

A contribution to knowledge of the genus *Rhagonycha* Eschscholtz, 1830 (Coleoptera, Cantharidae) III

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A contribution to knowledge of the genus *Rhagonycha* ESCHSCHOLTZ, 1830 (Coleoptera, Cantharidae) III

by Vladimír Švihla

Abstract. New species are described and illustrated: *Rhagonycha tibetana* sp.nov. (China: Xizang), *R. tryznai* sp.nov. (China: Sichuan), *R. ruzickai* sp.nov. (Turkey, Syria), *R. benedikti* sp.nov. (Syria), *R. stanislavi* sp.nov. (Turkey), *R. prudeki* sp.nov. (Morocco), *R. hyrcana* sp.nov. (Iran), *R. jindrai* sp.nov. (China: Shaanxi), *R. pekinensis* sp.nov. (China: Beijing), *R. safraneki* sp.nov. (China: Shaanxi, Sichuan) and *R. kadleci* sp.nov. (Turkey). Variability and differential characters of *R. gansuensis* ŠVIHLA, 1995 and of *R. delagrangei* PIC, 1898) are illustrated.

Key words. Coleoptera – Cantharidae – *Rhagonycha* – Palaearctic region – taxonomy – new species

Material and methods

The shades of colours used in the descriptions are classified according to PACLT (1958), structures of integument are named after HARRIS (1979). They were observed under 90× magnification. The terminology of the portions of the aedeagus follows WITTMER (1969) and BRANCUCCI (1980). Locality labels of the type material are cited in the original version, only the dates are written in English style. The names of localities of the additional material examined are transliterated.

Material studied is deposited in the following collections:

JKMC Jaroslav Kondler collection, Mohelnice, Czech Republic
 NHMB Naturhistorisches Museum, Basel, Switzerland
 NMPC author's collection, Národní muzeum, Praha, Czech Republic
 PPBC Pavel Průdek collection, Brno, Czech Republic
 TRPC Tomáš Růžička collection, Prague, Czech Republic

Taxonomy

Rhagonycha tibetana sp.nov. (Figs 1–3)

Type material. Holotype (NMPC), ♂, “China, SE - Tibet, Zayu Co., Salween side of Hengduan Shan, SW of Meilixue Shan, 28 16–21N 98 32–41E, 2500–3800 m, 5.–10.vi.99, L. & R. Businský lgt.“; paratypes (NMPC), the same data, 2♂♂ 2♀♀; “China, SE - Tibet, Zayu Co., right lateral & main valley of Salween river, Mengong env., 28 29–31N 98 18–24E, 1900–3000 m, 13.–14.vi.99, L. & R. Businský lgt.“, 2♀♀.

Description. Coloration. Head and prothorax saffron yellow, maxillary palpi and mostly also narrow anterior margin of pronotum somewhat darker. Antennae and legs sooty, knees slightly saffron yellow. Meso- and metasternum, scutellum and ventral portion of abdomen sooty. Elytra honey yellow to olivaceous basally, progressively darkening to sooty terminally in male, honey yellow with darker apex in female.

Male. Eyes large, protruding, head across eyes moderately narrower than pronotum, head behind eyes strongly, arcuately narrowing posteriorly. Antenna distinctly exceeding 3/4 of elytral length. Surface of head very finely imbricate-punctate, sparsely and finely brown pubescent, matt. Pronotum almost 1/3 wider than long, its anterior margin including corners rounded, lateral margins sinuately diverging posteriorly, posterior corners almost rectangular, posterior margin widely rounded. Surface of pronotum very finely, almost indistinctly imbricate-punctate, finely and very sparsely yellow pubescent, almost lustrous. Elytra moderately dilated posteriorly, their surface rugulose-lacunose, white pubescent, semilustrous. Aedeagus as in Figs 1–3.

Sexual dimorphism. Eyes smaller than in male, antenna shorter, somewhat exceeding 2/3 of elytral length, elytra relatively wider than in male.

Length ♂♀: 7.0–7.2 mm.

Distribution. China: Xizang.

Etymology. Derived from geographical name of the province of Xizang, Tibet.

Differential diagnosis. *R. tibetana* sp.nov. can be compared with *R. yunnana* WITTMER, 1997, from which it differs in much wider paramere and in dorsal part of the aedeagus narrowing apically, as well as in different coloration of the legs and elytra (cf. WITTMER 1997).

***Rhagonycha tryznai* sp.nov.**

(Figs 4–6)

Type material. Holotype (NMPC), ♂, “China - S Sichuan, Daliang Shan mts., road Meigu – Leibo, pass 15 km NE of Meigu, 28 25N 103 17E, 27.vii.1997, M. Trýzna et O. Šafránek lgt.”; paratypes (NMPC), the same data, 1♂ 1♀.

Description. Coloration. Head and prothorax saffron yellow, pronotum with mediolongitudinal, not sharply delimited, sienna spot in male, which is reduced to spot in anterior portion of pronotum in female. Antennae and legs chestnut brown, knees slightly paler. Meso- and metasternum, scutellum and ventral part of abdomen sepia, elytra honey yellow.

Male. Eyes relatively small, moderately protruding, head across eyes as wide as pronotum, head behind eyes moderately narrowing posteriorly. Antenna almost reaching elytral apex. Surface of head very finely imbricate-punctate, finely yellow pubescent, matt. Pronotum slightly wider than long, its anterior margin and anterior corners rounded, lateral sides only very slightly diverging posteriorly, slightly sinuate, posterior corners nearly rectangular, very slightly rounded, posterior margin almost straight. Surface of pronotum very finely punctate and yellow pubescent, semilustrous. Elytra parallel-sided, their surface rugulose-lacunose, yellow pubescent, semilustrous. Aedeagus as in Figs 4–6.

Sexual dimorphism. Eyes slightly smaller and less protruding than in male, antenna shorter, reaching 3/4 of elytral length. Pronotum moderately wider than long, elytra slightly dilated posteriorly.

Length ♂♀: 5.5–6.5 mm.

Distribution. China: Sichuan.

Etymology. Dedicated to one of its collectors, Miloš Trýzna (Děčín).

Differential diagnosis. *R. tryznai* sp.nov. is closely related *R. testaceopallida* WITTMER, 1997 from which it differs in darker antennae, legs and central part of pronotum and, especially, in the form of aedeagus, the dorsal part of which narrows strongly towards its base and it is rounded with very shallow emargination apically, and in the form of paramere, the apex of which is not tapered but rounded (cf. WITTMER 1997).

