pores (Fig. 41), pronotum more strongly constricted toward base, lateral sides almost rectilinear in posterior part (Fig. 28). Mountains between Niuzhihe and Lianghegou rivers.
***S. pilifer pilifer* ssp.n.**

- each elytron in outer row with, on average, 9 moderately foveolate setiferous pores, pronotum less strongly constricted toward base, lateral sides broadly rounded in posterior part. Right bank of Lianghegou River, western slope of Mount Ubaoshan.
***S. pilifer discicollis* ssp.n.**

- Exterior striae of elytra effaced. Aedeagus (Fig. 68). Central Sichuan: pass between Tianguan and Luding villages.
***S*. sp.n. Moravec & Wrase, in litt.**

5 Large-sized species, body length over 8 mm. 17-18 discal pores on each elytron. Eyes smaller, 3rd antennomere more than 1.5 times as long as length of eye. Distal piece of endophallus armature anisotopous (Fig. 69). Southern Sichuan: right bank of Lianghegou River, western slope of Mount Ubaoshan.

***P. giganteus* sp.n.**

- Smaller species, body length less than 7 mm. 10-13 discal pores on each elytron. Eyes larger, 3rd antennomere 1.05-1.40 times as long as length of eye. Distal piece of endophallus armature symmetrically shaped (Figs 70 and 71).

6

6 Larger species, body length over than 6.75 mm. Lateral margins of pronotum very widely beaded, especially in posterior part, hind angles of pronotum obtusangular (Fig. 31). Aedeagus much longer, arcuate, with hooked apex (Fig. 71). Southern Sichuan: northeast of Mount Yuanbaoshan.

***P. marginalis* sp.n.**

- Smaller species, body length up to 6.65 mm. Lateral margins of pronotum rather narrowly beaded, hind angles of pronotum mostly rectangular (Fig. 30). Aedeagus smaller, step-like bent, with simple, only slightly dilated apex (Fig. 70). Southern Sichuan: northeast of Mount Yuanbaoshan.

***P. glabricollis* sp.n.**

Genus *Agonotrechus* Jeannel, 1923

Agonotrechus Jeannel, 1923: 428, type species: *Trechus birmanicus* Bates, 1892.

The genus was repeatedly and thoroughly re-described in recent times. So there is no need to give here its diagnostic features once again. We would like to draw an attention to the only one feature that seemed to be overlooked and caused a certain misunderstanding. There is the presence of a few (often only one in some species) additional setae along the exterior margin of mandibles (Fig. 1). There seemed to be one of these setae that was erroneously considered by Th. Deuve as the taxonomically important seta in the mandibular scrobe: "une particularité suprenante est la position de la soie mandibulaire qui, réduite, est située non pas à l'extrémité distale du scrobe …, mais sur le bord de la mandibule" (Deuve, 2000). Since we had an opportunity to study this character state only in a few available *Agonotrechus*, we are not yet able to draw valid inferences about its taxonomical significance.

Agonotrechus sichuanicola (Deuve, 1989)

Trechus sichuanicola Deuve, 1989a: 317 (type locality - Huanglong).

Agonotrechus sichuanicola: Uéno, 1998a: 65.

Aedeagus with rather wide apical portion (both in dorsal and lateral view), almost without bend of ventral side in apical part. We have found the same shape of the aedeagal apex in the populations from the Guangaishan Mountain Range. In closely related *A. ventrosior* (Deuve, 1995), the male genitalia are similar except the ventral margin of the median lobe is more strongly bent in apical part (i.e. the apex is more clearly attenuated downward).

Agonotrechus dubius Belousov & Kabak, sp.n.

Figs 1, 5, 50, 64.

Holotype: ♀ (ZISP), CH, S Gansu, SSW Minxian 9 km NE Luoda, NE Jiabu, H=3000-3200m, 13.07.2002 (Belousov & Kabak leg.) [34° 01' N / 104° 03' E].

1 specimen measured.

Description. Very large-sized species, body length 5.85 mm. Habitus robust, convex and elongate. Inner wings reduced, though metepistera considerably longer than wide. Color of upper-side dark pitchy-black. Pronotum, both anterior and posterior parts of head, elytral suture, margins and sometimes basal part of elytra brownish. Legs and antennae reddish-brown, femora vaguely obscured. Surface strongly iridescent, with clear bronze-greenish luster.

Head flat, rather small (PW/HW: 1.43), of elongate shape, neck constriction well-developed. Eyes very large, convex (EyL/L3: 1.35), about 3.6 times as long as genae which are plane and glabrous. Frontal furrows arcuate, close to one another in middle, feebly divergent anteriad and strongly posteriad, distinctly impressed in posterior part near parietal transverse impression. Labrum with anterior margin slightly salient medially, barely sinuate laterally (Fig. 1). Antennae long and filiform (EL/AL: 1.18), their third segment about 2.4 times as long as wide. Mandibles slender, tooth of right mandible fused, bidentate, with deep and regular emargination. Outer edge of mandible with a row of 4 setae near its base. Except for this, chaetotaxy usual for members of the genus: 6 setae on labrum, two pairs of clypeal setae. On each side, two supraorbital setae, of which the anterior strongly, posterior weakly foveolate, the latter a little behind posterior edge of eye. Frons and surface lying mediad of eyes obliquely strigose. Labial tooth with wide and obtusely truncated apex, distinctly grooved ventrally. 6 usual submental setae.

Pronotum rather flat and very transverse (PW/PL: 1.48), slightly constricted toward base (PW/PB: 1.26). Lateral sides broadly rounded anteriorly, briefly sinuate before hind angles; latter small, pointed apically, directed backward and outward. Anterior angles broadly rounded, strongly salient anteriad. Base of pronotum broad (PA/PB: 0.74) and deeply bisinuate (Fig. 5). Anterior margin slightly salient medially. Two lateral setae: anterior in apical third and posterior in hind angles. Marginal bead of pronotum wide and strongly reflexed, especially posteriorly. Basal transverse impression except lateral parts extremely shallow, partly interrupted. Apical transverse impression vague, angulate. Basal foveae of medium size, moderately impressed. Discal fovea barely perceptible, very shallow. Basal surface mostly glabrous, weakly rugose and barely punctured. Apical surface with a few very fine punctures. Median line distinct, deepest near basal transverse impression.

Elytra medium-sized (EW/PW: 1.50; EW/HW: 2.15), elongate and subparallel-sided (EL/EW: 1.45), convex though slightly depressed on disc, with maximum width near their mid-length (Fig. 50). Shoulders strongly prominent. Elytral apex broadly rounded. Marginal gutter of elytra wide, strongly reflexed but narrower than that in posterior part of pronotum. All elytral striae complete, deep and coarsely punctured, stria 2 well-engraved up to elytral apex. Striae 6 and 7 joining in very beginning of apical fifth of length of elytra. Scutellar pore present, scutellar striole deep and sharply engraved. Apical striole of moderate length, well-engraved, outwardly carinate, about parallel to longitudinal axis of body, joining stria 5 anteriorly. Interspaces subconvex. Interval 9 almost as wide as marginal bead, a little wider in anterior half and a little narrower in posterior. Two discal pores, both located in stria 3: anterior one at level between umbilicate pore 3 and 4, posterior discal pore distinctly before umbilicate pore 5. Preapical pore attached to stria 2, not far from elytral apex, behind level of umbilicate pore 7, a little behind anterior end of apical striole. Discal formula 15, 46, 88. Umbilicate series well-aggregated, its formula 7,11,16,20,54,58,85,92. All umbilicate pores nearly at the same distance from lateral margin. Apical triangle elongate. Angulo-apical pore considerably closer to suture than to exterior pore.

Microsculpture rather shallow, comprised of irregular weakly transverse meshes on head, strongly transverse meshes or transverse lines on elytra and pronotum, becoming shallower on disc of pronotum and especially head. All surface with strong iridescent luster. Abdominal sternites glabrous, each with 2 paramedian setae, except sternite 3 and anal sternite (the only specimen known is female) both bearing 4 setae along their posterior margin.

Foretibiae with two sharp grooves on anterior-exterior surface, distinctly pubescent in distal part.

Female genitalia (Fig. 64) rather small, with a wisp of rather long setae on inner margin of hemisterna, stylus with two tiny hairs near apex.

Notes. The following characters seem to be of great importance: the labrum without incision, rectilinear, even slightly salient medially, mandibles slender, discal pore 2 situated about the mid-length of the elytra, and the presence of 4 setae along the exterior edge of the mandibles (Fig. 1). Three first characters allow us to place this species closely to *A. wuyipeng* Deuve, 1992b. Additionally *A. dubius* sp.n. shares with the mentioned species elongate habitus with long, somewhat parallel elytra and large convex eyes that suggest the species to inhabit free open biotopes. Unfortunately we know nothing about additional mandibular setae in *A. wuyipeng,* but it seems quite likely that this feature may be also shared by both the species. Thus, only the reduction of the hind wings and rough punctuation of the elytral striae discriminate the new species from *A. wuyipeng.* The first of these characters does not seem to be of major importance since there are a lot of carabid species with wing polymorphism. On the contrary, the latter feature seems to be rather reliable, especially bearing in mind that the week punctuation of elytral striae in *A. wuyipeng* was noticed by both Th. Deuve (1992b) in his original description and S.-I. Uéno (1999a) for additional topotypical specimens. At last, 6 submental setae instead of 8 in *A. wuyipeng* must be mentioned. It is difficult to evaluate the taxonomic significance of this difference because it was revealed on the basis of two specimens available for *A. wuyipeng* and only one for the species described. This character was not mentioned for the additional topotypical specimen (or specimens) available for S.-I.Uéno (Uéno, 1999a). *A.dubius* sp.n. differs from *A. wuyipeng* apart from the characters listed above by its smaller size (5.85 mm vs. 6.5 in *A. wuyipeng*) and different proportions, especially by the larger pronotum (PW/HW: 1.43 vs. 1.34 in *A. wuyipeng,* EW/PW: 1.50 vs. 1.57; and EL/PL: 3.22 vs. 3.31; the ratios for *A. wuyipeng* are given sensu S.-I. Uéno, 1999a).

Distribution. The type locality of the new species lies in southern Gansu at a distance of more than 300 km northeast of the type locality of allied *A. wuyipeng*. The new species is sympatric with much more common *A. sichuanicola* (Deuve, 1989a) which seems to be widespread in northern Sichuan and southern Gansu.

Habitats. The species was found in the upper forest zone, at an elevation of 3000-3200 m in decaying wood debris.

Agonotrechus lunanshanus Belousov & Kabak, sp.n.

Figs 3, 7, 72.

Holotype: ♂ (ZISP), China, S Sichuan, S of Xichang, crest SE of Mt. "4282" (NE of Dechang), 3800-3900 m, 04.05.2001 (Belousov & Korolev leg.) [27° 32’ N / 102° 22’ E].

Paratypes: 24(2) ♂, 30(1) ♀ (ZISP, IZK, MPU, cBK, cAG, cAK), collected together with holotype. — 25(6) ♂, 19(1) ♀ (ZISP, IZK, MPU, cBK, cAG, cAK), China, S Sichuan, S of Xichang, E slope of Mt. "4282" (NE of Dechang), 3800-3200 m, 05.05.2001 (Belousov & Korolev leg.).

27 specimens measured.

Description. Lage-sized species, body length 4.96-5.66 (x*=5.38) mm. Habitus robust and convex. Color of upper-side dark reddish-brown, anterior part of head (in front of clypeal suture) pronotum, elytral suture, margins and sometimes basal part of elytra lighter. Legs and antennae either uniformly reddish or more or less strongly obscured beginning with apical portion of antennomeres 4-5. Surface strongly iridescent, with clear bronze-greenish luster.

Head very small (PW/HW: 1.49-1.58, x*=1.53), of elongate shape, neck constriction well-developed. Eyes medium-sized, subconvex (EyL/L3: 0.83-1.04, x*=0.94). Genae plane, glabrous (Fig. 3). Frontal furrows subparallel, only feebly approached in middle, deeply impressed in posterior part near parietal transverse impression. Antennae long and filiform (EL/AL: 1.04-1.17, x*=1.11). Mandibles stout, tooth of right mandible almost bidentate, median tooth being strongly reduced.

Pronotum rather flat and very transverse (PW/PL: 1.38-1.59, x*=1.51), slightly constricted toward base (PW/PB: 1.22-1.35, x*=1.28). Lateral sides broadly rounded anteriorly, briefly sinuate before hind angles; latter small, acutangular, directed backward and outward. Anterior angles broadly rounded, weakly salient. Base of pronotum broad (PA/PB: 0.73-0.83, x*=0.78). Basal margin rectilinear in median part, obliquely truncate and produced distinctly backward on sides (Fig. 7). Anterior margin rectilinear, often somewhat salient medially. Marginal bead of pronotum very wide strongly reflexed, distinctly dilated posteriorly. Basal transverse impression lightly engraved, more distinct laterally and almost completely obliterated medially; apical transverse impression vaguely delimited, especially medially. Basal foveae shallow, of medium size. Basal surface mostly glabrous, apical one normally with a few faint longitudinal wrinkles. Median line distinct, a little deeper near basal and apical transverse impressions.

Elytra medium-sized (EW/PW: 1.50-1.68, x*=1.58; EW/HW: 2.32-2.55, x*=2.41); very broad (EL/EW: 1.19-1.35, x*=1.26) and convex, with maximum width a little behind mid-length. Basal part of elytra with well-developed tubercle near peduncle of mesosternum. Basal slope of elytra unclearly impressed in median part, interval 4 therefore with a small cristula in basal part. Shoulders strongly prominent, lateral sides behind these subrectilinear, then broadly arcuate, elytral apex rounded and slightly attenuate compared with elytral base. Marginal gutter of elytra wide, especially in area of humeral umbilicate pores where it is strongly reflexed and curved upward, but even there narrower than marginal bead in posterior part of pronotum. All elytral striae continuous, deeply impressed, coarsely punctured. Striae 6 and 7 joining in very beginning of apical fifth of elytral length. Scutellar striole present. Apical striole short, shallow and rectilinear, directed forward or slightly outward and joining stria 5 anteriorly. Interspaces subconvex. Interval 9 almost as wide as marginal bead, a little wider in anterior half. Two discal pores, both located in stria 3, preapical pore attached rather to stria 2, than to interval 3. Preapical pore located far from elytral apex, markedly in front of anterior end of apical striole. Discal formula 11-15 (13), 41-53 (46), 83-93 (89). Umbilicate series well-aggregated, especially humeral group compact. Apical triangle subequilateral, angulo-apical pore just in middle between exterior pore and suture.

Microsculpture rather obsolete, comprised of irregular isodiametric meshes on head, strongly transverse meshes on pronotum and transverse lines on elytra, faint medially on disc of head.

Foretibiae distinctly grooved externally, their anterior surface pubescent. Two dilated articles of male protarsi, these articles rather weakly dentate.

Aedeagus (Fig. 72) rather small, weakly and gradually curved, with relatively thick apex in lateral view and moderately elongate lamella in dorsal view. Sagittal aileron present. Parameres with straight distal parts, each bearing 4 apical setae. Endophallus armature comparatively short.

Notes. The new species seems to be most closely related to *A. sichuanicola* (Deuve, 1989a), externally differing from it mostly in having the lighter color of the upper-side with a distinct bronze-greenish luster (mainly blue in *A. sichuanicola*), shorter and more convex temples, more transverse pronotum with the marginal bead more clearly cut from disc, well-developed tubercle on the base of the elytra. The aedeagus is similar except its apex is thicker, lamella much narrower in dorsal projection and the endophallus armature is smaller (Fig. 72). It is worth noting that in the male genitalia, this species is more similar to *A. sichuanicola* than to *A. farkaci* Deuve, 1995, though the type locality of the latter is incomparably closer.

Distribution. For the time being, this species is known only from the type locality, situated in the northwestern extremity of the Lunan Shan Mountain Range within southern Sichuan.

Habitats. The species abounds in the upper forest zone, mainly in the damp leaf litter of *Rhododendron* bushes at elevations of 3200-3900 m.

Agonotrechus trechoides Belousov & Kabak, sp.n.

Figs 2, 6, 73.

Holotype: ♂ (ZISP), China, S Sichuan, NW of Mt. Yuanbaoshan, right bank of Lianhegou (=Lianghegou) Riv., 3850-3900 m, 22.06.2000 (Belousov & Kabak leg.) [28° 36' N / 102 ° 53' E].

Paratype: 1(1) ♀ (cBK), collected together with holotype.

2 specimens measured.

Description. Small-sized species, body length 4.80-4.90 mm. Habitus subparallel and rater flat. Color of upper-side dark brown-blackish, anterior part of head (in front of clypeal suture), pronotum, elytral suture, margins and sometimes basal part of elytra lighter. Legs and antennae obscured beginning with apical portion of antennomeres 4-5. Surface moderately iridescent.

Head rather large (PW/HW: 1.27-1.32), of round shape, neck constriction distinct but not very narrow (Fig. 2). Eyes rather large, subconvex (EyL/L3: 1.12-1.26). Genae short and convex, glabrous. Frontal furrows arcuate, distinctly approached in middle, deeply impressed in posterior part near parietal transverse impression. Latter deep but not ample. Antennae of moderate length, filiform (EL/AL: 1.15-1.17).

Pronotum rather flat and transverse (PW/PL: 1.46-1.49), moderately constricted toward base (PW/PB: 1.26-1.32). Lateral sides broadly rounded anteriorly, very briefly sinuate before hind angles; latter small, acutangular, directed outward. Anterior angles hardly visible, not salient. Base of pronotum broad (PA/PB: 0.83-0.85). Basal margin rectilinear throughout (Fig. 6). Anterior margin straight. Marginal bead of pronotum of medium width, strongly reflexed, distinctly dilated posteriorly. Basal transverse impression shallow and vaguely outlined; apical transverse impression vague; basal foveae rather large butpoorly impressed, with a few wrinkles in bottom. Basal and apical surfaces weakly rugose medially. Median line distinct, barely deeper near basal and apical transverse impressions.

