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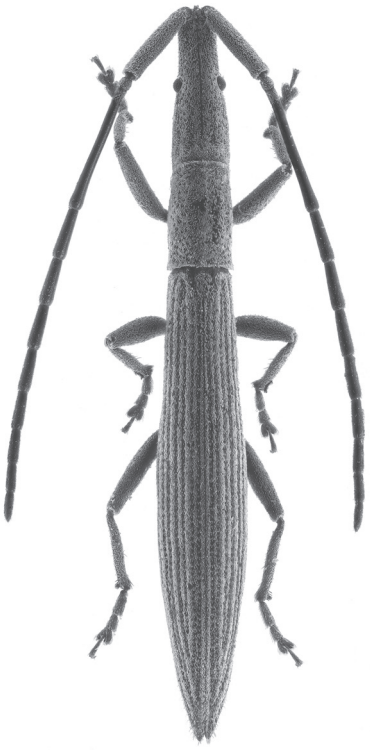

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Acmaeoderella (*Euacmaeoderella*) *lobanovi* sp. n. – a new species of jewel beetles (Coleoptera: Polycestinae: Acmaeoderini) from Iran

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Zoological Institute of the Russian Academy of Sciences, Universitetskaya Emb., 1, St Petersburg 199034 Russia. E-mail: polycest@zin.ru

Abstract. *Acmaeoderella* (*Euacmaeoderella*) *lobanovi* **sp. n.** from Iran (Fars, Kerman, Kordestan and Lorestan provinces) is described, illustrated and compared with closely related species *A.* (*E.*) *strandi* (Obenberger, 1918). *Acmaeoderella lobanovi* **sp. n.** differs from *A. strandi* by wider and denser scale pubescence and aedeagus structure in the first place. The bionomy of the new species is unknown but it belongs to the *canescens* species-group comprising species associated with Ferula and Dorema spp. (Apiaceae). The new species is named after late Dr A.L. Lobanov, the creator and many-years web-master of the world's largest coleopterological website "Beetles (Coleoptera) and coleopterists".

Key words: Coleoptera, Buprestidae, Polycestinae, Acmaeoderini, *Acmaeoderella*, subgenus *Euacmaeoderella*, new species, Iran.

***Acmaeoderella* (*Euacmaeoderella*) *lobanovi* sp. n. – новый вид жуков-златок (Coleoptera: Polycestinae: Acmaeoderini) из Ирана**

© М.Г. Волкович

Зоологический институт Российской академии наук, Университетская наб., 1, Санкт-Петербург 199034 Россия. E-mail: polycest@zin.ru

Резюме. Представлено иллюстрированное описание *Acmaeoderella* (*Euacmaeoderella*) *lobanovi* **sp. n.** из Ирана (провинции Фарс, Керман, Курдистан и Лорестан); приведено его сравнение с близким видом *A.* (*E.*) *strandi* (Obenberger, 1918). *Acmaeoderella lobanovi* **sp. n.** отличается от *A. strandi* в первую очередь более широким и частым чешуйчатым опушением и строением эдеагуса. Биономия нового вида неизвестна, но он принадлежит к видовой группе *canescens*, виды которой развиваются на зонтичных из родов Ferula и Dorema (Apiaceae). Новый вид назван в память А.Л. Лобанова, создателя и многолетнего веб-редактора крупнейшего в мире колеоптерологического сайта «Жуки (Coleoptera) и колеоптерологи».

Ключевые слова: Coleoptera, Buprestidae, Polycestinae, Acmaeoderini, *Acmaeoderella*, подрод *Euacmaeoderella*, новый вид, Иран.

Introduction

The subgenus *Euacmaeoderella* Volkovitsh, 1979 is the most speciose group of the genus *Acmaeoderella* Cobos, 1955 within Iranian Acmaeoderini [Ghahari et al., 2015; Kubáň et al., 2016]. Recently, I received for study numerous specimens of an unknown species of this subgenus collected by different collectors in several provinces of Iran. This species is very similar and closely related to *A.* (*E.*) *strandi* (Obenberger, 1918) from Kopetdagh Mts. in Southern Turkmenistan and Northern Iran (Golestan, North Khorasan provinces). The latter species is associated with Ferula and Dorema (Apiales: Apiaceae) [Volkovitsh, Alexeev, 1994]. A description of a new species is presented below.

