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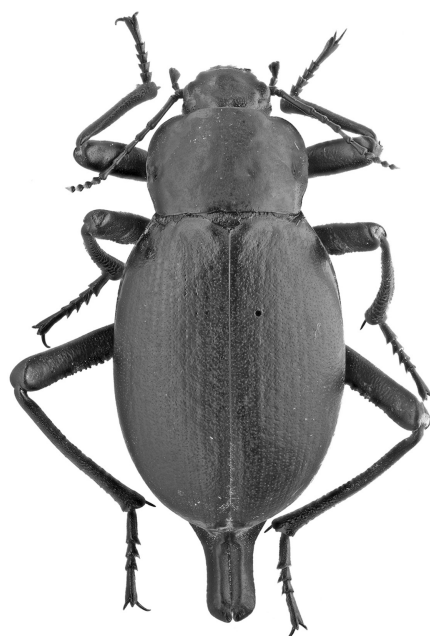


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A new peculiar species of *Poecilobothrus* Mik, 1878 (Diptera: Dolichopodidae) from Iran

Новый своеобразный вид рода *Poecilobothrus* Mik, 1878 (Diptera: Dolichopodidae) из Ирана

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Ключевые слова: Diptera, Dolichopodinae, Dolichopodini, *Poecilobothrus*, новый вид, Палеарктика, Иран, Лурестан.

Abstract. A new long-legged fly species *Poecilobothrus lorestanicus* sp. n. from Iran is described and illustrated. The new species appears to be quite distinct in having male mid tarsus with 2nd and 3rd segments elongated and laterally flattened, covered with dorsal and ventral rows of dense setae; and 4–5th segments with elongated setulae dorsally.

Резюме. Описан новый вид *Poecilobothrus lorestanicus* sp. n. из Ирана, отличающийся от всех видов рода удлинёнными и уплощёнными 2 и 3 члениками средней лапки самца, дорсально и вентрально несущими длинные щетинки, а также удлинёнными щетинками на 4 и 5 члениках той же лапки. Приведены фотографии ключевых признаков самца и самки.

The genus *Poecilobothrus* Mik, 1878 belongs to the subfamily Dolichopodinae, tribe Dolichopodini and numbers 14 Palaearctic species and subspecies [Grichanov, 2014]. Morphologically it is close to *Hercostomus* Loew, 1857, differing by the following combination of characters. Body medium to large size, hind femur with anterior seta positioned at apex, thorax with distinct dark spot above notopleuron, epandrial lobe well developed [Grichanov et al., 2011]. Species of the *Poecilobothrus* occur in the West Palaearctic countries with relatively mild climate, from southern Scandinavia in the North, to North Africa and Central Asia in the South. The Iranian fauna included 7 *Poecilobothrus* species. The most comprehensive key to known species of the genus was published by Khaghaninia et al. [2013].

Treating a new material collected during 2016 season from 64 sites in the Markazi and Lorestan provinces, we have found males and females of a new peculiar *Poecilobothrus* species described below.

Material and methods

The holotype and paratypes of the new species have been sampled by standard sweep net and are housed at the