Elytra small-sized (EW/PW: 1.48-1.50; EW/HW: 1.89-1.95), broad (EL/EW: 1.33-1.40) and rather flat, with maximum width a little behind mid-length. Basal part of elytra without distinct tubercle near peduncle of mesosternum. Shoulders weakly prominent, lateral sides mostly subparallel-sided, elytral apex somewhat truncate and broadly rounded. Marginal gutter rather narrow, much narrower than on pronotum, becoming very thin toward anterior end but reaching stria 5. Elytral striae shallow, distinctly punctured. Scutellar striole feebly engraved. Apical striole very short, shallow and rectilinear, almost parallel to suture and joning stria 5 anteriorly. Outer carina barely perceptible. Interspaces flat. Interval 1 only a little narrower than others. Two discal pores, both located in stria 3 though anterior one may sometimes be shifted onto interval 3. Anterior discal pore at level between umbilicate pores 2 and 3, posterior one markedly behind median group of umbilicate series; preapical pore located far from elytral apex, markedly in front of anterior end of apical striole. Discal formula 13-14, 41-43, 89-96. Umbilicate series well-aggregated, especially humeral group compact. Apical triangle slightly elongate.

Microsculpture rather obsolete, comprised of almost isodiametric meshes on head, strongly transverse meshes on pronotum and transverse lines on elytra, faint medially on disc of head.

Foretibiae distinctly grooved externally, their anterior surface pubescent.

Aedeagus (Fig. 73) rather small, weakly and gradually curved, its apical lamella narrow, attenuated downward. Sagittal lobe present. Parameres barely curved, left one longer and provided with ventral apophysis. Endophallus armature comparatively short, as in the previous species.

Notes. The new species is easily distinguished from all hitherto known congeners by its trechoid appearance: short head with short and convex temples, less strongly reflexed lateral margins of pronotum, nearly rectilinear basal margin of the latter, smaller and flatter elytra with less deep striae and narrower marginal bead. In the shape of the aedeagus, the new species is most similar to *A. lunanshanus* sp.n., but differs easily apart from the external

characters listed above by the apical lamella of the aedeagus, which is much narrower in dorsal view (Fig. 73 vs. Fig. 72).

Distribution. *Agonotrechus trechoides* sp.n. is known only from Mount Yuanbaoshan, situated SSE of the town of Ganluo (southern Sichuan).

Habitats. The species was found on rocky slopes a little above the timber-line at an elevation of 3850-3900 m.

Genus *Paragonotrechus* Uéno, 1981

Paragonotrechus Uéno, 1981: 2, type species: *Paragonotrechus paradoxus* Uéno, 1981.

Paragonotrechus sinicola (Deuve, 1989)

Agonotrechus sinicola Deuve, 1989b: 231 (type locality - Shaanxi, Ningshan, Huoditang).

? *Paragonotrechus laticollis* Uéno & Yu, 1997: 29, fig. 4-6 (type locality - Hefeng, Hubei).

? *Agonotrechus sinotroglophilus* Deuve, 2000: 152, fig. 1, 9 (type locality - Banjiao au sud de Fengjie, Hubei).

Material: 1(1) ♂, 1(1) ♀ (cBK), China, C Sichuan, Xiling Snow Mts 1300-2100 m, 29-31.07.1996 (Kasantsev leg.). — 1(1) ♂ (cBK), China, C Sichuan, Xiling Mt. 2900 m, 1.08.1996 (Kurbatov leg.). — 1 ♀ (cBK), China, Sichuan, SSW of Shimian, SE slope of Mt. "4977", W of Lijipin (=Liziping) Vill., 2000 m, 2.07.2000 (Belousov & Kabak leg.) [28° 55' N / 102° 11' E].

4 specimens measured.

Since the species is available only in a few specimens, we give here some ratios to make it possible to complete data on its geographic variation.

Description. Inner wings fully developed. Body length 5.74-6.42 (x*=6.02, vs. 5.30-6.0 mm in Uéno & Yu, 1997 without labrum) mm. Amber testaceous, with uniformly light appendages.

Head flat and very narrow (PW/HW: 1.33-1.42, x*=1.38). Eyes rather large and conically prominent (EyL/L3: 0.70-0.76, x*=0.74), 1.20-1.44, x*=1.28 times as long as temples, which are glabrous, plane and rather long. Frontal furrows weakly bent, subparallel, somewhat angulate. Antennae long and filiform (EL/AL: 0.76-0.80, x*=0.78). Parietal transverse impression very shallow. Mandibles rather slender, their outer edge with 2-3 small setae.

Pronotum subquadrate, of medium width (PW/PL: 1.31-1.36, x*=1.33), slightly constricted toward base (PW/PB: 1.22-1.27, x*=1.24). Lateral sides weakly rounded posteriorly and strongly rounded anteriorly, shallowly sinuate before hind angles; latter rectangular, pointed apically. Anterior angles broadly rounded but salient. Base of pronotum broad (PA/PB: 0.74-0.79, x*=0.76). Basal margin rectilinear medially, truncated backward laterally. Anterior margin feebly concave, sometimes slightly salient medially. Marginal bead of pronotum widely reflexed, distinctly dilated and strongly curved upward posteriorly. Basal transverse impression sharp, deep and gradually arcuate. Apical transverse impression more distinct laterally. Basal foveae large, smooth and deep. Basal surface smooth, or weakly rugose medially. Median line distinct, deeper near base. Two usual lateral pores, the posterior just in hind angles.

Elytra convex, very large (EW/PW: 1.70-1.73, x*=1.71; EW/HW: 2.29-2.43, x*=2.36), of medium width (EL/EW: 1.44-1.47, x*=1.46), widest a little before mid-length. Elytral apex narrowly rounded. Shoulders strongly projecting. Marginal gutter of elytra very wide, almost as wide as that of pronotum in broadest part. Elytral striae continuous, shallowing toward apex, all striae roughly punctured. Scutellar striole deep and sharp, carinate, its hind end surpassing the level of anterior discal pore. Scutellar pore present. Stria 5 strongly impressed at base. Stria 8 slightly sinuate at level of umbilicate pores 7 and 8. Anterior termination of lateral border strongly bent. Intervals rather flat, interspace 9 about as wide as marginal gutter. Interval 1 about as wide as others in anterior part and 0.5 width of other interspaces in posterior part of elytra. Anterior discal pore between umbilicate pores 2 and 3, on interspace 3 closely to stria 3. Discal formula 13-16 (15), 85-89 (87). Apical

triangle extraordinarily elongate, more than 3 time longer than wide. Preapical pore set clearly before anterior end of apical striole; latter short and sharp, joining stria 5 anteriorly. Umbilicate series well-aggregated, only pores 7 and 8 considerably wider spaced than others.

Microsculpture comprised of strongly transverse meshes on head, nearly isodiametric on occipital part, of irregular transverse meshes on pronotum and transverse lines on elytra, shallowing medially on disc of pronotum and head.

Foretibiae sharply grooved externally and clearly pubescent on anterior surface in distal part.

Aedeagus slender, with characteristically modified apex.

Table 1. Data on geographic variation of *Paragonotrechus sinicola* (Deuve, 1989).

Indexes	**Localities**						
	Hefeng	Daba Shan	Qionglai	Xiling	Liziping	Daliang Shan	Gongga Shan
Body length, mm*	5.50	5.3-5.55	6.0	5.56-5.95	6.22	5.45-5.90	6.10
PW/PL	1.28	1.24-1.26	1.32	1.31-1.36 (1.34)	1.32	1.26-1.32	1.30
PW/HW	1.36	1.29	1.34	1.33-1.42 (1.37)	1.40	1.38-1.39	1.36
EL/EW	1.44	1.48-1.50	1.51	1.46-1.47 (1.46)	1.44	1.41-1.45	
EW/PW	1.66	1.72-1.73	1.73	1.70-1.73 (1.71)	1.71	1.74-1.78	
EL/PL	3.06	3.21	3.44	3.32-3.38	3.25	3.16-3.33	

*Body length is measured from the anterior margin of clypeus to the apex of elytra.

Notes. The presence of 2-3 setae on outer edge of mandibles is worth noting. This feature confirms the closeness of the genera *Paragonotrechus* and *Agonotrechus* and seems to be highly varying interspecifically in both these groups. The above description and morphometric ratios obtained from our material agree with those given by S.-I. Uéno and Yu P.-Y. (1997). Indeed, the specimens from Sichuan appear to possess somewhat wider pronotum, less constricted basally. In table 1 are given the data on geographic variation of all measured specimens, including those of S.-I. Uéno and Yu P.-Y. (1997) and S.-I. Uéno (1999b). This variation may be summarized as follows: the type specimen of *P. laticollis* Uéno & Yu, 1997 and the two known specimens from the Daba Shan Mountains are rather small (5.3-5.55 mm vs. 5.45-6.22 mm for all other specimens) as was already mentioned by the above authors. Newly available material matches this pattern. Additionally, these specimens possess relatively narrow pronotum (PW/PL: 1.24-1.28 vs. 1.26-1.36 for other

sites). The type specimen of *P. laticollis* is distinct in having very short pronotum as compared with elytra (EL/PL: 3.06 vs. 3.16-3.44). The two specimens from Daliang Shan are characterized by the widest elytra (EL/EW: 1.41-1.45 vs. 1.44-1.51; EW/PW: 1.74-1.78 vs. 1.66-1.73). Therefore, despite certain apparent tendencies we agree with S.-I. Uéno that the observed differences do not strictly correlate with geographic origin and must be considered as a matter of individual variation. The genitalia of our male specimen are more similar to the figure made by Th. Deuve for *P. sinicola* from Shaanxi than to that published by S.-I. Uéno, though our material originates from within the presumed area of *P. laticollis*. So for the moment, it seems highly probable that all three names – *P. sinicola* (Deuve, 1989), *P. laticollis* Uéno & Yu, 1997 and *Agonotrechus sinotroglophilus* Deuve, 2000 – correspond to one highly variable species. This question needs further consideration.

Distribution. The species was described from Shaanxi (Daba Shan Mountains) and was recorded from Hubei and different localities within western and southern Sichuan (Uéno & Yu, 1997). Later the species was found in the vicinity of the Gongga Shan Mountains (Uéno, 1999b). The new localities spread a little the known species' range southwestward. The above cited mountains west of Liziping are located southward of the line connecting the Gongga Shan Mountains and Dafengding).

Habitats. The species occurs in the forest zone at low elevations.

Paragonotrechus apterus Belousov & Kabak, sp.n.

Figs 4, 8, 47, 74.

Holotype: ♂ (ZISP), China, Sichuan, right bank of right trib. of Lianhegou (=Lianghegou) River, SSW of Jimi Vill., 2400-2500 m, 25.06.2000 (Belousov & Kabak leg.) [28° 41' N / 102° 55' E].

Description. Apterous, medium-sized species, body length 5.80 mm. Appendages long and slender. Uniformly amber testaceous. Surface shining and iridescent, especially strongly on disc of pronotum.

Head very small (PW/HW: 1.44). Eyes reduced (Fig. 4), without facets, replaced by a vaguely delimited spot which is 0.22 length of antennomere 3. Genae long and weakly convex, glabrous. Frons impressed. Frontal furrows indistinct in posterior part, reaching approximately level of posterior supraorbital seta, subangulate in middle, hardly divergent posteriad and more distinctly anteriad. Supraorbital setae long, but their pores, including anterior one, simple, not foveolate. Palpi and mandibles rather short and stout compared with *Paragonotrechus sinicola* (Deuve, 1989). Exterior margin of mandibles with a small seta, which is considerably shorter than those setae in *P. sinicola.* Antennae long and filiform (EL/AL: 0.78).

Pronotum (Fig. 8) relatively convex on disc, of medium width (PW/PL: 1.34), moderately constricted toward base (PW/PB: 1.31). Lateral sides strongly rounded anteriorly, straitened posteriorly, briefly sinuate before hind angles and somewhat protruding before posterior lateral seta which is markedly shifted anteriad. Hind angles acutangular, with pointed apex. Anterior angles salient though broadly rounded. Base of pronotum broad (PA/PB: 0.84). Basal margin subrectilinear medially, incised laterally. Anterior margin concave. Marginal bead of pronotum broad, extraordinarily strongly widened and raised upward posteriorly. Basal transverse impression rather deep, but not sharply outlined, parallel and close to basal margin, angularly bent near basal foveae. Apical transverse impression obsolete. Basal foveae of moderate size, not deep. Basal and apical surfaces finely rugose. Median line distinct though throughout shallow.

Elytra medium-sized (EW/PW: 1.59; EW/HW: 2.29), oblong (EL/EW: 1.49), broadest in anterior third, their apical part rather narrowly rounded (Fig. 47). Shoulders very strongly projecting, base of elytra perpendicular to longitudinal axis of body. Basal part of elytral disc with a triangular impression, summit of which is directed backward and lateral sides coincide with line "shoulder - anterior discal pore". Posterior third of elytra very strongly sloped. Marginal bead of elytra rather wide, but much narrower than that of pronotum, slightly reflexed throughout, widest between humeral and median groups of umbilicate series. Lateral border of elytra prolonged far anteriad and joining base of stria 4-5 in one point. Elytral striae continuous and deep, striae 1-2 finely, others roughly punctured.

Intervals subconvex. Scutellar striole long. Apical striole very short and weak, joining stria 7 anteriorly, without distinct outer carina. Anterior discal pore removed far from base of elytra and located at level behind umbilicate pore 4, adjoining stria 3, which is sinuate in front of it. Preapical pore in stria 2, the latter without distinct connection with stria 3 in this site. Discal formula 23, 84. Apical triangle strongly elongate, its lateral sides about 3-4 times as long as its base. Umbilicate pores regularly aggregated, though setae 2, 6 and especially 8 much longer and situated closer to lateral margin of elytra. Since umbilicate pore 7 about twice as distant from lateral margin as pore 8, stria 8 sharply bent here.

Microsculpture shallowly engraved, comprised of irregular transverse meshes on head, more transverse meshes on pronotum and transverse lines on elytra.

Foretibiae grooved on exterior and pubescent on anterior surfaces.

Aedeagus (Fig. 74) slender, sinuate medially in lateral view, its distal part attenuated downward. Apical lamella short and broadly rounded in dorsal aspect. Sagittal aileron well-developed. Parameres comparatively wide, nearly straight in distal half, left one longer and provided with small ventral apophysis. Endophallus armature short, placed in apical quarter of median lobe.

Notes. The new species is distinct within the genus in lacking eyes and hind wings. From allied *Paragonotrechus sinicola* (Deuve, 1989b) it can be easily distinguished apart from the above characters by a peculiar shape of pronotum with strongly raised hind angles, more stout mandibles, elytra strongly impressed at base, anterior discal pore located behind the level of umbilicate pore 4 and some other characters. The aedeagus is distinct in a simple widely rounded apex.

Distribution. This species is known only from the type locality, located in the gorge of the Lianghegou River (south of the town of Ganluo in Southern Sichuan).

Habitats. The only specimen known was obtained from under a deeply embedded stone near dropping water in the broad-leaved forest, at an elevation of 2400-2500 m.

Genus *Ushijimaella* Uéno, 1980

Ushijimaella Uéno, 1980: 141, type species: *Ushijimaella pilosistriata* Uéno, 1980.

The genus was established for a Korean Trechine beetle (Uéno, 1980). Later, two more members of the genus were described from Shaanxi Province of China (Moravec & Wrase, 1998). Below a further two species and one subspecies are described from Sichuan, China. These species are closely related to one another and differ from so far known species in having two anterior setiferous pores in striae 3 and 5 on the elytra as well as hairs restricted mainly to the uneven elytral striae and mostly lacking in the even striae. A peculiar state of the discal chaetotaxy allows us to interpret different state of this character in earlier described species rather as a result of reduction than of displacement.

The available material does not suggest clear common patterns in sexual dimorphism of members of the genus *Ushijimaella* except for the antennae that seem to be significantly longer in males (by 0.03-0.04 in the ratio of the antennal length to the elytral length). Other secondary sexual characters are either insignificantly different or observed only in one species (for example, females of *Ushijimaella lucida* turned out to be significantly greater than males).

Ushijimaella zvarici Belousov & Kabak, sp.n.

Figs 23, 48, 62.

Holotype: ♂ (cBZ), China, prov. Sichuan, Wenchuan env., 1-2.06.1997, 1700-2700 m (B. Zvarič lgt.).

Paratypes: 7(2) ♂, 5 ♀ and 3 ex. (ZISP, cBZ, cBK), collected together with holotype.

13 specimens measured.

Description. Medium-sized species of rather slender shape, body length 3.56-3.99 (x*=3.82) mm. Appendages long but rather robust. Antennae almost reaching mid-length of elytra. Color of upper-side usually rather dark and contrasting: disc of elytra blackish, suture, margins and base of elytra reddish; pronotum and anterior part of head amber

reddish. Seldom upper-side uniformly amber brownish, with darker disc of elytra. Legs and antennae uniformly reddish yellow. Surface strongly iridescent.

Head medium-sized (PW/HW: 1.28-1.35, x*=1.32). Eyes regularly convex, not large, almost as long as antennomere 3 (L3/EyL : 0.95-1.24, x*=1.03). Genae clearly convex in posterior part, normally with several very long hairs. Frontal furrows regular, sometimes subangulate. Mandibular tooth with relatively short base, distinctly divided into premolar and bidentate retinacle. All denticles rather stout, distal denticle of retinacle considerably longer than premolar, median denticle shortest. Antennae filiform, rather thick, though long (EL/AL: 0.94-1.01, x*=0.98).

