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Some new palaearctic species of wood-borers from subfamily Ernobiinae (Coleoptera: Anobiidae)

Несколько новых палеарктических видов жуков-точильщиков подсемейства Ernobiinae (Coleoptera: Anobiidae)

I.N. Toskina
И.Н. Тоскина

P.O. Box 25, Moscow 107241 Russia.
А/я 25, Москва 107241 Россия.

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КЛЮЧЕВЫЕ СЛОВА: Coleoptera, Anobiidae, Ernobiinae, *Ernobius, Xestobium*, Палеарктика, новые виды, определительные таблицы.

ABSTRACT. Two new species (*Ernobius galasjevae, E. oculeus* spp.n.) and 1 subspecies (provisionally) (*E. pini tauricus* ssp.n.) of the genus *Ernobius* Thomson, 1859, as well as 3 new species of the genus *Xestobium* Motschulsky, 1845, (*X. (s.str.) luriei, X. pleshanovi, X. rafesi* spp.n.) are described from Palaearctic region. *Xestobium subaeneum* Reitter, 1897, is restored as valid species. The key of the genus *Ernobius* Thomson by Johnson [1975] is expanded with new species. The revised key is proposed for palaearctic species of the genus *Xestobium* Motschulsky (without species from Japan, Canarian Islands and North Africa).

РЕЗЮМЕ. Описаны 2 новых вида и 1 подвид (условно) рода *Ernobius* Thomson, 1859, и 3 новых вида рода *Xestobium* Motschulsky, 1845. Восстановлен видовой статус *Xestobium subaeneum* Reitter, 1897. Сделаны добавления в определительную таблицу Джонсона видов рода *Ernobius* Thomson и предложена переработанная определительная таблица палеарктических видов рода *Xestobium* Motschulsky (без японских, канарских и североафриканского видов).

When studying Anobiid collection of the Zoological Museum of the Moscow University (ZMUM) and various collections sent to me for identification I found some new species of Anobiidae subfamily Ernobiinae. In course of studying I used works of Reitter [1878, 1890, 1901], Español [1964, 1977a,b], Arnoldi [1965], Lohse et al. [1969], Israelson [1974], Johnson [1975], Halperin, Español [1978], Logvinovskij [1981, 1985], Español, Oromi [1984], and others, and also type-materials from the Hungarian Museum of National History (HMNH). The key of the genus *Ernobius* Thomson, 1859, by Johnson is expanded with two new species and one subspecies. New key is composed for palaearctic species of the genus *Xestobium* Motschulsky, 1845, and I used some new characters for this key.

Genus *Ernobius* Thomson, 1859

Ernobius galasjevae **sp.n.**
Figs 1–8.

Material. Holotype: ♂. [East Siberia], Buryatiya, Tankhoj. 20.8.[19]83. Spruce.(Galasjeva). ZMUM.

DESCRIPTION. General view. Head, antennal club, metasternum black; pronotum black with reddish apical margin; elytra, antennal flagellum, legs, and abdomen black-brown. Beetle slightly shining. Pubescence dark-grey, very tiny, appressed. Body 2.76 times as long as wide (Fig. 1).

Head. Frons convex, lowered vertically to arciform proximal margin of clypeus. Eyes irregularly oval, ordinary convex, separated by 1.7 vertical eye diameter. Antennae: 6th–8th segment very short; their length less (8th segment) or equal their width; 2nd–5th segment longitudinal, 3rd and 4th segment very thin. Club segments wider than flagella segments, and thickened on the apical ends. Length of 9th segment nearly equals the length of 3rd–8th segment combined, 10th segment a little longer than 9th one. 11th segment is lost (Fig. 2).

Pronotum narrower than elytra, 1.4 times as wide as long. Sides not flattened. Hind angles are at some distance from elytral base owing to curved side parts of basal margin. Front angles rounded, hind angles right (Fig. 3). Front margin raised a little; basal half with short longitudinal carina; front of this carina completed with tuberculum, which widens like a wedge from the front to sides a little. Base with narrow but distinct transversal depression. Surface covered with rather large and high granules and with weak reticulation between them (Fig. 4).

Scutellum small, semi-oval.

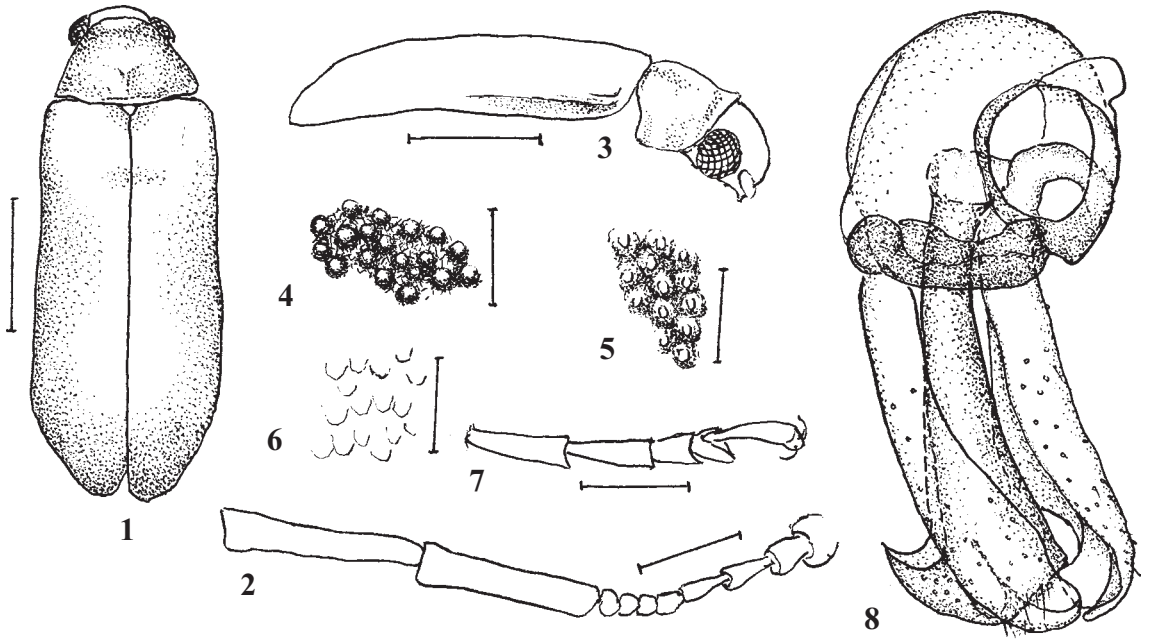
Elytra 2 times as long as wide and nearly 3.5 times longer than pronotum, parallel-sided, weakly compressed at sides. Surface with rather large and dense granulation (Fig. 5).

Metasternum shining, strongly convex, with distal middle pit and without longitudinal groove. Sculpture of surface looks like tender scales (Fig. 6).

Legs. Tarsi thin, weak; dorsal surface of 4th segment cut out on two-third of the segment length. Fifth segment thin, 4 times as long as wide and nearly equal to length of 2nd segment (Fig. 7).

Abdomen. Aedeagus as shown in Fig.8.

Length 3.45 mm, width 1.25 mm.



Figs 1–8. *Ernobius galasjevae* sp.n.: 1 — general view; 2 — antenna; 3 — body, lateral view; 4 — granulation on pronotal disk; 5 — granulation on elytral disk; 6 — surface of metasternum; 7 — protarsus; 8 — aedeagus. Scale: 0.1 mm (4–6), 0.2 mm (2, 7), 1mm (1, 3); x 120 (8).

Рис. 1–8. *Ernobius galasjevae* sp.n.: 1 — вид жука сверху; 2 — усик; 3 — вид тела сбоку; 4 — грануляция на диске переднеспинки; 5 — грануляция на диске надкрыльев; 6 — вид поверхности заднегруди; 7 — лапка передней ноги, 8 — эдеагус. Масштаб: 0,1 мм (4–6), 0,2 мм (2, 7), 1 мм (1, 3); x 120 (8).

DIAGNOSIS. New species is the most close to *Ernobius angusticollis* (Ratzeburg), from which it differs by following principal characters: more long body (body of *E. angusticollis* 2.3 times as long as wide); comparatively large eyes (eyes of *E. angusticollis* separated by 2.5 vertical eye diameters); different antennal segments (as to *E. angusticollis,* all flagellum segments longitudinal and the length of 6th–8th segment not distinguishes strongly); different structure of tarsi (*E. angusticollis* has the tarsal 4th segment broad and excavated on three quarters of segment length, and 5th segment 2.6 times as long as wide only); at last aedeagus with penis and parameres strongly differs from that of *E. angusticollis*. *E. galasjevae* differs from *Ernobius nigrinus* (Sturm) by hind angles being at some distance from elytral base and curved side margins of pronotum; by more long and thin 5th segment of tarsi; by a little different antennal segment (5th segment much shorter than the 4th one of *E. galasjevae*, and quite the reverse with *E. nigrinus*); and, of course, by different form of aedeagus.

Ernobius oculeus **sp.n.**
Figs 9–20.

Material. Holotype: ♂. Aimargues, Ga.m. Coll.Reitter. HMNH.

DESCRIPTION. General view. Whole beetle gingerish-brown, slightly shining, eyes light-coloured. Pubescence light-yellow, small, appressed. Body 2.5 times as long as wide (Fig. 9).

Head. Frons slightly convex, with little wrinkle at inner margin of eye. Clypeus with straight basal and apical margins. Eyes very big and bulging, separated by 1.3 vertical eye diameters (Fig. 10). Antennae longer than half of body and thin, all segments longitudinal; 4th segment the thinnest, 5th segment longer than 4th or 6th one and 3 times as long as wide. Every segment of 6th–8th about 2.5 times as long as wide. Club segments not wider than flagella segments; 9th segment as long as 6th–8th segment combined; 10th segment longer than the 9th one; 11th segment longer than the 10th one and as long as 5th–8th segment combined(Fig. 11). Last segment of maxillary palpi 2 times as long as wide, looks like little thick bar with sloping apex and finger-like outgrowth on inner margin; short chaetae surround the apex; surface with small tubercles (Fig. 12).

