The Empidoidea (Diptera) of the Utrish Nature Reserve, Russia

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Abstract

The first data on Empidoidea (Diptera) from the Utrish State Nature Reserve (Russia: Krasnodar Territory) resulting from the numerous short visits and analysis of 7 Malaise trap samples during 2013-2015 are presented. Seventy one species are collected from the following families: Atelestidae – 1, Empididae – 26, Hybotidae – 14, Microphoridae – 1, Dolichopodidae – 29. Rhamphomyia maculipennis Zetterstedt, 1842 (Empididae) is recorded from the Caucasus and Russia for the first time. Photographs of some species habitats are provided.

Key words: Empidoidea, fauna, ecology, Utrish Nature Reserve, Caucasus, Russia.

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Introduction

The superfamily Empidoidea is the largest group among Diptera, comprising some 11,500 described species in five distinct families: Atelestidae, Empididae, Hybotidae, Brachystomatidae and Dolichopodidae sensu lato (Sinclair and Cumming, 2006). Recently, Grichanov (2011) proposed the epifamily rank Dolichopodoidae, which is equivalent to Sinclair & Cumming’s (2006) Dolichopodidae sensu lato and includes Dolichopodidae sensu stricto, Microphoridae and Parathalassiinae incertae sedis. Currently, the Caucasian Empidoidea comprise 16 genera and 169 species of Empididae; 81 species from 18 genera of Hybotidae; 1 genus and 1 species of Atelestidae; 2 genera and 2 species of Brachystomatidae (Kustov, 2014) and about 300 species belonging to some 50 genera of Dolichopodidae (Grichanov, 2007).

The Utrish State Nature Reserve has been established in 2010, being located in the Krasnodar Territory (the North-West Caucasus), at the northern Black Sea coast near the Anapa Resort; its total area is more than 10000 ha (fig. 1). The warm-temperate climate dominates on the territory, being characterized by hot dry summers and mild winters with no permanent snow cover. A distinctive feature of its flora is the unique Mediterranean tertiary relict element. It is represented by many rare plant species. The most ancient plant association is Pistachio-Juniper woodlands, where the Mediterranean flora reaches 62% among the plants. The vegetation has been partly suffered from economic activity. The following water sources are located in the Utrish Reserve: the Sukhoi Liman Lake, a creek in the Vodopadnaya Schel (crevice), the Sukko river and two unnamed coastal lakes, as well as some temporary streams (State Nature Reserve Utrish, 2014).

The Empidoidea fauna of the Utrish Nature Reserve is poorly known, with only 16 species reported previously (Kustov, 2015), whereas the data on Dolichopodidae is absent. The annotated species composition of Empidoidea is given for the Reserve in the present paper for the first time and includes one species of Atelestidae, 26 of Empididae, 14 of Hybotidae, 1 of Microphoridae, and 29 species of Dolichopodidae, in all 71 species.

The global distribution of Empidoidea is here provided after the Fauna Europaea (Chvála, 2013) for empidoids and after Grichanov (2014) for Dolichopodidae. The local distribution of endemic and recently described species of empidoids in the Caucasus is given after Kustov and Shamshev.
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The material listed in this paper has been collected during 2013–2015 in different types of landscapes (figs 2-9). The authors of habitat photos and collectors of all specimens are S.Yu. Kustov and A.A. Getman; their names are omitted in the list of material. A hand net and seven Malaise traps placed throughout the Reserve have been used for the collection. Specimens examined in this study are deposited in the author’s collections. The country lists are provided at the species distribution section for the Euroasian and African parts of the world. The species distribution in the Caucasian territory is discussed separately.

Family Atelestidae

_Atelestus pulicarius_ (Fallén, 1816)

**Material:** 4♂, top of Schel Bazovaya, 427m, 44°45’11”N, 37°26’33”E, 25.iii.2013.

**Distribution:** Europe: Belgium, Croatia, Czech Republic, Danish mainland, Finland, Germany, Ireland, Slovakia, Slovenia, Sweden, Switzerland, UK, Russia (Central territory). Caucasian: Russia (Krasnodar Territory: Apsheronsk district). The uncommonly collected species is known from submontane and mountain forests of the North-West Caucasus and active from March to June.

Family Empididae

_Empis_ (Leptempis) _afipsiensis_ Shamshev et Kustov, 2007


**Distribution:** Caucasus: Russia (Krasnodar Territory, Adygea), Georgia, Armenia. This endemic species is common in the Caucasus and known from submontane and mountain forests, being active during April-July.

_Empis_ (Leptempis) _confusa_ Loew, 1865

**Material:** 1♀, Schel Vodopadnaya, 29.iv.2014.

**Distribution:** Europe: Austria, Bulgaria, Czech Republic, European Turkey, French mainland, Greek mainland, Hungary, Italian mainland, Slovakia, Spanish mainland, Switzerland. Caucasian: Russia (Krasnodar Territory, Adygea). This uncommon species is known from lowland areas, submontane and mountain forests of the North-West Caucasus, and active during April-May.

_Empis_ (Leptempis) _grisea_ Fallén, 1816

**Material:** 2♂, 3♀, Schel Mokraya, 18.iv.2014; 1♀, Schel Vodopadnaya, 29.iv.2014.

**Distribution:** Europe: Austria, Bulgaria, Czech Republic, Danish mainland, Germany, Hungary, Ireland, Italian mainland, Poland, Romania, Slovakia, Sweden, Switzerland, the Netherlands, UK. Caucasian: Russia (Krasnodar Territory). _Empis grisea_ is uncommonly collected species, known from submontane and mountain forests of the North-West Caucasus, and active during April-June.