***Rhagonycha ruzickai* sp.nov. (Figs 7–8)**

Type material. Holotype, ♂ (NMPC), “E Turkey, Buglan gec. (Mus env.), 1610 m, 17.vi.1992, S. Kadlec lgt.”; paratypes (NMPC, NHMB, JKMC, TRPC): the same data, 5♂♂ 14 ♀♀; “TR-Anatolia mer., Hasanbeyli env., 1160 m, 4.vi.1992, S. Kadlec lgt.”, 1♂ 1♀; “Turkey - prov. Adana, Nur Daglari, Hasanbeyli, 27.–29.v.1992, V. Bíža -Z. Košťál lgt.”, 2♂♂ 3 ♀♀; “Turcia or., Tatvan env., 30.vi.1993, Mir. Dvořák legit”, 1♂; “E Turkey, Tatvan, 20.–21.vi.1997, M. Johanides lgt.”, 2♂♂ 1♀; “TR vill. Bingöl, Bingöl, 1126 m, 20.vi.1986, Kadlec + Voříšek lgt.”, 1♂ 2♀♀; “O. Türkei, 30 km ö. Bingöl, 1400 m, 14.vii.1977, D. Bernhauer”, 1♂; “TR: vill. S. Urfa, Birecik, 20.v.1993, P. Průdek lgt.”, 1♂; “TR prov. Sanli Urfa, Halfeti, 21.v.1993, V. Švihla lgt.”, 1♂; “S Turkey, Halfeti, 26.iv.1997, T. Růžicka lgt.”, 2♂♂ 1♀; “Turecko, Nemrut Dagi, 8.vi.1992, lgt. Kondler”, 1♂; “SE Turkey, Hop pass, 15 km NE Mardin, 37 23N 40 15E, 16.v.2001, S. Kadlec lgt.”, 2 ♂; “Syria, Jabal al Nusariyah, Slinfah env., 30.v.6.vi.1998, J. Voříšek lgt.”, 1♂.

Description. Coloration. Head entirely saffron yellow or black and saffron yellow between antennal pits and before eyes including mouthparts, first three antennomeres, meso- and metasternum black, scutellum saffron yellow to black. Middle legs saffron yellow, sometimes femora more or less darkened in female, posterior legs saffron yellow, sometimes femora and apices of tibiae more or less darkened in both sexes. Elytra saffron yellow, sometimes narrow apices black.

Male. Eyes strongly protruding, head across eyes moderately wider than pronotum, head behind eyes arcuately narrowing posteriorly. Antenna reaches 3/4 of elytral length. Surface of head very finely imbricate-punctate, finely and sparsely yellow pubescent, matt. Pronotum moderately longer than wide, anterior margin and anterior corners rounded, lateral sides straight to slightly and widely emarginate, diverging posteriorly, posterior corners obtusely angulate, posterior margin widely rounded. Surface of pronotum very finely punctate, sparsely and finely yellow pubescent, semilustrous. Elytra slightly enlarging posteriorly, surface of them rugulose-lacunose, yellow pubescent, semilustrous. Aedeagus as in Figs 7–8.

Sexual dimorphism. Eyes smaller and less protruding than in male, head across eyes as wide as pronotum, head behind eyes roundly narrowing posteriorly. Antenna shorter than in male, slightly exceeding elytral midlength. Pronotum as long as wide, elytra relatively wider than in male.

Length ♂♀: 6.5–7.8 mm.

Distribution. E Turkey, N Syria.

Etymology. Dedicated to one of its collectors, Tomáš Růžicka (Praha).

Differential diagnosis. *R. ruzickai* sp.nov. is very similar and closely related to *R. delagrangi* (PIC, 1898), from which it differs by the form of paramere, the apex of which in ventral view is not turned and paramere is horizontal, not directed ventrad in

lateral view (see Figs 7–10). In the environment of Halfeti and Hop pass both species occur together.

***Rhagonycha benedikti* sp.nov.** (Figs 11–12)

Type material. Holotype (NMPC), ♂, “Syria, Jabal al Nusariyah, Slinfah env., 30.v.–6.vi.1998, J. Voříšek lgt.”; paratypes (NMPC): the same data, 2 ♀♀; “Syria, Latakia-Slinfan, 10.–12.vi.1997, M. Johanides lgt.”, 1 ♂; “Syria bor., Jabal al Ansariyah mts., Slinfeh env. (E of Latakia), 1000 m a.s.l., S. Benedikt leg.”, 1 ♂.

Description. Coloration. Head black, mouthparts sienna, first two antennomeres rusty, rest of them chestnut brown to sepia. Prothorax and legs saffron yellow, meso- and metathorax black, abdomen black, last two or three sternites saffron yellow. Scutellum and elytra sooty.

Male. Eyes strongly protruding, head across eyes moderately narrower than pronotum, head behind eyes slightly narrowing posteriorly. Antenna reaching 2/3 of elytral length. Surface of head finely imbricate-punctate, sparsely and finely yellow pubescent, matt. Pronotum almost 1/4 wider than long, both anterior and posterior margin widely rounded, anterior corners rounded, posterior ones obtusely angulate, lateral margins slightly diverging posteriorly, nearly straight, only very slightly sinuate before posterior corners. Surface of pronotum finely imbricate-punctate, sparsely yellow pubescent, semilustrous. Elytra moderately dilated posteriorly, their surface rugulose-lacunose, finely yellow pubescent, semilustrous. Aedeagus as in Figs 11–12.

Sexual dimorphism. Eyes smaller and less protruding than in male, head across eyes 1/5 narrower than pronotum, antenna slightly exceeding elytral midlength. Pronotum 1/5 wider than long, lateral margins almost not diverging posteriorly, widely rounded. Elytra somewhat wider than in male.

Length ♂♀: 6.4–7.5 mm.

Distribution. N Syria.

Etymology. Dedicated to one of its collectors, Stanislav Benedikt (Starý Plzenec).

Differential diagnosis. *R. benedikti* sp.nov. is very similar and closely related to *R. approximata* (FAIRMAIRE, 1884), from which it differs in elytra without yellow lateral margin and in the dorsal part of aedeagus, which narrows terminally and its apex is emarginate and with ventroapical teeth (cf. DAHLGREN 1968 and Figs 11–12).

***Rhagonycha stanislavi* sp. nov.** (Figs 13–15)

Type material. Holotype (NMPC), ♂, “TR: prov. Antalya, Avlanbeli pass, 1120 m, 25 km S Elmali, 10.v.2001, S. Kadlec lgt.”; paratypes (NMPC, NHMB): same data, 3 ♂ 3 ♀; “Turkey, Antalit, Kemer env., 14.iv.1996, V. Skchorov”, 1 ♂.