Pronotum 1.4 times as wide as long, with the basal part being the most convex, and narrow flattened sides. Fore and hind angles obtuse, rounded (Fig. 13). Basal margin with thin border. Pubescence tiny, hairs arranged in simple pattern (Fig. 14). Granulation tiny, dense excepting area of middle line, where granules are thinned out (Fig. 15).

Scutellum obtriangular.

Elytra parallel-sided, 2 times as long as wide and 3.2 times longer than pronotum. Surface with small sparse tubercles. Pubescence dual: it consists of appressed hairs and also very short vertical setae arranged irregularly (Fig. 16).

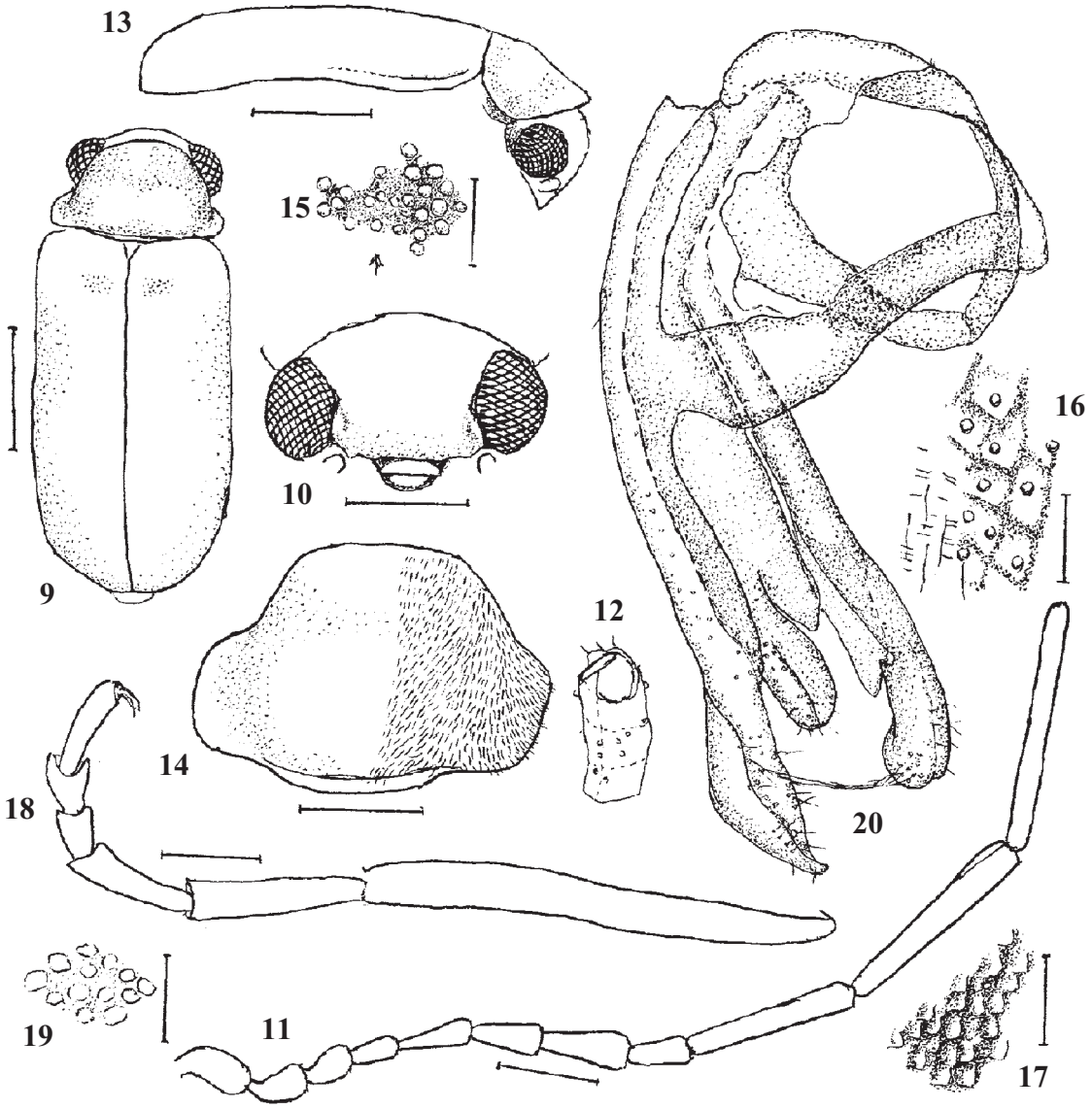
Metasternum. Side parts in thin longitudinal-oblique wrinkles, ordinary convex, with distal middle groove not reaching the metasternum centre; distal angle impressed. Surface with rather rough structure looking like tileslaying at central part.

Legs. Hind tarsus a little shorter than its tibia. Dorsal surface of 4th segment slightly excavated on apex; 5th segment long, thin, 1.5 times as long as the 4th one (Fig. 18).

Abdomen. Surface covered with slightly convex tuberculinus on 2nd sternite, as distinct from surface of metasternum (Fig. 19). Aedeagus as shown in Fig. 20. Penis without sharp narrowing of proximal part, and its apical lobes not widen; right paramere with big lobelike outgrowth.

Length 3.7 mm, width 1.5 mm.

DIAGNOSIS. New species is the most close to *Ernobius mollis* (L.) by tarsi structures and genital apparatus. But *Ernobius oculeus* sp.n differs from it by the following main characters: more closely disposed very big eyes (1.3 vertical eye diameter instead 1.5–1.6 in *E. mollis*), great difference of surface structures between metasternum and abdomen (these structures differ slightly in *E. mollis*); and as well by details of aedeagus. *E. oculeus* differs from recently described *E. vinolas* Novoa et Baselga, 2000, by slightly excavated 4th tarsal segment (dorsal surface of 4th tarsal segment excavated on two-third of the segment length in *E. vinolas*); by parallel-sided and longer elytra (elytra widening to slope and 1.8 times as long as wide in *E. vinolas*, whereas elytra 2 times as long as wide in *E. oculeus*); by different structures of aedeagus (lack of side lobe in right paramere, another form of penis in *E. vinolas* [Novoa, Baselga, 2000]).

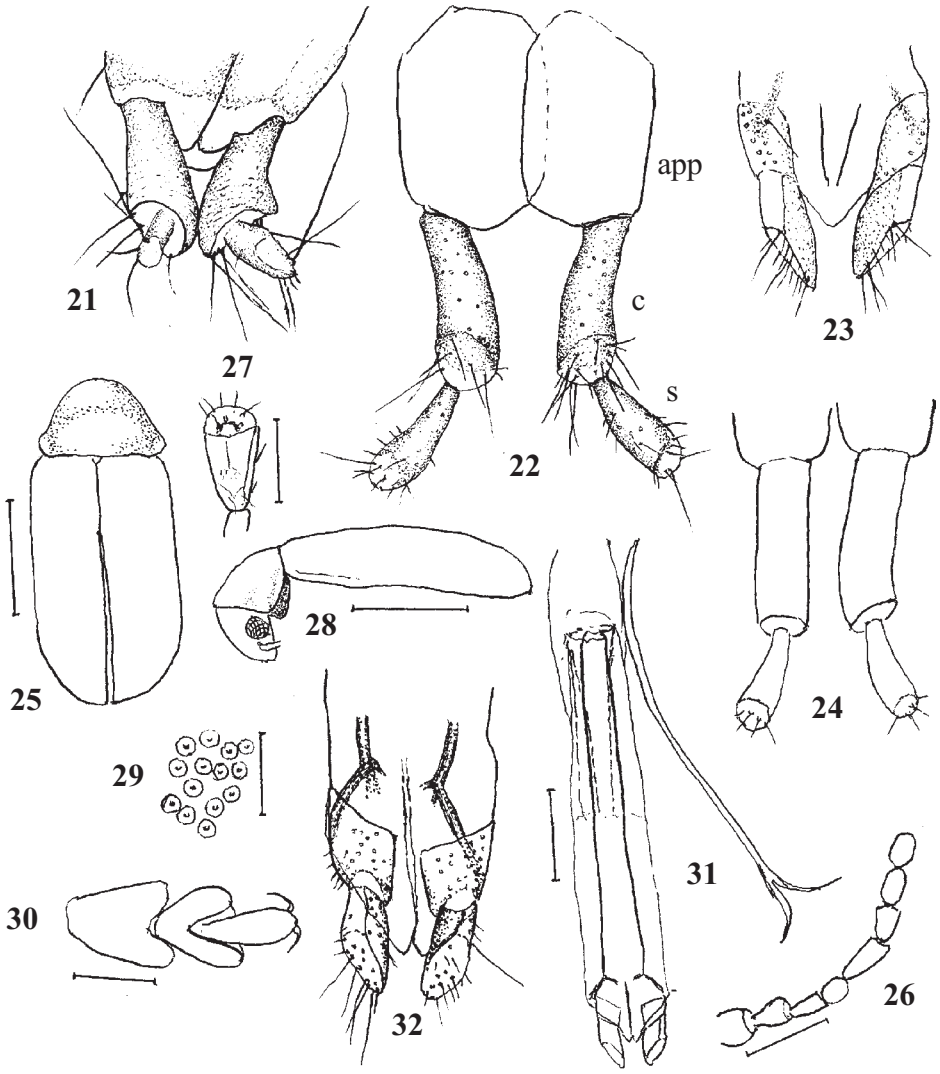


Figs 9–20. *Ernobius oculeus* sp.n.: 9 — general view; 10 — head, frontal view; 11 — antenna; 12 — last segment of maxillary palpi; 13 — body, lateral view; 14 — pronotum with pubescence pattern; 15 — granulation on pronotal disk, arrow shows a part of median line; 16 — view of surface of elytral disk with two types of pubescence hairs; 17 — structure of metasternum surface; 18 — hind tibia and tarsus; 19 — structure of surface of 2nd abdominal sternite; aedeagus. Scale: 0.1 mm (15–17, 19), 0.2 mm (11, 18), 0.5 mm (10, 14), 1 mm (9, 13); x 120 (12, 20).

