

# ***Platycheirus* species (Diptera, Syrphidae) in the Tuva district of southern Siberia, with description of a new species**

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The paper describes *Platycheirus tuvaensis* sp. n., a species of the *ambiguus* subgroup, and reports on another 22 *Platycheirus* species.

Key words: *Platycheirus*, new species, Tuva.

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## **INTRODUCTION**

In a series of papers the present authors have reported on the *Platycheirus* fauna from Caucasus, Turkmenistan and eastern parts of Russia (Barkalov & Nielsen 2004, 2007 a, 2007 b, 2008). This paper deals with a smaller material from the Republic of Tuva collected by different workers at the Zoological Museum, Novosibirsk.

The Republic of Tuva is situated in extreme southern Siberia (Figure 1). Mountains occupy 50% of the territory and half of the land is covered by forest. Predominant trees are the Siberian larch, pine trees and cedars. The climate is sharply continental, with average January temperature -32°C and average July temperature +18°C.

## **MATERIAL & METHODS**

The drawings were made with the aid of a drawing mirror attached to a Wild M5 stereo microscope. The photo of *Platycheirus tuvaensis* sp. n. was taken with an electronic camera.

## ***Platycheirus tuvaensis* sp. n.**

Holotype: Male, labelled “23.7.1993 Tuva, 30-35 km SE of Mugur-Aksy settlement, Mongun-Taiga mountain, 3100-3500 m a.s.l., Coll. A. Barkalov”. Paratypes: 18♂♂ with same data as holotype. Holotype and most paratypes in coll. ZMN, 3♂♂ in coll. TRN.

Diagnosis and comparison with related species: *Platycheirus tuvaensis* sp. n. belongs to the *ambiguus* subgroup. Like in some species of the subgroup (Nielsen 2004) the fore tibia is posterolaterally short-haired only, or occasionally with short hair-like bristles.

## **DESCRIPTION**

### **Male**

*Head:* Figures 2, 3A,B. Eye angle about 105°. Ocellar triangle black, black haired. Frons, face and genae covered with greyish white dusting; frons black haired, face and genae with white hairs. Lunula and median face stripe shining



**Figure 1.** Map of the Russian republic Tuva and surrounding countries.

black. Occiput densely whitish dusted, the dorsal parts less so; white haired. Antenna with joints 1–2 brownish black, 3rd joint about 1.5 times as long as wide, dark brown, reddish brown at base. Arista reddish brown.

**Thorax:** Figures 2, 3C–D. Scutum and scutellum shining metallic bluish black, the hairs yellow white. Scutum in front of transverse suture with light whitish dusting, humerus more densely dusted. Pleurae moderately white dusted, the hairs yellow white. – **Wing:** microtrichose except for basal parts of 1st and 2nd basal cells and anal cell bare. Haltere and calypter pale yellow orange. – **Legs:** femur of p1 and p2 orange; fore femur

sometimes a little darkened behind, mid femur brownish black at base and below, hind femur black, except base and tip narrowly yellow. Fore femur behind with a long, black curled bristle after apex, followed by a row of about eight stout black bristles of about same length (not increasing in length towards base of femur). Basal half of femur with a few single black or white long hairs. Fore and mid tibia short haired, or laterally with 1–3 short, soft bristly hairs. These hairs are scarcely longer than diameter of tibia. Fore and mid tibia brownish black on apical half, the tarsi darkened. Hind tibia (except basal 1/4) and tarsi black.

**Abdomen:** Figure 2. Tergite 1 shining black with metallic lustre. Tergites 2–4 each with a pair of orange yellow spots which are dulled by light silvery white dusting. Tergites 5–6 shining black. The hairs along side margins of the tergites are yellow white, on dorsal part the hairs mainly follow the ground colour. Sternites black with light pale dusting, the hairs yellow white.

**Body length:** male 7.6–8.4 mm. Wing length: male 6.3–6.8 mm.

**Etymology**

The species name reflects the Tuva area in the southern Siberia, where the species was collected.