Pronotum (Fig. 23) massive, strongly convex, slightly transverse (PW/PL: 1.08-1.19, x*=1.13), cordate, very strongly constricted toward base (PW/PB: 1.49-1.75, x*=1.68). Lateral sides regularly rounded anteriorly, linearly convergent toward base of pronotum, straight or barely sinuate before hind angles; latter small, obtusangular, usually pointed apically, leaving lateral surfaces of prosternum visible from above. Anterior angles rounded. Basal margin rectilinear, oblique and emarginate on sides near hind angles. Anterior margin rectilinear or slightly convex, clearly wider than base of pronotum. Lateral border of pronotum continuous, though fine, reaching hind angles. Marginal bead rather regular throughout, often even somewhat wider in posterior half of pronotum. Basal transverse impression moderately deep, vaguely delimited, subparallel to basal margin of pronotum and strongly bent in basal foveae, with a deep foveola on each side (not counting one in basal fovea). Apical transverse impression vague though traceable laterally. Basal foveae small and moderately deep. Discal foveae shallow or even hardly perceptible. Basal surface strongly and densely rugose. Median line long, almost reaching both anterior and posterior margins of pronotum, deeper near base. Two usual lateral setae of pronotum, anterior one in anterior third and posterior one in hind angles. Apart from these, pronotum with 80-90 hairs regularly spread over its disc, including anterior margin near front angles.

Elytra medium-sized (EW/PW: 1.43-1.53, x*=1.48; EW/HW: 1.87-2.01, x*=1.95), narrow (EL/EW: 1.45-1.54, x*=1.50), quadriangular, with subparallel median part, and narrowly attenuated basal part, broadest a little behind mid-length (Fig. 48). Their disc convex, especially laterally, flattened or even impressed along suture. Lateral sides rectilinearly divergent in anterior part, obtusangular at shoulders, slightly concave just behind these, broadly rounded in middle part, sinuate behind level of umbilicate pore 8. Marginal gutter of elytra throughout well developed, wider than that of pronotum, lateral border with hook anteriorly near basal part of stria 5. Striation peculiarly modified: only two internal striae (seldom three) more or less clearly engraved, especially stria 1 in apical quarter sharply impressed, others, if present, fragmentary and hardly perceptible; stria 7 very deep and sharp in posterior half, surpassing umbilicate pore 5 anteriad and then abruptly interrupted. Scutellar striole well-developed, directed anteriorly to scutellar pore. Apical striole of medium length, weakly arcuate, its anterior end bent inward, without connection with any of discal striae. Apical carina well-defined. Intervals rather flat. All elytral hairs, unlike those on disc of pronotum, strongly foveolate. Discal setae of elytra a little longer than these hairs. Usually two well-developed setiferous pores on each elytron near its base: one in stria 3 and another one in stria 5. One further, less distinct setiferous pore in stria 5 approximately in middle of elytra, at level considerably before umbilicate pore 5. Posterior pore in stria 3 lacking or, at least, indistinguishable among elytral hairs. Preapical pore in anastomosis of striae 2 and 3 near level of anterior end of apical striole. Apical triangle complete, i.e. consisting of 3 pores, of which angulo-apical and preapical pores are most distant, exterior pore in middle between these. Hairs on elytra located as follows. 20-22 in stria 1, 5-8 in anterior part of stria 2, 14-15 in stria 3, 2-3 in stria 4, 10-12 in stria 5, 12-14 in stria 6. Hence, excepted for stria 6, all even striae bear much less setae. All pores of umbilicate series attached to marginal bead. Pores of humeral group in aggregate condition, pores 1 and 2 most closely settled, pores 7 and 8 most widely spaced.

Microsculpture comprised of irregular faint meshes on head and pronotum, strongly transverse and irregular meshes on elytra. All upper-side distinctly micropunctured.

Foretibiae distinctly but not deeply grooved on exterior surface, mostly glabrous,

only with 2-3 small hairs on anterior surface. Two proximal segments of male protarsi strongly dilated, each with tooth produced inward.

Aedeagus (Fig. 62) small, strongly curved, its distal part almost straight. Sagittal lobe very small. Endophallus armature vaguely defined. Parameres relatively short, each bearing 4 setae apically, left one distinctly longer, with weakly marked ventral process.

Notes. The new species is easily distinguished from all hitherto known congeners by two anterior discal setiferous pores of elytra located in stria 3 and 5 and more sparse pubescence of elytra confined mostly to uneven striae. Additionally, it is distinct in its smaller size, and poorly sclerotized endophallus armature (Fig. 62).

Distribution. *Ushijimaella zvarici* sp.n. is the first member of the genus found in Sichuan (see also the following species). It was collected in the vicinity of the town of Wenchuan.

Habitats. The species was obtained at elevations of 1700-2700 m.

Derivatio nominis. We are pleased to name this species in honor of our friend and colleague Bogdan Zvarič (Most).

Ushijimaella lucida Belousov & Kabak, sp.n.

Figs 24-25, 49, 63.

Description. Medium-sized species of slender shape, body length 3.21-3.93 mm. Appendages long but rather robust. Antennae almost reaching mid-length of elytra. Color of upper-side variable, from comparatively uniformly amber testaceous (though suture of elytra always lighter than their disc) to contrasting bicolorous: disc of elytra pitchy black, only suture, margins, base and elytral apex reddish; pronotum and anterior part of head amber reddish. Legs and antennae uniformly reddish yellow. Surface strongly iridescent.

Head medium-sized (PW/HW: 1.19-1.37). Eyes regularly convex, small (L3/EyL: 1.05-1.37). Genae clearly convex in posterior part, with sparse and moderately long hairs. Frontal furrows regular and arcuate, sometimes distinctly deeper at their posterior winding. Mandibular tooth with relatively short base, clearly divided into acute premolar and bidentate retinacle. Both denticles of retinacle acute, but distal one very long, considerably longer than premolar; median denticle shortest. Antennae long and filiform (EL/AL: 0.88-1.00).

Pronotum strongly convex, slightly transverse (PW/PL: 1.09-1.25), cordate, very strongly constricted toward base (PW/PB: 1.59-1.81). Lateral sides regularly rounded anteriorly, linearly convergent toward base, barely sinuate before hind angles; latter very small, obtusangular, rounded at apices, sometimes almost reduced, leaving lateral sides of prosternum visible from above (Figs 24-25). Anterior angles rounded. Basal margin rectilinear, oblique and emarginate on sides near hind angles. Anterior margin rectilinear, clearly wider than base of pronotum. Lateral border continuous though very fine, reaching hind angles. Marginal bead of pronotum widest at level of anterior lateral seta, distinctly narrowed posteriorly. Basal transverse impression moderately deep, vaguely delimited, subparallel to basal margin of pronotum and strongly bent in basal foveae, with deep foveola on each side (not counting one in basal fovea). Apical transverse impression not clearly outlined, more distinct laterally and obsolete medially where it is represented either by a plane and extended median impression or by a row of longitudinal foveae. In the latter case, all apical surface of pronotum longitudinally rugose. Basal foveae small and moderately deep. Discal foveae lightly impressed and hardly perceptible. Basal surface weakly or moderately rugose. Median line long, almost reaching both anterior and posterior margins of pronotum, deeper near base. Two usual lateral setae of pronotum, anterior one in anterior third and posterior one in hind angles. Apart from these, pronotum with 13-32 shorter hairs on each side of its disc, of which inners arranged mostly in a longitudinal row of 5-6 hairs, 1-2 hairs often located in lateral bead near anterior angles while others distributed randomly, though usually sparser near base of pronotum.

Elytra medium-sized (EW/PW: 1.48-1.66; EW/HW: 1.87-2.10), narrow (EL/EW: 1.43-1.56), quadriangular, with subparallel median part and narrowly attenuated basal part, widest a little behind mid-length (Fig. 49). Their disc convex, especially laterally, flattened

or even impressed along suture. Lateral sides rectilinearly divergent in anterior part, obtusangular at shoulders, slightly concave just behind these, broadly rounded in middle part, sinuate behind umbilicate pore 8. Each elytron separately rounded at apex. Marginal gutter of elytra throughout well developed, wider than that of pronotum, lateral border with hook anteriorly near basal part of stria 5. Only two internal striae (seldom three) more or less clearly engraved, others, if present, fragmentary and hardly perceptible though even stria 5 sometimes discernible; stria 7 deep and sharp in posterior half, surpassing umbilicate pore 5 anteriad and then abruptly interrupted and completely effaced. Scutellar striole well-developed, directed anteriorly to scutellar pore. Apical striole of medium length, weakly arcuate, its anterior end bent inward, either without connection with any of discal striae or connected to stria 3. Apical carina well-defined. Intervals rather flat. All elytral hairs, unlike those on disc of pronotum, foveolate. 4 discal setae on each elytron, of which a pair attached to stria 3 (not counting preapical pore) and another pair to stria 5. These setae much longer and more strongly erected than hairs of dorsal pubescence. Anterior setiferous pore in stria 3 always located anteriad of anterior pore in stria 5, at level between umbilicate pores 1 and 2 while anterior setiferous pore in stria 5 usually settled at level between umbilicate pores 2 and 3. Posterior pore in stria 5 located a little behind mid-length of elytra, considerably before median group of umbilicate series (before umbilicate pore 5). Posterior pore of stria 3 situated approximately in apical third of elytra at level between umbilicate pores 6 and 7. Preapical pore in anastomosis of striae 2 and 3 near level of anterior end of apical striole. Apical triangle consisting of 3 pores, of which angulo-apical and preapical pores most distant, exterior pore about in middle between these. Hairs on elytra located as follows: 8-16 pores in stria 1, 0-4 in anterior part of stria 2, 6-12 in stria 3, 0-3 in stria 4, 1-11 in stria 5, 6-10 in stria 6. Hence, excepted for stria 6, all even striae bear much less hairs. All pores of umbilicate series attached to marginal bead. Pores of humeral group in aggregate condition Distances between them equal to that between umbilicate pores 5 and 6, while pores of preapical group (pores 7 and 8) are wider spaced.

Microsculpture comprised of irregular faint meshes on head and pronotum, strongly transverse and irregular meshes on elytra. All upper-side micropunctured.

Foretibiae distinctly but not deeply grooved on exterior surface, mostly glabrous, only with 2-3 small hairs anteriorly. Two proximal segments of male protarsi strongly dilated, each with tooth directed inward.

Aedeagus (Fig. 63) small, strongly bent at base, then gradually arcuate. Sagittal aileron reduced. Endophallus armature vaguely defined. Parameres stout, each bearing 4 setae apically, left one longer, without distinct ventral apophysis.

Sexual dimorphism. Males and females are almost identical from the viewpoint of proportions, though in males, the eyes are a little larger (EyL/TL: x*=1.18 in males vs. x*=1.16 in females), antennae a little longer (AL/EL: x*=1.09 in males vs. x*=1.05 in females) and elytra a little wider (EW/HW: x*=1.98 in males vs. x*=2.00 in females).

Notes. The species is closely related to the previous one sharing with it 3 similarly located discal pores (two in anterior quarter of elytra attaching to striae 3 and 5, and one in stria 5 behind mid-length of elytra), as well as hairs restricted mainly to the uneven elytral striae. *U. lucida* sp.n. is readily distinguished from *U. zvarici* sp.n. first of all, by the presence of the posterior discal pore in stria 3, more depressed habitus, much less strongly developed pubescence of genae and considerably sparser hairs of elytra: stria 2 is mostly deprived of distinct hair-bearing punctures at base, while it is provided with at least 4-7 foveolate punctures with hairs in *U. zvarici* sp.n. Additionally, the disc of pronotum is covered by 31-63 hairs in *U. lucida* sp.n. while this number is considerably larger (80-90) in *U. zvarici* sp.n. The base of pronotum is less strongly and densely rugose in *U. lucida* sp.n. . The discal and preapical setae of the elytra are much longer than hairs of the elytral pubescence while they are more similarly shaped in *U. zvarici* sp.n. Viewed laterally, the aedeagus (Fig. 63) is shorter and less strongly curved, gradually attenuated toward apex in *U. lucida* sp.n. (nearly parallel-sided in its counterpart, Fig. 62). Besides the above characters, the two species differ in their ratios, *U. lucida* sp.n. is distinctive in its smaller size (x*=3.54 mm vs. 3.82 in *U. zvarici* sp.n.), smaller pronotum (EL/PL: x*=2.70 vs. 2.51; EW/PW: x*=1.56 vs. 1.48; PW/HW: x*=1.27 vs. 1.32 in *U. zvarici* sp.n.), longer antennae

(EL/AL: x*=0.94 vs. 0.98 in *U. zvarici* sp.n.), and smaller eyes(EyL/TL: x*=1.17 vs. 1.30 in *U. zvarici* sp.n.). In all these ratios differences were significant at p-level<0.01.

Distribution. The type locality of the new species is the same as for *Qeinnectrechus humeralis* sp.n. and is situated on the western slopes of peak "5892" within the Qunlaishan Mountain Range, west of the type locality of *Ushijimaella zvarici* sp.n.

Habitats. The species was basically met with on the stony banks of mountain streams in the forest zone and near melting snow in the alpine zone at elevations between 2700-4000 m.

Available specimens of this species may be arranged into two subspecies, one of which is widespread and ranges from the Qunlaishan Mountain Range (westsouthwest of the town of Lixian) to the southern slope of peak "5600 m" (northwest of the town of Lixian), and other one is known so far only from the type locality, situated on the northern slope of peak "5600 m" west of Shangmeng village. It is worthwhile that the populations of two subspecies inhabiting the opposite slopes of the same mountain ridge exhibit maximum differences. The descriptions of these subspecies follow below.

Ushijimaella lucida lucida Belousov & Kabak, ssp. n.

Figs 24, 49, 63.

Holotype: ♂ (ZISP), China, Sichuan, Qunlaishan Mt. Range, WSW of Lixian, W of Mt. "5892", 2700-3000 m, 10.07.2000 (Belousov & Kabak leg.) [31° 19' N / 103° 00' E].

Paratypes: 50(5) ♂, 35(2) ♀ (ZISP, IZK, MPU, cBK, cAG, cAK, cBZ, cDW, cPM,), collected together with holotype. — 16(1) ♂, 4 ♀ (cBK), same locality, 3400-3500 m, 11.07.2000 (Belousov & Kabak leg.). — 22(3) ♂, 8 ♀ (cBK), same locality, H~3000 m, 11.07.2000 (Belousov & Kabak leg.). — 6(2) ♂, 3 ♀ (cBK), same locality, 3500-4000 m, 12.07.2000 (Belousov & Kabak leg.). — 29(1) ♂, 18 ♀ (cBK), same locality, 3000-3500 m, 13.07.2000 (Belousov & Kabak leg.).

Additional material: 6(5) ♂, 7(1) ♀ (cBK), CH, NW Sichuan, S slope of the Mt. "5600 m", NW of Lixian Town, 30.07.2002 (Belousov & Kabak leg.) [31° 35' N / 102° 57' E].

63 specimens measured.

Description. Body length 3.21-3.93 (x*=3.54) mm. Color varying from uniformly amber testaceous in to rather dark brownish, normally with lighter reddish head, pronotum, suture and margins of elytra.

Head medium-sized (PW/HW: 1.19-1.37, x*=1.27). Eyes regularly convex, small (L3/EyL: 1.09-1.37, x*=1.22). Genae subparallel, rather convex in posterior part. Antennae long and filiform (EL/AL: 0.88-1.00, x*=0.94).

Pronotum slightly transverse (PW/PL: 1.09-1.25, x*=1.16), very strongly constricted toward base (PW/PB: 1.59-1.81, x*=1.69). Lateral sides regularly rounded anteriorly, almost linearly convergent toward base of pronotum, barely sinuate before hind angles; latter very small, obtusangular, rounded at apices, sometimes almost reduced, leaving lateral sides of of prosternum visible from above (Fig. 24). Disc of pronotum with 13-25 short hairs on each side.

Elytra (Fig. 49) medium-sized (EW/PW: 1.48-1.66, x*=1.56; EW/HW: 1.87-2.10, x*=1.99), narrow (EL/EW: 1.43-1.56, x*=1.49). Hairs on elytra located as follows: 8-15 hairs in stria 1, 0-3 hairs in anterior part of stria 2, 6-11 hairs in stria 3, 0-3 hairs in stria 4, 1-10 hairs in stria 5, 6-10 hairs in stria 6. Posterior discal pore of elytra situated either on interspace 2 (striae 2 and 3 anastomosing one with another at levels of both posterior discal and preapical pores) or in stria 3.

Variation. The sample from the mountains to northwest of Lixian differs in the following characteristics: the elytra wider (ratio EW/HW, mean 2.04 vs. 1.98 in that from the type locality), eyes somewhat larger (ratio L3/EyL, mean 1.18 vs. 1.23), elytral stria 2 with more hairs (12-15 vs. 8-12 in the types), inner posterior discal pore situated mostly on interspace 3 while in stria 3 in the sample from the type locality.

Distribution. The nominotypical subspecies seems to occupy rather vast area extending from the Qunlaishan Mountain Range in the south to the southern slope of peak "5600 m" in the north. The latter peak seems to form a natural boundary between two known subspecies of *U. lucida* sp.n.

Habitat. The subspecies was collected under a variety of conditions at elevations from 2700 to 4000 m a.s.l.

Ushijimaella lucida riparia Belousov & Kabak, ssp. n.

Fig. 25.

Holotype: ♀ (ZISP), CH, NW Sichuan, NW of Lixian, 10 km WSW of Shangmeng, alp., scree 3850-4000m, 25.07.2002 (Belousov & Kabak leg.) [31° 39' N / 103° 00' E].

Paratypes: 2 (2) ♀ (cBK, cAG), collected together with holotype.

3 specimens measured.

Description. Body length 3.68-3.73 (x*=3.70) mm. Color dark brownish, with lighter reddish head and pronotum.

Head medium-sized (PW/HW: 1.27-1.29, x*=1.28). Genae comparatively plane, distinctly convergent posteriorly. Eyes small and subconvex (L3/EyL : 1.05-1.12, x*=1.10). Antennae long and filiform (EL/AL: 0.97).

Pronotum very narrow (PW/PL: 1.12-1.13, x*=1.12), very strongly constricted toward base (PW/PB: 1.66-1.72, x*=1.69). Base of pronotum narrow (PA/PB: 1.16-1.18, x*=1.17). Lateral sides of pronotum clearly sinuate before hind angles (Fig. 25). Disc of pronotum with 27-32 hairs on each side.

