

# FAUNISTIC RECORDS OF THE LONG-LEGGED FLIES (DIPTERA: DOLICHOPODIDAE) FROM AZERBAIJAN AND GEORGIA

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## ABSTRACT

Faunistic records of 19 species of the family Dolichopodidae from Azerbaijan and Georgia are given. Two species and one subspecies are new for Transcaucasia (*Campsicnemus umbripennis hispanicus* Strobl, 1899, *Neurigona pallida* (Fallén, 1823) and *Syntormon pennatum* Ringdahl, 1920). *Chrysotimus molliculus* (Fallén, 1823) represents a new record for Azerbaijan and increase the number of known species in Azerbaijan to 93 taxa. Subspecies *Campsicnemus umbripennis hispanicus* Strobl, 1899, and two species *Neurigona pallida* (Fallén, 1823) and *Syntormon pennatum* Ringdahl, 1920 represent new records for Georgia and increase the number of known species in Georgia to 77 taxa.

## KEYWORDS

Diptera, Dolichopodidae, first records, Transcaucasia

## INTRODUCTION

From the territory of Azerbaijan there are recently known 92 species of the long-legged flies (Diptera: Dolichopodidae) (NEGROBOV 1971, NEGROBOV & SHAMSHEV 1984, GRICHANOV 2004, NEGROBOV & RODIONOVA 2004, NEGROBOV et al. 2007, GRICHANOV & TOMKOVICH 2009, MASLOVA et al. 2011, NEGROBOV & MASLOVA 2011, NEGROBOV et al. 2017, 2020a,b) and from the territory of Georgia 74 species (NEGROBOV et al. 1988, CHALAYA & NEGROBOV 1989, NEGROBOV & ONISHCHENKO 1991, GRICHANOV 2007, MASLOVA et al. 2008, 2012, NEGROBOV et al. 2020a,b). This paper summarizes faunistic records from three sampling campaigns in 2019 in the mentioned countries.

## MATERIAL AND METHODS

Dipterans were collected by J. Oboňa, P. Manko, T. Kovács, D. Murányi, and G. Vinçon in three periods iv – v.; vii.; and ix – x., all in 2019 by sweep-netting from

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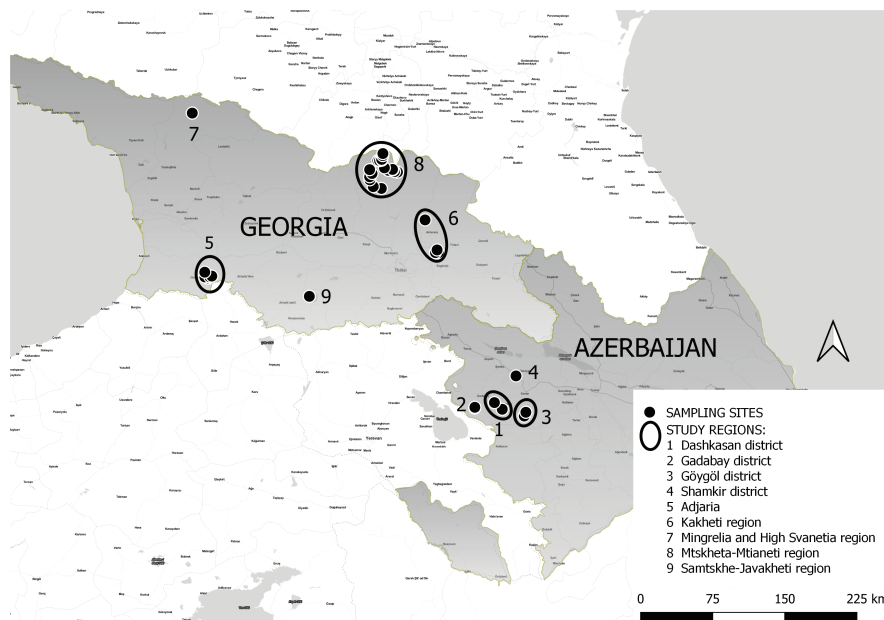
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vegetation growing along the alpine streams and lakes in Azerbaijan (Dashkasan district, Gadabay district, Göygöl district, Shamkir district) and Georgia (Adjaria, Kakheti region, Mingrelia and High Svanetia region, Mtskheta-Mtianeti region, Samtskhe-Javakheti region) (Fig. 1). The captured specimens were preserved in 75% ethanol in the field. The material is deposited in the collection of the first author Oleg P. Negrobov (Voronezh University and Laboratory of Insect Systematics of Zoological Institute of the Russian Academy of Sciences) who also identified these species. Information on the species distribution is given only for new country records and follows GRICHANOV (2007).