**Table 1.** Comparison of *P. tuvaensis* sp. n. with related species (males).

<i>P. tuvaensis</i> sp. n.	<i>P. abruzzensis</i> (v.d. Goot, 1969)	<i>P. meridimontanus</i> Nielsen, 2004
Setae behind on fore femur nearly as thick as the claws of last tarsal segment	Setae thinner and more hair-like, as thick as half the thickness of the claws of last tarsal segment	Setae nearly as thick as the claws of last tarsal segment
Mid femur below at base with a set of about four short bristles	Mid femur below at base with a set of about four short bristles	Mid femur below at base with soft hairs only
Hind basitarsus 1.3–1.5x thicker than tip of tibia	Hind basitarsus slender, only slightly thicker than tip of tibia	Hind basitarsus slender, only slightly thicker than tip of tibia
Wing cell bm with about apical 1/3 microtrichose	Wing cell bm only with a few microtrichiae at extreme tip	Wing cell bm bare or only with a few microtrichiae at extreme tip
Tergite 2 as long as broad	Tergite 2 about 1.1x longer than broad	Tergite 2 about 1.1x longer than broad



Figure 2. *Platycheirus tuvaensis* sp. n., male.

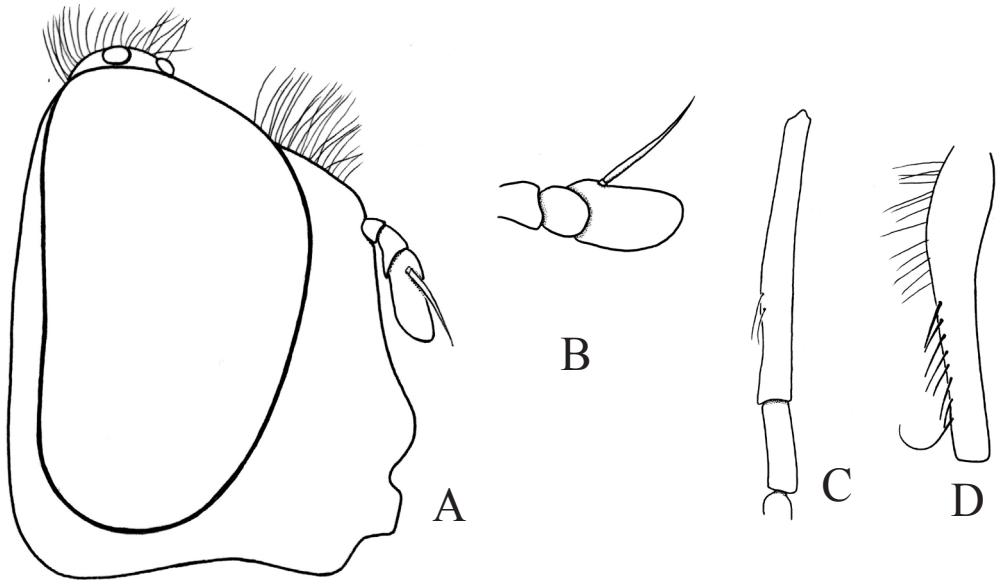


Figure 3. *Platycheirus tuvaensis* sp. n., male. A: head in profile. B: antenna. C: fore tibia and basitarsus. D: fore femur.

### Ecology

The males were collected on a mountain top at 3100–3500 m a.s.l., when hovering 0,5–1 m above the ground, or when sitting on stones in shelter of the wind.

### ADDITIONAL SPECIES

#### *Platycheirus abruzzensis* (v.d. Goot, 1969)

Teli 10 June 1963, 2♂♂ leg. N. Violovitsh.

