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The Eastern Palaearctic *Olibrus* Erichson, 1845 (Coleoptera: Phalacridae)

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Abstract. *Olibrus orszuliki* sp. nov. from Tajikistan, *O. kafkai* sp. nov. from Cyprus and *O. orientalis* sp. nov. from Far East of Russia are described and compared with similar Palaearctic species. A key of all the known Eastern Palaearctic species of the genus *Olibrus* Erichson, 1845 is provided. *Olibrus koltzei* Flach, 1888 from Pakistan and India, *Olibrus affinis* (Sturm, 1807) from Cyprus and *O. kaszabi* Medvedev, 1971 from Far East of Russia are recorded for the first time. Morphology of *Olibrus selvei* Guillebeau, 1892 is briefly discussed.

INTRODUCTION

Altogether 634 species in 34 genera of the family Phalacridae are known at present (Gimmel 2012, 2013, Švec 2018). The genus *Olibrus* Erichson, 1845 with 129 described species is the most numerous genus within the family.

Some of the authors who were involved in studies of Phalacridae (e.g. Lyubarsky 1994; 2003) perceived the genus in a broader range in the comparison with the recent conception (Gimmel 2013). Consequently eight Eastern Palaearctic species described originally as *Olibrus*, may not belong in the genus (Gimmel 2013, Švec personal database). They are: *Olibrus brunneus* (Motschulsky, 1858); *O. calvosus* Lyubarsky, 2003; *O. firmus* Lyubarsky, 2003; *O. judaicus* Sahlberg, 1913; *O. lubricatus* Lyubarsky, 2004; *O. rufopiceus* Motschulsky, 1858; *Olibrus stlembus* Lyubarsky, 1994 and *O. stuporatus* Lyubarsky, 1994. The present number of the Eastern Palaearctic *Olibrus* species is 50 including those species new to science described in this paper, not taking into account the above mentioned doubtful species.

For the purpose of this paper the Palaearctic Asia is consider for the Eastern Palaearctic realm.

MATERIAL, METHODS, ABBREVIATIONS AND TERMINOLOGY

The paper is based on the phalacrid material collected by my Czech entomological colleagues in the Eastern Part of the Palaearctic Region recently and also at the end of the last century.

The results of the studies of the presently examined material was compared with the knowledge acquired during my past studies of the *Olibrus* types deposited mainly in the Museum National d'Histoire Naturelle Paris; the National Museum Prague; Senckenberg Deutsches Entomologisches Institut, Eberswalde; the State Museum of Natural

History, Stuttgart; the Hungarian Natural Museum, Budapest and in the private collection of my late friend Fernando Angelini, Brindisi. The types of the following 14 Eastern Palaearctic *Olibrus* were studied: *O. flavomaculatus* Tournier, 1889, *O. caucasicus* Tournier, 1889; *O. delicatulus* Tournier, 1889; *O. demarzoi* Švec & Angelini, 1996; *O. flachi* Reitter, 1891; *O. helveticus* Tournier, 1876; *O. lepidus* Tournier, 1889; *O. jelineki* Švec & Ponel, 1999; *O. kaszabi* Medvedev, 1971; *O. koltzei* Flach, 1888; *O. permicans* Reitter, 1913; *O. reitteri* Flach, 1888; *O. striatissimus* Reitter, 1899 and *O. turcicus* Švec & Ponel, 1999.

Terminology used in the present paper

aedeagus	sclerotized part of the male genitalia composed of tegmen and penis:
tegmen	fused parameres connate to phallobase forming compact parameral sclerite with suture between parameral part and phallobase;
penis	median lobe of aedeagus - a piece of male genitalia partly inserted into the tegmen;
humeral stria	ninth stria (if present) located usually between shoulder and lateral margin of elytra;
principal striae	first and second stria near suture;
scutellar lobe	broadly rounded lob at central part of pronotal base;
sutural border	very fine and thin line closely adjacent to suture medially of first elytral stria;
suture entirely bordered	uninterrupted sutural border merging basal elytral line.

Abbreviations AII-AXI are used for the second and the following antennomeres.
Abbreviations TI-TV are used for the tarsomeres first to fifth.

Due to the uniformity of the phalacrid beetles generally, only few stable morphological characters are useful for the determination on the species level. Regarding the *Olibrus* species, one of the most important morphological characters is the puncturation of the metaventrite. Several types of metaventral puncturation can be recognized. Some of the species possess metaventrite entirely punctured with small areas above posterior coxae lacking puncturation (Fig. 1) whereas the metaventrite of many other species is almost smooth, unobtrusively, finely and very sparsely punctured by small hardly detectable punctures or with only few distinct punctures letting large smooth areas (as in Figs. 2, 3). Sparse and unobtrusive punctures are usually marked by adjacent setae. Another species possess metaventrite distinctly densely entirely coarsely punctured (Figs. 4, 5) or distinctly densely punctured in some places but with large areas lacking punctures at all (Figs. 6, 7). Generally metaventral punctures are equipped by adjacent setae predominantly oriented caudally or medio-caudally.

Some other important morphological characters seem to be stable - bordering of pronotal base and elytral suture, separation of the principal elytral striae, dorsal microsculpture, and with some exceptions also the body coloration. When assessing the dorsal microsculpture

into account should be taken the sexual dimorphism. Dorsum lacks entirely microsculpture in both sexes (e.g. *Olibrus affinis* (Sturm, 1807)) while the males of some species possess at most only apical part of elytra microsculptured, the elytra of the females are entirely microsculptured (e.g. *O. bimaculatus* Küster, 1848) or elytra of both sexes are distinctly microsculptured (e.g. *O. liquidus* Erichson, 1845).

Nevertheless the examination of the male genitalia - the shape of tegmen and penis and also the shape of the endophallic sclerites makes the reliable determination easier. The genitalia of a good part of the Eastern Palaearctic species was figured by Gimmel (2012), Ponel & Švec (1998), Švec (1992, 2005, 2018) and Švec & Angelini (1996).

