

## New Palaearctic species of the genus *Xyletinus* Latreille, 1809 (Coleoptera: Anobiidae)

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Twenty one new species and two new subspecies of the genus *Xyletinus* (subgenera *Calypterus* and *Xyletinus* s. str.) are described from Palaearctic regions of Eurasia and Africa: *Xyletinus* (*Calypterus*?) *aralicus*, *X. (Calypterus) lepidus*, *X. (C.) productus*, *X. (s. str.) armeniensis*, *X. brevipes*, *X. danilevskii*, *X. fursovi*, *X. gibberosus*, *X. iordanicus*, *X. iranicus*, *X. kamyshinensis*, *X. klapperichi*, *X. komarovi*, *X. lukjanovitschi*, *X. merkli*, *X. montanus*, *X. pseudosareptanus*, *X. stepposus*, *X. turkestanicus*, *X. turkmenicus*, and *X. udmurtianus* spp. n., *X. aralicus lindemani*, and *X. pectinatus inflatus* sspp. n.

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More than 20 new Palaearctic species of *Xyletinus* from the subgenera *Calypterus* Reitter and *Xyletinus* s. str. were revealed by me in the collections of Zoological Museum of the Moscow State University (ZMUM), Zoological Institute of the Russian Academy of Sciences, St.Petersburg (ZIAS), and Hungarian Museum of Natural History, Budapest (HMNH). I attributed species to either subgenus only by the shape of the last segment of labial palpi, although I think that this is not always adequate.

Elytral length was measured from basal margin of scutellum along elytral suture; length of pronotum was measured in profile, with apical and basal margins aligned at the same level. Distance between eyes was measured between their apices as being the shortest distance. I used ratio of length and width of the 6th or, usually, the 7th segment as the shortest one for antennal characterisation. Asterisked measurements are those of the holotype. The term "side line" is used to denote the extreme termination of the lateral margin.

### *Xyletinus* (*Calypterus*?) *aralicus* sp. n. (Figs 1-16)

*Holotype*. ♀, **Kazakhstan**, Aral Sea, peninsula Karatyup, slopes of Kara-Suranda, herbs in a valley, 18.V.1947 (A. Formosov) (ZMUM).

*Paratypes*. 2 ♀, the same data.

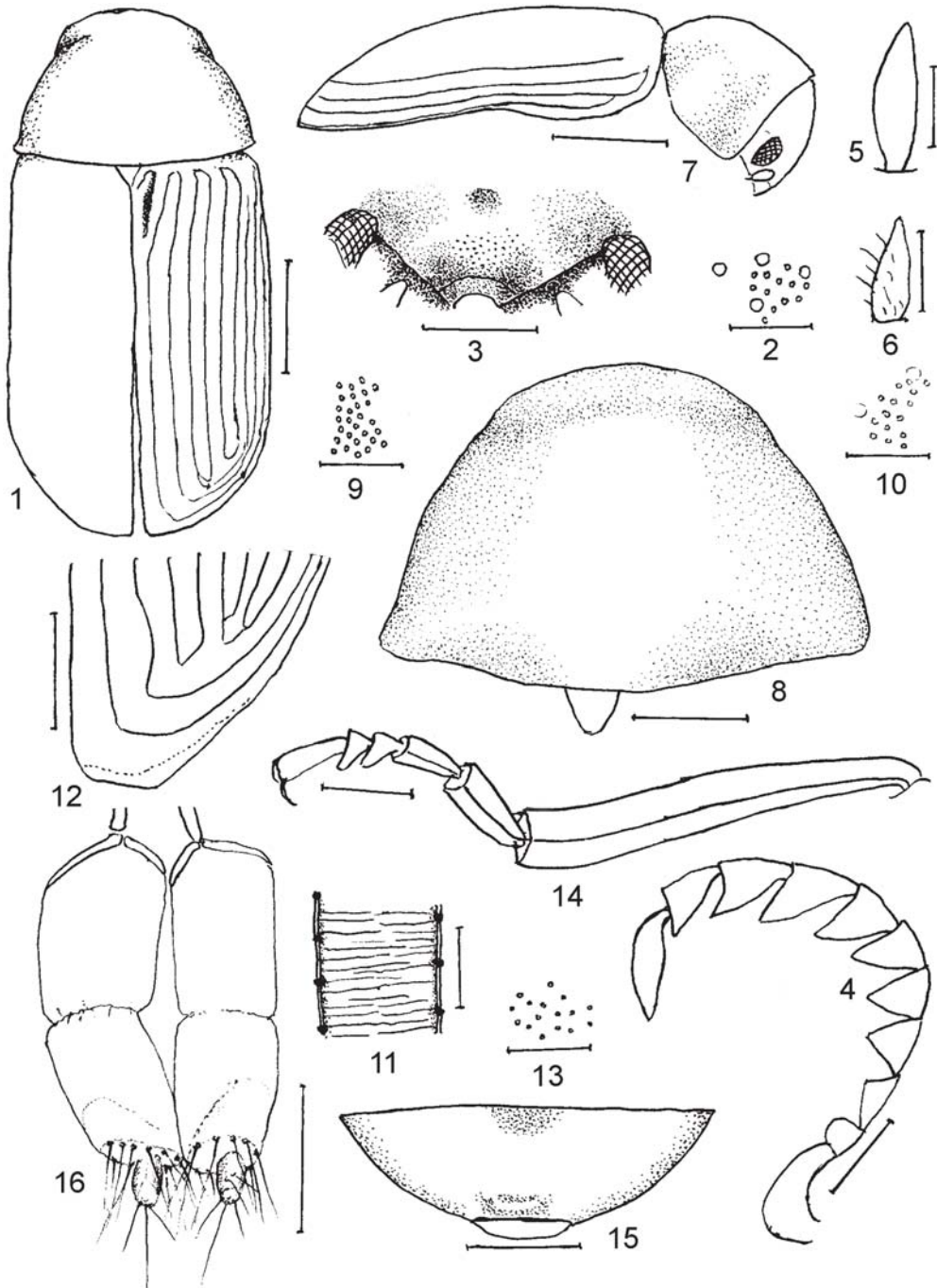
*Description*. Beetles brown; head, pronotum and metasternum usually darker. Strongly shining. Pubescence very fine, sparse, inclined. Body 2.2 times as long as wide (Fig. 1).

Head. Frons convex, without carina but with small median depression between upper levels of eyes. Surface with dual punctation, small

punctures separated by 1-2 their diameters (Fig. 2). Arcs above antennal bases distinct. Clypeus arched (Fig. 3). Eyes oval, slightly convex, separated by 2.4 longitudinal eye diameters. Antennae (holotype): 2nd segment rounded; 3rd segment twice as long as wide, with rectangular tooth; 4th segment as long as wide; 5-8th segments transverse; 7th segment 1.4 times as wide as long; 9th and 10th segment oblong. 5-10th segments with convex lower margin; 11th segment spindle-shaped, about 3.4 times as long as wide and twice as long as 10th (Fig. 4). Last segment of maxillary palpi narrow, spindle-shaped, 3.8 times as long as wide (Fig. 5). Last segment of labial palpi looks like a tapering stick, 3 times as long as wide, covered with rough chaetae (Fig. 6).

Pronotum evenly transversely convex, 1.42-1.45\* times as wide as long; anterior angles rectangular, posterior ones obtuse, all angles rounded. Sides bulging in lateral view (Fig. 7). Side lines convex; pronotum with weak constriction behind apical margin (Fig. 8). Punctuation fine and uniform on disc (Fig. 9) and unclearly dual on sides (Fig. 10).

Scutellum ob-triangular. Elytra 1.5-1.6\* times as long as wide and 2.3-2.4\* times as long as pronotum. Interspaces very slightly convex, equal in width on the disc, but sutural (or first) interspace and two extreme lateral ones a little narrower. Second interspace widened and not bulging on declivity. Surface of interspaces finely and transversely wrinkled (Fig. 11). Striae very narrow; punctures round, hardly visible. Striae reaching the elytral apex (Fig. 12). Pubescence rather sparse, very fine, raised, directed obliquely from suture near scutellum.



**Figs 1-16.** *Xyletinus aralicus* sp. n., female. 1, general view; 2, punctation on frons; 3, frons; 4, antenna; 5, last segment of maxillary palpi; 6, last segment of labial palpi; 7, body, lateral view; 8, pronotum, dorsal view; 9, punctation on pronotal disc; 10, punctation on pronotal side; 11, interspace; 12, apex of elytron; 13, punctation on metasternum; 14, hind tibia and tarsus; 15, 5th abdominal sternite; 16, apex of pseudopositor. Scale: 0.05 mm (16); 0.1 mm (2, 5, 6, 9-11, 13); 0.2 mm (4, 14); 0.5 mm (3, 8, 12, 15); 1.0 mm (1, 7).

Metasternum. Distal median stria does not reach the middle of metasternum. Surface of metasternum finely grumose and with hardly visible fine punctures in the centre (Fig. 13); distal convex part with fine transverse wrinkles, sides with thin longitudinal wrinkles.

Legs. Femora extending beyond elytral margin. Fore tibiae dilated to apex. All tibiae curved. Hind tarsus about 0.7 times as long as hind tibia. 1st segment of tarsus 1.5 times as long as 2nd one; 2nd segment twice as long as 3rd one; 3rd segment 1.14 times as long as 4th one; 5th segment as long as 2nd (Fig. 14).

Abdomen. First suture nearly straight. Fifth sternite with depression in the middle of basal part and small transverse depression before the middle of apical margin (Fig. 15). Pseudopositor: styles about 1.5 times as long as wide, a little dolioform; flat top with small tubercle and with 3 long chaetae on its ventral margin. Coxite with nearly flat top being surrounded by ten strong and long chaetae along perimeter; coxite 4 times as thick and 3.5 times as long as style; as thick and 0.8 times as long as paraproct and jointed with horizontal top of paraproct (Fig. 16).

Length 3.75-4.4 mm, width 1.75-2 mm.

**Diagnosis.** The new species is clearly differentiated from species of the subgenus *Calypterus* with striae obliterated on elytral apices (*X. bucephalus* (Illiger, 1807), *X. lepidus* sp. n., *X. materliki* Toskina, 2002, *X. productus* sp. n.) by the striae running to elytral apices, sparse inclined pubescence directed to apices on elytra (pubescence oblique from suture at least on first interspaces in species named above) and strong shine of all the surface. *X. aralicus* differs in the sparse pubescence, uniform colour, length of elytra, form of pronotum and some other characters from the rest of *Calypterus* with striae running to elytral apices (*X. elongatus* Logvinovsky, 1977 and *X. tadzhika* Iablokov-Khnzorian, 1978). *X. aralicus* differs from *X. elongatus* in the uniform brown colour, shorter elytra (1.6 times as long as wide), sparse and inclined pubescence [in *X. elongatus*, beetles black, elytra 2.3 times as long as wide and with light spots on their apices; pubescence dense and appressed (Logvinovsky, 1985)]. *X. aralicus* differs from *X. tadzhika* in the shape of antennal segments (5-8th segments transverse), form of pronotum looking as cap without brim, dual punctuation on frons, short femora not extending beyond elytral margins, short distal median groove not reaching the middle of metasternum [in *X. tadzhika*, 5-10th antennal segments oblong (Iablokov-Khnzorian, 1978, Fig. 1b), pronotum widely campaniform (ibid., Fig. 1a), frons with fine, uniform punctures, femora extending beyond elytral margins, distal median stria long, almost reaching the mesosternum].

**Comment.** I placed *X. aralicus* in the subgenus *Calypterus* provisionally, based on the shape of the last segment of mouth palpi. However, its coxites are jointed with paraprocts in pseudopositor in another way than those in species of subgenera *Calypterus* or *Xyletinus* s. str. Unfortunately, I have 3 females only, so I cannot at present determine the subgenus more precisely.

***Xyletinus (Calypterus?) aralicus lindemani***  
ssp. n.  
(Figs 17-23)

**Holotype.** ♀, **Russia, Volgograd Prov.**, Lake Elton, net-sweeping on saline land, mainly on *Halocnemum strobilaceum*, 27.V.1967, G. Lindeman (ZMUM).

**Description.** Similar in general appearance to the nominotypical subspecies, but elytra 1.7 times as long as wide and 2.6 times as long as pronotum (Figs 17-19). Punctuation of the whole surface similar to that of the nominotypical subspecies (Figs 20-22). Tarsi shorter than in the nominotypical subspecies, hind tarsi half as long as hind tibiae (Fig. 23).

Length 3.95 mm, width 1.8 mm.

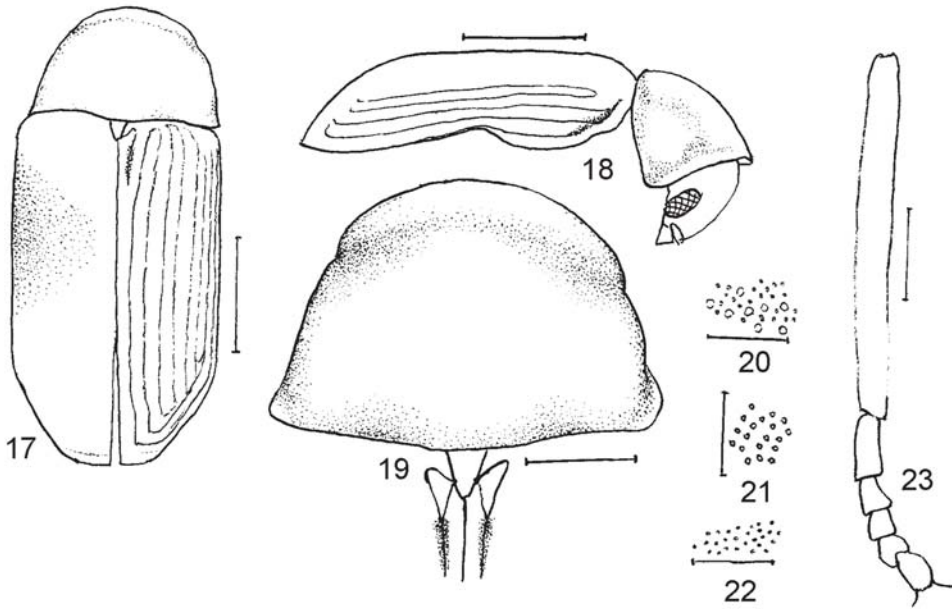
**Diagnosis.** This subspecies differs from the nominotypical subspecies in the longer elytra and shorter tarsi.

***Xyletinus (Calypterus) lepidus*** sp. n.  
(Figs 24-40)

**Holotype.** ♂, **Tunisia, Skanés**, 21-22.IX.1977, No 191, L. & S. Mahunka (HMNH).

**Description.** Beetle rufous, head and pronotum darker; antennae yellowish brown starting with 3rd segment, legs yellow; lower surface dark brown, except brownish red in the middle of distal part of metasternum. Pubescence fine, gold-yellow, raised, directed obliquely from suture on 1st and 2nd interspace. Body 2.1 times as long as wide (Fig. 24).

Head. Frons evenly convex, with long weak carina. Surface with very fine, uniform, and dense punctuation (Fig. 25). Pubescence appressed, arranged in transverse rows between eyes and longitudinal rows over eyes (Fig. 26). Eyes nearly round (slightly oval), large, unevenly convex, separated by 2 longitudinal eye diameters. Antennae: 6th and 7th segment as wide as long, the rest of segments oblong; 3rd segment 3 times as long as wide and with obtuse tooth. 11th segment spindle-shaped, 3 times as long as wide and 1.5 times as long as 10th segment. 6-10th segments with convex lower margin and straight upper margin (Fig. 27). Last segment of maxillary palpi spindle-shaped, 2.3 times as long as wide, widest on one third from base (Fig. 28); inner side with long, oblique truncation framed by chaetae (Fig. 29). Last segment of labial palpi



**Figs 17-23.** *Xyletinus aralicus lindemani* ssp. n., female. **17**, general view; **18**, body, lateral view; **19**, pronotum, dorsal view; **20**, punctuation on frons; **21**, punctuation on pronotal disc; **22**, punctuation on metasternum; **23**, hind tibia and tarsus. Scale: 0.1 mm (20-22); 0.2 mm (23); 0.5 mm (19); 1.0 mm (17, 18).

twice as long as wide, looking as elongate triangle (Fig. 30).

Pronotum 1.5 times as wide as long. Anterior angles a little acute, posterior ones distinct, obtuse, not rounded; lateral margins flattened very narrowly. Apical margin and side lines slightly convex. Sides angularly convex viewed in profile (Fig. 31). Pubescence forming bright, golden pattern on more convex areas (Fig. 32). Surface with very fine, not dense punctuation similar to that on pronotal disc (Fig. 33) and on side parts (Fig. 34).

Scutellum ob-trapeziform, with lateral notches before apex; curved ends of scutellar striae of elytra run into these notches. Elytra 1.6 times as long as wide across shoulders and 2.5 times as long as pronotum; a little narrowing to apex, compressed at sides. Interspaces flat on disc and a little convex at apex, almost equal in width (sutural interspace slightly narrower); surface with thin transverse wrinkles (Fig. 35). Points in the striae look like short lines (Fig. 36); striae obliterated on elytral apex. Pubescence directed obliquely from suture on 1st and 2nd interspace; hairs of pubescence directed to the middle on 3rd, 5th, and 7th interspaces and slightly forming "plaits", that is why elytron looks as striped.

Metasternum. Distal median stria almost reach-

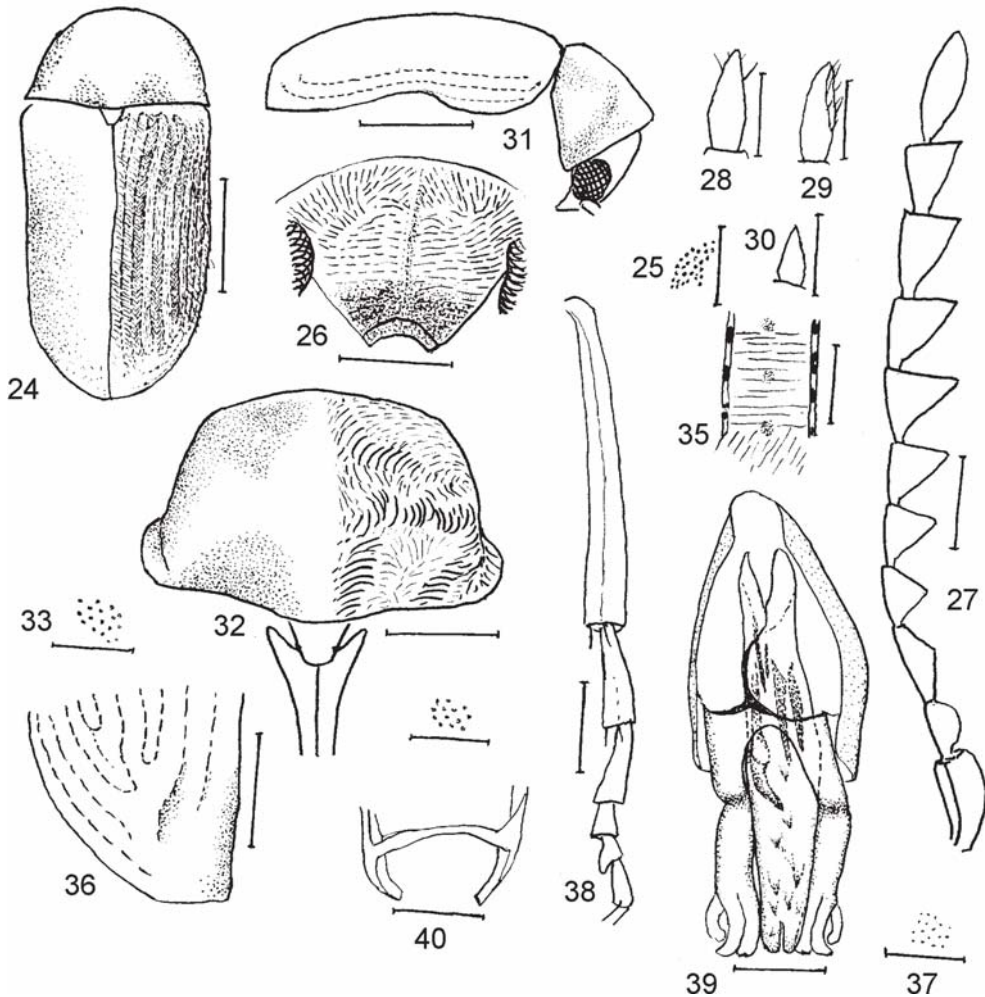
ing mesosternum. Punctuation extremely fine in the middle of metasternum (Fig. 37).

Legs. Femora extending beyond elytral margin. All tibiae slightly flattened, fore tibiae curved. Tarsi thin, long. Hind tarsus 0.86 times as long as hind tibia; 1st segment 1.25 times as long as 2nd one; 2nd segment 2.2 times as long as 3rd one; 3rd segment 1.5 times as long as 4th one; 4th segment slightly emarginate dorsally; 5th segment thin and much shorter than 2nd (Fig. 38).

Abdomen. First suture evenly convex backwards. Aedeagus: penis narrowing from the middle to bilobed apex. Internal penial sac with large long-based spine in the centre, 2-3 long, narrow sclerites in basal part, and about ten small spines with no marked bases in apical part. Parameres shortly bilobed at apex; apex of outside lobe turned and stretched out; side outgrowth not reaching the paramere apex (Fig. 39). Distal projections of genital ring long, half as long as width of thin cross-piece, slightly turned in, their apices narrowly truncate (Fig. 40).

Length 3.2 mm, width 1.5 mm.

*Diagnosis.* The new species differs from other species of the subgenus *Calyptrus* with obliterated striae on elytral apices (*X. bucephalus* (Illiger, 1807), *X. materliki* Toskina, 2002, *X. productus* sp. n.) in the narrowing elytra and distinctive pubes-



**Figs 24-40.** *Xyletinus lepidus* sp. n., male. 24, general view; 25, punctuation on frons; 26, frons; 27, antenna; 28, last segment of maxillary palpi, outer side; 29, last segment of maxillary palpi, inner side; 30, last segment of labial palpi; 31, body, lateral view; 32, pronotum, dorsal view (with pubescence pattern); 33, punctuation on pronotal disc; 34, punctuation on pronotal side; 35, interspace; 36, apex of elytra; 37, punctuation on metasternum; 38, hind tibia and tarsus; 39, aedeagus; 40, genital ring, distal part. Scale: 0.1 mm (25, 28-30, 33-35, 37); 0.2 mm (27, 38-40); 0.5 mm (26, 32, 36); 1.0 mm (24, 31).