Material and methods

The following abbreviations for institutional and private collections are used in the text:

DGCC – D. Gianasso collection (Castelnuovo Don Bosco, Italy);

EJCB – E. Jendek collection (Bratislava, Slovakia);

HNHM – Hungarian Natural History Museum (Budapest, Hungary);

MKCY – M. Kalashian collection (Yerevan, Armenia);

PKCP – P. Kabátek collection (Prague, Czech Republic);

RRCP – R. Rejzek collection (Prague, Czech Republic);

VKCB – V. Kubáň collection (Šlapanice near Brno, Czech Republic);

ZIN – Zoological Institute of the Russian Academy of Sciences (St Petersburg, Russia).

Data from locality labels are cited verbatim. The following abbreviations are used in the text: (h) for handwritten data, (p) for printed data, (PC) – personal computer, (Ph) – photo-label. Photographs of the habitus and external morphological structures were taken using Leica MZ-9.5 stereomicroscope with mounted Leica DFC-290 camera; photographs of the genitalia were taken using Bresser-Biolux light microscope with integrated imaging system.

Acmaeoderella (*Euacmaeoderella*) *lobanovi* **sp. n.**
(Figs 1–4, 9, 11, 13–16, 20–23, 26, 27)

Material. Holotype, ♂ (ZIN): "IRAN, Färs prov., 11 km NW of Tang-e-Sorkh, 2500+-150 m 30°29′24.3″N 51°39′29.4″E, # 4 L. Dembický leg., 26–28.V.2017" (p, PC). Paratypes: 5♂, 8♀, 1 unsexed specimens (EJCB, ZIN), same label; 4 unsexed specimens (HNHM, ZIN), "IRAN, Prov. Kordestăn Mts. Zagros, Askaran N 35°05.088′ E0 46°54.237′ (1 365 m)" (p, PC), "2008.V.8 singling and sweep netting leg.: T. Hácz, H. Székeli &

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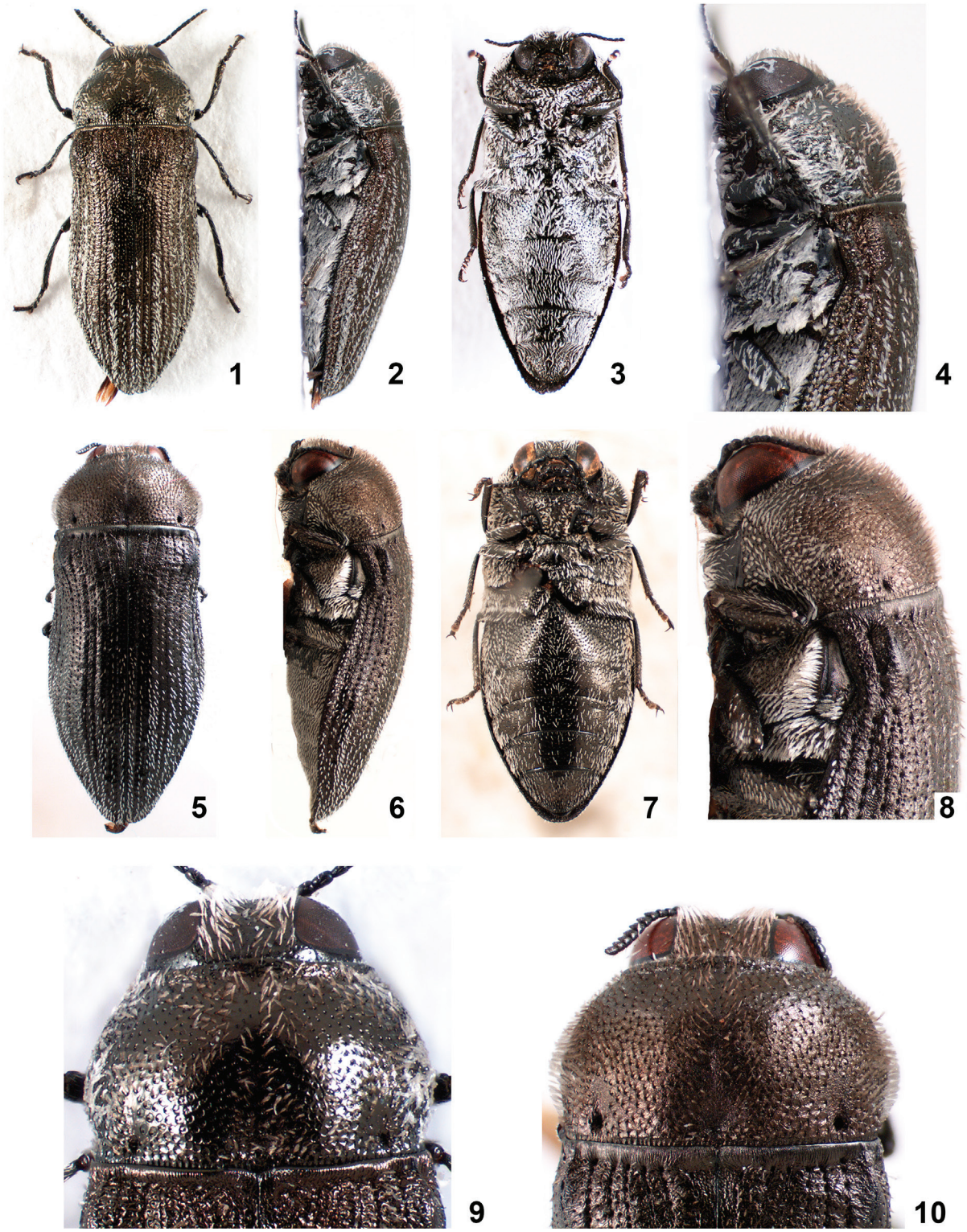