Description. Coloration. Head black, mandibles sienna, antennae, legs, scutellum, elytra and ventral part of body black, pronotum orange with mediolongitudinal black stripe, moderately dilated both anteriorly and posteriorly.

Male. Eyes relatively small and only moderately protruding, head across eyes distinctly narrower than pronotum, head behind eyes moderately and roundly narrowing posteriorly. Antenna reaching elytral midlength. Surface of head finely imbricate-

punctate, sparsely and finely brown pubescent, matt. Pronotum moderately wider than long, anterior margin widely rounded, anterior corners rounded, lateral margins slightly and roundly diverging posteriorly, slightly sinuate before almost square-cut posterior corners, posterior margin almost straight. Surface of pronotum very finely imbricate-punctate, sparsely and finely yellow pubescent, semilustrous. Elytra almost parallel-sided, their surface rugulose-lacunose, white pubescent, semilustrous. Aedeagus as in Figs 13–15.

Sexual dimorphism. Pronotum by almost 1/3 wider than long, antenna shorter than in male only very slightly exceeding elytral midlength, elytra wider than in male, distinctly dilated posteriorly.

Length ♂: 6.0–8.0 mm.

Distribution. SW Turkey.

Etymology. Dedicated to one of its collectors, Stanislav Kadlec (Litvínov).

Differential diagnosis. *R. stanislavi* sp.nov. is very similar and closely related to *R. gillerforsi* ŠVIHLA, 1993, from which it differs by apex of paramere turned apically in ventral view, paramere straight in lateral view and by somewhat longer dorsal part of the aedeagus, which is also more longly pubescent (cf. ŠVIHLA 1993 and Figs 13–15).

***Rhagonycha prudeki* sp.nov.**

(Figs 16–19)

Type material. Holotype (NMPC), ♂, “N Morocco, Ifrane env., 1700 m, 10.v.1997, P. Průdek lgt.”; paratypes (NMPC, PPBC, NHMB): the same data, 8♂♂ 21♀♀; “Morocco, Ifrane env., 60 km S Fes, 1600 m, 9.v.1997, Z. Jindra lgt.”, 4♂♂ 23♀♀; “Morocco, Mischlifén env. near Ifrane, 33 27N 04 06W, 20.–23.v.1999, P. Průdek leg.”, 16♂♂ 32♀♀; “C Morocco, Khenifra env., 30.iv.–1.v.1995, P. Průdek leg.”, 1♂.

Description. Coloration. Head black, mandibles rusty, antennae black, first two antennomeres more or less rusty. Prothorax egg-yolk yellow, pronotum with wide, mediolongitudinal black stripe, which moderately and narrowly dilated nearly behind its midlength. Meso- and metasternum and ventral portion of abdomen black, legs black, knees sometimes narrowly paler. Scutellum black, elytra sooty to black, always narrowly pale lemon yellow bordered in basal half of lateral margin. Sometimes, especially in females, elytra are with wide, not sharply delimited, sienna stripes in subbasal portion of each elytron, or, rarely, completely sienna excluding paler lateral margin.

Male. Eyes small, moderately protruding, head across eyes only slightly wider than pronotum, head behind eyes moderately narrowing posteriorly. Antenna slightly exceeding 2/3 of elytral length. Surface of head finely imbricate-punctate, sparsely and finely brown pubescent, matt. Pronotum very slightly wider than long, its anterior margin nearly straight, anterior corners rounded, lateral margins nearly parallel, very shallowly emarginate before posterior corners, which are obtuse, posterior margin widely rounded. Surface of pronotum very sparsely and very finely punctate and yellow pubescent, lustrous. Elytra nearly parallel-sided, surface of them finely rugulose-lacunose, sparsely and finely yellow pubescent, semilustrous. Aedeagus as in Figs 16–19.

Sexual dimorphism. Eyes smaller and less protruding than in male, head across eyes slightly narrower than pronotum. Antenna shorter, reaching elytral midlength.

Pronotum somewhat more wider than in male, slightly dilated posteriorly. Elytra relatively wider, moderately dilated posteriorly.

Length ♂♀: 4.5–6.6 mm.

Distribution. Morocco.

Etymology. Dedicated to one of its collectors, Pavel Průdek (Brno).

Differential diagnosis. *R. prudeki* sp.nov. is by its coloration very similar and closely related to *R. quadricollis* KIESENWETTER, 1852, from which it differs by shorter dorsal part of the aedeagus and by wider paramere in lateral view (cf. DAHLGREN 1972).

***Rhagonycha hyrcana* sp.nov.** (Figs 20–22)

Type material. Holotype (NMPC), ♂, “N. Iran, Elburs: Kelardascht nö. Teh., 7.–13.vi.74, leg. D. Bernh.“.

Description. Coloration. Terra cotta, meso- and metasternum and ventral portion of abdomen excluding last two sternites somewhat darker.

Male. Eyes large and strongly protruding, head across eyes distinctly wider than pronotum, head behind eyes strongly narrowing posteriorly. Antenna slightly exceeding 2/3 of elytral length. Surface of head finely imbricate-punctate, finely and sparsely yellow pubescent, matt, frons semilustrous. Pronotum slightly wider than long, both anterior and posterior margins widely rounded, anterior corners rounded, lateral margins nearly parallel, very slightly emarginate before obtuse posterior corners. Surface of pronotum imbricate, more sparsely punctate than that of head, sparsely and finely yellow pubescent, almost semilustrous. Elytra moderately dilated posteriorly, their surface finely rugulose-lacunose, sparsely and finely yellow pubescent, semilustrous. Aedeagus as in Figs 20–22. Female unknown.

Length ♂: 6.4 mm.

Distribution. NW Iran.

Etymology. Derived from Hyrcania, Latin name for the ancient region in northwestern Iran.

Differential diagnosis. *R. hyrcana* sp.nov. is similar and related to *R. talyschensis* KHZNORJAN, 1959 and to *R. lencoranica* KASANTSEV, 1992, from both which it differs by the form of dorsal part of the aedeagus, which is narrowly incised and by the form of paramere in lateral view, apex of which is widely rounded (cf. WITTMER 1972 and KASANTSEV 1992).

***Rhagonycha gansuensis* ŠVIHLA, 1995** (Figs 26–28)

Rhagonycha gansuensis ŠVIHLA, 1995: 77.

