


Review of the genus *Guzeriplia* (Diptera: Dolichopodidae) with description of a new species

Обзор рода *Guzeriplia* (Diptera: Dolichopodidae) с описанием нового вида

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Abstract. The genus *Guzeriplia* Negrobov, 1968 is reviewed. A key to the known species of the genus is provided. *Guzeriplia turcica* sp. nov. is described from Turkey; *G. chlorina* Negrobov, 1968 is newly recorded from Turkey.

Резюме. Выполнен обзор видов рода *Guzeriplia* Negrobov, 1968. Составлена определительная таблица видов этого рода. Описан новый вид *Guzeriplia turcica* sp. nov. из Турции. Для фауны Турции впервые отмечен вид *G. chlorina* Negrobov, 1968.

Key words: Turkey, review, Dolichopodidae, *Guzeriplia*, new species, new record

Ключевые слова: Турция, обзор, Dolichopodidae, *Guzeriplia*, новый вид, новое указание

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Introduction

The genus *Guzeriplia* Negrobov, 1968 previously comprised three species worldwide: *G. chlorina* Negrobov, 1968 and *G. viridana* Negrobov, 1978 from the Caucasus, and *G. beijingensis* Yang et Saigusa, 2001 from Palaeartic China. The genus was originally placed in the subfamily Campsicneminae (=Sympycninae) but later transferred to the Peloropeodinae (Negrobov, 1991). *Guzeriplia* is closely related to *Chrysotimus* Loew, 1857 and *Fedtshenkomyia* Stackelberg, 1927. Yang et al. (2006) synonymised *Guzeriplia* with *Chrysotimus* without explanation, but Negrobov et al. (2007) removed *Guzeriplia* from synonymy based on genitalic characters. Yang & Saigusa (2001) and Gri-

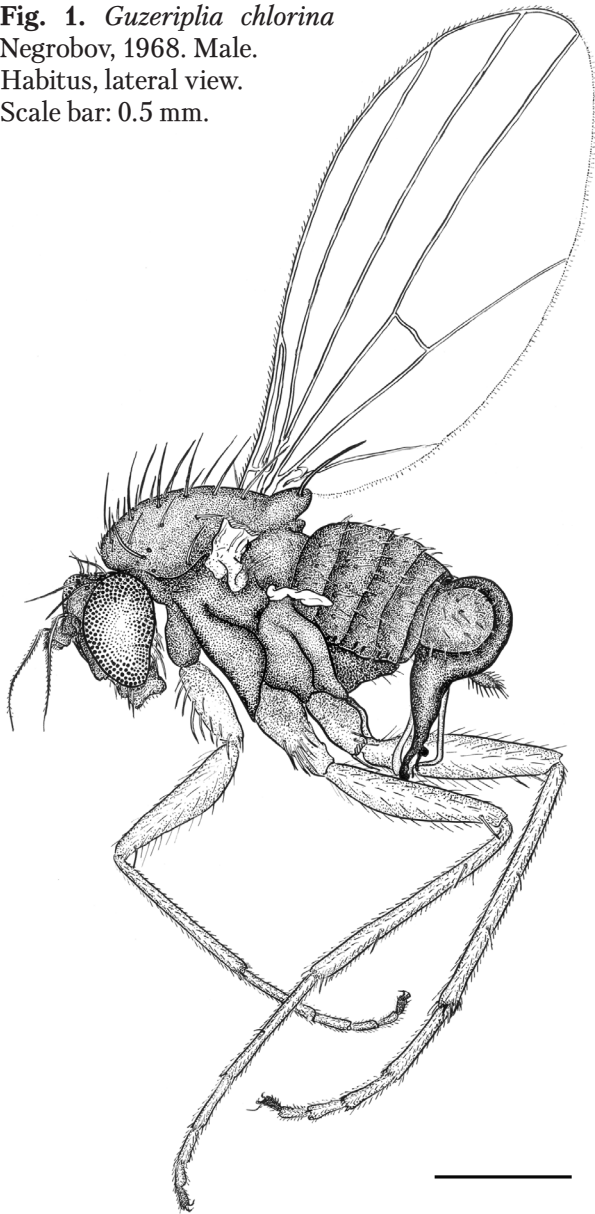
chanov et al. (2011) provided short diagnoses of the genus.