Рис. 9–20. *Ernobius oculeus* sp.n.: 9 — вид жука сверху; 10 — голова, вид спереди; 11 — усик; 12 — последний членик челюстных щупиков; 13 — вид тела сбоку; 14 — переднеспинка с рисунком опушения; 15 — грануляция на диске переднеспинки, стрелкой показан участок средней линии; 16 — поверхность диска надкрыльев с двумя типами волосков опушения; 17 — структура поверхности заднегруди; 18 — голень и лапка задней ноги; 19 — структура поверхности 2-го брюшного стернита; 20 — эдеагус. Масштаб: 0,1 мм (15–17, 19), 0,2 мм (11, 18), 0,5 мм (10, 14), 1 мм (9, 13); x 120 (12, 20).

In the second half of XX century authors began to add figures of genital structures of Anobiidae males to description of external morphology in the majority of articles about systematic of Anobiidae. Particularly there are many excellent figures in articles of Español, as well as in articles of Israelson, Johnson, White and others. But very few authors were concerning with pseudopositor details for distinguishing Anobiidae females. Cymorek [1957] made microphotographs of pseudopositor ends of three females of *Anobium*. Difference is well visible between forms of styles of different *Anobium* species on these microphotographs. I used details of pseudopositor structures when described females of *Ptinomorphus* species [Toskina, 2001].

As to species of the genus *Ernobius*, Zacchi [1957] showed aedeagus and pseudopositor structures of *E. abietis* (Fabricius). I think it is useful to show still more figures of pseudopositor details of some known species: *E. explanatus* (Mannerheim) (Fig. 21), *E. mollis* (Linné) (Fig. 22), *E.pini* (Sturm) (Fig. 23), and as well, of *E. robusticornis* Mařan (Fig. 24) though the figure of latter is very primitive. On these figures one can easily see differences between forms and ratios in lengths of coxites and styles of various *Ernobius* species.



Figs 21–32. *Ernobius* spp.: 21 — *Ernobius explanatus* (Mannerheim): pseudopositor end; 22 — *Ernobius mollis* (Linné) (Krasnodar): the same (s — style, c — coxite, app — apical part of pseudopositor); 23 — *Ernobius pini* (Sturm): the same; 24 — *Ernobius robusticornis* Mařan: the same; 25–32 — *Ernobius pini tauricus* ssp.n., outline of body (25), antenna (26), last segment of maxillary palpi (27), body, lateral view (28), granulation on pronotal disk (29), end of protarsus (30), outline of pseudopositor (31), end of pseudopositor (32). Scale: 0.1 mm (27, 29, 30), 0.2 mm (26, 31), 1 mm (25, 28); x 120 (21–24, 32).

Рис. 21–32. *Ernobius* spp.: 21 — *Ernobius explanatus* (Mannerheim): конец ложного яйцеклада; 22 — *Ernobius mollis* (Linné) (Краснодар): то же (s — стиль, c — коксит, app — апикальная часть ложного яйцеклада); 23 — *Ernobius pini* (Sturm): то же; 24 — *Ernobius robusticornis* Mařan: то же; 25–32 — *Ernobius pini tauricus* ssp.n., контур тела (25), усик (26), последний членик челюстных щупиков (27), вид тела сбоку (28), грануляция на диске переднеспинки (29), конец передней лапки (30), контур ложного яйцеклада (31), конец ложного яйцеклада (32). Масштаб: 0,1 мм (27, 29, 30), 0,2 мм (26, 31), 1 мм (25, 28); x 120 (21–24, 32).

Ernobius pini tauricus **ssp.n.**
Figs 25–32.

Material. Holotype: ♀. The Crimea, Karadag. 7–8.06.1996. On UF light. (I.A. Solodovnikov). ZMUM. 2 Paratypes with the same labels in coll. I.A. Solodovnikov, Vitebsk.

I studied 3 specimens of females from Karadag (the Crimea), which resembled to *E. pini* (Sturm) by the most morphological features but differed from the latter by a number of characters. As a preliminary I supposed these beetles to be the Crimea subspecies of *E. pini: E. pini tauricus* ssp.n.

DESCRIPTION. General view. The whole beetle reddish-brown. Pubescence light-yellow, not dense, appressed. Body slightly shining, 2.4 times as long as wide (Fig. 25).

Head. Eyes separated by 1.7 vertical eye diameters. Antennae: all segments longitudinal; the 2nd segment claviform; 3rd segment 2 times, 4th segment 1.5 times, 5th segment about 3 times, 6th–8th segment 1.5 times as long as wide. Segments of club being lost (Fig.26). Last segment of maxillary palpi looks like goblet with depression on apex and with bump in its middle (Fig. 27).

Pronotum 1.5 times as wide as long. Fore angles right, hind ones obtuse; sides weakly flattened near hind angles (Fig. 28). Granulation fine umbilicate (i.e. granules with pit in the centre [Johnson, 1975]), not C-shaped, and rather dense on disk (Fig. 29).

Scutellum small, semi-oval.

Elytra 1.85 times as long as wide and 2.8 times longer than pronotum; parallel-sided.

Legs. Dorsal surface of the 4th tarsi segment strongly excavated; 5th segment 3 times as long as wide (Fig. 30).

Abdomen. Details of pseudopositor as shown in Figs 31, 32.

Length 2.7 mm, width 1.25 mm.

Unfortunately all specimens are in poor condition.

DIAGNOSIS. Named subspecies differs from the main species, *E. pini* (Sturm, 1837), by some characters: 4th antennal segment shortened; 5th tarsal segment shorter; more short forms of coxites, being enlarged to base. But the question about validity or not of this subspecies can be resolved finally only after investigating its male.

Some additions to other *Ernobius* species:

E. angusticollis (Ratzeburg) is found in Turkey.

E. explanatus (Mannerheim) is found in Buryatiya (East Siberia) in stone pine (leg. T.V.Galasjeva).

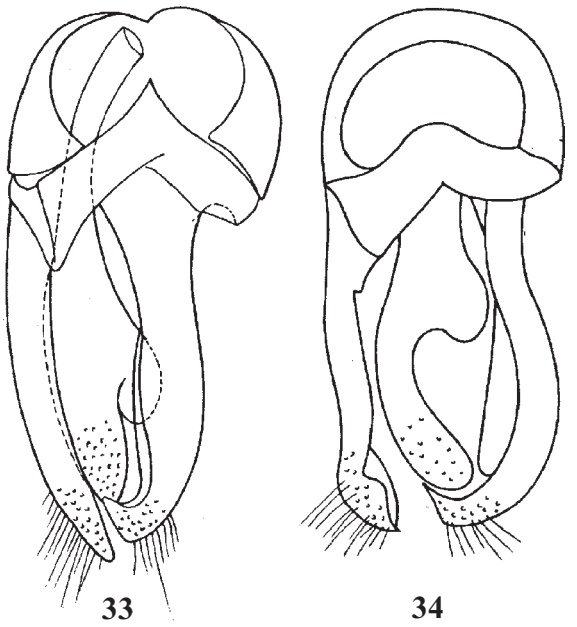
E. mollis (Linné) is found on Kunashir Island (Kuriles Islands (leg. N.B.Nikitsky). This species reaches length 5.4 mm and width 2.2 mm in Krasnodar Territory.

E. parens (Mulsant & Rey) is found in Tunisia.

E. gigas (Mulsant & Rey) can reach length 6.8 mm and width 2.5 mm.

ADDITIONS TO KEY OF THE GENUS *ERNOBIUS* THOMSON, 1859, BY JOHNSON [1975].

1. Antennal segments 6th–8th very short and slender, together up to half the length of segment 9 2
— Antennal segments 6th–8th never so short 13
2.Very small…species 3
— Larger and broader species, over 3 mm in length ..... 4...
4. Larger species, 4.5–7 mm 5
— Smaller species, 3.0–4.0 mm… Colour typically entirely black, the elytra often lighter ..... 6...
6. Base of the pronotum with a transverse depression 7
— Base of the pronotum without transverse depression ... 9
7. Front angles of the pronotum distinct, due to the sides before them being strongly sinuate; elytra more elongate, c. 2.5 times as long as broad ..... *E. longicornis* (Sturm, 1837)
— Front angles of the pronotum effaced, sides not sinuate; elytra not so elongate, c. twice as long as broad; antennae usually black 8
8. Pronotum narrower than elytra 8a
— Pronotum as broad as the elytra; eyes not strongly protruding and separated by 1.6 (♂) vertical eye diameter. Aedeagus — Fig. 33 [Español, 1977a] .... *E. nigrinus* (Sturm,1937)
8a. Eyes strongly protruded. Aedeagus — Fig. 34 [Español, 1977b]. Tyrolean Alps of Austria and Italy .... *E. freudei* Lohse, 1970
— Eyes moderately protruded, separated by 1.7 vertical eye diameters. Hind angles of pronotum are at some distance from elytral base; front margin raised a little. Dorsal surface of the 4th tarsal segment excavated on two-third of the segment length; 5th segment thin, 4 times as long as wide. Aedeagus as shown in Fig. 8. Mainly black-brown; head, antennal club, and metathorax black; pubescence dark-grey. Length 3.45 mm, width 1.25 mm. East Siberia: Buryatiya ..... *E. galasjevae* sp.n....



