

A new *Platycheirus* species of the *manicatus* subgroup (Diptera, Syrphidae) from Caucasus

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A new species, *Platycheirus similis* sp. nov. is described from Kabardino-Balkaria, Republic of northern Caucasus. It is compared with other large species of the *Platycheirus manicatus* subgroup, and a key is presented.

Key words: Diptera, Syrphidae, *Platycheirus similis* sp. nov., *manicatus* subgroup, Caucasus.

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INTRODUCTION

This paper deals with a number of larger species of the European *Platycheirus manicatus* subgroup, a subgroup characterised (Vockeroth 1990) by fore femur without distinctive vestiture, fore tibia rather narrow and the following tarsal joints 1-2 distinctly broadened.

The first author collected an unknown species, described here, on an expedition to Caucasus in 1999. The new species, *Platycheirus similis* sp. nov. (Figure 1A) has great similarity with *P. tarsalis* (Schummel, 1837) and has been compared with that and other large species of the subgroup: *P. cejensis* Kuznetsov, 1987 (description) *P. cintoensis* van der Goot, 1961 (holotype, coll. Zoölogisch Museum, Amsterdam), *P. fasciculatus* Loew, 1856 (Italy, coll. T.R. Nielsen), *P. kashkarovi* Violovitsh, 1978 (paratype, coll. Zoological Institute, St. Petersburg), Figure 1C) and *P. manicatus* (Meigen, 1822) and *P. parmatus* Rondani, 1857. A key is presented for the species mentioned above.

MATERIAL AND METHODS

All drawings were made with the aid of a drawing mirror attached to a Wild M5 microscope. The photos of *Platycheirus similis* sp. nov. holotype and the *P. kashkarovi* Viol. paratype were taken with an electronic camera.

Platycheirus similis sp. nov.

Holotype: Male, labelled «Кабардино-Балкария, ущ. Суган-Су, 1700 м 16.07.1999, Сб. А. Баркалов» (Kabardino-Balkaria, Sukan-Su Gorge, 1700 meters, 16 July 1999, leg. A. Barkalov), in coll. Zoological Museum, Novosibirsk.

Diagnosis: The new species belongs to the *manicatus* subgroup (Vockeroth 1990: 662) without distinctive vestiture of fore femur. It differs from *P. tarsalis* by having a wider face and a heavily dusted frons, a longer fore basitarsus and other characters.



Figure 1. A: *Platycheirus similis* spec. nov., male holotype. **B:** fore tarsus.



C: *P. kashkarovi* Violovitsh, male paratype. Photos: Karsten Sund, Natural History Museum, University of Oslo.

DESCRIPTION

Male

Head: Figures 2A,B. Eye angle 110°. Ocellar triangle black with light greyish yellow dusting, black haired. Frons and face heavily greyish yellow dusted (like in *P. manicatus*), but lunula, facial tubercle and upper mouth-edge mainly undusted, black. Frons black-haired, face with black and yellow hairs. Antenna blackish brown; arista long, longer than antennal segments 1-3. Lower part of face much protruding, mouth-edge more so than facial tubercle. Occiput heavily greyish dusted, yellow haired, dorsally with long black hairs.

Thorax: Scutum and pleurae somewhat dulled by greyish yellow dusting, yellow haired; scutum with a few scattered black hairs intermingled.

Scutellum with yellow brassy lustre, shining, yellow haired. – Legs: Figure 1B, 2C-E. Femur and tibia of p1 and p2 mainly black, broadly yellow at apex. Tibia 1 and 2 with about basal half yellow, apex of tibia 1 white yellow. The femora with long fine hairs; those on basal half yellow, apical half with black hairs. Tibia 1 and 2 posterolaterally with black hairs. Front tarsus with segments 1-3 whitish, segment 3 dark brown at apex; segment 1-2 laterally with short black bristly hairs. Tarsal segments 4-5 dark brown. Tarsus of p2 blackish brown, the joints narrowly yellow. Hind legs black, only the knees narrowly brown. – Wing: veins brown, stigma and wing membrane light brown. Calypter greyish brown, the rim brown. Haltere red brown, the knob light yellowish brown.