**Figure 1.** Map showing the sampling sites and the study regions.

## RESULTS AND DISCUSSION

### Family Dolichopodidae

#### *Campsicnemus curvipes* (Fallén, 1823)

**Material examined:** **Azerbaijan:** Göygöl district, Göygöl National Park, forest brook below Maralgol (Maralgöl) lake, 1875 m a.s.l., 40°22'51.3"N, 46°18'30.4"E, 30.9.2019, 1 male, 7 females; the same, Goygol (Göygöl) lake, 1570 m a.s.l., 40°24'53.2"N, 46°19'39.6"E, 30.9.2019, 1 male, 1 female; Gadabay (Gədəbəy) district, Gadabay, open brook and seep S of the village, 1480 m a.s.l., 40°27'36.1"N, 45°43'08.6"E, 1.10.2019, 1 female; Dashkasan (Daşkəsən) district, Khoshbulag (Xoşbulaq), open

stream and wetlands above the reservoir 1635 m a.s.l., 40°26'31.4"N, 46°02'45.6"E, 2.10.2019, 1 female. **Georgia:** Adjaria, Beshumi vilage, seeps, brooks and stream in open forest, 1940 m a.s.l., 41°37'21.4"N, 42°32'19.7"E, 27.9.2019, 2 males, 24 females; the same, brook in open spruce forest W of Goderdzi Pass, 1850 m a.s.l., 41°37'58.3"N, 42°29'54.7"E, 27.9.2019, 1 male; the same, steep brook in spruce forest E of Goderdzi Pass, 1790 m a.s.l., 41°38'00.0"N, 42°33'28.4"E, 27.9.2019, 2 males, 4 females; Samtskhe-Javakheti region, Utkisubani village, waterfall towards Goderdzi Pass, 1660 m a.s.l., 41°38'20.7"N, 42°34'58.6"E, 27.9.2019, 2 females.

**Note:** Species known from Azerbaijan (GRICHANOV & TOMKOVICH 2009, NEGROBOV et al. 2020a, b) and Georgia (NEGROBOV et al. 2020a).

### ***Campsicnemus umbripennis hispanicus* Strobl, 1899**

**Material examined:** **Georgia:** Mingrelia and High Svanetia region, spring above Nakra, Utviri tributary, 1870 m a.s.l., 43°04'33" N, 42°20'58"E, 23.9.2019, 1 male 1 female; Mtskheta-Mtianeti region, Gudauri, open brook along the military road, 2250 m a.s.l., 42°29'31.3"N, 44°28'02.2"E, 13.7.2019, 1 male, 3 females.

**Note:** Subspecies known only from France and Spain. **New record from Georgia and Transcaucasia.**

### ***Campsicnemus umbripennis* Loew, 1856**

**Material examined:** **Georgia:** Mtskheta-Mtianeti region, spring along the river and its side arms of Chkheri River beneath "Altihut 3014" mountain shelter, 2940 m a.s.l., 42°39'35.8"N, 44°33'47.8"E, 10.7.2019, 1 male, 1 female; the same, upper brook towards the Pass 2900 m a.s.l., 42°33'34.9"N, 44°47'47.0"E, 11.7.2019, 1 female; the same, Kvemo Mleta, spring and its outlet along the military road, 1485 m a.s.l., 42°25'54.4"N, 44°30'27.6"E, 9.7.2019, 1 female; the same, Juta village, Chaukhistskali River above (E of) the settlement, 2385 m a.s.l., 42°33'52.1"N, 44°45'41.3"E, 11.7.2019, 1 female; Adjaria, Mtsvane Tba (Green Lake), N of Goderdzi Pass, 2075 m a.s.l., 41°40'28.1"N, 42°29'53.5"E, 27.9.2019, 1 female.