_Empis_ (Leptempis) _nagalevskii_ Kustov et Shamshev, 2011

**Material:** 6♂, 9♀, tract Dolgaya Niva, 29.v.2014.

**Distribution:** Caucasus: Russia (Krasnodar Territory: Anapa and Severskaya districts), Abkhazia. This Caucasian endemic species is common, known from submontane forests of the North-West Caucasus, and active during April-June.

_Empis_ (Leptempis) _tatyanae_ Kustov et Shamshev, 2011

**Material:** 1♂, Raevskii Polygon, 28.iv.2014; 1♂, tract Dolgaya Niva, 15.v.2014.

**Distribution:** Caucasus: Russia (Krasnodar Territory), Azerbaijan. This Caucasian endemic species is uncommon, known from submontane and mountain forests of the Caucasus and active during May-June.

_Empis_ (Xanthempis) _alanica_ Shamshev, 1998


**Distribution:** Caucasus: Russia (North Ossetia, Krasnodar, Karachay-Cherkess and Stavropol Territories). The species occurs
from the foothills to the medium mountain belt of the North-West and Central Caucasus. *E. alanica* is endemic to the Caucasus and active during May-June.

**Empis (Xanthempis) grichanovi** Shamshev et Kustov, 2008

**Material:** 1♂, lake Sukhoi Liman, 340m, 44°45′26″N, 37°27′36″E, 24-26.v.2013; 1♂, same locality, 15.v.2014; 5♂, 3♀♀, Beech forest, 428m, 44°45′56″N, 37°26′25″E, 25.v.2013; 1♀, top of Schel Bazovaya, 427m, 44°45′11″N, 37°26′33″E, 25.v.2013; 1♀, Schel Vodopadnaya, 223m, 44°45′46″N, 37°25′03″E, 26.v.2013; 11♂, 11♀♀, same locality, 30.v.2014.

**Distribution:** Caucasus: Russia (Krasnodar Territory), Georgia (Borjomi and Lagodekhi Nature Reserves). This common species is known from lowland areas and submontane and mountain forests of the Caucasus and active during May-June. *E. grichanovi* is endemic to the Caucasus.

**Empis (Xanthempis) pseudoconcolor** Shamshev et Kustov, 2008

**Material:** 1♂, 1♀♀, Schel Vodopadnaya, 30.v.2014.

**Distribution:** Caucasus: Russia (Krasnodar and Stavropol Territories), Abkhazia. This endemic and uncommonly collected species is known from submontane and mountain forests of the Caucasus and active since May till July.

**Empis (Xanthempis) zamotailovi** Shamshev et Kustov, 2008

**Material:** 3♂, Schel Vodopadnaya, 29.iv.2014; 2♂, 1♀♀, Schel Labanova, 29.iv.2015.

**Distribution:** Caucasus: Russia (Krasnodar Territory, Adygea). The very common in the Caucasus species is known from lowland areas, submontane and mountain forests and active during May-June. *E. zamotailovi* is endemic to the Caucasus.

**Empis (Empis) albopilosa** de Meijere, 1935

**Material:** 11♂, 1♀♀, Schel Shirokaya, 44°43′N, 37°26′E, 27.iii.2014; 1♂, lake Sukhoi Liman, 17-18.iv.2014.

**Distribution:** Europe: Czech Republic, Germany, Switzerland, the Netherlands. Caucasus: Russia (Krasnodar Territory). This common species is known from lowland areas and submontane forest of the North-West Caucasus, and active during March-May.

**Empis (Empis) doronicola** Çiftçi, 2012

**Material:** 1♂, 4♀♀, Schel Mokraya, 18.iv.2014.

**Distribution:** Caucasus: Russia (Krasnodar Territory, Adygea, Karachay-Cherkessia), Georgia. Asia: Turkey. This common species is known from lowland to subalpine areas of the Caucasus and active during April-August.

**Empis (Empis) hirta** Loew, 1865


**Distribution:** Caucasus: Russia (Krasnodar Territory, Adygea), Georgia. This common species is known from lowland areas and submontane forest of the Caucasus and active during April-June.

**Empis (Empis) socrus** Syrovátka, 1983


**Distribution:** Caucasus: Russia (Krasnodar Territory, Adygea, Karachay-Cherkessia, Kabardino-Balkaria). *E. socrus* is very common from lowland areas, submontane and mountain forests of the Caucasus, being active since April till July.

**Empis (Empis) xanthopoda** Kustov et Shamshev, 2013

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Empis (Euempis) calcarata Bezzi, 1899


**Distribution:** Europe: Italian mainland. Caucasus: Russia (Krasnodar Territory: Anapa, Apsheronsk, Severskaya districts, Krasnodar city). Asia: Middle East. This is a very common species in lowland areas and submontane forests, especially in Mediterranean landscapes of the North-West Caucasus. *E. calcarata* is active during May-July.

Empis (Euempis) tessellata Fabricius, 1794

**Material:** 1♀, Schel Mokraya, 18.iv.2014; 1♀, tract Dolgaya Niva, 28.iv.2014.

**Distribution:** Europe: Austria, Belgium, Czech Republic, Danish mainland, French mainland, Germany, Hungary, Ireland, Lithuania, Norwegian mainland, Poland, Portugal, Slovakia, Slovenia, Sweden, Switzerland, the Netherlands, Ukraine, UK, Russia (central, northern, northwestern European territory), Caucasus: Russia (Krasnodar Territory, Adygea), Georgia (Kutaisi). This widely distributed species is common from lowland areas to mountain forests of the Caucasus and active during April-July.

Empis (Pachymeria) femorata Fabricius, 1798

**Material:** 3♂, Raevskii Polygon, 17.iv.2014; 1♂, 1♀, same locality, 28.iv.2014; 1♀, Schel Mokraya, 18.iv.2014.

**Distribution:** Europe: Austria, Belgium, Czech Republic, Danish mainland, Germany, Hungary, Ireland, Italian mainland, Poland, Slovakia, the Netherlands, UK. Caucasus: Russia (Krasnodar Territory, Adygea). This species is uncommon, known from lowland areas and submontane forests of the North-West Caucasus and active since April till May.