Material examined. China: Shaanxi, Qing Ling Shan mts., Hou Zen Zi - Tai Bai, 3500 m, 2.–4.vii.1998, Z. Jindra, M. Trýzna & O. Šafránek lgt., 6♂♂ (NMPC); NW Sichuan, Songpan, 2000 m, 103 40N 32 30E, 13.–17.vii.1990, J. Kolibáč lgt., 1♂ 1♀ (NHMB).

Distribution. China: Gansu, Shaanxi, Sichuan.

Comments. The form of paramere in lateral view was found somewhat variable as in Figs 26–28 (see also ŠVIHLA 1995), however other characters including the internal sac were found to be identical.

***Rhagonycha jindraei* sp.nov.** (Figs 23–25)

Type material. Holotype (NMPC), ♂, “China: Shaanxi, Qing Ling Shan mts., 3500 m, Hou Zen Zhi - Tai Bai, Jindra, Trýzna & Šafránek lgt.”; paratypes (NMPC), the same data, 2♂♂.

Description. Coloration. Entirely sooty only mandibles sepia.

Male. Eyes relatively small, protruding, head across eyes very slightly narrower than pronotum, head behind eyes narrowing posteriorly. Antenna slightly exceeding elytral midlength. Surface of head finely imbricate-punctate, finely and sparsely brown pubescent, matt. Pronotum moderately wider than long, anterior margin widely rounded, anterior corners obtuse, lateral margins strongly diverging posteriorly, slightly emarginate before almost sharp posterior corners, posterior margin widely rounded. Surface of pronotum punctate and pubescent like that of head, matt, pair of bulges in posterior half almost semilustrous. Elytra moderately dilated posteriorly, their surface rugulose-lacunose, finely yellow pubescent, semilustrous. Aedeagus as in Figs 23–25. Female unknown.

Length ♂: 5.0–5.5 mm.

Distribution. China: Shaanxi.

Etymology. Dedicated to one of its collectors, Zdeněk Jindra, Praha.

Differential diagnosis. *R. jindraei* sp.nov. is very closely related to *R. gansuensis*, from which it differs by wider dorsal part of the aedeagus both in dorsal and in lateral view, which is also more deeply emarginate and tips of emarginate portion are more rounded than in *R. gansuensis* (cf. ŠVIHLA 1995). Form of the paramere is very similar in both species, which occurs in the same region, however no interstages in dorsal part of the aedeagus were found.

***Rhagonycha pekinensis* sp.nov.** (Figs 29–31)

Type material. Holotype (NMPC), ♂, “China, Beijing, Quinglongqiao, 8.–9.vi.1991”; paratypes (NMPC): the same data 2♀♀.

Description. Coloration. Sooty, mouthparts, first two antennomeres, anterior tibiae and knees of middle and posterior legs rusty to sienna.

Male. Eyes relatively small, moderately protruding, head across eyes very slightly wider than pronotum, head behind eyes moderately narrowing posteriorly. Antenna reaching 2/3 of elytral length. Surface of head finely imbricate-punctate, sparsely and finely brown pubescent, matt to semilustrous. Pronotum moderately longer than wide, anterior margin nearly straight, anterior corners rounded, lateral margins almost parallel, posterior corners almost square-cut, posterior margin widely rounded. Surface of pronotum more sparsely punctate and pubescent than that of head, semilustrous to

lustrous. Elytra moderately dilated posteriorly, their surface rugulose-lacunose, finely brown pubescent, semilustrous. Aedeagus as in Figs 29–31.

Sexual dimorphism. Eyes smaller and less protruding than in male, head across eyes moderately narrower than pronotum, head behind eyes less narrowing posteriorly. Antenna hardly reaching elytral midlength. Pronotum 1/4 wider than long, elytra relatively wider than in male.

Length ♂♀: 4.5–5.0 mm.

Distribution. China: Beijing.

Etymology. Peking is another transcription of Beijing, named according to its type locality.

Differential diagnosis. *R. pekinensis* sp.nov. differs from *R. mandibularis siberiana* KASANTSEV, 1994 in smaller body, in flatter and narrower paramere in lateral view and by rusty first two antennomeres (cf. KASANTSEV 1994). From *R. latiuscula* J. SAHLBERG, 1885 it differs in wider dorsal part of aedeagus and in more widely arcuate bases of paramere in ventral view (cf. WITTMER 1971 and KASANTSEV 1994).

***Rhagonycha safraneki* sp.nov.** (Figs 32–34)

Type material. Holotype, (NMPC), ♂, “China, Shaanxi, Quing Ling Shan Mts., track Hou Zhen Zi - Mt. Tabai Shan, 3000 m, 29.vi.–2.vii.1998, O. Šafránek & M. Trýzna lgt.”; paratype (NHMB), ♂, “China - Sichuan pr., Kangding distr., Mugezo lake, 4500 m, 16.–19.vii.1992, R. Dunda lgt.”.

Description. Coloration. Entirely sooty to black, only mandibles rusty.

Male. Eyes relatively small and only slightly protruding, head across eyes distinctly narrower than pronotum, head behind eyes only slightly narrowing posteriorly. Antenna reaching 2/3 of elytral length. Surface of head finely imbricate-punctate, sparsely and finely white pubescent, matt. Pronotum almost 1/3 wider than long, its anterior margin nearly straight, anterior corners rounded, lateral margins distinctly diverging posteriorly, very slightly emarginate before obtuse posterior corners, posterior margin widely rounded. Surface of pronotum more sparsely punctate than that of head, sparsely white pubescent, matt to semilustrous. Elytra distinctly dilated posteriorly, their surface rugulose-lacunose, sparsely white pubescent, semilustrous. Aedeagus as in Figs 32–34. Female unknown.

Length ♂: 5.3–5.5 mm.

Distribution. China: Shaanxi, Sichuan.

Etymology. Dedicated to one of its collectors, Ondřej Šafránek (Děčín).

Differential diagnosis. *R. safraneki* sp.nov. can be compared with some Siberian species. It differs from *R. latiuscula* J. SAHLBERG, 1885 in wider paramere in lateral view; from *R. sibirica* WITTMER, 1971 in wider body, in wider paramere in lateral view and in unicolorous, dark antenna; from *R. mimica* L. MEDVEDEV et RYVKIN, 1989 in smaller body, in narrower dorsal part of the aedeagus and in paramere not curved apically in ventral view (cf. WITTMER 1971 and KASANTSEV 1994).