Spermatheca is predominantly feebly sclerotized in most of *Olibrus* and lacking specific taxonomical characters being of the letters J or C shaped. Also ovipositor does not seem to be of any important diagnostic importance. Therefore female genitalia are not figured in the present paper.

Tarsal formula is generally 5-5-5 in females of *Olibrus* species. This fact is not repeated in the original descriptions below. The tarsal formula mentioned in this paper refers to the male holotypes only.

Collecting data of the type series cited in quotation marks are taken from the locality labels accompanying examined specimens. Remarks of the author concerning the locality data are located in square brackets. The holotype and paratypes are indicated by a red label bearing the status of the specimen, name of the species, the name of the author of the species and the relevant year and attached to the same pin as the corresponding specimen.

The examined specimens were softened in 8% Acetic acid and subsequently dissected or directly mounted on paper cards. The dissected male genitalia were taken over clove oil, 40% ethyl alcohol and water to polyvinylpyrrolidine (Lompe 1986) on a transparent slide added to the same pin as the dissected specimen or directly on the card near the specimen. All the dissected specimens bear also a label text informed that genitalia are put in water soluble medium.

The description of the new species is based on the holotype. Variability, if appropriate, is mentioned in the paragraph “Variation”.

The measurements of the total body length mentioned in the original descriptions were taken from all the specimens examined. Specific measurements of the individual body parts were taken from the holotype only. The measurements of external body parts were measured to the first decimal place of millimetre, the measurements of the genitalia were measured to the second decimal place of millimetre.

Abbreviations of the deposit sites of the examined material:

KOPC Kamil Orszulik, private collection, Frýdek-Místek, Czech Republic;

ZSPC Zdeněk Švec, private collection, Praha, Czech Republic.

Geographical abbreviations are accepted from Löbl & Löbl (2015) with one exception - IL = Union territory Ladakh in India established in 2019.

The key to the determination of the Eastern Palaearctic species of the genus *Olibrus* Erichson, 1845

1 Elytra with two main elytral striae. 2

\- Elytra with single well developed stria near suture. Brown, legs and antennae yellowish-red, pronotal base bordered, sutural border incomplete, metaventrite sparsely punctured with large spaces lacking punctures. 1.7-1.9 mm. Distribution: Asia - NP. ..... *O. rasilis* Lyubarsky, 2003

2(1) Underside brown to black. 3

\- Underside reddish or chest nut. 12

3(2) Dorsum black or brown. 4

\- Dorsum rusty, antennae and legs testaceous. Metaventrite very finely but densely punctured. Pronotal base not bordered. Elytral principal striae merging. Suture entirely bordered. 1.5-1.8 mm. Distribution: Asia - CY. ..... *O. selvei* Guillebeau, 1892

4(3) Antennae and legs at least partly dark - yellow-brown to black or antennae and legs yellowish with black tarsal claws. 5

\- Legs including claws and antennae yellow or reddish. 12

5(4) Antennae and legs at least partly dark - yellow-brown to black. 6

\- Antennae and legs yellowish with black tarsal claws. Black, principal striae merging apically, suture completely bordered. Parameral sclerite with deep notch apically. 1.0-1.5 mm. Distribution: Europe - AU BH CR CZ DE FI FR GB GE GR (Corfu) IT LA MA NL PL PT RU SK SP SV SZ UK; North Africa - AG EG MO TU; Asia - TR SY. ..... *O. pygmaeus* (Sturm, 1807)

6(5) Pronotal base not bordered. 7

Pronotal base bordered at least above scutellum. 8

7(6) Metaventrite almost smooth, very sparsely punctured and setose. Basal part of antenna, tibia and tarsomeres yellow-red, rest of antenna and legs dark, body black. 2.0 mm. Distribution: Asia - HP, Oriental region. ..... *O. obscuricornis* Guillebeau, 1894

\- Metaventrite distinctly densely and regularly punctured. Dorsum brown-black, microreticulate. 2.0 mm. Distribution: Europe - Armenia. ..... *O. ovalis* Khnzorian, 1962

8(7) Antennomeres I-VIII yellowish, antennal club yellow-brown, femora brown, tibiae red-brown, taromeres yellowish, claws claws obtrusively darker than rest of tarsi - brown to black. Metaventrite very sparsely fine punctured and setose with exception of several larger punctures behind mesocoxae. Black with metallic luster. Parameral sclerite very narrow, oblong semi-oval. 2.6-2.8 mm. Distribution: Asia - ES MG. ..... *O. metallescens* Reitter, 1888

\- Antenae usually gradually darkened toward apex. Legs yellow-brown or darker, claws not obtrusively darker than rest of tarsi. 9

9(8) At most elytra partly microreticulate, pronotum only with punctures. 10

\- Pronotum and elytra microreticulate. Metaventrite distinctly punctured with large smooth areas. Dorsum black. Parameral sclerite trapezoid narrowed before truncate apex. Length 1.5-1.8 mm. Distribution: Europe - AU AN BY CZ DE EN FI FR GB GE HU IT LA LT NL NRNT PL SK SL SP SV SZ UK; North Africa - AG; Asia - ES KZ UZ. ..... *O.millefolii* Paykull, 1800

10(9) Body larger (1.7-2.8 mm), male abdominal ventrites without any obtrusive morphological characters. 11

\- Body very small (1.2-1.7 mm). Dorsum black with very feeble, often indistinct metallic luster. Metaventrite with few punctures and large smooth areas (Fig. 3). Third and four visible male abdominal ventrite with central longitudinal depression equipped with bush of seta at each side in male. Distribution: Europe - AU BE BY CZ DE FI FR GE GR IT NL PL NL NT SP SV; North Africa - EG; Asia - SY. ..... *O. bauduери* Tournier, 1888