#### *Platycheirus albimanus* (Fabricius, 1781)

West Sajon, Sajanskij mountain range, 2300 m a.s.l. 23–30 July 1975, 13♂♂ leg. I. Kharitonova; the same place, 2250–2400 m a.s.l. 51° N, 89° E 27 June 2004, 1♂ leg. A. Barkalov; flood-lands of Enisej river, Chaa-Khol' 31 August 1962, 1♂ leg. N. Violovitsh; Olen'ya rechka 5 August 1962, 1♂ leg. N. Violovitsh; northern slope of Eastern Tanu-Ola mountain range 10 August 1962, 1♂ leg. N. Violovitsh; river Ak-Sug on the road Ak-Dovurak-Abaza 1107 m a.s.l. 51,52° N, 90,17° E, 3♂♂ leg. A. Barkalov; 7 km NW Sesarlik settlement 27 July 1993, 2♂♂ leg. A. Barkalov; 3-8 km N Samagaltaj settlement 10 July 1993, 1♂3♀♀ leg. A. Barkalov; Chagytaj 19 June 1963, 1♂1♀ leg. N. Violovitsh.

#### *Platycheirus angustatus* (Zetterstedt, 1843)

Chagytaj 15 July 1963, 1♂ leg. N. Violovitsh; northern slope of Khundurgun 6 July 1963, 1♂ leg. N. Violovitsh; Kaa-Khemskij district 51°49' N, 94°41' E 16-17, July 1♀ leg. Yu. Marusik; Teli 11 July 1963, 1♀ leg. N. Violovitsh; Tes 17 July 1963, 1♀ leg. N. Violovitsh; environs of Kysyl town, 700 m a.s.l. 20 July 1989, 1♀ leg. D. Logunov; Sosnovka 30 July 1949, 1♂ leg. A. Cherepanov; upper part of Orokhin-Gol river 4 July 1963, 1♀ leg. N. Violovitsh; Sayanskij mountain range 29 July 1975, 1♀ leg. I. Kharitonova; Khendergej 14 July 1949, 1♀ leg. A. Cherepanov; 15 km E Khol'-Oozhu, valley of Aryskey-Khem river, 1300 m a.s.l. 15–16 July 1993, 1♂ leg. A. Barkalov.

#### *Platycheirus atratus* Barkalov & Nielsen, 2008

See Barkalov & Nielsen 2008: 95.

#### *Platycheirus barkalovi* Mutin, 1999

5 km North Balgazyn settlement 19 July 1993, 1♂ leg. A. Barkalov.

#### *Platycheirus carinatus* (Curran, 1927)

Sayanskij mountain range, 2250-2450 m a.s.l., 51°N, 89° E 27 June 2004, 3♂♂ leg. A. Barkalov.

#### *Platycheirus clypeatus* (Meigen, 1822)

Chagytaj lake 12 June 1949, 1♂ leg. A. Cherepanov; Todzhinskij district, Azas lake 6 June 1988, 1♂ leg. V. Zinchenko.

#### *Platycheirus complicatus* (Becker, 1889)

Todzhinskij District, upper part of river Izyg-Sug Chojgan 6 July 1988, 1♂ leg. V. Zinchenko; environs of Sayanskij mountain range, 1764 m a.s.l. 51,7° N, 89,85° E 1♂ leg. A. Barkalov; Sayanskij mountain range, 1764 m a.s.l., 51, 95° N, 89,97° E 27 June 2004, 3♂♂ leg. A. Barkalov; Chagytaj 24 June 1963, 1♂ leg. N. Violovitsh.

#### *Platycheirus europaeus* Goeldlin, Maibach & Speight, 1990

Upper part of Mugun-Buren' river 25 July 1964, 1♂ leg. N. Violovitsh.

#### *Platycheirus fimbriatus* (Loew, 1871)

Erzinskij District, sands between river Tes-Khem and lake Tere-Khol' 19 May 1998, 15♂♂4♀♀ leg. V. Zinchenko.