**Note:** Species known from Georgia (NEGROBOV et al. 2020a).

### ***Chrysotimus molliculus* (Fallén, 1823)**

**Material examined:** **Azerbaijan:** Gadabay district, Gadabay, big stream S of the village, 1510 m a.s.l., 40°27'13.1"N 45°43'02.7"E, 1.10.2019, 1 female.

**Note:** Species know from Europe, Russia and Georgia (GRICHANOV 2007). **New from Azerbaijan.**

### ***Chrysotus gramineus* (Fallén, 1823)**

**Material examined:** **Azerbaijan,** Shamkir (Şəmkir) district, Konullu (Könüllü), desert brook along the road, 385 m a.s.l., 40°44'38.3"N, 46°12'36.7"E, 4.10.2019, 1 male.

**Note:** Species known from Azerbaijan (GRICHANOV & TOMKOVICH 2009).

***Chrysotus suavis* Loew, 1857**

**Material examined:** Georgia: Mtskheta-Mtianeti region, Gudauri, open brook along the military road, 2250 m a.s.l., 42°29'31.3"N, 44°28'02.2"E, 13.7.2019, 1 male.

**Note:** Species known from Georgia (MASLOVA et al. 2008).

***Dolichopus popularis* Wiedemann, 1817**

**Material examined:** Georgia: Mtskheta-Mtianeti region, Juta village, steep side arm, tributary of the Juta river, SSE slope, meadow, 2100 m a.s.l., 42°34'48"N, 44°44'31"E, 5.7.2019, 1 male.

**Note:** Species known from Georgia (GRICHANOV 2007).

***Dolichopus ungulatus* (Linnaeus, 1758)**

**Material examined:** Georgia: Mtskheta-Mtianeti region, deciduous forest, 42°39'52"N, 44°36'39"E, 2020 m a.s.l., 4.7.2019, 1 male 1 female; the same, above Gveleti village, lakes above Amali/Kabakhi river, 1115 m a.s.l., 42°43'21"N, 44°37'21"E, 6.7.2019, 1 male, 3 females.

**Note:** Species known from Georgia (GRICHANOV 2007).

***Hercostomus fugax* (Loew, 1857)**

**Material examined:** Georgia: Mtskheta-Mtianeti region, hotel garden, 1835 m a.s.l., 42°39'52"N, 44°36'39"E, 4.7.2019, 1 male; the same, deciduous forest, 42°39'52"N, 44°36'39"E, 2020 m a.s.l., 4.7.2019, 9 males, 2 females; the same, , springs and their outlet brooks N of Jvari Pass, 2380 m a.s.l., 42°31'07.4"N, 44°27'52.3"E, 9.7.2019, 1 female; the same, Juta village, Chaukhistskali River above (E of) the settlement, 2385 m a.s.l., 42°33'52.1"N, 44°45'41.3"E, 11.7.2019, 1 male; the same, Juta village, seeps and springs, SSE slope, meadow, 2430 m a.s.l., 42°35'0"N, 44°44'16"E, 5.7.2019, 1 male; the same, Truso Gorge at Kvermo Okrokana village, Terek river, 2010 m a.s.l., 42°34'52"N, 44°27'52"E, 7.7.2019, 1 male; the same, sidebrook of Chkheri River, 2030 m a.s.l., 42°40'17"N, 44°36'29"E, 4.7.2019, 1 male; the same, Juta village, steep sidebrook, tributary of the Juta river, SSE slope, meadow, 2100 m a.s.l., 42°34'48"N, 44°44'31"E, 5.7.2019, 6 males, 2 females; the same, above Sno village, tributary of the Snostskali river, 1900 m a.s.l., 42°35'49"N, 44°38'26"E, 5.7.2019, 1 male, the same, above Almasiani, Bidara river, 2050 m a.s.l., 42°32'51"N, 44°29'35"E, 7.7.2019, 2 males; the same, open, temporary brook on the SE slope of Mt. Kazbek, 2715 m a.s.l., 42°39'37.3"N, 44°35'00.2"E, 10.7.2019, 2 males, 1 female; Samtskhe-Javakheti region, Aspara, open brook W of the village, 2320 m a.s.l., 41°27'32.9"N, 43°44'44.3"E, 14.7.2019, 1 female; the same, Utkisubani, waterfall towards Goderdzi Pass, 1660 m a.s.l., 41°38'20.7"N, 42°34'58.6"E, 27.9.2019, 1 female.