Abdomen: Figure 2F. The ground colour of the

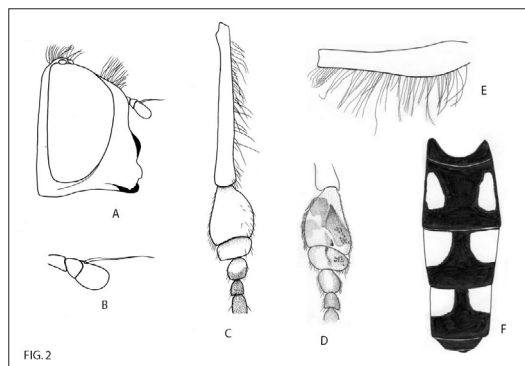


Figure 2. *Platycheirus similis* spec. nov. male holotype: A: head in lateral view; B: antenna; C: left fore tarsus; D: left fore leg, underside; E: fore femur; F: abdomen.

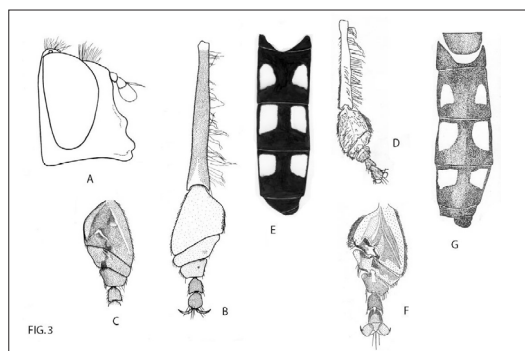


Figure 3. *Platycheirus cintoensis* v.d. Goot, male holotype: A: head in lateral view; B: left fore tibia and tarsus; C: fore tarsus, underside; E: abdomen. – *Platycheirus cejensis* Kuznetsov, male holotype (after Kuznetsov 1987): D: left fore leg; F: fore tarsus, underside; G: abdomen.

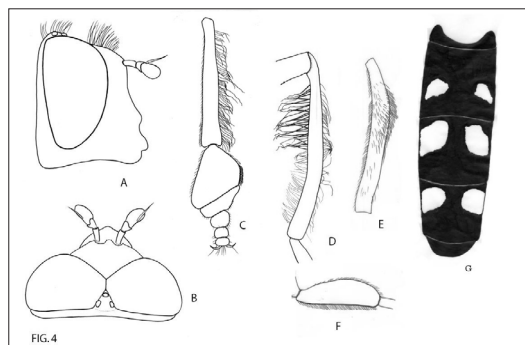


Figure 4. *Platycheirus fasciculatus* Loew, male. A: head in lateral view; B: head in dorsal view; C: fore tibia and tarsus; D: mid tibia; E: hind tibia; F: hind basitarsus; G: abdomen.

tergites black with brassy lustre, tergites 2-4 each with a pair of yellow brown spots. Tergites 1-3 with long yellow hairs along the side-margins. Sternites greyish black with brassy lustre and light dusting, the hairs yellow.

Body length (from frons till tip of abdomen) 9,6 mm, wing length 8,6 mm.

Female: unknown.

Etymology

The name reflects the similarity with related species.

Key to separate *P. similis* sp. nov. from similar species of the *manicatus* subgroup

1. Scutum dulled by greyish yellow dusting, often with stripes *manicatus* (Meigen)
 - Scutum shining or only very lightly dusted 2.
2. Segment 3 of fore tarsus obviously broader than following segments 3.
 - Segments 3-5 of fore tarsus of about same width 4.
3. Fore basitarsus with distal margin linear. The following joint with basal and distal margins parallel *cejensis* Kuznetsov
 - Fore basitarsus with distal margin slightly \wedge -shaped. The following joint with basal and distal margins uneven *cintoensis* v. d. Goot
4. Basal half of anteroventral surface of mid tibia with a tuft of long erect wavy hairs, the longest hairs are twice as long as tibial diameter (Figure 4D, 5E) 5.
 - Basal half of anteroventral surface of mid tibia with short hairs, the longest not longer than tibial diameter 6.
5. Fore basitarsus broader than long, nearly triangular in shape (Figure 4C). Fore tibia behind in the middle with a dense row of erect wavy black hairs, the hairs about as long as tibia diameter. Hind tibia dorsolaterally on basal half with a longish tuft of tilted bristly yellow hairs. Hind basitarsus swollen,

widest on apical half. Face much produced, upper mouth edge more so than facial tubercle.....*fasciculatus* Loew