#### *Platycheirus holarcticus* Vockeroth, 1990

15 km E Khol'-Oozhu, valley of Aryskey-Khem river, 1300 m a.s.l., 15-16 July 1993, 1♂ leg. A. Barkalov; Usty-Eldig-Khem, 1800-1900 m a.s.l., 51° 30' N, 89° 36' E, 15 June 2008, 1♂ leg. R. Dudko & I. Lyubechanskij.

#### *Platycheirus immarginatus* (Zetterstedt, 1849)

Tere-Khol' lake, 1150-2000 m a.s.l., 27 June 1989, 1♂ leg. D. Logunov.

#### *Platycheirus latimanus* (Wahlberg, 1844)

Environs of Sayanskij mountain range, 1764 m a.s.l., 51,7° N, 89,97° E, 26 June 2004, 1♂ leg. A. Barkalov.

***Platycheirus manicatus* (Meigen, 1822)**

8–9 km NE Mugur-Aksy settlement, Tsagaan-Shibetu mountain range, 2700 m a.s.l., 22 July 1993, 1 ♂ leg. A. Barkalov; Sayanskij mountain range, 1895 m a.s.l., 51,95° N, 89,85° E, 27 July 2004 8 ♂♂ 1 ♀ leg. A. Barkalov.

***Platycheirus nielsenii* Vockeroth, 1990**

Ak-Sug river, on the road Ak-Dovurak-Abaza, 1107 m a.s.l., 51,52° N, 90,17° E, 26 June 2004, 2 ♂♂ leg. A. Barkalov.

***Platycheirus parmatus* Rondani, 1857**

3–5 km N of Balgazyn settlement 19–20 July 1993, 1 ♀ leg. A. Barkalov.

***Platycheirus peckae* Bagatshanova, 1980**

Ulug-Khemsij district, 6 km S of Tagarlyk village, 950 m a.s.l., 9 May 1990, 3 ♂♂ leg. V. Zinchenko.

***Platycheirus podagratus* (Zetterstedt, 1838)**

Shurmak 50° 44' N, 95° 19', 20–21 June 1996, 1 ♂ leg. Yu. Marusik; river Balygytg-Khem 26 June 1996, 1 ♂ leg. Yu. Marusik.

***Platycheirus scambus* (Staeger, 1843)**

Todzha, creek of Todzha 13 August 1962, 1 ♂ leg. A. Cherepanov.

***Platycheirus scutatus* (Meigen, 1822)**

Northern slope of Khundurgun Mountain range 24 July 1963, 2 ♂♂ leg. N. Violovitsh.

***Platycheirus sibiricus* Barkalov & Nielsen, 2007**

West Sayan, Sayanskij Mountain range, 2300 m a.s.l., 23 July 1975, 1 ♂ leg. I. Kharitonova; environs of Sayanskij mountain range, 1764 m a.s.l., 51,7° N, 89,97° E, 26 June 2004, 1 ♂ leg. A. Barkalov; Usty-Eldig-Khem, 1800–1900 m a.s.l. 51° 30' N, 89° 36' E, 15 June 2008, 4 ♂♂ leg. R. Dudko, I. Lyubechanskij.

***Platycheirus subordinatus* (Becker, 1915)**

15 km W of Khol'-Oozhu, 1800–1900 m a.s.l., 16 July 1993, 1 ♂ leg. A. Barkalov; Shapshal'skij mountain range 2740–2876 m a.s.l., 50,5° N, 89,8°

E, 2 ♂♂ leg. A. Barkalov; 15 km N-W Khol'-Oozhu village, 1800–1900 m a.s.l., 16 July 1963, 1 ♂ 1 ♀ leg. A. Barkalov, V. Sorokina; Sayanskij mountain range 2250–2450 m a.s.l., 51,1° N, 89° E, 7 ♂♂ 12 ♀♀ leg. A. Barkalov; Shapshal'skij mountain range, upper part of Shuj river 2550–2900 m a.s.l., 25 July 2007, 1 ♂ leg. V. Sorokina.

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