Hilara brevistyla Collin, 1927

**Material:** 3♂, 3♀, tract Dolgaya Niva, 17.iv.2014; 1♂, 3♀, same locality, 28.iv.2014; 1♂, Schel Vodopadnaya, 223m, 44°45′46″N, 37°25′03″E, 18.vi.2014; 1♂, 1♀, Schel Labanova, 29.iv.2015.

**Distribution:** Europe: Austria, Czech Republic, Danish mainland, Finland, Germany, Hungary, Ireland, Poland, Slovakia, Slovenia, Sweden, Switzerland, the Netherlands, UK. Caucasus: Russia (Krasnodar Territory). This species is common, known from lowland areas and submontane forests of the North-West Caucasus and active in April.

Hilara cilipes Meigen, 1822

**Material:** 4♂, Schel Mokraya, 44°41′45″N, 37°30′59″E, 5.vi.2013.

**Distribution:** Europe: Austria, Czech Republic, Danish mainland, Germany, Hungary, Italian mainland, Poland, Slovakia, Romania, Switzerland, the Netherlands, Caucasus: Russia (Krasnodar Territory). This species is uncommon, known from submontane and mountain forests of the North-West Caucasus and active in June-July.

Hilara lurida (Fallén, 1816)

**Material:** 18♂, 12♀, lake Sukhoi Liman, 340m, 44°45′26″N, 37°27′36″E, 24-26.v.2013; 1♂, 2♀, top of Schel Bazovaya, 427m, 44°45′11″N, 37°26′33″E, 25.v.2013; 2♂, same locality, spring, 54m, 44°43′47″N, 37°26′00″E, 26.v.2013; 3♂, 1♀, Schel Vodopadnaya, 223m, 44°45′46″N, 37°25′03″E, 26.v.2013; 4♀, same locality, 223m, 44°45′46″N, 37°25′03″E, 26.v.2013; 2♂, 6♀, Schel Mokraya, 44°41′45″N, 37°30′59″E, 5.vi.2013.

**Distribution:** Europe: Albania, Austria, Czech Republic, Danish mainland,
Finland, French mainland, Germany, Hungary, Lithuania, Norwegian mainland, Poland, Romania, Slovakia, Sweden, Switzerland, the Netherlands, UK, Russia (northern, northwestern and southern European territories). Caucasus: Russia (Krasnodar Territory). *H. lurida* is very common in lowland areas and submontane forests of the North-West Caucasus and active during May-June.

*Hilara thoracica* Macquart, 1827  
**Material:** 4♂, lake Sukhoi Liman, 340m, 44°45′26″N, 37°27′36″E, 24-26.v.2013; 3♂, 1♀, Schel Vodopadnaya, 223m, 44°45′46″N, 37°25′03″E, 26.v.2013.  
**Distribution:** Europe: Albania, Austria, Belgium, Czech Republic, Danish mainland, French mainland, Germany, Hungary, Ireland, Norwegian mainland, Poland, Slovakia, Spanish mainland, Sweden, Switzerland, the Netherlands, UK, Russia (northern, northwestern and southern European territories). Caucasus: Russia (Krasnodar Territory). This is a common species occurring from lowland areas to mountain forests of the North-West Caucasus and being active during May-July.

*Kowarzia barbatula* (Mik, 1880)  
**Material:** 1♂, 2♀, Schel Vodopadnaya, 29.iv.2014; 1♀, tract Dolgaya Niva, 17.vi.2014.  
**Distribution:** Europe: Albania, Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, French mainland, Germany, Greek mainland, Hungary, Italian mainland, Slovenia, Slovakia, Spanish mainland, Switzerland. Caucasus: Russia (Krasnodar Territory: Anapa and Apsheronsk districts), Abkhazia. This rarely collected species is known from foothill and mountain river banks of the North-West Caucasus and active since April till September.

*Rhamphomyia* (s. str.) caucasica Frey, 1953  
**Distribution:** Caucasus: Russia (Krasnodar Territory, Dagestan). *R. caucasica* is a commonly collected species, being known from lowland areas and submontane forests of the North-West Caucasus and active in April and May.

*Rhamphomyia* (s. str.) *sulcatella* Collin, 1926  
**Material:** 1♂, lake Sukhoi Liman, 340m, 44°45′26″N, 37°27′36″E, 17-18.iv.2014.  
**Distribution:** Austria, Czech Republic, French mainland, Germany, Hungary, the Netherlands, Slovakia, Switzerland, UK. Caucasus: Russia (Krasnodar Territory). This spring species is commonly collected from lowland areas and submontane forests of the North-West Caucasus, being active in April.

*Rhamphomyia* (Megacyttarus) *maculipennis* Zetterstedt, 1842  
**Material:** 1♂, lake Sukhoi Liman, 340m, 44°45′26″N, 37°27′36″E, 17-18.iv.2014.  
**Distribution:** Europe: Croatia, Czech Republic, Denmark, Finland, Germany, Hungary, Ireland, the Netherlands, Norway, Slovakia, Sweden, Switzerland, UK. Caucasus: Russia (Krasnodar Territory). Asia: Turkey. *R. maculipennis* is an uncommonly collected species, being known from lowland areas and submontane forests of the North-West Caucasus and active in April.  
**Remarks:** The species is recorded from the Caucasus and Russia for the first time.

*Rhamphomyia* (Megacyttarus) *tuberifemur* Barták, 2004  
**Distribution:** Caucasus: Russia (Krasnodar Territory), Georgia. *R. tuberifemur* is a commonly collected species, being known from lowland areas to mountain forests of the North-West Caucasus and active in April and June. This species is endemic to the Caucasus.

