

A new species of *Micromorphus* Mik, 1878 from Turkey (Diptera: Dolichopodidae)

Новый вид рода *Micromorphus* Mik, 1878 из Турции (Diptera: Dolichopodidae)

I.Ya. Grichanov
И.Я. Гричанов

All-Russian Institute of Plant Protection, Podbelskiy roadway, 3, St. Petersburg–Pushkin 196608 Russia.
Всероссийский институт защиты растений, шоссе Подбельского, 3, Санкт-Петербург–Пушкин 196608 Россия.
Igor Grichanov grichanov@mail.ru ORCID <https://orcid.org/0000-0001-6367-836X>

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КЛЮЧЕВЫЕ СЛОВА: Peloropeodinae, *Micromorphus*, таксономия, новый вид, Палеарктика.

ABSTRACT: Description of a new species *Micromorphus vikhrevi* Grichanov **sp.n.** from Turkey is provided. The new species differs from all other species of the genus in unusually long setae on male cercus and segments 4 and 5 of abdomen. A key to six species of this genus from Turkey and adjacent countries is presented.

РЕЗЮМЕ: Дано описание нового вида *Micromorphus vikhrevi* Grichanov **sp.n.** из Турции. Новый вид отличается от других представителей рода необычно длинными щетинками на церках и 4-м и 5-м сегментах брюшка самца. Составлен определитель шести видов рода *Micromorphus* из Турции и соседних стран.

Introduction

The genus *Micromorphus* Mik, 1878, belongs to the subfamily Peloropeodinae, being known by 32 species worldwide and 12 species in the Palaearctic region [Grichanov, 2024]. The last key to ten Palaearctic species including doubtful *M. paludosus* (Karl, 1921) was published by Negrobov [2000]. Later, Mediterranean *M. aereus* (Vaillant, 1953) and Far Eastern *M. jinshanensis* (Wang, Yang et Grootaert, 2009) were transferred to the genus [Grichanov, 2024]. Grichanov [2007] published a key to four *Micromorphus* species known from the Caucasus and East Mediterranean. The Turkish fauna contains only one species, *M. albipes* (Zetterstedt, 1843), the type species of the genus [Tonguç *et al.*, 2016]. The Iranian fauna comprises two species, *M. mesasiaticus* Negrobov, 2000, and *M. minusculus* Negrobov, 2000 [Grichanov, Gilasian, 2023]. Recently, Bickel [2022] and Grichanov [2022] discussed characters and status of *M. albipes* and *M. paludosus*.

Treating collections of the Zoological Museum of Moscow State University (ZMMU), Moscow, Russia, I have found a male of a new *Micromorphus* species from Turkey, differing from all other species of the genus in unusually long setae on cercus and segments 4 and 5 of abdomen. A key to species of this genus from Turkey and adjacent countries is also presented.

Material and methods

The holotype of the new species is housed at the ZMMU collection. The specimen has been studied and illustrated with ZEISS Discovery V–12 stereomicroscope and AxioCam MRc5 camera. Genitalia preparation has been photographed with a ZEISS AxioStar stereo microscope and an AxioCam ICc3 camera. The measurement accuracy of these microscopes is 0.01 mm. Morphological terminology and abbreviations follow Cumming & Wood [2017] and Grichanov & Brooks [2017]. The lengths of the antennomeres, podomeres and sections of wing veins are given in millimetres. Body length is measured from the base of the antenna to the tip of abdominal segment 6. Wing length is measured from the base to the wing apex. The figures showing the hypopygium and its appendages in lateral view are oriented as they appear in the intact specimen, with the morphologically ventral surface of the genitalia facing upwards, dorsal surface downwards.