Elytra medium-sized (EW/PW: 1.56-1.64, x*=1.59; EW/HW: 2.01-2.07, x*=2.03), narrow (EL/EW: 1.43-1.51, x*=1.48). Discal formula 13-16 (14), 67-72 (70), 86-87 (87). Additional hairs on elytra located as follows: 15-16 hairs in stria 1, 0-4 hairs in anterior part of stria 2, 8-12 hairs in stria 3, 1-3 hairs in stria 4, 9-11 hairs in stria 5, 9-10 hairs in stria 6. Posterior discal pore of elytra always adjoining stria 3.

Notes. This subspecies differentiates from the nominotypical one by its somewhat larger size (x*=3.70 mm vs. 3.54 mm in the nominotypical subspecies), darker color of the upper-side, more convex eyes, more plane temples, lateral sides of the pronotum more evidently sinuate before the hind angles (Figs 25 vs. 24) and especially by denser pubescence of the upper-side (see key for determination below). In the latter aspect, *U. lucida riparia* ssp.n. is intermediate between *U. lucida lucida* ssp.n. and *U. zvarici* sp.n.

Distribution. The subspecies considered was found only in one locality, situated on the northern slope of peak "5600 m" not far from the village of Shangmeng near the town of Lixian.

Habitat. Three known specimens were collected in the alpine zone in the bed of dried stream, among stones and gravel.

Key for determination of *Ushijimaella* Uéno, 1980

1 All elytral striae regularly and similarly hairy. Hind angles of pronotum small, but acute, protruding outward. Apart from preapical pore, only 2 discal setiferous pores on each elytron. Korea, China: Shaanxi.

2

- Elytral striae 2 and 4, at most, only with a few hairs anteriorly (Figs 48 and 49). Hind angles of pronotum small, usually rounded, rarely pointed apically but never protruding outward (Figs 24 and 25). Apart from preapical pore, at least, 3 discal pores on each elytron: 2 setiferous pores in stria 5 and 1-2 pores in stria 3 (Figs 48 and 49). China: Sichuan.

4

2 Discal setiferous pores only in stria 5, stria 3 without discal pores, not counting preapical pore located in anastomosis with stria 2.

3

- One discal setiferous pores in stria 5, located behind mid-length of elytra and one discal setiferous pores in stria 3, situated in anterior quarter of elytra. Aedeagus rather large, with endophallus armature well-developed. China: Shaanxi, Qin Ling Shan.

***U. silvatica* Moravec & Wrase**

3 Habitus more robust. Genae more convex. Pronotum wider than long. Aedeagus with apex narrowly rounded. Central Korea: Mount Odaesan.

***U. pilosistriata* Uéno**

- Habitus slender. Genae less convex. Pronotum nearly as wide as long. Aedeagus with apex broadly rounded. China: Shaanxi, Qin Ling Shan.

***U. uenoi* Moravec & Wrase**

4 Posterior discal pore in stria 3 lacking (Fig. 48): stria 3only with anterior discal pore in anterior quarter of elytra and with a preapical pore in anastomosis of striae 2 and 3. Pronotum more convex, its lateral sides almost straight or barely concave posteriorly, widely beaded (Fig. 23); hind angles usually pointed apically. Pubescence of body more dense (especially in elytral striae 2, 4): 80-90 hairs on pronotum, 66-71 hairs on each elytron. Genae normally covered with long and dense hairs. Aedeagus longer and more slender, more strongly arched (Fig. 62). Env. of Wenchuan.

***U. zvarici* sp.n.**

- Posterior discal pore in stria 3 well-developed (Fig. 49): hence, stria 3 with anterior discal pore in anterior quarter of elytron and posterior one at level between umbilicate pores 6 and 7, preapical pore in anastomosis of striae 2 and 3. Pronotum less convex, its lateral sides narrowly beaded and clearly sinuate before hind angles, which are rounded apically (Fig. 24-25). Body more sparsely pubescent: 31-63 hairs on pronotum, 30-50 hairs on each elytron). Genae, at most, with a few shorter hairs. Aedeagus shorter and thicker, slightly arcuate (Fig. 63). Env. of Lixian.

***U. lucida* sp.n.**

a Race of smaller size, color of upper-side, on average, lighter, habitus more depressed. Pubescence of body sparser: 31-49 hairs on pronotum, 30-48 hairs on each elytron. Posterior discal pore adjoining stria 3 or located on interspace 3. Known from the Qunlaishan Mountain Range and from the southern slope of peak "5600 m".

***U. lucida lucida* ssp.n.**

- Race of larger size, color of upper-side, on average, darker, habitus less depressed. Pubescence of body more dense, intermediate between the nominotypical subspecies of *U. lucida* sp.n. and *U. zvarici* sp.n.: 57-63 hairs on pronotum, 49-50 hairs on each elytron. Posterior discal pore placed in stria 3. Northern slope of peak "5600 m" west of Shangmeng village.

***U. lucida riparia* ssp.n.**

Duvalioblemus Deuve, 1995

Duvalioblemus Deuve, 1995: 16, type species: *Duvalioblemus sichuanicus* Deuve, 1995.

Duvalioblemus: Uéno & Zhao, 1997: 193.

The genus was established for the only species known at the moment, *D. sichuanicus* Deuve, 1995. One further species is now under treatment by Drs P. Moravec & D.Wrase and one subspecies of the genus is described below. All species of the genus originate from Sichuan Province. They correspond perfectly the genus diagnosis given by Th. Deuve (1995) and by S.-I. Uéno and Zhao L. (1997). Similarly to the latter authors and unlike Th. Deuve, we prefer to interpret the endophallus armature of the genus members as being anisotopous. This is ascertained as well by its conformation in new taxa. Indeed, the copulatory pieces of two new taxa are scapulate, clearly asymmetrical and ventro-lateral in position (Figs 60 and 61), alluding rather to the structure typical of other members of the *Trechoblemus* phyletic series than to *Duvalius* species. The assignment of the genus to the *Trechoblemus* phyletic series in the sense of R. Jeannel is ascertained by all other characters, such as: the mentum fused with the submentum, 8 submental setae, regular pubescence of the body, conservative chaetotaxy of the elytra (aggregate condition of the umbilicate series, two discal and one preapical pores of the elytra), only the first male tarsomere dilated and

provided with adhesive appendages beneath. The structure of the apical striole seems to be of a little taxonomic importance because we find different states of this feature even within some of the genera of the phyletic series in question (Belousov, 1998).

Duvalioblemus sichuanicus Deuve, 1995

Duvalioblemus sichuanicus Deuve, 1995: 16, figs 3, 19 (type locality - route entre Sabde et Jiulong, col a 40 km au Nord de Jiulong).

Duvalioblemus sichuanicus: Uéno & Zhao, 1997: 194.

Duvalioblemus sichuanicus similis Belousov & Kabak, ssp. n.

Figs 14, 60.

Holotype: ♂ (ZISP) CH, S Sichuan, NW of Mianning, 10 km NNE of Eryizuxiang, forest 3300-3400m, 13.08.2002 (Belousov & Kabak leg.) [28° 46' N / 101° 58' E].

1 specimen measured.

Description. Medium-sized species of rather robust habitus, body length 2.96 mm. Dorsum slightly depressed. Color pale testaceous, with a little lighter elytra and appendages. Surface of body pubescent throughout.

Head medium-sized (PW/HW: 1.23), widest clearly behind site of eyes, latter lacking. Frontal furrows complete, strongly approached and barely angulate in their middle, more strongly impressed posteriorly, though parietal transverse impression hardly perceptible. Genae extraordinarily convex posteriorly and rather plane (rectilinearly convergent) anteriorly. All surface of head including genae shortly and rather irregularly pubescent, without specialized setae. Each side of head two supraorbital setae, anterior one foveolate while posterior is simple. Two pairs of clypeal setae. Labrum hexasetose, its anterior margin angularly emarginate. Antennae about as long as elytra (EL/AL: 1.07), rather thick, their median segment submoniliform, third segment 1.80 times as long as wide.

Pronotum (Fig. 14) of medium width (PW/PL: 1.32); moderately constricted toward base (PW/PB: 1.42), relatively flat on disc, strongly impressed at base, basal foveae rather large and deep, lateral margins near hind angles clearly raised. Anterior lateral seta about in anterior third of pronotum, posterior one slightly removed anteriorly from hind angles. Lateral sides weakly rounded anteriorly, gradually sinuate before hind angles, sinuation long but shallow (Fig. 14). Anterior angles of pronotum distinct, though rounded. Hind angles weakly obtusangular, blunt at apices. Lateral margins widely beaded and reflexed. Base of pronotum vaguely concave medially, emarginate laterally, slightly narrower than anterior margin (PA/PB: 1.05). Prebasal transverse impression deep, but not sharply delimited, shallow medially, anastomosing with basal foveae laterally. Apical transverse impression very shallow though perceptible. Discal foveae faint. Median line deeply engraved medially and at base, not reaching anterior margin. Basal surface smooth. Upper surface of pronotum regularly and briefly pubescent, lateral margins briefly ciliate.

Elytra rather large (EW/PW: 1.57; EW/HW: 1.93), broad (EL/EW: 1.40), somewhat quadrate, with distinct humeri, widest near mid-length, rounded apically. Disc of elytra somewhat depressed, covered with regular and suberect pubescence. Lateral sides broadly arcuate. Basal border reaching stria 4 but not clearly joining it. Scutellar pore present. Two discal setiferous pores in stria 3, anterior pore situated closely to base of elytra, at about level of umbilicate pore 3, weakly shifted mediad on interspace 3; posterior one just at mid-length of elytra, anteriad of umbilicate pore 5. Preapical pore adjoining stria 2 and located at level of anterior end of apical striole and umbilicate pore 8. Discal formula 18, 51, 86. Apical triangle complete, i.e. consisting of 3 pores including preapical one. Umbilicate series in aggregate condition, pores 3 and 4 closest in humeral group, formula 7,13,19,24,56,62,78,86. In median group, umbilicate pore 5 considerably farther from lateral margin than pore 6. Striation shallow and irregular, only 4 inner striae rather complete; striae 5 and 6 fragmentary; stria 7 visible only in posterior part; stria 8 traceable in posterior half, only slightly surpassing umbilicate pore 5 anteriorly. Apical striole well

engraved, of moderate length, almost parallel to longitudinal axis of body, sharply interrupted anteriorly, with vague outer carina. Humeral edge smooth, not serrate, with cilia much longer those on lateral edges of pronotum.

Microsculpture isodiametric on head, shallower and transversely stretched on front, consisting of moderately transverse meshes on pronotum and shallow strongly transverse meshes on elytra, giving them an iridescent luster; upper surface with well-developed micropunctures throughout.

Legs of average length. Anterior tibiae strongly curved, sharply grooved on exterior surface, throughout densely pubescent. In male, only the first segment of anterior tarsi clearly dilated inward and provided with adhesive appendages beneath.

Under-surface micropunctured, shortly pubescent, pubescence becoming denser toward middle of sternites. Each sternite with a pair of paramedian setae, anal segment of male with one pair of setae along its posterior margin.

Aedeagus (Fig. 60) small, bent at base, gradually arched in distal part, apex characteristically bent downward. Sagittal aileron average. Endophallus armature spatulate, attenuate and pointed apically. Parameres relatively narrow, each bearing 4 setae apically; the left one distinctly longer, without ventral apophysis.

Notes. The new subspecies is very similar to the nominotypical one, except for the apex of the median lobe of aedeagus is clearly curved downward and less rectilinear.

Distribution. The subspecies originates from southern Sichuan, the type locality lies in a mountain massif situated northwest of Mianning.

Habitat. The only specimen of this subspecies was found under deeply embedded stone, in the middle forest zone, in a rather wet habitat.

Duvalioblemus sp.n. Moravec & Wrase, in litt.

Figs 15, 61.

Material: ♂ (ZISP), CH, NW Sichuan, NE of Lixian, N Tonghua, basin of the river near Pingshitou S of Shibanpengzi H~4100 m, 21.08.2002 (Belousov & Kabak leg.) [31 45' N / 103 23' E].

1 specimen measured.

This species is under description by P.Moravec & D.Wrase. The above cited locality lies considerably northward of the type locality. Taking into account a restricted number of specimens known we give here a detailed description of the available specimen.

Description. Small-sized species, body length 2.6 mm. Habitus slightly depressed on dorsum. Pale testaceous, somewhat lighter on elytra, especially posteriorly. Appendages uniformly light yellowish. Surface of body pubescent throughout.

Head very large, only a little narrower than pronotum (PW/HW: 1.08). Eyes completely reduced. Genae extraordinarily convex. All surface of head including genae shortly and rather irregularly pubescent. Apart from this pubescence and usual supraorbital setae, disc of head without specialized, well-defined setae, though a pair of small hairs recognizable in the posterior part of frons. Two pairs of clypeal setae. Labrum hexasetose, its anterior margin angularly incised. Mandibles regularly curved. On right mandible, premolar small and vaguely delimited from remainder of tooth. In latter, only distal denticle well developed, median one lacking. Maxillary palpi densely pubescent, hairs distinct, but rather short, erect, even ultimate segment with a few hairs. Penultimate segment of labial palpi quadrisetose, ultimate glabrous. Tooth of mentum large, deeply cleft at apex. 8 submental setae, of which 4 inner and angular setae are of equal size, subangular ones are longest. Submentum completely fused with mentum, without distinct suture between them. Antennae as long as elytra (EL/AL: 1.00), rather thick, their median segment submoniliform, third segment 1.77 times as long as wide.

Pronotum (Fig. 15) of medium width (PW/PL: 1.30), very strongly constricted toward base (PW/PB: 1.53), relatively flat on disc, impressed at base, basal foveae rather deep, lateral margins near hind angles clearly raised. Maximum width approximately in anterior fifth, at level of anterior lateral seta. Posterior seta slightly removed from hind angles. Lateral sides briefly rounded anteriorly, sublinearly convergent posteriorly and

weakly sinuate before hind angles. Anterior angles of pronotum distinct, rather large, protruding anteriorly, anterior margin between them straight. Hind angles obtusangular, slightly rounded at apices. Marginal bead moderate to wide near level of anterior lateral pore. Base of pronotum narrow (PA/PB: 1.23). Basal margin concave medially, oblique laterally, thus hind angles distinctly pushed forward. Prebasal transverse impression deep, regularly arcuate. Basal surface barely rugose. Upper-surface of pronotum regularly and briefly pubescent, lateral margins clearly ciliate.

Elytra large-sized (EW/PW: 1.64; EW/HW: 1.77), broad (EL/EW: 1.41), oblong, broadest behind middle, with distinct humeri, each elytron separately broadly rounded. Apical striole shallow, of moderate length, angularly bent. Two discal setiferous pores in stria 3, anterior at level a little in front of umbilicate pore 4 and posterior somewhat anteriad of umbilicate pore 6. Preapical pore evidently behind anterior end of apical striole and umbilicate pore 8. Discal formula 25, 60, 92. Apical triangle complete, i.e. consisting of 3 pores including preapical one. Exterior pore of apical triangle strongly removed from apical striole and approached to angulo-apical pore, the latter almost in continuation of elytral stria 2, twice as distant from suture as from exterior pore. Umbilicate series in aggregate condition, its formula 6,13,20,27,54,62,79,86. Umbilical pores of humeral group equidistant, pores 1 and 2 closer to lateral margin, pores 3 and 4 progressively more distant from it. In median group, umbilicate pore 5 considerably farther from lateral margin than pore 6. Striation very shallow, only two inner striae complete, stria 3 distinguishable only in median part, other discal striae effaced; stria 8 traceable in posterior half, only slightly surpassing umbilicate pore 5 anteriad. All stria irregular, without punctures. Lateral margins of elytra ciliate, especially evidently near humeri, where cilia a little longer those on lateral margins of pronotum. Humeral edge smooth.

Legs of average length. Anterior tibiae strongly and sharply grooved on exterior surface, throughout densely pubescent. In male, only the first segment of anterior tarsi dilated inward in a small tooth and provided with adhesive appendages beneath.

Undersurface micropunctured, shortly pubescent, pubescence denser toward middle of sternites.

Aedeagus (Fig. 61) small, bent at base, gradually arcuate in distal part, with particularly modified apex. Endophallus armature spatulate, attenuate and pointed apically. Parameres relatively long and narrow, each bearing 4 setae apically.

Notes. This species is closely related to *D. sichuanicus* Deuve, 1995, both species share all the most important features including the similarly structured aedeagus. Nonetheless, *D.* sp.n. can be easily recognized by its smaller size (2.6 mm vs. 2.9-3.3 mm), pronotum with lateral sides rectilinearly convergent posteriad (mostly rounded in its counterpart), hind angles of the pronotum obliquely truncated, humeri more angulate, apical striole of the elytra hardly perceptible and by the median lobe of the aedeagus hooked upward apically (Fig. 61 vs. Fig. 60). From *D. sichuanicus similis* ssp.n., this species apart from the above characters differs by the more strongly developed pubescence of the dorsum, larger head (PW/HW 1.08 vs. 1.23; EW/HW 1.77 vs. 1.93) and other form of the pronotum (Fig. 15 vs. Fig. 14), which is narrower (EW/PW 1.64 vs. 1.57) and more strongly constricted at base (PW/PB 1.53 vs. 1.42; PA/PB 1.23 vs. 1.05). Additionally the two species are distinct in the discal formula (all three pores in stria 3 are displaced posteriad in the species under consideration).

Distribution. The specimen studied originates from the basin of the river near the Pingshitou village, located not far from the town of Lixian (N Sichuan).

Habitat. This species was found under deeply embedded stone, in the low alpine zone, near a small mountain stream.