**Family Hybotidae**

*Hybos vagans* Loew, 1874  
**Material:** 3♂, 4♀, lake Sukhoi Liman, 340m, 44°45′26″N, 37°27′36″E, 24-26.v.2013; 1♀, same locality, 340m, 44°45′26″N, 37°27′36″E, 24-26.v.2013; 1♂,

**Distribution:** Asia: Iran, Turkey. Caucasus: Russia (Krasnodar Territory, Adygea, Karachay-Cherkessia, Chechnya), Abkhazia, Armenia, Azerbaijan, Georgia. *H. vagans* is a common species from lowland areas to mountain forests of the Caucasus and adjacent territories, being active during May-July.

*Leptopeza flavipes* (Meigen, 1820)


**Distribution:** Europe: Austria, Belgium, Croatia, Czech Republic, Danish mainland, Finland, French mainland, Germany, Hungary, Ireland, Italian mainland, Poland, Slovakia, Sweden, Switzerland, former Yugoslavia, UK, Russia (all European territory). Asia: Russia (East Siberia, Primorskiy Territory). Nearctic, Caucasus: Russia (Krasnodar Territory). This common species known from submontane and mountain forests of the North-West Caucasus is active in May-July.

*Oropezza sphenoptera* (Loew, 1873)

**Material:** 4♂, lake Sukhoi Liman, 340m, 44°45'26"N, 37°27'36"E, 24-26.v.2013; 1♀, top of Schel Bazovaya, 427m, 44°45'11"N, 37°26'33"E, 25.v.2013.

**Distribution:** Europe: Austria, Belgium, Czech Republic, Croatia, Danish mainland, Germany, Greek mainland, Hungary, Ireland, Italian mainland, Lithuania, Poland, Slovakia, Spanish mainland, Sweden, Switzerland, the Netherlands, UK, Russia (central and southern European territories). North Africa: Algeria, Caucasus: Russia (Krasnodar Territory). This common species is known from submontane and mountain forests of the North-West Caucasus is active in May-July.

*Platypalpus baldensis* (Strobl, 1899)

**Material:** 17♂, 13♀, lake Sukhoi Liman, tract Dolgaya Niva, Raevskii Polygon, Schel Mokraya, Schel Vodopadnaya, 14-29.iv.2014.

**Distribution:** Europe: Austria, French mainland, Italian mainland, Switzerland. Caucasus: Russia (Krasnodar Territory: Goryachii Kluch and Severskaya districts). This is a common species of the plain territory and submontane forests of the North-West Caucasus and active in April-May.

*Platypalpus brachystylus* (Bezzi, 1892)

**Material:** 5♂, 3♀, tract Dolgaya Niva, 17.iv.2014.

**Distribution:** Europe: Austria, Bulgaria, Czech Republic, Estonia, Germany, Hungary, Italian mainland, Slovakia, Sweden, Switzerland, Ukraine, Serbia, Russia (Southern European territory). Asia: Middle East. Caucasus: Russia (Karabidino-Balkaria: Azau). This is a common species occurring from the plain territories to subalpine landscapes of the Caucasus, being active in April-July.

*Platypalpus cothurnatus* Macquart, 1827

**Material:** 1♂, 1♀, tract Dolgaya Niva, 13.vii.2014.

**Distribution:** Europe: Austria, Belgium, Belarus, Czech Republic, Danish mainland, Estonia, Finland, French mainland, Germany, Hungary, Ireland, Italian mainland, Norwegian mainland, Poland, Romania, Slovakia, Slovenia, Sweden, Switzerland, the Netherlands, Ukraine, UK, Russia (central European territory). Caucasus: Russia (Krasnodar Territory: Goryachii Kluch and Dinskoii districts). This common species is known from the submontane and mountain forests of the North-West Caucasus, being active since May till July.

*Platypalpus exilis* (Meigen, 1822)

**Material:** 1♀, lake Sukhoi Liman, 17.iv.2014.

**Distribution:** Europe: Austria, Belgium, Croatia, Czech Republic, Danish mainland, Estonia, Finland, Germany, Hungary, Ireland, Norwegian mainland,
Poland, Romania, Slovakia, Sweden, Switzerland, the Netherlands, Ukraine, UK, Russia (northwestern, central and southern European territory). Caucasus: Russia (Krasnodar Territory), Georgia. This common species is known from the submontane and mountain forests of the North-West Caucasus, being active since April till June.

**Platypalpus infectus** (Collin, 1926)

**Material:** 1♀, Tract Dolgaya Niva, 17.iv.2014; 2♀, same locality, 28.iv.2014.

**Distribution:** Europe: Austria, Belgium, Czech Republic, Danish mainland, Estonia, Finland, French mainland, Germany, Hungary, Latvia, Lithuania, Poland, Slovakia, Sweden, Switzerland, Ukraine, UK, Russia (northwestern and central European territory). Caucasus: Russia (Krasnodar Territory, Adygea). This common species is known from lowland areas, submontane and mountain forests of the Caucasus, being active during April-July.

**Platypalpus longiseta** (Zetterstedt, 1842)

**Material:** 2♂, tract Dolgaya Niva, Schel Vodopadnaya, 28.iv.-30.v.2014.

**Distribution:** Europe: Austria, Belgium, Corsica, Croatia, Czech Republic, Danish mainland, Estonia, Finland, French mainland, Germany, Hungary, Ireland, Italian mainland, Lithuania, Macedonia, Malta, Norwegian mainland, Poland, Spanish mainland, Slovakia, Sweden, Switzerland, the Netherlands, UK, Russia (northwestern and central European territory). Africa: North Africa. Caucasus: Russia (Krasnodar Territory: Goryachii Kluch district, Krimsk district), Georgia. *P. longiseta* is uncommon species, known from lowland areas and submontane forests and active in April.