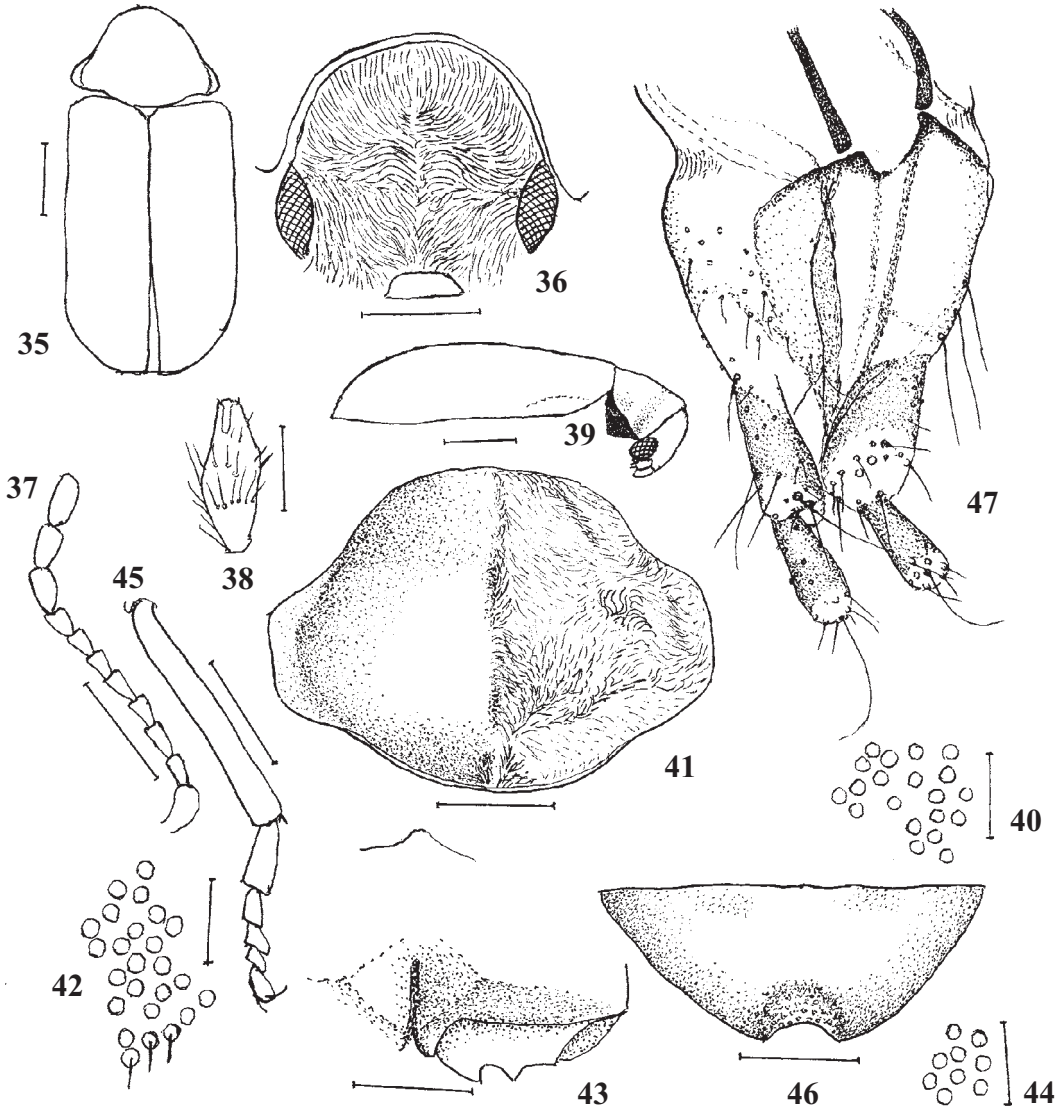
Figs 33–34. Aedaeagi of *Ernobius* spp.: 33 — *Ernobius nigrinus* (Sturm) (after Español, 1977a); 34 — *Ernobius freudei* Lohse (after Español, 1977b).

Рис. 33–34. Эдеагусы *Ernobius* spp.: 33 — *Ernobius nigrinus* (Sturm) (по Эспаньолу [Español, 1977a]); 34 — *Ernobius freudei* Lohse (по Эспаньолу [Español, 1977b]).

13. Dorsal surface of the 4th tarsal segment with apical cut out not or barely surpassing the middle 14
— Dorsal surface of the 4th tarsal segment with apical cut out, clearly surpassing the middle segment (as a rule occupying three-quarters of the segment length) 19
14. Front tibiae conspicuously curved inwards 15
— Front tibiae straight, the apex clearly turned outwards ..... 16...

16. Bright yellowish-brown, very shining .... *E. lucidus* (Mulsant & Rey, 1863)
— Reddish-brown species, not so brilliantly shining 17
17. Size larger, 5.0–6.0 mm...
— Size smaller, 3.0–5.0 mm; pronotum not or only narrowly explanate at the sides which are not …strongly rounded. The 8th antennal segment under half the length of 9th one 18
18. Pronotum finely granulated 18a
— Pronotum coarsely granulated .... *E. mollis espanoli* Johson, 1975

18a. Eyes separated by 1.5–1.6 vertical eye diameter. Structure of metasternal surface hardly differs from structure of abdominal one ..... E. mollis (Linné, 1758)
— Eyes separated by 1.3 vertical eye diameters. Structure of metasternal surface quite coarser than structure of abdominal one. Aedeagus — Fig.20. Beetle gingerish-brown. Length 3.7 mm, width 1.5 mm. South France ..... *E. oculeus* sp.n.
19. …— Posterior margin of pronotum more or less straight 21
21….— 7th and 8th antennal segment strongly differ from club segments ..... 23...



Figs 35–47. *Xestobium luriei* sp.n.: 35 — body outline; 36 — frons with pubescence pattern; 37 — antenna; 38 — last segment of maxillary palpi; 39 — body, lateral view; 40 — granulation on disk of pronotum; 41 — pronotum with pubescence pattern; 42 — granulation on elytral disk; 43 — median groove on metasternum and metafemoral plaque; 44 — granulation on surface of metasternum; 45 — hind tibia and tarsus; 46 — 5th abdominal sternite; 47 — end of pseudopositor. Scale: 0.1 mm (38, 40, 42, 44), 0.5 mm (36, 37, 41, 43, 45, 46), 1 mm (35, 39); x 120 (47).

Рис. 35–47. *Xestobium luriei* sp.n.: 35 — контур тела; 36 — лоб с рисунком опушения; 37 — усик; 38 — последний членик челюстных щупиков; 39 — вид тела сбоку; 40 — грануляция на диске переднеспинки; 41 — переднеспинка с рисунком опушения; 42 — грануляция на диске надкрыльев; 43 — срединная бороздка заднегруди и бедреная покрышка; 44 — грануляция на поверхности заднегруди; 45 — голень и лапка задней ноги; 46 — 5-й брюшной стернит; 47 — конец ложного яйцеклада. Масштаб: 0,1 мм (38, 40, 42, 44), 0,5 мм (36, 37, 41, 43, 45, 46), 1 мм (35, 39); x 120 (47).

23…— ... Protruding part 2–3 times as long as the greatest breadth of the 5th tarsal segment 30
30….— Pronotum clearly granulate 31
31. Umbilicate granules on the centre of pronotum predominantly C-shaped 32
— Umbilicate granules on the centre of pronotum predominantly circular ..... .33, 33a
32. Bright yellowish-brown, very shining...
— Reddish-brown, somewhat dull, pronotum narrowly explanate at the sides, hind angles more angularly curved ..... *E. pini* (Sturm, 1837)
33. Pronotum reticulate, broadly explanate at the sides, including the front angles...
33a. Pronotum slightly explanate at the hind angles; anterior angles right. Pronotum 1.5 times as wide as long. Protruding part of 5th tarsal segment only two times as long as its greatest breadth. End of pseudopositor as shown in Fig. 32. The whole beetle reddish-brown. Length 2.7 mm, width 1.25 mm. The Crimea: Karadagh .... *Ernobius pini tauricus* ssp.n.
— Pronotum at the most narrowly explanated at the sides, explanation having petered out at the front angles, which are effaced 34

Genus *Xestobium* Motschulsky, 1845

Xestobium luriei **sp.n.**
Figs 35–47.

Material. Holotype: ♀. Chita Prov., Usugli, 7.VI.1958 (M.Lurie), *Xestobium rufovillosum* (V.Zherikhin det.). ZMUM.

DESCRIPTION. General view. Elytra very dark brown, scutellum and space around it black, dull; head, pronotum, and lower surface nearly black; antennae, mouths palpi, and tarsi ends brown. Surface slightly shining, except scutellum and space around it. Pubescence appressed, pale-grey, shining, arranged in spots on elytra. Body 2.6 times as long as wide (Fig. 35).

Head. Frons clearly convex in the middle over eyes. Pubescence pattern on frons as shown in Fig. 36. Eyes oval, separated by 2.1 vertical eye diameter. Antennae: all segments longitudinal, club small; 6th–8th segment, particularly the 8th one the shortest. 9th segment (first segment of club) shorter than 7th and 8th segments combined, 11th segment about as long as 7th and 8th segments combined (Fig. 37). Last segment of maxillary palpi 2.6 times as long as wide, nearly of rhomboid form, with blunt apex; outside surface with transversal rows of chaetae (Fig. 38).

Pronotum 1.37 times as wide as long, not wider than elytra. Sides flattened, base with very thin board and slightly sinuate before hind angles. Fore angles right, hind ones strongly rounded (Fig. 39). Surface covered with rather large and dense granules, separated by 0.25–1 granule diameter (Fig. 40). Pubescence pattern without coarse bundles or fanshaped arrangements of hairs over sinuated parts of base (Fig. 41).

Scutellum nearly obtriangular, slightly pubescent.

Elytra 2.1 times as long as wide and 3.1 times longer than pronotum. Silver hairs of pubescence arranged in spots. Surface with dense granules, being a little larger than those on pronotum; granules separated by 0.25–1 granule diameter (Fig.42).

Metasternum with distal median groove hardly reaching middle of metasternum (Fig. 43). Surface with dense granulation, with sizes and density similar to granulation on pronotum (Fig. 44).

Legs. Metafemoral plaque with small tooth. Tibiae with two short spurs. Metatarsi 0.7 times as long as the tibiae. First segment of metatarsus 2 times as long as 2nd one; 2nd segment 1.5 times as long as 3rd one, and the latter 1.3 times as long as strongly cut out 4th segment; 5th segment broad and nearly as long as the 2nd one (Fig. 45).

