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Revision of genera *Rhinodontus* and *Trachyphilus* (Coleoptera: Curculionidae: Entiminae: Trachyphloeini)

Revize rodů *Rhinodontus* a *Trachyphilus* (Coleoptera: Curculionidae: Entiminae: Trachyphloeini)

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Taxonomy, new species, new synonym, new combination, keys, distribution, Coleoptera, Curculionidae, Entiminae, *Rhinodontus*, *Trachyphilus*, *Callirhopalus*, *Pseudocneorhinus*, *Rhinodontodes*, *Trachyphloeoides*, east Palaearctic region

Abstract. Three new species of *Rhinodontus* Faust, 1890 and one new species of *Trachyphilus* Faust, 1887 are described and illustrated: *Rhinodontus mongolicus* sp. n. from Mongolia and *R. crassiscapus* sp. n., *R. sawadai* sp. n. and *Trachyphilus chinensis* sp. n. from China. New synonymy *Rhinodontus ignarus* Faust, 1890 = *Rhinodontus proximus centralis* Voss, 1967, syn. nov. is proposed. *Rhinodontus hirsutus* Formánek, 1916 is transferred to *Pseudocneorhinus* Roelofs, 1873. Redescriptions of *Rhinodontus ignarus* Faust, 1890, *R. proximus* Voss, 1967, *Trachyphilus saluber* Faust, 1887 and *T. sordidus* (Sharp, 1896) are provided. All species from these two genera are illustrated, keyed and check-listed. New distributional data are presented for all redescribed species. Lectotypes of the following species are designated: *Callirhopalus sedakowii* Hochhuth, 1851, *Pseudocneorhinus hirsutus* (Formánek, 1916), *Rhinodontus ignarus* Faust, 1890, *Trachyphilus saluber* Faust, 1887, *Trachyphilus sordidus* (Sharp, 1896) and *Trachyphloeoides sordidus* (Faust, 1890).

INTRODUCTION

In the Palaearctic region, the tribe Trachyphloeini Lacordaire, 1863 includes 12 genera with about 240 known species. The majority of species are distributed in the western Mediterranean, fewer of them occur in Central Europe and the Balkans. Only 12 species of the genus *Trachyphloeus* Germar, 1817 are known also from Asia Minor and Caucasus, and only five species of the same genus were collected also in central Asia and in Siberia. On the other hand, seven small genera of that tribe, containing from one to five species, are known only from the eastern part of the Palaearctic region, i.e. from China, Mongolia, Siberia and Japan. Preparing a generic revision of the tribe I have studied available type material of several taxa of these east Palaearctic genera and other, unidentified material. In two of those genera, *Rhinodontus* Faust, 1890 and *Trachyphilus* Faust, 1887, I discovered four unknown species. In the present paper, three new species of *Rhinodontus* and one new species of *Trachyphilus* are described and the remaining species of these two genera are redescribed along with the designation of lectotypes of all studied east Palaearctic Trachyphloeini belonging to genera *Callirhopalus* Hochhuth, 1851, *Pseudocneorhinus* Roelofs, 1873, *Rhinodontodes* Voss, 1967 and *Trachyphloeoides* Formánek, 1907.

Throughout the text, the following abbreviations are used: APO – coll. Attila Podlussány, Budapest; CAUO – coll. College of Agriculture, University of Osaka Prefecture, Osaka; DEI – coll. Deutsches Entomologisches

Institut, Eberswalde; HNHM – coll. Természettudományi Múzeum, Budapest; JFR – coll. Jan Fremuth, Hradec Králové; MNHU – coll. Museum für Naturkunde der Humboldt Universität, Berlin; MNHW – coll. Museum of Natural History, Wrocław University, Wrocław; NMP – coll. Národní muzeum, Praha; NHM – coll. Natural History Museum, London; SMOPJ – coll. Slovenské múzeum ochrany prírody a jaskyniarstva, Liptovský Mikuláš; OMA – coll. Oto Majzlan, Bratislava; RBO – coll. Roman Borovec, Nechanice; SMN – coll. Staatliches Museum für Naturkunde, Stuttgart; SMT – coll. Staatliches Museum für Tierkunde, Dresden; SZM – coll. Siberian Zoological Museum, Novosibirsk.

r. e. – rostrum excluded; / – separation of different labels; [] – remarks and comments of the author.

TAXONOMIC PART

Rhinodontus Faust, 1890

Rhinodontus Faust, 1890: 455.

This genus was described by Faust (1890), based on a single species. Only two taxonomic studies dealed subsequently with the genus. Formánek (1916) described *R. hirsutus* from Tibet; the species now belongs to the genus *Pseudocneorhinus* (see chapter Additional type material examined). Later on, Voss (1967) studied weevils collected by Z. Kaszab in Mongolia. My study of all available material from European museums and private collections resulted in a discovery of three more new species. The genus will be fully redescribed in a forthcoming generic revision of the tribe Trachyphloeini.

Type species: *Rhinodontus ignarus* Faust, 1890, by monotypy

Rhinodontus ignarus Faust, 1890
(Figs 1-4)

Rhinodontus ignarus Faust, 1890: 455.
Rhinodontus proximus centralis Voss, 1967: 276, **syn. n.**

Type material. Faust described this species as follows: "Im März – bei der Stadt San-tschuan, in Gan-ssu, im April – an der Grenze des Hochlandes Amdo in grösserer Anzahl gesammelt". I have seen five specimens on three pins from Faust's collection (SMT), two males and three females. I have designated the lectotype and paralectotypes as follows: Lectotype – one female, the only specimen on one pin, lacking left prothoracic and right metathoracic leg and measuring 3.75 mm (r. e.); paralectotypes – two males on one pin and two females on another pin, lacking parts of legs and antennae. All specimens bear the following labels: small blank square gold label / Kann-ssu, Patanin [handwritten] / ignarus, Faust [handwritten] / Coll. J. Faust Ankauf 1900 [yellow, printed] / Type [red, handwritten] / Staatl. Museum für Tierkunde, Dresden [printed] / LECTOTYPUS ♀, resp. PARALECTOTYPUS ♂ or ♀ Rhinodontus ignarus Faust, R. Borovec des. 2002 [red, printed] / Rhinodontus ignarus Faust, R. Borovec det. 2002 [printed]. Genitalia of all four paralectotypes are extracted by author of this paper and mounted on the same card as specimens. Lectotype is not dissected.

There is one more specimen in Formánek's collection (NMP), labelled: Kan-ssu 1884 E. Patanin [handwritten] / ignarus ex type [handwritten] / Rhinodontus ignarus Faust [handwritten]. Other four specimens are deposited in Reitter's collection (HNHM), labelled: China [printed] / Kanssu, San-tschuan, 1884, leg. Potanin [handwritten] / Paratypus 1890,

Rhinodontus ignarus Faust [red margins, handwritten, not original label] / coll. Reitter [printed]. All these labels are different from the labels beneath Faust's specimens and that is why I did not include the specimens from Formánek's and Reitter's collections as paralectotypes.

This is a valid species.

Rhinodontus proximus centralis was described from one specimen (holotypus), from: "Zentral aimak, Zuun-Chara, 850 m, 8.VII.1964 (Nr. 281)" and deposited in HNHM. I have examined this female specimen and found that it belongs to *R. ignarus*. Thus, *R. proximus centralis* is merely a junior subjective synonym of *R. ignarus*. It is labelled as follows: MONGOLIA, Central aimak Zuun-Chara, 850 m, Exp. Dr. Z. KASZAB, 1964 [printed] / Nr. 281, 8.VII.1964 [printed] / Holotypus 1967 Rhinodontus proximus centralis Voss [orange margins, handwritten, not original label] / Rhinodontus proximus m. ssp. n. centralis, E.Voss det., 1966, Holotypus [Voss's handwriting] / Rhinodontus ignarus Faust, R. Borovec det. 2002 [printed]. Genitalia extracted by the author of this paper and mounted on a card under the specimen.

Additional material examined. 1 ♀, [Mongolia] Cagan-Dava, 13.vii.1987, A. Orosz lgt. (APO); 1 ♀, [Mongolia] Changai, Leder [lgt.] (APO); 7 ♀♀, Mongolia bor., Džargalant, 10.vii.1987, O. Majzlan lgt. (SMOPJ); 1 ♀, ditto (RBO); 2 ♀♀, ditto, but 14.vii.1987 (SMOPJ); 1 ♀, ditto (OMA); 1 ♀, Mongolia centr., Ulaan Baatar, 22.vi.1987, O. Majzlan lgt. (SMOPJ); 1 ♀, Mongolia, Zun Chara, v.-vi.1959, C. Purkyně lgt. (JFR); 1 ♀, Mongolia, Central Ajmak, Undzhul, 150 km S Ulan Bator, 28.vii.1976 (DEI).

