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Three new species of the Family Cerambycidae (Coleoptera) from Soviet Central Asia

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Abstract: Description of three new species of the family Cerambycidae from Uzbekistan, Turkmenia and Kirghizia (USSR). The new species are compared to their closest relatives.

Turanium hladili sp. n. (Figs 1-4)

Turanium hladili sp. n. is compared with the most similar Turanium scabrum (Kr.).

Type locality: USSR, Uzbekistan, Aktash (NE of Tashkent).

Type material: Holotype, ♂, labelled: "SSSR, Uzbekistan, Aktas, 22.4.1980, lgt. Hladil (ex pupa)". Deposited in coll. Kratochvíl, Prague. Paratypes: 8 ♂, 9 ♀, the same data, in collections HLADIL, KRATOCHVÍL and Hungarian Natural History Museum, Budapest.

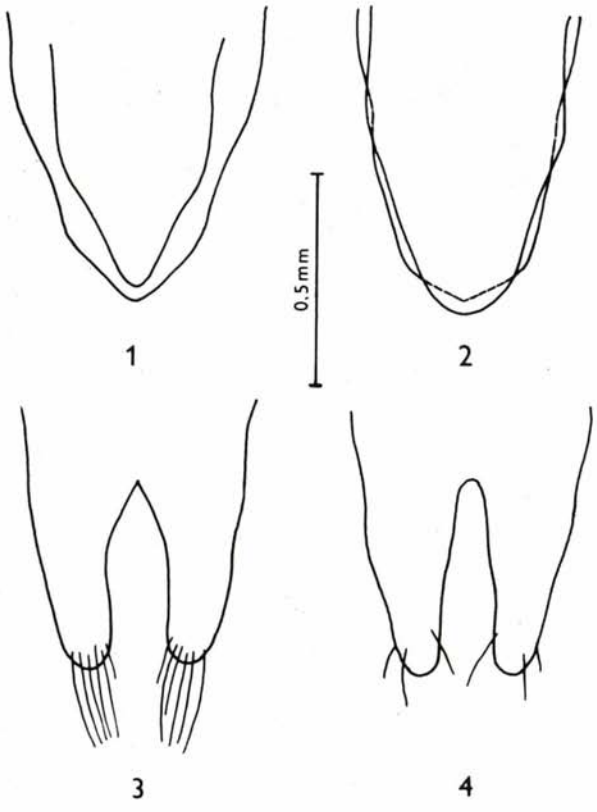
Name derivation: named in honour of the collector J. HLADIL.

Description. Length 7-11 mm. Head, pronotum, scutellum, antennae and legs rusty, elytra yellowish brown, ventral surface of body darker brown. Pubescence of ventral surface light, comparatively dense and long, pubescence of elytra sparser and shorter, recumbent, light, intermixed with longer black hairs in the apical portion of elytra. Head and pronotum with short recumbent pubescence intermixed with sparse longer outstanding hairs becoming denser and longer laterally. Pubescence of scutellum dense, recumbent. Femora with sparse long outstanding light hairs intermixed with separate black ones; tibiae with sparse outstanding dark hairs. Pubescence of tarsi closer, more recumbent, dark. Pubescence of antennae fine, recumbent, becoming closer distad, inner side of three basal articles moreover with close and long outstanding dark hairs becoming sparser on the following antennal segments.

Pronotum transverse, 1.2 times wider than long, rounded, flat, finely punctate. Scutellum rounded, finely punctate. Elytra regularly shallowly punctate, shallowly impressed along suture before midlenght, narrowly rounded at apex. Elytra in males generally narrower and often more strongly narrowed posteriorly than in females. Antennae in males as long as or slightly longer than elytra, in males surpassing the length of elytra by length of two terminal segments. Legs with moderately swollen femora, corresponding with those of Turanium scabrum (Kr.). Pygidium narrow, rather deeply arcuately emarginate at apex.