- Fore basitarsus about as broad as long, more rounded. Fore tibia behind in the middle with yellow hairs, the longest are 2-3 times as long as tibia diameter. Hind tibia dorsolaterally in the middle with a small tuft of black bristly hairs. Hind basitarsus swollen, widest just before the mid point. Face less produced, upper mouth edge about as much as facial tubercle*kashkarovi* Violovitsh
- 6. Yellow spots on tergites 3-4 are well removed from base of tergites. Apex of fore tibia broadened, much broader than segment 3 of tarsus. Fore tarsus: Figure 6A. Mid tibia (Figure 6B) ventrally on basal half with some long soft wavy hairs, the longest are 2-3 times longer than thickness of tibia.*parmatius* Rondani
- Yellow spots on tergites 3-4 situated close to base of tergites. Apex of fore tibia slender, about as broad as segment 3 of tarsus. Mid tibia ventrally on basal half with short hairs, none of which are longer than thickness of tibia.7.
- 7. Fore basitarsus discoid, rather short and round and with an oblique distal margin. Tarsi of mid legs yellow, only slightly darkened. Hind tibia dorsolaterally on basal half with some tilted black bristly and longish hairs. Eye angle 100°. Face narrow, about 1,5 times broader than width of an eye. Frons bluish black, shining.....*tarsalis* (Schummel)
- Fore basitarsus more longish and with a more transverse distal margin. Tarsi of mid legs greyish black, only the joints narrowly yellow. Hind tibia dorsolaterally on basal half with short hairs only. Eye angle 110°. Face wider, two times broader than width of an eye. Frons dulled by dirty yellow dusting.....*similis* sp. nov.

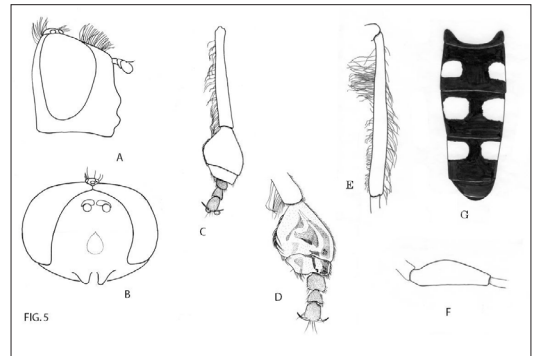


Figure 5. *Platycheirus kashkarovi* Violovitsh, male. A: head in lateral view; B: head seen from in front; C: fore tibia and tarsus; D: fore tarsus underside; E: mid tibia; F: hind basitarsus; G: abdomen.

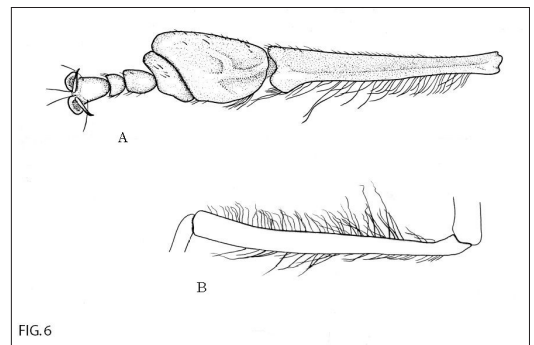


Figure 6. *Platycheirus parmatius* Rondani, male. A: fore tibia and tarsus; B: mid tibia.

