

**RESULTS OF THE CZECHOSLOVAK-IRANIAN ENTOMOLOGICAL
EXPEDITIONS TO IRAN 1970, 1973 AND 1977**

**Together with results of collections made in Anatolia
Coleoptera, Melyridae: part II (Melyrinae, Cerallini)**

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Abstract: The following species are described and illustrated: *Cerallus pallidipennis*, *similis*, *interpositus*, *coriaceus* spp. n.; *Anthodromius rufipennis*, *piceus*, *reticulatus*, *laticollis*, *inexpectatus*, *robustus* spp. n.

Redescription of *Cerallus rubidus* (Gyll.) and of holotype of *Anthodromius variabilis* Redtenbacher, 1868, is given. The tribe Cerallini is redescribed.

My thanks are due to Dr. F. Janczyk † (Naturhistorisches Museum, Wien, Austria) who kindly placed the type-specimen of *Anthodromius variabilis* Redtenbacher at my disposal.

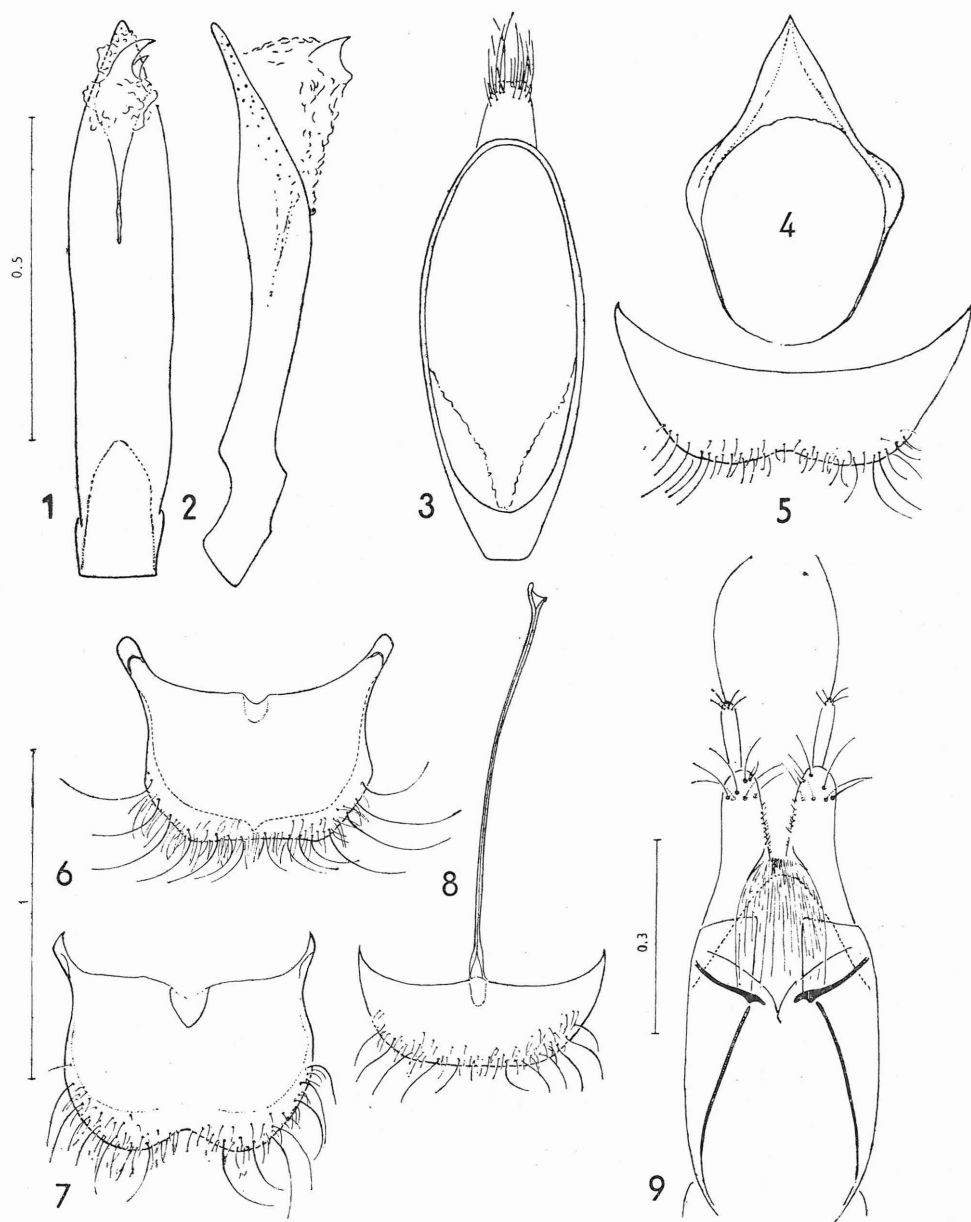
This tribe is nearly sufficiently delimited and re-defined in my work (Majer, 1987). From the study of the species described below ensue some additional morphological information.

As for the male terminalia, spicular fork is not always arrow-shaped (cf. Figs 4, 31, 36, 44). Body of phallus is always at least feebly asymmetrical, the asymmetry is not stable within the species, chiefly the phallic base is very variable. Internal sac contains always two conspicuous, sizable spines; the extrusion of internal sac is demonstrated in the Fig. 2. From the viewpoint of the specific classification the shape of spines is unstable. Apex of phallus is always beset with not very numerous dots. Tegmen is nearly always oval with ciliate apical plate, its shape and ciliation is always variable within the species.

Ovipositor: Ventral bacculus is always very short, distinctly shorter than proctigeral bacculi; oblique bacculus on its innerside emarginate. Coxites with 6 primary (3 ventrally, 3 dorsally) and 2 collateral, setae. Coxital styli distally not dilated, rather narrowed, at the apex with 1 primary seta (circa twice longer than stylus) and 4 collateral setae (see Figs 9, 12).

Sexual dimorphism habitually hardly definable, the shape of elytral apex is not a bearer of sexual dimorphism (cf. Schilsky 1894).

Sternum VII in males feebly emarginate, in females nearly straight. Sternum VIII in males medially little vaulted, in females rather concave.



Figs 1—9: *Cerallus rubidus* [Gyll.] (Slovakia: Kováčov); 1: phallus dorsally; 2: phallus laterally; 3: tegmen ventrally; 4: spicular fork; 5: male sternum VIII; 6: male pygidium; 7: female pygidium; 8: female sternum VIII with spiculum ventrale; 9: ovipositor. Scale in mm.

In the genus *Anthodromius* on the coxites in addition 1 or 2 negligible collateral setae, those are hardly observable.

For general morphological orientation see also the survey of the terminalia of *Cerallus rubidus* (Gyll.) (Figs. 1—9).

***Cerallus* Duval, 1859**

All the species described below are remarkable by the relatively broad and short bodyshape (in contradistinction to *Cerallus rubidus* and related species); apart from the similar species (*C. tataricus* Baudi, 1873; *C. brevicollis* Kiesenwetter, 1872; *C. nigropilosus* Reitter, 1913) they are distinguishable by different integumental structure.

***Cerallus pallidipennis* sp. n.**

(Figs 10—17)

Differs from all described species by the combination of very flat puncturation on elytra with microsculpture (Fig. 14) and pale pubescence. Male remarkable by the shape of phallus and sternum VIII (Figs 10, 11, 17); female by its colouration and emargination of sternum VIII (Fig. 16) and shape of the pygidium (Fig. 13). Sexual dimorphism remarkable in the colouration (female has dark elytra except apex).