**Platypalpus pallidiseta** Kovalev, 1978

**Material:** 13♀, Schel Vodopadnaya, 2.vii.2014.

**Distribution:** Europe: Belgium, Germany, Romania, Slovakia, Switzerland, UK, Russia (northern, northwestern, central and southern European territory). Asia: Kazakhstan, Russia (East Siberia). Caucasus: Russia (Krasnodar Territory: Goryachii Kluch and Severskaya districts). This species is uncommon, known from lowland areas and submontane forests and active in July.

**Platypalpus pectoralis** (Fallén, 1815)

**Material:** 2♂, Raevskii Polygon, 13.vi.-17.ix.2014.

**Distribution:** Europe: Austria, Belgium, Bulgaria, Croatia, Czech Republic, Danish mainland, Estonia, Finland, French mainland, Germany, Hungary, Ireland, Italian mainland, Norwegian mainland, Poland, Slovakia, Sweden, Switzerland, the Netherlands, Ukraine, UK, Russia (northwestern, central and southern European territory). Caucasus: Russia (Krasnodar Territory), Georgia. This species is uncommon and known from submontane and mountain forests, being active during June-September.

**Platypalpus pseudosilvadissimus** Kustov, Shamshev & Grootaert, 2015

**Material:** 2♀, tract Dolgaya Niva, 17.iv.2014.

**Distribution:** Russia (Krasnodar Territory, Karachay-Cherkessia). This uncommonly collected spring species is known only from submontane and mountain forests, being active in April-May.

**Tachydromia arrogans** (Linnaeus, 1761)

**Material:** 1♂, Schel Vodopadnaya, 223m, 44°45′46″N, 37°25′03″E, 26.v.2013.

**Distribution:** Europe: Austria, Belgium, Czech Republic, Danish mainland, Estonia, Finland, French mainland, Germany, Greek mainland, Hungary, Norwegian mainland, Poland, Slovakia, Spanish mainland, Sweden, Switzerland, the Netherlands, Ukraine, UK, Russia (northwestern and central European territory). Asia: Syria. Africa: Tunisia. Caucasus: Russia (Krasnodar Territory, Adygea), Azerbaijan, Georgia. *T. arrogans* is a common species in the Caucasus, occurring from submontane to alpine landscapes, being active during May-July.

**Trichina elongata** Haliday, 1833

**Material:** 1♂, 1♀, top of Schel Bazovaya, 427m, 44°45′11″N, 37°26′33″E, 25.v.2013; 1♀, lake Sukhoi Liman, 340m, 44°45′26″N, 37°27′36″E, 24-26.v.2013.

**Distribution:** Europe: Austria, Belgium, Czech Republic, Danish mainland, Finland, French mainland, Germany, Ireland, Norwegian mainland, Poland, Romania, Slovakia, Sweden, Switzerland, the
Netherlands, UK, Russia (all European territory). Caucasus: Russia (Krasnodar Territory: Apsheronsk district, Kabardino-Balkaria: Azau, Karachay-Cherkessia: Teberda). This species is common; known from submontane and mountain forests, being active during May-July.

**Family Dolichopodidae sensu lato**

**Subfamily Microphorinae sensu Sinclair & Cumming (2006), or family Microphoridae sensu Grichanov (2011)**

*Microphor holosericeus* (Meigen, 1804)

**Material:** 5♀, lake Sukhoi Liman, 340m, 44°45′26″N, 37°27′36″E, 17-18.iv.2014; 1♂, tract Dolgaya Niva, 28.iv.2014; 1♂, 1♀, Schel Labanova, 29.v.2015.

**Distribution:** Europe: Austria, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Macedonia, the Netherlands, Norway, Poland, Romania, Slovakia, Spain, Sweden, Switzerland, UK, Ukraine, Russia: (European Territory). Asia: Turkey. Caucasus: Russia (Krasnodar Territory). The species is common in the Caucasus.

**Family Dolichopodidae sensu stricto**

*Argyra leucocephala* (Meigen, 1824)

**Material:** 2♂, 1♀, lake Sukhoi Liman, 340m, 44°45′26″N, 37°27′36″E, 24-26.v.2013; 1♂, 1♀, tract Dolgaya Niva, 17.ix.2013; 1♀, same locality, 28.viii.2014.

**Distribution:** Europe: Andorra, Austria, Belarus, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Moldova, the Netherlands, Norway, Poland, Romania, Russia (all European territory), Slovakia, Sweden, Switzerland, UK, Ukraine (Chernovtsy, Kharkiv). Asia: Azerbaijan, Iran, Israel, Turkey (Adiyaman, Antalya). Africa: Algeria, Tunisia. Caucasus: Russia (Krasnodar Territory, Adygea). This species is common in the Caucasus.

*Dolichopus citifemoratus* Macquart, 1827

**Material:** 2♂, lake Sukhoi Liman, 3.vii.2014 [ethyl alcohol]; 1♀, same locality, 44°45′N, 37°27′E, 14.viii.2014 [ethyl alcohol]; 2♂, 2♀, same locality, 340m, 44°45′26″N, 37°27′36″E, 24-26.v.2013; 1♂, same locality, 29.v.2014; 1♀, Schel Vodopadnaya, 2.vii.2014.

**Distribution:** Europe: Austria, Belarus, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Norway, Poland, Romania, Slovakia, Sweden, UK, Russia: Crimea. Asia: N Kazakhstan, Turkey (Muğla, Rize), Russia (Altai, Krasnoyarsk, Sakhalin, Vladivostok Territories), Caucasus: Russia (Adygea, Dagestan, Karachay-Cherkessia, Krasnodar Territory), Armenia, Georgia. The species is common in North-West Caucasus.