Figs 1–10. *Acmaeoderella* (*Euacmaeoderella*) *lobanovi* **sp. n.** and *A.* (*E.*) *strandi*, habitus and details of structure.

1–4, 9 – *A.* (*E.*) *lobanovi* **sp. n.**: 1, 2, 4, 9 – male, holotype (body length 6.9 mm): 1 – habitus, dorsal view, 2 – same, lateral view, 4 – body, anterior part, lateral view, 9 – head and pronotum, dorsal view; 3 – female, paratype (ZIN), same label as holotype, ventral view. 5–8, 10 – *A.* (*E.*) *strandi*, female, Kara-Kala, Turkmenistan (body length 7.9 mm): 5 – habitus, dorsal view, 6 – same, lateral view, 7 – same, ventral view, 8 – body, anterior part, lateral view, 10 – head and pronotum, dorsal view.

Рис. 1–10. *Acmaeoderella* (*Euacmaeoderella*) *lobanovi* **sp. n.** и *A.* (*E.*) *strandi*, габитус и детали строения.

1–4, 9 – *A.* (*E.*) *lobanovi* **sp. n.**: 1, 2, 4, 9 – самец, голотип (длина тела 6.9 мм): 1 – габитус, вид сверху, 2 – габитус, вид сбоку, 4 – передняя часть тела, вид сбоку, 9 – голова и переднеспинка, вид сверху; 3 – самка, паратип (ЗИН), с такой же этикеткой, как у голотипа, габитус, вид снизу. 5–8, 10 – *A.* (*E.*) *strandi*, самка, Кара-Кала, Туркменистан (длина тела 7.9 мм): 5 – габитус, вид сверху, 6 – габитус, вид сбоку, 7 – габитус, вид снизу, 8 – передняя часть тела, вид сбоку, 10 – голова и переднеспинка, вид сверху.

Figs 11–17. *Acmaeoderella* (*Euacmaeoderella*) *lobanovi* **sp. n.** and *A.* (*E.*) *strandi*, details of structure.

11, 13–16 – *A.* (*E.*) *lobanovi* **sp. n.**: 11, 13, 15–16 – male, holotype: 11 – head, frontal view, 13 – right antenna, 15 – right ptotibia and protarsus, 16 – right metatibia and metatarsus; 14 – female, paratype (ZIN), same label as holotype, right antenna. 12, 17 – *A.* (*E.*) *strandi*: 12 – female, Kara-Kala, Turkmenistan, head, frontal view, 17 – male, same label, right metatibia and metatarsus.