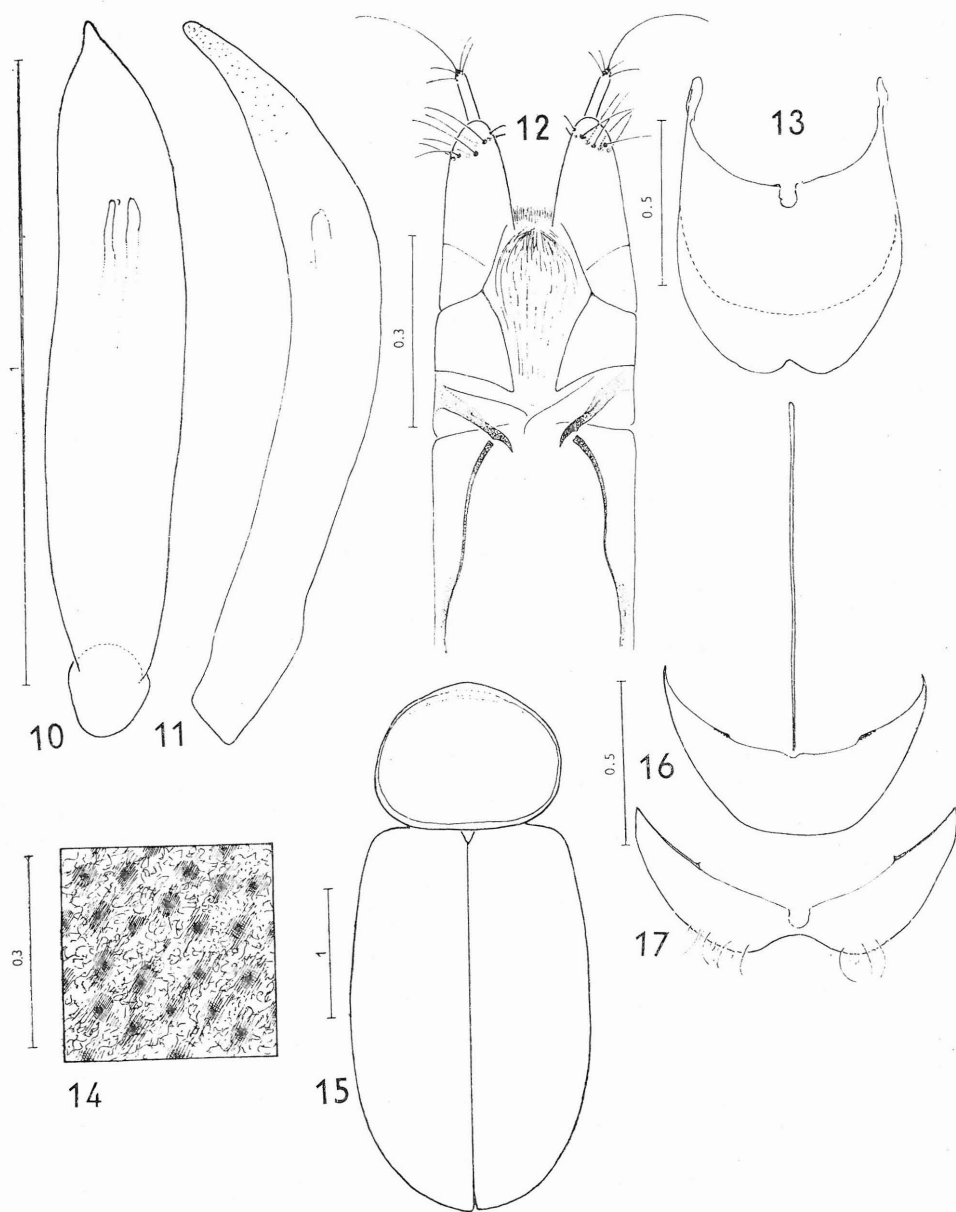
Strongly vaulted, short, subparallel (Fig. 15). Integument very finely and shallowly punctured, intervals among punctures on elytra with irregular microsculpture, nearly dull (Fig. 14). Pubescence simple, erect; on the elytra long, as long as 3—6 intervals together; on the pronotum somewhat longer. Colouration black; clypeus, labrum, first 5—6 antennal joints, legs (except denticles on the base of claws) and elytra in males pale (brownish yellow); pronotum in males on the perimeter paler (rusty); in females elytra darkened, yellowish brown to pitchy brown, suture and sides of elytra posteriorly mostly paler. Colour of pubescence corresponds with that of adjoining bodyparts; in males elytra therefore brown-yellowish; in females more darkened.

Head (chiefly frons) punctured more coarsely than pronotum. Antennae distinctly serrate from the 7th joint, the last one in males more elongate than that in females.

Pronotum transverse (chiefly in males — Fig. 15), broadest at the base, regularly rounded, on the perimeter finely and regularly rimmed. Puncturation regular, interspaces nearly smooth, 1.5—2 times broader than diameter of punctures. Scutellum wrinkled, feebly lustrous.

Elytra parallel, in females posteriorly slightly dilated, suture feebly raised, elytral apices of variable shape, rounded to narrowed; elytral structure as figured (Fig. 14) with tendency to form transverse wrinkles.

Male: Pygidium similar to *C. rubidus* (Fig. 6), sternum VII very shallowly emarginate, sternum VIII (Fig. 17) in the middle of base with a notch; on the sides 6th denticle and darkened line reaching up to the lateral corners of sternum. Tegmen nearly as in *C. rubidus* (Fig. 3), variable, similarly as in spicular fork. Phallus dorsally mostly asymmetri-



Figs 10—17: *Cerallus pallidipennis* sp. n. (Figs 10, 11, 14, 15, 17 holotype ♂; figs 12, 13, 16 allotype ♀): 10: phallus dorsally; 11: phallus laterally; 12: ovipositor; 13: female pygidium; 14: punctuation of elytra; 15: contour of pronotum and elytra; 16: female sternum VIII with spiculum ventrale; 17: male sternum VIII. Scale in mm.

cal, in holotype (Fig. 10) the asymmetry distinct, in remaining specimens the phallus is nearly symmetrical; the tip always slightly strangulated and slightly incurved to the left. Phallus laterally regularly bent with blunt apex (Fig. 11).

Measurements: Length/AL = 5.29–5.67; AL/PL = 0.66–0.80; IOW/DE = 1.25–1.73; HW/IOW = 1.37–1.80; HW/DE = 2.32–2.39; PW/HW = 1.50–1.72; PW/PL = 2.16–1.29; EL/PL = 2.68–3.09; EW/PW = 1.20–1.51; EL/EW = 1.48–1.98; length = 3.45–5.14 mm; width = 1.36–2.09 mm.

Female: Pygidium apically emarginate (Fig. 13). Sternum VII apically nearly straight (Fig. 16), sternum VIII similar to male (at the apex arcuate, lateral denticles and medial notch indicated only). Ovipositor nearly as in *Cerallus rubidus* (cf. Figs 9 and 12).

Material examined 17 ♂♂, 15 ♀♀. Holotype ♂, allotype ♀, 15 ♂♂ and 14 ♀♀ paratypes: S. Iran, 13 km NW Ghaderabad, 2120 m, 21. 6. 1973, loc. no. 253; 1 ♂ paratype: E. Iran, 1100 m, 33 km W Sabzvaran, 6.–7. 5. 1973. loc. no. 189. Two specimens deposited in the author's collection.

***Cerallus similis* sp. n.**

(Figs 18–24)