In the present paper, *Guzeriplia turcica* sp. nov. is described from Turkey and *G. chlorina* is recorded for the first time from Turkey. A key to males of all known species of *Guzeriplia* is provided.

Material and methods

The material examined was collected by the late Wolfgang Schacht (Germany) in eastern Turkey in 1985. The specimens were originally stored in 70% ethanol and subsequently pin-mounted to facilitate examination. The specimens examined will be deposited at the Entomological Collection of ETH (Eidgenössische Technische Hochschule) Zurich, Switzerland.

Fig. 1. *Guzeriplia chlorina*
Negrobov, 1968. Male.
Habitus, lateral view.
Scale bar: 0.5 mm.



Body length is measured from the base of antennae to the tip of abdominal segment 6; wing length, from wing base to wing apex. The positions of features on elongate structures such as leg segments are given as a fraction of the total length, starting from the base. The following ratios are used: relative podomere ratios (femur: tibia: tarsomere 1/2/3/4/5); the length of crossvein *dm-cu* to the distal section of vein *CuA* (= *CuAx* ratio); the distance between the veins R_{2+3} and R_{4+5} to the distance between the veins R_{4+5} and M at the costal margin (= *RMx* ratio). In describing the hypopygium, “dorsal” and “ventral” refer to the position prior to rotation and flexion, i.e.

in figures top is morphologically ventral and bottom is dorsal. Morphological terminology follows McAlpine (1981) except for the male hypopygium where the terms of Cumming et al. (1995) and Sinclair (2000) are used.

Morphological abbreviations: ac, acrostichal setae; ad, anterodorsal; av, anteroventral; dc, dorso-central setae; Dsur, dorsal lobe of surstylus; pd, posterodorsal; pv, posteroventral; ppls, proepisternal setae; Vsur, ventral lobe of surstylus.

Taxonomic account

Order **Diptera**

Family **Dolichopodidae**

Subfamily **Peloropecinae**

Key to *Guzeriplia* and closely related genera

1. Thorax and abdomen metallic-green, with yellow setae; mid- and/or hind femur with anterior preapical seta; hypopygium at least partly exerted 2
– Without this combination of characters
. other Dolichopodidae
2. Hypopygium small, partly enclosed by postabdomen; female usually with yellow abdominal tergites ***Chrysotimus***
– Hypopygium large, exerted, projecting forward; female with metallic-green abdominal tergites 3
3. Acrostichal setae biseriata or uniseriate; hypopygium dark brown ***Guzeriplia***
– Acrostichal setae absent; hypopygium yellow
. ***Fedtshenkomyia***

Genus ***Guzeriplia*** Negrobov, 1968

Guzeriplia Negrobov, 1968: 470.

Type species: *Guzeriplia chlorina* Negrobov, 1968, by original designation.

Diagnosis. Size small, body length 1.4–2.0 mm; thorax and abdomen metallic-green, shiny; all setae on body yellow; eyes distinctly separated on face; arista dorsal; ac biseriata or uniseriate; five or six pairs of strong dc; scutellum with four marginal setae; posterior mesonotum flattened; mid and hind femora with anterior subapical seta; veins R_{4+5} and M parallel; distal section of *CuA* longer than basal section; hypopygium large, exerted and pedunculate, projecting forward (Fig. 1).

***Guzeriplia turcica* sp. nov.**

(Figs 2–3)

Holotype. Male; **Turkey**, *Rize Prov.*, Ovit Pass, 1500 m, South Ikizdere, 11.VII.1985, W. Schacht leg. (Entomological Collection of ETH Zurich).

Diagnosis. Antennal segments brown; arista dorsal, bare; frons and face metallic-green; mesonotum and abdomen metallic-green shiny; all legs yellow; all setae yellow; hypopygium large, about half as long as abdomen; Vsur basally broad, apically slender and strongly curved; Dsur strongly curved apically.

Description. Body length 2.0 mm; wing length 2.4 mm.

Head (Fig. 2B). Frons and face metallic-green shiny with weak grey pruinosity; face below antennae about half as wide as diameter of eye; postocular setae yellow; palp whitish, proboscis black. Antenna: all segments brown; postpedicel acute, slightly higher than long, with dense hairs; arista dorsal, with short pubescence.