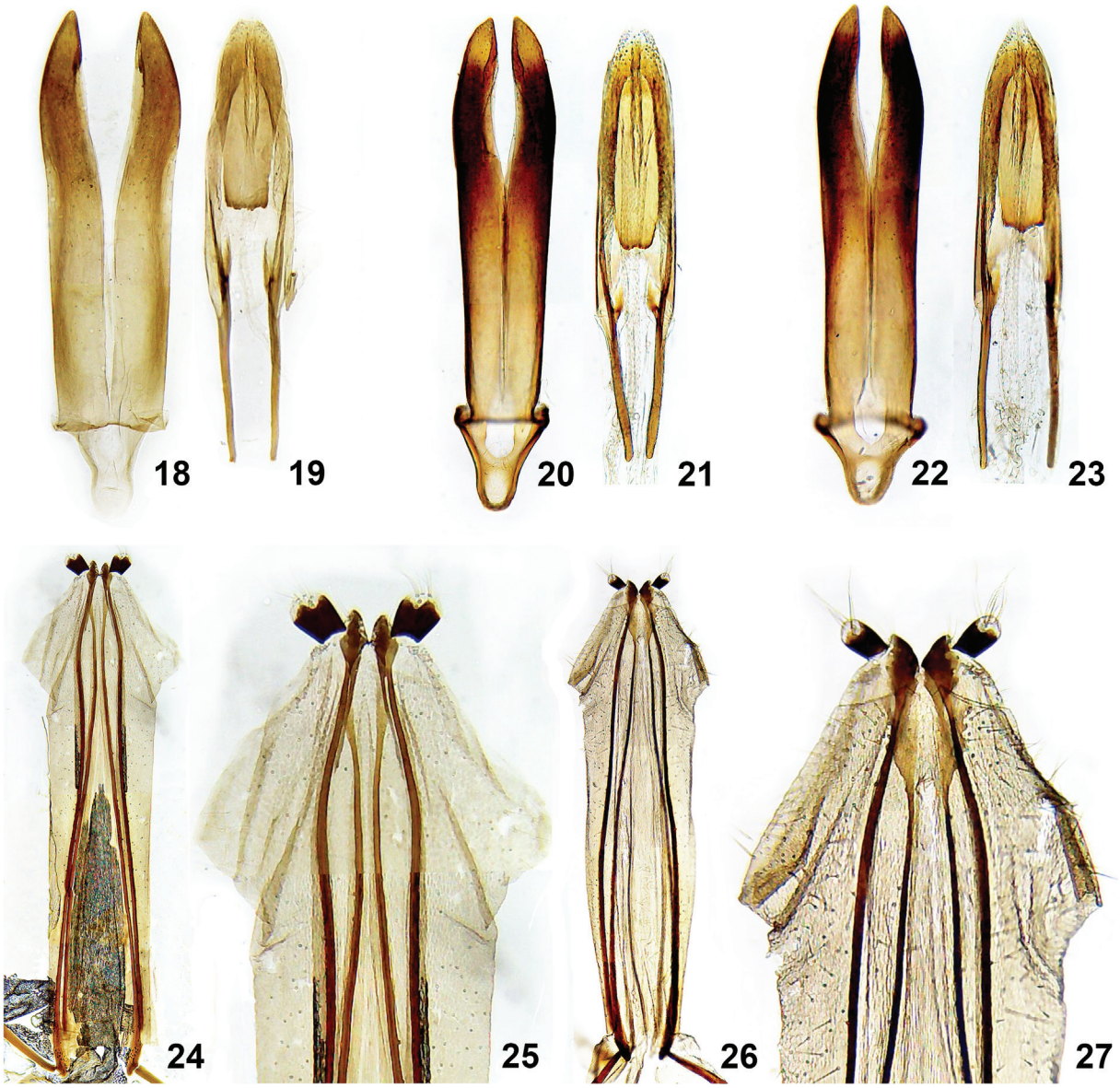
Рис. 11–17. *Acmaeoderella* (*Euacmaeoderella*) *lobanovi* **sp. n.** и *A.* (*E.*) *strandi*, детали строения.