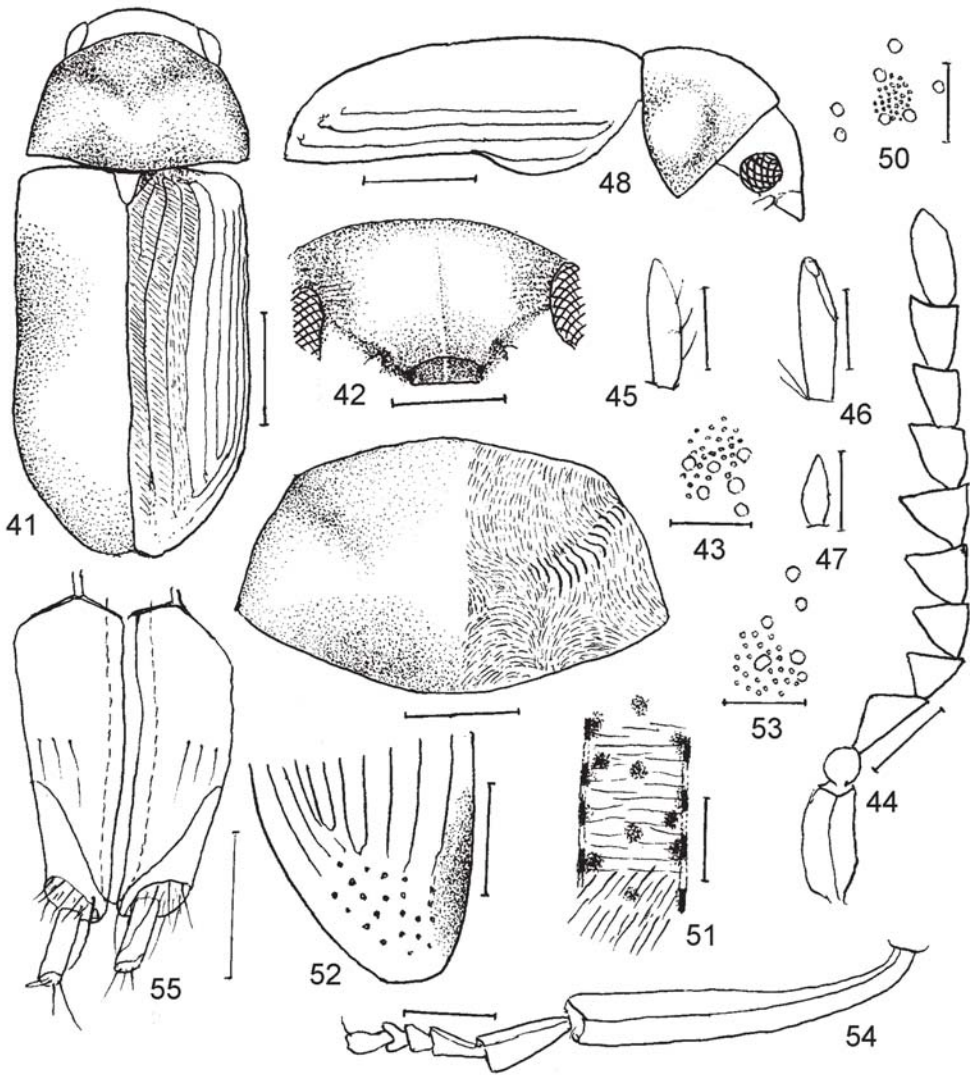
cence on odd interspaces: hairs are directed to their middle, that is why the beetle looks as striped. Distal projections of genital ring are long and thin (thick and comparatively short in *X. bucephalus* and *X. materliki*); their penis armaments also differ (Español, 1979; Toskina, 2002).

***Xyletinus (Calypterus) productus* sp. n.**  
(Figs 41-55)

*Holotype.* ♀, Greece, Ithea, nr. Delphi, 15.IX.1977, leg. L.Tóth (HMNH).

*Description.* Beetle light brown; metasternum and abdomen a little darker: greyish; antennae and legs yellow. Pubescence rather dense, fine, pale yellow, inclined on frons and pronotum, strongly raised on elytra, directed obliquely from suture on 1st, 2nd and on basal part of 3rd interspace. Body 2.3 times as long as wide (Fig. 41).

Head. Frons moderately convex, with carina looking as elevation above clypeus and extending on the latter; clypeus not prominent; arcs above antennae indistinct (Fig. 42). Front surface with dual punctuation, large punctures dense (Fig.



**Figs 41-55.** *Xyletinus productus* sp. n., female. **41**, general view; **42**, frons; **43**, punctuation on frons; **44**, antenna; **45**, last segment of maxillary palpi, outer side; **46**, last segment of maxillary palpi, inner side; **47**, last segment of labial palpi; **48**, body, lateral view; **49**, pronotum, dorsal view (with pubescence pattern); **50**, punctuation on anterior part of pronotal disc; **51**, interspace; **52**, apex of elytra; **53**, punctuation on metasternum; **54**, hind tibia and tarsus; **55**, apex of pseudopositor. Scale: 0.05 mm (55); 0.1 mm (43, 45-47, 50, 51, 53); 0.2 mm (44, 54); 0.5 mm (42, 49, 52, 54); 1.0 mm (41, 48).

43); surface near eyes with transverse wrinkles. Eyes nearly round, convex, separated by 2.6 longitudinal eye diameters. Antennae: 3rd segment with obtuse tooth, twice as long as wide; 4th and 5th segment slightly oblong; 6th segment about as wide as long; 7th segment slightly transverse, 1.2 times as wide as long; 8-10th segments oblong; 5-10th segments with convex lower mar-

gin. 11th segment 2.5 times as long as wide and 1.5 times as long as 10th segment (Fig. 44). Last segment of maxillary palpi 4 times as long as wide, baculiform, sharp-pointed in last quarter (Fig. 45); inner side with long, narrow, oblique truncation at apex and with oblique top (Fig. 46). Last segment of labial palpi 2.5 times as long as wide, almost spindle-shaped (Fig. 47).

Pronotum 1.47 times as wide as long; anterior angles nearly rectangular, rounded; posterior angles strongly rounded; sides strongly bulging, lateral margins not flattened (Fig. 48). Side lines concave in apical quarter and convex in three basal quarters in dorsal view (Fig. 49). Punctuation fine, dense, uniform on convex part of pronotal disc; punctures separated by 1 puncture diameter or less, but punctuation dual nearly to apex and to sides (Fig. 50). Surface of side parts finely punctured with addition of larger punctures.

Scutellum ob-triangular, elongate. Elytra 1.64 times as long as wide and 2.55 times as long as pronotum. Interspaces flat, equal in width on elytral disc; 12th (last) interspace very narrow in its widest basal part (Fig. 48). Surface with thin transverse wrinkles and with large, sparse, round depressions (Fig. 51). Striae not continuous but consisting of separate lines, obliterated at apex; apex itself covered with large punctures (Fig. 52).

Metasternum strongly convex in the centre slightly behind the middle. Distal median stria slightly not reaching mesosternum. Metasternum with small fold in front of distal margin. Punctuation dual in the middle of metasternum (Fig. 53); large punctures denser in basal half.

Legs. Femora extending beyond elytral margins. Hind tarsus 0.63 times as long as hind tibia; 1st segment 1.7 times as long as 2nd one; 2nd segment twice as long as 3rd one; 3rd segment almost twice as long as 4th, the latter emarginate dorsally; 5th segment shorter than 2nd (Fig. 54).

Abdomen. First suture nearly straight. Pseudopositor: styles cylindrical, about 3.4 times as long as wide. Coxites obliquely jointed with outer sides of paraprocts, 2.2 times as long as their thickness at apex, 3 times as thick and almost twice as long as styles. Coxite apex looks as a small oblique plate with rather short chaetae along perimeter and with shorter chaetae on disc. Paraprocts about 3 times as long as their thickness at base, 2.15 times as long as coxites and 4 times as long as styles (Fig. 55).

Length 4 mm, width 1.75 mm.

**Diagnosis.** The new species belongs to the group of *Xyletinus* (*Calypterus*) species with obliterated striae on elytral apices (*X. bucephalus* (Illiger, 1807), *X. lepidus* sp. n., *X. materliki* Toskina, 2002) and differs from them either in the longer elytra (ratio of length and width is 1.64 in *X. productus* and 1.5 in *X. bucephalus*), equally wide flat interspaces in the basal part of elytra (of alternating width in *X. bucephalus*), or by pubescence directed to elytral apices, excepting that on first and second interspaces (pubescence forming “plaits” on some interspaces in *X. lepidus* and *X. materliki*), or by colour and size [*X. bucephalus theanus* Reitter, 1901, is smaller and nearly black (Reitter, 1901)].

***Xyletinus* (s. str.) *armeniensis* sp. n.**  
(Figs 56-69)

*Holotype.* ♀, Armenia, Mt. Khustup, 26.VI.1982, M. Danilevsky (ZMUM).

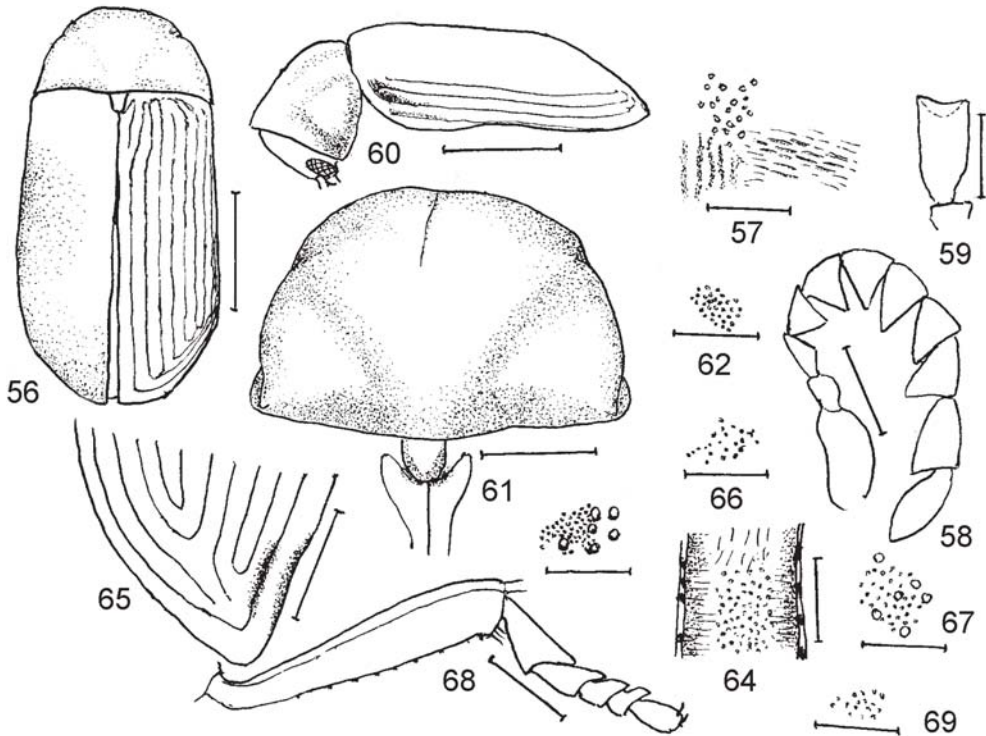
**Description.** Head, 1st-4th antennal segments, pronotum, scutellum, lower surface brownish red; vertex and apical part of pronotum with blackish spots, 5-8th antennal segments black-brown; elytra brown with slightly lighter suture, lateral and apical margins; legs dark yellow. Pubescence very fine, brownish, raised, directed to apices everywhere on the elytra, a little golden, more or less appressed on pronotum. Body 2.1 times as long as wide (Fig. 56).

Head. Frons slightly convex, with weak carina, falling abruptly with two semicircular depressions to clypeus. Surface indistinctly punctured and with low granules on middle part of frons turning into thin longitudinal wrinkles near carina in the centre; surface with thin transverse wrinkles near eyes and on lateral parts above eyes (Fig. 57). Eyes irregularly oval, weakly convex, separated by 2.5 longitudinal eye diameters. Antennae: 3rd segment with obtuse projection; 1st-4th and 9-10th segments longitudinal; 5-8th segments transverse, 7th segment 1.43 times as wide as long. 9th and 10th segment with convex lower margin. 11th segment 2.8 times as long as wide and 1.27 times as long as 10th segment (Fig. 58). Last segment of maxillary palpi almost rectangular, 1.88 times as long as wide; with slightly emarginate and nearly transverse truncation at apex (Fig. 59).

Pronotum 1.4 times as wide as long; anterior angles rectangular, posterior ones strongly rounded; sides bulging (Fig. 60). Side lines convex in dorsal view. Lateral margins flattened very narrowly at some distance from anterior angles. Apical third of disc with median line. Pronotum looks like hemisphere (Fig. 61). Pronotal disc very finely, uniformly and densely punctured; punctures separated by 0.5-1 puncture diameter (Fig. 62). Surface on sides punctured in a similar manner but less distinctly and in some places with indistinct wrinkles formed by flattened granules (Fig. 63).

Scutellum elongate, semi-oval, convex. Elytra 1.55 times as long as wide and 2.18 times as long as pronotum. Interspaces slightly convex, equal in width, indistinctly wrinkled, very finely and densely punctured (Fig. 64). Sutural stria and 1st interspace very slightly curved on declivity (Fig. 65).

Metasternum slightly convex. Distal median stria long, almost reaching mesosternum. Surface with very fine punctuation on sides (Fig. 66) and with indistinctly dual punctuation in the centre of metasternum (Fig. 67). Long fold hangs over distal margin.



**Figs 56-69.** *Xyletinus armeniensis* sp. n., female. **56**, general view; **57**, punctation and wrinkles on frons; **58**, antenna; **59**, last segment of maxillary palpi; **60**, body, lateral view; **61**, pronotum, dorsal view; **62**, punctation on pronotal disc; **63**, punctation on pronotal side; **64**, interspace; **65**, apex of elytron; **66**, punctation on side parts of metasternum; **67**, punctation in the centre of metasternum; **68**, hind tibia and tarsus; **69**, punctation on 5th abdominal sternite. Scale: 0.1 mm (57, 59, 62-64, 66, 67, 69); 0.2 mm (58, 68); 0.5 mm (61, 65); 1.0 mm (56, 60).

Legs. Femora not extending beyond elytral margin. All tibiae flattened and slightly dilated to apices. Hind tibia with spines along external margin, and with larger spine and several chaetae on top. Hind tarsus 0.7 times as long as hind tibia; 1st segment 1.5 times as long as 2nd one; 2nd segment 1.75 times as long as 3rd one; 3rd segment 1.3 times as long as 4th one; 4th segment weakly emarginate dorsally; 5th segment as long as 2nd but thinner than the latter (Fig. 68).

Abdomen. 1st suture slightly convex backwards (female). Surface of 5th sternite very finely punctured (Fig. 69). Pseudopositor: styles flattened at sides, 3 times as long as their maximum width; style curved to dorsal side and with oblique top.

Length 3.3 mm, width 1.55 mm.

**Diagnosis.** The new species is related to the group of *Xyletinus* species with pubescence directed along elytra, with red pronotum, and length more than 3 mm. *X. ruficollis* Gebler, 1833 belongs to this group, but its pronotum has dual pun-

ctation on the disc (punctuation uniform on pronotal disc in *X. armeniensis*). The three characters are also shared with *X. laticollis fulvicollis* Reitter, but it has very short elytra [ratio between length and width 1.2-1.3 (Arnoldi, 1965), as compared to 1.55 in *X. armeniensis*].

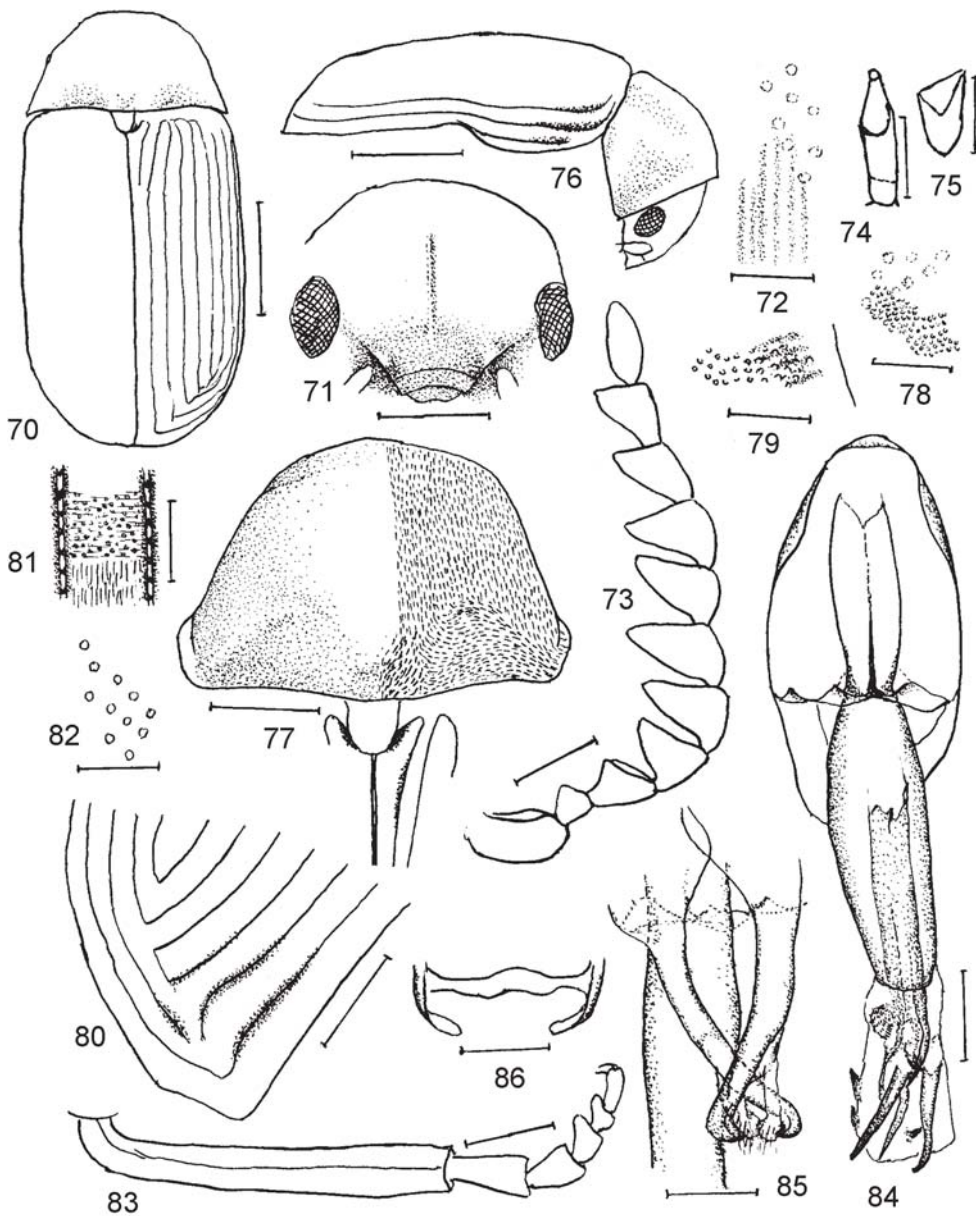
***Xyletinus* (s. str.) *brevipes* sp. n.**  
(Figs 70-86)

**Holotype.** ♂, **Russia**, Rostov Prov., 25 km W of vill. Oblivskaya, OPH VNIALMI [experimental farm of the Institute for Aromatic, Medicinal and Oil Plants] No 111, 19.VI.1987, Cherezova (ZMUM).

**Paratypes.** 3 specimens with same data as in holotype, except one with No 77, 11-13.VI.1987 (identified by V. Belov as *Xyletinus commodus* Rchrd.) and one with No 110, 13.VI.1987.

**Description.** Upper surface, antennae and legs reddish brown; head and metasternum black-brown (holotype), or beetles entirely red-brown. Pubescence reddish brown, appressed, a little shining, directed to apices everywhere on elytra; beetles dull. Body twice as long as wide (Fig. 70).





**Figs 70-86.** *Xyletinus brevipes* sp. n., male. **70**, general view; **71**, frons; **72**, sculpture of frons; **73**, antenna; **74**, last segment of maxillary palpi; **75**, last segment of labial palpi; **76**, body, lateral view; **77**, pronotum, dorsal view (with pubescence pattern); **78**, punctation on pronotal disc; **79**, sculpture of pronotal sides; **80**, apex of elytron; **81**, interspace; **82**, punctation on metasternum; **83**, hind tibia and tarsus; **84**, aedeagus; **85**, parameres; **86**, genital ring, distal part. Scale: 0.1 mm (72, 74, 75, 78, 79, 81, 82); 0.2 mm (73, 83-86); 0.5 mm (71, 77, 80); 1.0 mm (70, 76).

Head. Frons with weak carina. Arcs above antennae strongly bulging and hardly noticeable near eyes (Fig. 71). Frons surface with dimples, below turning into thin, longitudinal wrinkles

above clypeus (Fig. 72). Eyes irregularly oval, not strongly convex, separated by 2.4\*3 longitudinal eye diameters. Antennae: 3rd segment with acute tooth, 1.5 times as long as wide; 4-

8th segments transverse; 6th segment 1.4 times as wide as long; 9th and 10th segment oblong. 4-10th segments with convex lower margin and slightly concave upper one. 11th segment 3.4 times as long as wide and 1.6 times as long as 10th segment (holotype); or 2.7 times as long as wide and 1.35 times as long as 10th segment (paratype) (Fig. 73). Last segment of maxillary palpi elongate, about 4 times as long as wide in the middle, obliquely truncate in apical half (Fig. 74). Last segment of labial palpi almost twice as long as wide, obliquely truncate at apex (Fig. 75).

Pronotum 1.5 times (holotype) as wide as long. Anterior angles rectangular, posterior ones distinct, obtuse, weakly flattened, and rounded; sides not bulging (Fig. 76). Pronotum looks, in dorsal view, as strongly convex cap with slightly convex side lines and narrowly flattened lateral margins. High angular convex arc runs away from the centre on every side before base (Fig. 77). Surface very finely, uniformly punctured in basal half of disc and with pits in apical half of disc (Fig. 78) and on side slopes. Pronotal sides with fine punctation transforming into fine granulation and wrinkling near apical margin (Fig. 79).

Scutellum elongate, semi-oval. Elytra 1.5-1.57\* times as long as wide and 2.4 times as long as pronotum. Interspaces very slightly convex, equal in width on elytral disc; sutural interspace widened without bulging on declivity (Fig. 80). Surface with very thin and hardly seen transverse wrinkles and very fine and dense punctation (Fig. 81). Striae reaching elytral apex. Pubescence short, dense, directed to apex.

Metasternum almost flat, with comparatively large and sparse punctures separated by 1.5-2.5 puncture diameters (Fig. 82). Distal median stria not reaching the centre of metasternum and a little widened at proximal end.

Legs. Femora not extending beyond elytral margins. Fore tibia dilated to apex and curved. Hind tarsus 0.6 times as long as hind tibia; 1st segment 1.5 times as long as 2nd one; 2nd segment 1.5 times as long as 3rd one; 3rd segment 1.4 times as long as 4th one; 5th segment thin, shorter than 2nd (Fig. 83).

Abdomen. First suture slightly curved backwards. 5th sternite without special features. Aedeagus: penis narrow, a little widened in the middle part, slightly S-shaped in lateral view. Internal penial sac with 4 long, narrow sclerites, 3-4 small spines and round transverse "brush" with rows of minute spinules (Fig. 84). Parameres thin, with shortly bilobed apices and with long outgrowth on side (Fig. 85). Distal projections of genital ring thin, blunt, turned inside, 0.36 times as long as width of waved cross-piece (Fig. 86).