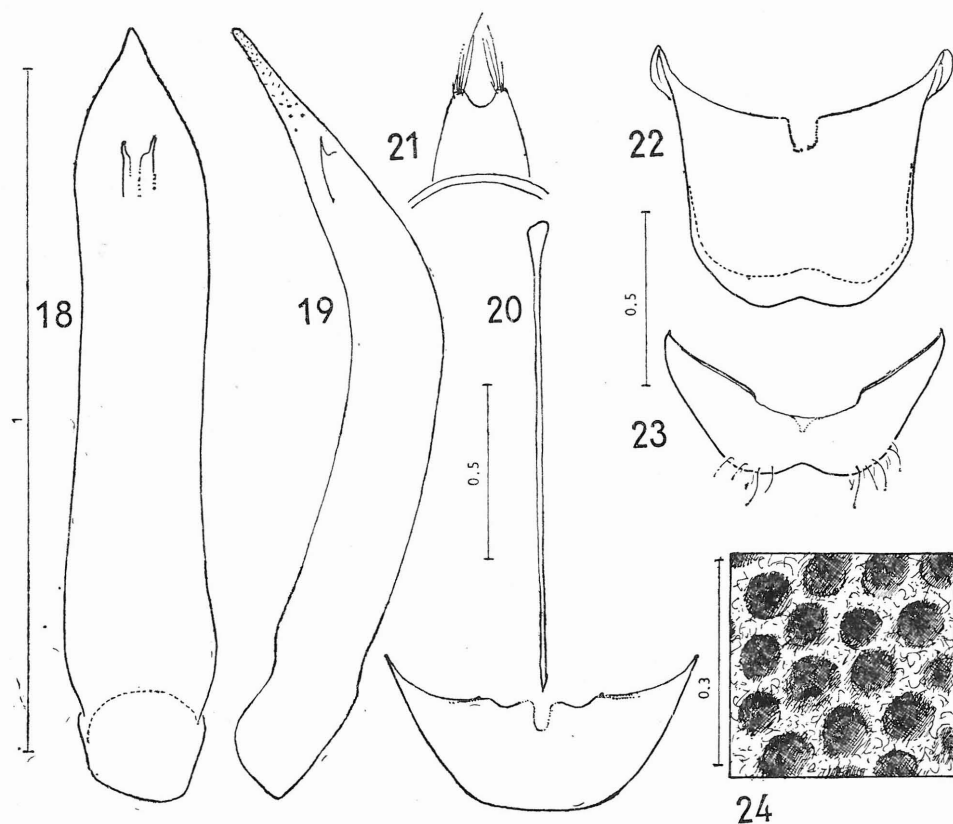
Difeeres from the preceding species by the coarse puncturation of elytra (Fig. 24) and pronotum; by paler colouration of elytra (males with different build of sternum VIII and different shape of phallus). Female elytra coloured as in males, without deeply emarginate pygidium (Fig. 22). Sexual dimorphism distinguishable, females with rather less transverse pronotum being more intensively narrowed onwards; elytra somewhat more dilated.

Shape as in *C. pallidipennis* (Fig. 15). Integument densely and coarsely punctured (chiefly head and elytra), intervals among dots with fine microsculpture, therefore mat. Pubescence as in *C. pallidipennis*, but in the pale elytra that is not always pale to deep-brown. Colour as in *C. pallidipennis*, but clypeus black; head, pronotum (without paler border) and scutellum deep-black in contrast with elytra and legs; antennae with black innerside of 7th–10th joint, the last joint is from the greater part dark.

Head more coarsely punctured than pronotum and more densely than elytra; the ultimate antennal joint approximately as long as wide.

Pronotum more transverse than in *C. pallidipennis*, broadest near the middle, on the sides of base shallowly emarginate (in female inconspicuously), on its perimeter sharply and narrowly rimmed; pronotal surface with punctures somewhat smaller than those in elytra, interspaces broader or narrower than punctures, intervals with finer microsculpture than in elytra. Scutellum finely wrinkled, dull.

Elytra with lateral margin more grooved than in *C. pallidipennis*, puncturation as figured (Fig. 24), suture slightly but conspicuously raised, elytra in females posteriorly somewhat more dilated.



Figs 18—24: *Cerallus similis* sp. n. (Figs 18, 19, 21, 23, 24 holotype ♂; figs 20, 22 allotype ♀); 18: phallus dorsally; 19: phallus laterally; 20: female sternum VIII with spiculum ventrale; 21: apical plate of tegmen; 22: female pygidium; 23: male sternum VIII; 24: punctuation of elytra. Scale in mm.

Male. Pygidium and sternum VII not different from *C. pallidipennis*, sternum VIII distally with deeper medial emargination (Fig. 23), medial depigmentation variable and may reach the apex of sternum. Tegmen not different from *C. pallidipennis* in two cases (inclusive holotype — Fig. 21) apical plate with emargination, in other cases without it. Phallus (Figs 18, 19) little different from *C. pallidipennis*, at apex more pointed.

Measurements: Length/AL = 6.41—8.09; AL/PL = 0.57—0.63; IOW/DE = 1.36—1.59; HW/IOW = 1.59—1.73; HW/DE = 2.36—2.48; PW/HW = 1.63—1.76; PW/PL = 1.26—1.36; EL/PL = 2.42—3.14; EW/PW = 1.22—1.32; EL/EW = 1.41—1.79; length = 4.36—4.59 mm, width = 1.86—2.04 mm.

Female: Pygidium very shallowly emarginate only (Fig. 22), sternum VIII on the base distally with characteristic emarginations (Fig. 20). Ovipositor as in other species.

Measurements: Length/AL = 6.33; AL/PL = 0.68; IOW/DE = 1.53—1.60; W/IOW = 1.55—1.56; HW/DE = 2.37—2.50; PW/HW = 1.60—1.82; PW/PL = 1.25—1.33; EL/PL = 2.62—3.10; EW/PW = 1.37—1.39; EL/EW = 1.39—1.58; length = 4.27—4.30 mm; width = 1.95—2.00 mm.

Material examined: Holotype ♂, Allotype ♀, 4 ♂♂ and 1 ♀ paratypes: N. Iran, 4.—9. 7. 1977, Kandavan — pass, 2700—2900 m, S slope, loc. no. 395. Two specimens deposited in the author's collection.

***Cerallus interpositus* sp. n.**

(Figs 25, 26, 29)

Differs from *C. similis* by elytra less pale and entirely shining; elytral pubescence wholly black, pronotum somewhat less transverse. From *C. pallidipennis* may be distinguished by different elytral puncturation and colour of pubescence; male with slightly slenderer phallus being at the apex more narrowed. Female with pygidium at apex nearly straight. Sexual dimorphism habitually not distinguishable.

Shape as in *C. similis*, somewhat more elongated and more vaulted. Integument more or less regularly punctate, punctures more or less as wide as interspaces among them, these are lustrous, nearly without microsculpture; pubescence blackish. Colouration as in *C. similis*, but the prevalent yellow-brown colour, conspicuously darker, similarly to *C. pallidipennis*. Elytra in females with tendency to be darkened, the tendency never is so strong as that in *C. pallidipennis*.

Head conspicuously and coarsely punctured as pronotum and elytra; the 11th antennal joint short, as long as broad.

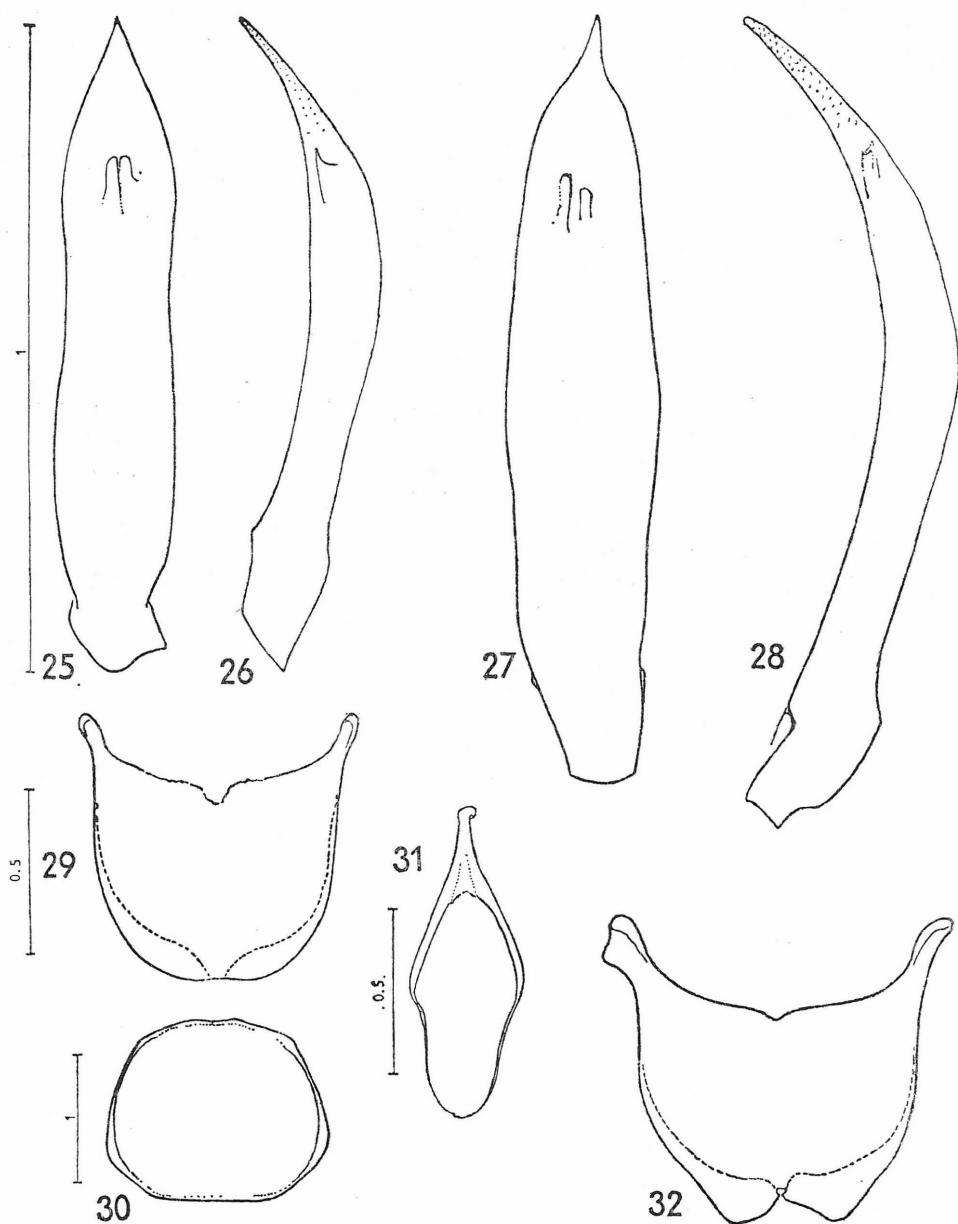
Pronotum feebly transverse, more vaulted than in both preceding species (base subarcuate), narrowly and conspicuously rimmed, its broadest part is in the middle, puncturation of pronotal disc more or less regular, punctures as broad (or less broad) as intervals, these are entirely smooth.