*Dolichopus claviger Stannius, 1831*

**Material:** 1♂, tract Dolgaya Niva, 240m, 44°44′27″N, 37°26′11″E, 25.v.2013.

**Distribution:** All Europe. Asia: Russia (Tomsk Region, Altai, Krasnoyarsk Territory). Caucasus: Russia (Adygea, Kabardino-Balkaria, Karachay-Cherkessia, Krasnodar Territory, North Ossetia). The species is common in North-West Caucasus.

*Dolichopus griseipennis* Stannius, 1831

**Material:** 1♀, tract Dolgaya Niva, 17.ix.2014 [ethyl alcohol]; 1♂, same locality, 17.iv.2014; 1♀, same locality, 17.vi.2014; 1♀, Raevskii Polygon, 17.ix.2014.

**Distribution:** Europe: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece incl. Crete, Hungary, Ireland, Italy, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Romania, Serbia, Slovakia, Spain incl. Balearic Is., Sweden, Switzerland, UK, Russia: (Moscow, “Siberia”). Asia: Iran, Israel, N Kazakhstan, Turkey (Sinop), “Middle Asia”. Africa: Algeria, Egypt, Morocco, Tunisia. Caucasus: Russia (Adygea, Krasnodar Territory), Armenia, Azerbaijan, Georgia. The species is common in North-West Caucasus.

*Dolichopus latilimbatus* Macquart, 1827

**Material:** 2♂, lake Sukhoi Liman, 24.iv.2014 [ethyl alcohol]; 1♀, same locality, 3.vii.2014 [ethyl alcohol]; 1♀, same locality, 29.v.2014 [ethyl alcohol].

**Distribution:** Europe: Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, the Netherlands, Poland, Romania, Slovakia, Spain, Sweden, Switzerland, UK, Ukraine (Ternopil), Russia (Kursk, Moscow, Orel, ...
Dolichopus nubilus Meigen, 1824


Distribution: Europe: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece incl. Crete, Hungary, Ireland, Italy, Latvia, the Netherlands, Norway, Poland, Romania, Slovakia, Spain, Sweden, Switzerland, UK, Ukraine (Kherson, Odessa), Russia (Kaliningrad, Kursk, Karelia, Leningrad, Rostov, Saratov, Voronezh Regions). Asia: Russia (“Altai”), China (Xinjiang), Iran, Kazakhstan, Kyrgyzstan, Tajikistan, Turkey (Kirklereli). Caucasian: Russia (Adygea, Krasnodar Territory), Armenia, Azerbaijan. The species is common in North-West Caucasian.

Dolichopus signifer Haliday, 1838

Material: 1♂, tract Dolgaya Niva, 17.ix.2014 [ethyl alcohol].

Distribution: Europe: Austria, Belgium, Bulgaria, Croatia, Czech Republic, France, Germany, Greece, Hungary, Iran, Ireland, Italy, the Netherlands, Norway, Poland, Portugal (Azores), Romania, Slovakia, Spain, Sweden, Switzerland, UK, Ukraine (Odessa), Russia (Crimea, Rostov, Voronezh Regions). Asia: Afghanistan, Kazakhstan, Tajikistan, Turkey (Burdu), Turkmenistan, Uzbekistan. Africa: Morocco. Caucasian: Russia (Krasnodar Territory, Kabardino-Balkaria). Georgia. This species is common in the Caucasus.

Dolichopus ungulatus (Linnaeus, 1758)

Material: 1♀, Schel Bazovaya, 240m, 44°44′27″N, 37°26′11″E, 25.v.2013.

Distribution: Europe: Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Romania; Serbia, Slovakia, Spain, Sweden, Switzerland, UK, Ukraine: Kharkiv, Kiev, Odessa, Ternopol, Carpathia; Russia (Karelia, Kursk, Leningrad, Lipetsk, Mordovia, Moscow, Novgorod, Orel, Orenburg, Perm, Pskov, Ryazan, Tatarstan, Vologda, Voronezh Regions). Asia: China (Xinjiang). Iran, Kazakhstan, Turkey (Rize), Russia Altai, Irkutsk, Khabarovsk, Khantia-Mansiya, Krasnoyarsk Territories). Caucasian: Georgia, Russia (Adygea, Kabardino-Balkaria, Karachai-Cherkessia, Krasnodar, North Ossetia Territories). Dolichopus ungulatus is very common across the Palaearctic Region. The species is common in North-West Caucasian but infrequent.

Gymnopternus blankaartensis Pollet, 1990

Material: 1♀, Schel Vodopadnaya, 2.vii.2014.

Distribution: Europe: Belgium, Czech Republic, France, Germany, Hungary, the Netherlands, Sweden, Switzerland, UK, Russia (Crimea). Asia: Iran, Turkey (Adyaman). Caucasian: Azerbaijan. The species is new for the Krasnodar Territory.

Hercostomus chetifer (Walker, 1849)


Distribution: Europe: Austria, Belgium, Bosnia and Herzegovina, Croatia, Czech Republic, Finland, France, Germany, Greece, Hungary, Italy, Luxembourg, the Netherlands, Norway, Poland, Romania, Slovakia, Spain, Sweden, Switzerland, UK, Ukraine, Russia (Moscow). Asia: India, Israel, Turkey (Antalya). Africa: Algeria. Nearctic region: Canada, USA. Caucasian: Russia (Adygea, Krasnodar Territory). The species is common in North-West Caucasian.