Acknowledgments

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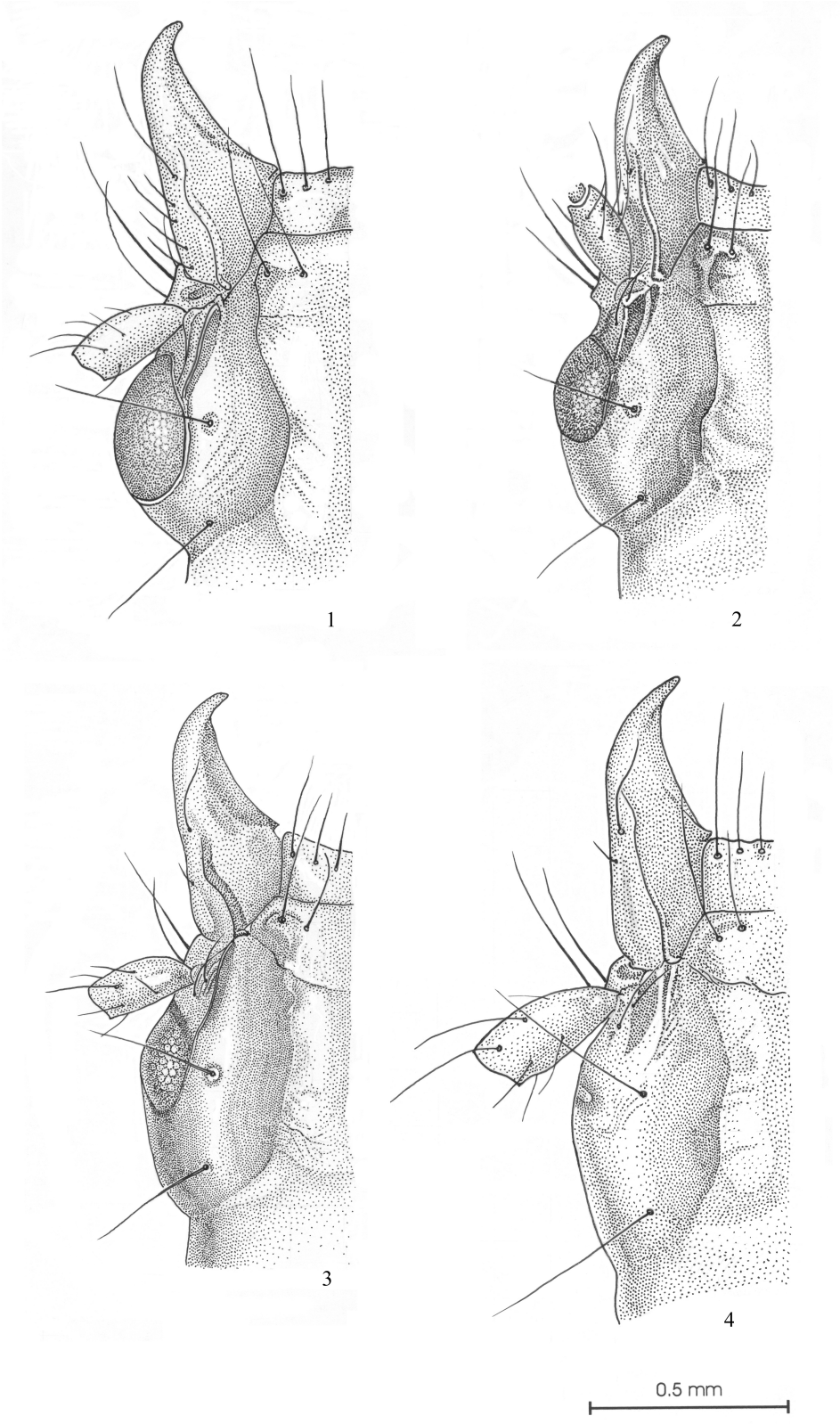
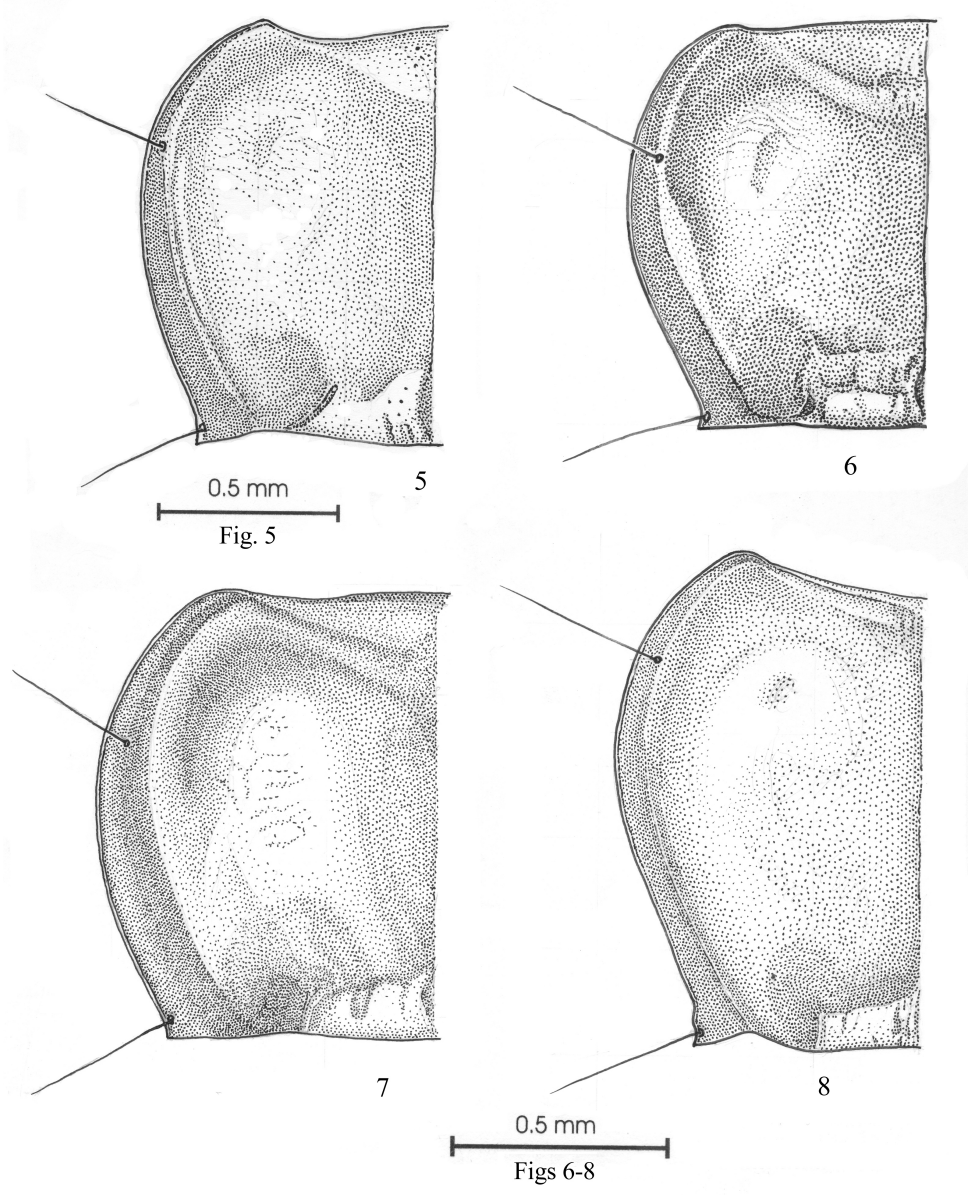
РЕЗЮМЕ

Белоусов И.А., Кабак И.И. **Новые Trechini из Китая (Coleoptera, Carabidae).**

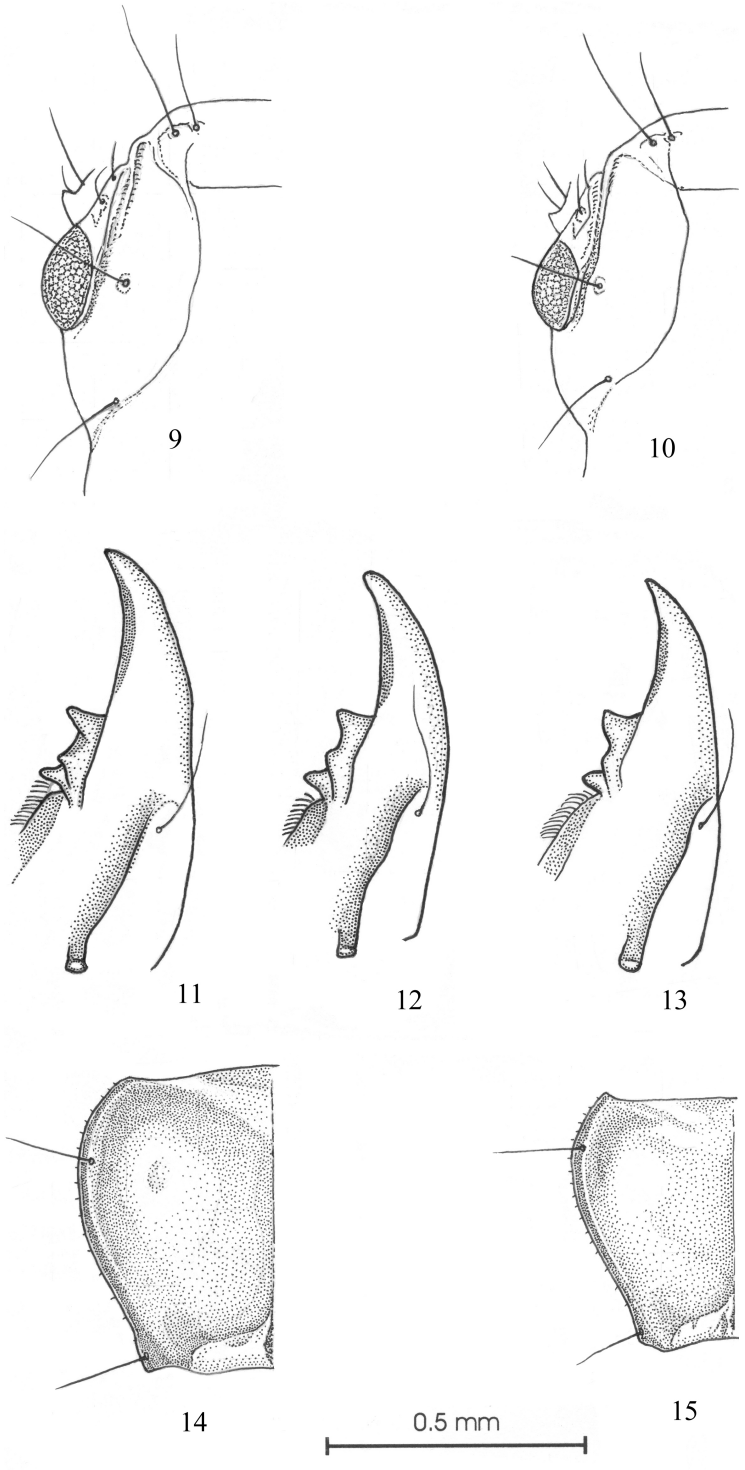
Описаны 8 новых видов рода *Queinnectrechus* Deuve (*Q. angusticollis* sp.n., *Q. brevis* sp.n., *Q. guttula* sp.n., *Q. humeralis* sp.n., *Q. incisus* sp.n., *Q. janatai* sp.n., *Q. micrangulus* sp.n. и *Q. miroslavi* sp.n.), 2 новых вида и один новый подвид рода *Sinotrechiama* Uéno (*S. pilifer* sp.n., *S. pilifer discicolis* ssp.n. и *S. imitator* sp.n.), 3 новых вида рода *Agonotrechus* Jeannel (*A. dubius* sp.n., *A. lunanshanus* sp.n. и *A. trechoides* sp.n.), один новый вид рода *Paragonotrechus* Uéno (*P. apterus* sp.n.), 2 новых вида и один новый подвид рода *Ushijimaella* Uéno (*U. lucida* sp.n., *U. lucida riparia* sp.n. и *U. zvarici* sp.n.), один новый подвид рода *Duvalioblemus* Deuve (*D. sichuanicus similis* ssp.n.). Кроме того, описаны два новых рода: *Protrechiama* gen.n., включающий 3 новых вида (*P. glabricollis* sp.n. - типовой вид рода, *P. giganteus* sp.n. и *P. marginalis* sp.n.) и *Dactylotrechus* gen.n., включающий один новый вид - *D. setosus* sp.n. Все перечисленные таксоны происходят из провинции Сычуань (Юго-Западный Китай), лишь *Agonotrechus dubius* sp.n. собран в провинции Ганьсу. Для ряда ранее описанных видов из перечисленных родов приведены дополнительные сведения по распространению и изменчивости. Даны определительные таблицы родов *Queinnectrechus, Sinotrechiama, Protrechiama* и *Ushijimaella*.



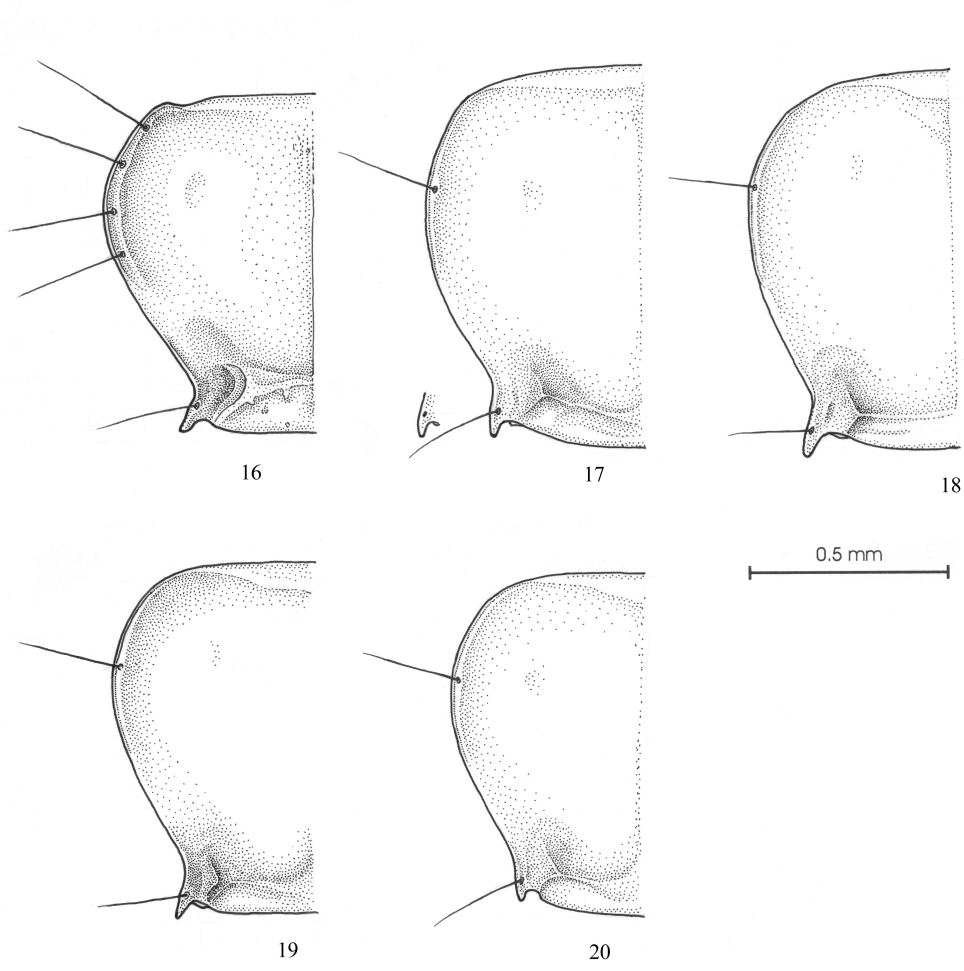
Figs 1-4. Head of Trechini. 1 – *Agonotrechus dubius* sp.n.; 2 – *A. trechoides* sp.n.; 3 – *A. lunanshanus* sp.n.; 4 – *Paragonotrechus apterus* sp.n.



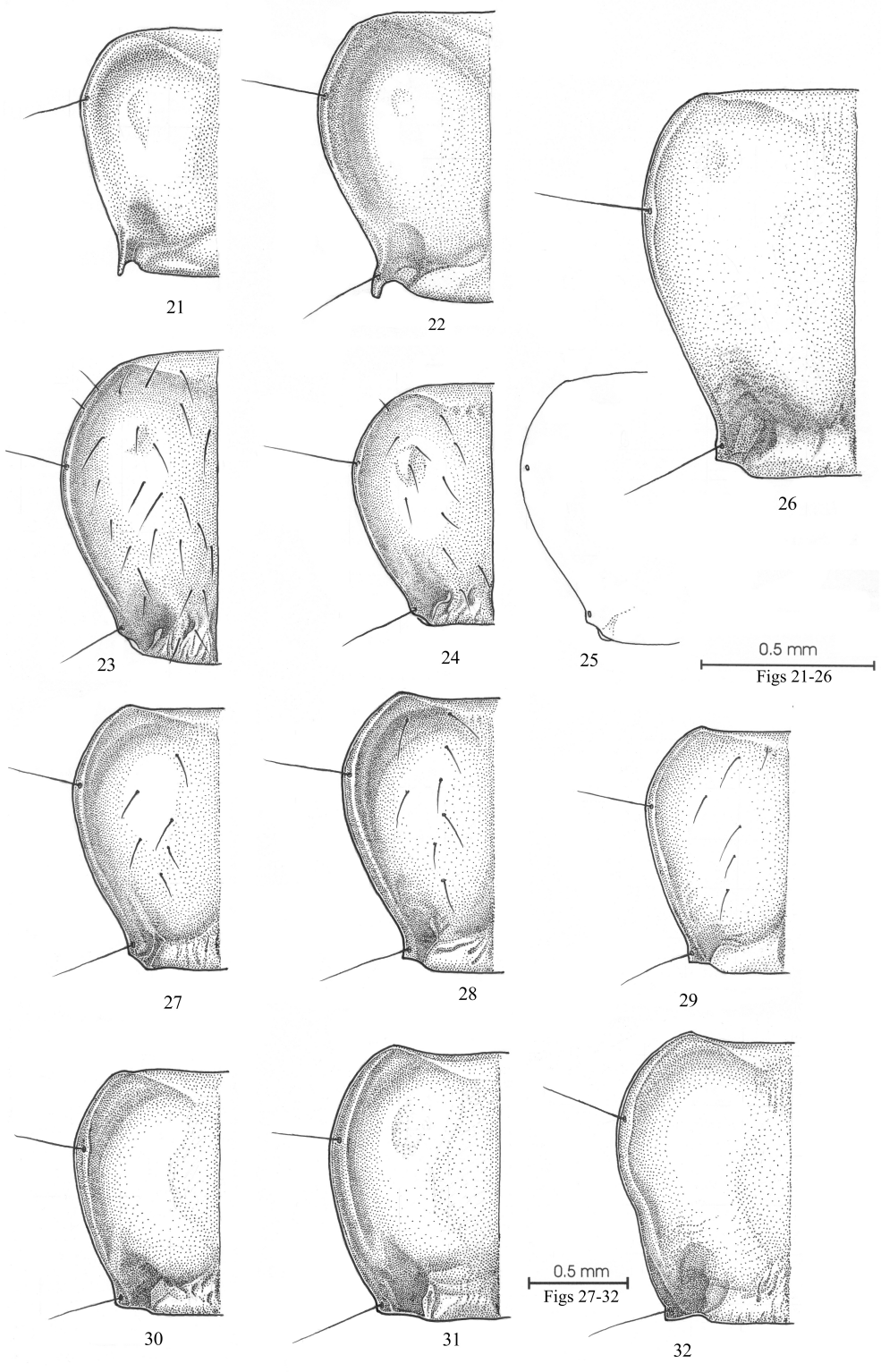
Figs 5-8. Pronotum of Trechini.
5 **-** *Agonotrechus dubius* sp.n.;
6 - *A. trechoides* sp.n.;
7 - *A. lunanshanus* sp.n.;
8 - *Paragonotrechus apterus* sp.n.