Length 3.6-4.15 mm, width 1.75-2.0 mm.

*Diagnosis.* The new species belongs to a small group of more or less unicolourous brown species of *Xyletinus* s. str. (*X. pectinatus* (Fabricius, 1792), *X. turkmenicus* sp. n.) with dual punctation on pronotal disc; it differs from these species in the short femora not extending beyond elytral margins. Distal projections of genital ring long, narrow, blunt, turned strongly inside in *X. brevipes*; those of *X. pectinatus* look like small teeth (Logvinovskiy, 1985, fig. 183), and those of *X. turkmenicus* are broad with apices turned inside.

***Xyletinus* (s. str.) *danilevskii* sp. n.**  
(Figs 87-100)

*Holotype.* ♂, **Azerbaijan, Nakhichevan' Prov.** ("Nakhichevanskaya ASSR"), Bichenek, 3.VI.1982, M. Danilevsky (ZMUM).

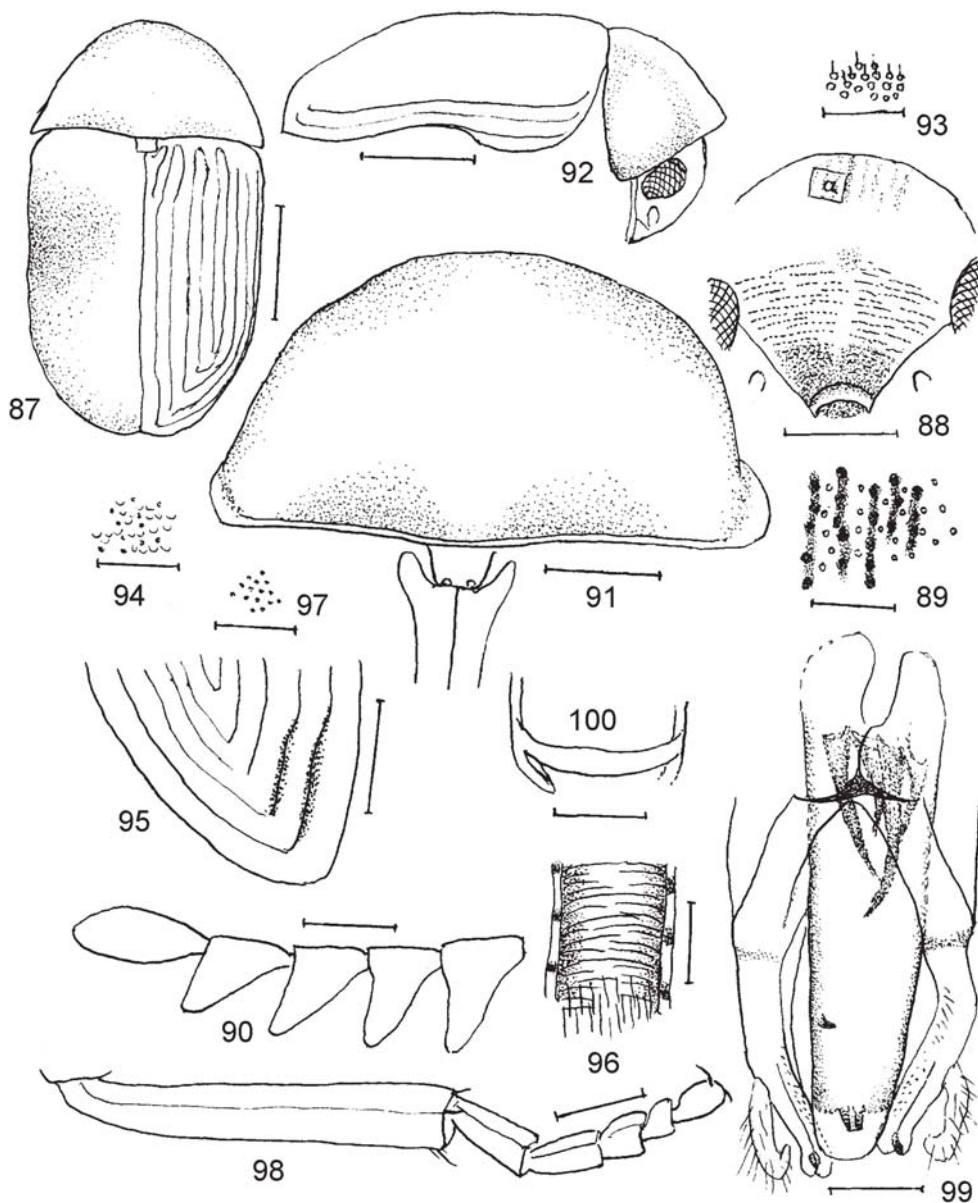
*Description.* Beetle black, borders not reddish, knees and apices of mandibles reddish, apices of tarsi brown. Pubescence very dark (black or dark brown), fine, slightly raised and directed to apex on elytra. Body 1.9 times as long as wide (Fig. 87).

Head. Frons without carina, with two semicircular depressions above convex and arched clypeus. Surface with coarse transverse wrinkles between eyes (Fig. 88). Surface of head above eyes with indistinct longitudinal wrinkles and fine punctures between them (Fig. 89). Eyes slightly convex, irregularly oval, separated by 2 longitudinal eye diameters. Antennae (7-11th segments remained only): 7th segment 1.4 times as wide as long and very likely preceding middle segments are transverse. 10th segment oblong; 11th segment 2.6 times as long as wide and 1.6 times as long as 10th segment (Fig. 90). Last segment of labial palpi as in species of the subgenus *Xyletinus* s. str.

Pronotum slightly wider than elytra and 1.66 times as wide as long. Pronotum looks as semicircular cap with bulging sides and very narrowly flattened lateral margins (Fig. 91). Anterior angles rectangular, rounded, posterior angles rounded (Fig. 92). Surface finely, uniformly punctured on disc; punctures separated by less than 1 puncture diameter; small chaetae stick out of punctures (Fig. 93). Surface finely punctured and with tuberosity forming wrinkles on sides (Fig. 94).

Scutellum nearly square, but its length is less than its width. Elytra 1.4 times as long as wide and 2.26 times as long as pronotum, a little compressed at sides before the middle. Interspaces convex, more or less equal in width; 1st and 2nd interspace slightly curved before apex (Fig. 95). Surface transversely wrinkled (Fig. 96).

Metasternum most convex before distal margin. Distal median stria reaches the middle of metasternum only. Surface finely, not densely punctured (Fig. 97), grumose.



**Figs 87-100.** *Xyletinus danilevskii* sp. n., male. **87**, general view; **88**, frons; **89**, sculpture of of head above eyes (area "a"); **90**, antenna; **91**, pronotum, dorsal view; **92**, body, lateral view; **93**, punctuation on pronotal disc; **94**, sculpture of pronotal sides; **95**, apex of elytron; **96**, interspace; **97**, punctuation on metasternum; **98**, hind tibia and tarsus; **99**, aedeagus; **100**, genital ring, distal part. Scale: 0.1 mm (89, 93, 94, 96, 97); 0.2 mm (90, 98-100); 0.5 mm (88, 91, 95); 1.0 mm (87, 92).

Legs. Femora not extending beyond elytral margins. Fore tibia dilating to apex and curved. Hind tarsus 0.8 times as long as hind tibia; 1st segment 1.2 times as long as 2nd one; 2nd segment 1.7 times as long as 3rd one; 3rd segment

1.6 times as long as 4th one; 5th segment a little shorter than 2nd (Fig. 98).

Aedeagus. Penis narrowing a little from its middle to rounded and membranous apex. Internal penial sac with 4 large spines in basal half;

with small spine in apical half, and two small spines before membranous apex; these two spines connected ventrally by platelet. Parameres thin, deeply divided at apices; side outgrowths long, reaching the paramere apices, and their apices turned up (Fig. 99). Distal projections of genital ring turned in, narrowly spoon-shaped, 0.36 times as long as width of cross-piece; the latter strongly convex dorsally (Fig. 100).

Length 3.8 mm, width 2.0 mm.

**Diagnosis.** The new species belongs to the group of *Xyletinus* s. str. with completely black beetles (with not red borders of pronotum), dark pubescence directed to apices on elytra, and pronotum finely and uniformly punctured (*X. baicalicus* Zahradnik, 1997, *X. emetzi* Gottwald, 1977, *X. udmurtianus* sp. n.). *X. danilevskii* differs from these species in the well marked transverse wrinkles on frons between eyes [frons and pronotum densely and coarsely punctured in *X. baicalicus* (Zahradnik, 1997); frons longitudinally wrinkled in *X. emetzi* and *X. udmurtianus*]. There are also considerable differences in the shape of the genital ring: distal angles of genital ring are rounded in *X. baicalicus* (Zahradnik, 1997, fig. 6); distal projections of genital ring are straight, finger-shaped in *X. udmurtianus*, these projections are narrow, spoon-shaped, slightly turned inside in *X. danilevskii*.

***Xyletinus* (s. str.) *fursovi* sp. n.**  
(Figs 101-115)

**Holotype.** Russia, Transbaikal, 30.IV.[1]905 (Fursov) (ZMUM).

**Description.** Head, pronotum, scutellum, lower surface black; pronotum tinged with brownish (because of brown pubescence), with dark reddish apical and lateral margins; antennae and mouth palpi blackish brown; tibiae, tarsi, and apices of femora greyish red; elytral disc dark brown; 1st (sutural), 2nd, and 2-3 lateral interspaces, and elytral apex rusty-red. Pubescence very fine, appressed, rusty-brown on head and pronotum and brown on elytra. Hairs directed obliquely from suture on 1st interspace and to the middle of every interspace on disc of elytra. Pubescence raised on disc and inclined on sides of elytra. Body 2.2 times as long as wide (Fig. 101).

Head. Frons convex, with black carina reaching the clypeus. Frons with arched carina between eyes and with two semicircular depressions above clypeus. Arcs above antennae look as acute costae (Fig. 102). Surface with dual punctation (Fig. 103). Eyes oval, slightly convex, separated by 2.27 longitudinal eye diameters. Antennae: 1st-4th and 10th segments oblong; 5-8th segments transverse, 7th segment 1.3 times as wide as long; 9th segment as long as wide; 11th segment spin-

dle-shaped, 3 times as long as wide and 1.3 times as long as 10th (Fig. 104). Last segment of maxillary palpi elongate, spindle-shaped, about 3.3 times as long as wide; its upper side more convex than the lower one (Fig. 105). Last segment of labial palpi about 1.5 times as long as wide, transversely truncate at apex (Fig. 106).

Pronotum 1.4 times as wide as long. Sides strongly bulging. Side lines convex, and anterior angles invisible in dorsal view (Fig. 107). Anterior angles rectangular, a little reflexed to lower side of head and looking as strongly rounded (Fig. 108); posterior angles obtuse, rounded. Lateral margins narrowly flattened along the whole length. Surface with large dimples and fine, dense, uniform punctation (Fig. 109). Surface on sides with granulation transforming into wrinkles near anterior and lateral margins (Fig. 110).

Scutellum elongate, semi-oval. Elytra 1.6 times as long as wide and 2.35 times as long as pronotum. Elytral sides a little compressed at the middle, that is why elytra look as lyrate. Interspaces weakly convex, more or less equal in width; 2nd interspace widened on declivity, 2nd stria curved (Fig. 111). Surface of interspaces finely wrinkled transversely and with indistinct sparse dimples (Fig. 112). Apico-lateral margin with very fine and sparse denticles (Fig. 113).

Metasternum. Distal median stria almost reaching mesosternum. Surface with heterogeneous punctation: large and fine punctures between roughnesses (Fig. 114).

Legs. Femora not extending beyond elytral margins. All tibiae flattened; fore tibia curved near its apex. Tarsi thick; hind tarsus 0.67 times as long as hind tibia; 1st segment 1.33 times as long as 2nd one; 2nd segment twice as long as 3rd one; 3rd segment 1.2 times as long as 4th one, the latter strongly emarginate dorsally; 5th segment about as long as 2nd (Fig. 115).

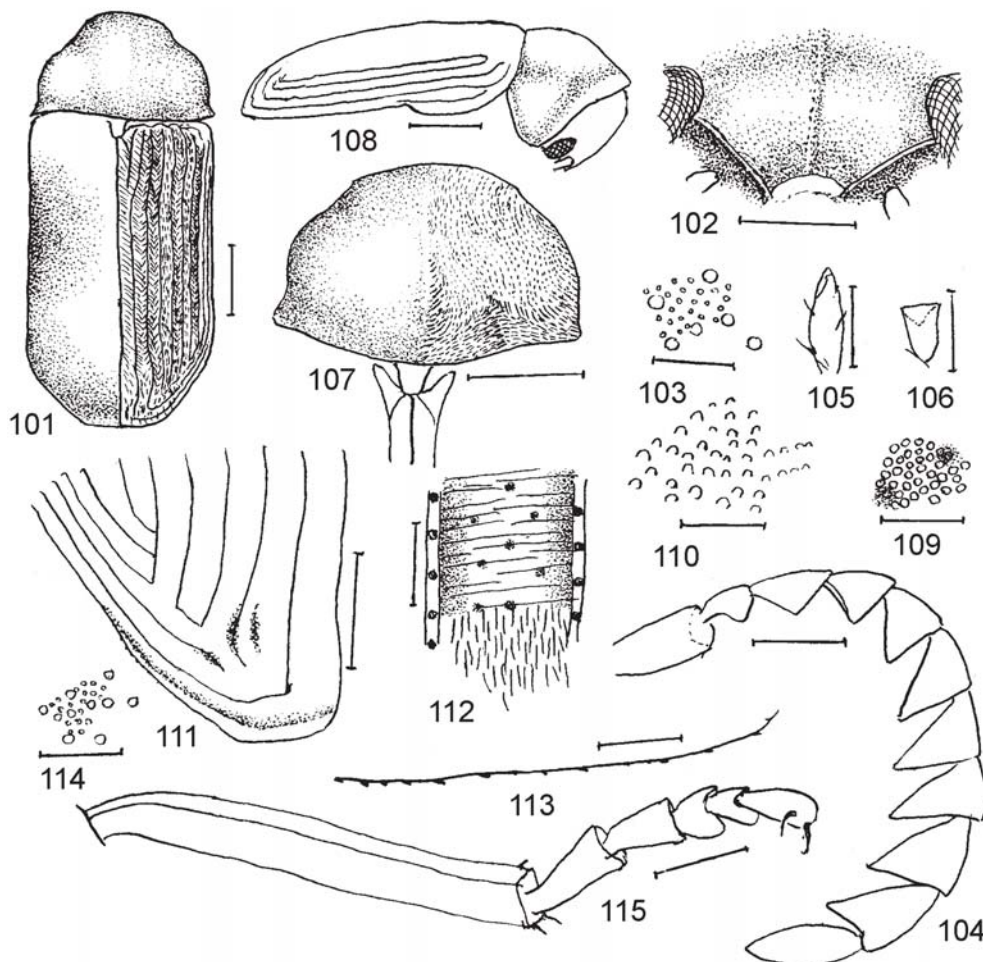
Length 5.5 mm, width 2.5 mm.

**Diagnosis.** The new species easily differs from other *Xyletinus* in the shape of the pronotum with strongly bulging sides and lyrate form of elytra, unusual pubescence of interspaces on elytral disc, i.e. hairs directed to the centre of every interspace (except the 1st interspace with hairs directed obliquely from the suture), and also in the colour, with dark pronotum and elytra bordered with rusty-red colour.

***Xyletinus* (s. str.) *gibberosus* sp. n.**  
(Figs 116-129)

**Holotype.** ♂, Russia, Volgograd Prov., Sarepta [now Krasnoarmeisk], Coll. H. Diener (HMNH; identified by Khnzorian as *Xyletinus ornatus* Germ.).

**Description.** Head, pronotum, antennae and lower surface black; elytra and tibiae dark brown,

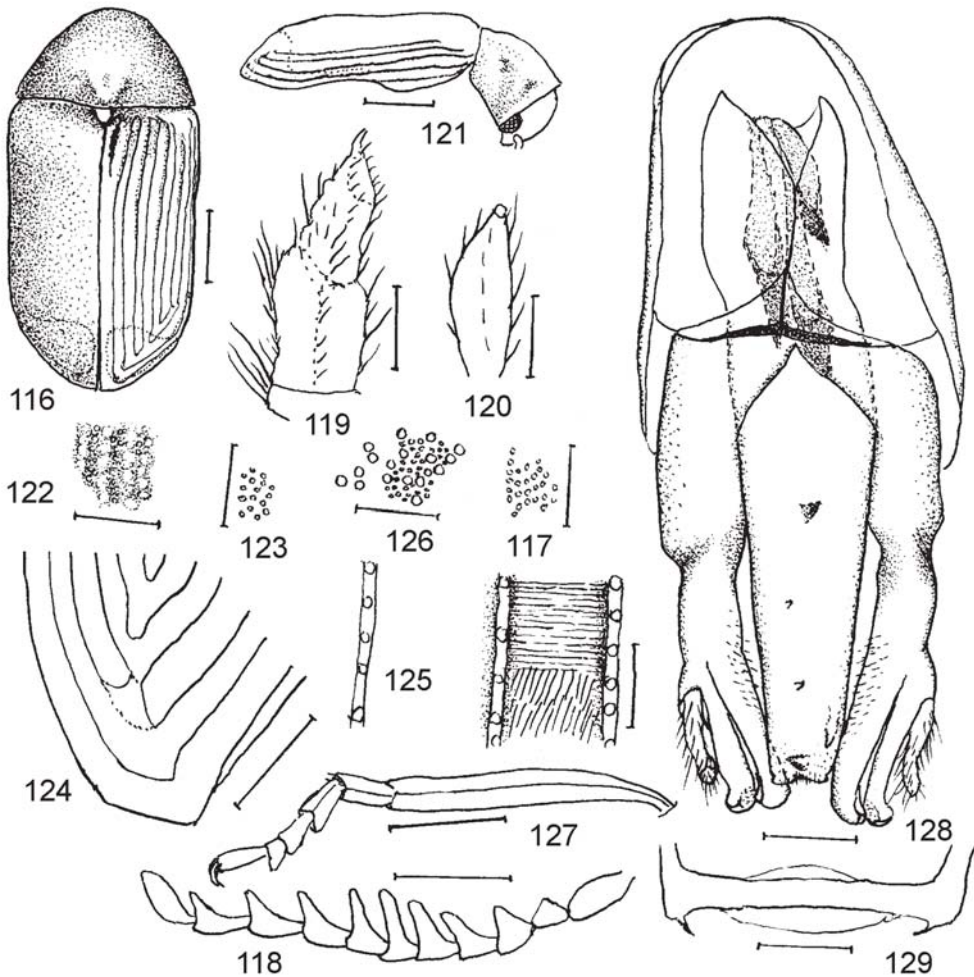


**Figs 101-115.** *Xyletinus fursovi* sp. n. **101**, general view; **102**, frons; **103**, punctuation on frons; **104**, antenna; **105**, last segment of maxillary palpi; **106**, last segment of labial palpi; **107**, pronotum, dorsal view (with pubescence pattern); **108**, body, lateral view; **109**, punctuation on pronotal disc; **110**, sculpture of pronotal sides; **111**, apex of elytron; **112**, interspace; **113**, apico-lateral margin of elytron; **114**, sculpture of metasternum; **115**, hind tibia and tarsus. Scale: 0.1 mm (103, 105, 106, 109, 110, 112-114); 0.2 mm (104, 115); 0.5 mm (102, 111); 1.0 mm (101, 107, 108).

tarsi blackish; each elytron with rufous spot at apex, which extends to side notch as narrow stripe (in two interspaces) along lateral margin. Pubescence grey, appressed, dense, directed obliquely from suture on 1st and 2nd interspaces; beetle dull and strongly convex in the middle. Body twice as long as wide (Fig. 116).

Head. Frons not strongly convex, with weak tubercle at the level of eye tops; upper part with fine, dense punctures arranged partly in longitudinal rows (Fig. 117). Eyes small, oval, weakly convex, separated by 3 longitudinal eye diameters. Antennae strongly serrate; 2nd segment with

acute projection, 3rd segment as long as wide; 4-8th segments transverse, almost pectinate because of long projections and concave upper and lower sides; 6th segment with the largest projection being 2.3 times as wide as long; 9th and 10th segment oblong; 11th segment spindle-shaped, 3 times as long as wide and 1.4 times as long as 10th segment (Fig. 118). Last segment of maxillary palpi 3.36 times as long as wide and consists of two parts: almost cylindrical part with oval cross section and flattened upper side, and conical part with longitudinal flat "mirror" at apex surrounded with chaetae (Fig. 119). Last segment



**Figs 116-129.** *Xyletinus gibberosus* sp. n., male. **116**, general view; **117**, punctuation on frons; **118**, antenna; **119**, last segment of maxillary palpi; **120**, last segment of labial palpi; **121**, body, lateral view; **122**, sculpture of pronotal disc; **123**, punctuation on pronotal sides; **124**, apex of elytron; **125**, interspaces; **126**, punctuation on metasternum; **127**, hind tibia and tarsus; **128**, aedeagus; **129**, genital ring, distal part. Scale: 0.1 mm (117, 119, 120, 122, 123, 125, 126); 0.2 mm (128, 129); 0.5 mm (118, 124, 127); 1.0 mm (116, 121).

of labial palpi 2.8 times as long as wide, slightly spindle-shaped, with flattened top, and with upper side more convex than the lower (Fig. 120).

Pronotum 1.47 times as wide as long; anterior angles rectangular, posterior ones obtuse, rounded (Fig. 121). Middle part of pronotum strongly convex, sides a little bulging and with tubercle. Surface on disc with longitudinal wrinkles formed by oblong bulbs with small punctures between them (Fig. 122); surface on sides very finely and densely punctured (Fig. 123).

Scutellum semi-oval. Elytra 1.5 times as long as wide and 2.3 times as long as pronotum, bulg-

ing in the middle of their basal third, so beetle looks as humped. Odd interspaces a little wider than even ones and very slightly convex. Elytral apex as shown in Fig. 124. Surface with very thin, transverse wrinkles (Fig. 125). Odd interspaces with denser pubescence on basal part, that is why this part of elytra looks as striped.

Metasternum. Distal median stria short, i.e. not reaching the middle of metasternum. Punctuation dual, very coarse, because of dense large punctures (Fig. 126).

Legs. Femora extending beyond elytral margins. All tibiae flattened and weakly curved; fore

tibiae curved stronger. Hind tarsus about 0.76 times as long as hind tibia; 1st segment 1.2 times as long as 2nd one; 2nd segment 1.2 times as long as 3rd one, but the former noticeably thicker; 3rd segment twice as long as 4th one; 5th and 1st segment equal in length (Fig. 127).

Abdomen. 1st suture slightly curved backwards. Aedeagus: penis evenly narrowing to slightly bilobed apex, which is covered with fine dense chaetae and small papillae; internal penial sac with rather small number of minute spines in apical part and three large shoe-shaped sclerites in basal third. Parameres with deeply bilobed apices, their side outgrowths not reaching paramere apices (Fig. 128). Distal projections of genital ring very short, needle-shaped; cross-piece straight (Fig. 129).

Length 5.2 mm, width 2.6 mm.