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

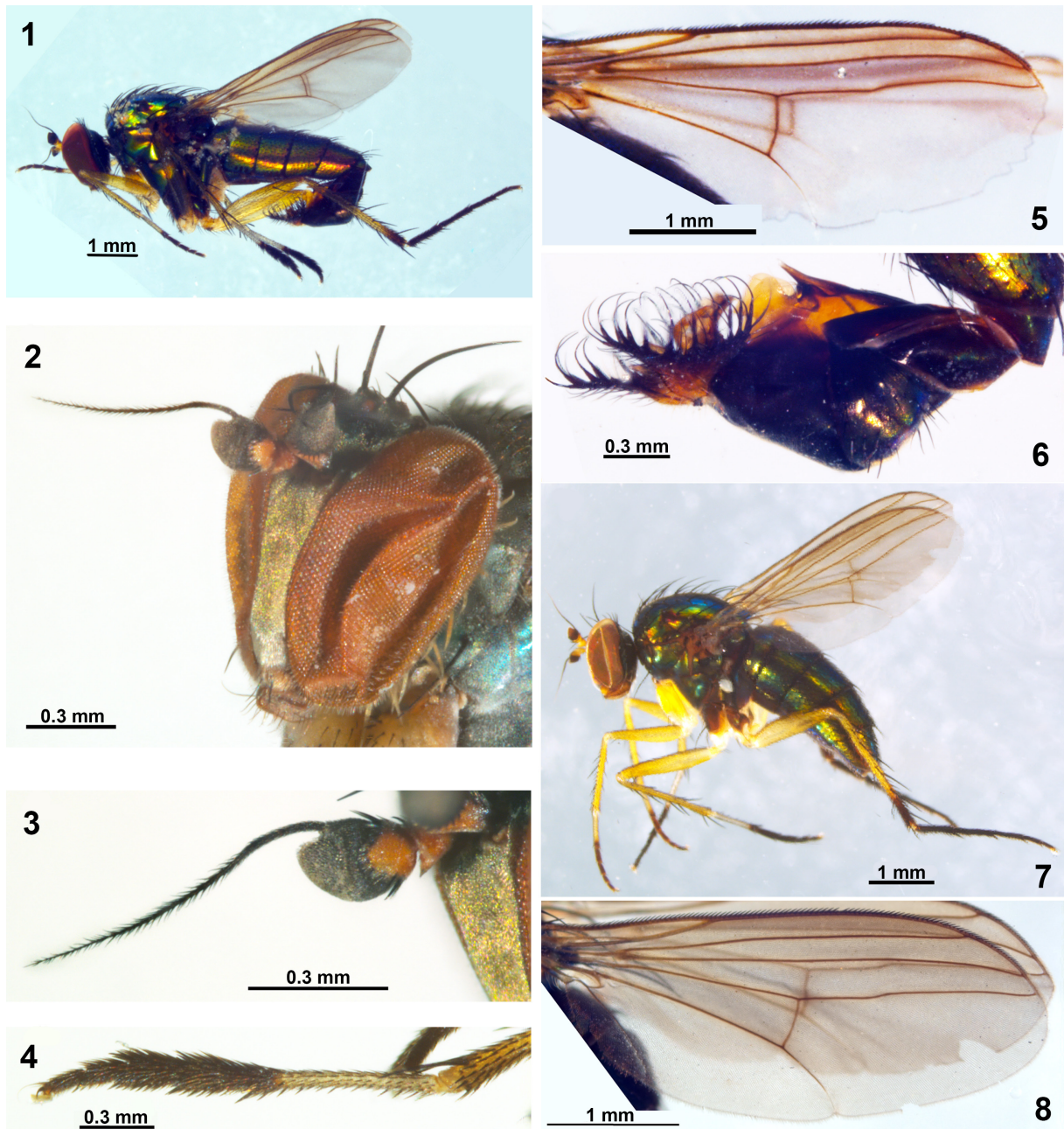
The specimens were studied and illustrated with ZEISS Discovery V-12 stereomicroscope and AxioCam MRc5 camera. Morphological terminology follows Cumming and Wood [2009]. The relative lengths of the podomeres are given in millimeters. Body length is measured from the base of the antenna to the tip of abdominal segment 7. Wing length is measured from the base to the wing apex. Figure showing the male genitalia in lateral view is oriented as they appear on the intact specimen (rotated 180° and lateroflexed to the right), with the morphologically ventral surface of the genitalia facing up, dorsal surface down, anterior end facing right and posterior end facing left.

Poecilobothrus lorestanicus Grichanov et Ahmadi, sp. n.
(Figs 1–8)

Material. Holotype, ♂: Iran, Lorestan Prov., Shirvan, 32°59.93'N, 49°35.28'E, 1456 m, on mud at river bank, 20.06.2016, Ahmadi/250 (ZIN, dried and mounted on pin). Paratypes (ZIN, in ethanol): 4♂, 1♀, same label; 1♂, Iran, Lorestan Prov., Khorram Abad, 33°46.91'N, 48°46.87'E, 1137 m, 20.06.2016, Ahmadi/251.