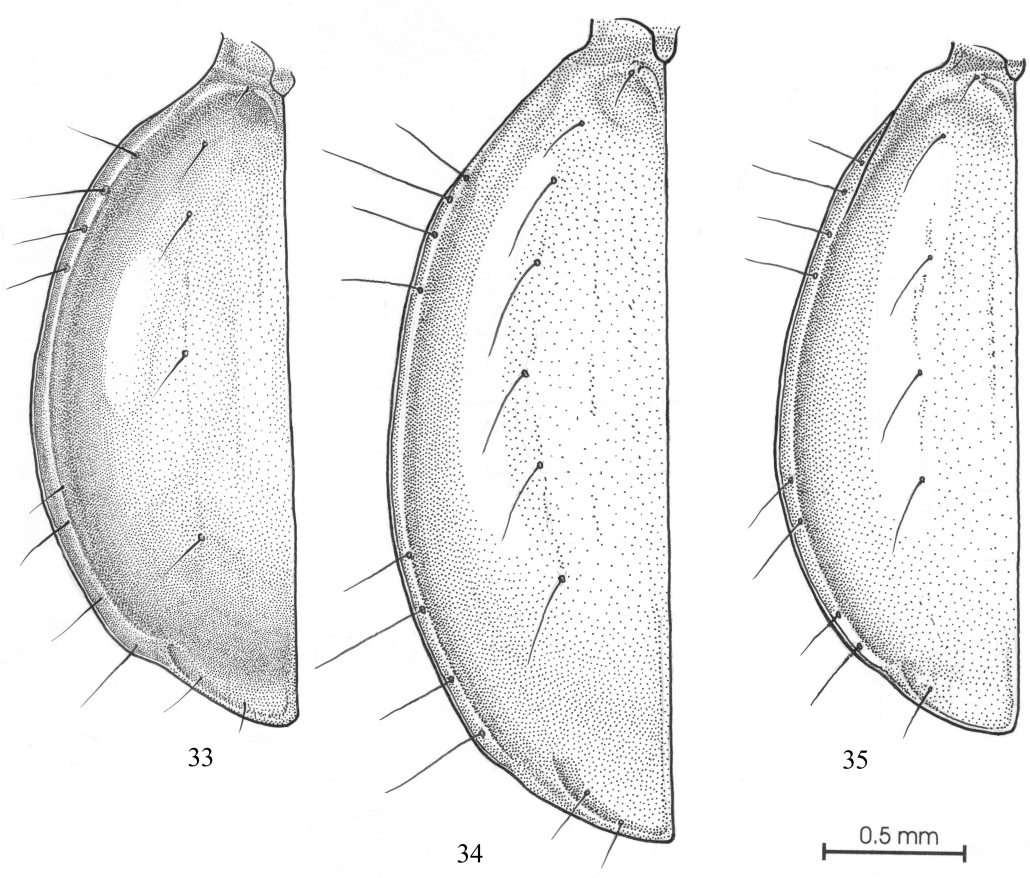
Figs 9-15. Details of morphology in Trechini. 9-10 – lateral part of head in dorsal view, 11-13 – right mandible, 14-15 – pronotum. 9 – *Queinnectrechus incisus* sp.n.; 10 – *Q. angusticollis* sp.n.; 11 – *Sinotrechiama pilifer* sp.n.; 12 – *S.* sp.n. Moravec & Wrase, in litt.; 13 - *Protrechiama marginalis* gen.n., sp.n.; 14 – *Duvalioblemus sichuanicus similis* ssp.n.; 15 – *D.* sp.n. Moravec & Wrase, in litt.



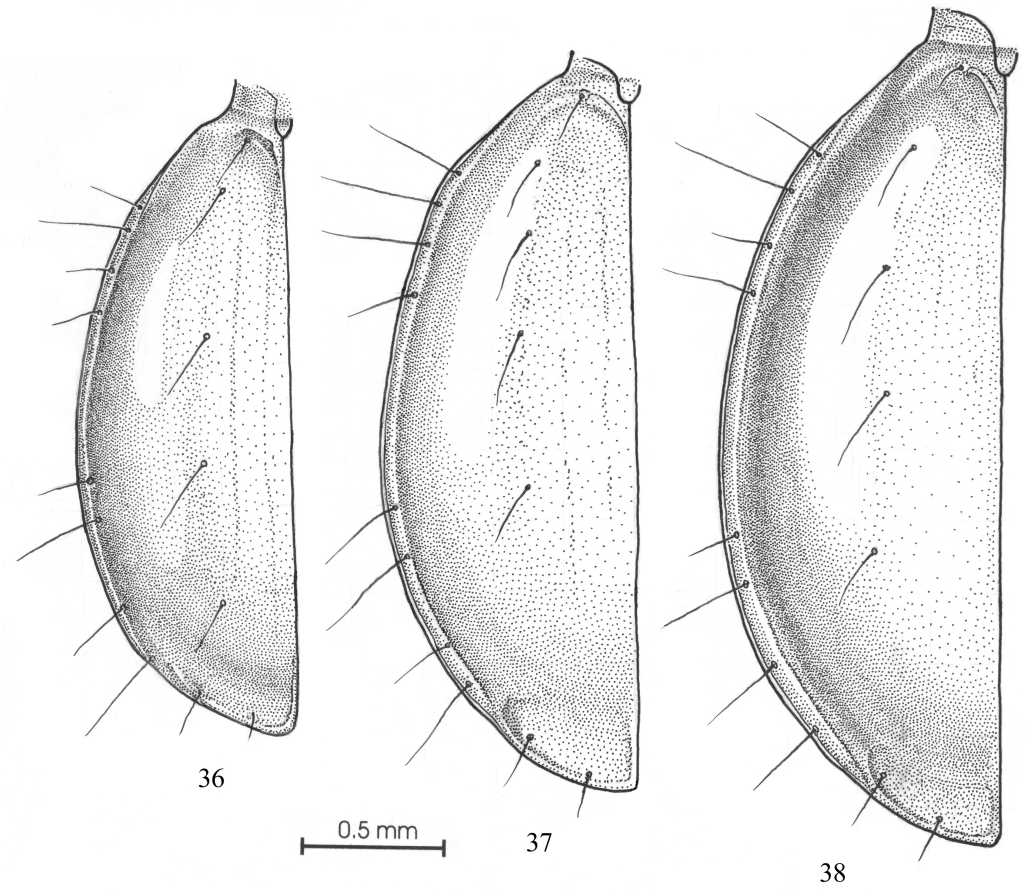
Figs 16-20. Pronotum of Trechini.
16 - *Dactylotrechus setosus* gen.n., sp.n.;
17 - *Queinnectrechus guttula* sp.n.;
18 - *Q. humeralis* sp.n.;
19 - *Q. miroslav,* sp.n.;
20 - *Q. micrangulus* sp.n.



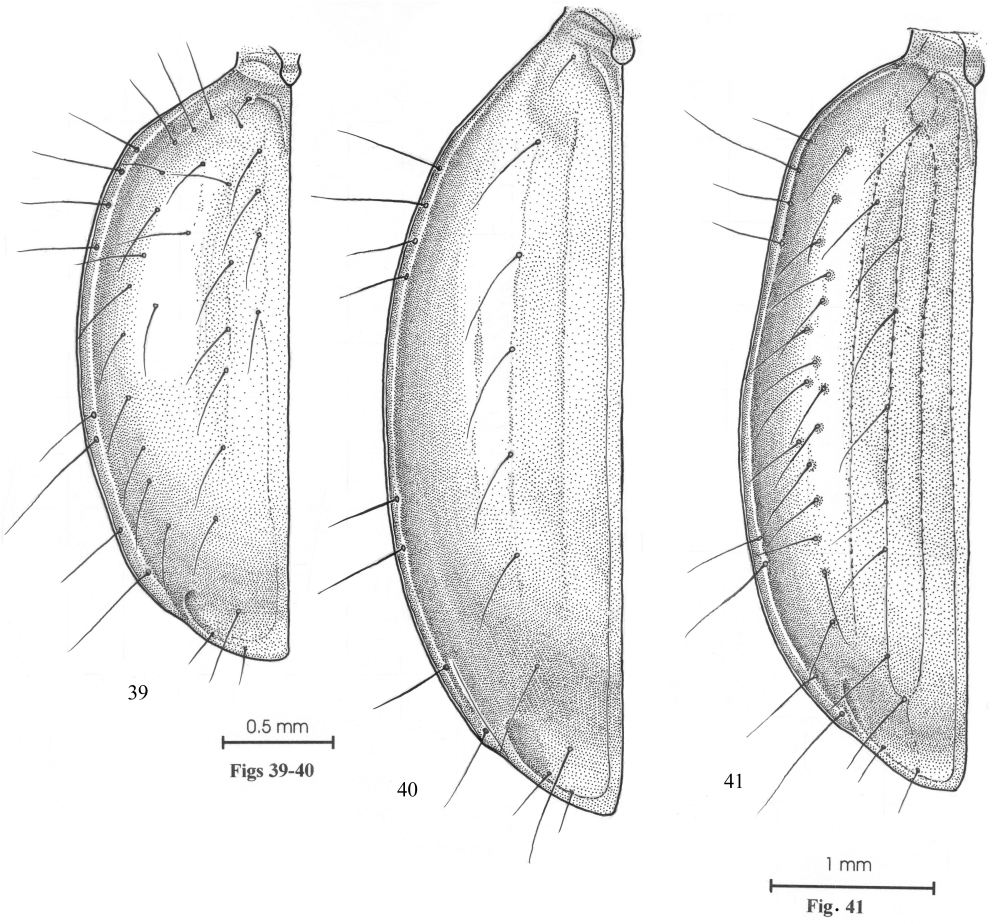
Figs 21-32. Pronotum of Trechini. 21 **–** *Queinnectrechus janatai* sp.n.; 22 – *Q. brevis* sp.n.; 23 – *Ushijimaella zvarici* sp.n.; 24 – *U. lucida* sp.n. from Qunlaishan Mt. Range; 25 – *U. lucida riparia* ssp.n.; 26 – *Kozlovites caviceps* Jeannel, holotype; 27 – *Sinotrechiama tronqueti* (Deuve); 28 – *S. pilifer* sp.n.; 29 – *S.* sp.n. Moravec & Wrase, in litt.; 30 – *Protrechiama glabricollis* gen.n., sp.n.; 31 – *P. marginalis* sp.n.; 32 – *P. giganteus* sp.n.



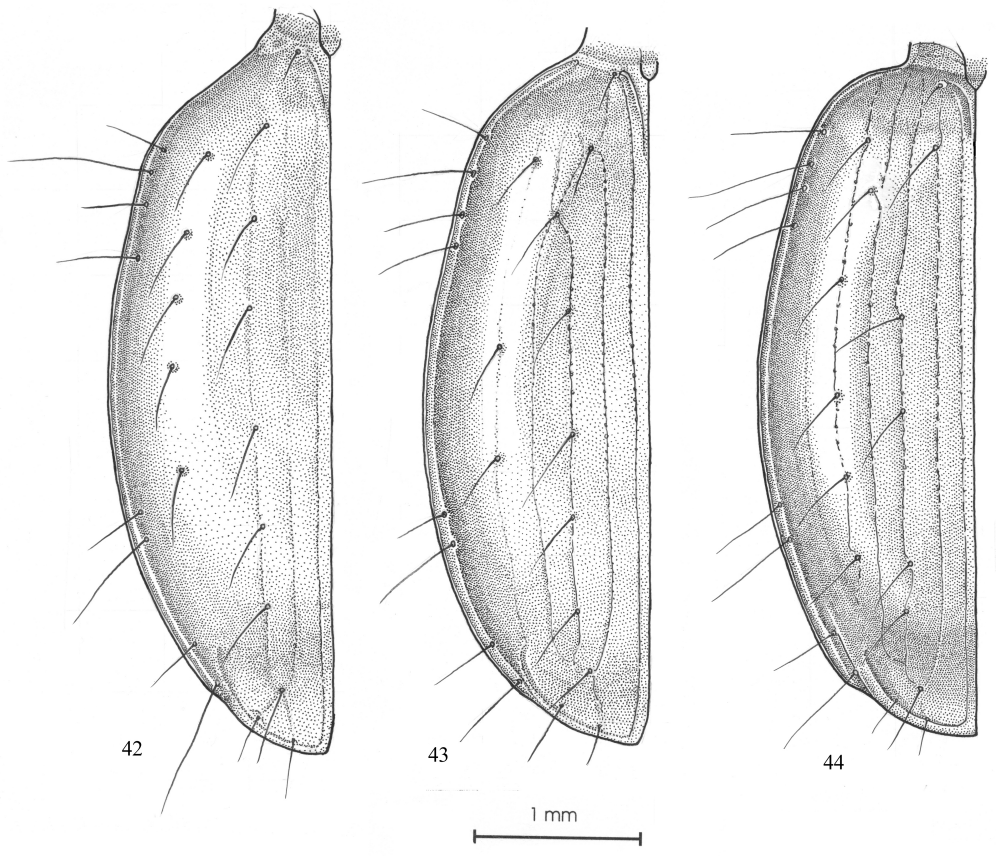
Figs 33-35. Left elytron of *Queinnectrechus* spp.
33 – *Q. brevis* sp.n.;
34 – *Q. guttula* sp.n.;
35 – *Q. humeralis* sp.n.



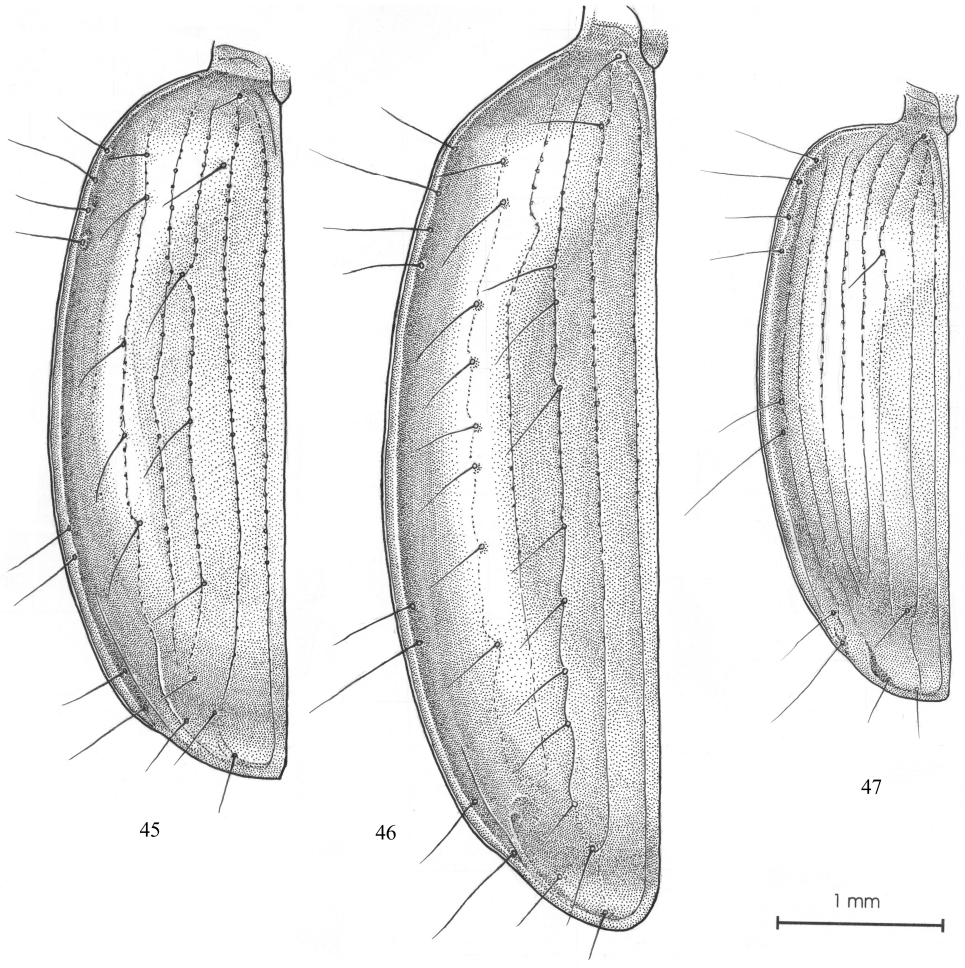
Figs 36-38. Left elytron of *Queinnectrechus* spp.
36 – *Q. janatai* sp.n.;
37 – *Q. micrangulus* sp.n.;
38 – *Q. miroslavi* sp.n.