*Diagnosis.* The new species differs from other *Xyletinus* (s. str.) species with pubescence directed obliquely on 1st and 2nd elytral interspaces, striae running to elytral apices, and red spots on elytral apices (*X. mongolicus* Español, 1971, *X. moraviensis* Gottwald, 1977, *X. ornatus* Germar, 1822, *X. sericeus* Morawitz, 1861), first of all, in the characteristic shape of antennal segments (very wide and with concave upper and lower margins), bulging middle part of pronotum and the middle of basal third of elytra, and convex alternating interspaces. Distal projections of genital ring are needle-shaped and turned inside. These projections are broader and straight in other species named above. The new species evidently is closest to *X. interpositus* Gottwald, 1977, but differs from the latter in the longer pronotum (ratio of width to length 1.5 in *X. gibberosus* and 2 in *X. interpositus*, according to Gottwald, 1977) and needle-shaped distal projections of genital ring (these are short and blunt in *X. gibberosus* and *X. interpositus*).

***Xyletinus* (s. str.) *iordanicus* sp. n.**  
(Figs 130-146)

*Holotype.* ♂, **Jordan**, Jordantal, O. Totes Meer, 350 m u.M., 4.IV.1958, J. Klapperich (HMNH).

*Description.* The whole beetle light brown; antennae and tarsi greyish yellow. Scutellum black-brown. Pubescence yellowish brown, thin, fine, appressed on pronotum, raised on elytra, rather dense. Hairs directed obliquely from suture on basal two thirds of 1st and 2nd elytral interspace. Body 1.9 times as long as wide (Fig. 130).

Head. Frons convex, sloping gently to arched clypeus. Carina almost absent (Fig. 131). Surface with very fine, uniform, not dense punctation (Fig. 132). Eyes irregularly oval, slightly convex, separated by about 2.5 longitudinal eye diameters. Antennae: 3rd segment with acute tooth, 1.5

times as long as wide; 4-8th segments transverse, 7th segment 1.5 times as wide as long; 9th and 10th segment oblong, 10th segment with convex lower margin; 11th segment 3 times as long as wide and 1.6 times as long as 10th, spindle-shaped. 4-7th segments with concave upper margin and concavely-convex lower one (Fig. 133). Last segment of maxillary palpi 3.4 times as long as wide, slightly bottle-shaped, with longitudinal rows of short chaetae (Fig. 134). Last segment of labial palpi 1.7 times as long as wide, dolabriform (Fig. 135).

Pronotum hemispherical, 1.3 times as wide as long, as wide as elytra; anterior angles slightly acute, strongly rounded, posterior angles virtually absent because lateral margins being strongly rounded, but lateral margins narrowly and slightly flattened at places of posterior angles. Sides slightly bulging (Fig. 136). Surface very finely punctured, very densely on disc (Fig. 137) and rather sparsely on sides (Fig. 138). Disc with fine depressions. Pubescence pattern usual (Fig. 139).

Scutellum semi-oval. Elytra 1.3 times as long as wide and 1.73 times as long as pronotum. Apico-lateral margin with small denticles (Fig. 140). Interspaces slightly convex, equal in width. Sutural interspace widened at apex of declivity because of curved first stria (Fig. 141). Surface with indistinct, thin transverse wrinkles, punctation, and vague dimples (Fig. 142). Striae not continuous but consisting of separate lines.

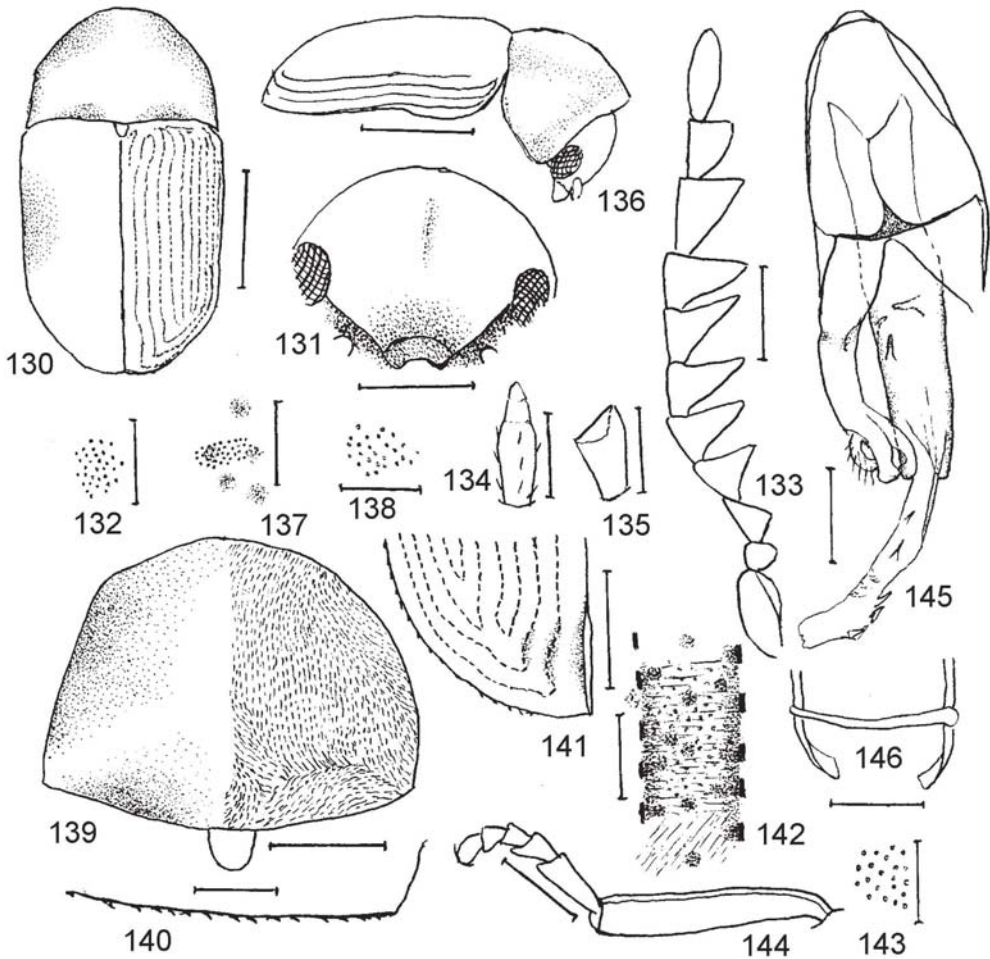
Metasternum. Distal median stria runs across the middle of metasternum slightly not reaching mesosternum. Surface finely, uniformly, not densely punctured (Fig. 143).

Legs. Femora extending beyond elytral margin. Tibiae flattened moderately. Hind tarsus 0.77 times as long as hind tibia; 1st segment twice as long as 2nd one; 2nd segment 1.3 times as long as 3rd one; 3rd segment 1.1 times as long as 4th one; 4th segment almost not emarginate dorsally; 5th segment as long as 2nd (Fig. 144).

Aedeagus. Penis slightly narrowing to apex. Internal penial sac with small number of minute spines. Parameres curved in distal third; their side outgrowths turned in at apices and do not reach apices of parameres (Fig. 145). Distal projections of genital ring look as a flat plate slightly turned inside; the projections half as long as width of thin cross-piece (Fig. 146).

Length 2.9 mm, width 1.5 mm.

*Diagnosis.* The new species is very closely related to *X. klapperichi* sp. n. and differs from it in the unicoloured body (pronotum red, but the elytra dark in *X. klapperichi*), clearly transverse middle antennal segments, fine, uniform punctation of the frons and pronotum (punctation dual on pronotum in *X. klapperichi*), apico-lateral elytral margin with denticles, and significantly

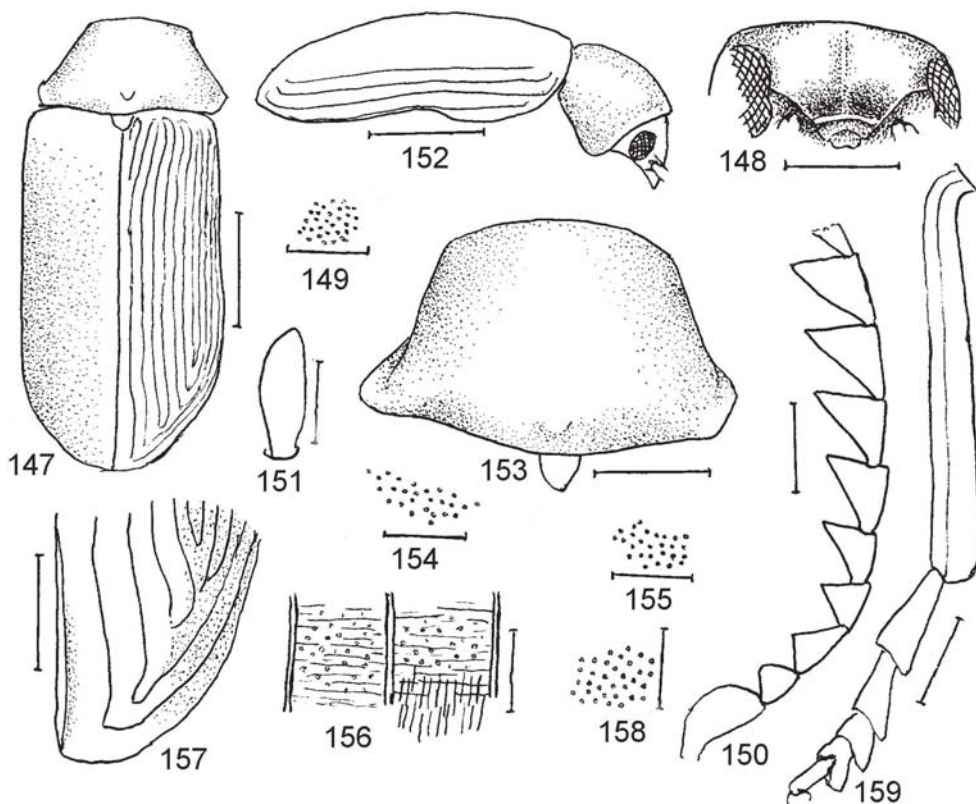


**Figs 130-146.** *Xyletinus iordanicus* sp. n., male. **130**, general view; **131**, frons; **132**, punctation on frons; **133**, antenna; **134**, last segment of maxillary palpi; **135**, last segment of labial palpi; **136**, body, lateral view; **137**, punctation on pronotal disc; **138**, punctation on pronotal sides; **139**, pronotum, dorsal view (with pubescence pattern); **140**, apico-lateral margin of pronotum; **141**, apex of elytron; **142**, interspace; **143**, punctation on metasternum; **144**, hind tibia and tarsus; **145**, aedeagus; **146**, genital ring, distal part. Scale: 0.1 mm (132, 134, 135, 137, 138, 140, 142, 143); 0.2 mm (133, 144-146); 0.5 mm (131, 139, 141); 1.0 mm (130, 136).

smaller size. Distal projections of genital ring have the form of long, flat plate turned inside in *X. iordanicus*, but look as short angles in *X. klapperichi*. *X. dolini* Zahradnik, 1997 and *X. kamyshinensis* sp. n. belong also to this group of greyish brown *Xyletinus* (s. str.) with pubescence directed obliquely from suture of elytra. *X. iordanicus* differs from the greyish brown or yellowish *X. kamyshinensis* in the small size and shorter elytra (in *X. iordanicus*, length about 3 mm and ratio of elytral length to width 1.3, whereas *X.*

*kamyshinensis* is more than 5 mm long and with ratio of elytral length to width 1.6), fine and uniform punctation on frons and pronotum, and interrupted striae on elytra (punctation dual on frons and pronotum and striae continuous in *X. kamyshinensis*). Punctation on pronotum is coarse and distal projections of genital ring are straight and thick in *X. dolini* (Zahradnik, 1997, fig.3); in addition, *X. iordanicus* has no longitudinal depressions on elytra, which are characteristic for *X. dolini*.





**Figs 147-159.** *Xyletinus iranicus* sp. n. **147**, general view; **148**, frons; **149**, punctation on frons; **150**, antenna; **151**, last segment of maxillary palpi; **152**, body, lateral view; **153**, pronotum, dorsal view; **154**, punctation on pronotal disc; **155**, punctation on pronotal sides; **156**, interspaces; **157**, apex of elytron; **158**, punctation on metasternum; **159**, hind tibia and tarsus. Scale: 0.1 mm (149, 151, 154-156, 158); 0.2 mm (150, 159); 0.5 mm (148, 153, 157); 1.0 mm (147, 152).

***Xyletinus* (s. str.) *iranicus* sp. n.**  
(Figs 147-159)

*Holotype:* Iran, Naraz bei Abu Ask, Elbursgeb, 4.VI.1960, leg. J. Klapperich (HMNH).

*Description.* Beetle black; pronotum with not translucent red margins; tibiae and tarsi brown, 5th tarsal segment lighter. Pubescence appressed, rather long and dense, almost hiding the surface, dark grey tinged with yellow; beetle dull. Body 2.3 times as long as wide (Fig. 147).

*Head.* Frons slightly convex, with very weak carina, lowers to clypeus with two deep dimples; thin transverse “peak of a cap” projects above clypeus; the latter arched, narrower in the middle than at sides. Arcs above antennae distinct (Fig. 148). Surface very finely, uniformly punctured (Fig. 149). Eyes irregularly and shortly oval, rather strongly convex, separated by 1.8 longitu-

dinal eye diameters. Antennae: 3rd segment with rectangular tooth, twice as long as wide; 4-8th segments acute-angled, about as long as wide; 9th segment slightly oblong, with slightly convex lower margin; 10th and 11th segments missing (Fig. 150). Last segment of maxillary palpi 2.8 times as long as wide, with nearly straight lower margin and convex upper one (Fig. 151).

Pronotum 1.6 times as wide as long, not broader than elytra; sides not bulging, lateral margins flattened. Anterior angles rectangular, rounded; posterior angles obtuse, a little rounded (Fig. 152). Side lines slightly concave; apical margin slightly convex in dorsal view (Fig. 153). Pronotal disc rather evenly convex, without elevations. Surface with very fine, uniform, and shallow punctation on disc (Fig. 154) and on sides (Fig. 155). Pubescence pattern as usual.

Scutellum ob-triangular, with convex sides. Elytra 1.8 times as long as wide and 3.1 times as long as pronotum, sloping to sides just from the suture. Interspaces flat, equal in width; their surface with very thin transverse wrinkles and indistinct fine punctation (Fig. 156). Hairs of pubescence 1.5 times as long as in most beetles of this subgenus, directed to elytral apex on the whole surface. Striae very thin, their points unvisible; 1st stria curved on declivity, so that 1st interspace widened there (Fig. 157).

Metasternum strongly convex in distal third. Distal median stria almost reaches mesosternum. Surface finely, uniformly punctured (Fig. 158).

Legs. Femora extending beyond elytral margin. All tibiae flattened and a little dilated to apices, fore tibia curved. Hind tarsus 0.66 times as long as hind tibia; 1st segment 1.5 times as long as 2nd one; 2nd segment twice as long as 3rd one, 3rd segment 1.25 times as long as 4th one, the latter emarginate dorsally up to the middle; 5th segment thin, shorter than 2nd (Fig. 159).

Length 3.8 mm, width 1.6 mm.

*Diagnosis.* The new species differs clearly from rather small (less than 4 mm) and unicoloured black beetles of *Xyletinus* s. str. (including those with dark antennae and legs, but the pronotum with red or light-brown margins in some species) with uniform punctation on frons and pronotal disc and with pubescence directed to elytral apex, in the length of elytra [ratio of their length to width is 1.8 in *X. iranicus*, but 1.3 (Zahradnik, 1997), 1.4, 1.6 (Gottwald, 1977), 1.5 (Español, 1970), 1.33 (Kofler, 1969), 1.5 (Lohse et al., 1969), and 1.4 in *X. baicalicus* Zahradnik, 1997, *X. danilevskii* sp. n., *X. emetzi* Gottwald, 1977, *X. kaszabi* Español, 1970, *X. latiusculus* Kofler, 1969, *X. planicollis* Lohse, 1969, *X. udmurtianus* sp. n., respectively), and also in the flattened pronotal sides (these are not flattened in *X. baicalicus*, *X. danilevskii*, *X. kaszabi*, *X. latiusculus*, *X. planicollis*), and in the thick dirty-grey pubescence.

***Xyletinus* (s. str.) *kamyshinensis* sp. n.**  
(Figs 160-174)

*Holotype.* ♀, **Russia**, *Volgograd Prov.*, Kamyshin Reserve, 18.V.1951, D. Panfilov (ZMUM). *Paratype.* 1 specimen, Kamyshin, 19.V.1951, L. Zimina (ZMUM).

*Description.* Upper surface, antennae, tibiae and tarsi dark brown; scutellum, lower surface including femora black-brown; or pronotum, elytra and tarsi light brown, head, scutellum and lower surface brown, antennae blackish brown, excepting brown, i.e. lighter 1st-3rd antennal segments. Pubescence greyish-yellowish, noticeably raised, directed obliquely from suture on 1st interspace near scutellar stria. Body 2.0-2.1 times as long as wide (Fig. 160).

Head. Frons with weak carina; surface with dual punctation (Fig. 161), indistinctly wrinkled on lower part of frons. Clypeus pressed, with longitudinal carina. Arcs above antennae distinct in apical half only (Fig. 162). Eyes shortly oval, not strongly convex, separated by 2.8 longitudinal eye diameters. Antennae (♀): 3rd segment with rectangular tooth, 1.8 times as long as wide; 4-8th segments transverse, 7th segment 1.5 times as wide as long; 9th segment about as wide as long, 10th segment oblong, 11th segment 3 times as long as wide and 1.6 times as long as 10th (Fig. 163). Last segment of maxillary palpi about 5 times as long as wide, rod-shaped (Fig. 164); last segment of labial palpi dilated to obliquely truncate top with finger-shaped projection (Fig. 165).

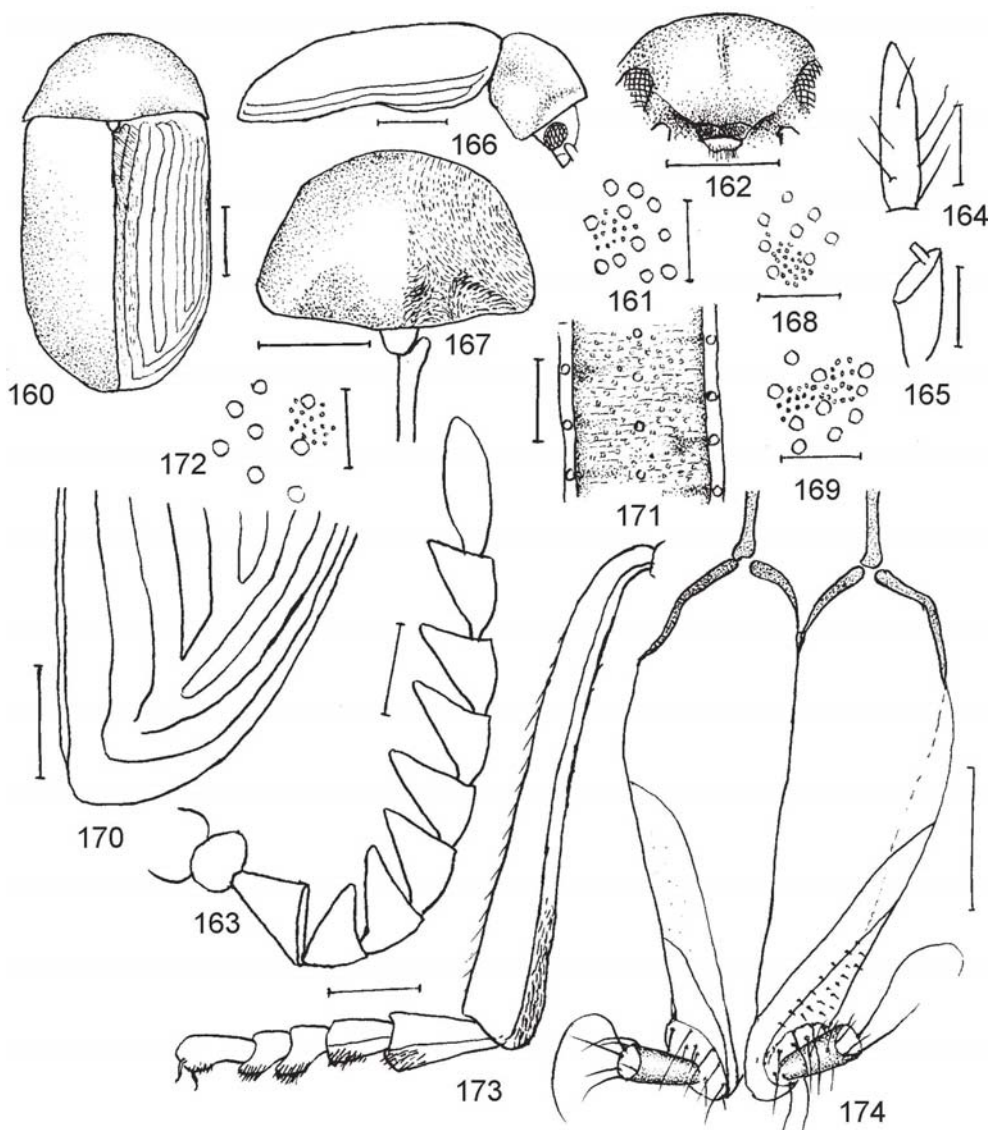
Pronotum 1.5 times as wide as long, slightly wider than elytra; anterior angles rectangular, posterior ones obtuse, rounded. Sides slightly bulging (Fig. 166); lateral margins very slightly flattened along their whole length, somewhat more flattened near posterior angles. Pronotal disc strongly convex. Sides weakly convex and apical margin convex, the shape of pronotum similar to trapezium, in dorsal view (Fig. 167). Surface with dual punctation: fine punctures dense, separated by 0.5-1 puncture diameter; large punctures scattered unevenly on disc (Fig. 168); but distinct and dense on sides (Fig. 169).

Scutellum small, semi-oval or ob-triangular. Elytra 1.6 times as long as wide and 2.4-2.5 times as long as pronotum. Interspaces slightly convex, of more or less equal width, except for narrower 1st (sutural) interspace and very narrow (in the broadest part) 12th one. 1st and 2nd interspace a little widened before apex (Fig. 170). Surface with transverse wrinkles, rather large and dense punctures and hollows (Fig. 171). Striae continuous; points in them circular. Apico-lateral margins of elytra without denticles.

Metasternum. Distal median stria short; punctation dual on metasternum (Fig. 172).

Legs. Hind femora not extending beyond elytral margins. All tibiae flattened, dilated to apices and curved, particularly fore tibia. Hind tarsus 0.63 times as long as hind tibia; 1st segment 1.6 times as long as 2nd one; 2nd segment 1.7 times as long as 3rd one; 3rd segment 1.1 times as long as 4th one; 3rd and especially 4th segment emarginate dorsally; 5th segment slightly longer than 2nd. All segments with hair brushes on soles; femora with hair fimbria along lower margin (Fig. 173).