**Note:** Species know from Georgia (NEGROBOV et al. 1988).

***Hercostomus germanus* (Wiedemann, 1817)**

**Material examined:** Georgia: Mtskheta-Mtianeti region, Gveleti village, Gveleti Waterfalls, Tibistskali stream, 1570 m a.s.l., 42°42'16"N, 44°37'15"E, 6.7.2019, 2 males.

**Note:** Species known from Georgia (GRICHANOV 2007).

***Hercostomus longiventris* (Loew, 1857)**

**Material examined:** **Georgia:** Adjara region, brook and spring, Goderdzi Pass, close to Beshumi Botanic Garden, Dzindzitskali tributary, 1970 m a.s.l., 41°37'17"N, 42°32'16"E, 16.7.2019, 1 male, 1 female; Mtskheta-Mtianeti region, above Karkucha village, steep side stream of the Snostskali river, cascades, 1890 m a.s.l., 42°34'32"N, 44°41'15"E, 5.7.2019, 1 male; the same, Kvemo Mleta, spring and its outlet along the military road, 1485 m a.s.l., 42°25'54.4"N, 44°30'27.6"E, 9.7.2019, 1 male; Samtskhe-Javakheti region, 1 km before Adjarian border, torrent and cascade, Goderdzi Pass, Dzindzitskali tributary 1680 – 1800 m a.s.l., 41°38'23"N, 42°34'56"E, 16.7.2019, 1 male; Kakheti region, Gombori pass, NW the pass, spring and muddy brook, 1560 m a.s.l., 41°52'20"N, 45°16'8"E, 9.7.2019, 1 male, 1 female.

**Note:** Species known from Georgia (NEGROBOV et al. 1988).

***Hercostomus varicoloris* Becker, 1917**

**Material examined:** **Georgia:** Mtskheta-Mtianeti region, Gveleti village, Gveleti Waterfalls, Tibistskali stream, 1570 m a.s.l., 42°42'16"N, 44°37'15"E, 6.7.2019, 1 female.

**Note:** Species known from Georgia (NEGROBOV et al. 1988).

***Neurigona pallida* (Fallén, 1823)**

**Material examined:** **Georgia:** Kakheti region, Gombori river, above (EES of) the village Verona, stony brook, 1200 m a.s.l., 41°50'56"N, 45°14'59"E, 9.7.2019, 1 female.

**Note:** Species known from Europe and Russia (GRICHANOV 2007). **New record from Georgia and Transcaucasia.**

***Rhaphium fissum* Loew, 1850**

**Material examined:** **Azerbaijan:** Gadabay district, Gadabay, forest brook S of the village 1510 m a.s.l., 40°27'22.2"N, 45°43'07.4"E, 1.10.2019, 1 male. **Georgia:** Mtskheta-Mtianeti region, Gudauri, open brook along the military road, 2250 m a.s.l., 42°29'31.3"N, 44°28'02.2"E, 13.7.2019, 2 males.