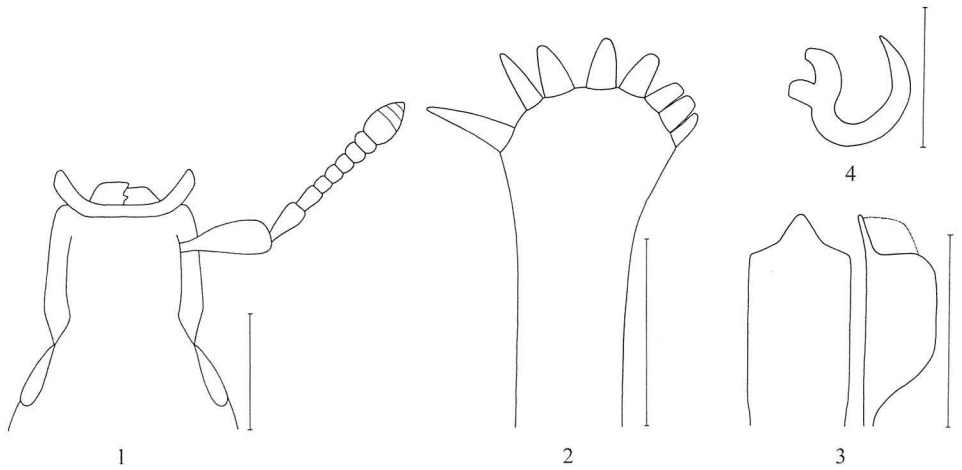
Redescription. Body length (r. e.): 2.94-3.94 mm.

Adherent scales on elytra irregularly angular with the hole in the middle, distance between two scales distictly smaller than diameter of one scale. Adherent scales on pronotum and head irregularly star-shaped, distance between two scales subequal to diameter of one scale. Raised setae on elytra subspatulate, creating one regular row on each interval, gently shorter than half or as long as half of width of interval. Setae on odd intervals gently longer and wider than those on even intervals, light greyish; setae on even intervals light brownish.

Rostrum 1.13-1.18 times as wide as long, in basal third strikingly enlarged anteriad to the widest point and from there feebly tapered anteriad. Epifrons in basal quarter strongly tapered anteriad, in remaining part about parallel-sided with feebly arcuate margins, in the whole length impressed. Epistome long, conspicuous, spacing between its tips subequal to width of anterior part of rostrum. Scrobe in dorsal view invisible, in lateral view furrow-shaped, directed towards but not reaching eye. Eyes very feebly convex, hardly protruding from outline of head. Head wide, flat (Fig. 1), with small tubercles above eyes, tubercles visible in dorso-lateral view.

Scape 2.62-2.83 times as long as wide, strongly thickened towards apex, dorso-ventrally flattened, shorter than funicle, at apex significantly wider than club. Funicle somewhat robust, distinctly shorter than maximum width of rostrum. Antennomere 1 conical, 1.8 times as long as wide; antennomere 2 distinctly more slender and shorter than antennomere 1, 1.5 times as long as wide; antennomere 3 as long as wide or gently longer than wide; antennomeres 4-7 successively wider than long, antennomere 7 almost twice wider than long. Club small and pointed (Fig. 1).

Pronotum 1.45-1.59 times as wide as long, in posterior half very slightly tapering anteriad, almost parallel-sided, in anterior half strongly tapering anteriad, behind anterior border visibly constricted. Pronotum in lateral view feebly vaulted; ocular lobe with fringe of short yellowish setae. Disc with narrow longitudinal furrow in posterior half.



Figs 1-4. *Rhinodontus ignarus* Faust: 1 – head and rostrum, dorsal view. Scale = 0.50 mm; 2 – apex of right protibia, dorsal view. Scale = 0.25 mm; 3 – aedeagus, ventral and lateral view. Scale = 0.50 mm; 4 – spermatheca. Scale = 0.25 mm.
Obr. 1-4. *Rhinodontus ignarus* Faust: 1 – hlava a nosec, pohled svrchu. Měřítko = 0,50 mm; 2 – špice pravé přední holeně, pohled svrchu. Měřítko = 0,25 mm; 3 – aedeagus, spodní a boční pohled. Měřítko = 0,50 mm; 4 – spermatéka. Měřítko = 0,25 mm.

Scutellum very small, triangular, almost indistinct.

Elytra 1.08-1.15 times as long as wide, cylindrical, widest at midlength. Base of elytra arched. Intervals very slightly convex, almost flat.

All femora inermis. Protibia in apical part strongly enlarged at outer side, armed with seven yellowish spines of different length and width, outer spines shorter than inner ones. Internal angle with one additional, narrow and very long brownish spine (Fig. 2). Tarsi long. Tarsomere 2 1.3 times as wide as long; tarsomere 3 deeply bilobed, only gently wider and about as long as previous one; ungular tarsomere 2.5 times as long as previous one, strongly thickened towards apex, 2.5 times as long as wide at apex. Claws connate in basal half, in apical part diverged, Y-shaped.

Female genitalia. Spermatheca C-shaped; cornu slender, long and curved. Nodulus longer than ramus, curved (Fig. 4). Sternum 8 and ovipositor as in *R. proximus*.

Male genitalia. Aedeagus short and wide, in ventral view parallel-sided with apex shortly pointed, with concave sides; in lateral view gently curved, wide, with sharp and short point (Fig. 3).

Differential diagnosis. *R. ignarus* differs from the very similar *R. proximus* by possessing 7+1 protibial spine formula, tarsal claws connate in basal third, and more robust antenna.

Rhinodontus proximus Voss, 1967
(Figs 5-11)

Rhinodontus proximus Voss, 1967: 275.

Type material. This species was described from four specimens from two localities: "Südgobi aimak, Gurban Sajchan ul, 30 km S von Somon Bulgan, 1700 m, 20.VI.1964 (Nr.157)", and:

"Uburchangaj aimak, Baga Bogd ul., zwischen Somon Bogd und Somon Baruun bajan-ulaan, 1900 m, 23.VI.1964 (Nr.176)". I have seen the holotype female (HNHM), bearing following labels: MONGOLIA, Südgobi aimak Gurban Sajchan ul, 30 km S v. somon Bulgan, 1700 m, Exp. Dr. Z. KASZAB, 1964 [printed] / Nr. 157, 20.VI.1964 [printed] / Holotypus 1967 Rhinodontus proximus Voss [orange margins, handwritten, not original label] / Rhinodontus proximus n. sp. Holotypus, E.Voss det., 1966 [Voss's handwriting] / Rhinodontus proximus Voss, R. Borovec det. 2002 [printed]. Genitalia extracted by the author of this paper and mounted on a card under the specimen.

It is a valid species, closely related to *R. ignarus*.

Additional material examined. 7 ♀♀, [China] Ost-Turkestan, Altyn-tagh [=Altun Shan in Xinjiang Uygur] (SMT); 4 ♀♀, [China] Asia centr., Ost-Turkestan, Altyn-Tagh, vii.1903, F. Hauser lgt. (JFR); 1 ♀, [China] Turkestan, Altyn Tagh (NMP).

Redescription. Body length (r. e.): 3.25-4.06 mm.

Adherent scales on elytra, pronotum and head irregularly star-shaped, distance between two scales on elytra gently smaller than diameter of one scale, distance on pronotum and head slightly larger than on elytra. Raised setae on elytra creating one regular row on each interval; setae on odd intervals spatulate, greyish, on even intervals subspatulate, dark brownish, gently shorter than setae on odd intervals.

Rostrum 1.12-1.19 times as wide as long, in basal quarter enlarged anteriad to the widest point, from here weakly tapering anteriad. Epifrons in basal third converging anteriad, in apical two thirds parallel-sided, with very feebly arcuate margins, wide and almost flat, along entire length shallowly deepened. Epistome long and conspicuous, spacing between its tips only slightly narrower than anterior width of rostrum. Scrobe in dorsal view invisible, in lateral view furrow-shaped, directed towards eye but not reaching it (Fig. 6). Eyes feebly convex, feebly prominent from outline of head. Head (Fig. 5) wide and flat, with small tubercles above eyes visible in dorso-lateral view.

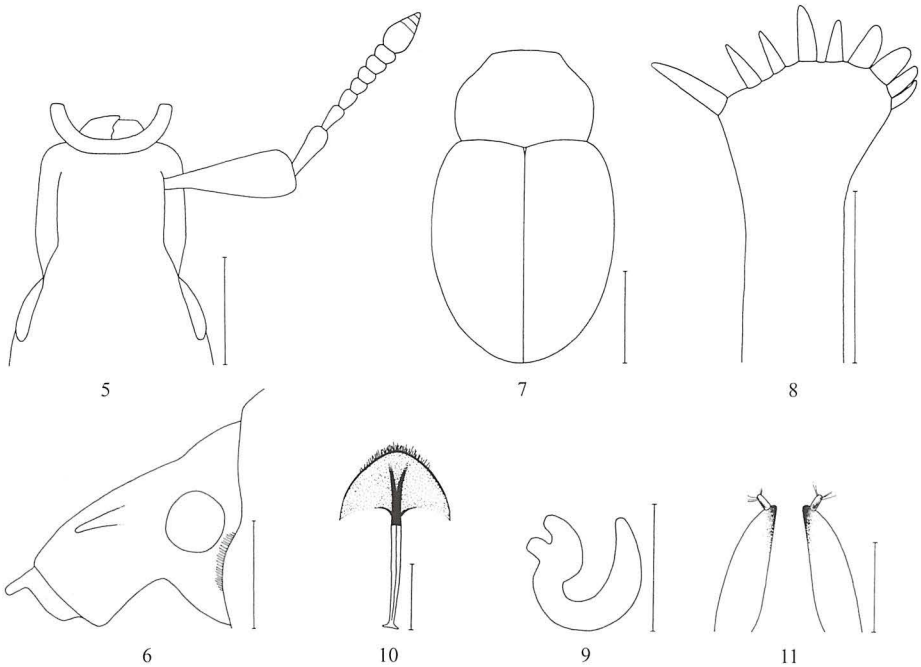
Antenna slender. Scape 2.86-2.98 times as long as wide, strongly thickened to apex, dorso-ventrally flattened, shorter than funicle. Funicle slender, as long as rostrum in the widest point. Antennomere 1 slender and very long, conical, more than twice longer than wide. Antennomere 2 gently slender than previous one, twice longer than wide. Antennomere 3 1.5 times as long as wide; antennomere 4 as long as wide; antennomeres 5-7 wider than long, increasingly more transverse, antennomere 7 about 1.5 times as wide as long. Club small and pointed (Fig. 5).