Abdomen. 1st suture narrowly curved backwards in the middle. Pseudopositor: style 2.5 times as long as wide, a little dilating to apex and sitting on oblique top of coxite; style top with several chaetae on its margin, one chaeta very long. Coxite looks as long oblique plate, jointed with



**Figs 160-174.** *Xyletinus kamyshinensis* sp. n., female. **160**, general view; **161**, punctation on frons; **162**, frons; **163**, antenna; **164**, last segment of maxillary palpi; **165**, last segment of labial palpi; **166**, body, lateral view; **167**, pronotum, dorsal view (with pubescence pattern); **168**, punctation on pronotal disc; **169**, punctation on pronotal sides; **170**, apex of elytron; **171**, interspace; **172**, punctation on metasternum; **173**, hind tibia and tarsus; **174**, apex of pseudopositor. Scale: 0.05 mm (174); 0.1 mm (161, 164, 165, 168, 169, 171, 172); 0.2 mm (163, 173); 0.5 mm (170); 1.0 mm (160, 162, 166, 167).

outer side of paraproct. Coxite top provided with two rows of chaetae: one runs along perimeter, another row runs closer to centre around coxite. Coxite and paraproct combined 6.2 times as long as style; coxite about 4.2 times as long as its thickness at apex, almost 4 times as long as style; paraproct 5 times as thick as style (Fig. 174).

Length 5.1-5.35 mm, width 2.4-2.7 mm.

*Diagnosis.* The new species belongs to a group of more or less uniformly brown beetles of *Xyletinus* (s. str.) with an area of oblique pubescence on elytra and with striae reaching elytral apices. *X. jordanicus* sp. n. and *X. dolini* Zahradnik, 1997, belong to this group. The new spe-

cies differs from these both species in the longer elytra [ratio of length to width is 1.6 in *X. kamyshinensis* sp. n. and 1.3 in *X. dolini* (Zahradnik, 1997) and *X. iordanicus*]. *X. kamyshinensis* differs from *X. iordanicus* also in the dual punctation on frons and pronotum and continuous striae on elytra (punctuation uniform and fine on frons and pronotum and striae interrupted in *X. iordanicus*). The new species differs from *X. dolini* also in the lack of longitudinal depressions on elytra.

***Xyletinus* (s. str.) *klapperichi* sp. n.**  
(Figs 175-191)

*Holotype*. ♂, W. Jordan, Turmosayya b. Ramallah, 600 m, 4.VI.1958, J. Klapperich (HMNH). *Paratypes*. **Israel**: 1 spec., Jerusalem, Feigenblah, 600 m, 24.VI.1968, J. Klapperich (HMNH); **E. Jordan**: 2 spec., Jordantal, Arda Road, 700 m, 14.VI.1957, J. Klapperich (HMNH and ZMUM); 1 spec., Nachor, S. Amman, von Granat, Apfelbaum, 20.V.1956, J. Klapperich (HMNH).

*Description*. Pronotum dark red with blackish spots; head and elytra blackish brown; metasternum black; antennae (except for brownish 1st segment), mouth palpi, and legs dark yellow. Scutellum, suture, and basal margin of elytra reddish. Some specimens with almost unicolourous red-brown or nearly black elytra tinged with red. Pubescence rather dense, dark yellow, raised. Hairs directed obliquely from suture in the area of scutellar stria and part of 1st interspace. Body 2.0-2.1 times as long as wide (Fig. 175).

Head. Frons convex in upper two thirds and flattened in lower third, with two semicircular dimples above small, arched, projected clypeus. Surface finely, densely, uniformly punctured in the centre above eyes (Fig. 176); side parts above eyes, areas near eyes, and flattened part of frons above clypeus wrinkled (Fig. 177). Between areas with wrinkles and uniform punctation, there are areas with heterogeneous punctation, i.e. large punctures between small ones (Fig. 178). Arcs above antennae protruding as costae. Eyes irregularly oval, slightly convex, separated by 2.2 longitudinal eye diameters. Antennae: 3rd segment with rectangular tooth, 1.5 times as long as wide; 4-6th segments slightly transverse; 6th segment 1.14 times as wide as long; 7-10th segments oblong; 4th and 5th segment with distinctly concave, 8-10th segments with distinctly convex lower margin. 11th segment 3 times as long as wide and 1.8 times as long as 10th segment (Fig. 179). Last segment of maxillary palpi not spindle-shaped, 3.25 times as long as wide, dilating to its middle; its apical half obliquely truncate and with high tubercle on truncation (Fig. 180). Last segment of labial palpi dolabriform (Fig. 181).

Pronotum 1.3-1.4\* times as wide as long, not wider than elytra; anterior angles distinct, slightly acute, posterior ones obtuse, rounded (Fig.

162). Pronotum more or less evenly convex, sides weakly bulging; pronotum looks as a broad cap with apical margin and side lines convex, lateral margins not flattened, in dorsal view (Fig. 183). Surface with dual punctation on pronotal disc (Fig. 184) and on sides (Fig. 185); sides grumose. Pubescence pattern simple.

Scutellum small, ob-triangular. Elytra 1.4 times as long as wide and 2.1 times as long as pronotum. Interspaces flat on disc, convex on elytral apex and lateral parts. Surface finely punctured and with large depressions apart from punctation; punctures separated by 1-2 puncture diameters (Fig. 186). Striae with elongate points; sutural stria curved on declivity, and sutural interspace widened at this place (Fig. 187). Scutellar stria formed by small punctures. Pubescence strongly raised, directed obliquely from suture in area of scutellar stria, that is hardly visible in some specimens.

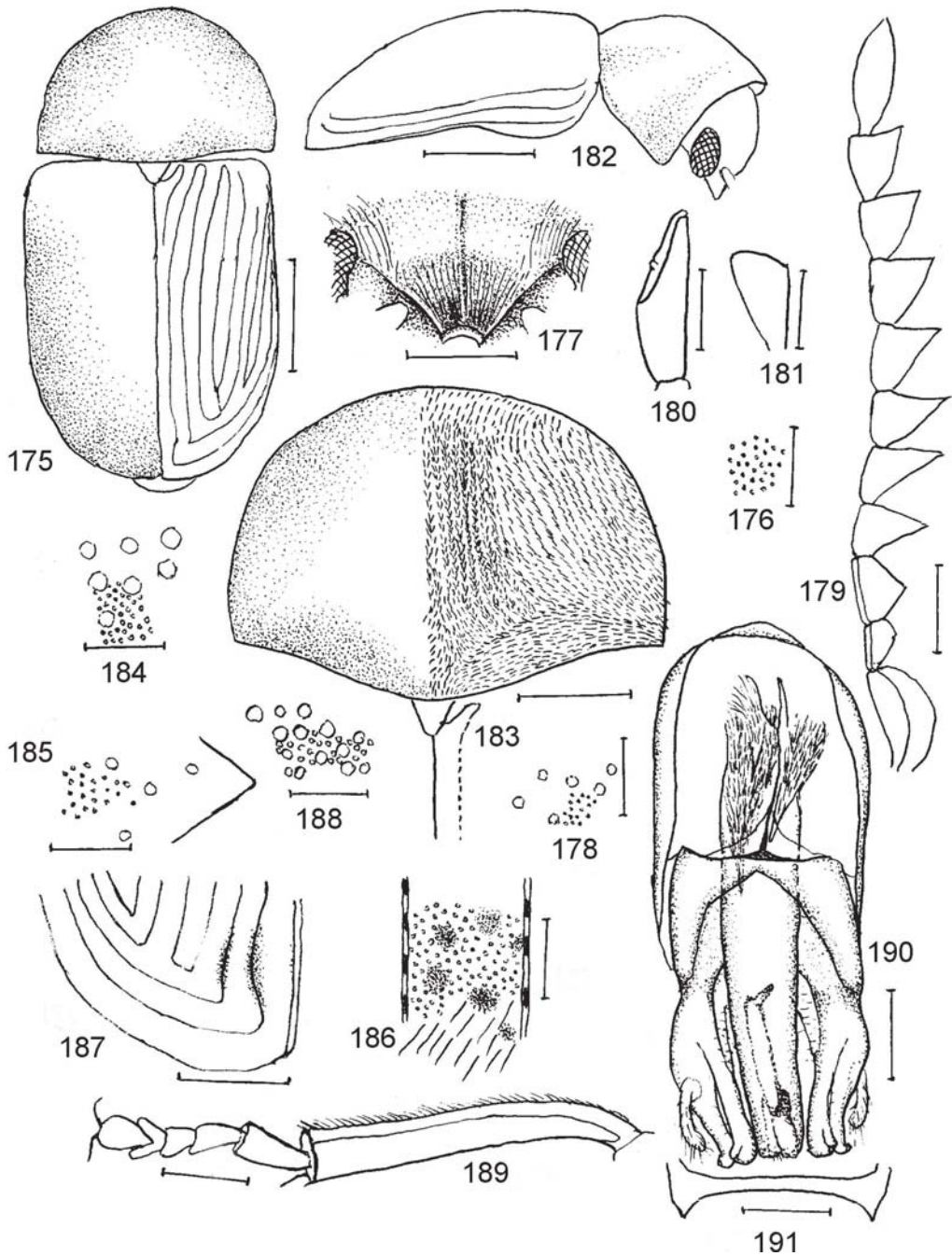
Metasternum with long distal median stria widened in its distal quarter. Surface with rough dual punctation where large punctures are dense and with differing diameters (Fig. 188).

Legs. Hind femora not extending beyond elytral margins. Tibiae flattened; fore tibia dilated to apex and curved. Hind tarsus 0.65 times as long as hind tibia; 1st segment 1.4 times as long as 2nd one; 2nd segment 1.6 times as long as 3rd one; 3rd segment nearly as long as 4th one; the latter emarginate dorsally almost up to the middle; 5th segment as long as 2nd (Fig. 189).

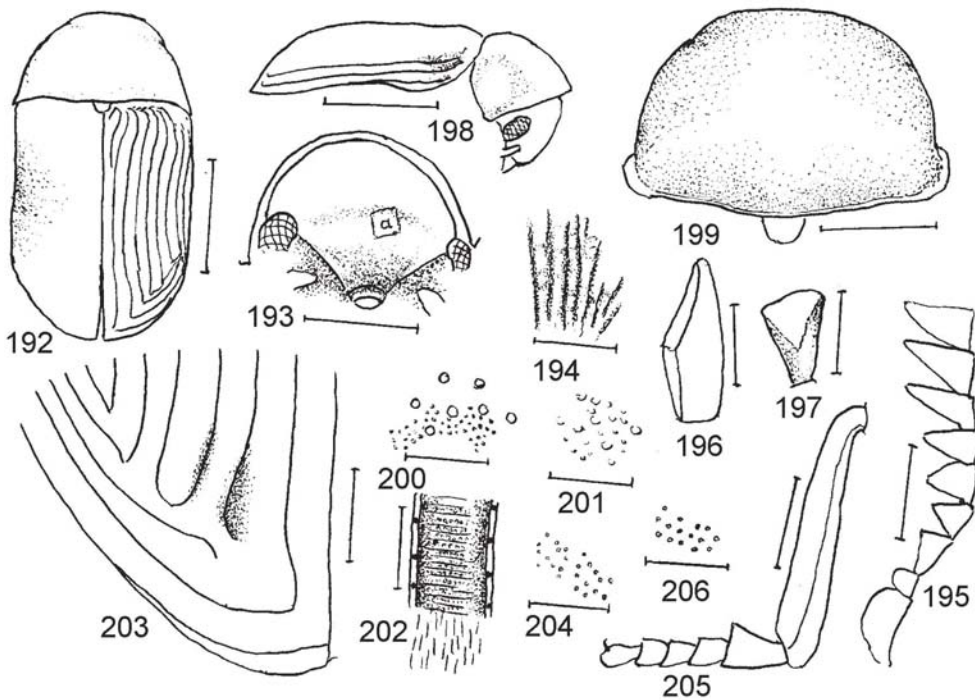
Aedeagus: penis narrow and narrowing evenly to short bilobed apex. Internal penial sac with two small spines with long bases in penial apical third and with 4 "brushes" formed by long chaetae in basal part. Parameres deeply bifurcate and with thin side outgrowths not reaching paramere apices (Fig. 190). Distal projections of genital ring short, looking as acute angles (Fig. 191).

Length 3.9-4.2 mm, width 1.9-2 mm.

*Diagnosis*. The new species belongs to the group of species of *Xyletinus* s. str. with pubescence directed obliquely from suture on two first interspaces and with striae running to the elytral apex. In addition to *X. klapperichi*, also *X. dolini* Zahradnik, 1997, *X. iordanicus* sp. n., *X. kamyshinensis* sp. n. belong to this group. The new species differs from *X. dolini* in the level elytra, without longitudinal depressions, and in distal projections of genital ring looking as very short teeth [elytra with longitudinal depressions near scutellum and distal projections are rather long and thick in *X. dolini* (Zahradnik, 1997, fig.3)]. The new species differs from *X. iordanicus* in the dual punctation on pronotum, continuous striae on elytra, and distal projections of genital ring, which look as short teeth (punctuation fine and uniform on pronotum, striae on elytra interrupted



**Figs 175-191.** *Xyletinus klapperichi* sp. n., male. **175**, general view; **176**, punctation on head above eyes; **177**, frons; **178**, punctation in the middle of frons; **179**, antenna; **180**, last segment of maxillary palpi; **181**, last segment of labial palpi; **182**, body, lateral view; **183**, pronotum, dorsal view (with pubescence pattern); **184**, punctation on pronotal disc; **185**, punctation on pronotal sides; **186**, interspace; **187**, apex of elytron; **188**, punctation on metasternum; **189**, hind tibia and tarsus; **190**, aedeagus; **191**, genital ring, distal part. Scale: 0.1 mm (176, 178, 180, 181, 184-186, 188); 0.2 mm (179, 189-191); 0.5 mm (177, 183, 187); 1.0 mm (175, 182).



**Figs 192-206.** *Xyletinus komarovi* sp. n. **192.** general view; **193,** frons; **194,** sculpture of frons (area "a"); **195,** antenna; **196,** last segment of maxillary palpi; **197,** last segment of labial palpi; **198,** body, lateral view; **199,** pronotum, dorsal view; **200,** punctation on pronotal disc; **201,** sculpture of pronotal sides; **202,** interspace; **203,** apex of elytron; **204,** punctation on metasternum; **205,** hind tibia and tarsus; **206,** punctation on 5th abdominal sternite. Scale: 0.1 mm (194, 196, 197, 200-202, 204, 206); 0.2 mm (195, 203, 205); 0.5 mm (193, 199); 1.0 mm (192, 198).

and distal projections of genital ring as long miniscapula turned inside in *X. iordanicus*). The new species differs from *X. kamyshinensis* in the noticeably lesser size, narrower pronotum and shorter elytra (ratio of pronotal width to length 1.3-1.4 in *X. klapperichi* and 1.5 in *X. kamyshinensis*; ratio of elytral length to width 1.4 in the first species and 1.6 in the second one). The new species differs also from others in the red pronotum while elytra, head and lower surface are dark-brown.

***Xyletinus* (s. str.) *komarovi* sp. n.**  
(Figs 192-206)

*Holotype.* ♀, **Russia, Volgograd Prov.,** environs of El-ton Lake, 29.IV.1989, E. Komarov (ZMUM).

*Description.* Pronotum red with blackish spots in apical half. Head, elytra and lower surface black tinged with brownish, particularly elytral apices. Antennae, mouth palpi and legs dark brown. Pubescence very fine, appressed, black or dark grey on elytra, reddish-yellowish on pronotum. Pubescence directed to apices everywhere on the elytra. Body twice as long as wide (Fig. 192).

*Head.* Frons convex, without carina, with faint transverse arched depression, strongly lowers to clypeus; clypeus arciform with projecting apical part and sunk basal one (Fig. 193). Surface of the whole frons longitudinally wrinkled (Fig. 194). Eyes irregularly oval (weakly reniform), weakly convex, separated by 2.3 longitudinal eye diameters. Antennae: 3rd segment with rectangular projection, 1.5 times as long as wide; 4th segment as long as wide, 5-8th segments transverse, 7th and 8th segment noticeably wider than 5th and 6th one; 7th segment 1.9 times as wide as long (Fig. 195). Last segment of maxillary palpi looks as a plate, about 3 times as long as wide, slightly dilated to the middle, its apical half obliquely and slightly emarginately truncate (Fig. 196). Last segment of labial palpi dolabriform and about twice as long as wide (Fig. 197).

Pronotum 1.7 times as wide as long, as wide as elytra. Anterior angles rectangular, strongly rounded; posterior angles obtuse, rounded; sides moderately bulging (Fig. 198). Lateral margins narrowly flattened along the whole length. Pronotum more or less evenly convex; apical margin

and side lines convex in dorsal view (Fig. 199). Punctuation dual on disc, small punctures separated by 1-2 puncture diameters (Fig. 200). Side surface grumose, punctures invisible (Fig. 201).

Scutellum short, semi-oval. Elytra 1.5 times as long as wide and 2.6 times as long as pronotum; sides strongly compressed at the middle. Interspaces convex, of more or less equal width, except very narrow 12th interspace. Surface with thin transverse wrinkles and very fine punctures between wrinkles (Fig. 202). Striae narrow, continuous, with distinct points. Sutural stria curved on declivity; sutural interspace a little widened and stronger convex (Fig. 203).

Metasternum. Surface with very fine and rather dense punctation arranged in gently oblique rows (Fig. 204).

Legs. Femora slightly extending beyond elytral margins. Fore tibia a little dilated to apex and curved. Hind tarsus 0.61 times as long as hind tibia; 1st segment twice as long as 2nd one; 2nd segment slightly longer than 3rd, and 3rd segment slightly longer than 4th; the latter not emarginate dorsally; 5th segment slightly longer than 2nd (Fig. 205).

Abdomen. Fifth sternite very finely, uniformly punctured (Fig. 206). Four small tubercles situated before apical margin; two middle tubercles characteristic of female.

Length 2.7 mm, width 1.32 mm.

**Diagnosis.** The new species belongs to a small group of black species of *Xyletinus* s. str. with red pronotum and pubescence directed to apices on elytra. In addition to *X. komarovi*, also *X. armeniensis* sp. n., *X. ruficollis* Gebler, 1833, and *X. laticollis fulvicollis* Reitter, 1901, belong to this group. *X. komarovi* differs from *X. ruficollis*, first of all, in the smaller size and wider pronotum of slightly different shape (ratio of width to length is 0.7 in *X. komarovi* and 0.6 in *X. ruficollis*). Other species with red pronotum (*X. armeniensis*, *X. laticollis fulvicollis*) have uniform punctation on pronotal disc (surface of pronotal disc with dual punctation in *X. komarovi*).

***Xyletinus* (s. str.) *lukjanovitshi* sp. n.**  
(Figs 207-222)

**Holotype.** ♂, **Kazakhstan**, *Semipalatinsk Prov.*, Zaisan Distr., Kokpekty, 5.VI.1930. Lukjanovitsh (ZIAS; identified by Emetz, 1975, as *X. longitarsis* Jansson).

**Description.** Beetle black; tibiae and tarsi black-brown excepting brown 5th segment of tarsi. Pubescence dark, raised, very fine; sides partly with light grey hairs. Pubescence directed to apices everywhere on elytra. Body nearly twice as long as wide (Fig. 207).

**Head.** Frons transversely convex between eyes, sloping evenly down to convex clypeus (Fig.

208). The middle of frons finely, uniformly punctured (Fig. 209), sides with longitudinal wrinkles. Eyes shortly oval, of irregular shape, moderately convex, separated by 2.15 longitudinal eye diameters. Antennae: 3rd segment 1.4 times as long as wide, with acute tooth; 4-10th segments transverse, 7th segment about twice as wide as long; upper and lower margins straight in 4-10th segments. 11th segment 3 times as long as wide (Fig. 210). Last segment of maxillary palpi looks as rectangular plate, 2.2 times as long as wide, its apical margin emarginate, and apical side tips slightly drawn out in different directions (Fig. 211).

Pronotum 1.48 times as wide as long; anterior angles rectangular, rounded, posterior ones obtuse, strongly rounded; sides almost not bulging (Fig. 212). In dorsal view, pronotum with very weak constriction beyond apical margin, apical margin convex, side lines weakly convex, lateral margins flattened very narrowly and not up to the end. Disc with weak median line and with two longitudinal depressions on either side of median convexity (Fig. 213). Punctuation indistinctly dual: large punctures rather small, sparse on pronotal disc (Fig. 214); surface of sides with wrinkles formed of tubercle rows directing to apical margin (Fig. 215).

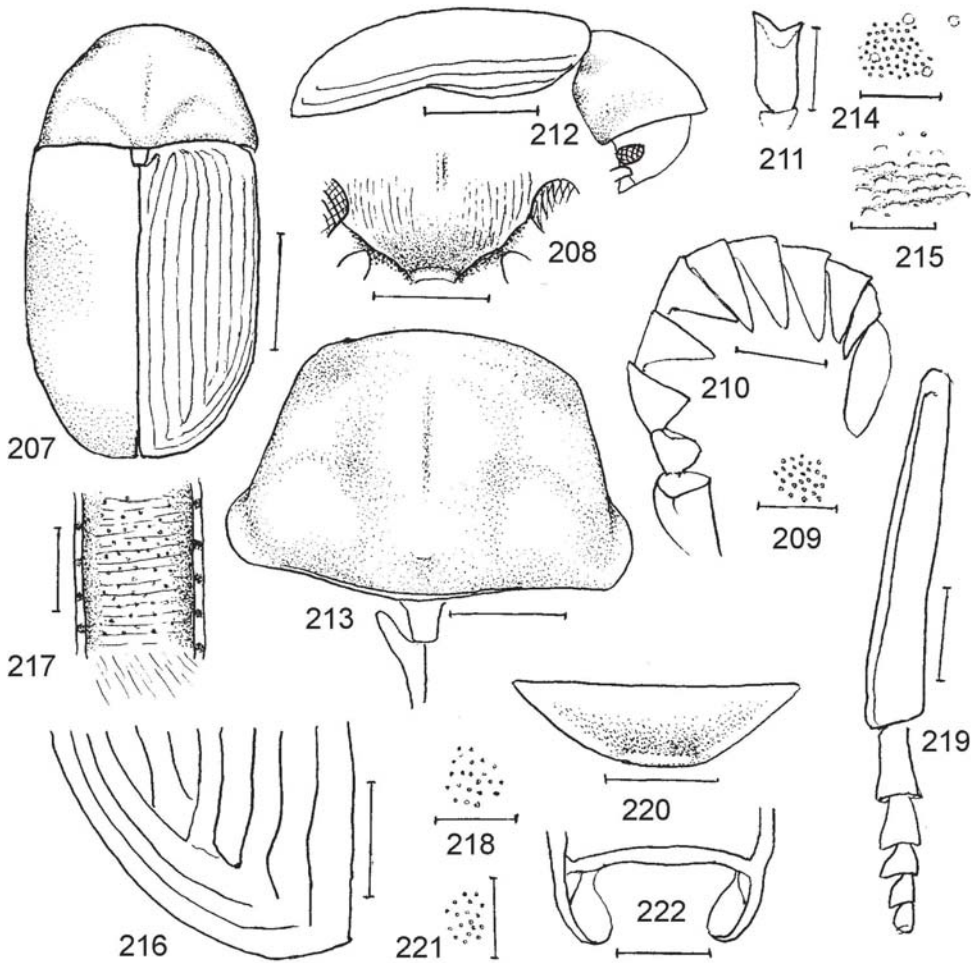
Scutellum rectangular. Elytra 1.5 times as long as wide and 2.2 times as long as pronotum. Interspaces slightly convex, equal in width on disc; 1st interspace a little widened on declivity; 1st and 2nd stria curved before elytral apex; apico-lateral margin without denticles (Fig. 216). Surface of interspaces with thin transverse wrinkles and very fine punctures; striae thin, continuous, points hardly visible in them (Fig. 217).

