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

John T. Smit & Anatolii V. Barkalov


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., *Platycheiurs 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 malaisetrap, 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.

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
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°

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

<table>
<thead>
<tr>
<th>Character</th>
<th><em>P. altaicus</em> Bark. &amp; Nielsen</th>
<th><em>P. cheilosiaeformis</em> sp. n.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mesonotum</td>
<td>With fine stripes of grey dusting</td>
<td>Entirely undusted</td>
</tr>
<tr>
<td>Mesonotum and scutellum</td>
<td>With semi-erect black hairs</td>
<td>Entirely erect white haired</td>
</tr>
<tr>
<td>Fore and mid femora</td>
<td>With black hairs posteriorly</td>
<td>Entirely white haired</td>
</tr>
</tbody>
</table>

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°

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 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 white hairs, without any dusting. Pleuræ 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
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.

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


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