Elytra as in *C. similis*, but intervals among dots at least with dull lustre and with more or less distinct, flat microsculpture.

Male: Pygidium at the apex flatly emarginate being not a bearer of specific characters. Male sternum VII as in other species, sternum VIII as in *C. similis*. Tegmen without specific characters, phallus (Figs 25, 26) nearly symmetrical, slender, its apex elongated into sharp tip.

Measurements: length/AL = 5.82—6.63; AL/PL = 0.59—0.66; IOW/DE = 1.40—1.59; HW/IOW = 1.43—1.70; HW/DE = 2.28—2.62; PW/HW = 1.46—1.75; PW/PL = 1.25—1.32; EL/PL = 2.48—2.75; EW/PW = 1.19—1.39; EL/EW = 1.49—1.67; length = 3.91—5.18 mm; width = 1.41—1.90 mm.

Female: Pygidium (Fig. 29) almost not emarginate (allotype), this character is not stable, however. Sternum VIII as in *C. similis*, ovipositor without specific characters.



Figs 25, 26, 29: *Cerallus interpositus* sp. n. (Figs 25, 26 holotype ♂; Fig. 29 allotype ♀);
 Figs 27, 28, 30—32: *Cerallus cortaceus* sp. n. (Figs 27, 28, 30, 31 holotype ♂; Fig. 32
 allotype ♀); 25, 27: phallus dorsally; 26, 28: phallus laterally; 29, 32: female pygidium;
 30: male pronotum; 31: spicular fork. Scale in mm.

Measurements: Length/AL = 5.89—6.78; AL/PL = 0.68—0.71; IOW/DE = 1.35—1.76; HW/IOW = 1.45—1.72; HW/DE = 2.30—3.00; PW/HW = 1.53—1.63; PW/PL = 1.24—1.38; EL/PL = 2.52—2.86; EW/PW = 1.38—1.48; EL/EW = 1.30—1.63; length = 4.04—5.14 mm; width = 1.72—2.04 mm.

Material examined (29 ex.). Holotype ♂, allotype ♀, 4 ♂♂ and 4 ♀♀, paratypes: N. Iran Wildlif. Park, Bobat-e Quareh Bil, 1000 m, 30. 7. 1970, loc. no. 78; 9 ♂♂, 9 ♀♀ paratypes: N. Iran 3 km N Dasht, Golestan forest, 18.—19. 6. 1977, 960 m, loc. no. 375; 1 ♂ paratype: N. Iran, 4.—9. 7. 1977, Kandavan- pass, 2700—2900 m, S slope.

Two specimens deposited in the author's collection.

***Cerallus coriaceus* sp. n.**

(Figs 27, 28, 31, 32)

Remarkable by the shape of pronotum, black body with rugose structure; punctures coarse, not sharply limited. Male with the apex of phallus sharply pointed and strongly strangulated (Fig. 25). Female with pygidium apically notched, more deeply than in *C. pallidipennis*.

Shape shortly cylindrical, strongly vaulted, feebly lustrous. Integument with rugose microsculpture with greasy lustre (allotype more lustrous), pubescence pitchy black, not very dense. Colouration black, elytra brown-black, legs and the 1st—2nd basal thirds of antenna rusty brown.

Head very coarsely punctate dots touching one another. Pronotum very strongly vaulted, strongly transverse, broadest in the basal third, strongly narrowed forwards, on the disc irregularly rugosely punctate, interspaces with rugose microsculpture (in allotype puncturation less intensive, more regular, intervals nearly smooth).

Elytra with coriaceous puncturation, punctures partially touching one another (in allotype puncturation more shallow, less rugose, elytra therefore more shining).

Male: Pygidium apically emarginate (similarly as in female of *C. pallidipennis*- see Fig. 13). Sternum VIII as in *C. similis*, spicular fork (Fig. 31) at base dilated. Phallus (Figs 25, 26) at the apex strangulated and shortly pointed.

Measurements: Length/AL = 5.30—6.15; AL/PL = 0.67—0.70; IOW/DE = 1.62—1.72; HW/IOW = 1.50—1.69; HW/DE = 2.62—2.75; PW/HW = 1.62—1.73; PW/PL = 1.26—1.27; EL/PL = 2.48—2.50; EW/PW = 1.29—1.37; EL/EW = 1.44—1.52; length = 4.82—5.59 mm; width = 1.41—1.90 mm.

Female: Pygidium at the apex deeply notched (Fig. 32), more deeply than in *C. pallidipennis*. Sternum VIII on the base emarginate, similarly as in *C. pallidipennis*.

Measurements: Length/AL = 6.53; AL/PL = 0.63; IOW/DE = 1.70; HW/IOW = 1.47; HW/DE = 2.50; PW/HW = 1.74; PW/PL = 1.24; EL/PL = 2.84; EW/PW = 1.27; EL/EW = 1.67; length = 5.04 mm; width = 1.91 mm.

Material examined. Holotype ♂, allotype ♀, 1 ♂ paratype: E. Iran, 1600 m, Mohammabad, 3.—5. 5. 1973, loc. no. 187.

***Anthodromius* Redtenbacher, 1850**

All the species described here belong to the non-metallic group. The species described in this paper do not correspond with description of *A. nigropilosus* Reitter, 1902 (probably very similar to *A. reticulatus* sp. n., but differing in the puncturation). The species *A. kiesenwetteri* Kraatz, 1882 has a different elytral structure, *A. bicolor* Kiesenwetter, 1872 has another shape and different pubescence. The question of *raison d'être* of the genus *Anthodromius* remains open, terminalia in both genera (*Cerallus* and *Anthodromius*) do not display any generic characters (in the genus *Anthodromius* the ovipositor bears on coxites in addition 1—2 minute, mostly hardly distinguishable, setae).

***Anthodromius variabilis* Redtenbacher, 1850**

(Figs 33—40)

I took the possibility to study the holotype of this species, kindly lent me by Dr. F. Janczyk (Naturhistorisches Museum, Wien) and I give a redescription of this species, being the type-species (by monotypy) of this genus.