11(10) Metaventrite finely sparsely punctured with large smooth areas. Body smaller, 1.7-2.2 mm. Brown to black, sometimes with feeble bronze metallic luster, antennae and legs brown with black claws and terminal tibial spurs. Metaventrite feebly punctured; punctures detectable namely behind mesocoxae, postero-medially and laterally with smooth metaventral process. Parameral sclerite similar to *O. orientalis* sp. nov., endophallus with butterfly-like shape. Distribution: Europe - AB BU GG SZ; Asia - KZ PA IL. .... *O. koltzei* Flach, 1888

- Majority of metaventrite including metaventral process distinctly punctured (Fig. 1). Black with distinct greenish metallic luster. Legs dark brown, proximal antennomeres first yellowish-brown, gradually darker toward apex, club dark brown. Parameral sclerite transverselly rectangular, abruptly narrowed at apical third. 2.0-2.3 mm. Distribution: Europe - AU BH BU CZ DE EN FI FR GB GE HU IR IT LA LT NL NR NT PL SK SL SP SV SZ UK; North Africa - AG; Asia - FE KZ TR. .... *Olibrus aeneus* (Fabricius, 1792)

12(3) Dorsum black or dark brown, each elytra with preapical or apical red spot or each elytra with oblong oval lighter feebly bordered lighter spot. 13

- Dorsum without any spot on elytra. 24

13 (12) Dorsum brown, elytra with distinct, rarely feebly expressed, reddish or chest nut large oblong oval patch. Species with feebly expressed patch or only with distinct light apical part of elytra possess specific shape of parameral sclerite having distinct bump on each side of base. Pronotal base bordered or not. 14

- Dorsum black with well expressed preapical circular yellow- red or red-brown spot. In case of presence of large spot covering approximately apical third of elytra, body is very large 3.0-4.0 mm and parameral sclerite is of pentagonal shape (*O. stierlini*). Pronotal base not bordered. 19

14(13) Base of pronotum bordered at least above scutellum. Elytral suture entirely bordered or not. 15

- Base of pronotum not bordered. Elytral suture always entirely bordered. 16

15(14) Elytral suture completely bordered. Metaventrite very sparsely punctured with large smooth areas. Dorsum chestnut to brown, each elytron with very large longitudinal patch, sometimes reaching almost to elytral base anteriorly. Elytra partly microreticulate. Principal striae merging or approaching closely each other. Parameral sclerite similar to that in *O. liquidus*. 2.3-2.6 mm. Distribution: Asia - TR. ....*O. jelineki* Švec & Ponel, 1999

- Elytral suture not entirely bordered. Dorsum chest nut coloured; distal part of elytra with indistinctly bordered yellowish-red spot reaching mid-length of elytra anteriorly. Elytra microreticulate. Principal striae not merging. Metaventrite distinctly densely punctate. Parameral sclerite similar to *O. affinis* but stronger narrowed apically. 2.3-2.7 mm. Distribution: Europe - FR (Corse) IT (Sardegna) “Caucasus”; Asia - TR. .. ..*O. caucasicus* Tournier, 1889

16(14) Both principal striae merging. 17

- Principal striae not merging apically. Dorsum light brown, each elytron with feebly expressed not distinctly bordered oblong oval lighter patch. Elytra of ♀ with micro-sculpture at apex. Metaventrite distinctly regularly punctured, area lacking punctures above posterior coxae reaching to mid-length of metaventrite. Parameral sclerite similar to *O. affinis*. 2.0-2.2 mm. Distribution: Asia - KZ UZ. ....*O. flachi* Reitter, 1891

17(16) Metaventrite very sparsely finely punctured with large smooth areas. Dorsum chest nut, elytra distinctly light on apex or elytron with indistinctly bordered lighter spot at apical quarter of elytral length. Spot is separated by dark strips from suture, lateral margin and apex of elytra. Microsculpture at apex (males) or apical half (females) of elytra. Parameral sclerite of very specific shape - quadrate with bump on each side of base. 2.3-2.7 mm. Distribution: Europe - SZ; North Africa - MO; Asia - TR. .... *O. guttatus* Tournier, 1889

- Metaventrite at least on some places densely distinctly coarsely punctured. 18

18(17) Head, pronotum and anterior two thirds of elytra dark brown, posterior third of elytra chest nut coloured. Apical two thirds of elytral length microsculptured in male, elytra entirely microsculptured in female. Metaventrite coarsely distinctly punctured; punctures very sparse and unobtrusive or even missing on metaventral process, antero-laterally and also on area above mid-length of posterior coxae. Parameral sclerite of very specific hat-like shape. 2.3-2.7 mm. Distribution: Asia - TR. ....*O. turcicus* Švec & Ponel, 1999

- Dorsum chestnut, each elytron with large lighter spot on its posterior half not reaching neither suture nor lateral margin or elytral apex. Elytra with strong developed discal striae. Parameral sclerite triangular rounded on its top. 2.9 mm. Distribution: Europe - AB “Caucasus”; Asia - IN. .... *Olibrus striatissimus* Reitter, 1899

19(13) Suture not entirely bordered. 20

- Suture entirely bordered. Both principal striae not merging. Broadly oblong, dorsum black with small but distinct red preapical spot. Metaventrite as in Fig. 6. Parameral sclerite with small central notch on apex. 3.0-3.1 mm. Distribution: Europe - AL AU BH CR CZ FR GE GR IT PL PT RO SK SP UK; North Africa - AG TU; Asia - AR ES KZ TR. .....*O. bisignatus* (Ménétries, 1849)

20(19) Principal striae not merging. 21

- Principal striae merging apically. Metaventrite very sparsely a finely punctured, almost smooth. Dorsum black with circle red spot preapically. 3.1-3.0 mm. Distribution: Asia - SY. ....*O. laevisternus* Guillebeau, 1897

21(20) Metaventrite regularly distinctly densely punctured. 22

- Metaventrite distinctly densely punctured with large smooth areas. 2.5 mm. Distribution: Asia - ”Turkestan”. (Possibly identical with *O. bimaculatus* - see remark below). .....*O. camptoides* Reitter, 1892

22(21) Principal striae approaching each other before elytral apex or almost merging. Elytra with light preapical spots usually distinctly delimited or black elytra with apex broadly entirely red. Apex of tegmen not concave. Elytra at most (in females) microreticulate in posterior 2/3 of elytral length. 23