Hercostomus longiventris (Loew, 1857)


Distribution: Europe: Austria, Belgium, Croatia, Czech Republic, France, Germany, Greece, Hungary, Italy, the Netherlands, Poland, Romania, Switzerland. Asia: Iran, Israel, Morocco, Tajikistan, Turkey (Artvin, Muğla). Caucasian: Russia (Alania, Kabardino-Balkaria, Krasnodar Territory), Georgia. North-West Caucasian – foothills.
**Liancalus virens (Scopoli, 1763)**


**Distribution:** Europe: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece incl. Crete; Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal incl. Madeira, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK, Russia: (Crimea, Leningrad Region). Asia: Israel, S. Kazakhstan, Kyrgyzstan, Tajikistan, Turkey (Hakkari, Muğla), Russia (“Siberia”). Caucasus: Russia (Krasnodar Territory), Abkhazia, Azerbaijan, Georgia. Africa: Algeria, Morocco, Tunisia. North-West Caucasus – mountains, foothills.

**Medetera muralis Meigen, 1824**

**Material:** 1♂, lake Sukhoi Liman, 44°45"N, 37°27"E, 29.v.2014.

**Distribution:** Austria, Belarus, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Israel, the Netherlands, Norway, Poland, Romania, Slovakia, Sweden, Turkey (Antalya, Denizli), UK, former Yugoslavia, Russia (Moscow Region). Caucasus: Russia (Adygea, Kabardino-Balkaria, Krasnodar Territory, North Ossetia), Abkhazia, Azerbaijan.

**Medetera truncorum Meigen, 1824**

**Material:** 1♀, Raevskii Polygon, 15.v.2014.

**Distribution:** Europe: Austria, Belgium, Czech Republic, Croatia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Luxembourg, the Netherlands, Norway, Poland, Portugal incl. Azores, Slovakia, Spain, Sweden, Switzerland, UK, Ukraine (Kharkiv), former Yugoslavia, Russia (Crimea). Asia: Israel, Turkey (Adiyaman, Gaziantep, Hatay, Isparta, Mersin, Muğla, Şanlıurfa), Russia (Yakutia). Africa: Algeria, Egypt. Nearctic region: British Columbia, Wyoming, Oregon. Caucasus: Azerbaijan, Russia (Krasnodar Territory). The species is rare in the Caucasus.

**Neurigona erichsoni (Zetterstedt, 1843)**

**Material:** 1♀, Schel Bazovaya, 240m, 44°44'27"N, 37°26'11"E, 25.v.2013.

**Distribution:** Europe: Austria, Belgium, Czech, Denmark, Estonia, France, Germany, Hungary, the Netherlands, Norway, Poland, Romania, Russia (Mordovia, Moscow, Orel Territories), Sweden, Switzerland, UK, Ukraine (Cherkasy, Kharkiv), former Yugoslavia. Asia: Iran, Turkey (Bursa, Çanakkale), Caucasus: Russia (Adygea, Krasnodar Territory, North Ossetia). The species is infrequent in the Caucasus.

**Peloroopes acuticornis (Oldenberg, 1916)**

**Material:** 1♀, tract Dolgaya Niva, 17.vi.2014.

**Distribution:** Europe: France, Greece (Crete), Romania. Asia: Turkey (Kütahya). Caucasus: Russia (Krasnodar Territory – Black Sea coast from Arkhipo-Osipovka to Anapa).

**Remarks:** This species is included into the Red Data Book of Krasnodar Territory, being collected in Russia for the third time.

**Poecilothorbus principalis (Loew, 1861)**

**Material:** 1♀, lake Sukhoi Liman, 3.vii.2014.

**Distribution:** Europe: Austria, Belgium, Bulgaria, Czech Republic, France, Germany, Hungary, Italy, the Netherlands, Poland, Romania, Spain, UK, Ukraine. Asia: Israel, Turkey (Kütahya). Caucasus: Russia (Adygea, Krasnodar Territory). The species is rare in the Caucasus.

**Poecilothorbus varicoloris (Becker, 1917)**

**Material:** 1♂, Schel Vodopadnaya, 18.vi.2014; 1♂, tract Dolgaya Niva, 3.vii.2014; 1♂, Schel Labanova, 9.v.2015.


**Remarks:** The species is common in the Caucasian mountains. The Utrish Reserve is the westernmost collection point.

**Rhaphium appendiculatum Zetterstedt, 1849**

**Material:** 1♀, lake Sukhoi Liman, 340m, 44°45'26"N, 37°27'36"E, 24-26.v.2013; 1♂, top of Schel Bazovaya, 427 m, 44°45'14"N, 37°26'23"E, 25.v.2013.

**Distribution:** Europe: Austria, Bulgaria, Czech Republic, Denmark, Finland,
France, Germany, Greece, Hungary, Ireland, Italy, the Netherlands, Poland, Romania, Slovakia, Spain, Sweden, UK, Russia (Crimea, Leningrad, Moscow, Pskov Regions, Ural Territories). Asia: Afghanistan, Iran, Turkey (Adiyaman, Korucuk), “Middle Asia”. Africa: Algeria, Morocco, St. Helena (?introduced). Caucasus: Abkhazia, Georgia, Russia: (Adygea, Krasnodar Territory, North Ossetia). The species is common in North-West Caucasus.

*Rhaphium caliginosum* Meigen, 1824

**Material:** 1♂, lake Sukhoi Liman, 340m, 44°45’26”N, 37°27’36”E, 24-26.v.2013; 1♂, top of Schel Bazovaya, 427m, 44°45’14”N, 37°26’23”E, 25.v.2013.

**Distribution:** Europe: Austria, Belgium, Bulgaria, Croatia, Denmark, Estonia, Finland, France, Germany, Greece, Italy, Latvia, the Netherlands, Norway, Romania, Serbia, Sweden, Switzerland, UK, Ukraine (Kherson, Odessa), Russia (Kaliningrad, Kursk, Leningrad, Moscow, Murmansk, Orel, Pskov, Rostov, Stavropol, Voronezh Territories). Asia: Israel, Syria, Turkey (Burdur, Izmır), Russia (Krasnoyarsk). Africa: Algeria, Morocco. Caucasus: Armenia, Azerbaijan, Russia (Adygea, Kabardino-Balkaria, Karachay-Cherkessia, Krasnodar Territory). North-West Caucasus – everywhere.