11, 13–16 – *A.* (*E.*) *lobanovi* **sp. n.**: 11, 13, 15–16 – самец, голотип: 11 – голова, вид спереди, 13 – правая антенна, 15 – правая передняя голень и лапка, 16 – правая задняя голень и лапка; 14 – самка, паратип (ЗИН), с такой же этикеткой, как у голотипа, правая антенна. 12, 17 – *A.* (*E.*) *strandi*: 12 – самка, Кара-Кала, Туркменистан, голова, вид спереди, 17 – самец с такой же этикеткой, правая задняя голень и лапка.

K. Vig" (p, PC), "Acmaeoderella (Euacmaeoderella) *iranica* (Obenberger, 1934) Volkovitsh det. 2014" (misidentification) (p, PC); 1♂ (MKCY), "IRAN, Kurdistan province, Marivan-Garan, oak forest Purple sticky trap, 01.09.2010, H. Ghobari leg." (p, PC); 1 unsexed specimen (PKCP), "W Iran, p. Lorestan, Dorud 80 km E Horramābād 3325 N 4906 E 11.6.1999 lgt. P. Kabátek" (p, PC), "Acmaeoderella (Euacmaeoderella) [p, Ph] strandi [h] (Obb.) ?ssp. [h] M. Volkovitsh det. 200[p, Ph]2[h]"; 1♀ (DGCC), "S Iran, Färs Dint. Dalin „Lost Paradise" 30°19′ N 52°08′ E 17-5-2005 m. 1.780 Leg. D. Gianasso" (p, PC) (temporal microslide No 1872); 3♂, 1♀ (RRCP, ZIN), "SW IRAN, Fars prov. 14 km S Yasuj, 2000 m 30°32′45″N 51°36′16″E 4.5.2016 lgt. R. Rejzek" (p, PC) (2 male microslides No 1958, 1959); 1 unsexed specimen (VKCB), "IRAN, Fars prov., Yasuj Sarab-e Taveh, elev. 2030m 30.545° N, 51.61° E, +- 600m M. Kafka lgt., 4.5.2016"; 1♀ (DGCC), "S Iran, Kermān Ferdous 20-4-2007 (70 km O di Jiroff) leg. D. Gianasso m. 1730" (h) (temporal microslide No 1873).

Description. Body (Figs 1–3) of medium size, robust, 2.86 (2.73–3) times as long as pronotum width at base, convex, with strong dorsal inflection; blackish, with slight copper sheen, elytra unicolour, black with feeble copper sheen; body covered with lanceolate and widely lanceolate white scales, nearly concealing background ventrally. Body length 7.1 (6.4–7.8) mm, width at pronotal base 2.5 (2.2–2.8) mm (n = 20: 10♂, 10♀); holotype: body length 6.9 mm, width at pronotal base 2.3 mm, body 3 times as long as pronotum width at base.

Head (Figs 9, 11) slightly depressed or flattened when seen from above; eyes convex, not protruding or slightly protruding beyond head contour; vertex weakly depressed, frons widely depressed medially, frequently with distinct medial groove, sides subparallel or slightly diverging, weakly incurved. Vertex relatively narrow, 1.34 (1.16–1.53) times as wide as transverse diameter of eye and 1.09 (1–1.19) times as wide as frons above antennal sockets. Clypeus very narrow, with anterior margin shallowly emarginate. Frons bearing ocellate sculpture medially, changing to reticulate at lower part and vertex, consisting of medium, round, superficial umbilicate punctures with poorly defined central grains and eccentric micropunctures, intervals between them equal to 1–1/4 diameter of punctures; covered with semi-erect lanceolate, brownish or white scales not concealing sculpture at upper part of frons and on vertex, and with large widely lanceolate scales nearly concealing background at lower part of frons. Antennae



Figs 18–27. *Acmaeoderella* (*Euacmaeoderella*) *lobanovi* **sp. n.** and *A.* (*E.*) *strandi*, male and female genitalia.