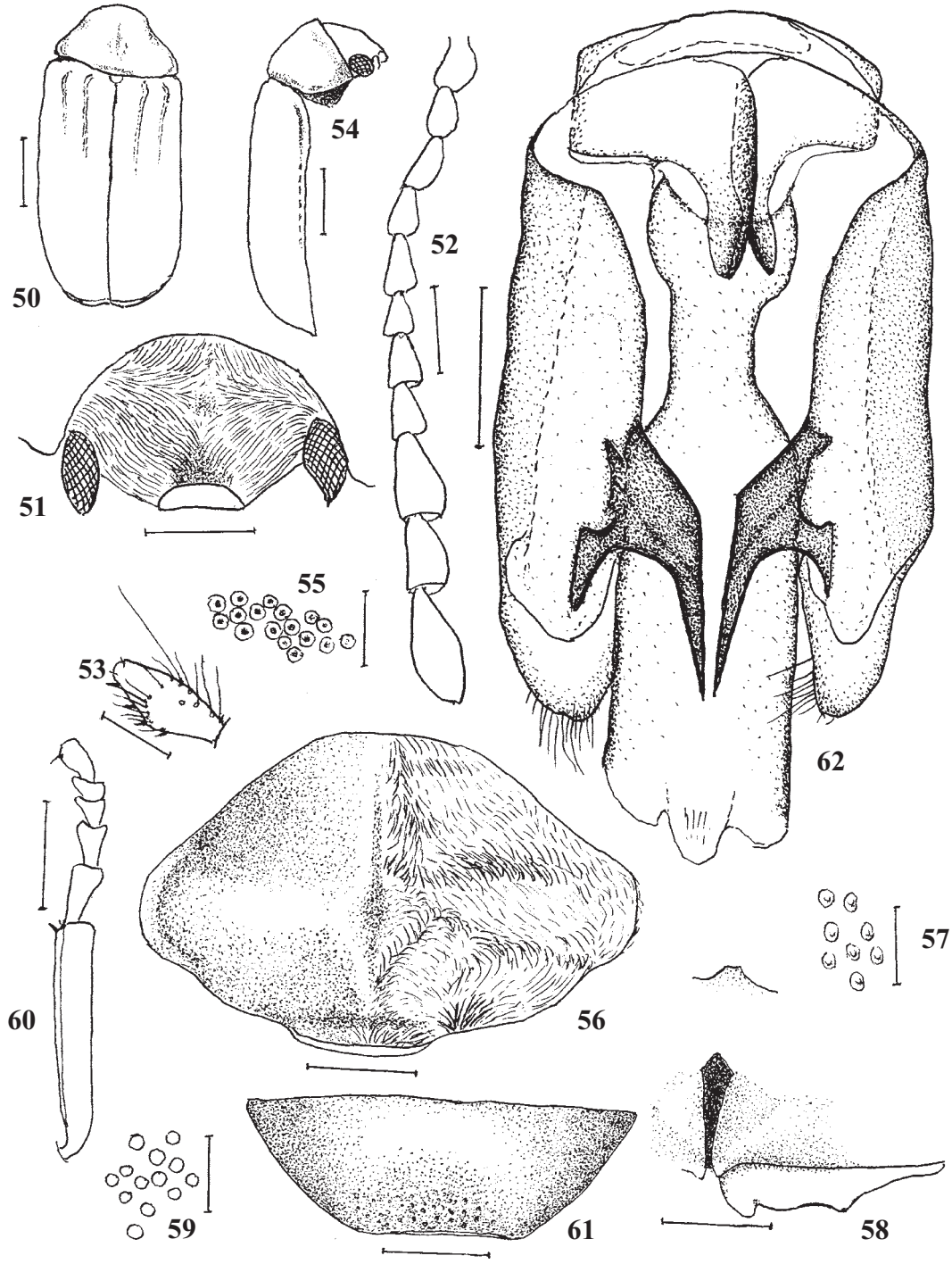
Abdomen. Apical part of 5th abdominal sternite being strongly convex; granulation uneven: basal half with small and dense granules, apical part with thinned out and twice more large granules (Fig. 46). Details of pseudopositor structures: coxites a little longer than styles, and apical part of pseudopositor tube shorter than the length of coxite and style combined (Fig. 47).

Length 5.2 mm, width 2 mm.

DIAGNOSIS. New species differs from *Xestobium rufovillosum* (DeGeer) by a series of characters. Principal of them are the following. Eyes broadly disposed and separated by 2.5 vertical eye diameters in *X. rufovillosum* (2.1 vertical eye diameters in *X. luriei*); 5th abdominal sternite with thin border along apex margin in *X. rufovillosum* (Fig. 48) (apex of 5th sternite being bulged in *X. luriei*); pseudopositor: coxites a little shorter than styles, and the total length of coxite and style is much shorter than apical part of pseudopositor tube in *X. rufovillosum* (Fig. 49) (all just the other way about in *X. luriei*).

Figs 48–49. *Xestobium rufovillosum* (DeGeer): 5th abdominal sternite (48), end of pseudopositor (49). Scale: 0.5 mm (48); x 120 (49).

Рис. 48–49. *Xestobium rufovillosum* (DeGeer): 5-й брюшной стернит (48), конец ложного яйцеклада (49). Масштаб: 0,5 мм (48); x 120 (49).



Figs 50–62. *Xestobium pleshanovi* sp.n.: 50 —general view; 51 — frons with pubescence pattern; 52 — antenna; 53 — last segment of maxillary palpi; 54 — body, lateral view; 55 — granulation on disk of pronotum; 56 — pronotum with pubescence pattern; 57 — granulatiom on elytral disk; 58 — median groove on metasternum and metafemoral plaque; 59 — granulation on surface of metasternum; 60 — hind tibia and tarsus; 61 — 5th abdominal sternite; 62 — aedeagus. Scale: 0.1 mm (53, 55, 57, 59), 0.2 mm (52,62), 0.5 mm (51, 56, 58, 60,61), 1 mm (50, 54).

Рис. 50–62. *Xestobium pleshanovi* sp.n.: 50 — вид жука сверху; 51 — лоб с рисунком опушения; 52 — усик; 53 — последний членик челюстных щупиков; 54 — вид тела сбоку; 55 — грануляция на диске переднеспинки; 56 — переднеспинка с рисунком опушения; 57 — грануляция на диске надкрыльев; 58 — срединная бороздка заднегруди и бедреная покрышка; 59 — грануляция на поверхности заднегруди, 60 — голень и лапка задней ноги; 61 — 5-й брюшной стернит; 62 — эдеагус. Масштаб: 0,1 мм (53, 55, 57, 59), 0,2 мм (52,62), 0,5 мм (51, 56, 58, 60–61), 1 мм (50, 54).

Xestobium pleshanovi **sp.n.**
Figs 50–62.

Material. Holotype: ♂. Irkutsk Prov., Kachug Distr., Village Alinak, coll. No 356, 31.VII. [19]62. (A.Pleshanov). ZMUM.

DESCRIPTION. General view. Elytra, legs (except coxae), abdomen dark-brown; pronotum dark-brown with apex more light; head, thorax and coxae black; antennae and mouth palpae yellowish-brown. Eyes reddish shining. Body slightly shining. Pubescence appressed, partly grey (place around scutellum, pronotum except base), partly pale-yellow (base of pronotum, scutellum, spots on elytra), partly spots on elytra being covered with hardly seen dark hairs. Body 2.45 times as long as wide (Fig. 50).

Head. Frons convex with triangular depression over the clypeus and with rounded dent at the level of eye apices. Pubescence pattern on the frons as shown in Fig. 51. Eyes irregularly oval, separated by 2.3 vertical eye diameters. Antennae: all segments longitudinal; the 3rd, 5th, and 7th segments longer than neighbouring ones. Club segments 1.5 times thicker than flagellum segments; 9th segment shorter than the length of 7th and 8th segments combined; 10th segment shorter than the 9th one; 11th segment longer than 7th and 8th segments combined, and shorter than the three last flagellum segments combined (Fig. 52). Last segment of maxillary palpi 2.2 times as long as wide, with strongly convex upper side and slightly lower one; with transversal crown of chaetae a little farther than middle, with some short chaetae near top; with row of hairs and 1 very long chaeta arranged along lower side (Fig. 53).

Pronotum 1.4 times as wide as long, a little narrower than elytra. Sides narrowly flattened. The base with 2 pairs of sinuations and thin board between the sinuations nearest to the middle. Fore angles right, a little reflexed to the lower side of the head; hind angles obtuse, rounded (Fig. 54). Surface with dense granulation (Fig. 55), granules smaller nearly to base. Pubescence forming rather clear pattern: fanshaped arrangement of hairs above first sinuation of base and two long transversal "plaits" going from centre to the sides (Fig. 56).

Scutellum semi-oval, pubescent.

Elytra 2 times as long as wide and 3.1 times longer than pronotum. Surface with tender granulation, granules separated by 1 granule diameter on elytral disk (Fig. 57). Punctures being present on lateral parts and on declivity.

Metasternum. Distal median groove dilated to middle of metasternum and ends like arrow (Fig. 58). Surface covered with granules, separated by 0.5–1 granule diameter in the centre of metasternum (Fig. 59).

Legs. Metafemoral plaques with small tooth. Tibiae with two long spurs. Metatarsi about 0.7 times as long as the tibiae. First segment of metatarsi 1.5 times as long as the 2nd one; also 2nd segment longer than 3rd one and 3rd segment longer than 4th one, i.e. 1.5 times longer than 4th segment; 5th segment about as long as the 2nd segment (Fig. 60).

Abdomen. Apical half concave and basal half convex in 5th abdominal sternite. Abdominal sternites with granulation. Granules being small on convex part and getting sparser and 2 times larger on concave part nearly apex (Fig. 61). Form of aedeagus (Fig. 62) is close to *Xestobium elegans* Logvinovskij, 1981, but differs from the latter by different form of penis and by absence of a little median tooth in parameres.

Length 5.4 mm, width 2.2 mm.

DIAGNOSIS. New species differs from *Xestobium luriei* sp.n. and *X. elegans* Logvinovskij by following the most important characters: frons with triangular depression above clypeus; base of pronotum with 2 pairs of sinuations; granules on basal part of pronotum smaller than on its disk; pubescence on pronotum is characterized by transversal "plaits"; metasternum with arrow-shaped distal median groove; 5th abdominal sternite convex in basal half and with sparse and more large granules in apical part.