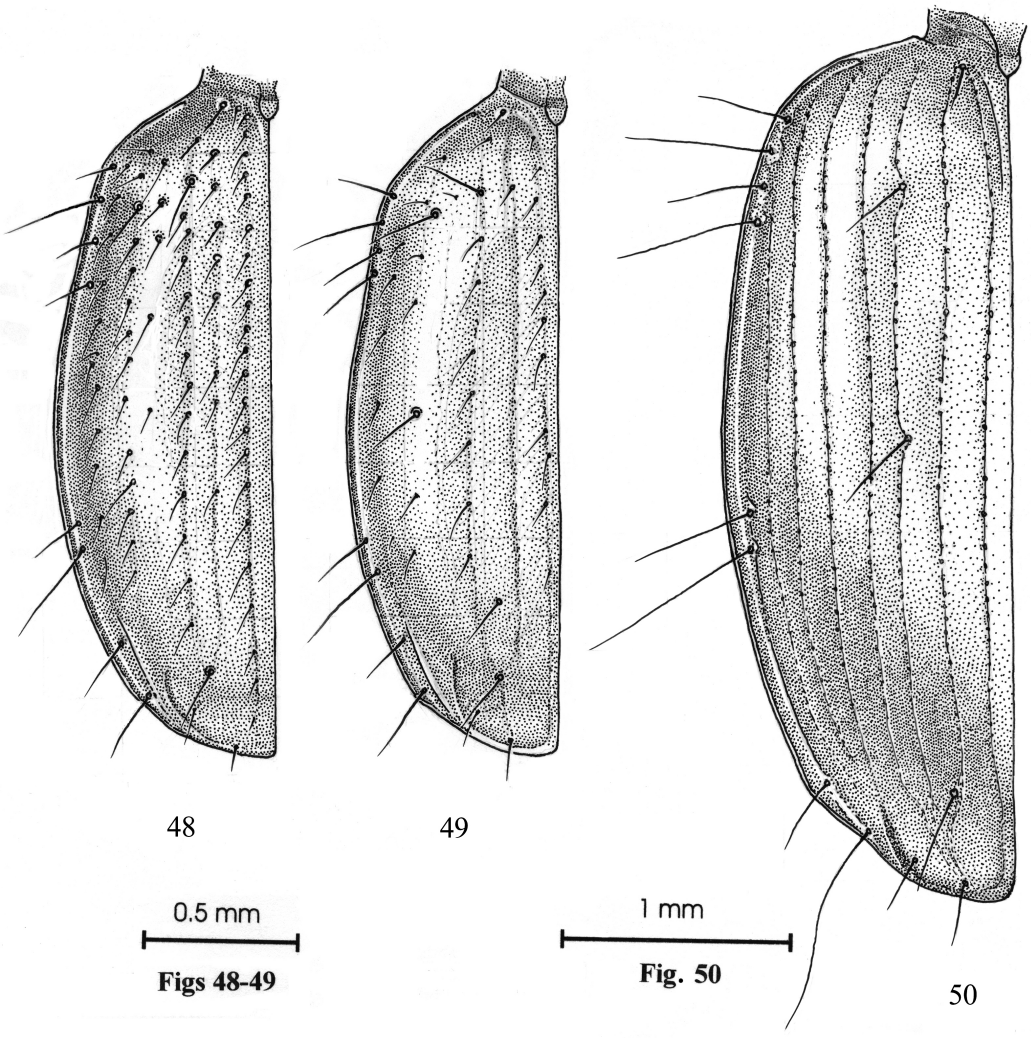
Figs 39-41. Left elytron of Trechini.
39 - *Dactylotrechus setosus* gen.n., sp.n.;
40 - *Kozlovites caviceps* Jeannel, holotype;
41 - *Sinotrechiama pilifer* sp.n.



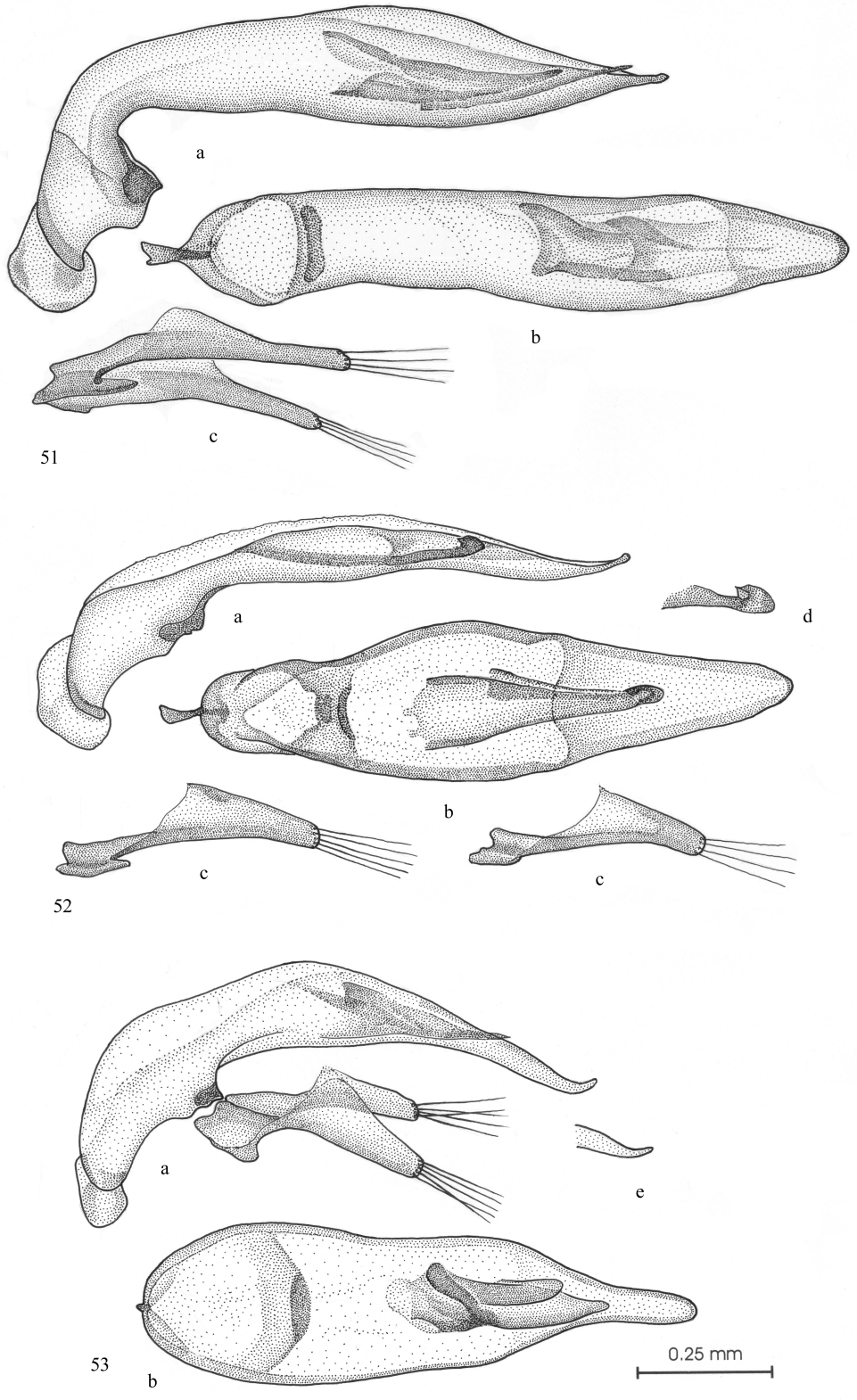
Figs 42-44. Left elytron of Trechini.
42 - *Sinotrechiama tronqueti* (Deuve);
43 - *S.* sp.n. Moravec & Wrase, in litt.;
44 - *Protrechiama glabricollis* gen.n., sp.n.



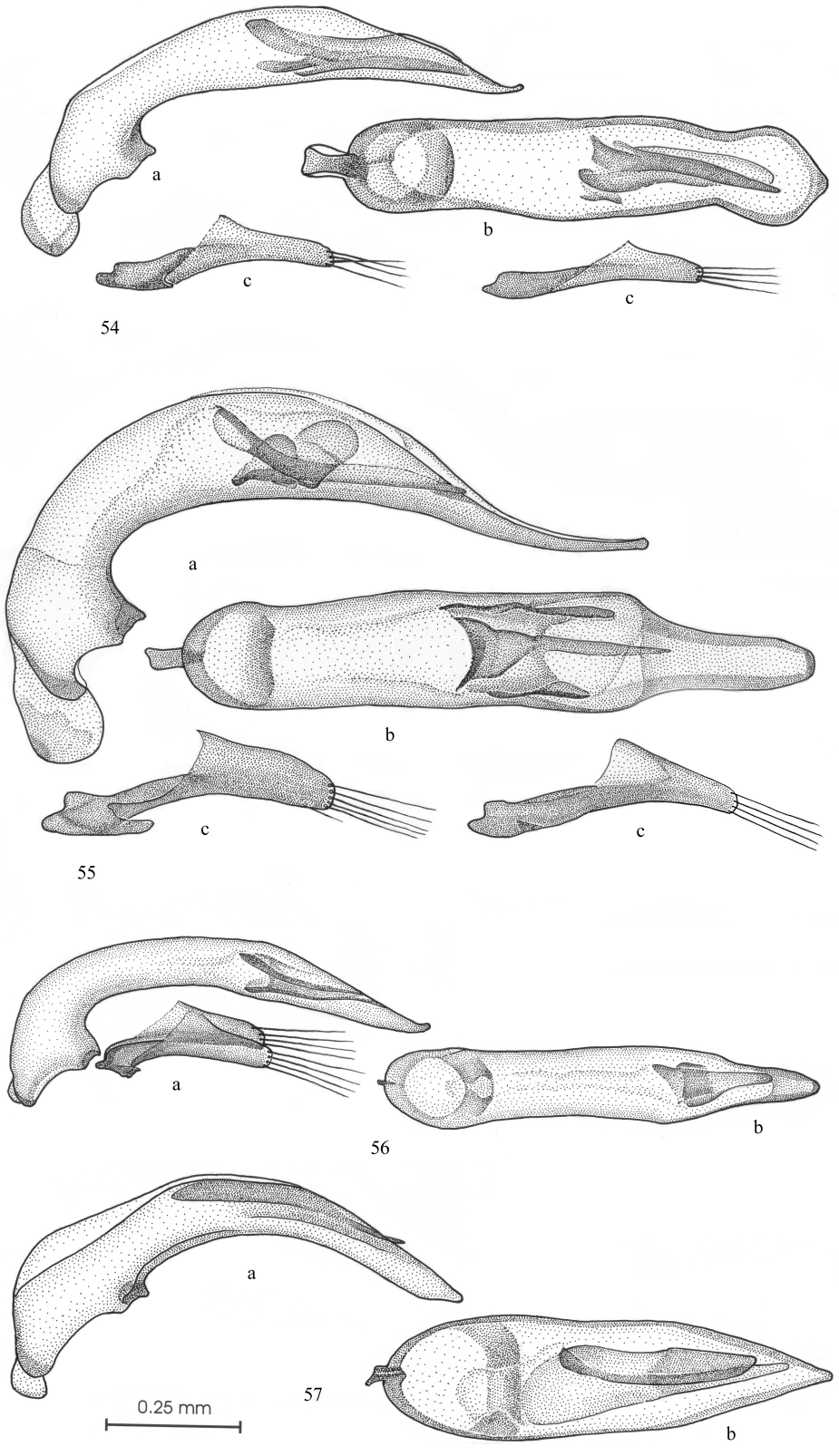
Figs 45-47. Left elytron of Trechini.
45 - *Protrechiama marginalis* gen.n., sp.n.;
46 - *P. giganteus* gen.n., sp.n.;
47 - *Paragonotrechus apterus* sp.n.



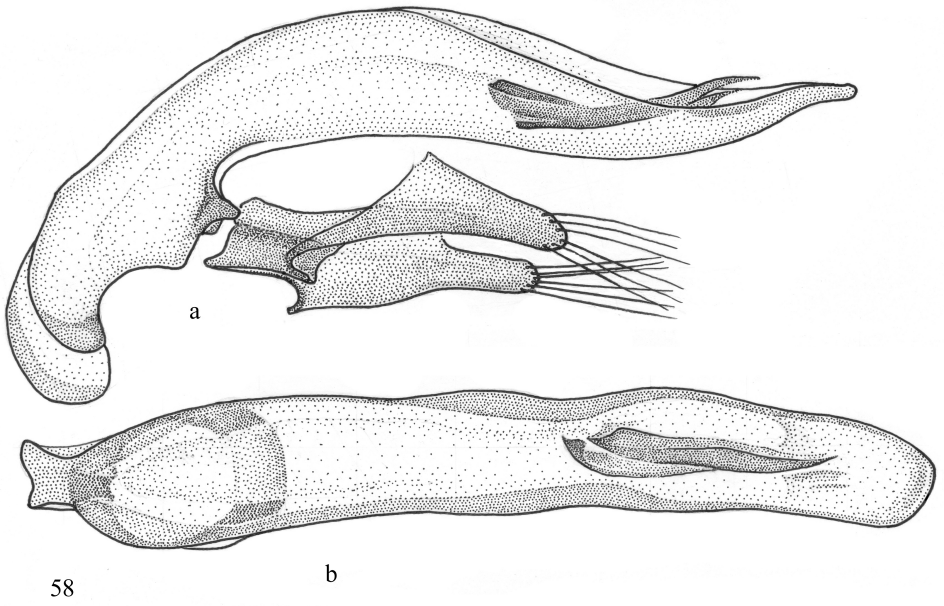
Figs 48-50. Left elytron of Trechini.
48 - *Ushijimaella zvarici* sp.n.;
49 - *U. lucida* sp.n. from Qunlaishan Mt. Range;
50 - *Agonotrechus dubius* sp.n.



Figs 51-53. Aedeagus of *Queinnectrechus* spp. a - lateral view; b - dorsal view; c – parameres; d – apex of endophallus armature, lateral view; e – apex of aedeagus, lateral view. 51 - *Q. angusticollis* sp.n.; 52 - *Q. brevis* sp.n.; 53 – *Q. guttula* sp.n.



Figs 54-57. Aedeagus of *Queinnectrechus* spp. a - lateral view; b - dorsal view; c – parameres. 54 - *Q. humeralis* sp.n.; 55 – *Q. incisus* sp.n.; 56 – *Q. janatai* sp.n.; 57 – *Q. miroslavi* sp.n.



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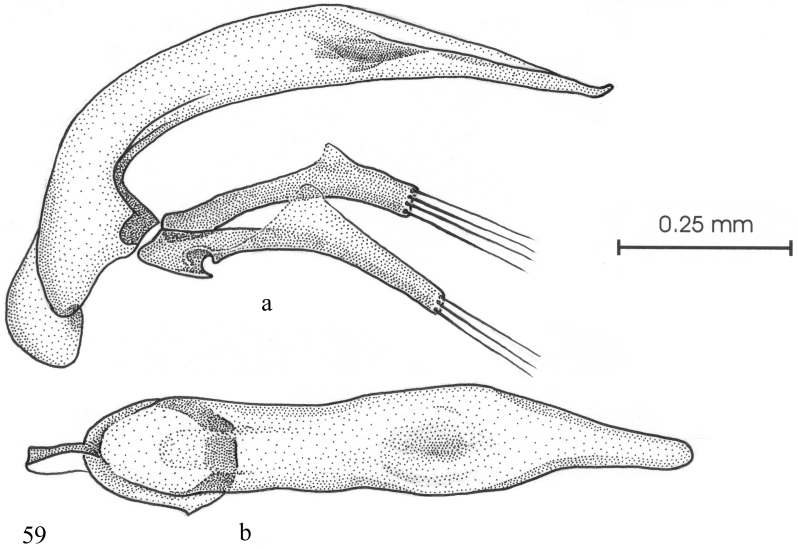

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Figs 58-59. Aedeagus of Trechini. a - lateral view; b - dorsal view.
58 - *Queinnectrechus micrangulus* sp.n.;
59 - *Dactylotrechus setosus* gen.n., sp.n.