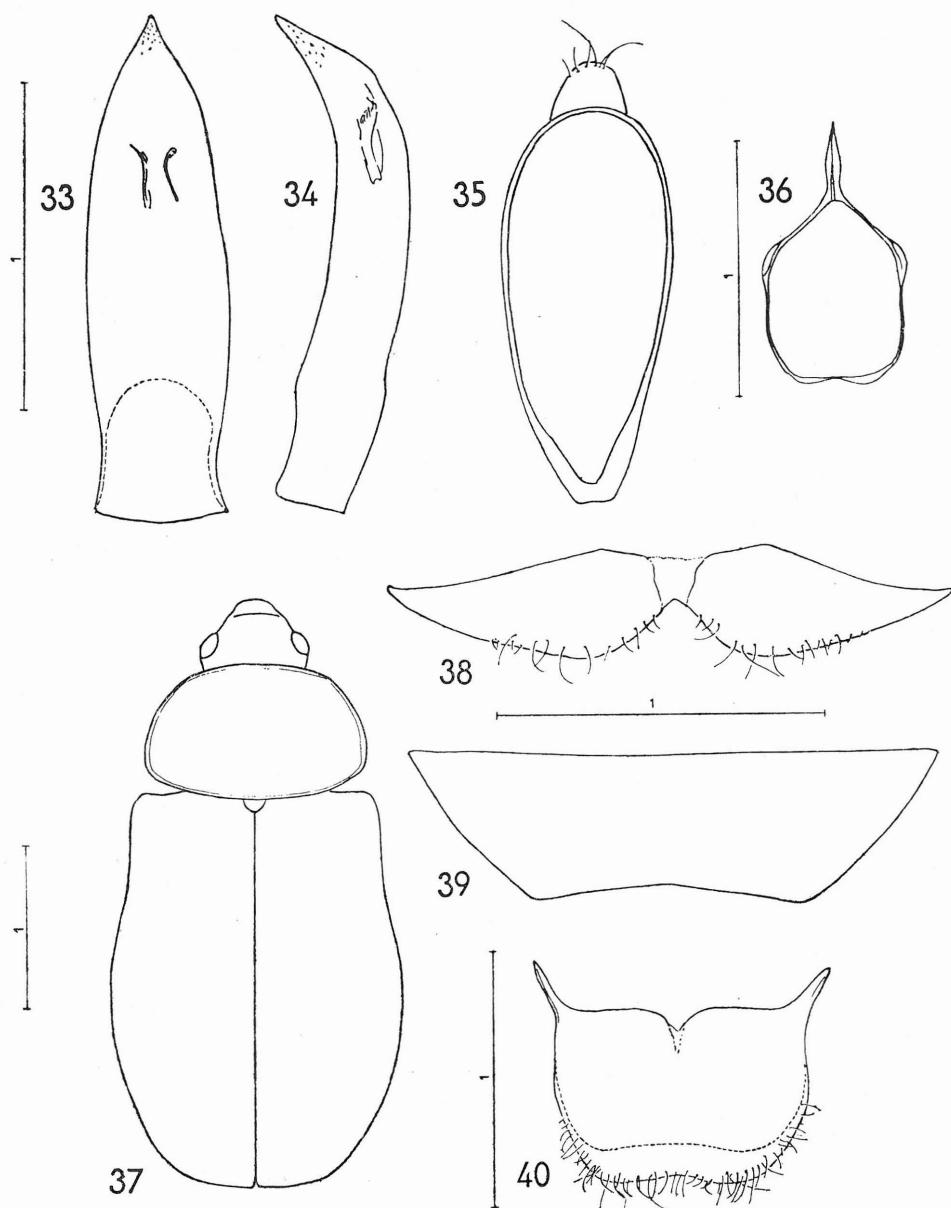
Differs from all other species of the genus *Anthodromius* by the combinations of rusty-yellowish elytral pubescence, subdepressed and very broad body and strongly transverse pronotum (Fig. 37).

Redescription of holotype ♂: Shape robust (Fig. 37), very strongly transversely vaulted. Integument coarsely and more or less regularly punctate, punctures approximately as wide as interspaces among them, these are nearly smooth; pubescence pale, in pronotum and head brown-yellowish, colouration brown-yellowish, cranium, pronotum (on the perimeter somewhat paler), antennae posteriorly and lower bodyside darkened (brown-black).

Head punctate nearly as pronotum, in the middle puncturation is longitudinally incomplete; in frons inconspicuous, deltoid impression; the 7th to 10th antennal joint twice broader than long, the ultimate one 1.25 times longer than broad, at the apex broadly rounded, on the inner-side truncated.

Pronotum strongly transverse (Fig. 37), on the perimeter finely but distinctly rimmed, puncturation on the disc more or less regular, interspaces among dots nearly smooth in the middle of disc, the puncturation is longitudinally incomplete; pubescence brown with intermixed short, pale setae, apex with dense pale pubescence. Scutellum black, broad, irregularly wrinkled, sparsely pubescent.

Elytra behind humerus narrowed, puncturation coarser than in pronotum, interspaces with flat network microsculpture therefore nearly dull; lateral margins of elytra nearly grooved, the proper margin with distinct narrow border; pubescence pale, here and there (chiefly on



Figs 33—40: *Anthodromius variabilis* Redtenbacher (holotype); 33: phallus dorsally; 34: phallus laterally; 35: tegmen; 36: spicular fork; 37: contour of body; 38: sternum VIII; 39: sternum VII; 40: pygidium. Scale in mm.

humerus and sides) with admixed brownish setae; elytral apex truncated (Fig. 37).

Terminalia: Pygidium as figured (Fig. 40). Sternum VII (Fig. 39) at the apex broadly and shallowly emarginate. Sternum VIII in the middle interrupted by a pale line (Fig. 38). Spicular fork as figured (Fig. 36). Tegmen (Fig. 35) with rounded apical plate. Phallus (Figs 33, 34) with pointed apex.

Measurements: Length/AL = 6.02; AL/PL = 0.68; IOW/DE = 1.83; HW/IOW = 1.48; HW/DE = 2.70; PW/HW = 1.89; PW/PL = 1.50; EL/PL = 2.61; EW/PW = 1.29; EL/EW = 1.35; length = 7.23 mm; width = 3.43 mm.

Holotype ♂ (deposited in Naturhistorisches Museum Wien, Austria), labelled as follows: "Orig. Typ" (white label, Redtenbacher's MS); white label "TRANSCRIPTIO" (printed) "Persien — Schiras" (Author's MS); "Holotypus" (red label, printed); "Anthodromius ♂ variabilis Redtb., K. Majer det. 1984, HOLOTYPUS" (white label).

Female (Schilsky, 1897: 85a): ♀ more strongly vaulted, regularly broad, on the elytra more deeply and densely punctate. Antenna stouter, the 2nd—5th joint therefore shorter, the 5th one strongly serrate, an interstage to the following, evenly serrate joints. Pronotum forwards less narrowed. Sutural angle more strongly rimmed, somewhat blunt. The last dorsal segment [pygidium] deeply emarginate".

***Anthodromius rufipennis* sp. n.**

(Figs. 41—48)

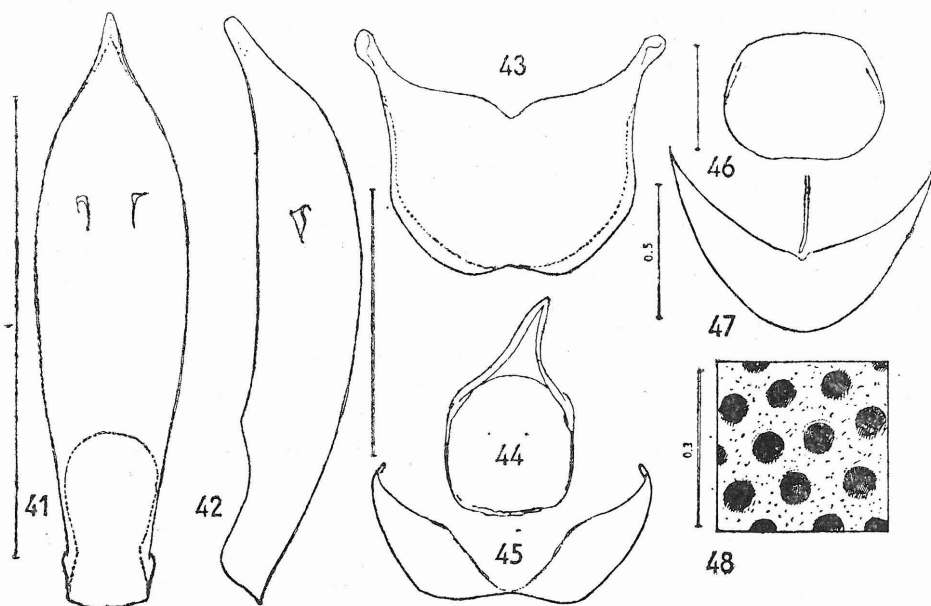
Pronotum less transverse, anteriorly little narrowed (Fig. 46). Interspaces among punctures on elytra nearly smooth (Fig. 48). Phallus strongly pointed at the apex. Sternum VIII in the middle deeply emarginate almost interrupted (Fig. 45). Elongated, strongly transversely vaulted, posteriorly feebly dilated. Integument intensively regularly punctate, interspaces among dots nearly smooth; pubescence dense, blackish, regular; scutellum, apex and pronotal base densely, pale and shortly pubescent. Colouration black, mouth parts and extremities brown-yellowish, antenna posteriorly darkened; elytra brown-yellow to light-brown, elytral apex mostly paler.