***Rhagonycha kadleci* sp.nov.**

(Figs 35–36)

Type material. holotype (NMPC), ♂, “TR: prov. Antalya, Avlanbeli pass, 1120 m, 25 km S Elmali, 10.v.2001, S. Kadlec lgt.”; paratypes (NMPC): same data, 2 ♀.

Description. Coloration. Head black, mouthparts saffron yellow, terminal half of both palpi infusate. Antenna sepia to black, first two and basal portion of third antennomere saffron yellow. Prothorax and ventral part of body black, coxae saffron yellow. Anterior legs entirely saffron yellow in male, femora darker basally in female, middle femora black, knees, tibiae and tarsi saffron yellow, posterior legs black, knees, bases and outer sides of tibiae and basal portions of first three tarsomeres saffron yellow. Scutellum black, elytra saffron yellow.

Male. Eyes relatively small, moderately protruding, head across eyes slightly wider than pronotum, head behind eyes roundly narrowing posteriorly. Antenna almost reaching 2/3 of elytral length. Surface of head very finely imbricate-punctate, finely and sparsely brown pubescent, semilustrous. Pronotum as long as wide, anterior margin widely rounded, anterior corners rounded, lateral margins diverging posteriorly, moderately bevelled before obtuse posterior corners, posterior margin sinuate. Surface of pronotum sculptured like that of head; yellow pubescent, semilustrous. Elytra distinctly dilated posteriorly, their surface rugulose-lacunose, finely yellow pubescent, semilustrous. Aedeagus as in Figs 35–36.

Sexual dimorphism. Antenna shorter than in male, reaching elytral midlength, pronotum slightly wider than long, elytra wider than in male.

Length ♂♀: 7.1–7.7 mm.

Distribution. SW Turkey.

Etymology. Dedicated to its collector, Stanislav Kadlec (Litvínov).

Differential diagnosis. *R. kadleci* sp.nov. seems to be related to *R. lignosa* (MÜLLER, 1764) from which it differs in dorsal part of the aedeagus, which is not constricted before apex and in parameres projecting more ventrally (cf. DAHLGREN 1968).

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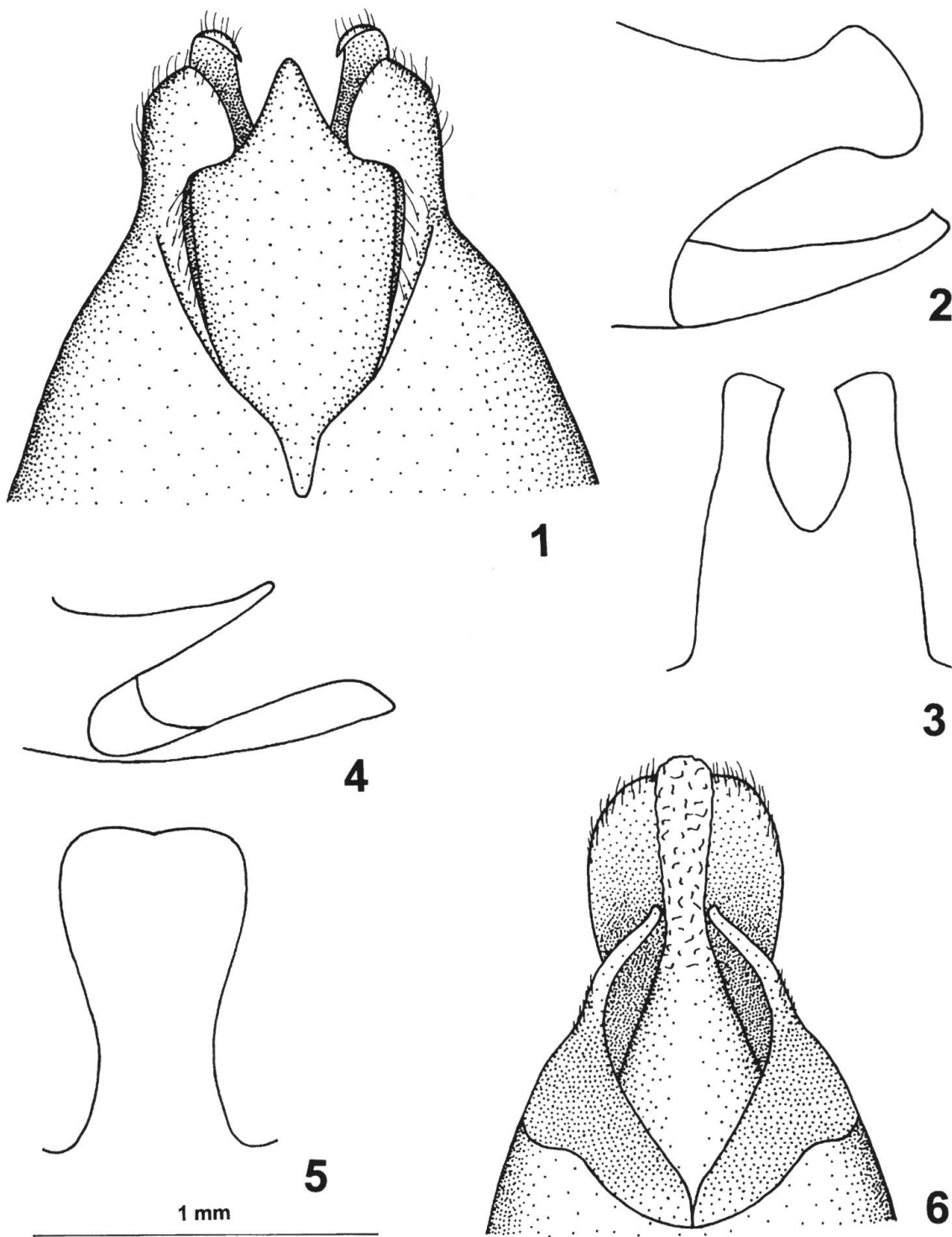
References

- DAHLGREN G. (1968): *Beiträge zur Kenntnis der Gattung Rhagonycha (Col. Cantharidae)*. Entomologische Blätter 64: 93–124.