- Principal striae well distant each from other apically. Elytral spots usually less distinctly or even feebly delimited. Microsculpture covers usually posterior half of elytra in males, entire elytra in females. Metaventrite as in Fig. 5. Parameral sclerite emarginate apically. 2.5-2.8 mm. Distribution: Europe - AU BH CR CZ EN FI FR GE GR HU IT MA NR NT PL PT RO SK SP SV SZ UK YU; North Africa - AG MO; Asia - ES FE TR..... *O. bimaculatus* Küster, 1848

23(22) Elytra usually with apical common red spot rarely divided into two spots or not reaching elytral apex. Metaventrite with large non-punctate spaces namely above posterior coxae. Apex of tegmen triangular. 3.0-4.0 mm. Distribution: Europe - BU CR FR GR IT PT RO SP SZ; North Africa - AG LB TU; Asia - TR. ... . *O. stierlini* Flach, 1888

- Each elytra with preapical distinct red spot, rarely spot hardly detectable. Metaventrite entirely densely punctate (Fig. 4). Apex of tegmen broadly rounded. 2.3-3.2 mm. Europe - AL AN AU BH BU BY CR CZ DE EN FI FR GB GE GR HU IT LA LT MA MR NL NR NT PL RO SK SP SV SZ YU UK; North Africa - MO TU; Asia - ES FE KI KZ MG TM TR; NAR. .....*O. bicolor* (Fabricius, 1792)

24(12) Dorsum unicolorous black or brown-black, chestnut or even reddish, always without any apical or preapical lighter patch, elytra at most gradually lightened toward apex. 25

- Elytra lightly yellowish with head, pronotum, elytral suture and lateral margins of elytra brown. Rarely also with yellow pronotum or with darker elytra (some specimens from Caucasus). Pronotum and elytra distinctly microreticulate. Metaventrite in Fig. 7. Parameral sclerite pentagonal. 2.5-3.0 mm. Distribution: Europe - AB AU BU BY CR CT CZ DE FR GB GE IR IT LA LT ME NL PT PL RO SK SP ST SV SZ, UK; North Africa - AG CI EG TU; Asia - SY TR. … .....*O. corticalis* Panzer, 1797

25(24) Base of pronotum not bordered or at most border is hardly detectable. 26

- Base of pronotum distinctly bordered at least in central third.....38

26(25) Principal striae merging. 27

- Principal striae not merging. 35

27(26) Suture entirely bordered. 28

- Suture not entirely bordered. 31

28(27) Metaventrite distinctly punctured. Body larger, 2.0-2.7 mm. 29

- Metaventrite very sparsely, very finely, unobtrusively punctured, almost smooth. Body smaller, 1.5-2.0 mm. Parameral sclerite feebly emarginate apically. Distribution: Europe - FR GR IT MC PT SP SZ; North Africa - AG EG MO TU; Asia - CY ES IS JA LE. ..... *O. particeps* Mulsant & Rey, 1861

29(28) Metaventrite distinctly but sparsely punctured with large areas lacking punctures. 30

- Entire metaventrite distinctly densely punctured. Chest nut coloured usually with head and pronotum darker. Lateral sides of parameral sclerite feebly concave, apex rounded. 2.0-2.2 mm. Distribution: Europe - BU DE EN FI GE GR LA LT NL NR NT PL SK SV SZ “Caucasus”; North Africa - AG; Asia - FE IS TM TR. .....*O. norvegicus* Münster, 1901

30(29) Elytra distinctly microsculptured. Brown, elytra gradually lighter coloured toward apex. Parameral sclerite oblong rectangle with swollen distal part laterally. 2.1-2.7 mm. Distribution: Europe - IT; Asia - TR. .... *O. demarzoi* Švec & Angelini, 1996

- Elytra without any microsculpture. Dorsum black. Metaventrite in Fig. 15. Male genitalia in Figs. 16, 17. Body large, 2.4-2.6 mm. Distribution: Asia - Cyprus. ..... *O. kafkai* sp. nov.

31(27) Metaventrite distinctly punctured in some small places, metaventrite with large not punctured or very sparsely punctured areas. 32

- Metaventrite distinctly coarsely densely punctured with at most small not punctured areas above metacoxae. 33

32(31) Usually red-brown or light brown, elytra frequently gradually a little lighter coloured toward apex. Metaventrite with small obliquely punctured spaces medio- laterally, majority of metaventrite without punctures or with rare small unobtrusive punctures (Fig. 2). Parameral sclerite feebly concave laterally, broadly rounded apically. Most common and variable species of the genus. 1.9-2.5 mm. Distribution: Europe - AL AN AU AZ BH BU BY CR CZ DE EN FR GB GE GR HU IR IT LA > LS LT MA MR NL PL PT RO RU SK SP SV SZ TR UK "Caucasus"; North Africa - AG EG LB MO MR TU; Asia - CY ES FE IS JA MG SY TR. ..... *O. affinis* (Sturm, 1807)

- Dorsum darker, elytral punctures coarser. Truncate metaventral process more broadly rounded (Possibly identical with *O. affinis* - see remark below). 2.1 mm. Distribution: Asia - JA TAI. .... *O. consanguineus* Flach, 1889

33(31) Elytra without microsculpture or at most with feeble microsculpture on apex. 34

- Elytra distinctly microsculptured. Head and pronotum brown-black, elytra reddish. Parameral sclerite broad basally, strongly narrowed at mid-length, with shortly rounded apex. 1.9-2.6 mm. Distribution: Europe - AN AU AZ BE BH BU CR CZ FI FR GE GB GR HU IR IT LS MA MR NL NT PL PT RO SK SP SZ UK; North Africa - AG EG MO MR TU; Asia - CY IQ UZ. ..... *O. liquidus* Erichson, 1845