Pronotum 1.48-1.55 times as wide as long, in posterior half subparallel-sided, in anterior half strongly tapered anteriad (Fig. 7). Disc regularly vaulted, without any structure, in lateral view feebly vaulted; ocular lobe with fringe of short yellowish setae (Fig. 6).

Scutellum very small, triangular, almost indistinct (Fig. 7).

Elytra cylindrical, widest in middle, 1.12-1.15 times as long as wide. Base of elytra arched (Fig. 7). Striae visible, intervals feebly convex.

All femora inermis. Protibia in apical part strongly enlarged at outer side, with eight or, exceptionally, nine yellowish spines of different length and width, outer spines shorter than inner ones. Internal angle with one additional narrow and very long brownish spine (Fig. 8). Tarsi long and slender. Tarsomere 2 1.5 times as wide as long; tarsomere 3 deeply bilobed, gently wider than previous one; ungular tarsomere 2.5 times as long as tarsomere 3, strongly thickened to apex and twice longer than wide at apex. Claws connate in short basal part, then conspicuously diverging, V-shaped.



Figs 5-11. *Rhinodontus proximus* Voss: 5 – head and rostrum, dorsal view; 6 – head and rostrum, lateral view. Scale = 0.50 mm; 7 – pronotum and elytra, dorsal view. Scale = 1.00 mm; 8 – apex of right protibia, dorsal view; 9 – spermatheca; 10 – sternum 8 in female; 11 – ovipositor. Scale = 0.25 mm.
Obr. 5-11. *Rhinodontus proximus* Voss: 5 – hlava a nosec, pohled svrchu; 6 – hlava a nosec, boční pohled. Měřítko = 0,50 mm; 7 – štít a krovky, pohled svrchu. Měřítko = 1,00 mm; 8 – špice pravé přední holeně, pohled svrchu; 9 – spermatéka; 10 – 8. sternit samice; 11 – ovipositor. Měřítko = 0,25 mm.

Female genitalia. Spermatheca C-shaped; cornu long and slender, curved. Nodulus and ramus well developed, subequal in length (Fig. 9). Sternum 8 with short and robust apodeme with distinct, transverse caput. Apex of apodeme Y-shaped, bifurcation located in the middle of plate. Plate large, umbrella-shaped, with well sclerotised margo apicalis bearing short setae and with ill-defined margo basalis (Fig. 10). Hemisternite of ovipositor robust, tapering apically. Stylus short and cylindrical, bearing setae (Fig. 11).

Male unknown.

Differential diagnosis. *R. proximus* differs from the very similar *R. ignarus* by possessing 8(9)+1 protibial spine formula, tarsal claws connate only in a very short basal part, and more slender antenna.

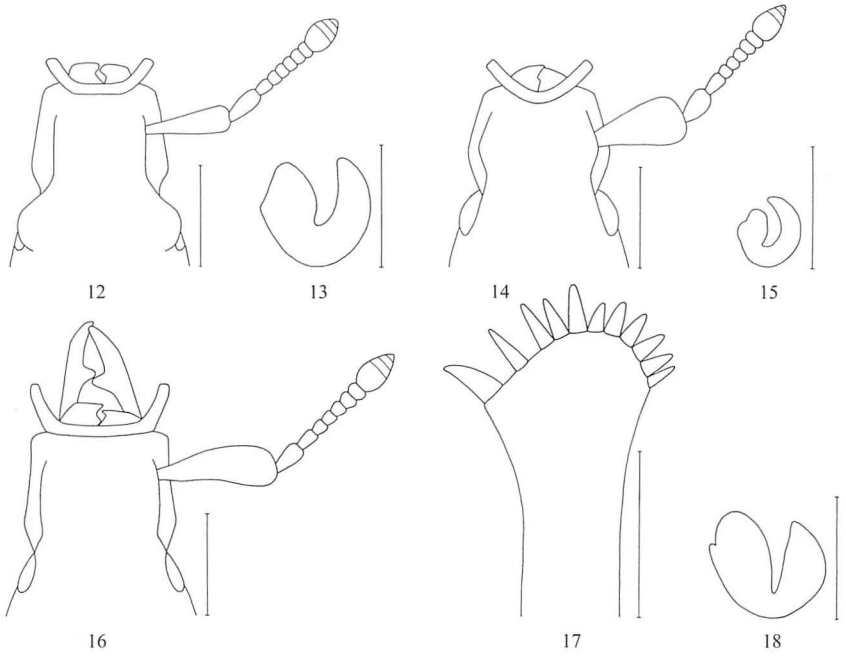
***Rhinodontus mongolicus* sp. n.**
(Figs 12, 13)

Type material. Holotype: ♀, Mongolia centr., Ulaan Baatar, 26.vi.1988, O. Majzlan lgt. (SMOPJ). Paratypes: 10 ♀♀, the sama data as holotype (8 ♀♀ SMOPJ, 1 ♀ RBO, 1 ♀ DEI); 6 ♀♀, ditto, but 22.vi.1987 (4 ♀♀ SMOPJ, 1 ♀ OMA, 1 ♀ JFR).

Description. Body length (r. e.): 2.88-3.41 mm (in holotype 3.34 mm).

Body black; all tarsi, epistome, antennal funicle with club and basal part of scape reddish brown; spines at apex of protibia yellowish. Entire body densely squamose except of antennal club being densely covered by short setae. Adherent scales on elytra, pronotum and head irregularly angle-shaped with the hole in the middle, distance between two scales slightly shorter than diameter of one scale. Raised setae spatulate, creating one row on each elytral interval, shorter than half of width of interval; setae on odd intervals light greyish, on even intervals blackish. Raised setae on head and pronotum slightly shorter than those on elytra, irregularly scattered. Scape and funicle with semierect subspatulate setae.

Rostrum 1.19-1.26 times as wide as long, in basal quarter strongly enlarged anteriad, in apical three quarters tapering anteriad. Epifrons in short basal part strongly tapered anteriad, in remaining part almost parallel-sided, with slightly rounded margins, along entire length deepened. Epistome long and conspicuous, spacing between its tips about same as anterior



Figs 12-18. 12, 13: *Rhinodontus mongolicus* sp. n.: 12 – head and rostrum, dorsal view. Scale = 0.50 mm; 13 – spermatheca. Scale = 0.25 mm. 14, 15: *Rhinodontus crassiscapus* sp. n.: 14 – head and rostrum, dorsal view. Scale = 0.50 mm; 15 – spermatheca. Scale = 0.25 mm. 16-18: *Rhinodontus sawadai* sp. n.: 16 – head and rostrum, dorsal view. Scale = 0.50 mm; 17 – apex of right protibia, dorsal view; 18 – spermatheca. Scale = 0.25 mm.

Obr. 12-18. 12, 13: *Rhinodontus mongolicus* sp. n.: 12 – hlava a nosec, pohled svrchu. Měřítko = 0,50 mm; 13 – spermatéka. Měřítko = 0,25 mm. 14, 15: *Rhinodontus crassiscapus* sp. n.: 14 – hlava a nosec, pohled svrchu. Měřítko = 0,50 mm; 15 – spermatéka. Měřítko = 0,25 mm. 16-18: *Rhinodontus sawadai* sp. n.: 16 – hlava a nosec, pohled svrchu. Měřítko = 0,50 mm; 17 – špice pravé přední holeně, pohled svrchu; 18 – spermatéka. Měřítko = 0,25 mm.

width of rostrum. Scrobe in dorsal view invisible, in lateral view very short, furrow-shaped, feebly curved. Eyes small, feebly convex. Head above the eyes with large and prominent rounded sulci nearly covering eyes in dorsal view (Fig. 12).

Antenna slender. Scape slender, straight, feebly thickened towards apex, feebly dorso-ventraly flattened, 3.13-3.18 times as long as wide, slightly shorter than width of epifrons at the level of antennal insertion, visibly shorter than funicle, at apex about as wide as club. Antennomere 1 twice longer than wide, long and conical. Antennomere 2 strikingly narrower and shorter than previous one, 1.25 times as long as wide, cylindrical. Antennomeres 3-7 strikingly and increasingly more transverse, antennomere 3 1.25 times as wide as long, antennomere 7 almost twice wider than long. Club small and pointed (Fig. 12).

Pronotum 1.41-1.50 times as wide as long, in posterior half feebly, in anterior half strikingly tapered anteriad. Disc in basal half with shallow longitudinal furrow, in lateral view feebly vaulted; ocular lobe with fringe of short yellowish setae.