Metasternum. Distal median stria extending beyond the middle of metasternum. Punctuation fine, uniform on surface of metasternum (Fig. 218).

Legs. Femora extending beyond elytral margin. Tibiae not strongly flattened. Hind tarsus 0.6 times as long as hind tibia; 1st segment 1.5 times as long as 2nd one; the latter 1.9 times as long as 3rd segment; 3rd segment as long as 4th one, but the latter narrower; 5th segment 0.67 times as long as 2nd (Fig. 219).

Abdomen. First abdominal suture slightly and evenly curved backwards. 5th sternite with fine, uniform punctation (Fig. 221), with narrow transverse carina along apical margin (Fig. 220). Aedeagus: penis narrowing to slightly emarginate apex and curved before the latter. Internal penial sac probably with many rather small spines (as far as I can judge looking on preparation glued by somebody before). Distal projections of the genital ring broadly oval and 0.4 times as long as width of thin cross-piece (Fig. 222).

Length 3.25 mm, width 1.6 mm.

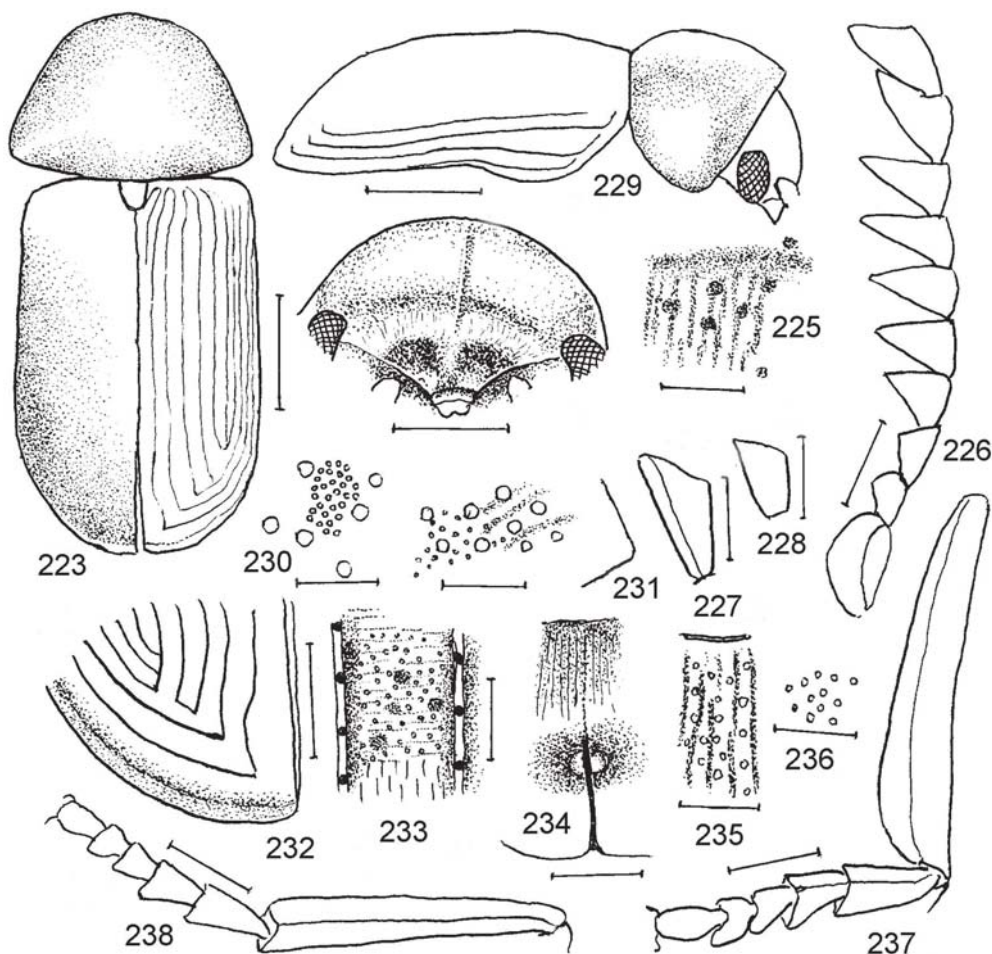


**Figs 207-222.** *Xyletinus lukjanovitshi* sp. n., male. **207**, general view; **208**, frons; **209**, punctuation on frons; **210**, antenna; **211**, last segment of maxillary palpi; **212**, body, lateral view; **213**, pronotum, dorsal view; **214**, punctuation on pronotal disc; **215**, sculpture of pronotal sides; **216**, apex of elytron; **217**, interspace; **218**, punctuation on metasternum; **219**, hind tibia and tarsus; **220**, fifth abdominal sternite; **221**, punctuation on 5th abdominal sternite; **222**, genital ring, distal part. Scale: 0.1 mm (209, 211, 214, 215, 217, 218, 221); 0.2 mm (210, 219, 222); 0.5 mm (208, 213, 216, 220); 1.0 mm (207, 212).

**Diagnosis.** The new species belongs to the group of black beetles of *Xyletinus* s. str. with dark antennae and legs, dark pubescence directed to apices on elytra, dual punctuation on disc of pronotal surface, and long femora extending beyond elytral margin. In addition to *X. lukjanovitshi*, also *X. distinguendus* Kofler, 1969, *X. montanus* sp. n., *X. stepposus* sp. n., *X. subrotundatus* Lareynie, 1852, belong to this group. *X. lukjanovitshi* differs from all species named above in the very wide middle antennal segments (7th

segment twice as wide as long) and broadly oval distal projections of genital ring. Middle antennal segments are rather wide in *X. distinguendus* (6th segment 1.6 times as wide as long), but distal projections long, knee-formed, turned inside (Kofler, 1969, fig.8). 7th antennal segment 1.16 times as wide as long in *X. montanus* and 1.44 times as wide as long in *X. stepposus*; distal projections of genital ring look as short teeth in *X. montanus* and *X. subrotundatus*, and they look as long finger-shaped projections turned inside





**Figs 223-238.** *Xyletinus merkli* sp. n.: 223, general view; 224, frons; 225, sculpture of frons below arched depression; 226, antenna; 227, last segment of maxillary palpi; 228, last segment of labial palpi; 229, body, lateral view; 230, punctuation on pronotal disc; 231, sculpture of pronotal sides; 232, apex of elytron; 233, interspace; 234, distal median stria on metasternum; 235, sculpture of proximal middle part of metasternum; 236, punctuation on sides of metasternum; 237, fore tibia and tarsus; 238, hind tibia and tarsus. Scale: 0.1 mm (225, 227, 228, 230, 231, 233, 235, 236); 0.2 mm (226, 234, 237, 238); 0.5 mm (224, 232); 1.0 mm (223, 229).

in *X. stepposus*. Pronotum 1.8 times as wide as long in *X. montanus*, and 1.3 in *X. subrotundatus* (pronotum 1.6 times as wide as long in *X. lukjanovitshi*). Elytra with strongly convex interspaces in *X. stepposus* and only slightly convex in *X. lukjanovitshi*.

***Xyletinus* (s. str.) *merkli* sp. n.**  
(Figs 223-238)

*Holotype.* Uzbekistan, Tien Shan, Silvestral Reserve of Tshatkal, 1200 m, steppe meadow, netted from plants, 3.VI.1981, O. Merkl (HMNH).

*Description.* Beetle black; 1st antennal segment black, flagellum dark brown; mouth palpi, tibiae and tarsi blackish brown. Pubescence fine, black, appressed, directed to apex on elytra. Pronotum shining, elytra less shining. Body 2.27 times as long as wide (Fig. 223).

*Head.* Frons convex, with carina, with arched depression between eyes, with two arched hollows above small convex clypeus (Fig. 224). Frons surface with wrinkles and rough punctation below arched depression (Fig. 225), and with rough punctation above this depression. Eyes

oval, slightly convex, separated by 2.8 longitudinal eye diameters. Antennae: 3rd segment with rectangular tooth, 1.5 times as long as wide; 4-9th segments transverse, 7th segment 1.78 times as wide as long; 10th segment slightly oblong; 11th segment lost (Fig. 226). Last segments of maxillary and labial palpi dilated to obliquely truncate top (Figs 227, 228).

Pronotum 1.5 times as wide as long, broader than elytra; anterior angles strongly rounded, posterior angles not expressed (Fig. 229). Lateral margins not flattened, sides broadly bulging. Apical margin and side lines slightly convex, no constriction beyond apical margin, the whole pronotum trapeziform in dorsal view. Surface with dual, rather large punctation on disc (Fig. 230) and on sides; sides slightly wrinkled near apical margin (Fig. 231).

Scutellum elongate, semi-oval. Elytra 1.48 times as long as wide and 2.1 times as long as pronotum. Apico-lateral margin without denticles, narrowly flattened; elytra a little widened to declivity. Interspaces slightly convex, of more or less equal width on disc; but 12th interspace very narrow in its basal third (its widest part), 10th interspace in contrary widened (Fig. 229); sutural stria curved before apex and that is why 1st interspace is widened in a short area (Fig. 232). Surface of interspaces with sparse fine punctures and large depressions; transverse wrinkles indistinct as if they are composed of beads (Fig. 233). Striae continuous, with round points in them. Hairs of pubescence very short.

Metasternum convex in distal part. Distal median stria ending with two convex leaves in the middle of oval transverse hollow, fine stria continues forward after that (Fig. 234). Surface longitudinally wrinkled at the proximal centre (Fig. 235), and with uniform punctation on sides (Fig. 236).

Legs. Femora not extending beyond elytral margins. Fore tibiae dilated to apex and a little curved (Fig. 237). Middle and hind tibiae weakly flattened; hind tarsus 0.8 times as long as hind tibia; 1st segment 1.4 times as long as 2nd one; 2nd segment 1.45 times as long as 3rd one; 3rd segment 1.2 times as long as 4th one; 5th segment wide, shorter than 2nd (Fig. 238).

Abdomen. 1st suture curved backwards in the middle. 5th sternite with transverse fold before apical margin.

Length 4.2 mm, width 1.85 mm.

**Diagnosis.** The new species belongs to the group of black beetles of *Xyletinus* s. str. with dark pubescence directed to apices on elytra, with dual punctation on pronotum, and short femora not extending beyond elytral margins. Only *X. merkli* and *X. pseudosareptanus* sp. n. belong to this group. *X. merkli* differs from the latter in the wider middle antennal segments (7th segment 1.8

times as wide as long in *X. merkli* and 1.3 times in *X. pseudosareptanus*), shorter elytra (elytra 2.1 times as long as pronotum in *X. merkli*, and 2.67 times in *X. pseudosareptanus*). Elytral interspaces slightly convex and faintly wrinkled in *X. merkli*, but convex, clearly transversely wrinkled, with punctation in *X. pseudosareptanus*).

***Xyletinus* (s. str.) *montanus* sp. n.**

(Figs 239-253)

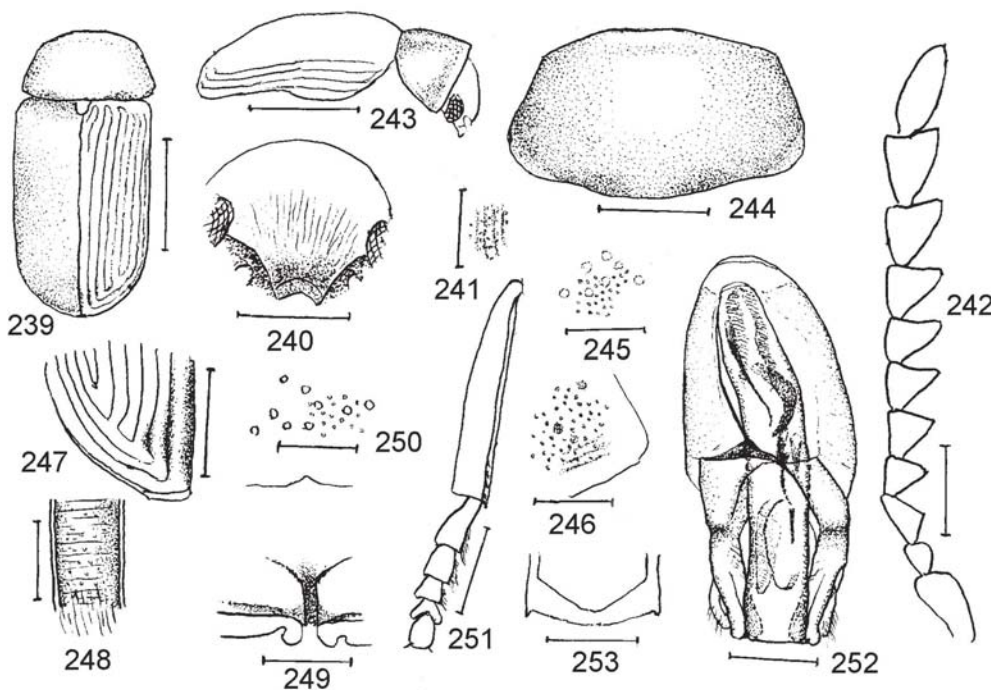
*Holotype*. ♂, **Greece, Makedonia**, Pr[ov.] Kaválla, Mts. Pangéo, Akrovouni, 1500 m, 25.V.1995, A.& I. Rozner (HMNH).

**Description.** Beetle black; apices of tarsi and tibiae black-brown; elytral apex barely translucent with crimson. Pubescence fine, black, hardly raised; more raised on sides of pronotum and elytra where it is slightly yellowish; beetle dull. Body 2.1 times as long as wide (Fig. 239).

Head. Frons convex, with hardly visible carina, it lowers to clypeus with two semicircular depressions (Fig. 240). Surface with longitudinal wrinkles and fine punctures (Fig. 241). Arcs distinct above antennae. Eyes irregularly oval, weakly convex, separated by 2 longitudinal eye diameters. Antennae: 3rd segment with obtuse tooth, twice as long as wide; 4th, 5th, 8th and 9th segments as wide as long; 6th and 7th segment slightly transverse, 1.16 times as wide as long; 10th segment oblong; 7-10th segments with convex lower margin; 11th segment 2.8 times as long as wide and 1.4 times as long as 10th (Fig. 242). Last segment of maxillary palpi nearly twice as long as wide, looks as a plate weakly dilating to apex; its lower end slightly elongate because of concave apical truncation.

Pronotum 1.8 times as wide as long, hardly broader than elytra; anterior angles rectangular, rounded, posterior angles strongly rounded (Fig. 243). Sides very slightly bulging, lateral margins narrowly flattened at the places of posterior angles; anterior margin slightly convex, side lines barely concave, basal margin convex in dorsal view (Fig. 244). Surface with dual punctation on the disc, small punctures separated by 1 puncture diameter (Fig. 245). Sides with vague punctation, a little wrinkled (Fig. 246). Pubescence raised noticeably on sides.

Scutellum semi-oval. Elytra 1.56 times as long as wide and 2.7 times as long as pronotum. Interspaces convex, of more or less equal width; 1st (sutural) and 2nd interspace curved near apex and more strongly convex there. Elytral apices narrowly flattened (Fig. 247). Surface finely and indistinctly transversely wrinkled and with fine, sparse punctation (Fig. 248). Striae continuous (points not visible because of very dark background). Pubescence dark, raised, directed to



**Figs 239-253.** *Xyletinus montanus* sp. n., male. 239, general view; 240, frons; 241, sculpture of frons; 242, antenna; 243, body, lateral view; 244, pronotum, dorsal view; 245, punctuation on pronotal disc; 246, punctuation on pronotal sides; 247, apex of elytron; 248, interspace; 249, distal median groove on metasternum; 250, punctuation on metasternum; 251, hind tibia and tarsus; 252, aedeagus; 253, genital ring, distal part. Scale: 0.1 mm (241, 245, 246, 248, 250); 0.2 mm (242, 249, 251-253); 0.5 mm (240, 244, 247); 1.0 mm (239, 243).

apices everywhere on the elytra. Apico-lateral margin with traces of denticles.

Metasternum slightly convex. Distal median groove not reaching the middle of metasternum, bifurcate at apex (Fig. 249). Thin fold runs in front of distal margin. Surface with dual punctuation (Fig. 250).

Legs. Femora extending beyond elytral margins. Tibiae strongly flattened. Hind tarsus about 0.7 times as long as hind tibia; 1st segment 1.6 times as long as 2nd one; 2nd segment also 1.6 times as long as 3rd one; 3rd segment 1.4 times as long as 4th; the latter deeply emarginate dorsally; 5th segment almost as long as 2nd (Fig. 251).

Abdomen. First suture nearly straight. Aedeagus: penis not narrowing to apex. Internal penial sac with two "brushes", 1 large and 2 rather small spines, and thin, long sclerite in basal half; also it is provided with 2 rather long needle-shaped spines, thin sclerite curved as oval, and with long, rounded at the end, cross-striated plate in apical half. Parameres deeply forked at apex, side outgrowths not reaching paramere apices (Fig. 252).

Distal projection of genital ring looks as a small tooth; cross-piece is very extended at sides and strongly narrowing to its middle (Fig. 253).

Length 2.45 mm, width 1.15 mm.

**Diagnosis.** The new species belongs to the group of black beetles of *Xyletinus* s. str. with dark antennae and legs, pubescence directed to apices on elytra, dual punctuation on the pronotal disc, and long femora extending beyond elytral margins. In addition to *X. montanus*, also *X. distinguendus* Kofler, 1969, *X. lukjanovitshi* sp. n., *X. stepposus* sp. n., and *X. subrotundatus* Lareynie, 1852, belong to this group. *X. montanus* differs from named species in the very slightly transverse antennal segments (7th segment 1.16 times as wide as long in *X. montanus*, but twice as wide as long in *X. lukjanovitshi*, 1.44 times in *X. stepposus*, 1.6 times (6th segment) in *X. distinguendus*). Pronotum is noticeably broader in *X. montanus* than in named species (ratio of width to length 1.8 in *X. montanus*, 1.6 in *X. distinguendus* and *X. lukjanovitshi*, 1.5 in *X. stepposus*, 1.3 in *X. subrotundatus*). Distal projections of geni-

tal ring in *X. montanus* look as tiny teeth at angles of high cross-piece, which is strongly reduced to its centre. These projections are broadly oval in *X. lukjanovitshi*, long in *X. distinguendus* and *X. stepposus*, and there are larger teeth at thin cross-piece in *X. subrotundatus* (Kofler, 1969, Fig. 19).

***Xyletinus* (s. str.) *pectinatus inflatus* ssp. n.**  
(Figs 254-270)

*Holotype*. ♂, **Russia, Moscow Prov.**, vill. Konobeevo, 24.VI.1990, N. Nikitsky.

*Paratypes*. 3 spec. with same data as in holotype; 1 spec. with same data, but found on *Quercus*-wood 24.VIII.1989, emerged 8.III.1990, N. Nikitsky (ZMUM, coll. Nikitsky).

*Description*. Beetles black; pronotum, elytra and abdomen tinged with brown; apical and lateral margins of pronotum, scutellum, distal part of suture and apex of elytra, sometimes shoulder-knobs reddish or red-brown; antennae, mouth palpi, tibiae and tarsi greyish yellow, femora yellowish grey-brown. Pubescence fine, light brown, rather dense, directed to apex and raised on elytra. Beetles shining. Body 2.3 times as long as wide (Fig. 254).

Head. Frons convex, with long carina extended to clypeus; with two slight depressions above clypeus; arcs distinct above antennae (Fig. 255). Surface with dual punctation (Fig. 256). Eyes shortly oval, moderately convex, separated by 2.5 (male) longitudinal eye diameters. Antennae: 2nd and 3rd segment with acute tooth; 4-7th segments transverse, 7th segment 1.3 times as wide as long; 8-10th segments oblong, their lower margin convex; 11th segment 3.5 times as long as wide and 1.66 times as long as 10th (Fig. 257). Last segment of maxillary palpi cuneiform, 3 times as long as wide (Fig. 258). Last segment of labial palpi dolabriform (Fig. 259).

Pronotum 1.5(♀)-1.7(♂) times as wide as long, not broader than elytra; anterior angles rectangular, posterior ones obtuse, rounded (Fig. 260). Sides strongly bulging, lateral margins flattened along the whole length, and widely flattened at posterior angles (Fig. 261). Apical margin straight, side lines weakly convex, if looking from above and a little from behind (Fig. 254). Surface with dual punctation on the disc (Fig. 262); sides with indistinct dual punctation and a little wrinkled (Fig. 263).

Scutellum rectangular, nearly square. Elytra 1.8-1.9 times as long as wide and 2.9-3.3 times as long as pronotum. Elytra parallel-sided; sides a little compressed near middle. Interspaces convex; 1st (sutural) and 9th (lateral bend) interspace slightly narrower than the rest ones. 2nd interspace strongly widened on declivity, but rather flat (Fig. 264). Surface of interspaces thinly trans-

versely wrinkled (Fig. 265). Apico-lateral margin with traces of denticles.

Metasternum with complete distal median stria. Surface finely, uniformly punctured in the centre (Fig. 266) and transversely wrinkled on side parts.

Legs. Femora not extending beyond elytral margins. Fore tibiae dilated to apices. Hind tarsus 0.7 times as long as hind tibia; 1st segment 1.5 times as long as 2nd one; 2nd segment almost twice as long as 3rd one; 3rd segment 1.4 times as long as 4th one; 5th segment as long as 2nd (Fig. 267).

Abdomen. First suture curved backwards. Aedeagus: penial sac with 2 large spines in basal part, 2 large spines in apical part, and several compact transverse rows of very fine sclerites at one third from apex. Parameres with long side outgrowths turned up at apices and slightly not reaching paramere apices (Fig. 268). Distal projections of genital ring acute, short, not more than a quarter of the whole width of cross-piece (Fig. 269). Pseudopositor: style looks like a wide truncate cone, 1.6 times as long as thick. Coxite cuneiform, with slightly oblique top with strong chaetae arranged not distinctly only along perimeter; coxite jointed with outer side of paraproct, 2.3 times as long as its width near apex, and 3.75 times as long as style. Paraproct a little dilating to base, 3 times as long as its width at base and 1.9 times as long as coxite (Fig. 270). Pseudopositor tube 5 times as long as its width at coxite level.