34(33) Dorsum entirely black, elytra sometimes gradually a little paler apically. Metaventrite strongly and densely punctured. Parameral sclerite strongly constricted laterally before rounded apex. 2.3-3.0 mm. Distribution: Europe - AU CR CZ DE FI FR GB GE GR HU IT NL NR NT PL SK SL SP SV SZ UK; North Africa - AG MO; Asia - ES IS TR. ..... *O. flavicornis* (Sturm, 1807)

- Dorsum testaceous. Parameral sclerite similar to that in *O. affinis* but obtrusively enlarged laterally at its basal part. 2.5-3.0 mm. Distribution: Europe - ST. ..... *O. delicatulus* Tournier, 1889

35(26) Suture entirely bordered. 36

- Sutural not entirely bordered. 37

36(35) Larger, 2.1-2.9 mm. Dorsum black or dark chestnut. Parameral sclerite oblong semi-oval shaped. Distribution: Asia - ES FE MG. ..... *O. kaszabi* Medvedev, 1971

- Smaller, 2.0 mm. Dorsum chest nut coloured. Mesoventrite in Fig. 12. Male genitalia as in Figs. 13, 14. Distribution: Asia - FE. ..... *O. orientalis* sp. nov.

37(35) Metaventrite very sparsely very finely hardly detectable punctured with large areas lacking any punctures. Dorsum brown to black. Male unknown. 2.5-2.8 mm. Distribution: Asia - "Manchuria". .... *O. permicans* Reitter, 1913

- Metaventrite distinctly predominantly densely punctured (Fig. 9). Dorsum chestnut. Male genitalia as in Figs 10, 11. 2.4-2.8 mm. Distribution: Asia - TD. ..... *O. orszuliki* sp. nov.

38(25) Principal striae not merging apically at most they extremely approached each other. 39

- Principal striae merging apically. 40

39(38) Smaller, 2.0-3.0 mm. Suture entirely bordered. Dorsum chest nut to brown. Elytra entirely microsculptured. Parameral sclerite truncate apically with central notch. Distribution: Europe - BU CR FR GR IT MA SP SZ; North Africa - AG LB EG MO TU; Asia - TR. ..... *O. reitteri* Flach, 1888

- Larger, 3.4 mm. Suture not entirely bordered. Dorsum rusty. Elytra without microsculpture. Metaventrite densely regularly punctured, area lacking punctures above posterior coxae reaching up to third of metaventral length. Parameral sclerite similar to *O. delicatulus*. Distribution: Europe - ST; Asia - MG. .... *O. seidlitzi* Flach, 1888

40(39) Body larger, 2.0-2.5 mm, dorsum black, brown or rusty. 41

- Body smaller, 1.8-2.0 mm. Dorsum brownish to black with slight copper lustre. Distribution: Palaearctic Asia -UP; Oriental realm - Indonesia, Philippines. ..... *O. nainensis* Champion, 1924

41(40) Metaventrie sparsely punctured with large areas lacking puncturation. 42
- Metaventrite unobtrusively, very sparsely very finely punctured, almost smooth. Suture entirely bordered. Dorsum rusty, body broadly oval. Parameral sclerite trapezoid, laterally convex close to base, then concave in middle and concave before apex. 2.0-2.5 mm. Distribution: Europe - BH CR FR GR (Corfu) IT MA SP; North Africa - AG MO; Asia - CY LE SY TR UZ. ..... *O. castaneus* Baudi di Selve, 1870

42(41) Larger body, 2.5 mm. Dorsum brown. Suture not entirely bordered. Distribution: Asia - TR. .... *O. globiformis* Pic, 1894
- Smaller, 1.8-2.2 mm. Dorsum black or nearly black dorsally, with faint greenish metallic lustre. Antennae short, AXI shorter than AIX and AX combined. Parameral sclerite trapezoid with rounded apical corners, slightly emarginate apically, similar to that in *O. particeps*, but shorter and broader. Distribution: Asia - YE (Sucutra). ..... *O. socotranus* Gimmel, 2012.

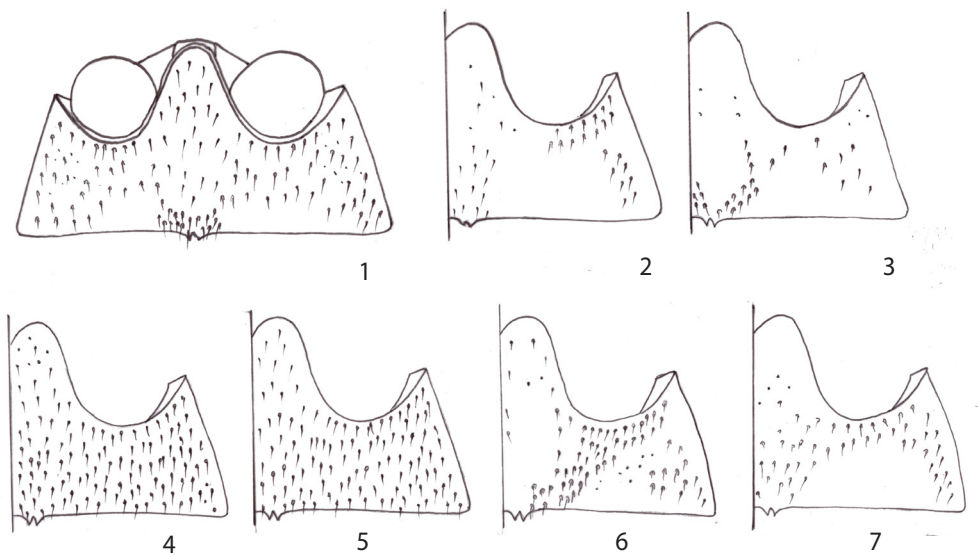
Remarks.

Olibrus consanguineus Flach, 1889

The species was originally described in several words by Flach (1889) as a variety of *O. affinis* with doubts: "*Ol. affinis* St. ist durch ein mittelgrosses dunkles Exemplar vertretten, das durch gröbere Punktirung der Decken und vorn breiter verrundeten , fast gestutzen Hinterbrustforsatz abweicht (var.? *consanguineus* m.)". The original description did not provide enough distinguishing characters of *O. consanguineous* from *O. affinis*. Both species may be conspecific.