Description. Male (Fig. 1). Head (Fig. 2): frons metallic bluish green, sparsely pubescent; face yellow pollinose, clypeus white pollinose. One long and strong vertical on small mound at upper corner of frons, one short postvertical, pair of long and strong and pair of hairlike ocellar setae present; five upper postocular setae black; lateral and lower postocular setae white. Eyes with short hairs. Face parallel-sided and slightly narrowed to middle; face under antennae as wide as height of postpedicel; clypeus flat, not reaching lower margin of eyes. Antenna (Fig. 3) slightly shorter (7/8) than height of head; scape and pedicel mostly yellow, blackish dorsally; postpedicel entirely black, internally convex anteriorly, with short distal setulae; postpedicel asymmetric, subtriangular, with rounded apex, slightly longer than high, microscopically haired; stylus positioned at middle of dorsal side, black, pubescent, with hairs as long as basal diameter of stylus. Length ratio of scape to pedicel to postpedicel to stylomere 1 to stylomere 2, 14 : 11 : 21 : 16 : 56. Palpus and proboscis small; proboscis brown, with short hairs; palpus reddish yellow, with black hairs and 1 short black seta.

Thorax mostly dark bluish green, with strong black major



Figs 1–8. *Poecilobothrus lorestanicus* Grichanov et Ahmadi, *sp. n.*

1 – male habitus; 2 – male head; 3 – male antenna; 4 – male mid tarsus; 5 – male wing; 6 – hypopygium, lateral view; 7 – female habitus; 8 – female wing.

Рис. 1–8. *Poecilobothrus lorestanicus* Grichanov et Ahmadi, *sp. n.*

1 – внешний вид самца; 2 – голова самца; 3 – усик самца; 4 – средняя лапка самца; 5 – крыло самца; 6 – гипопигий сбоку; 7 – внешний вид самки; 8 – крыло самки.

bristles; mesonotum with metallic reflection and distinct dark metallic spot above notopleuron; pleura grey pollinose; 6 strong dorsocentral setae; 2 rows of acrostichals; 2 strong notopleural, 1 strong and 2 fine humeral, 1 posthumeral, 1 presutural, 1 sutural, 2 supraalar, 1 postalar setae present. Proepisternum with 1 strong black seta above fore coxa and several short light hairs. Scutellum with 2 strong and 2 small setae and some dorsal and marginal short hairs.

Legs mostly yellow; fore coxa yellow, middle and hind coxa black except for yellow apex; fore and mid tarsus black from apex of basitarsus; apex of hind tibia blackish, hind tarsus black. Fore

coxa with short black hairs anteriorly and several black setae at apex; mid coxa with 1 strong external seta and 1–2 apical setae in addition to black anterior hairs; hind coxa with 1 strong external seta at middle and 1–2 pedunculate apical setae anteriorly. Femora without long hairs. Fore tibia with 1 anterodorsal, 2 dorsal, 2–3 posterior, 2 apical setae, without long apicoventral cilia; fore tarsus simple. Length ratio of fore tibia to tarsus (segments from 1st to 5th), 1.34 : 0.6 : 0.27 : 0.2 : 0.13 : 0.19. Mid femur with 1 anterior and 1 posteroventral subapical setae. Mid tibia with 3 anterodorsal, 2 dorsal, 2 posterodorsal, 1 anteroventral and 3–5 apical setae. 1st segment of mid tarsus with 1–2 apicoventral

short setae; 2nd–3rd segments elongated and laterally flattened, with dorsal and ventral rows of long setae; 4–5th segments with elongated setulae dorsally (Fig. 4). Length ratio of mid tibia to tarsus (segments from 1st to 5th), 1.83 : 0.86 : 0.32 : 0.25 : 0.17 : 0.17. Hind femur with 1 anterodorsal seta at 3/4 of femora length. Hind tibia with 4 anterodorsal, 4 posterodorsal, 4 anteroventral, 3 apical setae. Hind basitarsus with 1–3 short basoventral and 2 short apical setae; 2nd–5th tarsomeres simple. Length ratio of hind tibia to tarsus (segments from 1st to 5th), 2.11 : 0.61 : 0.57 : 0.42 : 0.27 : 0.24.