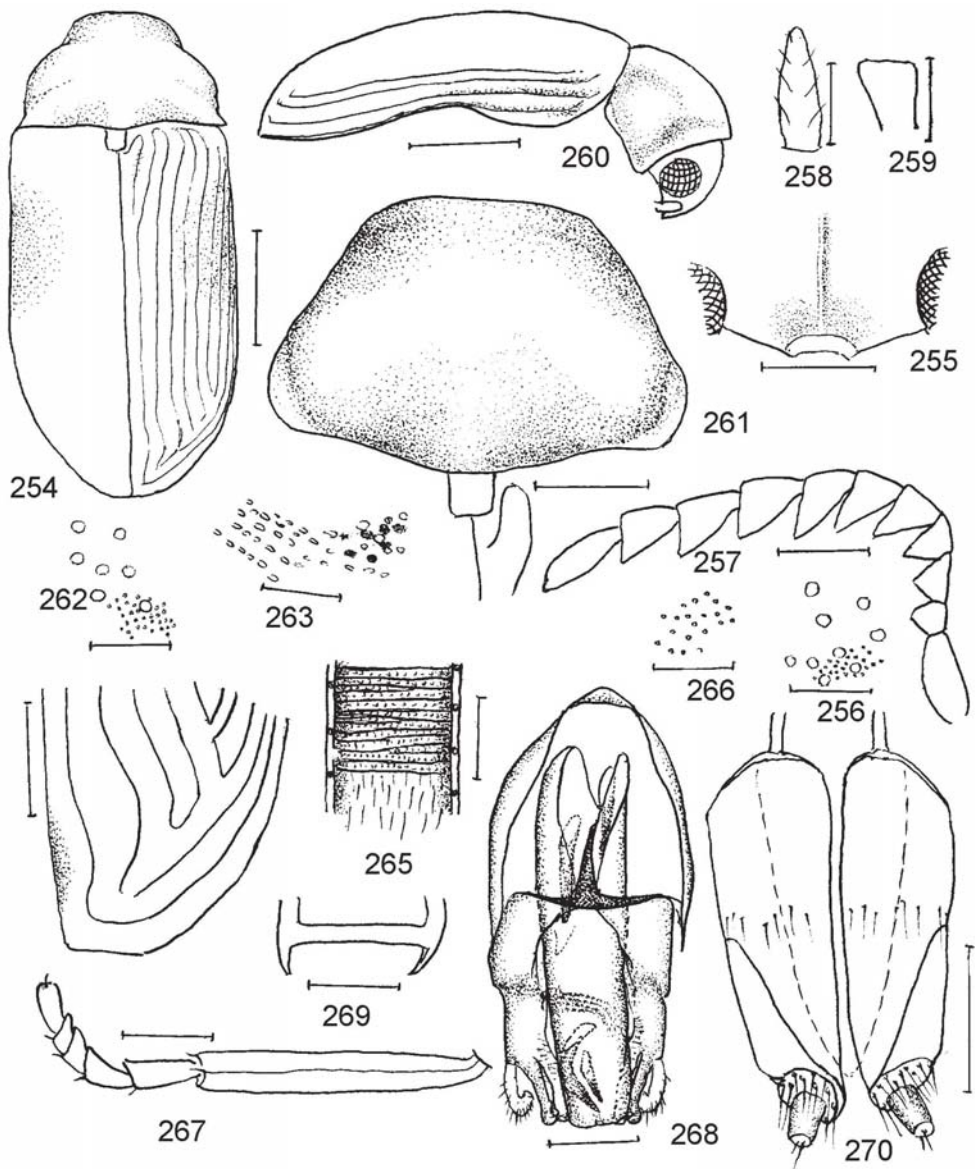
Length 3.5-4.5 mm, width 1.6-2.0 mm.

*Diagnosis*. *X. pectinatus inflatus* is distinguished noticeably from *X. pectinatus pectinatus* (Fabricius, 1792) by its appearance, i.e. black colour, pronotum with bulging sides, and short femora not extending beyond elytral margins. Distal projections of genital ring are a little longer than in *X. pectinatus pectinatus*, penis with lesser number of spines in its basal part. Styles of pseudopositor have the shape of truncate cones, which are similar to those of *X. pectinatus pectinatus*, although their sizes differ a little.

***Xyletinus* (s. str.) *pseudosareptanus* sp. n.**  
(Figs 271-285)

*Holotype*. ♂, **Russia, Udmurtia**, Malopurginsky Distr., vill. Yagan, VI.[20]02, S.V. Dedyukhin (ZMUM; identified by N. Nikitsky as *Xyletinus sareptanus*? Kiesw.).

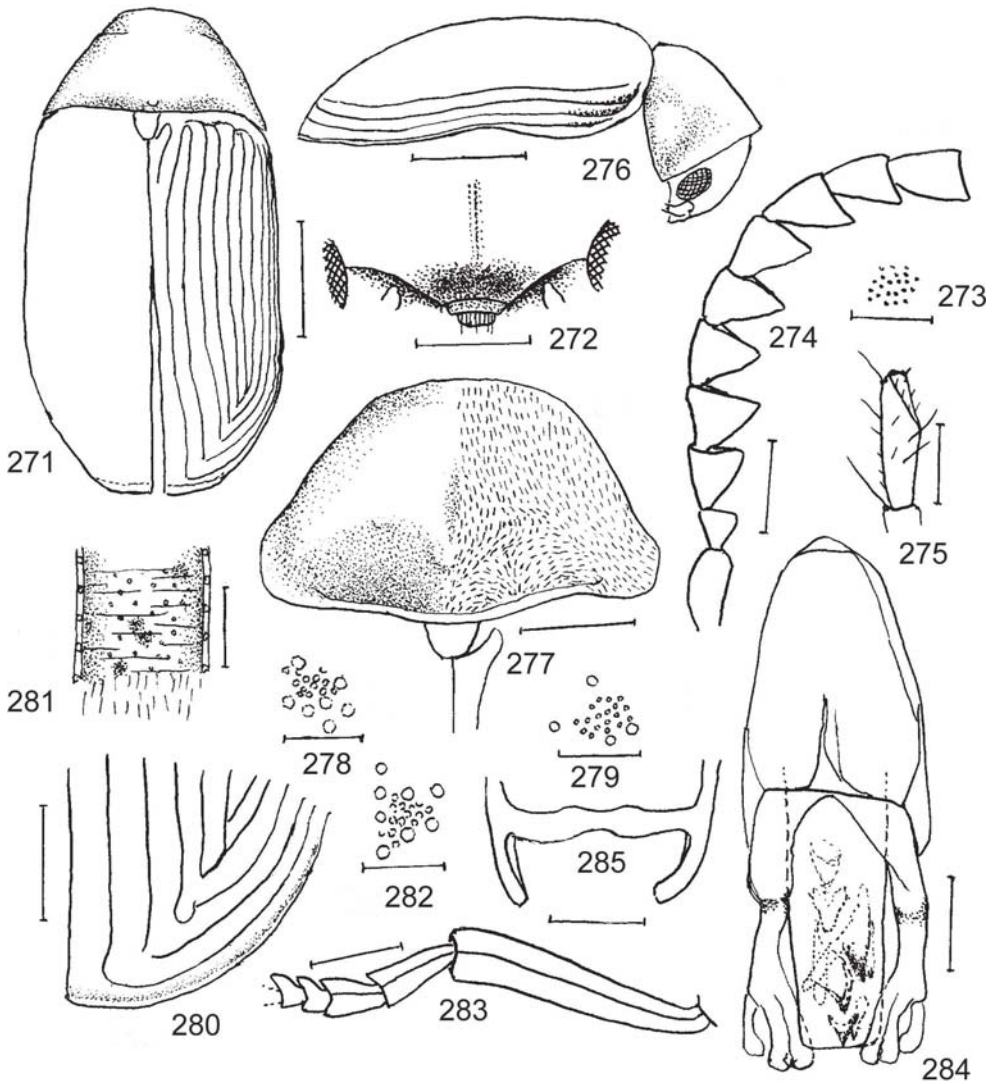
*Description*. Beetle black; apical and lateral margins of pronotum and elytral apices very narrowly reddish; legs greyish-red; antennae bicoloured: 1st-3rd segment greyish red, 4-8th segments brown, last segments dark brown. Pubescence black and dark brown, very fine, appressed, directed to apex on elytra. Body twice as long as wide (Fig. 271).



**Figs 254-270.** *Xyletinus pectinatus inflatus* ssp. n., male, female. 254, general view; 255, frons; 256, punctation on frons; 257, antenna; 258, last segment of maxillary palpi; 259, last segment of labial palpi; 260, body, lateral view; 261, pronotum, dorsal view; 262, punctation on pronotal disc; 263, sculpture of pronotal sides; 264, apex of elytron; 265, interspace; 266, punctation in the middle of metasternum; 267, hind tibia and tarsus; 268, aedeagus; 269, genital ring, distal part; 270, apex of pseudopositor. Scale: 0.05 mm (270); 0.1 mm (256, 258, 259, 252, 263, 265, 266); 0.2 mm (257, 267-269); 0.5 mm (255, 261, 264); 1.0 mm (254, 260).

Head. Frons weakly convex, with weak carina, and with two transversely-oval dimples above clypeus (Fig. 272). Surface uniformly, finely punctured between eyes; punctures separated by 1-2 puncture diameters (Fig. 273). Eyes irregu-

larly oval, slightly convex, separated by 2 longitudinal eye diameters. Antennae: 3rd segment with acute tooth, oblong; 4th segment as long as wide; 5-7th segments slightly transverse, 6th segment 1.3 times as wide as long; 8-10th segments ob-



**Figs 271-285.** *Xyletinus pseudosareptanus* sp. n., male. 271, general view; 272, frons; 273, punctation on frons; 274, antenna; 275, last segment of maxillary palpi; 276, body, lateral view; 277, pronotum, dorsal view (with pubescence pattern); 278, punctation on pronotal disc; 279, punctation on pronotal sides; 280, apex of elytron; 281, interspace; 282, punctation on metasternum; 283, hind tibia and tarsus; 284, aedeagus; 285, genital ring, distal part. Scale: 0.1 mm (273, 275, 278, 279, 281, 282); 0.2 mm (274, 283-285); 0.5 mm (272, 277, 280); 1.0 mm (271, 276).

long; 3rd-10th segment with convex lower margin; 11th segment lost (Fig. 274). Last segment of maxillary palpi 3.4 times as long as wide, slightly dilated to apex, flattened, apex longly and obliquely truncate (Fig. 275). Last segment of labial palpi dolabriform.

Pronotum 1.56 times as wide as long, not broader than elytra. Anterior angles rectangular,

shortly rounded; posterior angles obtuse, rounded, narrowly flattened; sides slightly bulging (Fig. 276). Side lines slightly convex; pronotum campaniform in dorsal view (Fig. 277). Punctation dual on disc (Fig. 278) and on sides (Fig. 279); large punctures rather dense and small, not very distinct on disc. Surface a little wrinkled before middle of basal margin.

Scutellum semi-oval. Elytra 1.6 times as long as wide and 2.67 times as long as pronotum. Interspaces convex, equal in width except narrower sutural interspace. 1st, 2nd, and 3rd interspaces a little dilated on declivity but not thickened (Fig. 280). Striae continuous, thin, with round points in them. Surface transversely wrinkled and with fine punctures and also with irregular, slightly sunk, large depressions (Fig. 281).

Metasternum. Distal median stria long, i.e. reaching mesosternum. Surface grumose, with large punctures and indistinct fine ones (Fig. 282).

Legs. Femora not extending beyond elytral margins. Hind tarsus probably 0.8 as long as tibia (5th segment lost); 1st segment 1.4 times as long as 2nd one; 2nd segment 2.2 times as long as 3rd one; 3rd segment 1.1 times as long as 4th (Fig. 283).

Abdomen. First suture evenly and slightly curved backwards. 5th sternite punctured similarly to metasternum. Aedeagus: internal penial sac with more than half-dozen of wide spines; paramere side outgrowths long but not reaching paramere apices (Fig. 284). Distal projections of genital ring 0.4 times as long as cross-piece, slightly turned inside, their apices blunt (Fig. 285).

Length 3.75 mm, width 1.85 mm.

*Diagnosis.* *X. pseudosareptanus* is related to species of *Xyletinus* s. str. with black body, dark antennae and legs, dark pubescence directed to apices of elytra, with dual punctation on pronotum and short femora not extending beyond elytral margins. Besides *X. pseudosareptanus*, only *X. merkli* sp. n. has such characters. *X. pseudosareptanus* differs from the latter in the narrower antennal segments (7th segment 1.3 times as wide as long in *X. pseudosareptanus* and 1.8 times in *X. merkli*), longer elytra (elytra 2.67 times as long as pronotum in *X. pseudosareptanus* and 2.1 times in *X. merkli*), well seen transverse wrinkles on convex interspaces (slightly convex interspaces with faint wrinkles as if compounding of beads in *X. merkli*). *X. pseudosareptanus* is very similar to *X. sareptanus* Kiesenwetter, 1877 in the size and appearance, and also in the length of distal projections of genital ring, but differs from the latter in the dual punctation on pronotal disc [punctation uniform on pronotal disc in *X. sareptanus* (Arnoldi, 1965)], narrower middle antennal segments (6th segment 1.3 times as wide as long in *X. pseudosareptanus*, but 1.8 times in *X. sareptanus*), short femora (femora extending beyond elytra margins in *X. sareptanus*), distal projections of genital ring less turned inside, and distinctive armament of penis (numerous spines with wide base in *X. pseudosareptanus* and several long and narrow sclerites and spines in *X. sareptanus*).

***Xyletinus* (s. str.) *stepposus* sp. n.**  
(Figs 286-301)

*Holotype.* ♂, **Russia**, Volgograd Prov., 25 km SW of Volgograd, env. of vill. Vodnyi, 31.V.1988, E. Komarov (ZMUM; identified by Komarov as *Xyletinus ater* Creutz.).

*Description.* Beetle black, margins not reddish; 1st antennal segment black, flagellum black-brown; femora and tibiae black, knees and tarsi brown. Pubescence very fine, greyish black, raised, directed to apices on elytra. Body a little shining, elytra shining stronger. Body 2.1 times as long as wide (Fig. 286).

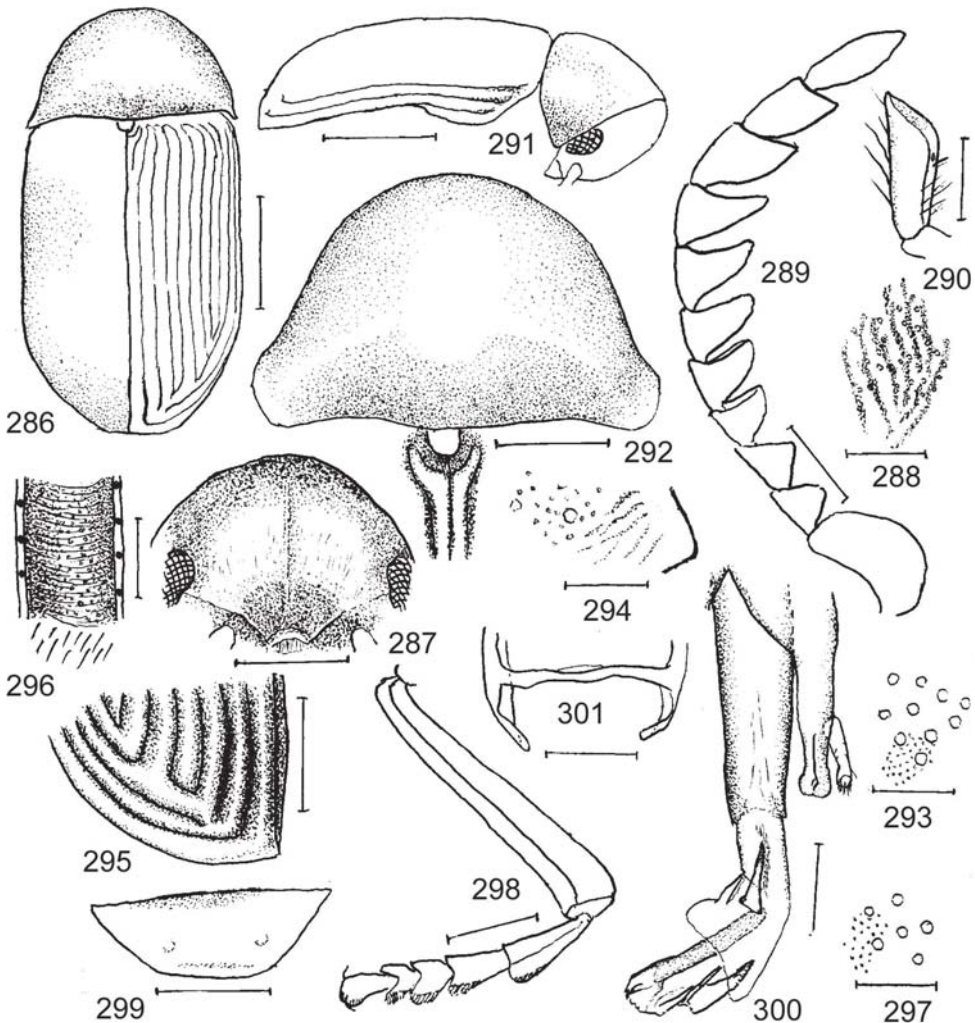
Head. Frons with distinct carina, rather convex, abruptly and arcuately lowers to clypeus (Fig. 287). Surface with fine longitudinal wrinkles and fine punctures (Fig. 288). Clypeus small, convex, brown. Arcs above antennae distinct in apical half only. Eyes small, oval, slightly convex, separated by 2.6 longitudinal eye diameters. Antennae: 4-8th segments transverse, 7th segment 1.44 times as wide as long; 9th and 10th segment oblong, the both distinguished from the rest in addition to length by stronger convex lower margin; 4-10th segments with convex lower margin and concave upper one. 11th segment 3.2 times as long as wide and 1.6 times as long as 10th (Fig. 289). Last segment of maxillary palpi about 3.5 times as long as its width near apex; it looks as a plate dilated to apex; the latter obliquely truncate, with long chaetae along margins (Fig. 290).

Pronotum 1.5 times as wide as long; anterior angles slightly acute, a little reflexed to the lower side of head; posterior angles not expressed, strongly rounded; lateral margins a little flattened; sides hardly bulging (Fig. 291). Pronotum distinctly campaniform; disc more or less evenly convex, with weak elevation near the middle of basal margin (Fig. 292). Surface with dual punctation on disc (Fig. 293) and with indistinctly dual punctation, wrinkles, and grumosity on sides (Fig. 294).

Scutellum semi-oval, surrounded by depression between its margin and scutellar stria. Elytra 1.5 times as long as wide and 2.3 times as long as pronotum. Interspaces equal in width, especially convex on declivity; striae widened on declivity, specially the 1th one (Fig. 295). Surface transversely wrinkled, finely punctured (Fig. 296). Striae with round points. Elytra a little compressed at sides in front of the middle.

Metasternum without carina, with long median stria; surface with dual punctation (Fig. 297).

Legs. Femora extending beyond elytral margins. Tibiae slightly dilated and curved, fore tibia curved stronger. Hind tarsus 0.8 times as long as hind tibia; 1st segment 1.75 times as long as 2nd one; 2nd segment 1.6 times as long as 3rd one; 3rd segment 1.25 times as long as 4th one; 5th seg-



**Figs 286-301.** *Xyletinus stepposus* sp. n., male. **286**, general view; **287**, frons; **288**, sculpture of frons; **289**, antenna; **290**, last segment of maxillary palpi; **291**, body, lateral view; **292**, pronotum, dorsal view; **293**, punctation on pronotal disc; **294**, sculpture of pronotal sides; **295**, apex of elytron; **296**, interspace; **297**, punctation on metasternum; **298**, hind tibia and tarsus; **299**, 5th abdominal sternite; **300**, aedeagus; **301**, genital ring, distal part. Scale: 0.1 mm (288, 290, 293, 294, 296, 297); 0.2 mm (289, 298, 300, 301); 0.5 mm (287, 292, 295, 299); 1.0 mm (286, 291).

ment about as long as 2nd one; 3rd and 4th segment emarginate dorsally; all tarsal segments with hair pulvilli (Fig. 298).

Abdomen. Fifth sternite with two tubercles (Fig. 299). Aedeagus: internal penial sac with 2 large and 4 (or more) small spines, and longitudinal narrow "brush" in the middle; apex with several spinules. Parameres with straight apices and rather long side outgrowths turned up apically (Fig. 300). Distal projections of genital ring

0.4 times as long as cross-piece, their apical halves finger-shaped, curved inside (Fig. 301).

Length 3.15 mm, width 1.5 mm.

*Diagnosis.* The new species belongs to the group of black beetles of *Xyletinus* s. str. with dark antennae and legs, dark pubescence directed to apices on elytra, dual punctation on pronotal disc, and long femora extending beyond elytral margins. In addition to *X. stepposus*, also *X. distinguendus* Kofler, 1969, *X. lukjanovitshi* sp. n.,



*X. montanus* sp. n., and *X. subrotundatus* Lareynie, 1652, belong to this group. *X. stepposus* differs from the first and second species in the strongly convex interspaces of elytra and narrower antennal segments (interspaces slightly convex in *X. distinguendus* and *X. lukjanovitshi*; middle antennal segments 1.6-1.7 times as wide as long in *X. distinguendus* and 7th segment twice as wide as long in *X. lukjanovitshi*, whereas this ratio is 1.44 in *X. stepposus*). *X. stepposus* differs from the two rest species in the size of pronotum (ratio of its length to width is 1.8 in *X. montanus* and 1.3 in *X. subrotundatus*, whereas it is 1.5 in *X. stepposus*). Distal projections of genital ring look like fingers turned inside in *X. stepposus*, whereas they are broadly oval in *X. lukjanovitshi*, as teeth in *X. montanus* and *X. subrotundatus*, and these projections are long, geniculate and turned inside in *X. distinguendus* (Kofler, 1969, Fig. 8). The new species is very similar to *X. ater* (Creutzer, 1796) in the appearance and size, but differs from the latter in the absence of carina on metasternum, long femora extending beyond elytral margins, and details of aedeagus structure.

***Xyletinus* (s. str.) *turkestanicus* sp. n.**  
(Figs 302-316)

*Holotype. Turkmenistan*, Amu-Darya Nature Reserve, Nargyz Isl., IV.1983, S. Alekseev (ZMUM).

*Description.* Head and metasternum black; pronotum, scutellum, and abdomen black-brown; elytra dark yellow with transverse dark brown belt mainly visible on sides; antennae, labrum, mandibles, mouth palpi, and legs yellowish red. Pubescence dirty-grey, rather long, appressed; directed obliquely from suture on two first interspaces of elytra. Pronotum shining, elytra dull. Body twice as long as wide (Fig. 302).

Head. Frons without carina but with tubercle above eyes and with two slight depressions above clypeus. Apical margin of clypeus with fine denticles. Arcs above antennae slightly expressed. Hairs of pubescence gathered to frons tubercle (Fig. 303). Surface very finely, uniformly punctured (Fig. 304). Eyes irregularly oval, slightly convex, separated by 2.14 longitudinal eye diameters. Antennae: 3th segment with rectangular tooth, 1.5 times as long as wide; 4th segment about as long as wide; 5-8th segments transverse, 7th segment 1.6 times as wide as long; 9th segment as long as wide; 10th segment oblong; 11th segment more than 3 times as long as wide and 1.6 times as long as 10th one. 4-8th segments with convex lower margin (Fig. 305). Last segment of maxillary palpi 2.7 times as long as wide, with rather acute apex; upper side stronger convex (Fig. 306). Last segment of labial palpi dolabriform (Fig. 307).