O. camptoides Reitter, 1892

A female of the species deposited in Reitter's collection in the Hungarian museum was examined. The external morphological characters agreed well to those in *O. bimaculatus* Küster, 1848. Both species may be conspecific.



Figs. 1-7. Metaventrite - type of puncturation. 1- *Olibrus aeneus*; 2- *O. affinis*; 3- *O. baudueri* 4- *O. bicolor*; 5- *O. bimaculatus*; 6- *O. bisignatus*; 7- *O. corticalis*.

Olibrus orszuliki sp. nov.

(Figs. 8-11)

Type material. Holotype (♂): "W Tajikistan, Iskanderkul lake, 22.6.2012, 2200 m, lgt. Orszulik", (ZSPC). Paratypes: (7 ♂♂, 4 ♀♀, 8 unsexed spec.): the same locality data, (ZSPC, KOPC).

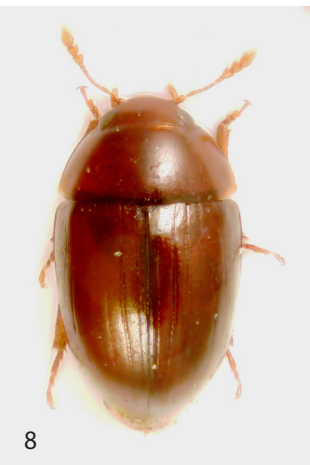
Description. Oblong oval (Fig. 8). Body length 2.6 mm in holotype. Length of body parts: head 0.3 mm, pronotum 0.6 mm, elytra 1.7 mm, antenna 0.7 mm, tegmen 0.73 mm, penis 0.77 mm. Maximum width of head 0.7 mm, pronotum 1.3 mm at posterior angles, elytra 1.3 mm just behind shoulders.

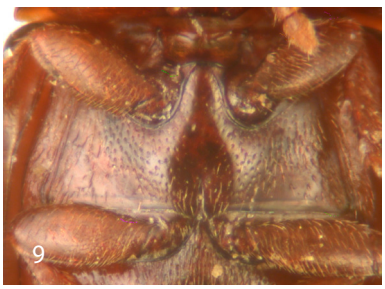
Dorsum chestnut, legs yellow-red, antenna a little lighter. Underside lightly chestnut.

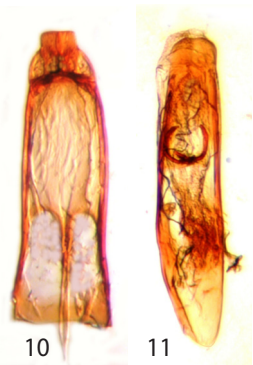
Head. Dorsal surface smooth without microsculpture, with distinct double puncturation; punctures separated by about 2-3 times their own diameter, some micro-punctures interposed. Antennomere III is 1.5 times longer than AII, AXI approximately as long as AIX and AX combined. AII-AVIII longer than wide. Ratios of length of antennomeres II-XI (2^{nd} antennomere standard - equal to 1.0): 1.0-1.5-0.9-0.9-0.8-0.8-0.6-1.3-1.3-2.5. Ratios of width of antennomeres II-XI (2^{nd} antennomere standard - equal to 1.0): 1.0-0.6-0.4-0.6-0.6-0.6-0.6-1.6-1.9-1.9. Ratio of width:length of antennomeres II-XI: 0.9-0.3-0.4-0.6-0.6-0.6-0.8-1.1-1.3-0.7.

Pronotum lacking microsculpture, similarly punctured as head with punctures of two different sizes. Larger punctures separated by about 2-3 times their diameter, micro-punctures sparsely interposed. Puncturation becomes denser toward pronotal base. Base with feeble scutellar lobe, laterally very feebly skewed toward posterior angles, therefore hind angles slightly obtuse in dorsal view. Posterior angles slightly obtuse in lateral view, shortly rounded. Lateral margins slightly roundly curved toward anterior angles in dorsal view, almost straight in lateral view. Pronotal base not bordered. Pronotum possess lateral border, lacking border along anterior margin.

Elytra. Smooth, without microsculpture, punctured. With two principal striae and slightly developed but distinct 7 laterally located striae. Principal striae approaching but not merging







Figs. 8-9. *Olibrus orszuliki* sp. nov., holotype: 8- dorsum; 9- metaventrite.
Figs. 10-11. *Olibrus orszuliki* sp. nov., holotype: 10- tegmen, 11- penis.

apically. Stria VIII developed only on apical two thirds of elytral length, stria IX short, oblique joining elytral lateral channel just behind shoulders. Sutural border incomplete, interrupted near scutellum. Striae contain or are accompanied by sparse row of punctures. Elytral intervals sparsely punctured by punctures of two different sizes.

Membranous wings developed.

Metaventrite. Metaventral surface covered by regularly developed puncturation. Punctures separated by about 2 times their diameter, puncturation rare and fine centrally and entirely lacking above hind coxae (Fig. 9).

Legs. Tarsal formula 5-5-5. Tibia slightly simply bent.

Genitalia. Terminal sclerite of paramere trapezoid, wider than long swollen laterally on its base (Fig. 10). Penis with pair of C- shaped sclerites (Fig. 11).

Variability. Length of body varies between 2.4-2.8 mm. The colour of dorsum varies from yellow-red to chestnut. The ratio of length of AIII/AII varies from 1.5 to 1.6.

Differential diagnosis. *Olibrus orszuliki* sp. nov. is similar to *O. jelineki* Švec & Ponel, 1999 in the shape of its tegmen. Both species differ by the shape of endophallus that is butterfly-like in *O. jelineki* while it is paired and C shaped in *O. orszuliki*. *O. orszuliki* is morphologically close to *O. permicans* Reitter, 1913 having similar shape and size of body, lack of pronotal basal and sutural border and not merging principal striae. Both species differ by the type of the metaventral puncturation (see the key above).