Xestobium rafesi **sp.n.**
Figs 63–75.

Material. Holotype: ♀. Irkutsk Prov., Badan factory, 15.VI. [19]48 (P.Rafes). Siberian stone pine forest. ZMUM.

DESCRIPTION. General view. Head, pronotum, metasternum blackish-brown; elytra, tibiae dark reddish-brown; antennae, ends of mouth palpi, and tarsi reddish-brown, abdomen reddish. Elytra and particularly lower side shining. Pubescence appressed, light-grey, hairs being arranged with spots on elytra; pronotum with yellowish pubescence. Body 2.7 times as long as wide (Fig. 63).

Head. Frons slightly convex, with weakly transversal depression a little over eyes; pubescence pattern on frons as shown in Fig. 64. Eyes irregularly oval, separated by 2 vertical eye diameters. Antennae: all segments longitudinal; 3rd and 5th segments longer than 4th and 6th ones correspondingly. The 7th and 8th segments are the largest, being longer and thicker than the rest of funicle segments. Club consists of small segments; 9th segment shorter than length of 7th and 8th segment combined; 10th segment shorter than 9th one; 11th segment a little longer than 7th and 8th segments combined (Fig. 65). Last segment of maxillary palpi of irregular nearly rhomboid shape, 1.8 times as long as wide, with transversal rows of long chaetae, and with longitudinal rows of short chaetae on basal half of palpi; with row of hairs and 1 very long chaeta arranged along lower side (Fig. 66).

Pronotum about 1.5 times as wide as long, not wider than elytra, with sides being narrowly flattened. Base arcuate, with very thin board, and with sinuations before hind angles. Fore angles right, slightly a little rounded, hind angles obtuse, rounded (Fig. 67). Basal part of pronotum broadly flattened; pronotum bulging in the middle. Pattern of pronotal pubescence without fanshapedly arranged hairs above basal sinuations (Fig. 68). Surface being covered with densely arranged granules separated by 0.25–0.5 granule diameter (Fig. 69).

Scutellum semi-oval, pubescent.

Elytra 2.17 times as long as wide and 3.25 times longer than pronotum. Disk with rows (mainly longitudinal) of small tubercles, separated by 1–2 tubercle diameters (Fig. 70).

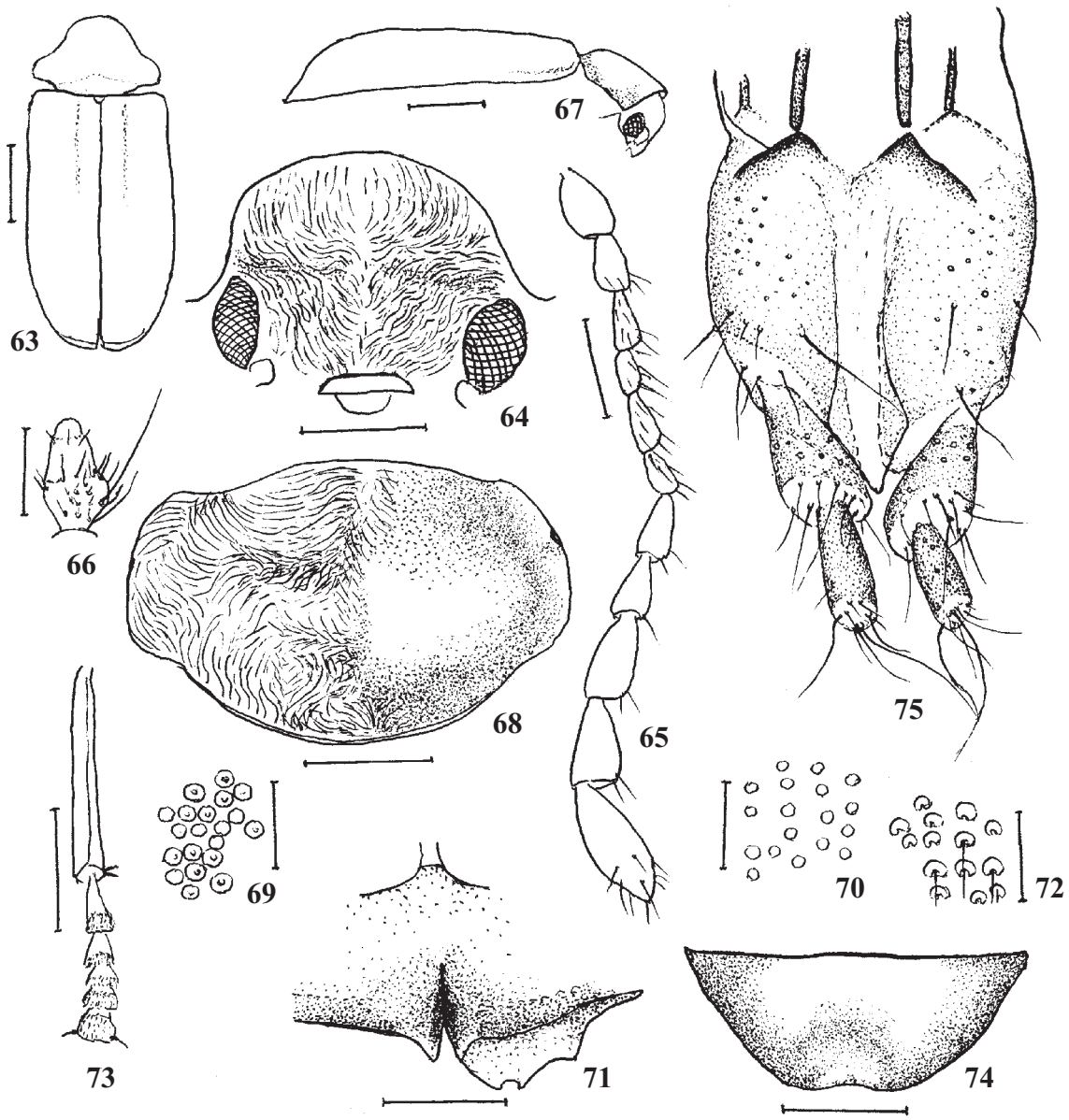
Metasternum. Distal median groove hardly reaches the metasternal centre, being thin, slightly dilated distally, and situated in depression of rhomboid form (Fig. 71). Surface with granulation, granules being C-shaped and separated by 0.5–1 diameter of granule (Fig. 72).

Legs. Metafemoral plaque with small tooth. Tibia with two spurs. Metatarsus about 0.7 times as long as the tibia; 1st segment 2 times as long as the 2nd one; 2nd segment 1.5 times as long as the 3rd one; 4th segment broader than the 3rd one and its length nearly equals to the length of 3rd one; 5th segment wide and with large pulvinus of hairs, its length equals to the length of 2nd segment.

Abdomen. Fifth sternite with apical margin being raised and sinuated forward, without visible changing of granulation (Fig. 74). Pseudopositor: styles nearly cylindrically shaped; coxites strongly dilating to apex and looking like an oblique cone, and being longer than style. Apical part of pseudopositor tube longer than the length of coxite and style combined (Fig. 75).

Length 4.9 mm, width 1.8 mm.

DIAGNOSIS. New species differs from other Siberian species by series of morphological characters, and first of all by very short pronotum (1.5 times as wide as long in *X. rafesi* sp.n., and 1.4 times or less as wide as long in *Xestobium luriei* sp.n. and in *Xestobium pleshanovi* sp.n.). New species differs from *X. luriei* also by the greater but not the lesser sizes of 7th and 8th antennal segments, by more sparse and fine granulation on elytra, by homogeneous granulation on 5th abdominal sternite, by the special features of pseudopositor structures (conic shape of coxites, different ratio of lengths of coxites and styles to apical part of pseudopositor tube). *X. rafesi* differs also from *X. pleshanovi* by pattern of pronotum pubescence (absence of fanshaped arranging of hairs above base), by simple form without arrow-shaped end of distal median groove on metasternum, by different form of 5th abdominal sternite, being convex at apical part and not at basal half.