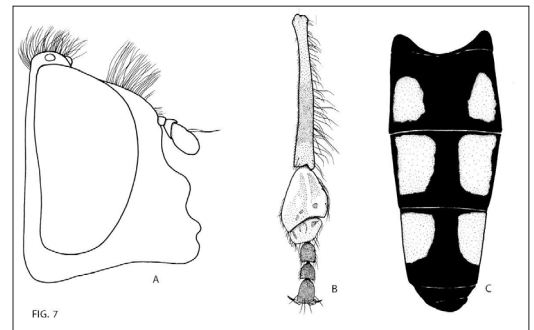


Figure 7. *Platycheirus manicatus* (Meigen), male. A: head in lateral view; B: fore tibia and tarsus; C: abdomen.

DISCUSSION

P. similis sp. nov. greatly resembles *P. cintoensis*

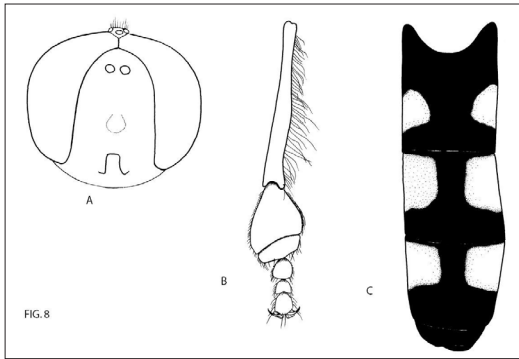


Figure 8. *Platycheirus tarsalis* (Schummel), male. A: head seen from in front; B: fore tibia and tarsus; C: abdomen.

(Figure 3A-C,E) and *P. cejensis* (Figure 3D,F,G), but differs in a less protruding face and in the front tarsi. Remarks: *Platycheirus cejensis* seems, from the figures of abdomen and fore leg, to be very similar to *cintoensis*. Unfortunately the *cejensis* type could not be found, why this problem has to wait. Further details in key.

P. similis sp. nov. differs from *P. fasciculatus* (Figure 4A-G) in a less protruding face, in the shape of front tarsus and the less hairy tibia of all legs.

The abdominal spots in *P. kashkarovi* (Figure 5A-G) are broader than long (longer than broad in *similis*), and they do not reach the fore margin of the tergites. *P. kashkarovi* also has a much broader face and more hairy tibiae of p1 and p2.

The new species differs from *P. parmatus* (Figure 6A-B) in the shape of fore tarsus and in long hairs ventrally on basal half of mid tibia.

P. similis sp. nov. is separated from *P. manicatus* (Figure 7A-C) by a more shining scutum, a slender basitarsus of p3 and in the front tarsi. The maculae of tergites 2-4 are more rectangular, while they have a more oblique distal margin in *manicatus*.

P. similis has a more slender basitarsus of p2

than *P. tarsalis* (Figure 8A-C), the following segment more rounded and the last segment is obviously longer than broad. Basitarsus of p3 in *similis* is more slender. Hind tibia is short haired, while there is a series of rather long bristly hairs posterolaterally in the middle of the *tarsalis* tibia.

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REFERENCES

- Goot, V.S. van der 1961. Zweefvliegenvangst op Corsica. Ent. Ber., Amst. 21, 219-223.
- Kuznetsov, S.Y. 1987. New data on the systematics of the Palaearctic Hover-flies. Entom. Obozrenie, LXVI, 419-435.
- Loew, H. 1856. Neue Beiträge zur Kenntnis der Dipteren. Vierter Beitrag. Programm K. Realschule zu Meseritz, 1-56.
- Schummel, T.E. 1837. Ueber die Gattung Syrphus und vier neue Arten derselben. Uebers. schles. Ges. vaterl. Kult., 84-85.
- Violovitsh, N.A. 1978. Some new Palaearctic species of hover flies (Diptera, Syrphidae). Taksonomiya i ekologiya chlenistonogikh Sibiri. Novye i maloizvestnye vidy fauny Sibiri, 12. Novosibirsk, 163-171.
- Vockeroth, J.R. 1990. Revision of the Nearctic species of *Platycheirus* (Diptera, Syrphidae). Can. Entomol. 122, 659-766.

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