20–23, 26–27 – *A.* (*E.*) *lobanovi* **sp. n.**: 20–23 – males, paratypes (ZIN) (microslides 1958, 1959): 20, 22 – tegmen, dorsal view, 21, 23 – penis; 26–27 – female, paratype (DGCC) (temporal microslide 1872), Dalin, Fars, Iran: 26 – ovipositor, dorsal view, 27 – ovipositor, anterior part, dorsal view. 18–19, 24–25 – *A.* (*E.*) *strandi*: 18–19 – male, Kara-Kala, Turkmenistan (microslide 350): 18 – tegmen, dorsal view, 19 – penis; 24–25 – female, same label (microslide 338): 24 – ovipositor, dorsal view, 25 – ovipositor, anterior part, dorsal view.

Рис. 18–27. *Acmaeoderella* (*Euacmaeoderella*) *lobanovi* **sp. n.** и *A.* (*E.*) *strandi*, гениталии самца и самки.

20–23, 26–27 – *A.* (*E.*) *lobanovi* **sp. n.**: 20–23 – самцы, паратипы (ЗИН) (микропрепараты 1958, 1959): 20, 22 – тегмен, вид сверху, 21, 23 – пенис; 26–27 – самка, паратип (DGCC) (временный микропрепарат 1872), Далин, Фарс, Иран: 26 – яйцеклад, вид сверху, 27 – яйцеклад, передняя часть, вид сверху. 18–19, 24–25 – *A.* (*E.*) *strandi*: 18–19 – самец, Кара-Кала, Туркменистан (микропрепарат 350): 18 – тегмен, вид сверху, 19 – пенис; 24–25 – самка с такой же этикеткой (микропрепарат 338): 24 – яйцеклад, вид сверху, 25 – яйцеклад, передняя часть, вид сверху.

(Figs 13, 14) relatively short, in male 1.38 (1.29–1.52) times, in female 1.28 (1.21–1.38) times as long as height of eye, expanded from antennomere 5, almost the same in both sexes; antennomere 2 oval, swollen; antennomeres 3 and 4 subequal, 4 slightly, sometimes distinctly expanded toward apex; antennomere 5 triangular, slightly wider than long; antennomeres 6–10 triangular, slightly wider than long; antennomere 11 oval, distinctly longer than wide.

Pronotum (Figs 4, 9) transverse, 1.65 (1.55–1.77) times as wide at base as long, widest at middle, just posteriorly of middle, or before basal third; sides nearly regularly arcuate, diverging toward anterior angles slightly longer then toward basal angles; surface convex with distinct medial and prebasal depressions. Anterior margin weakly arcuately protruding forward, transversely impressed, basal margin straight. Lateral carina absent or poorly marked. Pronotum moderately convex, with rather deep medial depression or groove merging with large prescutellar depression, extending to basal third of pronotum; lateral fossae well-marked, deep, surrounded by distinct depressions. Pronotal sides and base covered with reticulate, nearly alveolate sculpture, changing toward disk to ocellate sculpture of umbilicate punctures with more or less marked central grains and micropunctures; toward anterior half of disk umbilicate punctures partly obliterated forming asperate sculpture and then simple punctate sculpture of micropunctures with intervals 3–5 and more times wider than their diameter.

Pronotal sides covered with large, widely lanceolate, white scales, almost completely concealing background, disk covered with shorter, semi-erect, lanceolate, brownish scales, not concealing pronotal sculpture. Anterior prosternal margin (Fig. 3) arcuately emarginated, finely edged, without transverse sulcus; prosternal process wide and convex, covered with reticulate and ocellate sculpture of small round, umbilicate punctures; prothoracic hypomera with ocellate sculpture of large superficial umbilicate punctures with indistinct inner structures. Meso-, metasternum and metacoxal plates bearing same sculpture as prosternal process and covered with widely lanceolate scales completely concealing background on sides.

Elytra (Figs 1, 2, 4) wide, robust, 2.3 (2.17–2.41) times as long as wide at base, strongly convex, triangularly flattened basally between humeral swellings; sides subparallel or slightly diverging posteriorly of humeral swellings toward posterior third, then long, arcuately converging to narrowly rounded apices. Subhumeral excision deep, arcuate (Fig. 4); epipleural serration formed by very small, blunted, saw-like denticles at posterior third. Strial punctures small, round or elongate, rather shallow, separated in anterior half of elytral length, merging in posterior half, sometimes striae slightly sulcate. Intervals flat, sometimes slightly convex, wide, 2.5–5 times as wide as striae; 9th interval distinctly elevated and covered with dense lanceolate scales concealing sculpture; intervals covered with confused, mainly multiseriate micrpunctures on coarsely rugulose and weakly shining background, bearing uniseriate on even and multiseriate on odd intervals, white lanceolate scales. Elytra weakly shining, rarely matt, unicolour, black with feeble copper sheen.