Thorax (Fig. 2A). Mesonotum metallic-green shiny, with blue reflections and weak grey pruinosity; pleura concolourous with mesonotum; posterior mesonotum distinctly flattened; all setae yellow; ac in two rows, each comprising nine or ten setae; six pairs of strong dc; two strong scutellar setae and two smaller lateral setae; ppls: one strong seta and one small seta ventrally.

Legs (Fig. 2A). Coxae and other parts yellow, tarsomeres 5 slightly infuscate; all setae and hairs yellow. Fore leg: coxa with strong anterior and apical setae; femur with short dorsal setae along entire length and with a row of short anterior setae; tibia and tarsomeres without strong setae; relative podomere ratios: 37:43:29/12/9/5/6. Mid leg: coxa with strong anterior setae; femur with a strong anterior subapical seta and with short anterior and dorsal setae along entire length; tibia with strong ad setae at one-third and two-thirds of length, with strong pd setae at one-fourth and half-length, and with a ring of four apical setae; tarsomeres bare; relative podomere ratios: 44:54:30/12/8/5/6. Hind leg: coxa with a strong lateral seta; femur with a strong anterior subapical seta, with two strong av setae below anterior subapical seta, and with short anterior and dorsal setae along entire length; tibia with strong ad setae at one-third and two-thirds of length, with strong pd setae at

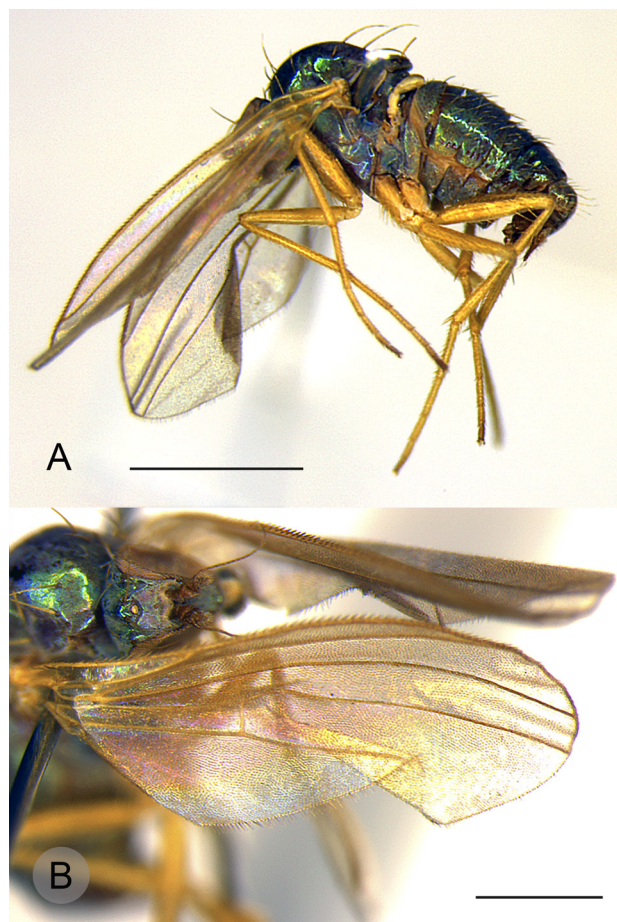


Fig. 2. *Guzeriplia turcica* sp. nov. Holotype, male. A, habitus, lateral view; B, head and wing. Scale bars: 1 mm (A), 0.5 mm (B).

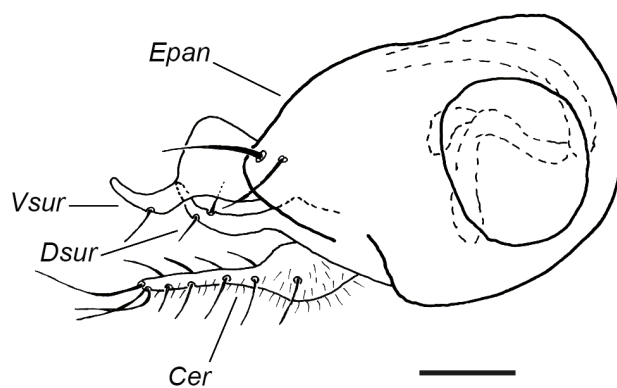


Fig. 3. *Guzeriplia turcica* sp. nov. Holotype, male. Hypopygium, left lateral view. Abbreviations: Cer, cercus; Epan, epandrium; Dsur, dorsal lobe of surstylus; Vsur, ventral lobe of surstylus. Scale bar: 0.1 mm.

one-third, half and three-fourths of length, and with a ring of four apical setae; tarsomeres bare; relative podomere ratios: 45:61:23/15/10/6/5. All claws and pulvilli present but small.