*Sciacbus polozhentsevi* Negotov, 1977

**Material:** 1♂, lake Sukhoi Liman, 17.vi.2014 [ethyl alcohol].

**Distribution:** Russia (Adygea, Krasnodar Territory).

**Remarks:** The species is a rare endemic of the Caucasian mountains. The Utrish Reserve is the westernmost collection point.

*Sybistroma binodicornis* (Stackelberg, 1941)

**Material:** 2♂, lake Sukhoi Liman, 340m, 44°45’26”N, 37°27’36”E, 24-26.v.2013.

**Distribution:** Russia: Adygea, Kabardino-Balkaria, Lipetsk and Volgograd Regions. North-West Caucasus – foothills, infrequent.

**Remarks:** This species is new for the Krasnodar Territory.

*Syntormon denticulatus* (Zetterstedt, 1843)


**Remarks:** This species is new for the Krasnodar Territory.

*Syntormon fusipes* (von Roser, 1840)

**Material:** 1♂, Schel Vodopadnaya, 26.v.2013.

**Distribution:** Europe: Andorra, Austria, Belgium, Bulgaria, Czech Republic, Denmark, France, Germany, Greece, Hungary, the Netherlands, Poland, Romania, Serbia, Slovakia, Spain, Sweden, UK, Ukraine (Carpathians). Asia: Turkey. Caucasus: Abkhazia, Russia (Krasnodar Territory). Africa: Burundi, Kenya. The species is rare in the North-West Caucasus.

*Syntormon pallipes* (Fabricius, 1794)


**Distribution:** Europe: Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece incl. Crete, Hungary, Iceland, Ireland, Italy, Latvia, the Netherlands, Norway, Poland, Portugal incl. Madeira, Azores, Romania, Serbia, Slovakia, Spain, Sweden, Switzerland, UK, Ukraine (Kherson, Odessa), Russia (Leningrad, Murmansk, Rostov, Voronezh Territories). Asia: Afghanistan, China, Iran, Iraq, Israel, Jordan, Kyrgyzstan, Tajikistan, Turkey, Yemen, Uzbekistan. Africa: Algeria, Egypt, Morocco, Tunisia, Madagascar, Tanzania, St. Helena (?introduced). Caucasus: Abkhazia, Armenia, Azerbaijan, Georgia, Russia (Adygea, Crimea, Kabardino-Balkaria, Karachay-Cherkessia, Krasnodar Territory, North Ossetia). The species is common in North-West Caucasus.
**Fig. 1.** Map of the North-East Mediterranean, with inset showing the Utrish State Nature Reserve borders.

**Fig. 2.** Habitat at the Black sea coast (27.iii.2014)
Fig. 3. Steppe landscape at the Raevskii Polygon area (28.iv.2014)

Fig. 4. Habitat at top of the Schel Bazovaya crevice (25.v.2013)
Fig. 5. A Malaise trap at the Dolgaya Niva tract (28.iv.2014)

Fig. 6. A Malaise trap in the pistachio-juniper forest (28.iv.2014)
Fig. 7. Habitat at top of the Schel Vodopadnaya crevice (29.iv.2014)

Fig. 8. Habitat at a stream in the Schel Mokraya crevice (5.vi.2013)
**Syntormon pumilus** (Meigen, 1824)  
**Material:** 1♀, lake Sukhoi Liman, 3.vii.2014 [ethyl alcohol]; 1♂, same locality, 44°45'N, 37°27'E, 26.iii.2014.  
**Distribution:** Europe: Austria, Belarus, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Hungary, Ireland, Italy, Latvia, Norway, Poland, Romania, Slovakia, Slovenia, Sweden, Spain (Canary Is.), UK, Ukraine (Kherson, Odessa), Russia (Kaluga, Karelia, Kursk, Leningrad, Lipetsk, Moscow, Murmansk, Pskov, Stavropol, Vologda, Voronezh Regions). Asia: Afghanistan, Israel, “Middle Asia”, Russia (Astrakhan, Novosibirsk, Yakutia), Turkey. Caucasus: Armenia, Russia (Kabardino-Balkaria, Krasnodar Territory). Africa: Egypt, Morocco, Tunisia. The species is not rare in the North-West Caucasus.

**Teuchophorus monacanthus** Loew, 1859  
**Distribution:** Europe: Austria, Belgium, Bulgaria, Czech Republic, Denmark, France, Germany, Greece incl. Crete, Hungary, Ireland, Italy, Latvia, Luxembourg, the Netherlands, Norway, Poland, Romania, Slovenia, Spain, Sweden, Switzerland, UK, Russia (Leningrad, Lipetsk, Murmansk, Stavropol, Voronezh Territories). Asia: Iraq, Israel, Turkey (Antalya, Artvin, Muğla), “Middle Asia”. Caucasus: Russia (Adygea, Kabardino-Balkaria, Krasnodar Territory), Azerbaijan, Georgia. North-West Caucasus – everywhere.

**Xanthochlorus luridus** Negrobov, 1978  
**Material:** 1♂, Lake Sukhoi Liman, 340 m, 44°45'26"N, 37°27'36"E, 24-26.v.2013.  
**Distribution:** Caucasus: Abkhazia, Russia (Adygea, Karachay-Cherkessia,
Krasnodar Territory, North Ossetia). North-West Caucasus – foothills.

Remarks: The species is an endemic of the Caucasian mountains. The Utrish Reserve is the westernmost collection point.

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References


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