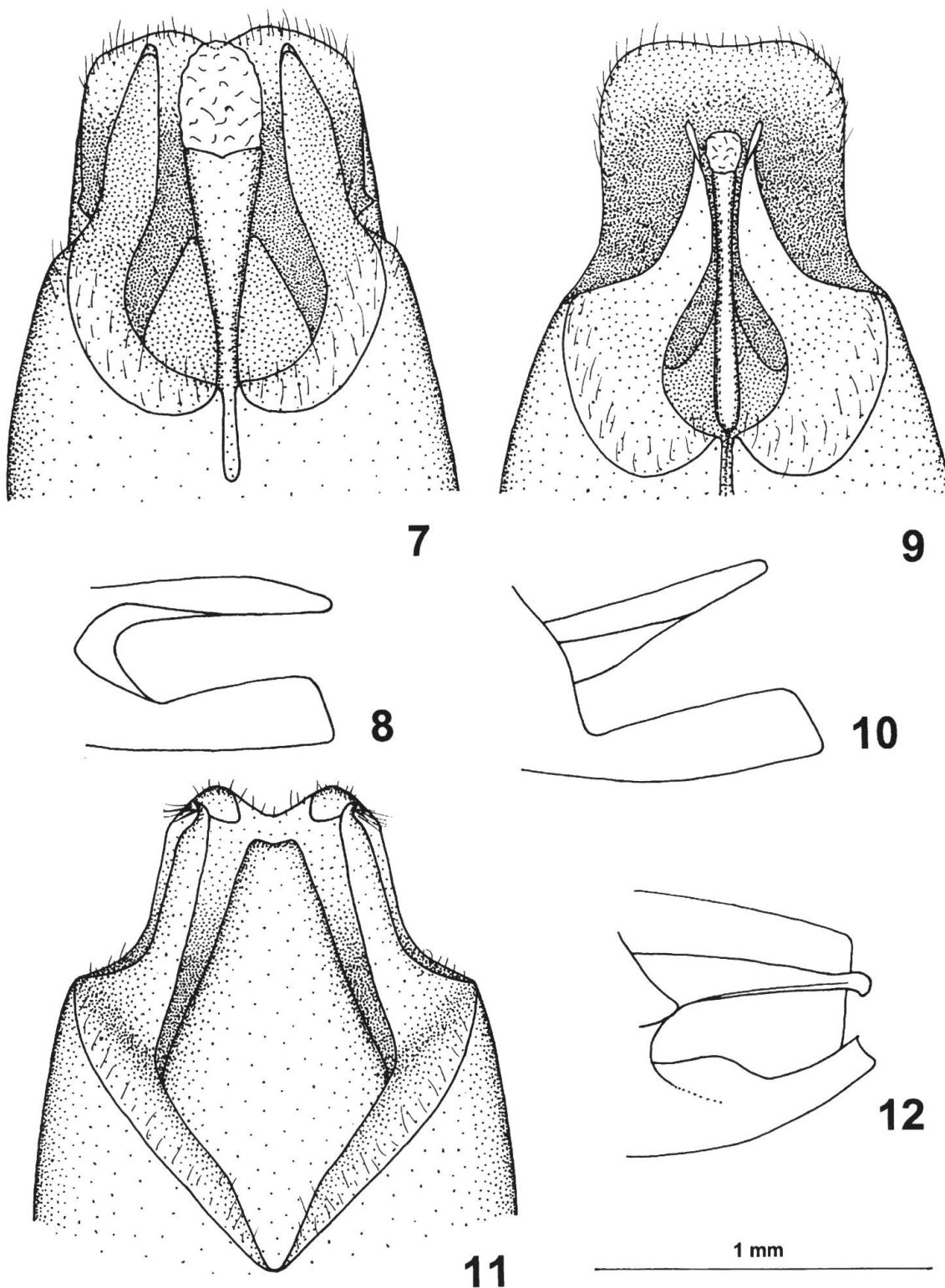
- DAHLGREN G. (1972): *Beiträge zur Kenntnis der Gattung Rhagonycha (Col. Cantharidae) II*. Entomologische Blätter **68**: 129–149.
- HARRIS R. A. (1979): *The glossary of surface sculpturing*. Occasional Papers in Entomology **28**: 1–31.
- KAZANTSEV S. V. (1992): *Novye i maloizvestnye myakotelki Kavkazu i privileyushchikh teritoriy (Coleoptera, Cantharidae)*. Zoologicheskii Zhurnal **71**: 43–52. (In Russian, English summary.)
- KAZANTSEV S. V. (1994): *Obzor vidov Rhagonycha (Coleoptera, Cantharidae) aziatskoy chasti Rosii*. Zoologicheskii Zhurnal **73**: 71–100. (In Russian, English summary.)
- PACLT J. (1958): *Farbenbestimmung in der Biologie*. Jena, VEB Gustav Fischer Verlag, 76 pp.+5 pls.
- ŠVIHLA V. (1993): *Contribution to the knowledge of the genus Rhagonycha Eschsch. (Coleoptera, Cantharidae) from Eastern Mediterranean*. Entomologica Basiliensia **16**: 255–277.
- ŠVIHLA V. (1995): *Contribution to the knowledge of the genus Rhagonycha Eschscholtz (Coleoptera, Cantharidae) II*. Entomologica Basiliensia **18**: 71–90.
- WITTMER W. (1971): *Ergebnisse der zoologische Forschungen von Dr. Z. Kaszab in der Mongolei. 257. Cantharidae der V. und VI. Expedition (Coleoptera)*. Annales Historico-naturales Musei Nationalis Hungarici **63**: 189–203.
- WITTMER W. (1972): *56. Beitrag zur Kenntnis der palaearktischen Cantharidae (Col.)*. Mitteilungen der Schweizerischen Entomologischen Gesellschaft **45**: 61–77.
- WITTMER W. (1997): *Neue Cantharidae (Col.) aus dem indo-malaiischen und palaearktischen Faunengebiet mit Mutationen. 2. Beitrag*. Entomologica Basiliensia **20**: 223–366.