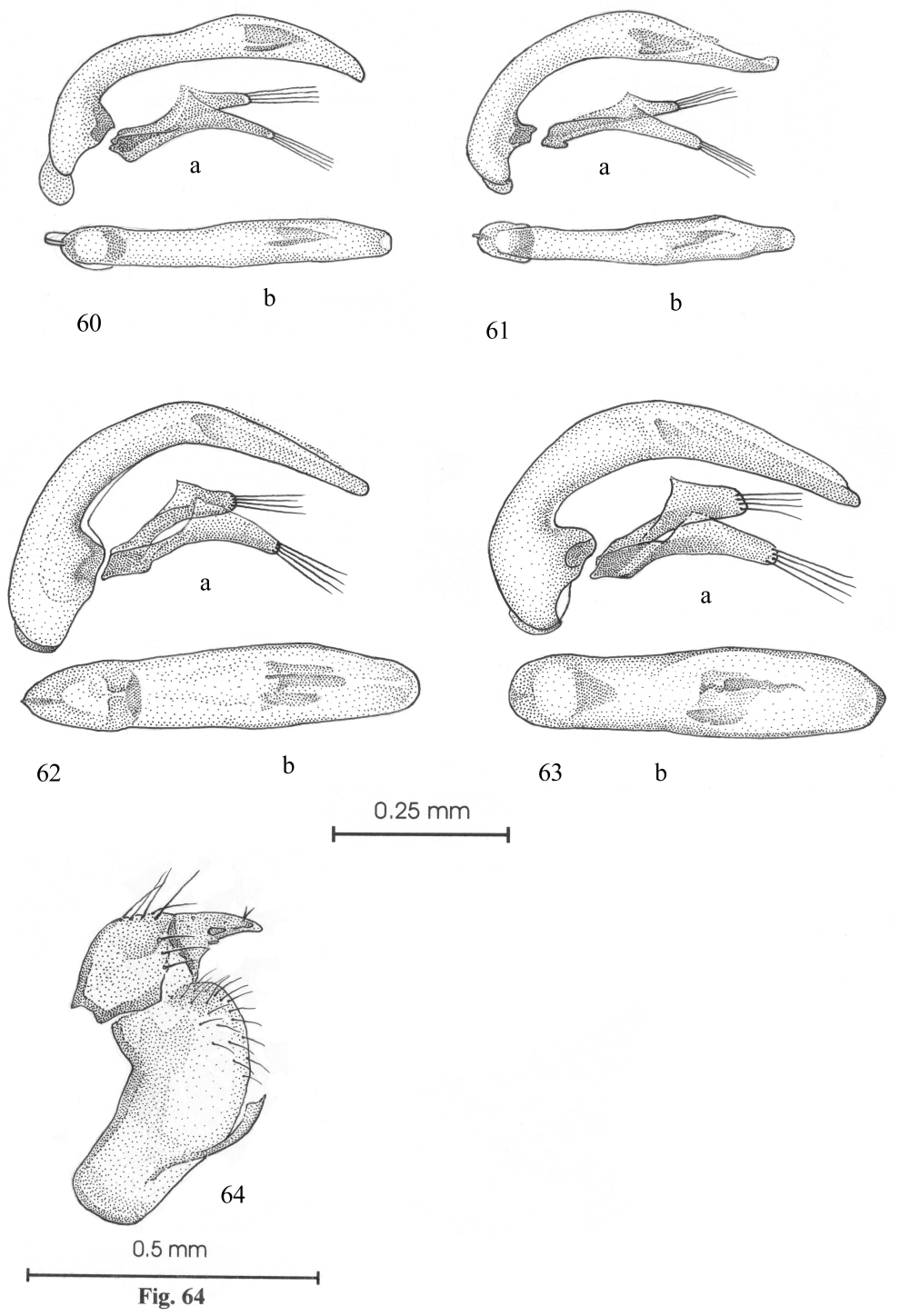
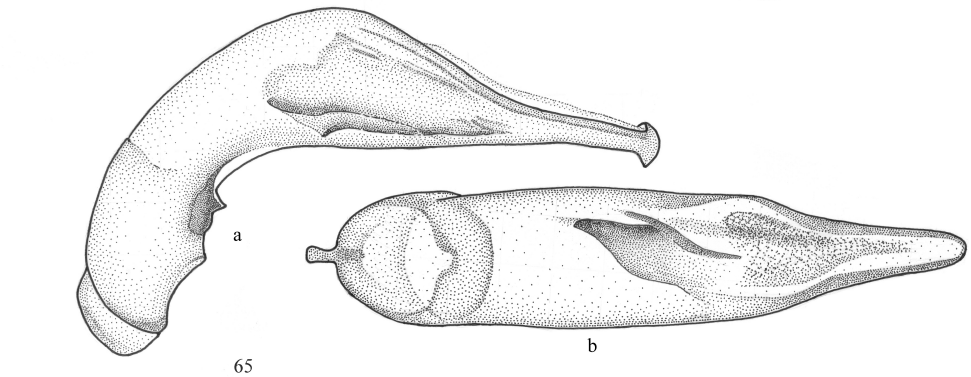


Fig. 64

Figs 60-64. Genitalia of Trechini. 60-63 - aedeagus; 64 – female genitalia. a - lateral view; b - dorsal view. 60 – *Duvalioblemus sichuanicua similis* ssp.n.; 61 – *D.* sp.n. Moravec & Wrase, in litt.; 62 – *Ushijimaella zvarici* sp.n.; 63 – *U. lucida* sp.n. from Qunlaishan Mt. Range; 64 - *Agonotrechus dubius* sp.n.



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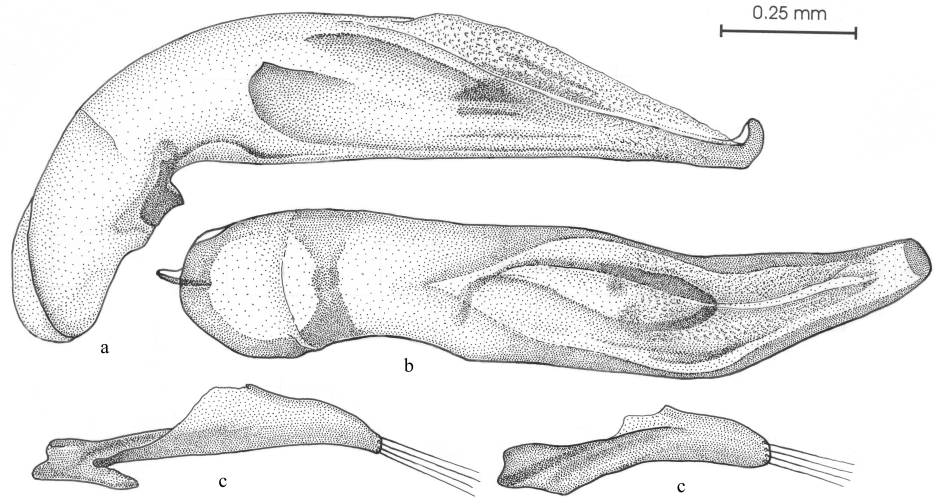

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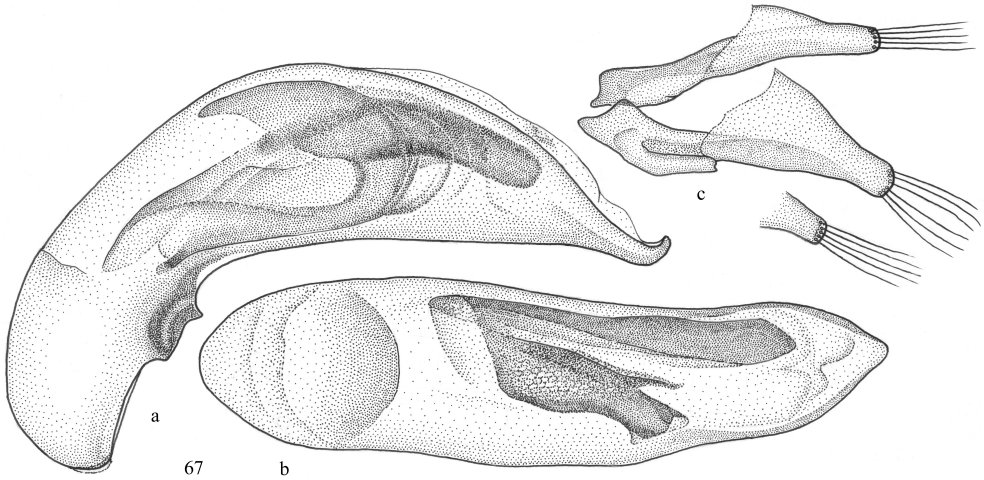

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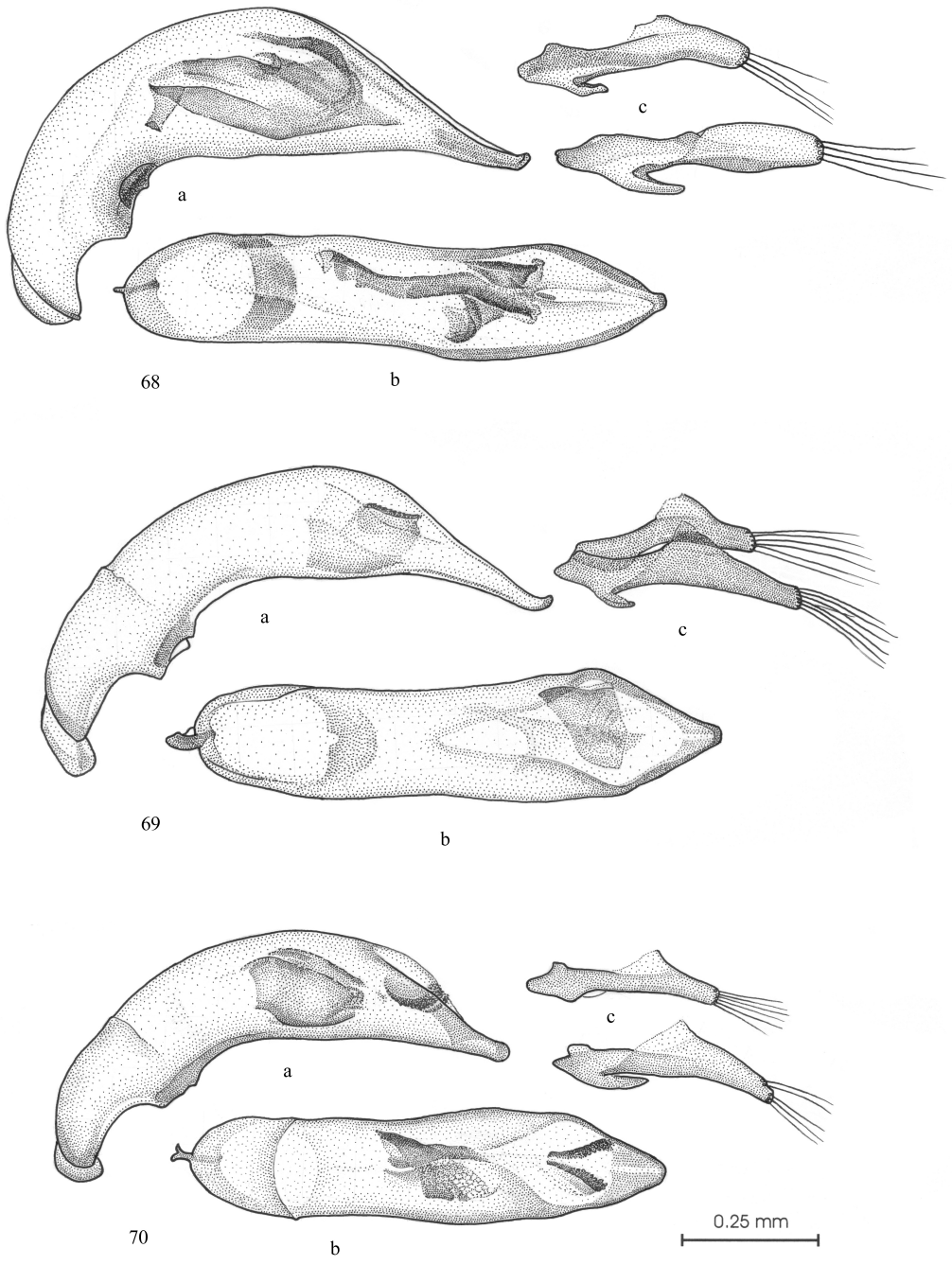
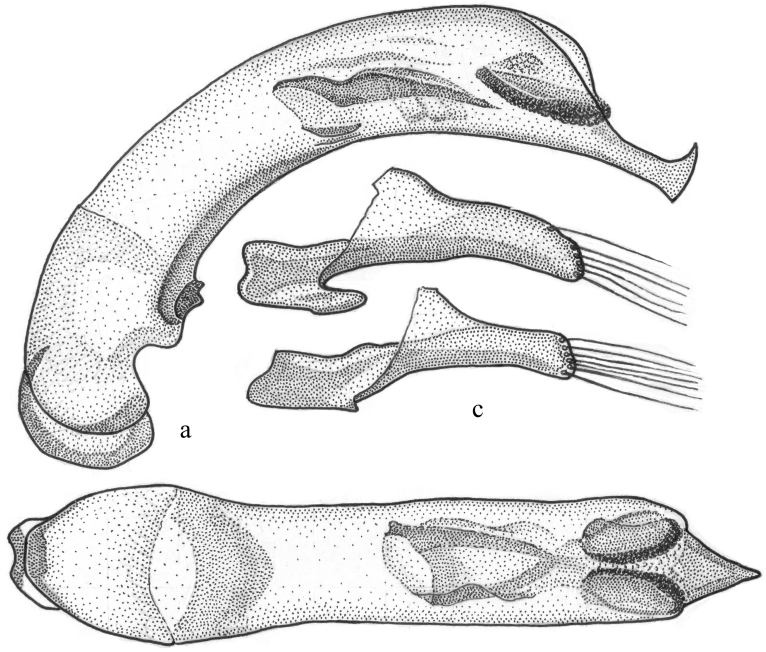
Figs 65-67. Aedeagus of *Sinotrechiama* spp. a - lateral view; b - dorsal view; c – parameres.
65 – *S. tronqueti* (Deuve);
66 – *S.imitator* sp.n.;
67 – *S. pilifer* sp.n.



Figs 68-70. Aedeagus of Trechini. a - lateral view; b - dorsal view; c – parameres.
68 – *Sinotrechiama* sp.n. Moravec & Wrase, in litt.;
69 – *Protrechiama giganteus* gen.n., sp.n.;
70 – *P. glabricollis* gen.n., sp.n.



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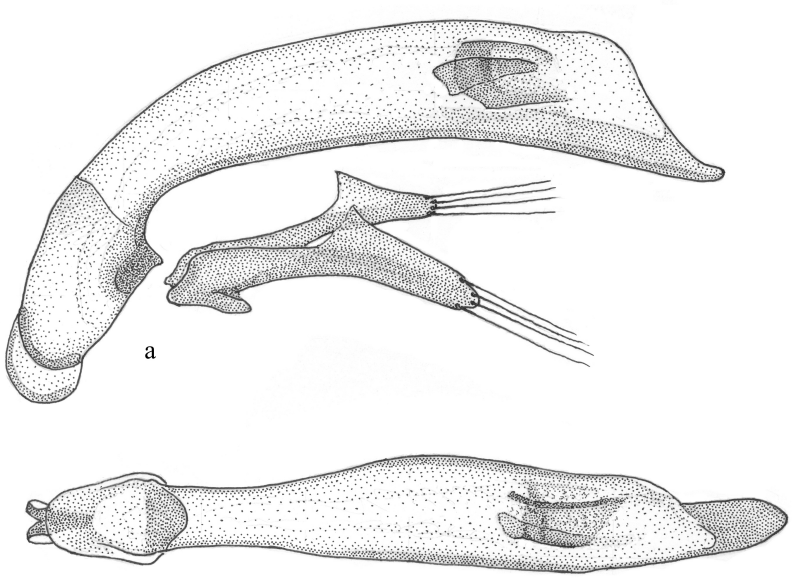

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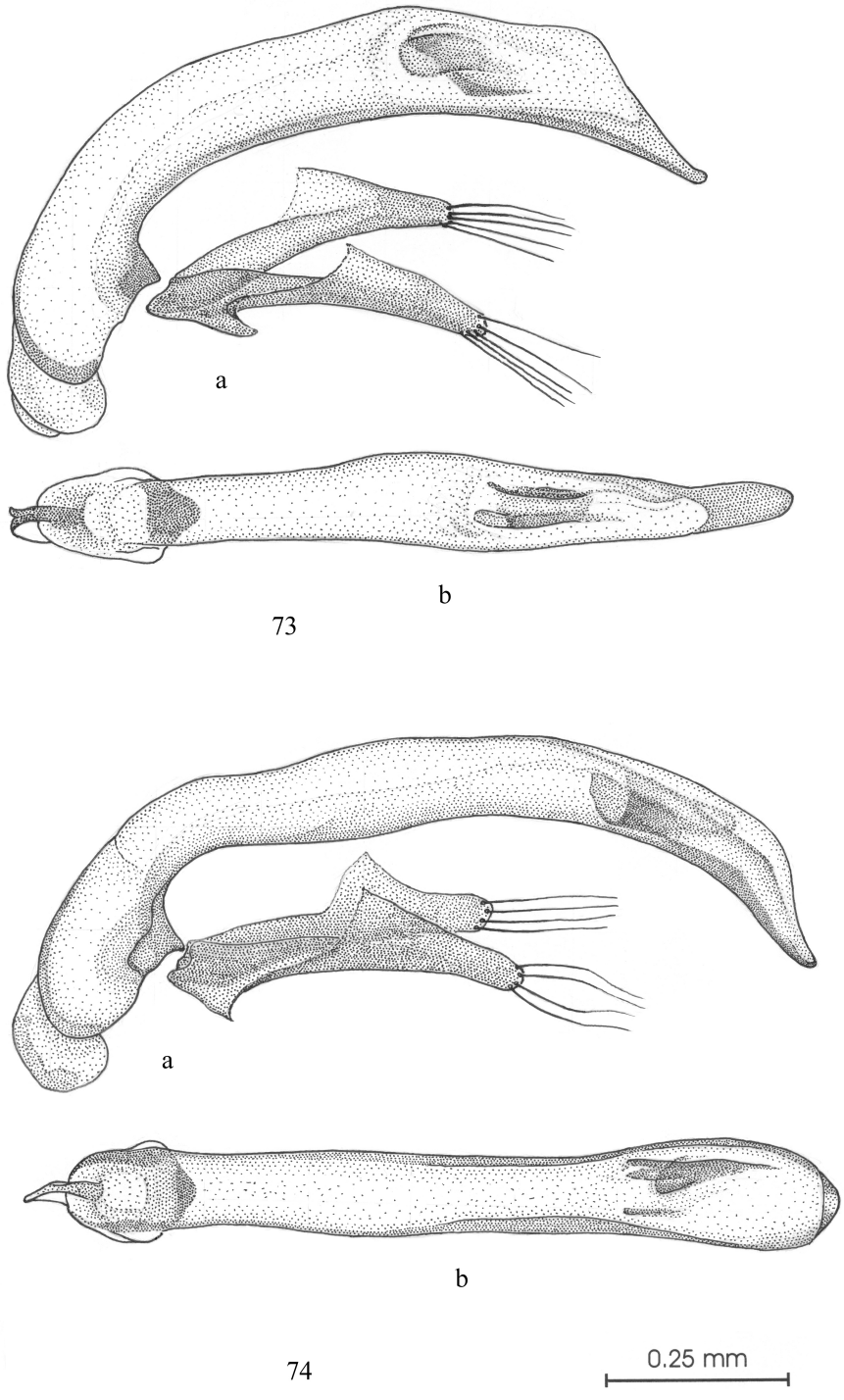
Figs 71-72. Aedeagus of Trechini. a - lateral view; b - dorsal view; c – parameres.
71 – *Protrechiama marginalis* gen.n., sp.n.;
72 – *Agonotrechus lunanshanus* sp.n.



Figs 73-74. Aedeagus of Trechini. a - lateral view; b - dorsal view.
73 – *Agonotrechus trechoides* sp.n.;
74 – *Paragonotrechus apterus* sp.n.