Wing (Fig. 5) evenly greyish, dark in anterior half, veins brown. Costa simple. R₁ reaching to first third of wing length. R₂₊₃ almost straight. Ratio of part of costa between R₂₊₃ and R₄₊₅ to this between R₄₊₅ and M₁₊₂, 49 : 16. R₄₊₅ and M₁₊₂ slightly convex and convergent, joining costa before wing apex. Crossvein *dm-cu* almost straight, forming right angles with longitudinal veins. Ratio of *dm-cu* to distal part of CuA₁, 50 : 72. Posterior wing margin evenly convex. Anal vein distinct; anal lobe pronounced; anal angle obtuse. Lower calypter yellow, with black setae. Halteres yellow.

Abdomen shining greenish blue, weakly pollinose, narrowly black along sutures, covered with black hairs and setae; 6th–7th segments bluish black, bare; abdominal spiracle 7 invisible; 8th segment with numerous fine black cilia. Epandrium entirely black (Fig. 6). Hypandrium fused with epandrium except apex, simple. Phallus mostly hidden and simple; short basoventral seta on small mound present at base of hypandrium; distoventral epandrial lobe yellow, rounded with beaklike apex, fused with

epandrium, strongly projecting, with short thick seta ventrally and 1 apical short simple setae. Surstylus bilobed; ventral lobe subrectangular, excavated apically, with 1 short thick apical seta; dorsal lobe subtriangular, elongate, slightly longer than ventral lobe, laterally flattened and tapered to an acute upcurved point apically, bearing 1 short apical seta. Postgonite with posterodorsal portion well-developed, with acute ventrally curved medial lobe. Proctiger brushes absent. Cercus black, brown at base, triangular, as long as wide, with long, curved marginal setae, with apical and lateral margin jagged, with elongate digitiform projections.

Length (mm): body 5.5, antenna 1.2, wing 4.9/1.7.

Female (Figs 7–8) similar to male except lacking male secondary sexual characters, otherwise as follows. Face parallel-sided, 1.5 times wider than height of postpedicel; hemitergite 9+10 with 4 thick setae; mid tarsomere length ratio: 0.79 : 0.33 : 0.25 : 0.18 : 0.17.

Length (mm): body 5.5, antenna 1, wing 4.3/1.6.

Diagnosis. Antenna with scape and pedicel mostly yellow, blackish dorsally; postpedicel entirely black; face yellowish grey pollinose, clypeus white pollinose; legs mostly yellow; male mid tarsus with 2nd–3rd segments elongated and laterally flattened, with dorsal and ventral rows of long setae; cercus regularly triangular, large, as long as wide, with long, curved marginal setae, with apical and lateral margin jagged, with elongate digitiform projections.



Fig. 9. Habitat of *Poecilobothrus lorestanicus* Grichanov et Ahmadi, **sp. n.** and *Poecilobothrus regalis* (Meigen, 1824) in the Lorestan Province, Iran, June 2016.

Рис. 9. Место сбора *Poecilobothrus lorestanicus* Grichanov et Ahmadi, **sp. n.** и *Poecilobothrus regalis* (Meigen, 1824) в остане Лурестан, Иран в июне 2016 года.

The new species runs to *Poecilobothrus comitalis* (Kowarz, 1867) in the key of Khaghaninia et al. [2013] that must be modified as follows:

8. Mid tarsus with 2nd–3rd segments elongated and laterally flattened, with dorsal and ventral rows of long setae;
5.5 mm *lorestanicus* **sp. n.**
– Mid tarsus simple 8a
8a. Scape and pedicel (except dorsal side) reddish yellow; wing weakly and regularly darkened; fore coxa yellow;
4.5–7 *comitalis* (Kowarz)
– Antenna black, scape reddish yellow ventrally at apex; wing distinctly dark in anterior half; fore coxa grey;
4.5–6 *ducalis* (Loew)

Remarks. *Poecilobothrus lorestanicus* **sp. n.** was collected together with much more numerous *Poecilobothrus regalis* (Meigen, 1824) on mud along a river bank (Fig. 9). *Poecilobothrus regalis* is a common species distributed from West Europe to Uzbekistan [Grichanov, 2014].

Etymology. The species is named for the region of origin (Lorestan).

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