Scutellum very small, triangular, almost indistinct.

Elytra 1.05-1.12 times as long as wide, with feebly rounded sides and very feebly vaulted intervals. Base of elytra arched. Striae visible.

All femora inermis. Protibia in apical part strongly enlarged outside, with six to seven yellowish spines of different length, outer spines shorter than inner spines. Internal angle with one additional narrow and long brownish spine. Tarsus long; tarsomere 2 1.3 times as wide as long; tarsomere 3 only slightly wider than and as long as previous one, deeply bilobed; ungular tarsomere more than twice longer than tarsomere 3 and twice longer than wide at apex, strikingly thickened distad. Claws connate in short basal part, then conspicuously diverged, V-shaped.

Female genitalia. Spermatheca C-shaped. Cornu long and curved, nodulus short and wide, ramus almost invisible, developed only as very small hump (Fig. 13). Sternum 8 and ovipositor as in *R. proximus*.

Male unknown.

Collection circumstances. O. Majzlan (pers. comm.) collected the type material in a grassy steppe by sweeping low vegetation with *Stipa* sp. and *Artemisia* sp. in early morning.

Etymology. Patronymic.

Differential diagnosis. *Rhinodontus mongolicus* sp. n. is very easy distinguishable from all other species of *Rhinodontus* by the prominent sulci covering eyes in dorsal view and by the slender antennal scape.

Rhinodontus crassiscapus sp. n.

(Figs 14, 15)

Type material. Holotype: 1 ♀, [China], Ost-Turkestan, Altyn-Tagh [=Altun Shan in Xinjiang Uygur], vii.1903, coll. Hauser (MNHU). Paratype: 1 ♀, ditto (MNHU).

Additional material examined. 1 ♀, China (Gansu), ca 25 km e. Xiahe, 2700-2900 m, (Wagatan Timber), 30.vii.-2.viii.1993, Heinz lgt. (SMN). This female differs from the type specimens by its gently narrower antennal funicle and gently narrower raised elytral setae. It is 3.38 mm long specimen (r. e.), with all tarsi, epistome, antennal funicle with club, basal part of scape and spines at apex of protibia dark brown.

Description. Body length (r. e.): 3.44-3.50 mm (in holotype 3.44 mm).

Body black; all tarsi, epistome, antennal funicle with club, basal part of scape and spines at apex of protibia reddish brown (type specimens are somewhat teneral). Entire body densely squamose except of antennal club being covered only by short setae. Adherent scales on elytra, pronotum and head irregularly angular-shaped, distance between two scales shorter than diameter of one scale. Raised setae on elytra spatulate and long, longer than half of width of one interval, creating one dense row on each interval. Raised setae on head including rostrum visibly shorter than elytral ones, irregularly scattered. Funicle and scape with semierect, narrow, almost piliform setae.

Rostrum 1.29-1.31 times as wide as long, in basal third very strikingly divergent anteriad, in apical two thirds strongly convergent anteriad, widest in basal third. Epifrons sinuous in short basal part strongly tapered anteriad, then strongly enlarged and again strongly tapered anteriad, widest at about midlength, widely deepened along entire length. Epistome long, less conspicuous than in other species of the genus, spacing between its tips narrower than greatest width of epifrons. Scrobe in dorsal view invisible, in lateral view furrow-shaped, feebly curved, directed towards but not reaching eye. Eyes small, feebly convex. Head wide and flat (Fig. 14), without any projection above eyes.

Antenna robust. Scape very short and very robust, conspicuously thickened towards apex, triangular in dorsal view, strongly dorso-ventrally flattened, 1.75 times as long as wide, shorter than maximum width of epifrons. Antennomere 1 1.7 times as long as wide; antennomere 2 1.5 times as long as wide, conical, distinctly narrower than previous one; antennomeres 3-7 wider than long, successively more transverse, antennomere 7 about twice as wide as long. Club small and pointed (Fig. 14).

Pronotum 1.53-1.59 times as wide as long, in posterior half feebly rounded, widest in posterior third, in anterior half strikingly narrowed anteriad. Disc regularly vaulted, in lateral view only feebly so; ocular lobe with fringe of short yellowish setae.

Scutellum very small, triangular, almost indistinct.

Elytra 1.06-1.11 times as long as wide, with feebly rounded sides. Base of elytra arched. Striae visible, intervals almost flat.

All femora inermis. Protibia in apical part strongly enlarged at outer side, with seven to eight reddish brown spines of different length, outer spines shorter and slightly wider than inner ones. Internal angle with one additional narrow and long brownish spine. Tarsi long; tarsomere 2 1.3 times as wide as long; tarsomere 3 only slightly wider and about as long as previous one, deeply bilobed; ungular tarsomere more than twice longer than tarsomere 3 and more than twice longer than wide at apex, strikingly thickened to apex. Claws connate in short basal part then conspicuously diverged, V-shaped.

Female genitalia. Spermatheca C-shaped; cornu slender and curved, nodulus short and wide, longer than inconspicuous ramus (Fig. 15). Sternum 8 and ovipositor as in *R. proximus*.

Male unknown.

Etymology. From Latin crassus (wide) and scapus (scape), reflecting its very wide and short antennal scape.

Differential diagnosis. *Rhinodontus crassiscapus* sp. n. differs from all other species of the genus by its very short, distally thickened scape and by its long raised elytral setae being longer than one half of interval width.

Rhinodontus sawadai sp. n.
(Figs 16-18)

Type material. Holotype: 1 ♀, [China], Chin. Turkestan, Polu bis Thibet Gebg. [= Pulu hill, near Tibet frontier, in Xinjiang Uygur], ca 3490 m, 11.v.1890, Conradt S. [lgt.] (MNHU). Paratypes: 2 ♀♀, ditto, (1 ♀ MNHU, 1 ♀ RBO).

Description. Body length (r. e.): 3.81-3.94 mm (in holotype 3.94 mm).

Body black; all tarsi, epistome, antennal funicle, club, basal part of scape and spines at apex of protibia reddish brown. Whole body densely covered by irregular star-shaped scales, except of antennal club being covered by short and dense setae; distance between two scales shorter than diameter of one scale. Raised setae on elytra spatulate, setae on odd intervals light greyish, on even ones brownish, about as long as half of elytral interval, creating one row on each interval. Raised setae on head and pronotum visibly shorter than elytral ones, irregularly scattered. Scape and funicle with semierect, almost piliform setae.

Rostrum wide and short, 1.30-1.35 times as wide as long, in basal quarter to third strongly divergent anteriad, from this widest point tapering anteriad. Epifrons in short posterior part narrowed anteriad, in anterior part almost parallel-sided, with feebly arcuate margins, very wide and almost flat, without any sculpture, very feebly longitudinally impressed. Epistome long, conspicuous, spacing between its tips same as anterior width of rostrum. Scrobe in dorsal view invisible, in lateral view furrow-shaped, feebly curved, directed towards eye but not reaching it. Eyes small, almost flat in dorsal view. Head wide and flat (Fig. 16), without any projection above eyes.

Antenna slender. Scape 2.7-3.0 times as long as wide, strongly thickened towards apex, at apex strikingly wider than club, feebly curved near midlength, dorso-ventrally flattened, as long as funicle or as maximum width of epifrons. Antennomere 1 1.5 times as long as wide; antennomere 2 conical, strikingly narrower and shorter than previous one, 1.5 times as long as wide; antennomeres 3 and 4 as long as wide; antennomere 5 slightly wider than long; antennomeres 6 and 7 distinctly wider than long, antennomere 7 1.7 times as wide as long. Club small and pointed (Fig. 16).

Pronotum 1.44-1.47 times as wide as long, in posterior half parallel-sided, in anterior half strongly tapering anteriad. Disc regularly vaulted, without any structure, in lateral view feebly vaulted; ocular lobe with fringe of short, yellowish setae.

Scutellum very small, triangular, almost indistinct.

Elytra 1.07-1.10 times as long as wide, oval, with regularly rounded sides, widest at midlength. Base of elytra arched. Striae visible, intervals almost flat.

All femora inermis. Protibia in apical part feebly enlarged at outer side, with 9 brownish, equally wide spines, outer spines shorter than inner ones. Inner angle with one additional narrow and long spine (Fig. 17). Tarsi long; tarsomere 2 1.4 times as wide as long; tarsomere 3 as long and only slightly wider than previous one, deeply bilobed; ungular tarsomere more than twice longer than tarsomere 3, conspicuously thickened towards apex, twice longer than wide at apex, almost as wide as tarsomere 2. Claws connate in short basal part, then conspicuously diverged, V-shaped.

Female genitalia. Spermatheca C-shaped. Cornu short and wide, semicircular. Nodulus very wide and short, ramus very small, visible as inconspicuous hump (Fig. 18). Sternum 8 and ovipositor as in *R. proximus*.

Male unknown.

Etymology. Named after Dr. Yoshihiro Sawada, coleopterist and curator of the beetle collection at the entomological laboratory in Graduate School of Osaka Prefecture University.

Differential diagnosis. *Rhinodontus sawadai* sp. n. can be distinguished from other species of *Rhinodontus* by its wider rostrum, curved scape, missing prominencies above eyes and less enlarged outside apex of protibia.