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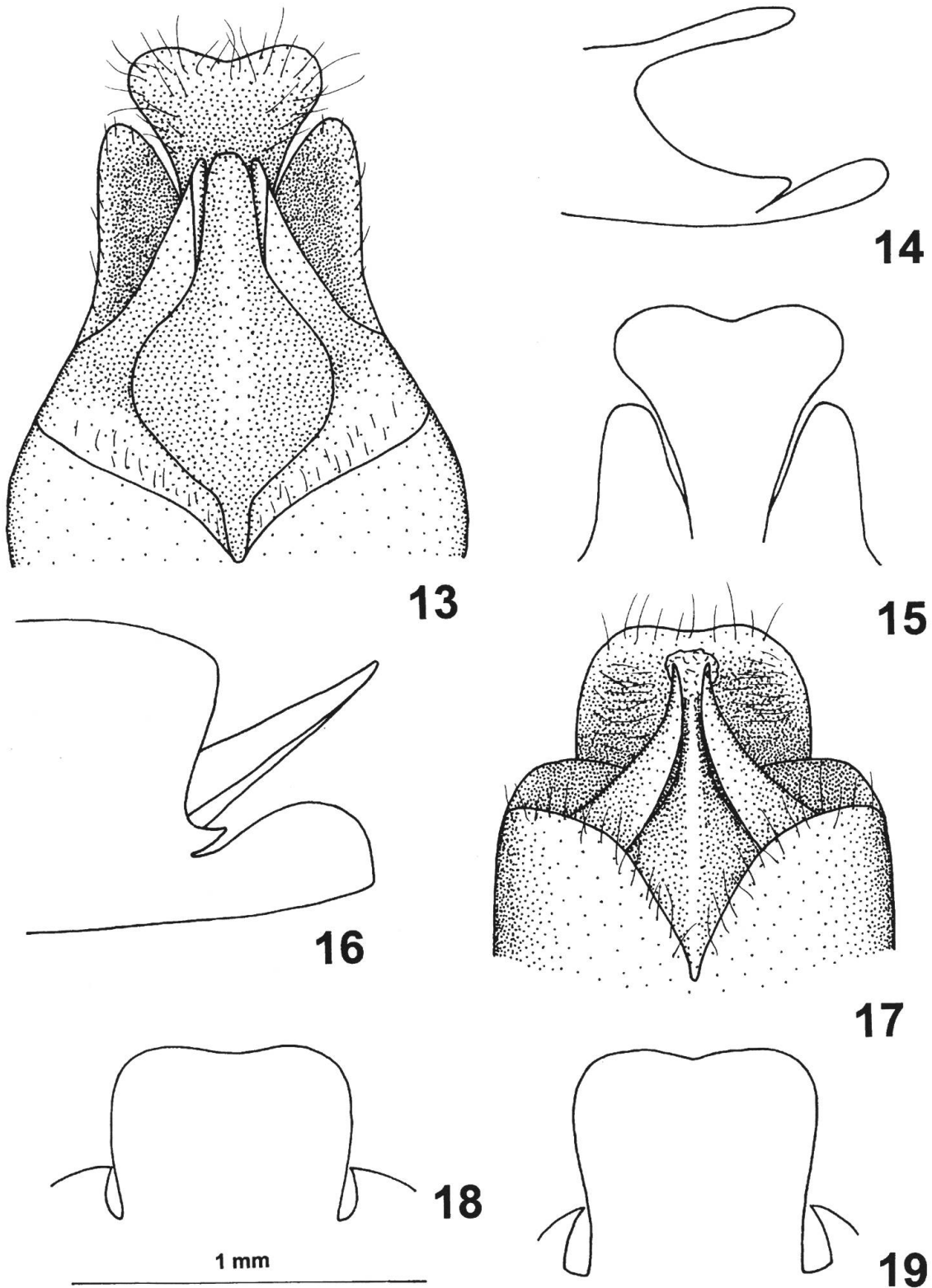
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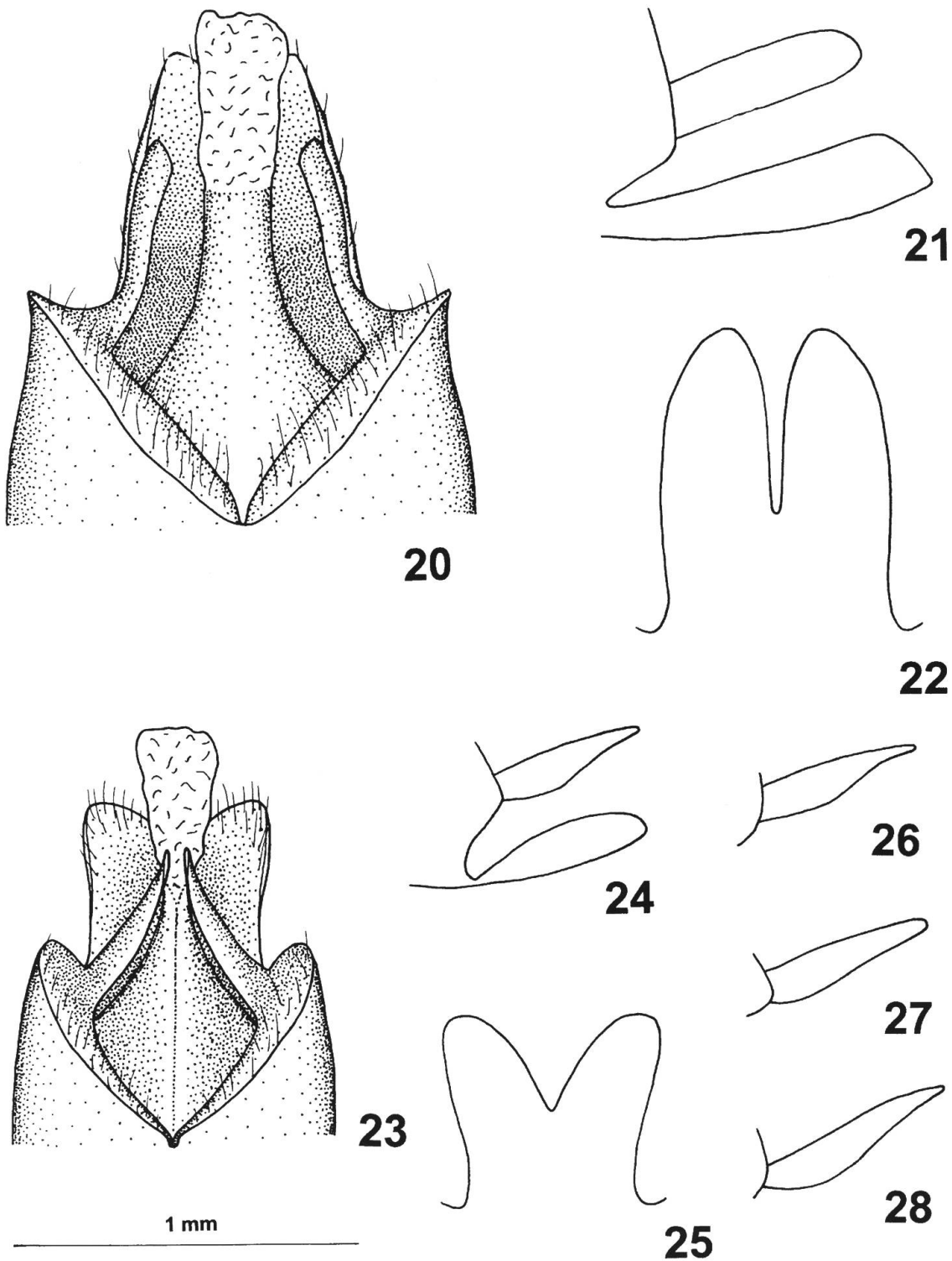
Figs 1–6. 1–3: *Rhagonycha tibetana* sp. nov.: 1, apical portion of aedeagus, ventral view. 2, ditto, lateral view. 3, ditto, dorsal view. 4–6: *R. tryznai* sp. nov.: 4, apical portion of aedeagus, lateral view. 5, ditto, dorsal view. 6, ditto, ventral view.