Etymology. The species name is dedicated to my entomological colleague Kamil Orszulik, who collected the new species.

Olibrus orientalis sp. nov.

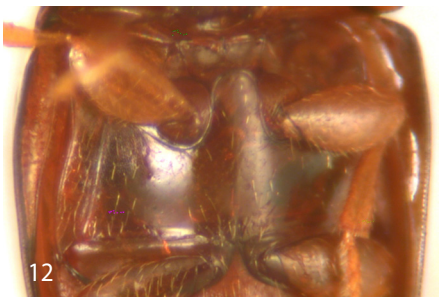
(Figs. 12-14)

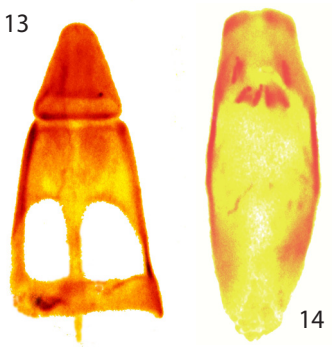
Type material. Holotype (♂): "Russia or., Primorskij kraj, Kraskino, Azajsanovka env., 13.-16.7. 1992, leg. Snížek", (ZSPC). Paratypes: (1 ♂): the same locality data, (ZSPC); (4 ♂♂, 4 ♀♀, 5 unsexed spec.): "[Russia or.], Ussuri, Sergejevka by Chanka, 27.8.[19]90, leg. Boukal", (ZSPC); (1 ♂, 8 ♀♀, 3 insexed spec.): "[Russia or.], Ussuri - country m. Tygrovyj, 20.-27.7.1990, lgt. D. Boukal", (ZSPC).

Description. Oblong oval. Body length 2.0 mm in holotype. Length of body parts: head 0.2 mm, pronotum 0.5 mm, elytra 1.3 mm, antenna 0.5 mm, tegmen 0.42 mm, penis 0.62 mm. Maximum width of head 0.6 mm, pronotum 0.9 mm at posterior angles, elytra 1.1 mm just behind shoulders.

Dorsum chestnut, legs and antennae yellow-red. Underside yellow-red.

Head. Dorsal surface smooth without microsculpture, with distinct puncturation; punctures separated by about 2-3 times their own diameter. Antennomere III is 1.4 times longer than AII, AXI longer than AIX and AX combined. AII-AVI longer than wide, AVII and AVIII as wide as long, AIX and AX broader than long. Ratios of length of antennomeres II-XI (2nd antennomere standard - equal to 1.0): 1.0-1.4-0.5-0.9-0.6-0.6-0.6-1.0-0.9-2.6. Ratios of width of antennomeres II-XI (2nd antennomere standard - equal to 1.0): 1.0-0.6-0.6-0.6-0.6-0.8-0.8-1.8-2.2-2.8. Ratio of width:length of antennomeres II-XI: 0.7-0.3-0.6-0.5-0.8-1.0-1.0-1.1-1.6-0.8.





Figs. 12-14. *Olibrus orientalis* sp. nov., holotype: 12- metaventrite, 13- tegmen, 14- penis.

Pronotum without microsculpture, much finely and sparsely punctured than head. Punctures separated by about 5-8 or more times their diameter. Puncturation becomes denser toward pronotal base and anterior margin. Base with distinct scutellar lobe, laterally very feebly skewed toward posterior angles, hind angles slightly obtuse in dorsal view. Posterior angles slightly obtuse in lateral view, shortly rounded. Lateral margins slightly roundly curved toward anterior angles in dorsal view, almost straight in lateral view. Pronotal base not bordered. Pronotum possess lateral border, border along anterior margin lacking.

Elytra. Smooth, without microsculpture, punctured. With two principal striae. Further striae hardly recognizable. Principal striae approaching but not merging apically. Humeral stria feeble, oblique, anteriorly shortened, apically approaching elytral lateral channel approximately in mid-length of elytron. Sutural border incomplete, interrupted near scutellum. Striae contain or are accompanied by sparse row of punctures separated by about 3-4 times their diameter or more. Punctures become stronger and denser toward apex. Elytral intervals with rare small fine punctures.

Membranous wings developed.

Metaventrite. Metaventral surface equipped by very feeble and sparse puncturation (Fig. 12).

Legs. Tarsal formula 5-5-5. Tibia slightly simply bent.

Genitalia. Parameral sclerite triangular with broadly rounded apex, longer then wide (Fig. 13). Penis with irregularly trapezoidal pair of endophallic sclerites (Fig. 14).

Variability. Length ratio of AIII/AII varies between 1.3-1.4.

Differential diagnosis. *Olibrus orientalis* sp. nov. is similar to *O. kaszabi* Medvedev, 1971 in the shape of its tegmen and also by the shape of endophallus. Both species are similar in lack of the pronotal basal and also the sutural border, not merging principal striae and also in having very finely and sparsely punctured metaventrite. *O. orientalis* differs from *O. kaszabi* by broader parameral sclerite and much smaller size of body.

Etymology. The species name should notify that the discovery of the new species has been made in the oriental part of Russia.

Olibrus kafkai sp. nov.
(Figs. 15-17)

Type material. Holotype (♂): "Cyprus, 15.6.[19]93, Pano Lefkara, lgt. M. Kafka", (ZSPC). Paratypes: (2 ♂♂, 5 ♀♀): the same locality data, (ZSPC).

Description. Oblong oval. Body length 2.6 mm in holotype. Length of body parts: head 0.3 mm, pronotum 0.7 mm, elytra 1.6 mm, antenna 0.7 mm, tegmen 0.68 mm, penis 0.82 mm. Maximum width of head 0.8 mm, pronotum 1.4 mm at posterior angles, elytra 1.5 mm at basal fifth of elytral length.