Distal end of ventral side of aedeagus acute, not extended over apex of comparatively wider dorsal side (Fig. 1). Parameres rounded at apex, with clusters of rather long rusty hairs (Fig. 3).

Differential diagnosis: Closely related to Turanium scabrum (Kr.) from which it differs by the following characters: tips of parameres with clusters of long rusty hairs in Turanium hladili sp. n., while bearing only a few short pale setae in Turanium scabrum (Kr.) (Figs 3, 4); apical portion of aedeagus differently shaped in the both species (Figs 1, 2); pygidium narrower, more prolonged and markedly more deeply emarginate in Turanium hladili sp. n. than in Turanium scab-



Figs 1-4: Apical part of aedeagus in Turanium hladili sp. n. (1) and Turanium scabrum (Kr.) (2). Parameres of Turanium hladili sp. n. (3) and Turanium scabrum (Kr.) (4)

rum (Kr.); antennae - especially in females - generally longer in Turanium hladili sp. n. than in Turanium scabrum (Kr.); female antennae in Turanium scabrum (Kr.) shorter than elytra, those in Turanium hladili sp. n. as long as or slightly longer than elytra. Turanium hladili sp. n. is generally tiny, narrower, with sparser and somewhat finer pubescence than in Turanium scabrum (Kr.).

Bionomy. Developing in dead branches of poplar (Populus sp.)

Note. Light brown coloration of Turanium hladili sp. n. resembles the pale form of "simplarium Heyden" of Turanium scabrum (Kr.). With respect to allopatric occurrence of both species the specimens of Turanium hladili sp. n. may occur in collections among the specimens of the latter form. They may be distinguished externally according to the form of pygidium and length of antennae in females as mentioned above.

Chlorophorus hrabovskyi sp. n. (Figs 5-12)

Chlorophorus hrabovskyi sp. n. is compared with its closest relative, Chlorophorus varius (Müll.).

Type locality: USSR, Turkmenia, Bairam Ali.

Type material: Holotype, ♂, labelled: "SSSR, Turkmenie, Kara-kum, Bajram Ali, 23.4.1981,

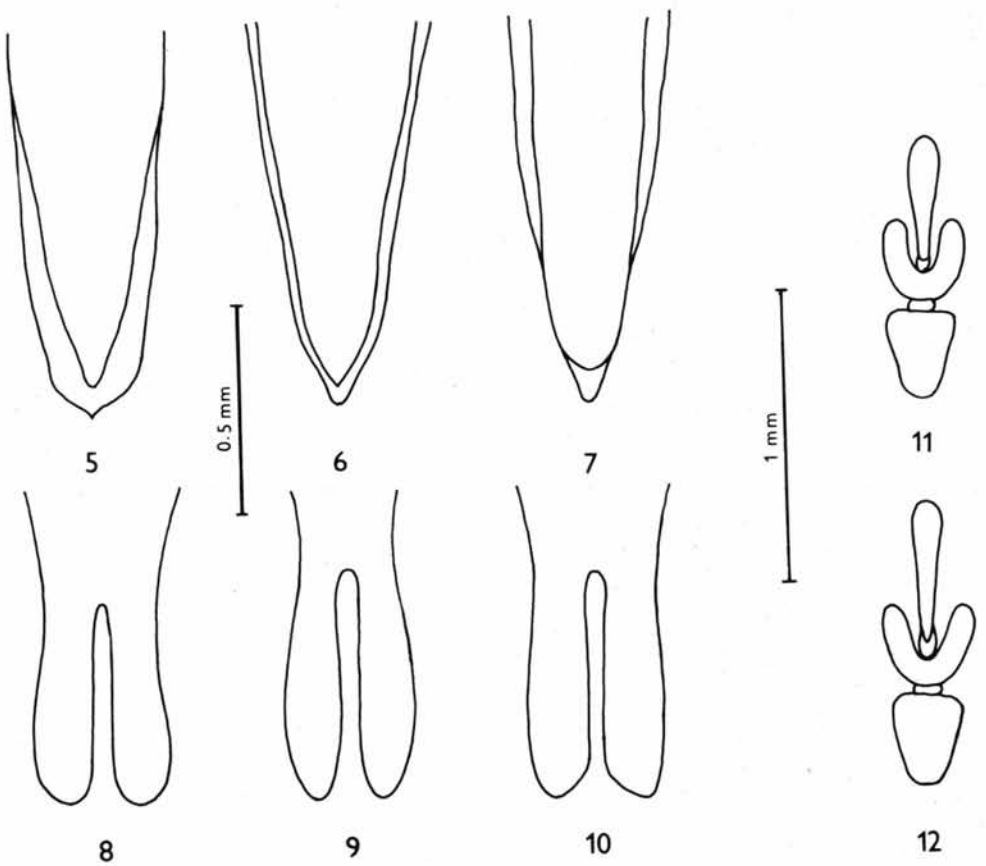
lgt. Hrabovsky (ex pupa)". In coll. KRATOCHVÍL, Prague. Paratypes, 15 ♂, 11 ♀, the same data, leg. Hladil, Hrabovsky and Lorenc. Paratypes also in collection of Hungarian Natural History Museum, Budapest.

