

An extraordinary new *Platycheirus* from the Russian Altai Mountains (Diptera, Syrphidae)

John T. Smit & Anatolii V. Barkalov

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A new species, *Platycheirus cheilosiaeformis* sp. n., is described from the Aktru Valley in the Altai Mountains, Republic of Altai, Siberia, Russia. It is compared with other species of the *Platycheirus stegnus* group and reference to a key is given.

Keywords: *Platycheirus cheilosiaeformis* sp. n., *Platycheirus stegnus*-group, Russia, Altai mountains.

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INTRODUCTION

In the summer of 2006 a few Dutch entomologists participated in an expedition arranged by the Institute of Animal Systematics and Ecology, Siberian Branch of the Russian Academy of Science (Novosibirsk) to the Altai Mountains in southern Siberia. These Mountains are located near the crossing of China, Kazakhstan, Mongolia and Russia, about 650 km southeast of Novosibirsk. A large quantity of hoverflies was collected, both by hand net and with malaise traps, during this expedition, including several specimens of an extraordinary new *Platycheirus*. This species was collected in the Aktru valley (figure 1), south of Kuray, at 2500 m. asl., Kosh-Arachskiy Rajon, Republic of Altai, Southern Siberia, Russia. In the summer of 2006 a few Dutch entomologists participated in an expedition arranged by the Institute of Animal Systematics and Ecology, Siberian Branch of the Russian Academy of Science (Novosibirsk) to the Altai Mountains in southern Siberia. These Mountains are located near the crossing of China, Kazakhstan, Mongolia and

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MATERIAL & METHODS

The different types of this new species have been deposited in the following collections, introducing the abbreviations. JTS = J.T. Smit, Utrecht, the Netherlands; TN = Tore Randulff Nielsen, Sandnes, Norway; ZMAN = Zoologisch Museum Amsterdam, the Netherlands; ZMN = Zoological Museum Novosibirsk, Russia

Platycheirus cheilosiaeformis sp. n.

Holotype: ♀ Республика Алтай, верховье реки Актуру 2519 м над уровнем моря 50.1° с.ш., 87.7° в.д. 6.07.2006 Сб. А. Баркалов (Republic

Table 1. Differences between females of *Platycheirus cheilosiaeformis* sp. nov. and *P. altaicus* Barkalov & Nielsen.

Character	<i>P. altaicus</i> Bark. & Nielsen	<i>P. cheilosiaeformis</i> sp. n.
Mesonotum	With fine stripes of grey dusting	Entirely undusted
Mesonotum and scutellum	With semi-erect black hairs	Entirely erect white haired
Fore and mid femora	With black hairs posteriorly	Entirely white haired

Altai, Kosh-Agachskij district, upper part of Akturu river, 2519 m asl., 50.1° N, 87.7° E 6.VII. 2006 A. Barkalov leg.) Deposited in the ZMN. Paratypes: 7♀, Siberia, Republic of Altai, Kosh-Arachskiy Rajon, Aktru, S. of Kuray, 50°

segments shiny and the third segment elongated and with dense silvery dusting (Figure 5).

Thorax. Mesonotum and scutellum densely punctuate, shiny with blueish tinge, with erect



Figure 1. Aktru Valley, South of Karay, Respublika Altai, Siberia, Russia, the type locality of *Platycheirus cheilosiaeformis* sp. n.

DESCRIPTION

Female (Figure 2)

Head entirely black and very broad, face at the level of the facial tubercle more than twice as broad as one eye, view anteriorly (Figure 3). Face dusted except on facial tubercle and a broad stripe from mouth ridge to eye. Genae broad, covered specieswith grey dusting and white hairs. Face widely projected forward (Figure 4). Frons also very broad, at the level of the antennal base distinctly broader than one eye, view dorsally (Figure 5). Frons on anterior 1/3 with distinct transversal stripe of grey dusting, covered with white and black hairs, on hind 2/3 frons shiny with black hairs. Vertex shiny with white hairs, lunula black. Antennae black with the first two



Figure 2. Female holotype of *Platycheirus cheilosiaeformis* sp. n.

white hairs, without any dusting. Pleurae black with distinct bluish reflection, with fine grey dusting and covered with white hairs that are wavy at the top. Legs entirely black except for the narrowly yellow knees. Front and mid femora without any modified setae, both posteriorly and ventrally with long white hairs. Hind femur ventrally with long white hairs. Abdomen extraordinarily broad for this genus (Figure 6), at the anterior edge of the third tergite distinctly broader than mesonotum at the level of the wing base. Abdomen completely



Figure 3. Ventral view of the face of a paratype of *Platycheirus cheilosiaeformis* sp. nov.