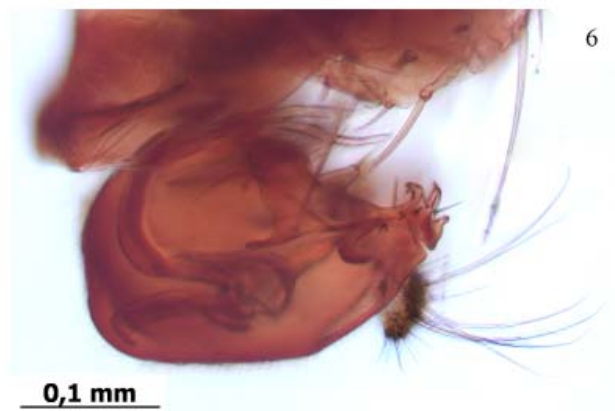
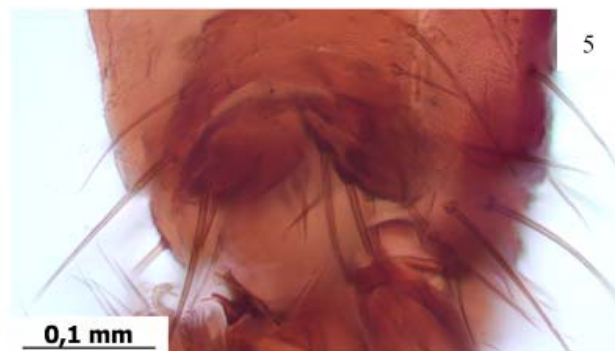
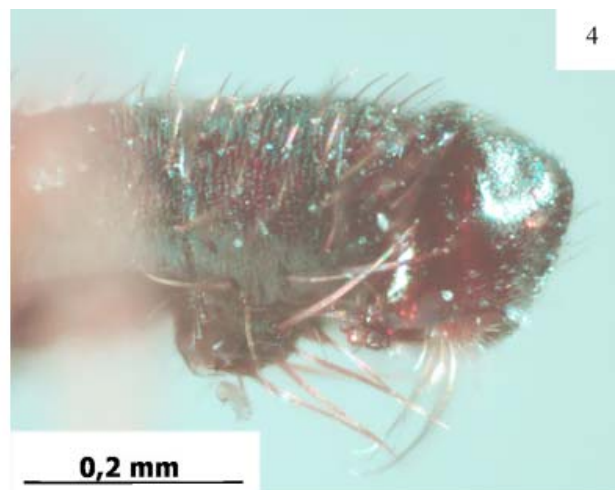
Micromorphus vikhrevi **sp.n.**
Figs 1–6.

MATERIAL. Holotype ♂, Turkey, Mersin prov., near Silifke, 36.405°N, 33.804°E, river, 23.IV.2010, N. Vikhrev leg. (ZMMU; male terminalia dissected and stored in glycerin in microvial pinned with the specimen). Holotype in good condition.

DESCRIPTION. **Male** (Fig. 1). *Head* (Fig. 2). Frons and face bluish black, whitish pollinose; one long vertical seta at upper corner of frons; one short postvertical seta positioned

behind vertical seta; ocellar setae long; postocular setae mainly white, slightly increasing in length downward, few upper postoculars dark; eyes with short ommatrichia; face under antennae 1.6 times as wide as height of postpedicel, narrowing towards clypeus; antenna black, slightly longer than head height; scape small, vase-like; pedicel larger, globular, with ring of short setulae and 1–2 elongate apicodorsal setae; postpedicel subtriangular, as long as high at base, densely haired;

arista-like stylus dorsoapical, nearly 6 times as long as postpedicel, pubescent, with short thick segment 1 and filiform segment 2; length (mm) of scape, pedicel, postpedicel, stylus, 0.04/0.05/0.07/0.4; proboscis small, brown, palpus yellow, oval, with light seta and white pubescence. *Thorax*. Black, with black bristles; mesonotum weakly pollinose, flattened posteriorly; pleura whitish pollinose; 5 (2+3) dorsocentrals, with 5th seta shifted towards lateral margin and 1st seta short;



Figs 1–6. *Micromorphus vikhrevi*, sp.n., male holotype: 1 — habitus; 2 — head; 3 — wing; 4 — apex of abdomen, left lateral view; 5 — segments 4 and 5 of abdomen, ventral view; 6 — hypopygium, right lateral view.

Рис. 1–6. *Micromorphus vikhrevi*, sp.n., голотип, самец: 1 — внешний вид; 2 — голова; 3 — крыло; 4 — вершина брюшка, слева сбоку; 5 — 4-й и 5-й сегменты брюшка, снизу; 6 — гипопигий, справа сбоку.