Key to the species of Rhinodontus

1. Head with prominent lateral sulci, in dorsal view covering eyes. Scape slender, 3.1-3.2 times as long as wide, at apex hardly wider than club (Fig. 12). Body length 2.9-3.4 mm. ..... *R. mongolicus* sp. n.
– Lateral sulci inconspicuous or missing, eyes not covered in dorsal view. Scape thickened towards apex, at most 3.0 times longer than wide, at apex distinctly wider than club (Figs 1, 5, 14, 16). 2
2. Scape strongly thickened towards apex, 1.75 times as long as wide. Epifrons in anterior two thirds strikingly enlarged and then tapered, wider than epistome (Fig. 14). Raised setae on elytra longer than half of width of elytral interval. Body length 3.4-3.5 mm. ..... *R. crassiscapus* sp. n.
– Scape less enlarged, at least 2.6 times as long as wide. Epifrons in anterior two thirds almost parallel-sided, narrower than epistome (Figs 1, 5, 16). Raised setae on elytra at most as long as half of width of elytral interval. 3
3. Sulci above eyes invisible in dorso-lateral view. Scape curved near midlength. Rostrum wider, 1.3-1.35 times as wide as long (Fig. 16). Apex of protibia feebly enlarged outside, spines dark brownish, finer (Fig. 17). Body length 3.8-3.9 mm. ..... *R. sawadai* sp. n.
– Head with visible sulci above eyes in dorso-lateral view. Scape almost straight. Rostrum narrower, 1.1-1.2 times as wide as long (Figs 1, 5). Apex of protibia strikingly enlarged outside, spines yellowish, more robust (Figs 2, 8). 4
4. Apex of protibia altogether with eight spines (Fig. 2). Claws connate in basal third, Y-shaped. Antenna robust, funicle shorter than maximal width of rostrum (Fig. 1). Body length 2.9-3.9 mm. ..... *R. ignarus* Faust
– Apex of protibia altogether with nine to ten spines (Fig. 8). Claws connate only in very short basal part, V-shaped. Antenna slender, funicle as long as maximal width of rostrum (Fig. 5). Body length 3.3-4.1 mm... ..... *R. proximus* Voss

Trachyphilus Faust, 1887

Trachyphilus Faust, 1887: 164.
Trachyrhinus Sharp, 1896: 91.
Trachyphilus: Zherikhin et al., 1996: 516.

Trachyphilus was described by Faust (1890) to accomodate a single species from Siberia and was regarded as monotypic for a long time. The second species of the genus, *T. sordidus*, was described by Sharp (1896) from Japan but it was initially placed in the genus *Trachyrhinus*. Recent material collected in China and presented to me turned out to contain another species that is described below. The genus will be redescribed in a forthcoming generic revision of the tribe Trachyphloeini.

Type species: *Trachyphilus saluber* Faust, 1887, by monotypy

Trachyphilus saluber Faust, 1887
(Figs 19-24)

Trachyphilus saluber Faust, 1887: 164.
Trachyphilus saluber: Formánek, 1907: 125; Zherikhin et al., 1996: 516.

Type material. Faust (1887) did not state the number of type specimens in his original description of this species from "Pochrofka, Wladiwostok". There are four females pinned on three pins in Faust's collection (SMT). I have designated as the lectotype one well-preserved specimen on one pin, measuring 3.25 mm (r. e.), the other three as paralectotypes. The specimens bear the following labels: small blank square gold label / Vladivostok, Koltze [handwritten] / saluber Faust [handwritten] / Coll. J. Faust Ankauf 1900 [yellow, printed] / Type [red, handwritten] / Staatl. Museum für Tierkunde, Dresden [printed] / LECTOTYPUS ♀, resp. PARALECTOTYPUS ♀ Trachyphilus saluber Faust, R. Borovec des. 2002 [red, printed] / Trachyphilus saluber Faust, R. Borovec det. 2002.

Three more specimens deposited in Reitter's collection (HNHM) are labelled: Siberia or., Wladiwostok [printed] / Paratypus 1887, Trachyphilus saluber Faust [red margins, handwritten, not original label] / coll. Reitter [printed]. These labels are different from the labels of Faust's specimens and that is why I did not label the specimens from Reitter's collection as additional paralectotypes.

It is a valid species of the genus *Trachyphilus*.

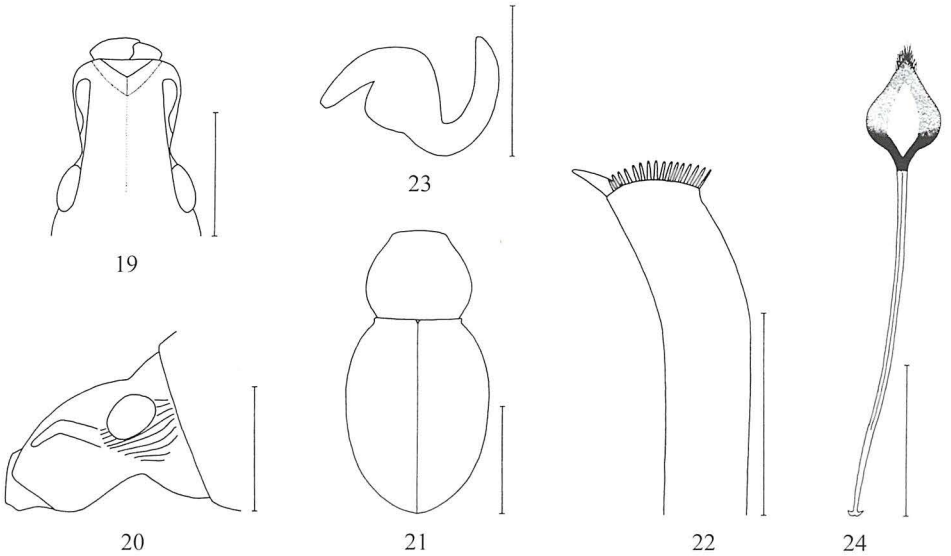
Additional material examined. 5 ♀♀, Ussuri – Vladivostok, 1919, Jureček lgt. (NMP); 2 ♀♀, Wladiwostok, 23.viii.1919, E. Hermann lgt. (MNHW); 2 ♀♀, Ost-Sibirien, Wladiwostok (SMT); 2 ♀♀, Wladiwostok, Ost-Asien, 23.viii.1919, Hermann Frieb [lgt.] (NHM, RBO); 1 ♀, Pokrofka (Amur-geb.) (DEI); 3 ♀♀, Russia, Khabarovskiy kray, Boitsovo 20 km N Bikin, Bolshoi Solntsepyok Hill, 47 02 N, 134 21 E, 26.v.1993, 250 m, L. Zerche lgt. (DEI); 1 ♀, Sibirien (SMT); 3 ♀♀, Siberia (SZM).

Redescription. Body length (r. e.): 2.72-3.28 mm.

Body rusty reddish to dark brownish, all tarsi, funicle and club reddish. Adherent scales on pronotum, head and elytra scarce, oval, with short irregular fringe; distance between two scales on elytra subequal to diameter of one scale, distance of those on head and pronotum slightly smaller than on elytra. Raised setae on elytra subspatulate, conspicuous, as long as each interval wide, creating one dense row on each interval. Raised setae on head and pronotum inconspicuous, very short in comparison with elytral ones, their apices directed anteriad.

Rostrum hardly wider than long, divergent anteriad, widest in distal part, with feebly rounded sides. Epifrons regularly tapering anteriad, with narrow longitudinal groove along middle. Frons bare, without adherent scales. Epistome large and elevated, separated from frons by V-shaped raised line. Scrobes in dorsal view visible mainly in anterior, enlarged part (Fig. 19); in lateral view narrow and furrow-shaped, curved with dorsal margin directed towards ventral eye margin but not reaching it. Rostrum strongly vaulted, separated dorsally from rest of head by deep transversal depression. Eyes large, gently convex, slightly protruding from outline of head. Genae with fine but well visible longitudinal striae (Fig. 20).

Antenna short. Scape 4.0-4.3 times as long as wide at apex, curved at midlength, gradually thickened towards apex, surpassing posterior margin of eye. Scape at apex slightly narrower than club. Antennomere 1 about twice longer than wide, longer and wider than antennomere 2;



Figs 19-24. *Trachyphilus saluber* Faust: 19 – head and rostrum, dorsal view; 20 – head and rostrum, lateral view. Scale = 0.50 mm; 21 – pronotum and elytra, dorsal view. Scale = 1.00 mm; 22 – apex of right protibia, dorsal view; 23 – spermatheca. Scale = 0.25 mm; 24 – sternum 8 in female. Scale = 0.50 mm.
Obr. 19-24. *Trachyphilus saluber* Faust: 19 – hlava a nosec, pohled svrchu; 20 – hlava a nosec, boční pohled. Měřítko = 0,50 mm; 21 – štít a krovky, pohled svrchu. Měřítko = 1,00 mm; 22 – špice pravé přední holeně, pohled svrchu; 23 – spermatéka. Měřítko = 0,25 mm; 24 – 8. sternit samice. Měřítko = 0,50 mm.

antennomere 3 as long as wide; antennomeres 4 and 5 slightly wider than long; antennomeres 6 and 7 increasingly more transverse. Club large and pointed, longer than four preceding antennomeres combined.