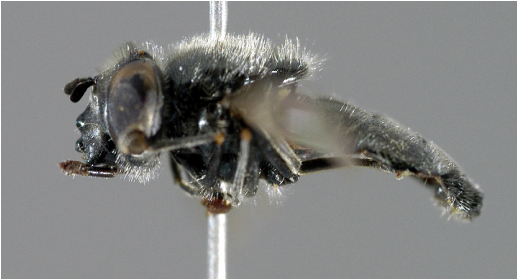


Figure 4. Ventral view of the face of a paratype of *Platycheirus cheilosiaeformis* sp. nov.

black, shiny and covered with white hairs.

Length. Body: 7.5 mm. Wing: 7.0 mm. Variation observed in paratype series.

Some of the specimens have an entirely black mesonotum and scutellum (Figure 6) without blueish tinge. Frons can be completely covered with black hairs, or anterior half with almost completely white hairs. On the sides of the mesonotum there may be some black hairs.

Length. Body: 6.5–9 mm. Wing: 6–8.5 mm.

Male. Unknown

Etymology. The name is derived from the genus name *Cheilosia* and the word ‘form’, as this species was initially collected as an odd looking species of *Cheilosia*. Alive and in the field it really resembles a *Cheilosia* rather than a *Platycheirus*, due to the extraordinarily broad abdomen.

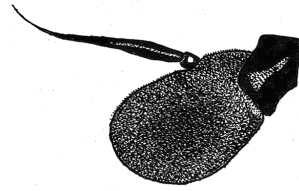
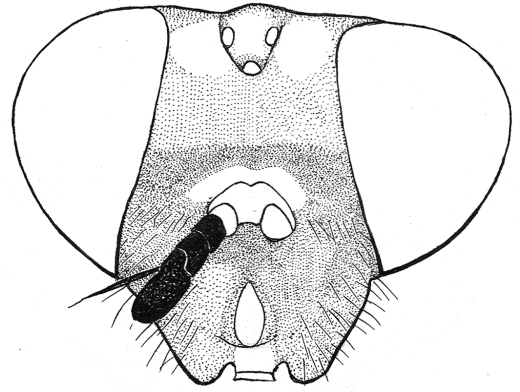


Figure 5. Dorsal view of the head and antenna of the holotype of *Platycheirus cheilosiaeformis* sp. n.

Diagnostic characters

Platycheirus cheilosiaeformis sp. nov. is immediately recognized by the complete lack of abdominal markings, the extraordinarily broad abdomen and the lack of any modified setae on the front legs and the white hairs on the first pairs of femora. *Platycheirus cheilosiaeformis* sp. nov. belongs to the *stegnus*-group of species within the genus *Platycheirus* as defined by Vockeroth (1990). Within this species-group it belongs to the *carinatus*-subgroup, also defined by Vockeroth (1990). The *stegnus*-group is represented by 18 species, seven of which occur in the Palearctic, all belonging to the *carinatus*-subgroup. A key to all species from Altai within this species-group is provided by Barkalov & Nielsen (2008).

Habitually *Platycheirus cheilosiaeformis* sp. nov. is similar to females of *P. altaicus* Barkalov & Nielsen in press. (see elsewhere in this volume), the differences are summarized in Table 1.



Figure 6. Female paratype *Platycheirus cheilosiaeformis* sp. n. showing the extraordinarily broad abdomen for this genus.

Distribution. Only known from the Aktru valley in the Altai Mountains in southern Siberia, Russia.

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REFERENCES

- Barkalov, A.V. & Nielsen, T.R. 2008. *Platycheirus* species (Diptera, Syrphidae) from the Altai Mountains, SE Siberia, with description of five new species. *Norw. J. Entomol.* 56, 91–104.
- Vockeroth, J.R. 1990. Revision of the Nearctic species of *Platycheirus* (Diptera, Syrphidae). *Can. Ent.* 122: 658–766.

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