Name derivation: named after the collector, M. HRABOVSKY.

Description. Length 11-15 mm. Head, pronotum and scutellum blackish brown, sternum dark brown, abdomen brown, becoming paler posteriorly. Elytra light brown with dark brown spots. Antennae and legs rusty, femora reddishbrown. Entire body covered with pale yellow recumbent pubescence except for the dark spots on pronotum and elytra which are covered by somewhat sparser black pubescence. Antennae and legs with finely whitish to yellowish pubescence.

Pronotum subglobular, convex, as long as or slightly longer than wide, narrowed both anteriorly and posteriorly, finely granular, with variable colour pattern.

Scutellum roundly subtriangular, generally more rounded in females than in males.



Figs 5-12: Apical part of aedeagus in Chlorophorus hrabovskyi sp. n. (5), Chlorophorus herbsti (Brahm.) (6) and Chlorophorus varius (Müll.) (7). Parameres of Chlorophorus hrabovskyi sp.n. (8), Chlorophorus herbsti (Brahm.) (9) and Chlorophorus varius (Müll.)(10). Segments 2-4 of anterior tarsus in Chlorophorus varius (Müll.) (11) and Chlorophorus hrabovskyi sp. n. (12)

Elytra moderately obliquely truncate with a fine lateral tooth at apex. Three feebly raised, sometimes partly indistinct longitudial veins in sutural portion of each elytron. Colour pattern similat to that of Chlorophorus varius (Müll.), each elytron in basal portion with a C-shaped spot, behind it with several irregular transverse bands never reaching suture.

Antennae in males slender, usually reaching mid-length of elytra, in females shorter reaching about one-third the length of elytra. Proportions of corresponding segment as in Chlorophorus varius (Müll.).

Legs with femora moderately thickened. Segment 3 of all tarsi deeply bilobed with slender lobes, segment 4 markedly prolonged, generally more so in females (Figs 11, 12).

Aedeagus broad and flat, broadly rounded at apex, with a small, more or less distinct terminal protuberance (Fig. 5).

Parameres narrow, gently curved, almost regularly narrowly rounded at apex (Fig. 8).