**Note:** Species known from Azerbaijan (GRICHANOV & TOMKOVICH 2009, NEGROBOV et al. 2020a) and Georgia (NEGROBOV et al. 1988, 2020b).

***Sympycnus pulicarius* (Fallén, 1823)**

**Material examined:** **Azerbaijan:** Dashkasan (Daşkəsən) district, Emirvar (Əmirvar) village, open brook, 1580 m a.s.l., 40°30'09.8"N, 45°57'09.4"E, 2.10.2019, 1 male.

**Georgia:** Mtskheta-Mtianeti region, Kharkheti, Aragvi River and its side stream and spring along the river and its side arms, 1235 m a.s.l., 42°24'57.7"N, 44°36'15.2"E, 9.7.2019, 1 male; the same, Juta village, steep sidebrook, tributary of the Juta river, SSE slope, meadow, 2100 m a.s.l., 42°34'48"N, 44°44'31"E, 5.7.2019, 1 male; the same, above Gveleti village, lakes above Amali/Kabakhi river, 1115 m a.s.l., 42°43'21"N, 44°37'21"E, 6.7.2019, 1 male; Kakheti region, Gombori pass, NW the pass, spring and muddy brook, 1560 m a.s.l., 41°52'20"N, 45°16'8"E, 9.7.2019, 1 male.

**Note:** Species known from Azerbaijan (GRICHANOV & TOMKOVICH 2009) and Georgia (NEGROBOV et al. 2020a).

***Syntormon pallipes* (Fabricius, 1794)**

**Material examined:** Georgia: Kakheti region, Gombori pass, NW the pass, spring and muddy brook, 1560 m a.s.l., 41°52'20"N, 45°16'8"E, 9.7.2019, 1 male, 2 females; Mtskheta-Mtianeti region, Kvemo Mleta village, spring and its outlet along the military road, 1485 m a.s.l., 42°25'54.4"N, 44°30'27.6"E, 9.7.2019, 1 male, 1 female; the same, Above Almasiani, Bidara river, 2050 m a.s.l., 42°32'51"N, 44°29'35"E, 7.7.2019, 1 female; Adjaria, steep brook in spruce forest E of Goderdzi Pass, 1790 m a.s.l., 41°38'00.0"N, 42°33'28.4"E, 27.9.2019, 1 male.

**Note:** Species known from Georgia (NEGROBOV et al. 1988, 2020b).

***Syntormon pennatum* Ringdahl, 1920**

**Material examined:** Georgia: Mtskheta-Mtianeti region, Gudauri Recreational Area, open brook along the military road, 2250 m a.s.l., 42°29'31.3"N, 44°28'02.2"E, 13.7.2019, 1 male.

**Note:** Species known from Europe and Russia (CHRICHANOV 2007). **New from Georgia and Transcaucasia.**

***Teuchophorus monacanthus* Loew, 1859**

**Material examined:** Georgia: Kakheti region, Gombori pass, S the pass, Turdo River, brook, 1610 m a.s.l., 41°50'52"N, 45°17'2"E, 8.7.2019, 1 male; the same, Ilto river, above (N of) the Chartala village, 790 m a.s.l., 42°8'18"N, 45°7'32"E, 8.7.2019, 1 female.

**Note:** Species known from Georgia (NEGROBOV et al. 1988, 2020a).

***Xanthochlorus tenellus* (Wiedemann, 1817)**

**Material examined:** Georgia: Kakheti region, Gombori pass, NW the pass, spring and muddy brook, 1560 m a.s.l., 41°52'20"N, 45°16'8"E, 9.7.2019, 1 male.

**Note:** Species known from Georgia (NEGROBOV et al. 1988, 2020a).

**CONCLUSIONS**

The present record of *Chrysotimus molliculus* (Fallén, 1823) increase the number of known species in Azerbaijan to 93. Records of *Campsicnemus umbripennis hispanicus* Strobl, 1899, *Neurigona pallida* (Fallén, 1823) and *Syntormon pennatum* Ringdahl, 1920 from Georgia increase the number of recently known species to 77.

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