Pronotum 1.13-1.15 times as wide as long, widest at midlength. Disc with narrow, longitudinal furrow along whole length and with ill-defined, irregular round depressions. Posterior margin almost straight (Fig. 21), lateral margin without ocular lobe. Basal two thirds of pronotum strongly vaulted in lateral view.

Scutellum very small, triangular, hardly visible (Fig. 21).

Elytra shortly oval, 1.25-1.34 times as long as wide, with regularly rounded sides, constricted at base (Fig. 21). Elytral intervals vaulted; striae punctate, punctures narrower than interval width.

All femora inermis. Protibia in apical quarter strongly curved inside, apex bluntly rounded with a fringe of fine and dense yellow setae and one spine at inner angle (Fig. 22). Inner edge of protibia strongly bent. Tarsi short; tarsomere 2 wider than long, tarsomere 3 significantly wider than the others, deeply bilobed, as long as ungular tarsomere. Claws not fused, long.

Female genitalia. Spermatheca C-shaped; cornu slender and curved, nodulus long and curved, ramus short and very wide (Fig. 23). Sternum 8 with very long, slender apodeme. Apodeme apically slightly divergent, not creating distinct margo basalis. Plate narrow and small, subtriangular. Arms fused apically, leaving long-oval fenestra. Margo apicalis pointed, setose (Fig. 24). Ovipositor as in *T. sordidus*.

Male unknown.

Differential diagnosis. *T. saluber* is very easily distinguishable from the other two species by its short-oval elytra and distinctly transverse pronotum.

Trachyphilus sordidus (Sharp, 1896)
(Figs 25-32)

Trachyrhinus sordidus Sharp, 1896: 91.
Trachyphilus sordidus: Zherikhin et al., 1996: 516.
Trachyrhinus sp.: Sawada et al., 1999: 166.

Type material. Sharp (1896) placed this species in a new genus, stating in his original description: "Nagasaki, in April: a dozen examples". I have examined nine specimens (5 males, 4 females) from Sharp's collection (NHM). Five of them (3 males, 2 females) bear the following printed label: "Japan, G. Lewis, Sharp Coll. 1905-313", four of them (2 males, 2 females) "Japan, G. Lewis, 1910-320". The dates "1905" and "1910" are the accession dates of the museum in London. According to M. Barclay (pers. comm.), specimens labelled "1905-313" came from Sharp's own collection, but specimens labelled "1910-320" were not from his collection and were never labelled as types. Moreover, two specimens labelled "1905-313", one male and one female, bear also a handwritten denomination on the same card on which specimens are glued: "Trachyrhinus sordidus, Type, D. S., Japan, 9.4.81 [1881], Lewis", and a small, printed, circular label with red margin, pinned below: "Type". I selected the lectotype (one male with red circular label "Type", measuring 4.06 mm (r. e.)) from the five specimens labelled "1905-313" and designated the remaining four as paralectotypes, using red printed labels: LECTOTYPUS ♂, resp. PARALECTOTYPUS ♂ or ♀, Trachyrhinus sordidus Sharp, R. Borovec des. 2002. I do not consider the remaining four specimens labelled "1910-320" as belonging to the syntype series.

All specimens clearly belong to *Trachyphilus* (cf. Zherikhin et al. 1996) and *T. sordidus* is thus a second valid species of that genus.

Additional material examined. 1 ♀, [Japan] Honshu, Mt. Mikusayama, 12.v.1993, Y. Sawada lgt. (CAUO).

Redescription. Body length (r. e.): 3.31-5.06 mm.

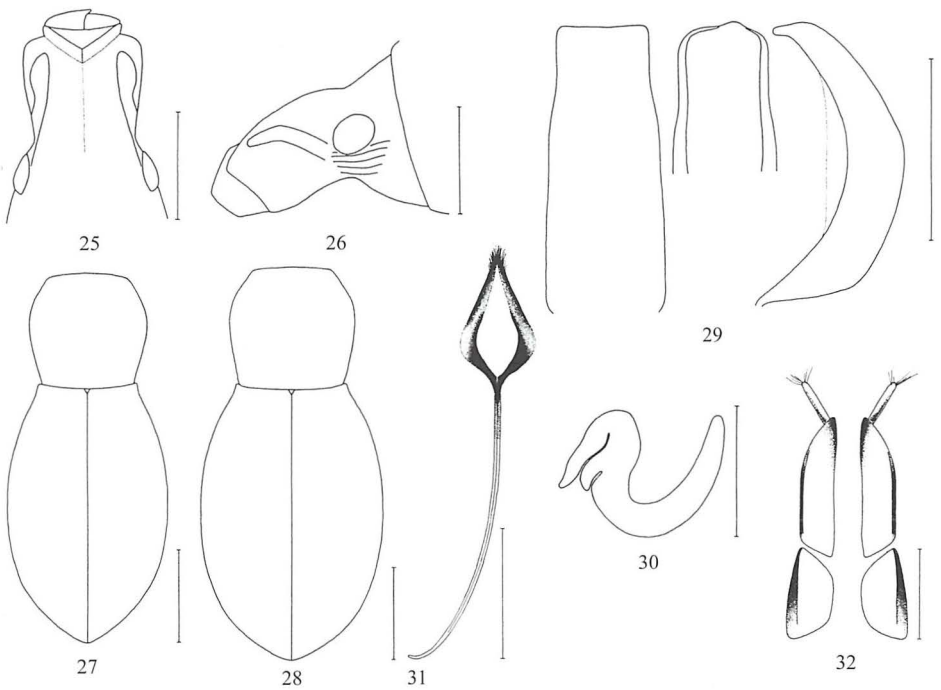
Body brownish to dark brownish, tarsi, funicle and club reddish. Adherent scales oval with very short and indistinct irregular fringe, on elytra more scarce than on head and pronotum, distance between two scales on elytra smaller than diameter of one scale. Raised setae on elytra narrow, almost parallel-sided, less conspicuous than in the other two species, slightly shorter than interval width, creating one regular row on each interval. Raised setae on head and pronotum about half as long as elytral raised setae, inconspicuous, their apices anteriorly directed.

Rostrum as long as wide, in short basal part convergent anteriad, then strongly divergent anteriad. Epifrons strongly tapering anteriad with hardly visible, longitudinal median groove. Frons bare. Epistome distinctly separated from frons by V-shaped, strongly raised line. Scrobes in dorsal view visible almost along whole length (Fig. 25); in lateral view gently diverging posteriad and curved, dorsal border directed slightly above ventral margin of eye, separated from it by narrow squamose stripe. Rostrum strongly vaulted, separated dorsally from the rest of head by transversal depression. Eyes almost flat, gently protruding from outline of head. Genae with short and fine longitudinal striae (Fig. 26).

Antenna slender. Scape slender, 5.8-6.3 times as long as wide at apex, almost reaching anterior border of pronotum, slightly longer than funicle, strikingly longer than maximum width of rostrum, feebly and gradually thickened towards apex. Antennomere 1 twice longer than wide, slightly longer and wider than antennomere 2; antennomere 2 slightly less than twice longer than wide; antennomeres 3 and 4 gently longer than wide; antennomeres 5 and 6 about as long as wide; antennomere 7 gently wider than long. Club wide, slightly longer than preceding 4 antennomeres, 1.4 times as wide as apex of scape.

Pronotum only 1.04-1.07 times as wide as long, with regularly rounded sides, widest before midlength; anterior margin narrower than posterior one, posterior margin feebly arched (Figs 27, 28). Disc with narrow, longitudinal furrow along whole length and with ill-defined, irregularly rounded depressions. Lateral margin without ocular lobe. Pronotum in lateral view feebly vaulted.

Scutellum very small, triangular, almost invisible (Figs 27, 28).



Figs 25-32. *Trachyphilus sordidus* (Sharp): 25 – head and rostrum, dorsal view; 26 – head and rostrum, lateral view. Scale = 0.50 mm; 27 – pronotum and elytra in male, dorsal view; 28 – pronotum and elytra in female, dorsal view. Scale = 1.00 mm; 29 – aedeagus, ventral and lateral view, apex in ventral view. Scale = 0.50 mm; 30 – spermatheca. Scale = 0.25 mm; 31 – sternum 8 in female. Scale = 0.50 mm; 32 – ovipositor. Scale = 0.25 mm. Obr. 25-32. *Trachyphilus sordidus* (Sharp): 25 – hlava a nosec, pohled svrchu; 26 – hlava a nosec, boční pohled. Měřítko = 0,50 mm; 27 – štít a krovky u samce, pohled svrchu; 28 – štít a krovky u samice, pohled svrchu. Měřítko = 1,00 mm; 29 – aedeagus, spodní a boční pohled, špice zespodu. Měřítko = 0,50 mm; 30 – spermatéka. Měřítko = 0,25 mm; 31 – 8. sternit samice. Měřítko = 0,50 mm; 32 – ovipositor. Měřítko = 0,25 mm.

Elytra very narrow and long, in males 1.54-1.59 times and in females 1.42-1.48 times as long as wide. Elytral sides evenly rounded (Figs 27, 28), odd intervals in basal part slightly more elevated than even ones. Striae punctate, wider than intervals. Elytra in lateral view feebly vaulted.

Legs with all important characters indistinguishable from those of *T. saluber*.