Differential diagnosis. Similar to the Palearctic Chlorophorus varius (Müll.), from which it differs by the following characters. Lobes of tarsal segment 3 more slender and segment 4 - especially in females - distinctly longer in Chlorophorus hrabovskyi sp. n. than in Chlorophorus varius (Müll.) (Figs 11, 12). Apex of aedeagus is broadly rounded with a more or less distinct terminal small protuberance in Chlorophorus hrabovskyi sp. n., whilst rather acutely pointed in Chlorophorus varius (Müll.), resembling rather that of Chlorophorus herbsti (Brahm.) (Figs 5, 6, 7). Parameres rather obliquely truncate at the apex in Chlorophorus varius (Müll.), whilst rather regularly narrowly rounded in Chlorophorus hrabovskyi sp. n. (Figs. 8, 9, 10). Apex of elytra in Chlorophorus hrabovskyi sp. n. less obliquely truncate and elytra in females less narrowed posteriorly in their apical half than in Chlorophorus varius (Müll.). Light spots on elytra are generally more subtle and not reaching suture in Chlorophorus hrabovskyi sp. n. Colour of elytra and abdomen in Chlorophorus hrabovskyi sp. n. is generally even paler than in the pale specimens of Chlorophorus varius (Müll.) f. "damascenus Chevr."

Bionomy. All available specimens of Chlorophorus hrabovskyi sp. n. were reared from pupae collected from the dried-out thicker branches, near the surface of the soil, of the desert shrub Aellenia subaphylla (Chenopodiaceae). Weevils, Baris kryzhanovskyi (Zasl.), were reared from thin branches of the same shrub. Beetles of both species emerged in May 1981 from pupae collected on 23rd April, 1981.

I believe that the specimens of Chlorophorus varius (Müll.), reported from Soviet Middle Asia as developing in roots of Aellenia subaphylla (Krivosheina 1975) and being accompanied on their host-plant by Baris kryzhanovskyi (Zasl.) (KRIVOSHEINA at al. 1975), were Chlorophorus hrabovskyi sp. n. This is also suggested by the position of the type-locality of Chlorophorus hrabovskyi sp. n. in the territory studied by these authors.

Agapanthia alaiensis sp. n. (Figs 13-18)

Agapanthia alaiensis sp. n. is compared with the most related species Agapanthia müllneri (Reitt.).

Type locality: USSR, Kirghizia, Kadamzhai, Fergana env.

Type material: Holotype, ♂, labelled: "SSSR, Kirgizie, Kadamdzaj, 6.5.1977, lgt. Brodsky". Paratypes, 2 ♂, 4 ♀, the same collecting data. Holotype deposited in the collection of the author, paratypes deposited in the collections of the author and O. BRODSKY (Prague).

Name derivation: named after Alai Mts., where the material was collected.