Wing (Fig. 2B) hyaline, veins yellow; R_1 curved against costa, R_{2+3} slightly curved posteriorly, R_{4+5} almost straight, joining wing margin anteriorly of apex; M straight, parallel to R_{4+5} , joining costa posteriorly of apex; CuAx ratio: 0.25; RMx ratio: 2.5; lower calypter white, with white setae; halter pale yellow.

Abdomen metallic-green shiny; tergite 8 brown; all setae yellow. Hypopygium (Fig. 3): Vsur, Dsur and epandrium dark brown, cercus basally white and apically brown. Epandrium with two strong apical setae; Vsur basally broad, apically slender and strongly curved, with a dorsal seta; Dsur shorter than Vsur, slender and strongly curved, with a dorsal and a ventral seta; cercus slender, single-lobed, projecting forward, with long strong apical setae.

Etymology. The name of the new species is an adjective referring to the country where the species was collected.

Key to males of the genus *Guzeriplia*

1. Cercus with two projecting lobes, inner lobe thinner and outer lobe thicker (Yang & Saigusa, 2001: Fig. 2) *G. beijingensis*
– Cercus without two lobes 2
2. Vsur with forceps-shaped apex; Dsur as long as Vsur (Negrobov, 1968: Figs 3–4) *G. chlorina*
– Vsur not forceps-shaped; Dsur shorter than Vsur 3
3. Vsur leaf-shaped, apically pointed; Dsur almost straight (Negrobov, 1978: Figs 1–2)
..... *G. viridana*
– Vsur basally broad, apically slender, strongly curved; Dsur strongly curved apically (Fig. 2) ...
..... *G. turcica* sp. nov.

Species list of the genus *Guzeriplia*

Guzeriplia beijingensis Yang et Saigusa, 2001

Guzeriplia beijingensis Yang et Saigusa, 2001: 157.

Type locality. China: Beijing, Xiaolongmen, Xueyou Hu.

Distribution. Palaearctic China: Beijing.

Guzeriplia chlorina Negrobov, 1968

(Fig. 1)

Guzeriplia chlorina Negrobov, 1968: 471.

Type locality. Russia: Krasnodar Territory, Caucasus Nature Reserve, Umpyr field base.

New material. Turkey, Rize Prov., Ovit Pass, 1500 m, South Ikizdere, 11.VII.1985, 1 male, W. Schacht leg.

Distribution. Palaearctic: Georgia, Russia (southern European part, Caucasus: Adygea, North Ossetia-Alania, Kabardino-Balkaria, Karachay-Cherkessia, Krasnodar Territory, Stavropol Territory), Turkey.

Remarks. The specimen from Ovit Pass represents the first record of *G. chlorina* from Turkey. In contrast to the original description, this specimen has a uniseriate row of ac.

Guzeriplia turcica sp. nov.

(Figs 2–3)

Type locality. Turkey, Rize Province, Ovit Pass, 1500 m, South Ikizdere.

Distribution. Turkey.

Guzeriplia viridana Negrobov, 1978

Guzeriplia viridana Negrobov, 1978: 1376.

Type locality. Russia: Krasnodar Territory, Caucasus Nature Reserve, Mount Fisht.

Distribution. Russia (southern European part, Caucasus: Adygea, Karachay-Cherkessia, Krasnodar Territory).

Discussion

Three of the four species of *Guzeriplia* are distributed in the western Palaearctic: in the Caucasian region in southern Russia (*G. chlorina*), Georgia (*G. viridana*) and Turkey (*G. turcica*). These three species seem to be confined to mountainous regions: *G. turcica* was collected at an altitude of 1500 m in eastern Turkey, *G. chlorina* and *G. viridana* were found in the Russian Caucasus at 2697 m (Umpyr field base) and 2868 m (Mount Fisht), respectively. On the other hand, *G. beijingensis* occurs in eastern Palaearctic China. This species shows a unique genitalic character, which differentiates it from its congeners: the cercus is

divided into two parts forming a narrow median and a thicker lateral lobe.

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