Female genitalia. Spermatheca slender. Cornu long and slender, curved. Nodulus very long, curved back in middle, U-shaped. Ramus shorter than nodulus, curved in middle (Fig. 30). Sternum 8 similar to *T. saluber*, with plate slightly longer, arms narrower, and fenestra longer and wider (Fig. 31). Ovipositor with slender hemisternite and stylus. Stylus long and cylindrical, with apical setae (Fig. 32).

Male genitalia. Aedeagus in dorsal view almost parallel-sided, only in apical quarter feebly constricted. Apex subtruncate with indistinct, assymetrically placed small point. Aedeagus in lateral view curved, apex short and narrow, feebly prolonged (Fig. 29).

Differential diagnosis. *T. sordidus* differs from the other two species of the genus by its larger body size; from *T. saluber* it further differs by its slender elytra and pronotum and from *T. chinensis* sp. n. also by the elytral setae being raised on all elytral intervals.

Trachyphilus chinensis sp. n.

(Figs 33-36)

Type material. Holotype ♂, China, W-Sichuan (6), Daxue Shan, Paoma Shan b. Kangding, 30 02 56 N, 101 58 05 E, 2700-2900 m, 22.v.1997, M. Schülke lgt. (MNHU). Tibia and tarsus of mesothoracic left leg are missing.

Description. Body length (r. e.): 3.00 mm.

Body rusty reddish. Entire body except antennae and tarsi densely covered by oval scales, distance between scales visibly smaller than diameter of one scale. Odd elytral intervals with one dense row of conspicuous, subspatulate, raised setae; setae longer than width of one interval. All elytral intervals with very short, semierect, piliform setae. Head and pronotum with inconspicuous, raised piliform setae, visibly shorter than those on odd elytral intervals. Antennae excluding clubs and entire legs with long and raised piliform setae.

Rostrum as long as wide, in basal part concave, in apical part subparallel-sided. Epifrons in basal third converging anteriad, in anterior two thirds subparallel-sided, with narrow longitudinal groove along whole length. Frons bare. Epistome separated from frons by conspicuous, V-shaped raised line. Scrobes in dorsal view visible (Fig. 33), in lateral view furrow-shaped, curved, their dorsal margins directed towards ventral eye margins but not reaching eyes, being separated by short and fine striae. Eyes large and almost flat, gently protruding from outline of head. Basal portion of head feebly separated dorsally from feebly vaulted rostrum by shallow transversal depression. Head before and behind eyes with fine but well visible longitudinal striae (Fig. 34).

Antenna slender. Scape straight and slender, 5.8 times as long as wide at apex, almost reaching anterior margin of pronotum, slightly longer than funicle, strikingly longer than maximum width of rostrum, feebly and gradually thickened towards apex. Antennomere 1 about twice longer than wide, slightly longer and wider than antennomere 2; antennomere 2 about 1.5x longer than wide; antennomeres 3-6 about as long as wide; antennomere 7 slightly

wider than long. Club wide, slightly longer than preceding four antennomeres combined, almost twice wider than scape at apex.

Pronotum about as long as wide, 1.03 times as wide as long, with evenly rounded sides. Disc with narrow longitudinal furrow along whole length and with ill-defined, irregularly rounded depressions. Lateral margin without ocular lobe. Posterior border almost straight (Fig. 35). Pronotum in lateral view flat.

Scutellum very small, triangular, almost invisible (Fig. 35).

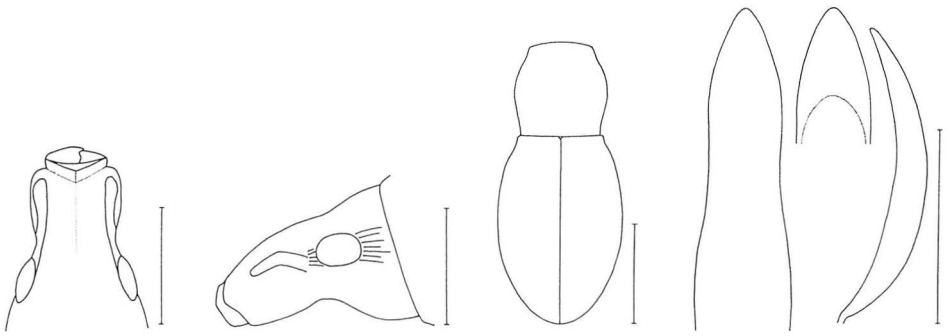
Elytra long and very narrow, 1.58 times as long as wide. Elytral sides evenly rounded (Fig. 35), basal margin feebly elevated, odd intervals in the whole length more elevated than even ones. Striae punctate, almost as wide as intervals. Elytra in lateral view almost flat in basal two thirds. Shape, sculpture and vestiture of elytra strongly resemble those of *Styphlus* Schoenherr, 1826.

All femora inermis. Protibia in apical quarter curved inside, apex bluntly rounded with fringe of fine and short, dense yellow setae and one spine at inner angle (as in Fig. 22). Inner edge of protibia strongly bent. Tarsomere 2 slightly wider than long; tarsomere 3 deeply bilobed, strikingly wider and longer than previous one; ungular tarsomere about as long as tarsomere 3, thickened towards apex. Claws long, not fused.

Female unknown.

Male genitalia. Aedeagus almost evenly pointed, feebly and evenly curved in lateral view (Fig. 36).

Etymology. Patronymic.



Figs 33-36. *Trachyphilus chinensis* sp. n.: 33 – head and rostrum, dorsal view; 34 – head and rostrum, lateral view. Scale = 0.50 mm; 35 – pronotum and elytra, dorsal view. Scale = 1.00 mm; 36 – aedeagus, ventral and lateral view, apex in ventral view. Scale = 0.50 mm.

Obr. 33-36. *Trachyphilus chinensis* sp. n.: 33 – hlava a nosec, pohled svrchu; 34 – hlava a nosec, boční pohled. Měřítko = 0,50 mm; 35 – štít a krovky, pohled svrchu. Měřítko = 1,00 mm; 36 – aedeagus, spodní a boční pohled, špice zespodu. Měřítko = 0,50 mm.

Differential diagnosis. *Trachyphilus chinensis* sp. n. is very easy distinguishable from the two other species by raised elytral setae being present only on odd intervals; from the Siberian *T. saluber* it also differs by its more slender pronotum, elytra and antenna, and from *T. sordidus* also by its symmetrical apex of aedeagus.

Key to the species of *Trachyphilus*

1. Raised long setae on elytra present only on odd intervals. Body length 3.0 mm. ..... *T. chinensis* sp. n.
– Raised long setae present on all elytral intervals. 2
2. Elytra short-oval, 1.25-1.34 times as long as wide. Pronotum 1.13-1.15 times as wide as long, widest at midlength (Fig. 21). Antenna short, scape 4.0-4.3 times as long as wide, antennomeres 5-7 wider than long. Body length 2.7-3.3 mm. ..... *T. saluber* Faust
– Elytra slender, long-oval, 1.42-1.59 times as long as wide. Pronotum 1.04-1.07 times as wide as long, widest before midlength (Figs 27, 28). Antenna long, scape 5.8-6.3 times as long as wide, only antennomere 7 gently wider than long. Body length 3.3-5.1 mm. ..... *T. sordidus* (Sharp)

CHECK-LIST

***Rhinodontus* Faust, 1890**	
R. crassiscapus sp. n.	China
R. ignarus Faust, 1890	China, Mongolia
= *R. proximus centralis* Voss, 1967, syn. n.	
R. mongolicus sp. n.	Mongolia
R. proximus Voss, 1967	China, Mongolia
R. sawadai sp. n.	China
***Trachyphilus* Faust, 1887**	
= *Trachyrhinus* Sharp, 1896	
T. chinensis sp. n.	China
T. saluber Faust, 1887	Siberia
T. sordidus (Sharp, 1896)	Japan

ADDITIONAL TYPE MATERIAL EXAMINED

I present here further results of the study of type material of four species belonging to four additional genera of Trachyphloeini. More detailed information will be found in the forthcoming generic revision of the tribe.

Callirhopalus sedakowii Hochhuth, 1851

Callirhopalus sedakowii Hochhuth, 1851: 56.

This species was described from an unspecified number of specimens coming from Nertschinsk and collected by Mr. Sedakow. I have found two specimens in Hochhuth's collection (DEI), labelled as syntypes and reported as types of this species by Behne (1991). Both of them agree well with the description and I have designated the lectotype and paralectotype as follows: Lectotype female glued to a small triangular card, measuring 3.38 mm (r. e.); paralectotype female glued to a similar card and pinned below the lectotype. Both specimens bear the following labels: Irkutsk [handwritten] / coll. Stierlin [printed] / Syntypus [red, printed, not original] / C. Sedakowi Hochh. Hochh. [blue margins, Stierlin's handwriting] / coll. DEI Eberswalde [printed] / LECTOTYPUS ♀ top spec., resp. PARALECTOTYPUS ♀ bottom spec. Callirhopalus sedakowii Hochhuth, R. Borovec des. 2002 [red, printed] / Callirhopalus sedakowii Hochhuth, R. Borovec det. 2002 [printed].

This is a valid species belonging undoubtedly to the genus *Callirhopalus* Hochhuth, 1851.

Pseudocneorhinus hirsutus (Formánek, 1916), **comb. n.**

Rhinodontus hirsutus Formánek, 1916: 33.