Pronotum 1.7 times as wide as long, not broader than elytra; lateral margins not flattened; anterior angles rectangular, posterior angles obtuse, rather distinct; sides slightly bulging (Fig. 308). Apical margin and side lines of pronotum slightly convex; pronotum with weak constriction behind apical margin and with slight oblique depressions on sides (Fig. 309). Surface very finely, uniformly punctured on disc and sides of pronotum; punctures separated by 0.5-1 puncture diameter on disc (Figs 310, 311).

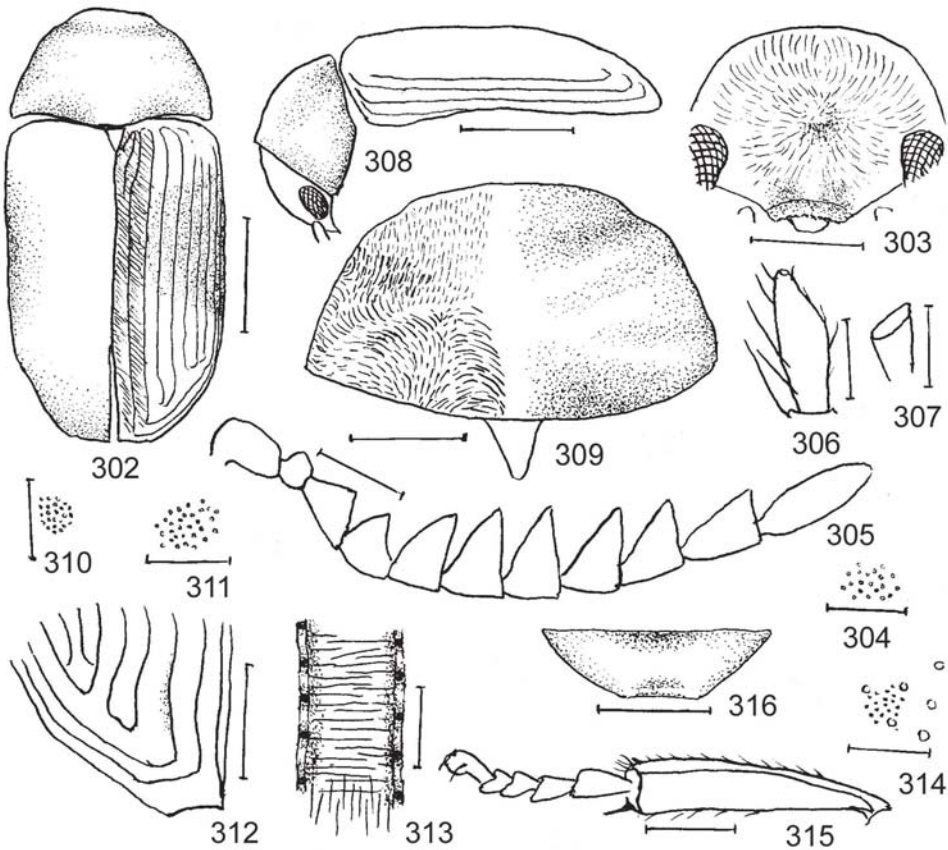
Scutellum strongly elongate, ob-triangular. Elytra 1.5 times as long as wide and 2.77 times as long as pronotum. Interspaces slightly convex, equal in width; 3rd interspace considerably curved before apex; apex of each elytron slightly emarginate (Fig. 312). Surface transversely wrinkled (Fig. 313) and very finely and densely punctured; tiny setae stick up from each puncture. Striae consist of separate lines with round points in these lines. Pubescence nearly covering the surface.

Metasternum. Distal median stria almost reaching mesosternum. Surface with dual punctation in the centre (Fig. 314), and probably uniformly punctured on the sides.

Legs. Femoral plaque very narrow. Femora not extending beyond elytral margins. Tibiae flattened; middle and hind tibiae slightly curved, fore tibiae curved stronger (Fig. 315). Hind tarsus 0.7 times as long as hind tibia; 4th segment emarginate dorsally; 5th segment longer than 2nd.

Abdomen. 1st suture straight. 5th sternite with transverse fold in front of apical margin (Fig. 316). Length 3.2 mm, width 1.55 mm.

*Diagnosis.* The new species belongs to the group of *Xyletinus* s. str. with pubescence directed obliquely from suture on two first interspaces of elytra, striae reaching elytral apices, and elytra without red spots. These are *X. dolini* Zahradnik, 1997, *X. iordanicus* sp. n., and *X. klapperichi* sp. n. *X. turkestanicus* differs from *X. dolini* in the longer elytra [ratio of length to width 1.3 in *X. dolini* (Zahradnik, 1997) and 1.5 in the new species], uniform punctation of frons and pronotum (punctation dual on frons and pronotum in *X. dolini*), and light colour of elytra with dark transverse belt. The new species differs from *X. iordanicus* sp. n. in the broad pronotum (ratio of width to length 1.3 in *X. iordanicus* and 1.7 in *X. turkestanicus*), apico-lateral elytral margin without denticles, and black-brown colour of pronotum (*X. iordanicus* unicolourous, light brown). The new species differs from *X. klapperichi* in the wide pronotum with uniform punctation (ratio of width to length 1.3-1.4 and punctation dual on pronotum in *X. klapperichi*), and the colour of the upper side (dark red pronotum and black-brown elytra in *X. klapperichi*, and dark brown pronotum and yellow elytra with dark belt in *X. turkestanicus*).



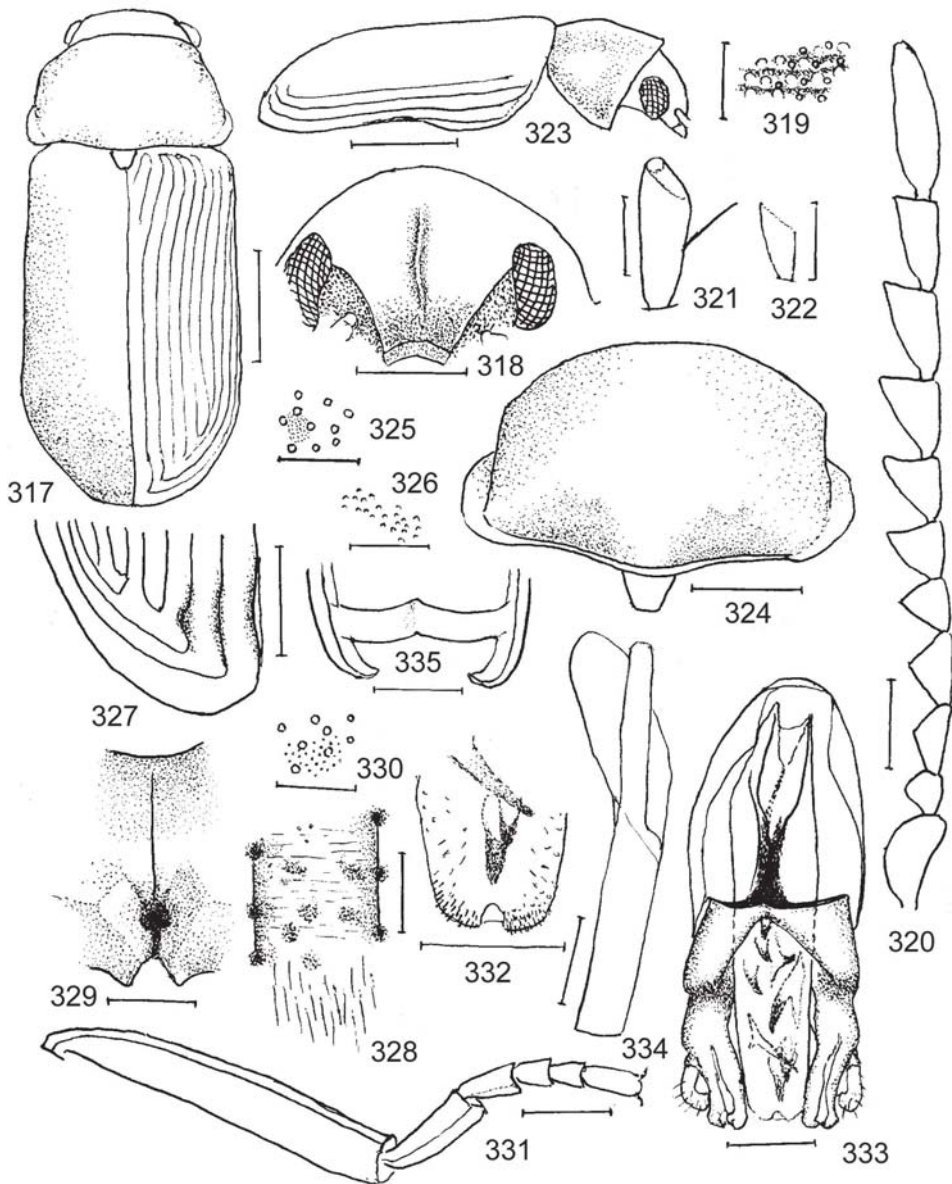
**Figs 302-316.** *Xyletinus turkestanicus* sp. n. **302**, general view; **303**, frons; **304**, punctation on frons; **305**, antenna; **306**, last segment of maxillary palpi; **307**, last segment of labial palpi; **308**, body, lateral view; **309**, pronotum, dorsal view (with pubescence pattern); **310**, punctation on pronotal disc; **311**, punctation on pronotal sides; **312**, apex of elytron; **313**, interspace; **314**, punctation in the middle of metasternum; **315**, fore tibia and tarsus; **316**, 5th abdominal sternite. Scale: 0.1 mm (304, 306, 307, 310, 311, 313, 314); 0.2 mm (305, 315); 0.5 mm (303, 309, 312, 316); 1.0 mm (302, 308).

***Xyletinus* (s. str.) *turkmenicus* sp. n.**  
(Figs 317-335)

*Holotype*. ♂, **Turkmenistan**, Kopet-Dagh Mts, 800-1500 m, valley of the rivers Ipay-Kala and Point-Kala. 59° 54-57'E, 38° 13-15'N, 13.VI-4.VII.1992, No L63, leg. Gy. Fábíán, B.Herczig, A. Podlussáni, and Z. Varga (HMNH).

*Description*. Head black tinged with brownish; pronotum black-brown with light brown apical margin and flattened sides; elytra and metasternum dark brown; antennae: 1st segment light brown, 2nd and 3rd segment yellow-brown, next segments from brown at first to black-brown at end. Mouth palpi brown; legs (including femora) brownish yellow. Pubescence fine, brown, appressed, not covering surface; directed to apex on elytra. (Fig. 317).

Head. Frons convex, with distinct carina, lowers to clypeus as two semicircular hollows; arcs above antennae weak (Fig. 318). Surface with uniform, rather large punctation and grumose sculpture, indistinctly wrinkled (Fig. 319). Eyes irregularly oval, convex, separated by 2 longitudinal eye diameters. Antennae: 3rd segment with obtuse tooth, twice as long as wide, 4th segment with rectangular tooth, oblong, 5-10th segments with acute tooth, 6th segment as wide as long, the rest segments oblong. 6-10th segments with convex lower margin. 11th segment 4 times as long as wide and 1.8 times as long as 10th (Fig. 320). Last segment of maxillary palpi 3 times as long as wide, flattened, dilated to obliquely truncate apex (Fig. 321). Last segment of labial palpi small, with obliquely truncate apex (Fig. 322).



**Figs 317-335.** *Xyletinus turkmenicus* sp. n., male. **317**, general view; **318**, frons; **319**, sculpture of frons; **320**, antenna; **321**, last segment of maxillary palpi; **322**, last segment of labial palpi; **323**, body, lateral view; **324**, pronotum, dorsal view; **325**, punctuation on pronotal disc; **326**, sculpture of pronotal sides; **327**, apex of elytron; **328**, interspace; **329**, distal median stria on metasternum; **330**, punctuation on metasternum; **331**, middle tibia and tarsus; **332**, apex of penis; **333**, aedeagus; **334**, penis, view in profile; **335**, genital ring, distal part. Scale: 0.05 mm (332); 0.1 mm (319, 321, 322, 325, 326, 328, 330); 0.2 mm (320, 329, 331, 333-335); 0.5 mm (318, 324, 327); 1.0 mm (317, 323).

Pronotum 1.7 times as wide as long, slightly broader than elytral width at level of shoulders; anterior angles rectangular, posterior angles absent as they are strongly rounded. Sides very

slightly bulging (Fig. 323). Lateral margins broadly flattened along the whole length. Pronotal disc with 2 small elevations in basal quarter. Apical margin evenly convex, side lines slightly con-

cavely-convex, nearly straight, basal margin with well noticeable border in dorsal view (Fig. 324). Punctuation dual on the disc; very fine, small punctures separated by 1 or less puncture diameter; large punctures separated by 1-2 their diameters (Fig. 325); surface of sides finely grumose, punctures not visible (Fig. 326).

Scutellum ob-trapeziform. Elytra 1.68 times as long as wide and almost 3 times as long as pronotum. Interspaces slightly convex, equal in width on disc; 12th interspace (the last one) very narrow, 10th and 11th interspace a little widened in their basal third (Fig. 323). 1st (sutural) and 2nd interspace a little curved and bulging before apex of elytra (Fig. 327). Surface with indistinct transverse wrinkles, hollows, and faint punctuation (Fig. 328). Striae very thin on disc, points in them wider than striae themselves.

Metasternum convex at the middle of distal half. Distal median stria nearly reaching mesosternum, widened and forming round dimple at distal quarter (Fig. 329). Punctuation dual in the centre, punctures of both sorts small (Fig. 330).

Legs. Femora extending beyond elytral margins. Fore tibiae dilated to apices and curved. All tibiae flattened. Mesotarsus about 0.8 times as long as hind tibia; 1st segment 1.9 times as long as 2nd one; 2nd segment 1.5 times as long as 3rd one; 3rd segment 1.2 times as long as 4th one; 5th segment nearly as long as 2nd (Fig. 331).

Aedeagus. Penis a little narrowing from middle to apex. Penial apex emarginate dorsally and with spinulae on sides (Fig. 332). Internal penial sac with 2 rather large and 6 medium-sized spines. Parameres deeply divided at apices, their side outgrowths long but not reaching the paramere apices (Fig. 333). Apical half of penis straight in profile (Fig. 334). Distal projections of genital ring broad, spoon-shaped, about one third as long as cross-piece; the latter broken in the centre (Fig. 335).

Length 4 mm, width 1.6 mm.

**Diagnosis.** The new species belongs to a small group of brown or dark brown beetles of *Xyletinus* s. str. [in addition to *X. turkmenicus*, these are *X. brevipes* sp. n. and *X. pectinatus* (Fabricius, 1792)] with pubescence directed to the apices on elytra and dual punctuation on pronotal disc. *X. turkmenicus* differs from *X. brevipes* in the long femora extending beyond elytral margins, flattened sides of pronotum, narrower middle antennal segments (6th segment 1.4 times as wide as long in *X. brevipes* and as wide as long in *X. turkmenicus*), longer elytra (ratio of its length to width 1.5-1.57 in *X. brevipes* and 1.7 in *X. turkmenicus*), and also another shape of aedeagus and distal projections of genital ring (penis a little pear-shaped, distal projections look as narrow, long mini-scapula turned inside in *X. brevipes*; penis straight, distal projections broad, spoon-

shaped in *X. turkmenicus*). The new species differs from *X. pectinatus* in the shape of pronotum, which is wider than elytra and without elevations, antennal segments (middle segments transverse, 6th segment 1.2 times as wide as long, 7th segment 1.5 times as wide as long in *X. pectinatus*; 6th segment as wide as long, the rest ones oblong in *X. turkmenicus*), shorter elytra (ratio of length to width 1.7 in *X. turkmenicus* and 1.8-1.9 in *X. pectinatus*), and also distal projections of genital ring, which look as short angles in *X. pectinatus* and are broad, spoon-shaped in *X. turkmenicus*.

***Xyletinus* (s. str.) *udmurtianus* sp. n.**  
(Figs 336-350)

**Holotype.** ♂, **Russia**, *Udmurtia*, Yarsky Distr., env. of vill. Kushman, herbaceous slope of bedrock bank of Cheptsy river, 27.V.2001, S.A. Dedyukhin (ZMUM).

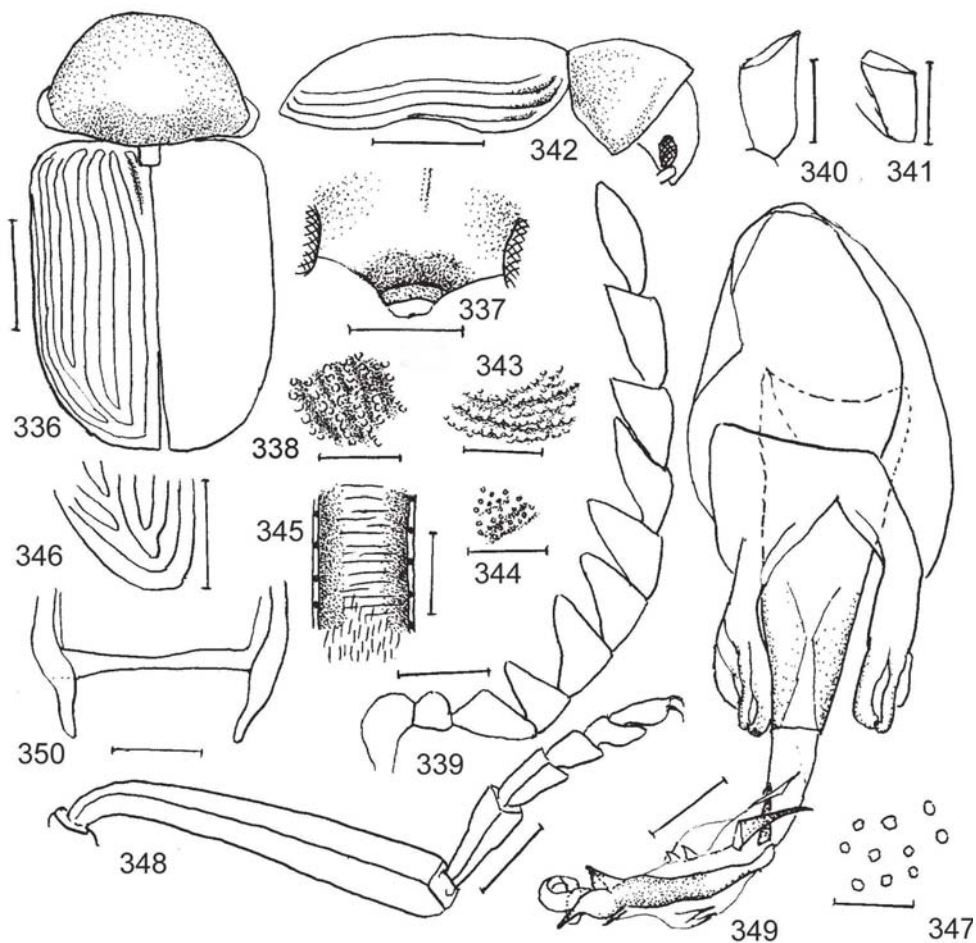
**Paratype.** 1 spec., same data as in holotype (ZMUM; identified as *Xyletinus laticollis*?).

**Description.** Beetles black; antennae and legs tinged with dark red. Pubescence very dark, fine, appressed; directed to apex of elytra. Beetles slightly shining. Body twice as long as wide (Fig. 336).

Head. Frons convex, with hardly visible carina, with two semicircular depressions above arched clypeus (Fig. 337); surface with longitudinal wrinkles formed by rows of small granules (Fig. 338). Eyes slightly convex, oval, separated by 2.6 longitudinal eye diameters. Antennae: 3rd segment with obtuse tooth, twice as long as wide; 4-8th segments transverse, 7th segment 1.56 times as wide as long; 9th and 10th segment oblong; 8-10th segments with convex lower margin; 11th segment spindle-shaped, 3 times as long as wide and 1.3 times as long as 10th (Fig. 339). Last segment of maxillary palpi looks as tiny spade, concave at apex, 2.1 times as long as wide (Fig. 340). Last segment of labial palpi dilated to oblique apex, about twice as long as wide, with concave upper margin and convex lower one (Fig. 341).

Pronotum 1.6 times as wide as long; anterior angles rectangular, rounded, posterior angles obtuse, rounded (Fig. 342). Lateral margins flattened. Pronotum trapeziform, with straight side lines and slightly bisinuate base, in dorsal view. Punctuation hardly visible on disc, surface mainly with small granules forming transverse wrinkles (Fig. 343); side surface with fine punctures between smoothed out wrinkles (Fig. 344).

Scutellum square. Elytra 1.4 times as long as wide and 2.3 times as long as pronotum. Interspaces equal in width, strongly convex, with tiny transverse wrinkles (Fig. 345). 1st and 2nd interspace not widened on declivity (Fig. 346). Striae very narrow, with round points.



**Figs 336-350.** *Xyletinus udmurtianus* sp. n., male. **336**, general view; **337**, frons; **338**, sculpture of frons; **339**, antenna; **340**, last segment of maxillary palpi; **341**, last segment of labial palpi; **342**, body, lateral view; **343**, sculpture of pronotal disc; **344**, sculpture of pronotal sides; **345**, interspace; **346**, apex of elytron; **347**, punctuation on metasternum; **348**, hind tibia and tarsus; **349**, aedeagus; **350**, genital ring, distal part. Scale: 0.1 mm (338, 340, 341, 343-345, 347); 0.2 mm (339, 348-350); 0.5 mm (337); 1.0 mm (336, 342, 346).

Metasternum convex mainly in distal part; distal median stria reaches the mesosternum as faint trace. Surface with large punctures (Fig. 347).

Legs. Femora not extending beyond elytral margins. Fore tibia thickened and curved to apex. Hind tarsus 0.75 times as long as tibia; 1st segment 1.5 times as long as 2nd one; 2nd segment 1.5 times as long as 3rd one; 3rd segment 1.6 times as long as 4th one; 4th segment dorsally with emargination not reaching the middle of segment; 5th segment slightly shorter and thinner than 2nd segment (Fig. 348).

Abdomen. 1st suture evenly curved backwards. Aedeagus: internal penial sac turned out, with a

pair of long spines and with few short ones. Parameres with short side outgrowths (Fig. 349). Distal projections of genital ring straight, finger-shaped, nearly 0.4 times as long as width of cross-piece (Fig. 350).

Length 3.6-3.9 mm, width 1.8-2.0 mm.

**Diagnosis.** The new species belongs to the group of black-coloured (including antennae and legs) beetles of *Xyletinus* s. str. with pubescence directed to apices on elytra, fine, uniform punctuation on pronotal disc, longitudinally wrinkled surface of frons, and short femora not extending beyond elytral margins. In addition to the new species, only *X. planicollis* Lohse, 1969, belongs

to this group. The new species differs from the latter in the trapeziform pronotum with wide flattened sides (sides of pronotum not flattened in *X. planicollis*), strongly convex interspaces (interspaces flat on the elytral disc in *X. planicollis*), and also in the shape of distal projections of genital ring, which look as small teeth in *X. planicollis*, but are rather long, straight, finger-shaped in *X. udmurtianus*.

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