Legs (Figs 1, 3, 15, 16). Black, with copperish or bronze sheen; metacoxal plates nearly subparallel, with shallowly emarginate posterior margin; covered with dense, widely lanceolate scales. Pro- and mesotibiae moderately expanded toward apices; metatibiae in male stronger expanded and paddle-like, with comb of brownish setae externally. Tarsi slender, protarsomere 1 equal 2nd one, meso- and metatarsomere 1 longer than 2nd one, tarsomeres 2–4 subequal on all tarsi, tarsomere 5 long, weakly expanded toward apex; tarsal pads well developed on all tarsomeres, smallest on tarsomere 1, become larger toward apex. Tarsal claws with small, rectangular internal tooth near mid-length, almost the same in both sexes (Fig. 15).

Abdomen (Fig. 3) dark bronze, bearing dense, reticulate sculpture of small umbilicate punctures on sides, changing to ocellate sculpture toward disk, covered with large, widely lanceolate white scales, completely concealing background on sides and slightly sparser and smaller on disk. Anal ventrite with narrowly rounded apex in both sexes, widely depressed laterally.

Male. Aedeagus (Figs 20–23) slender, parameres (Figs 20, 22) subparallel, or slightly expanded toward anterior third, sides slightly curved in preapical third, weaker sclerotized before moderately sharpened apices. Penis (Figs 21, 23) with subparallel, long and wide lamina, sharp apex and long, slightly curved basal struts.

Female. Ovipositor (Figs 26, 27) of tubular type, long, approximately 3.5 times as long as expanded apical part, with angularly emarginate apex, poorly sclerotized apices of both dorsal and ventral hemisternites, and subparallel-sided styli.

Differential diagnosis. By habitus and genital structures *Acmaeoderella lobanovi* **sp. n.** belongs to the *canescens* species-group of the subgenus *Euacmaeoderella*; it comes close to *A. strandi* from the Kopetdagh Range (Southern Turkmenistan) and Northern Iran, a single so far known species of this group with blackish-bronzy colouration (other species are predominantly blue). Both species differ from rather similar species of the *gibbulosa* species-group (*A. gibbulosa* (Ménétriés, 1832), *A. safavii* Volkovitsh, 1981, *A. brandli* Volkovitsh, 1981, *A. hamadanica* Volkovitsh, 1983) by wider vertex and longer antennae (in the species of the *gibbulosa* species-group the vertex is very narrow, equal or hardly wider than the diameter of one eye; antennal length is equal or hardly longer then height of one eye), as well as by the longer ovipositor and the aedeagus structure. From very similar *A. strandi* (Figs 5–8, 10, 12, 17–19, 24, 25) the new species differs by the shiny body, denser and widely lanceolate scales nearly concealing background on the lower part of the head, sides of the pronotum and underside; by much denser punctation on the frons and the pronotal disk; by more sulcate striae and narrower elytral intervals and by the subparallel lamina of the penis (in *A. strandi* body is mate, strongly shagreened; the pronotal disc bearing only micropunctures with intervals which 3–5 times larger than the diameter of micropunctures; remnants of umbilicate punctures are poorly visible on sides and the base of the pronotum, elytral striae are formed by very fine superficial punctures, intervals 4–6 times wider than striae, the lamina of the penis is distinctly expanded toward apex (Fig. 19)).

Host plant. Unknown. All other species of the *canescens* species-group are associated with Ferula and Dorema (Apiales: Apiaceae).

Distribution. Iran: Kordestan, Lorestan, Fars, Kerman.

Etymology. The new species is dedicated to the blessed memory of Andrei L'vovich Lobanov who was my friend and colleague during 50 years and who has been a creator and many-years web-master of the world's largest coleopterological website "Beetles (Coleoptera) and coleopterists", which includes an iconography and numerous materials on Buprestidae.

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