Formánek described this species from "Thibet, Kuku-Nor, 3200 m., 1898" based on "vier Stücke in meiner Sammlung". I have found four females in Formánek's collection (NMP) which fit the description closely. I have designated as the lectotype one well preserved female, measuring 3.25 mm (r. e.), the other three females as paralectotypes. The specimens bear the following labels: THIBET Kuku-Nor 3200 m. Coll. Hsr. 98 [printed], in one spec. only Kuku-Nor [handwritten] / hirsutus Type [Formánek's handwriting] / LECTOTYPUS ♀, resp. PARALECTOTYPUS ♀ Rhinodontus hirsutus Formánek, R. Borovec des. 2002 [red, printed] / Pseudocneorhinus hirsutus (Formánek), R. Borovec det. 2002 [printed]. I have extracted and mounted the genitalia of each specimen on the same card as the respective specimen.

All four specimens belong clearly to the genus *Pseudocneorhinus* Roelofs, 1873, warranting a new generic combination.

Rhinodontodes subsignatus Voss, 1967

Rhinodontodes subsignatus Voss, 1967: 277.

Voss (1967) based this species and genus on one specimen from: "Südgobi aimak, Gurban Sajchan ul, 30 km S von Somon Bulgan, 1700 m, 20.VI.1964 (Nr. 157)". The holotype of this species is housed in HNHM, and I have examined it. This well preserved female agrees with the original description and undoubtedly constitutes a valid species and monotypic genus, related to *Rhinodontus*. It bears the following labels: MONGOLIA, Südgobi aimak Gurban Sajchan ul., 30 km S v. somon Bulgan, 1700 m, Exp. Dr. Z. KASZAB, 1964 [printed] / Nr.157, 20.VI.1964 [printed] / Holotypus 1967 Rhinodontodes subsignatus Voss [orange margins, handwritten, not original label] / Rhinodontodes subsignatus n. sp., Holotypus, E. Voss det., 1966 [Voss's handwriting] / Rhinodontodes subsignatus Voss, R. Borovec det. 2002 [printed]. Genitalia extracted and mounted on a card under the specimen by the author of this paper.

Trachyphloeoides sordidus (Faust, 1890)

Trachyphloeus sordidus Faust, 1890: 430.
Trachyphloeoides sordidus: Formánek, 1907: 126.

Faust (1890) described this species in the genus *Trachyphloeus* after two specimens: "2 Exemplare beim Kloster Kadigar, in Gan-ssu, im Mai". There are two specimens in Faust's collection (SMT), male and female. I designated the male (3.06 mm long, r. e.) as the lectotype and the female as the paralectotype. Both specimens bear the following labels: small blank square gold label / Kann-ssu, Patanin [handwriting] / sordidus, Faust [handwriting] / Coll. J. Faust Ankauf 1900 [yellow, printed] / Type [red, handwriting] / Staatl. Museum für Tierkunde, Dresden [printed] / Trachyphloeus sordidus Faust [handwriting] / LECTOTYPUS ♂, resp. PARALECTOTYPUS ♀ Trachyphloeus sordidus Faust, R. Borovec des. 2002 [red, printed] / Trachyphloeoides sordidus (Faust), R. Borovec det. 2002 [printed]. I have extracted and mounted the genitalia of both specimens on the same card as the respective specimen.

Trachyphloeoides Formánek, 1907 is also a monotypic genus; I have seen no additional material apart from the types.

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SOUHRN

Tribus Trachyphloeini Lacordaire, 1863 zahrnuje v palearktu 12 rodů se zhruba 240 druhy. Většina těchto druhů se vyskytuje v západní části mediteránu, několik druhů i ve střední Evropě a na Balkánu. Z východní části palearktu je známo 7 malých rodů, každý z nich zahrnující maximálně 5 druhů známých pouze z Číny, Mongolska, Dálného východu Ruska a Japonska. Tato práce předkládá druhovou revizi dvou z těchto rodů, *Rhinodontus* Faust, 1890 a *Trachyphilus* Faust, 1887. Zároveň představuje jednu z výchozích dílčích studií pro připravovanou rodovou revizi tribu.

V této studii jsou popsány tři nové druhy rodu *Rhinodontus* a jeden nový druh rodu *Trachyphilus* – *R. mongolicus* sp. n. z Mongolska a *R. crassiscapus* sp. n., *R. sawadai* sp. n. a *T. chinensis* sp. n. z Číny. Současně je provedena redeskripce čtyř druhů dosud známých – *R. ignarus* Faust, 1890, *R. proximus* Voss, 1967, *T. saluber* Faust, 1887 a *T. sordidus* (Sharp, 1896). Poddruh *R. proximus centralis* Voss, 1967 je nově synonymizován s druhem *R. ignarus* a *R. hirsutus* Formánek, 1916 je nově přesunut do rodu *Pseudocneorhinus* Roelofs, 1873. Všechny druhy jsou zahrnuty do určovacích klíčů a ilustrovány. Samčí a samičí genitálie všech druhů jsou zde poprvé popsány a vyobrazeny.

V práci je současně uveden i komentovaný soupis typů čtyř druhů z dalších čtyř rodů východopalearktických Trachyphloeinů, které byly studovány. Lektotypy byly designovány u následujících druhů: *Callirhopalus sedakowii* Hochhuth, 1851, *Pseudocneorhinus hirsutus* (Formánek, 1916), comb. n. (původně popsaný v rodu *Rhinodontus*), *Rhinodontus ignarus* Faust, 1890, *Trachyphilus saluber* Faust, 1887, *Trachyphilus sordidus* (Sharp, 1896) a *Trachyphloeoides sordidus* (Faust, 1890).

Klíč druhů rodu *Rhinodontus*

1. Hrbolky nad očima velmi výrazné, v dorsálním pohledu zakrývají oči. Tykadlový násadec štíhlý, 3,1-3,2x delší než široký, na špici sotva širší než palička (obr. 12). Délka těla 2,9-3,4 mm. ..... *R. mongolicus* sp. n.
– Hrbolky nad očima nevýrazné nebo chybí, nezakrývají oči. Tykadlový násadec výrazně ke špici ztlustlý, maximálně 3x delší než široký, na špici výrazně širší než palička (obr. 1, 5, 14, 16). 2
2. Násadec výrazně ztlustlý ke špici, 1,75x delší než široký. Epifrons v distálních dvou třetinách výrazně rozšířený a zúžený, širší než epistoma (obr. 14). Odstávající šupinky na krovkách delší než polovina šířky mezirýží. Délka těla 3,4-3,5 mm. ..... *R. crassiscapus* sp. n.
– Násadec méně ztlustlý, nejméně 2,6x delší než široký. Epifrons v distálních dvou třetinách skoro paralelní, štíhlejší než epistoma (obr. 1, 5, 16). Odstávající šupinky na krovkách maximálně tak dlouhé jako polovina šířky mezirýží. 3
3. Hrbolky nad očima v dorso-laterálním pohledu chybí. Tykadlový násadec v polovině délky zahnutý. Nosec širší, 1,3-1,35x širší než dlouhý (obr. 16). Špice přední holeně slabě na vnější straně rozšířená, trny na špici tmavě hnědé, jemné (obr. 17). Délka těla 3,8-3,9 mm. ..... *R. sawadai* sp. n.
– Hrbolky nad očima v dorso-laterálním pohledu zřetelné. Tykadlový násadec téměř přímý. Nosec užší, 1,1-1,2x širší než dlouhý (obr. 1, 5). Špice přední holeně silně na vnější straně rozšířená, trny na špici žluté, výraznější (obr. 2, 8). 4
4. Špice přední holeně se 7+1 trny (obr. 2). Drápky srostlé v basální třetině, v apikálních dvou třetinách rozevřené, tvořící tvar Y. Tykadla robustní, bičík kratší než maximální šířka nosce (obr. 1). Délka těla 2,9-3,9 mm. ..... *R. ignarus* Faust
– Špice přední holeně s 8(9)+1 trny (obr. 8). Drápky srostlé na velmi krátké basální části, téměř po celé délce rozevřené, tvořící tvar V. Tykadla štíhlá, bičík dlouhý jako maximální šířka nosce (obr. 5). Délka těla 3,3-4,1 mm. ..... *R. proximus* Voss

Klíč druhů rodu *Trachyphilus*

1. Dlouhé odstávající šupinky na krovkách pouze na lichých mezirýžích. Délka těla 3,0 mm. ..... *T. chinensis* sp. n.
– Dlouhé odstávající šupinky na krovkách na všech mezirýžích. 2
2. Krovky krátce oválné, 1,25-1,34x delší než široké. Štít 1,13-1,15x širší než dlouhý, nejširší v polovině délky (obr. 21). Tykadla krátká, násadec 4,0-4,3x delší než široký, 5.-7. článek bičíku širší než delší. Délka těla 2,7-3,3 mm. ..... *T. saluber* Faust
– Krovky štíhlé, dlouze oválné, 1,42-1,59x delší než široké. Štít 1,04-1,07x širší než dlouhý, nejširší před polovinou délky (obr. 27, 28). Tykadla dlouhá, násadec 5,8-6,3x delší než široký, pouze 7. článek bičíku nevýrazně širší než dlouhý. Délka těla 3,3-5,1 mm. ..... *T. sordidus* (Sharp)