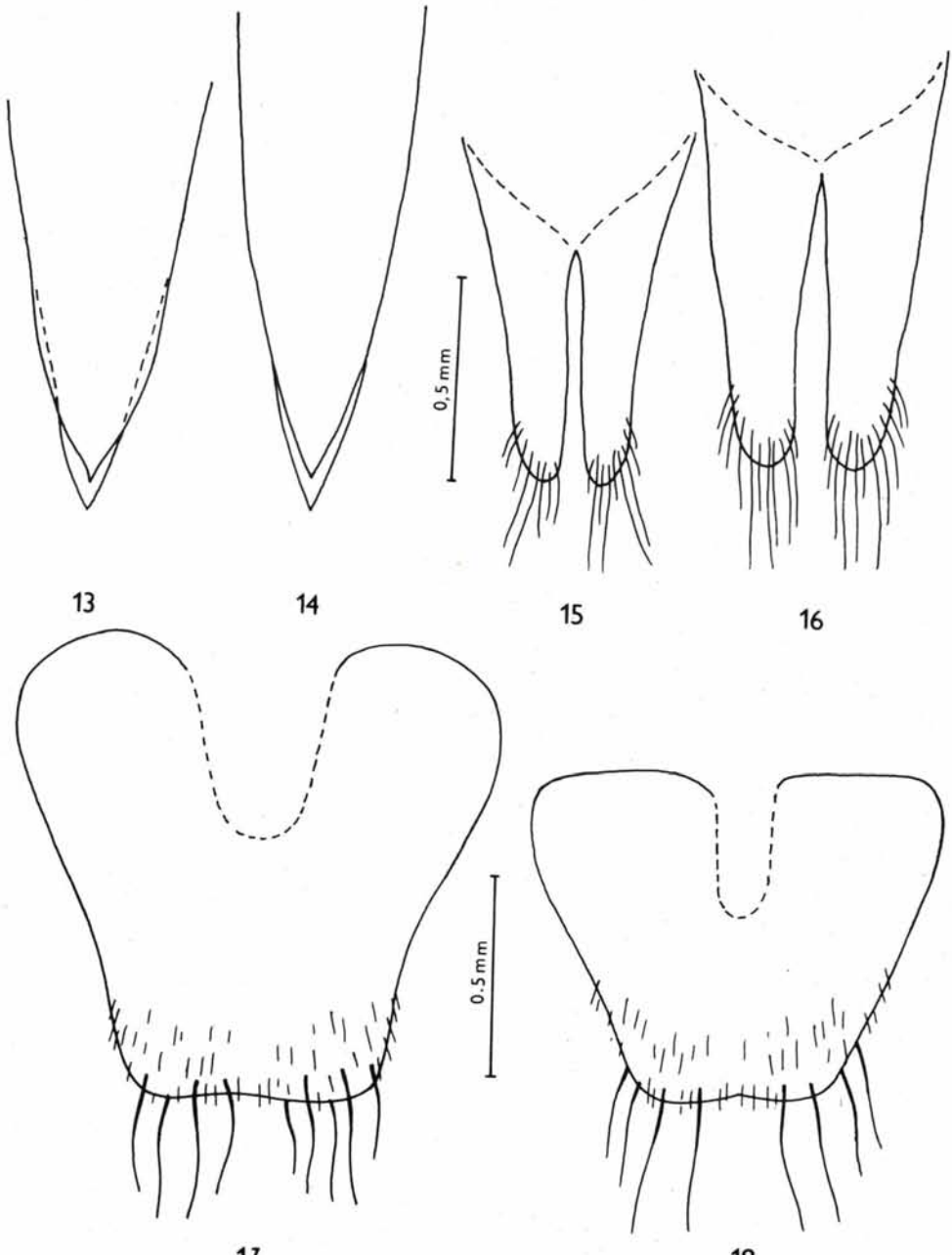
Description. Length 10-15 mm. Entire body black except of bicolorous antennae (red and black); pubescence of ventral side yellowish, dense; elytral pubescence irregular, dark yellow, recumbent. Basal two-thirds of elytra with isolate, long and dark hairs, posterior elytral third with shorter and dark recumbent pubescence. Epipleura with dense, yellowish pubescence.

Frons with dense and recumbent yellowish pubescence; this pubescence is condensed on vertex into a medial strip. Anterior part of head with rigid and dense black hairs.

Pronotal pubescence condensed into three longitudial and yellowish stripes with isolated long and dark hairs. Scutellum with dense and recumbent yellowish pubescence.

legs with two types of pubescence: yellowish, recumbent pubescence, and dark, rigid and somewhat irregular pubescence.

First antennal segment with dark and rather long rigid pubescence and with isolated very long black hairs; pubescence is denser on the ventral side of segment. Sometimes first antennal segment also with very slight yellowish pubescence at the base of dorsal side. The following antennal segments with sparse and fine white pubescence in basal half, with very indistinct basal ring; distal



Figs 13-18: Apical part of aedeagus in Agapanthia alaiensis sp. n. (13) and Agapanthia müllneri (Reitt.) (14). Parameres of Agapanthia alaiensis sp. n. (15) and Agapanthia müllneri (Reitt.) (16). Postpygidium in Agapanthia müllneri (Reitt.) (17) and Agapanthia alaiensis sp. n. (18)

part of these antennal segments with black pubescence. Antennae with isolated, long and rigid hairs which form tufts on apex of segments 3-5; these tufts are most distinct on the 3rd segment and almost indistinct on the 5th segment; following antennal segments only with isolated hairs.