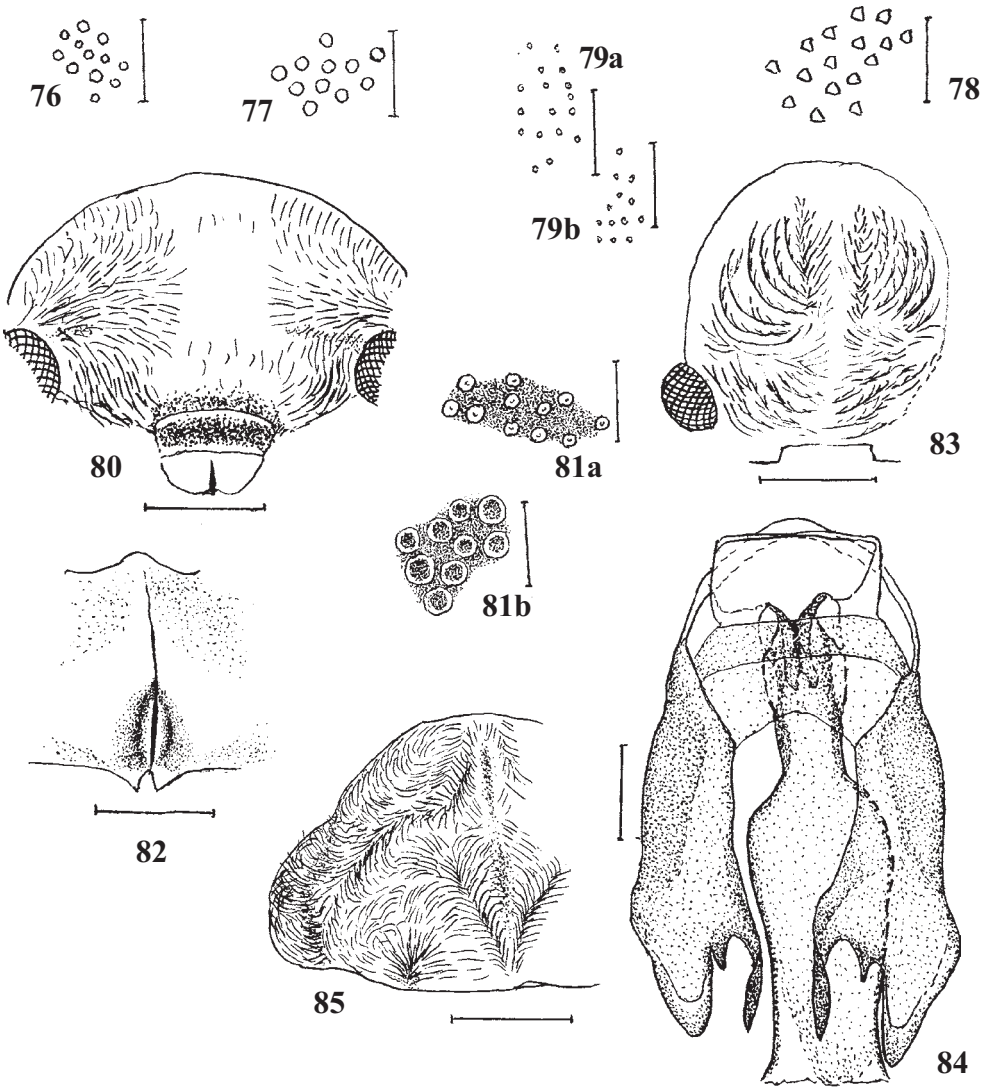


Figs 63–75. *Xestobium rafesi* sp.n.: 63 — body outline; 64 — frons with pubescence pattern; 65 — antenna; 66 — last segment of maxillary palpi; 67 — body, lateral view; 68 — pronotum with pubescence pattern; 69 — granulation on disk of pronotum; 70 — granulation on elytral disk; 71 — median groove on metasternum and metafemoral plaque; 72 — granulation on surface of metasternum; 73 — hind tibia and tarsus; 74 — 5th abdominal sternite; 75 — end of pseudopositor. Scale: 0.1 mm (66, 69, 70, 72), 0.2 mm (65), 0.5 mm (64, 68, 71, 73, 74), 1 mm (63, 67); x 120 (75).

Рис. 63–75. *Xestobium rafesi* sp.n.: 63 — контур тела; 64 — лоб с рисунком опушения; 65 — усик; 66 — последний членик челюстных щупиков; 67 — вид тела сбоку; 68 — переднеспинка с рисунком опушения; 69 — грануляция на диске переднеспинки; 70 — грануляция на диске надкрыльев; 71 — срединная бороздка заднегруди и бедреная покрышка; 72 — грануляция на поверхности заднегруди; 73 — голень и лапка задней ноги; 74 — 5-й брюшной стернит; 75 — конец ложного яйцеклада. Масштаб: 0,1 мм (66, 69, 70, 72), 0,2 мм (65), 0,5 мм (64, 68, 71, 73, 74), 1 мм (63, 67); x 120 (75).

Species of the genus *Xestobium* hardly differ by antennae (as distinct from *Ernobius* species) and by pronotum or elytra form. In all probability that is why some valid species were regarded as synonyms of other species described before. *Xestobium* species are so resembling to each other that, for example, *Xestobium africanum* Español, 1964, first was described by author as subspecies of *Xestobium rufovillosum* (DeGeer) (because of differences in male's aedeagus) [Español, 1964]. And only after long time *X. africanum* got the status of the original species [Español, Oromi, 1984].

On the other hand, form of metasternal distal median groove, type of metasternal surface and of 5th abdominal sternite often can be used as good characters. Pattern of pronotal pubescence also is a good character, as was shown by Israelson [1974]. *Xestobium subaeneum* Reitter, 1897, was stated as synonym to *Xestobium plumbeum* (Illiger, 1801) by Español [1964]. I compared *X. (H.) plumbeum* (Ill.) with type of *X. (H.) subaeneum* Reitter and arrived at the conclusion about validity of *X. (H.) subaeneum* Reitter. First of all, ratio of body length to its width 2.6 in *X. plumbeum* and 2.3 in *X. subaeneum*; secondly, very small and sparse puncturation on metasternum of *X. subaeneum* (Figs 76–79); thirdly, 5th abdominal sternite in puncturation and without two groups of coarse hairs in *X. subaeneum*, whereas 5th abdominal sternite



Figs 76–85. 76–77 — *Xestobium plumbeum* (Illiger); 78–79 — *Xestobium subaeneum* Reitter; 80–82 — *Xestobium rufovillosum* (Degeer); 83–84 — *Xestobium elegans* Logvinovskij; 85 — *Xestobium declive* (Dufour): puncturation on disk of pronotum (76, 78), puncturation on metasternum, in the centre (a) and on side parts (b) (77, 79a,b), frons with pubescence pattern (80, 83), granulation on disk (81a) and at base (81b) of pronotum, pubescence pattern on pronotum (85), median groove on metasternum (82), aedeagus (84). Scale: 0.1 mm (76–79, 81), 0.2 mm (84), 0.5 mm (80, 82, 83, 85).

Рис. 76–85. 76–77 — *Xestobium plumbeum* (Illiger); 78–79 — *Xestobium subaeneum* Reitter; 80–82 — *Xestobium rufovillosum* (Degeer); 83–84 — *Xestobium elegans* Logvinovskij; 85 — *Xestobium declive* (Dufour): пунктировка на диске переднеспинки (76, 78); пунктировка на заднегруди — в центре (а) и на боковых частях (б) (77, 79 а, б), лоб с рисунком опушения (80, 83), грануляция на переднеспинке на диске (81а) и близ основания (81б), рисунок опушения переднеспинки (85), срединная бороздка на заднегруди (82), эдеагус (84). Масштаб: 0,1 мм (76–79, 81), 0,2 мм (84), 0,5 мм (80, 82, 83, 85).

with granulation and with two groups of large, coarse hairs in *X. plumbeum*. Unfortunately, type specimen of *X. subaeneum* (HMNH) is a female, therefore comparative analysis of genital apparatus of both species is not possible at present.

The situation with *Xestobium circassicum* Reitter, 1890, is not clear. F. Español considered *X. circassicum* as individual variation of *X. subincanum* Reitter [Español, 1964, 1977b]. But Reitter described *X. circassicum* as possessing more flattened sides of pronotum than *X. subincanum*. Form of pronotum is considered as significant characteristic of species. According to description of Reitter, *X. circassicum* have no blackish hairs spots at apical and basal pronotal margins [Reitter, 1890]. I did not see the type specimen of *X. circassicum* that is why I could not solve this problem.

I considered it to be useful to offer some figures of frons and pronotum pubescence and genital structures of early known species. As a result I propose a new key for species of the genus *Xestobium*. In addition this key has been prepared using the keys and some data from works by Reitter [1901], Español [1964], Lohse et al. [1969], Logvinovskij [1985].

Key to palaearctic species of the genus *Xetobium* Motschulsky, 1845 from Europe and Asia except Japan and Canary Islands.