Head coarsely and irregularly punctate, interspaces mostly smaller than dots, frons with feeble impressions, antenna from the 7th joint dilated, serrate; the shape of antennal segments (chiefly of the last one) little constant.

Pronotum (Fig. 46) finely rimmed, mostly less transverse, its shape little constant, often similar to *A. piceus* sp. n. (Fig. 57); its perimeter exceptionally rather paler than disc. Scutellum dull with dense pale pubescence.

Elytra nearly parallel, slightly dilated posteriorly, lateral margins with fine groove, lateral marginal border from the lateral view less distinct; apex more or less truncated.

Male: Pronotum less transverse, elytra posteriorly less dilated. Pygidium as figured (Fig. 43). Sternum VII nearly the same as in *A. varia-*



Figs 41–48: *Anthodromtus rufipennis* sp. n. [41, 42, 44, 46, 48 holotype ♂; 43, 47 allotype ♀]: 41: phallus dorsally; 42: phallus laterally; 43: female pygidium; 44: spicular fork; 45: male sternum VII, VIII; 46: male pronotum; 47: female sternum VIII; 48: punctuation of elytra. Scale in mm.

bilis (Fig. 39). Sternum VIII (Fig. 45) medially strongly notched, nearly interrupted, its halves connected by a membranule. Spicular fork as figured (Fig. 44). Tegmen without specific characters, nearly as in *A. variabilis*. Phallus distally conspicuously pointed (Figs 41, 42).

Measurements: Length/AL = 5.75–6.39; AL/PL = 0.68–0.74; IOW/DE = 1.67–2.25; HW/IOW = 1.67–2.25; HW/DE = 2.55–3.12; PW/HW = 1.43–1.96; PW/PL = 1.28–1.67; EL/PL = 2.78–2.89; EW/PW = 0.94–1.14; EL/EW = 1.501.56; length = 5.23–5.82 mm; width = 2.18–2.63 mm.

Female: Pronotum more transverse, elytra posteriorly more dilated. Pygidium nearly as in the male, sternum VII straight, sternum VIII crescent-shaped, in the middle little emarginate.

Measurements: Length/AL = 4.37–5.89; AL/PL = 0.59–0.80; IOW/DE = 1.90–2.05; HW/IOW = 1.37–1.53; HW/DE = 2.80–2.90; PW/HW = 1.43–1.62; PW/PL = 1.23–1.34; EL/PL = 2.90–3.14; EW/PW = 1.35–1.54; EL/EW = 1.35–1.53; length = 4.70–6.18 mm; width = 1.86–2.73 mm.

Material examined (17 ex.). Holotype ♂, allotype ♀, 2 ♂♂ and 13 ♀♀ paratypes: NE Iran, Kuh-e Binalud S slope, 15 km NE Nishabur, 13.–15.6.

1977, 1600—2300 m, loc. no. 365; 1 ♀ paratype: N Iran, Alborz Tochal, 2000—3500 m, 29.—30. 6. 1973, loc. no. 261. Two specimens deposited in the author's collection.

***Anthodromius piceus* sp. n.**

(Figs. 49—52, 56—58)

Differs from the preceding species by the more transverse pronotum (Fig. 57), finely punctate head, interspaces among punctures on elytra with microsculpture. Male sternum VIII (Fig. 56) more slightly emarginate, phallus at the apex blunt (Figs 49, 51).

Shape and integument as in *A. rufipennis*, but elytra with interspaces having irregular network microsculpture, nearly dull. Colouration as in *A. rufipennis*, but elytra more darkened with paler apex.

Head more regularly and finely punctate, punctures mostly three-times smaller than interspaces, which are smooth and shining; antenna from the 7th joint gradually narrowing (Fig. 58), pronotum more transverse (Fig. 57). Scutellum dull, sparsely and pale pubescent. Elytra as in the preceding species, but interspaces among punctures with irregular microsculpture.

Male: Somewhat slenderer, pronotum less transverse. Terminalia as in the preceding species; sternum VIII not so deeply and broadly emarginate. Phallus (Figs 49—52) variable, with blunt apex.

Measurements: Length/AL = 4.16—5.30; AL/PL = 0.72—0.86; IOW/DE = 1.84—2.84; HW/IOW = 1.35—1.77; HW/DE = 2.40—2.84; PW/HW = 1.52—1.60; PW/PL = 1.40—1.48; EL/PL = 2.88—3.09; EW/PW = 1.20—1.39; EL/EW = 1.53—1.71; length = 3.86—4.73; width = 1.82—1.95.

Female: Somewhat more transverse, elytra slightly dilated. Terminalia as in *A. rufipennis*.

Measurement: Length/AL = 5.33—6.33; AL/PL = 0.72—0.80; IOW/DE = 2.00—2.33; HW/IOW = 1.40—1.42; HW/DE = 2.80—3.30; PW/HW = 1.50—2.13; PW/PL = 1.45—1.88; EL/PL = 3.04—3.25; EW/PW = 1.00—1.17; EL/EW = 1.52—1.63; length = 4.36—5.18 mm; width = 1.82—2.00 mm.

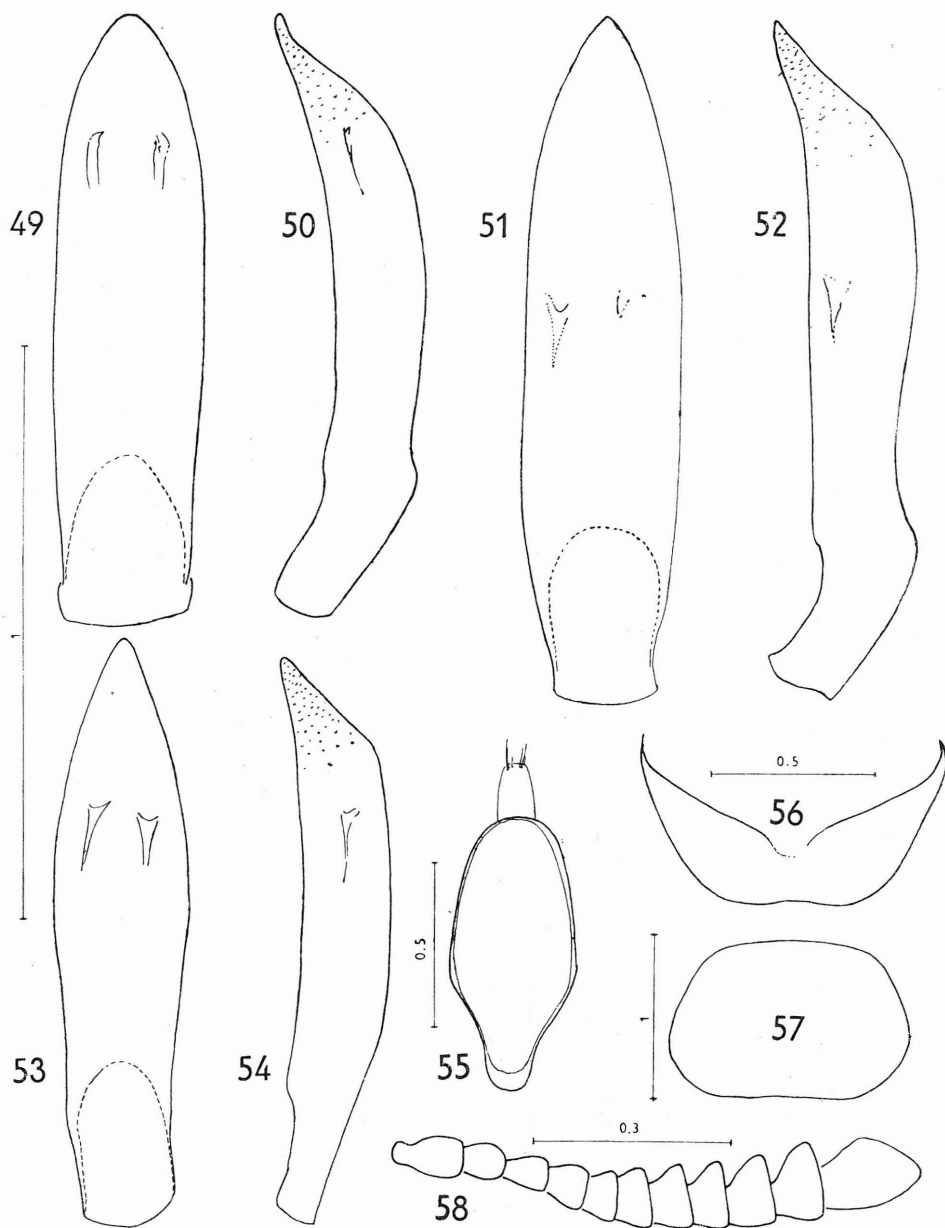
Material examined (9 ex.). Holotype ♂, allotype ♀, 1 ♂ and 5 ♀♀ paratypes: N. Iran, Alborz Tochal, 2000—3500 m, 29.—30. 6. 1973, loc. no. 261. 1 ♂ paratype: N. Iran, 8 km W Gachsar, 6.—8. 7. 1977, loc. no. 369. Two specimens in the author's collection.