Pronotum wider than long with indistinct lateral knoll in posterior half with regular puncturation. Scutellum rounded. Elytra parallel, rounded or obtusely pointed apically. Antennae of male overlapping elytral apex with 3 1/2 distal segments, antennae of female only with 2 segments. Pygidium with a rounded apical incurvation. Aedeagus rather short and robust with tapering apex. Parameres rounded apically with longer, black hairs. Postpygidium with shallow apical incurvation (Figs 13, 15, 18).

Differential diagnosis: Agapanthia alaiensis sp. n. is very closely related with Agapanthia müllneri (Reitt.) so it is compared with it. They differ for the first sight in the shape of elytra and in the lenth of antennae. Agapanthia müllneri (Reitt.) possesses elytra narrowed and tapering in the posterior third, unlike Agapanthia alaiensis sp. n. which possesses subparallel elytra with rounded or slightly tapering apex. Antennae of males Agapanthia müllneri (Reitt.) longer than those of Agapanthia alaiensis sp. n. There are also slight differences in the shape of pronotum. Agapanthia müllneri (Reitt.) has pronotum with a lateral knoll in posterior half, unlike Agapanthia alaiensis sp. n. whose pronotum with a very indistinct lateral knoll. The main difference is in the pubescence of the body and antennae. The basal antennal segments of Agapanthia alaiensis sp. n. with fine white pubescence and with very indistinct basal ring. The typical tufts of dark hairs on the 3rd segment are conspicuously long and dense; also rigid pubescence of inner side of antennae is rather long. Basal antennal segments of Agapanthia müllneri (Reitt.) with fine and dense pubescence and distinct basal ring. Rigid pubescence of inner side of antennal segments 3-5 shorter in Agapanthia müllneri (Reitt.).

Elytra of Agapanthia alaiensis sp. n. with long and dark pubescence reaching to 2/3 of elytral length; posterior third of elytra with shorter and more recumbent pubescence. Elytra of Agapanthia müllneri (Reitt.) with long and rigid pubescence reaching only to 1/3 of elytral length; posterior two thirds with shorter and recumbent dark pubescence.

Legs of Agapanthia müllneri (Reitt.) with very sparse, black and rather long pubescence which is more distinct on fore legs and almost indistict on hind legs. Legs of Agapanthia alaiensis sp.n. with longer and denser pubescence which is rather irregular and well visible on all legs.

Aedeagus of Agapanthia müllneri (Reitt.) more slender and longer than that of Agapanthia alaiensis sp. n. (Figs 13, 14). Parameres of Agapanthia müllneri (Reitt.) somewhat longer than those of Agapanthia alaiensis sp. n. (Figs 15, 16). Male postpygidium of Agapanthia müllneri (Reitt.) more incurved laterally and more tapering posteriorly than that of Agapanthia alaiensis sp. n. (Figs 17, 18).

Bionomy is unknown.

Note: KOSTIN (1972) asserts that there is no essential morphological difference between Agapanthia müllneri (Reitt.) and Agapanthia lateralis (Gnglb.), so that both species should be considered as geographic races of the same species (p. 599). At the same time, he gives Agapanthia müllneri (Reitt.) as junior synonym of Agapanthia lateralis (Gnglb.) (l. c., p. 604). No further evidence is given in support of one of those contradictory opinions. Agapanthia lateralis (Gnglb.) is generally considered as an east-Mediterranean species occurring in southeastern Europe, Asia Minor, Syria, Palestine, etc., while Agapanthia müllneri (Reitt.) occurs in the Middle Asia. It is true that PLAVILSHTSHIKOV (1968) mentioned the description of Agapanthia lateralis ssp. bilateralis Pic. alleged to come from "Turkestan" as well as the data about the occurrence of Agapanthia müllneri (Reitt.) in Israel, nevertheless, these data are considered as doubtful and not verified by PLAVILSHTSHIKOV (1968) himself.

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