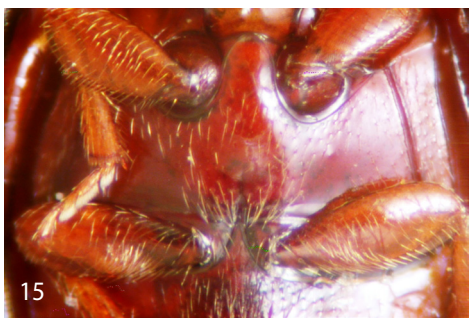
Dorsum black, legs very lightly chestnut, antennae yellow-red. Underside chestnut.

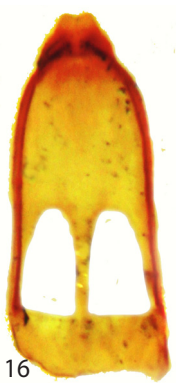
Head. Dorsal surface smooth without microsculpture, with distinct double puncturation; punctures separated by about 2-3 times their own diameter, further micro-punctures interposed. Antennomere III is 1.4 times longer than AII, AXI almost as long as AIX and AX combined. AII-AIX and AXI longer than wide, AX a little broader than long. Ratios of length of antennomeres II-XI (2^{nd} antennomere standard - equal to 1.0): 1.0-1.4-0.7-0.7-0.6-0.6-0.8-1.3-1.1-2.3. Ratios of width of antennomeres II-XI (2^{nd} antennomere standard - equal to 1.0): 1.0-0.7-0.5-0.7-0.7-0.7-0.8-1.8-2.0-2.2. Ratio of width:length of antennomeres II-XI: 0.7-0.3-0.5-0.7-0.8-0.8-0.7-0.9-1.2-0.6.

Pronotum lacking microsculpture, a little finely and sparsely punctured than head. Puncturation double. Larger punctures separated by about 4-5 times their diameter. Puncturation becomes denser toward pronotal base. Some micro-punctures interposed. Base with small scutellar lobe, hind angles slightly acute in dorsal view, obtuse in lateral view, shortly rounded. Lateral margins slightly roundly curved toward anterior angles in dorsal view, almost straight in lateral view. Pronotal base not bordered. Pronotum possess fine border along lateral and anterior margins.

Elytra. Smooth, without microsculpture, punctured. With two principal striae merging apically. Further striae recognizable. Humeral stria missing, indicated by several punctures only. Sutural border complete. Striae are accompanied by sparse row of punctures separated by about 4-5 times their diameter. Elytral intervals with rare small fine punctures.

Membranous wings developed.





Figs. 15-17. *Olibrus kafkai* sp. nov., holotype: 15- metaventrite, 16- tegmen, 17- penis.

Metaventrite. Metaventral surface equipped by very feeble and sparse puncturation (Fig. 15) with large smooth areas.

Legs. Tarsal formula 5-5-5. Tibia slightly simply bent.

Genitalia. Terminal sclerite of paramere pentagonal with swollen lateral parts basally (Fig. 16). Penis with paired, C-shaped endophallic sclerites (Fig. 17).

Variability. The body length of the type series varies from 2.4-2.6. Length ratio of AIII/AII varies between 1.2-1.4. AXI as long as AIX and AX combined in some paratypes.

Differential diagnosis. *Olibrus kafkai* sp. nov. is similar to *Olibrus particeps* Mulsant & Rey, 1861 in the shape of the tegmen and also in the shape of the endophallus. Parameral sclerite is distinctly broader than long in *O. kafkai*, on the on the hand the same is slender, longer than wide in *O. particeps*. Body of *O. kafkai* is large, 2.4-2.6 mm while *O. particeps* is distinctly smaller, 1.5-2.0 mm.

Etymology. The species name was dedicated to Marek Kafka (Neratovice, Czech Republic), well known specialist in Buprestidae who found the new species.

Olibrus koltzei Flach, 1888

Material examined: Pakistan: (1 ♂, 1 ♀, 2 unsexed spec.), 14.8.2019, Pasu 2600-3200 m, 36°28´10´´N, 74°51´10´´, lgt. K. Orszulik, (ZSPC, KOPC); India: (1 ♂, 2 unsexed spec.), Ladakh Leh, 3500 m, 6.8.2016, lgt. K. Orszulik, (ZSPC, KOPC).

Distribution: Europe - AZ BU GG SZ; Asia - KZ PA IN. New record for Pakistan and India.

Olibrus affinis (Sturm, 1807)

Material examined: Cyprus: (1 ♂, 5 unsexed spec.), Panayia, 9.-11.6.1993, lgt. M. Kafka, (ZSPC).

Distribution: Europe - AL AN AU AZ BH BU BY CR CZ DE EN FR GB GE GR HU IR IT LA LS LT MA MR NL PL PT RO RU SK SP SV SZ TR UK “Caucasus”; North Africa - AG EG LB MO MR TU; Asia - A: CY ES FE IS JA MG SY TR. New record for Cyprus.

Olibrus selvei Guillebeau, 1892

The determination with doubt (see the remark).

Material examined: Cyprus: (1 ♀), Skarinou, 16.-18.6.1993, lgt. M. Kafka, (ZSPC).

Distribution: Asia - CY. First record since the description.

Remark. The determination is tentative and it is based on the original description. The morphological characters of the examined specimen agree well with the original description, with exception of the coloration of the underside. Ventral part of the examined specimen is

completely reddish which does not match the original description. Guillebeau (1892) stated that the colour of *O. selvei* is rusty, antennae and legs testaceous while the underside is absolutely black. Although the Guillebeau's descriptions were generally reliable regarding the other species described by him, in this case probably a mistake in the description happened. The combination of rusty dorsum and testaceous appendages with completely black underside does not occur in any *Olibrus* known to me.

Olibrus kaszabi Medvedev, 1971

Material examined: Rossia: (1 ♂), Primorskyi region, Partizansk, Tigrovoj 19.-21.8.1992, lgt. Snížek; (2 ♂♂, 2 ♀♀, 34 unsexed spec.), Primorskyi region, Slavjanka, Rjazanovka,13.-17.8. 1992, lgt. M. Snížek; (ZSPC).

Distribution: ES FE MG. New record for Far East of Russia.

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