***Anthedromius reticulatus* sp. n.**

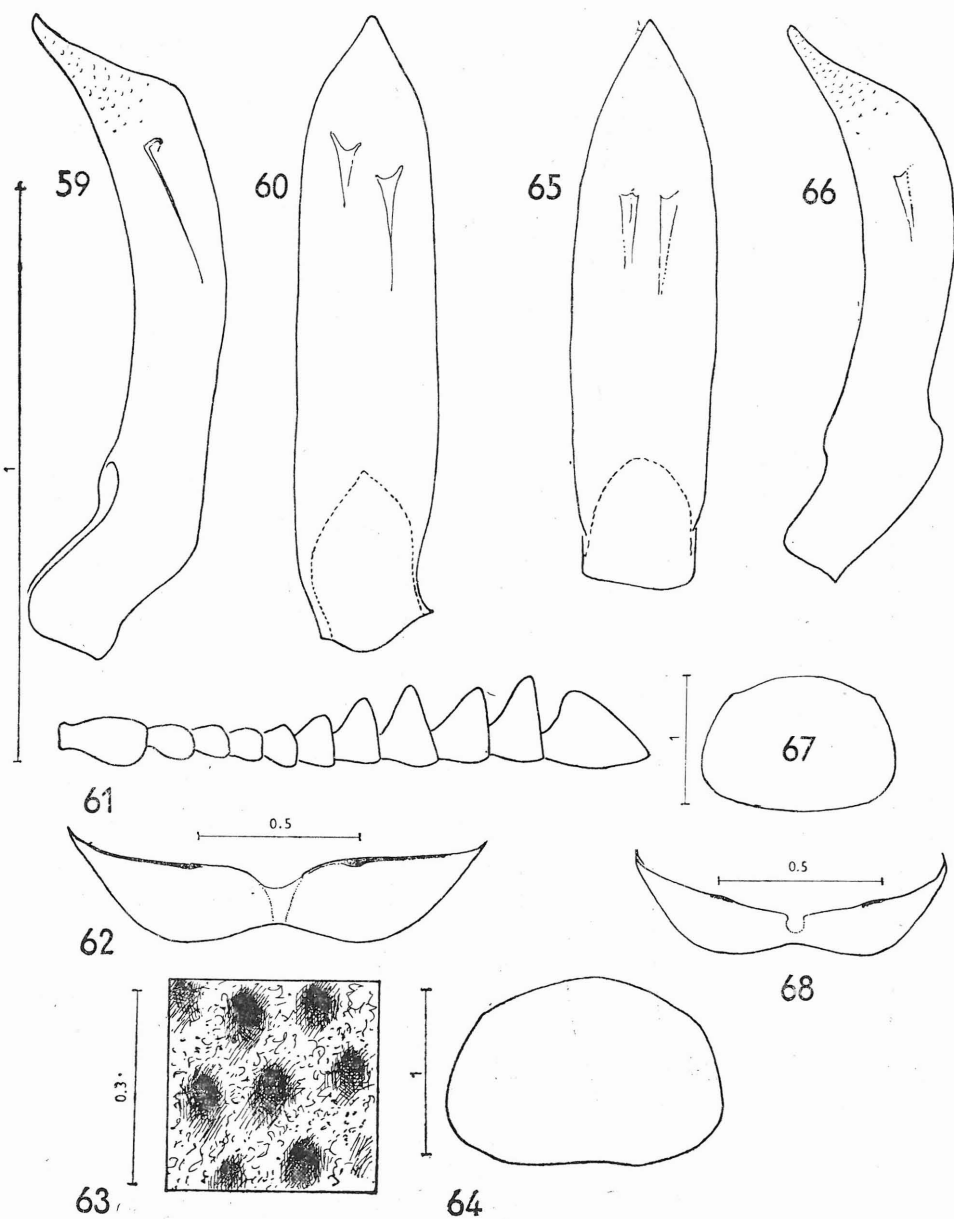
(Figs. 53—55)

Differs from externally closely related *A. piceus* only by more intensive network of elytral microsculpture. Males remarkable by their spicular fork (Fig. 55) and phallus (Figs 53, 54).

From the preceding species distinguishable only by the following details: Head somewhat more transverse and somewhat finely punctate,



Figs 49–52, 56–58: *Anthodromius piceus* sp. n. (49, 50, 56–58 holotype ♂; 51–52 paratype ♂); Figs 53–55: *Anthodromius reticulatus* sp. n. (holotype ♂); 49, 51, 53: phallus dorsally, 50, 52, 54: phallus laterally; 55: spicular fork; 56: male sternum VIII; 57: male pronotum; 58: male antenna. Scale in mm.



Figs 59—64: *Anthodromius laticollis* sp. n. (holotype ♂); Figs 65—68: *Anthodromius inexpectatus* sp. n. (holotype ♂); 59, 66: phallus laterally; 60, 65: phallus dorsally; 61: male antenna; 62, 68: male sternum VIII; 63: puncturation of elytra; 64, 67: male pronotum. Scale in mm.

scutellum very sparsely pubescent. Punctures on elytra shallower with tendency to form transverse wrinkles.

Male. Pronotum rather less transverse. Terminalia as in the preceding species but spicular fork at base constricted (Fig. 53); apex of phallus longer, less rounded (Fig. 55).

Measurements: Length/AL = 5.59–6.47; AL/PL = 0.68–0.81; IOW/DE = 1.55–3.00; HW/IOW = 1.33–1.43; HW/DE = 2.22–2.67; PW/HW = 1.50–1.70; PW/PL = 1.30–1.52; EL/PL = 2.83–3.09; EW/PW = 1.22–1.40; EL/EW = 1.55–1.64; length = 4.32–5.00 mm; width = 1.77–2.00 mm.

Female: Pronotum somewhat more transverse. Terminalia not different from the preceding species.

Measurements: Length/AL = 5.53–5.80; AL/PL = 0.86–0.91; IOW/DE = 2.12–2.29; HW/IOW = 1.30–1.54; HW/DE = 3.00–3.33; PW/HW = 1.57–1.60; PW/PL = 3.04–3.45; EW/PW = 1.33–1.50; EL/EW = 1.40–1.73; length = 4.77–5.27 mm; width = 2.00–2.41 mm.