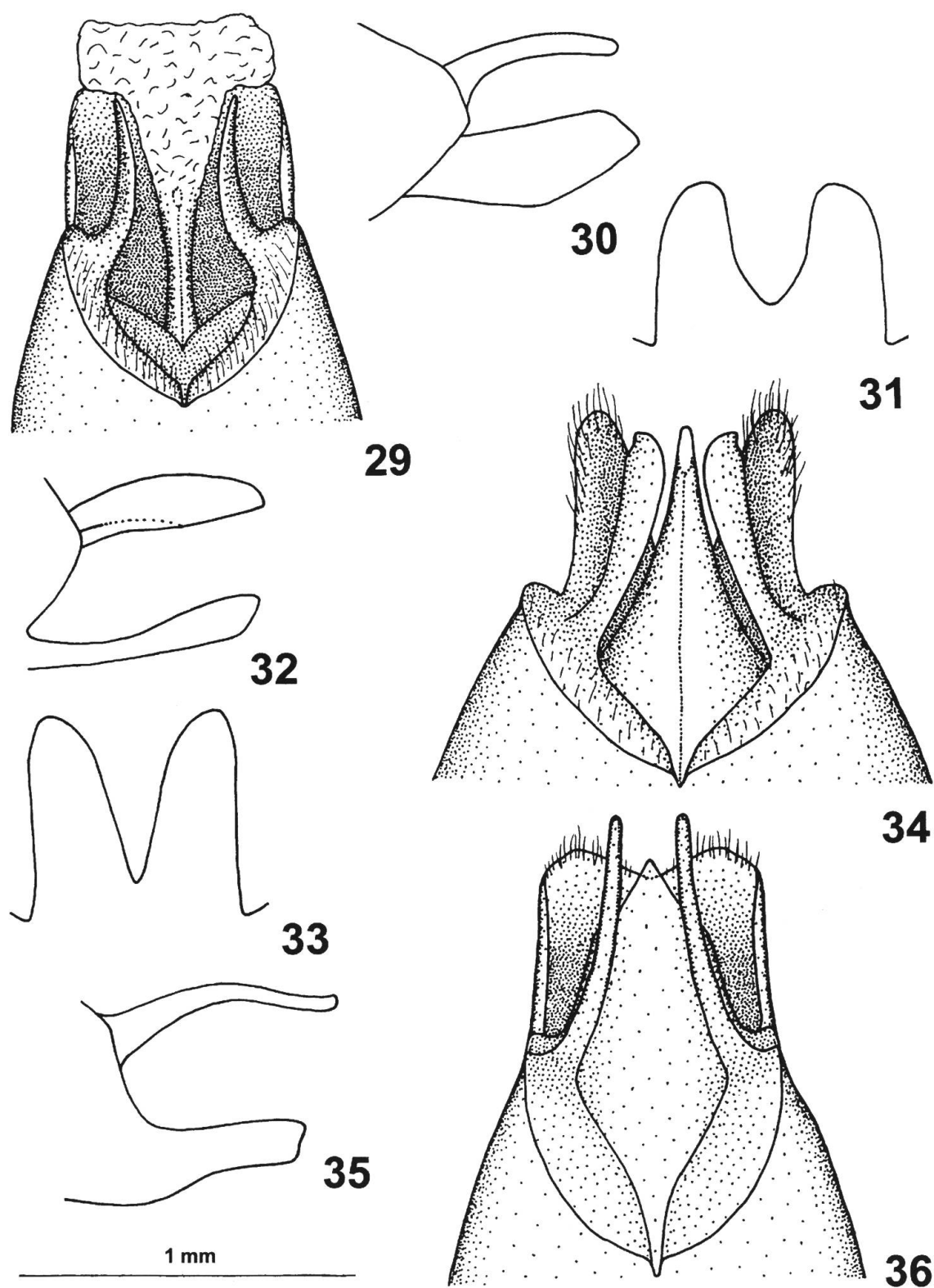
Figs 7–12. 7–8: *Rhagonycha ruzickai* sp.nov.: 7, apical portion of aedeagus, ventral view. 8, ditto, lateral view. 9–10: *R. delagrangei* (Pic): 9, apical portion of aedeagus, ventral view. 10, ditto, lateral view. 11–12: *R. benedikti* sp.nov.: 11, apical portion of aedeagus, ventral view. 12, ditto, lateral view.



Figs 13–19. 13–15: *Rhagonycha stanislavi* sp. nov.: 13, apical portion of aedeagus, ventral view. 14, ditto, lateral view. 15, ditto, dorsal view. 16–19: *R. prudeki* sp. nov.: 16, apical portion of aedeagus, lateral view. 17, ditto, ventral view. 18, ditto, dorsal view (Ifrane). 19, ditto (Khenifra).



Figs 20–28. 20–22: *Rhagonycha hyrcana* sp. nov.: 20, apical portion of aedeagus, ventral view. 21, ditto, lateral view. 22, ditto, dorsal view. 23–25: *R. jindrai* sp. nov.: 23, apical portion of aedeagus, ventral view. 24, ditto lateral view. 25, ditto, dorsal view. 26–28: *R. gansuensis* ŠVIHLA, variability of paramere, lateral view: 26, Songpan. 27, Hou Zhen Zi - Tai Bai. 28, ditto locality.



Figs 29–36. 29–31: *Rhagonycha pekinensis* sp.nov.: 29, apical portion of aedeagus, ventral view. 30, ditto, lateral view. 31, ditto, dorsal view. 32–34: *R. safraneki* sp.nov.: 32, apical portion of aedeagus, lateral view. 33, ditto, dorsal view. 34, ditto, ventral view. 35–36: *R. kadleci* sp.nov.: 35, apical portion of aedeagus, lateral view. 36, ditto, ventral view.