acrostichals absent; upper propleuron with 3 short white setae; proepisternum with 3 short white setae; scutellum with 1 pair of strong bristles. *Legs*. Including coxae yellow, tarsomeres 3–5 blackish brown; all tarsi simple, with segment 5 flattened dorso-ventrally, with small pulvilli and claws; fore and mid coxae with yellow anterior and apical setae; hind coxa with 1 yellow bristle at middle; fore leg without strong setae and long hairs; mid femur simple, bearing 1 strong but short anterior subapical bristle and 2 rows of ventral hairs, half as long as height of femur; mid tibia simple, with 1 anterodorsal and 1 posterodorsal setae in basal half and 3 apical setae; no ventral setae; hind femur with 1 rather short anterior subapical seta, with elongate dorsal setae in basal third; hind tibia simple, with short setae, 1 anterodorsal and 1 posterodorsal at basal third, 1 dorsal seta at middle; hind basitarsus with 1 short ventral seta at base; tibia and tarsomere (from first to fifth) length (mm): fore leg: 0.48/0.23/0.13/0.09/0.05/0.07, mid leg: 0.63/0.34/0.16/0.11/0.07/0.06, hind leg: 0.74/0.21/0.22/0.12/0.09/0.07. *Wing* (Fig. 3). Hyaline, with greyish tinge, veins brown; costa simple, with simple costal setulae; ratio of part of costa between R_{2+3} and R_{4+5} to that between R_{4+5} and M_{1+2} , 24/14; R_{2+3} and R_{4+5} diverging towards wing apex; R_{4+5} and M_{1+2} slightly convex anteriorly, subparallel in distal half; ratio of $dm-m$ to apical part of M_4 , 8/35; anal vein weak, not reaching wing margin; anal lobe developed; lower calypter small, yellow, with yellow setae; halter yellow. *Abdomen* (Fig. 4). Black, cylindrical, with short light setae; terga 4 and 5 bearing very long light setae ventrally, about as long as tergum 5; tergum 6 hidden, glabrous; sternum 4 well developed, with 2 long light setae laterally; sternum 5 divided into 2 rounded sclerites, each bearing very long light setae distally (Fig. 5); segment 7 concealed in dry specimen; segment 8 black, large, covering about half of left lateral surface of epandrium, covered with short setae; hypopygium (Fig. 6) black, with small yellow cercus; epandrium black, globular, longer than high; hypandrium basoventral, narrow, straight at apex; phallus simple and narrow; basoventral epandrial lobe short, thick, with few long and short setae and thin process; midventral epandrial lobe digitiform, narrow, with 1 long seta at apex and 1 short seta at base; distoventral epandrial lobe thin, almost reaching apex of surstylus, curved at apex, with short preapical spine; 4 lateral epandrial setae at apex; surstylus small, slightly projected, with 1 thin and 1 thick lobes bearing few short setae; postgonite hidden between surstyli, short, with narrowly divided lobes covered with spicules distally; cercus with long narrow ventral plate (concealed) bearing 7 short simple curved setae in one row; basodorsal cercal plate small, rounded, with 5 very long yellow setae, about half as long as epandrium, and several short setae.

Measurements (mm). Body length 1.5, antenna length 0.5, wing length 1.7, wing width 0.6.

Female. Unknown.

ETYMOLOGY: The species is named after the collector of the holotype, Russian dipterologist Dr. Nikita Vikhrev (ZMMU).

DISTRIBUTION. Turkey.

DIAGNOSIS. *Micromorphus vikhrevi* sp.n. differs from all other species of the genus in unusually long setae on male cercus and segments 4 and 5 of abdomen. The new species keys to *M. minusculus* and *M. mesasiaticus* [Negrobov, 2000; Grichanov, 2007], differing from them in dorsoapical arista-like stylus, shape of cercus, surstylus and epandrial lobes [Negrobov, 2000: figs 8, 9]. *M. minusculus* and *M. mesasiaticus* were described and figured with apical arista-like stylus, short setae on cercus, narrow lobes of surstylus and long basoventral epandrial lobe.

KEY TO SPECIES OF *MICROMORPHUS* FROM TURKEY AND ADJACENT COUNTRIES

1. Thorax mostly orange-yellow; antennal stylus slender and whitish; body length 1.6 mm *M. aereus* (Vaillant)
- Thorax black; antennal stylus dark 2
2. Fore coxa pale setose 3
- Fore coxa dark setose 5
3. Arista-like stylus dorsoapical; male cercus with 5 very long yellow setae, about half as long as epandrium; body length 1.5 mm *M. vikhrevi* sp.n.
- Arista-like stylus apical; male cercus with only short setae 4
4. Male cercus weakly projected; ventral cercal plate rounded; body length 1.3 mm *M. minusculus* Negrobov
- Male cercus strongly projected; ventral cercal plate pointed; body length 1.5 mm *M. mesasiaticus* Negrobov
5. Hind tibia with 2 strong anterodorsal bristles; male cercus hidden; dorsal lobe of surstylus narrow; body length about 1.5 mm *M. albipes* (Zetterstedt)
- Hind tibia with 1 strong and long anterodorsal bristle; male cercus projected; dorsal lobe of surstylus broad; body length 1.4 mm *M. shamshevi* Negrobov

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