Material examined (6 ex.). Holotype ♂, paratype ♂: N. Iran, Alborz Tochal, 2000–3500 m, 29.–30. 6. 1973, loc. no. 261; 1 paratype ♂: S. Iran, Kushk, N. Masfirí, 1800 m, 12. 6. 1973, loc. no. 237; allotype ♀: S. Iran, Zagros, Sísakht 2400 m, 13.–15. 6. 1973, loc. no. 240; 1 paratype ♀: N. Iran, Alborz, Tochal, 2500–3950 m, 30. 6. 1973, loc. no. 262; 1 paratype ♀: S. Iran 7 km NW Shul, 2100 m, 17. 6. 1973, loc. no. 247.

***Anthodromius laticollis* sp. n.**

(Figs. 59–64)

Differs from all dark pubescent species by the shape of pronotum (Fig. 64), puncturation of elytra (Fig. 63) and by the shape of antenna (Fig. 61). Robust, broad, flatly vaulted, nearly parallel. Integument finely punctate, not very densely, relatively finely and longly, black pubescent; apex and base of pronotum and scutellum shortly, finely light pubescent. Colouration black, elytra deep-brown, extremities and mouthparts light-brown. Antenna from the 7th joint distinctly serrate (Fig. 61). Pronotum as punctured as head, strongly transverse (Fig. 64). Elytra shallowly punctate, interspaces wrinkled (Fig. 63).

Male (Holotype): Head and pronotum finely punctured, interspaces broader than punctures. Pronotum less transverse (Fig. 64) than in female. Sternum VIII in the middle feebly emarginate (Fig. 62). Phallus as figured (Figs. 59–60).

Measurements: Length/AL = 5.68; AL/PL = 0.88; IOW/DE = 2.00; HW/IOW = 1.47; HW/DE = 2.94; PW/HW = 1.65; PW/PL = 1.52; EL/PL = 3.40; EW/PW = 1.26; EL/PL = 1.77; length = 5.68 mm; width = 2.18 mm.

Female (Allotype): Head and pronotum more coarsely punctured, interspaces a bit broader than punctures. Pronotum very strongly transverse. Terminalia without specific characters.

Material examined. Holotype ♂, allotype ♀: S. Iran, Sísakht Dena, 2500–3000 m, 13.–14. 6. 1973, loc. no. 241.

***Anthodromius inexpectatus* sp. n.**

(Figs. 65—68)

Very closely related to *A. laticollis* but differs by the elytra pale pubescent; pronotum on the sides at the apex slightly emarginate.

Male. (Holotype): Shape and integument as in *A. laticollis* but elytra more coarsely punctate, punctures with tendency to form transverse wrinkles, elytra with pale pubescence. Colouration as in *A. laticollis*, but elytral apex and the sides of elytra yellow-brown. Head somewhat more coarsely punctate than pronotum, the last antennal joint at the apex strongly rounded. Pronotum elongated forwards, on the sides of apex feebly emarginate (Fig. 67). Elytra duller, interspaces more wrinkled, puncturation coarser, punctures with tendency to form transverse wrinkles, elytral pubescence light.

Pygidium at the apex nearly straight. Sternum VIII on the base in the middle shortly emarginate (Fig. 68). Phallus as figured (Figs 65—66).

Measurements: Length/AL = 5.58; AL/PL = 0.79; IOW/DE = 2.00; HW/IOW = 1.43; HW/DE = 2.86; PW/HW = 1.65; PW/PL = 1.37; EL/PL = 2.96; EW/PW = 1.33; EL/EW = 1.61; length = 4.82 mm; width = 2.00 mm.

Material examined. Holotype ♂: Komehr, 41 km NW of Ardakan, 2000 m, 17. 6. 1973, E. Zagros, Fars, S. Iran, loc. no. 246.

***Anthodromius robustus* sp. n.**

(Figs. 69—71)

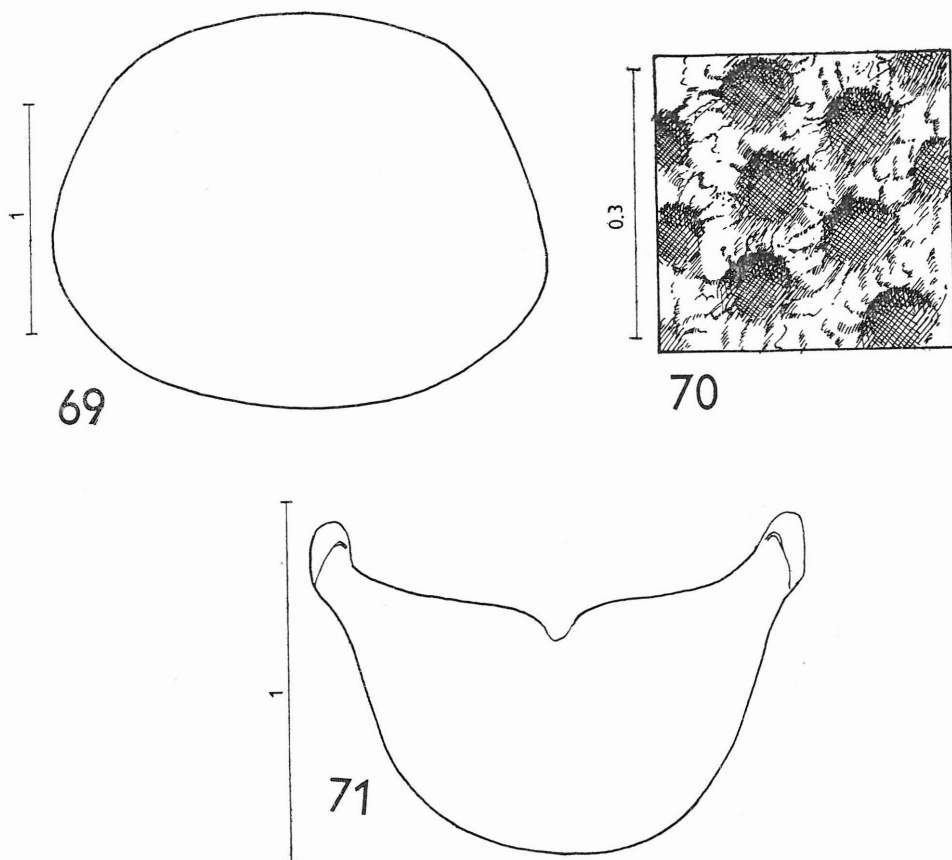
Remarkable by its size, shape of pronotum (Fig. 69), puncturation of elytra (Fig. 70) and shape of pygidium (Fig. 71).

Female (Holotype): Robust, very strongly transversely vaulted, subparallel. Integument very coarsely and densely punctate, pubescence black (except base and apex of pronotum and scutellum). Colouration black, extremities and apex of elytra light brown; base of femorae, apex of antenna darkened; apex of maxillary palpi and the rest of mouthparts partially paler.

Head very densely and deeply punctate, punctures here and there confluent. Frons with feeble deltoid impression, in the middle of that more or less smooth. Antenna from the 7th joint serrate. Pronotum slightly transverse (Fig. 69), punctures on disc broader than those on head, interspaces among punctures on pronotum smooth, approximately as broad as punctures. Elytra extraordinarily coarsely punctate, entirely dull, interspaces coarsely rugose, punctures partially confluent (Fig. 70), the greasy lustre with feeble metallic hue.

Pygidium (Fig. 71) broadly rounded. Sternum VIII at the apex inconspicuously shallowly emarginate.

Measurements: Length/AL = 6.46; AL/PL = 0.69; IOW/DE = 1.40; HW/IOW = 2.00; HW/DE = 2.80; PW/HW = 1.64; PW/PL = 1.31; EL/PL = 2.86; EW/PW = 1.39; EL/EW = 1.56; length = 7.04 mm; width = 2.91 mm.



Figs 69—71: *Anthodromius robustus* sp. n. (holotype ♀); 69: pronotum; 70: punctuation of elytra; 71: pygidium. Scale in mm.

Material examined. Holotype ♀: N. Iran, Kuh-e Binalud, S slope, 15 km NE Nishabur, 13.—15. 6. 1977; 1600—2300 m, loc. no. 365.

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