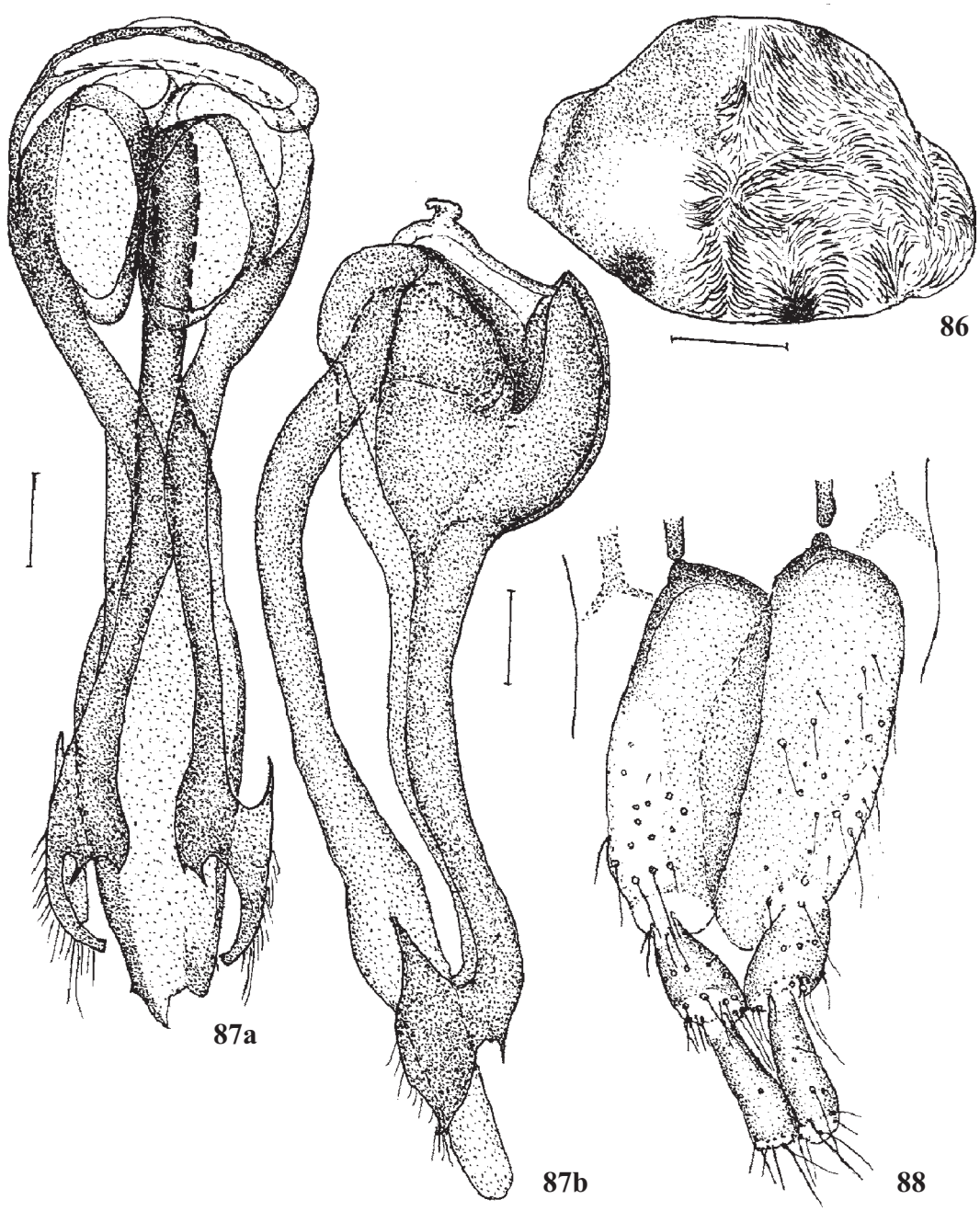
1(18). Upper surface with appressed pubescence. Light hairs usually arranged in spotted pattern.
2(11).Upper surface covered with granules only.
3(6). Fifth abdominal sternite with border and evenly convex on the rest of sternite.
4(5). Fifth abdominal sternite with thin border along apex margin only. Frons transversally convex above clypeus. Pubescence pattern hardly seen (Fig. 80). Pronotum with uneven granulation: granules 1.5–2 times wider near base than on disk, and broadly umbilicate (Fig.81 a, b). Flattened sides of pronotum with dense pubescence as distinct from the rest of pronotum surface. Metasternal distal median groove without carina in the centre and goes long over metasternal centre (Fig. 82). Femurs and tibiae flattened, tarsi broad. Genital structures: parameres of aedeagus with two long branches [Español, 1964; Lohse et al., 1969]. Very dark brown, tinged with reddish. Length 5–9 mm. West Europe, southwest of East Europe, Turkey ..... *X. rufovillosum* (DeGeer, 1774)
5(4). Fifth abdominal sternite with thin border on the whole edge of sternite. Frons coming down slopingly to clypeus; pubescence pattern looks like two longitudinal "plaits" in the middle upper half of frons (Fig. 83). Granulation similar on disk and nearly the base of pronotum. Pubescence on flattened sides of pronotum not strongly different from pubescence on the rest surface, where pubescence is poor. Metasternal distal median groove with flat carina in the centre and short, hardly reaching centre of metasternum. Femurs and tibiae flattened; tarsi narrow [Logvinovskij, 1981]. Aedeagus as shown in Fig. 84. Length 4.4–6.5 mm. Blacky-brown. Far East .... *X. elegans* Logvinovskij, 1981
6(3). Fifth abdominal sternite unevenly convex.
7(8). Fifth abdominal sternite being convex at basal half. Apical lowered part with more large and sparse granules than on the rest of surface. Frons with triangular depression above clypeus. Pronotal base with two pairs of sinuations; pubescence forms fanshaped arrangement of hairs above the central pair of sinuations. Metasternum with distal median arrow-shaped groove. Aedeagus as shown in Fig. 62. Dark brown, pronotum blackish-brown, head, thorax, and coxae black. Length 5.4 mm, width 2.2 mm. Siberia: Irkutsk Prov ..... *X. pleshanovi* sp.n.
8(7). Fifth abdominal sternite being convex in apical part. Pubescence pattern on pronotum without fanshaped arrangements of hairs above the central basal sinuation.
9(10). Granulation on apical part of 5th abdominal sternite much noticeable than on the rest of surface. Elytral length 2.1 times as long as wide and 3.1 times longer than pronotum. Frons convex, almost with a little knoll over the eyes. The 7th and 8th antennal segment shorter than each of previous segments of flagellum. Pronotum long, and 1.37 times as wide as long. Elytra with dense granulation; granules a little larger than those on pronotum, and separated by 0.25–1 granule diameter. Length of apical part of pseudopositor shorter than lengths of coxite and style combined. Coxites not of conic shape. Length 5.2 mm, width 2 mm. Blackish-brown. Siberia: Chita Prov ..... *X.luriei* sp.n.
10(9). Granulation on apical part of 5th abdominal sternite does not differ from that on the rest of sternite surface. Elytra nearly 2.2 times as long as wide and 3.25 times longer than pronotum. Frons slightly convex above eyes. The 7th and 8th antennal segment larger than each of previous segments of flagellum. Pronotum short, and 1.46 times as wide as long; pronotum base flattened broadly and highly. Elytra with fine granules being smaller than those on pronotum; granules separated by 1–2 granule diameters. Length of apical part of pseudopositor longer than lengths of coxite and style combined. Coxites conic shaped. Blackish-brown, elytra lighter; shining. Length 4.9 mm, width 1.8 mm. Siberia: Irkutsk Prov ..... *X. rafesi* sp.n.
11(2). Surface with granulation and at the same time in puncturation, though often hardly noticeable.
12(15). Upper side mainly in puncturation.
13(14). Elytral pubescence dense and not forming spots. Dark grey-brown. Length 4.7 mm. Primorski Krai, Khabarovsk Terr ..... *X.punctulatum* Logvinovskij, 1977.
14(13). Elytral pubescence spotted. Sides of pronotum narrowly flattened. Structure of elytral surface coarse, as it is seen in magnifying glass [Reitter, 1890]. Dull, rust-brown, head and pronotum grey-yellowish, elytral spots formed of grey hairs. Length 5 mm. Austria, Czechoslovakia, East Carpathians .....*X. austriacum* Reitter,1890.
15(12). Upper side with granulation and puncturation.
16(17). Elytral disk in fine puncturation, declivity with granules. Pronotal surface with dense umbilicate granules; pubescence pattern forms two dispersing "plaits" from base and two "plaits" converging to apical margin; besides that pubescence forms fanshaped arrangements of hairs at the base in the middle of every half of base (Fig. 85). Metasternum being covered by puncturation, punctures separated by 1–2 puncture diameters. Fifth abdominal sternite with granulation. Dark brown tinged reddish; spots consist of silvery hairs on elytra. Length 4.2–5.3 mm, width 1.7–2.1 mm. France, Pyrenees .... *X. declive* (Dufour, 1843).
17(16).Elytral disk almost with puncturation in females, and with fine granulation in males. Pronotal sides flattened narrowly; pronotal surface with small and rather dense granulation, granules separated by 0.5–1 granule diameter. Pubescence pattern on pronotum formed with little bandles of hairs arranged crosswise in the centre (viewed from front); also hairs arranged in almost fanshaped bandles on background of blackish spot on every side from centre of base (Fig. 86). Metasternum with flat granules. Fifth abdominal sternite with granulation. Anal

sclerite cut out slightly in male, and strongly in female. Dark reddish-brown with pale-yellow shining pubescence arranged in spots on elytra. Aedeagus and end of pseudopositor as shown in Figs 87 a, b, 88. Length 5.1–6.6 mm, width 2.1–2.8 mm. Caucasus, the Crimea, Turkey, Coasts of Black Sea and Sea of Marmara .... *X.subincanum* Reitter, 1878

18(1). Upper side with inclined pubescence more or less evenly arranged; surface mainly in puncturation; body metallically shining (subgenus *Hyperisus* Mulsant & Rey).

19(22). Surface of 5th abdominal sternite covered with granules or with granules and punctures.

20(21). Fifth abdominal sternite with two bands of rather long coarse setae. Eyes separated by 2.5 vertical eye diameters



Figs 86–88. *Xestobium subincanum* Reitter: pubescence pattern on pronotum (86), aedeagus, dorsal view (87a), lateral view (87b), end of pseudopositor (88). Scale: 0.2 mm (87 a, b), 0.5 mm (86); x 120 (88).

Рис. 86–88. *Xestobium subincanum* Reitter: рисунок опушения переднеспинки (86), эдеагус, вид со спинной стороны (87а) и вид сбоку (87б), конец ложного яйцеклада (88). Масштаб: 0,2 мм (87 а, b), 0,5 мм (86); х 120 (88).

(♂). Pronotum 1.5 times as wide as long. Elytra 2 times as long as wide. Puncturation on pronotal disk heterogeneous and a little smaller than on elytral disk or metasternum. Puncturation on elytral disk two times sparser, than on pronotum. Puncturation on metasternum not sparser than on pronotum. Black, shining, body shot with green; more rarely the whole body golden-reddish with lighter suture of elytra (ab. e*rnobiiforme* Reitter), or only golden-reddish elytra (ab. *thoracicum* Rossi); sometimes sides and apical part of pronotum, shoulders and apical part of elytra reddish (ab. *rufonotatum*), or golden-reddish elytra with dark spots (ab. *bicoloripenne* Pic) [Español, 1964]. Antennae and legs brownish [Lohse et al., 1969]. Length 3.0–5.7 mm. West Europe excepting Nord Province, Syria ..... *X. plumbeum* (Illiger, 1801)

21(20). Surface of 5th abdominal sternite covered with small tubercles and punctures, without noticeable bandls of coarse setae. Apex of the sternite a little convex and with more coarse structures of surface. Eyes separated by 1.9 (♂) or 2.0 (♀) vertical eye diameters. Pronotum 1.4 times as wide as long. Elytra 2.2 times (♂) or 2.0 times (♀) as long as wide. Puncturation on pronotal disk a little denser and not smaller than on elytral disk; punctures separated by 0.5–1 puncture diameter. Puncturation on metasternum a bit smaller and sparser than on pronotum. Black, shining, elytra shot with green. Length 4.1–5.4 mm. Krasnodar Terr., the Caucasus .... *X. caucasicum* Logvinovskij, 1977.

22(19). Surface of 5th abdominal sternite in puncturation; its apex without convexity and in even puncturation. Eyes separated by 1.8 vertical eye diameters (♀). Pronotum 1.6 times as wide as long. Elytra 1.9 times as long as wide (♀). Puncturation on pronotal disk denser and not smaller than on elytral disk; punctures separated by 1–1.5 puncture diameters. Punctures on metasternum very small (their diameter about three times smaller than of puncture of pronotum) and sparse: punctures separated by 2–5 puncture diameters. Metasternal distal median groove oval and with thin longitudinal carina in the centre. Black, shining, flattened sides of pronotum, antennae, and legs brown; body shot with brownish or blue. Length 4.5 mm, width 2 mm. The Caucasus: Armenia ....*X. subaeneum* Reitter, 1897.

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