

Description of *Macropelecocera sanguinea* spec. nov. from Kirghizia (Diptera, Syrphidae)

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Macropelecocera sanguinea **spec. nov.** is described from Kirghizia. The new species is unique within the genus in having a red abdomen in the ♂ sex, and probably in having the anterior flat part of the mesanepisternum hairy.

Zusammenfassung

Macropelecocera sanguinea **spec. nov.** wird aus Kirgisien beschrieben. Die neue Art ist durch das rote Abdomen des ♂ und wahrscheinlich durch die Behaarung des vorderen flachen Teils des Mesanepisternum einzigartig innerhalb der Gattung.

Introduction

The genus *Macropelecocera* Stackelberg, 1952, is a distinctive small group of morphologically very similar species. It has been revised by Kuznetsov (1990), who recognises three species. All of them are restricted in their range to the southern Central Asian mountains and are extremely rare in collections. Among a small collection of Syrphidae provided by Dr Manfred Kraus a single ♂ specimen of a *Macropelecocera* distinct from the species described by Kuznetsov has been found. Although at present only a single and incomplete specimen is known the species is described here as new because there can be no doubt that it is a previously undescribed taxon and a name is required for it in forthcoming investigations on the phylogeny and systematics of the Cheilosini.

Macropelecocera sanguinea **spec. nov.**

Type: ♂ 1) "Kirgisien, 11.06.[19]98, Bergland am Zeltpf. Salkin Tor, 2250-2750m leg. M. Kraus"; 2) "N 41°25' E76°10' ". Deposited in the collections of the Staatliches Museum für Naturkunde in Stuttgart (SMNS).

The specimen is in very good condition except in that the head and the right fore leg and mid leg are missing. (The missing fore leg has been used for DNA sequencing by Dr G. Ståhls-Mäkelä). The genitalia have been dissected and are stored in glycerol in a glass micro-vial on the same pin.

Etymology: The Latin name means "bloody" and refers to the colour of the abdomen.

Diagnosis: Anterior flat portion of the mesanepisternum (ma1) with numerous long hairs. ♂ abdomen extensively red (fig. 1, 2). For additional differences from the other known species of *Macropelecocera* see table 1.

Description

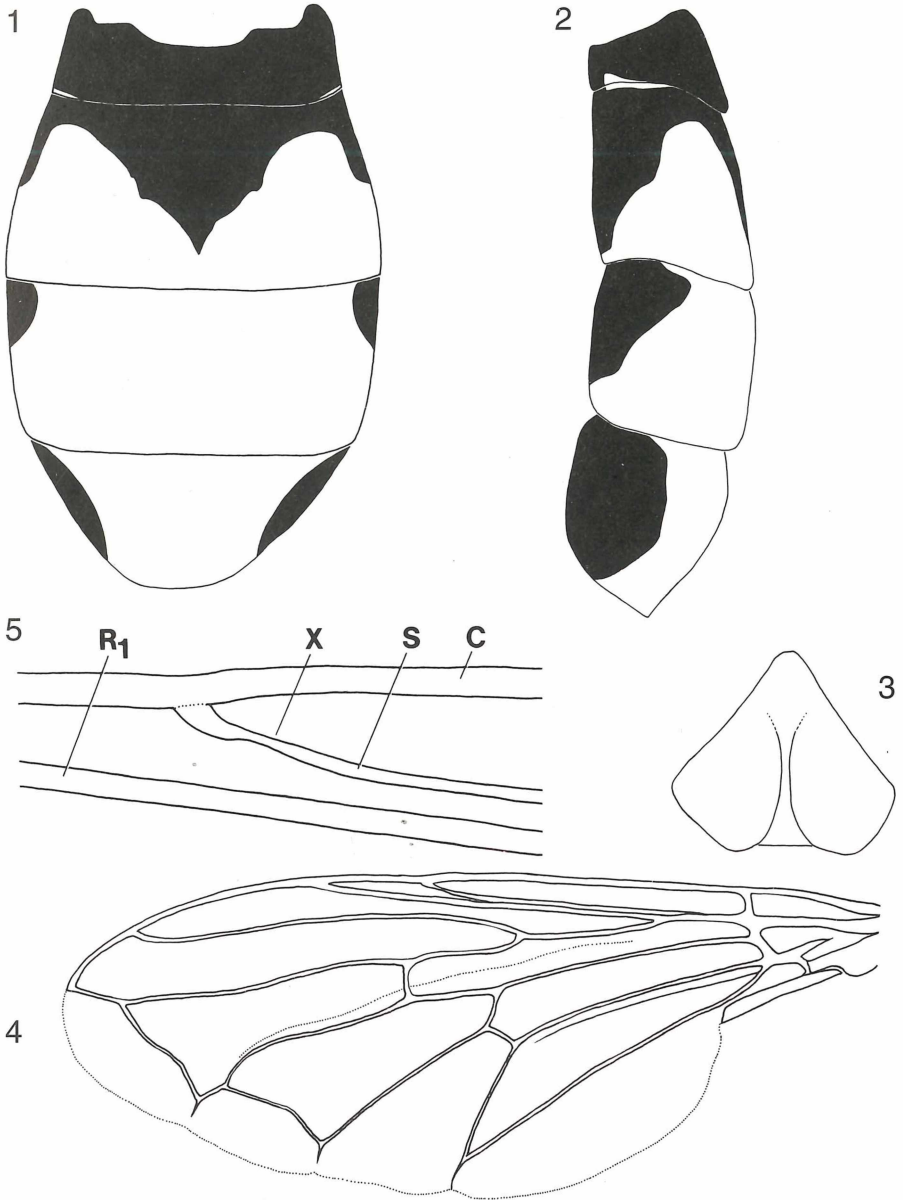
♂: Head: missing.

Thorax: mesonotum and scutellum undusted, shining black, at the sides somewhat rugose and ± matt, with erect white hairs of uneven length up to 0.55 mm; scutellum unmarginated, with a weak ventral fringe; pleural pilosity white, long, with wavy apices; ma1 densely haired; upper and lower katepisternal hair patches connected anteriorly; propleuron hairy; metasternum hairy; meron bare; propleura, katepisternum ventrally and anteriorly, metasternum, and metapleura thinly dusted; ma1+2, anepimeron, and meron bare of microtrichia. Shape of the probasisternum as in fig. 3. – Wing: wings broad (fig. 4), veins light brown in the basal part, dark brown in the apical part; subcosta tapering subapically (fig. 5); membrane entirely covered in microtrichia except for cells bm and cup each having a narrow bare stripe, and with a wide bare stripe along A2; very faintly brownish. Capitulum yellow. – Legs: without any structural peculiarities; f1 on the basal ¾, f2+3 on the basal 2/3 black, otherwise yellow; t1-3 yellow and each with a weak incomplete dark ring in the third quarter of their lengths from the base; 1st, 2nd, and the apex of the 5th tarsomeres of all tarsi light reddish yellow, remaining tarsomeres ± darkened, particularly the 4th; pilosity of all parts of the legs yellowish white; f1 ventrally and anteriorly dusted, femora otherwise undusted; cx2 posteriorly with a few hairs.

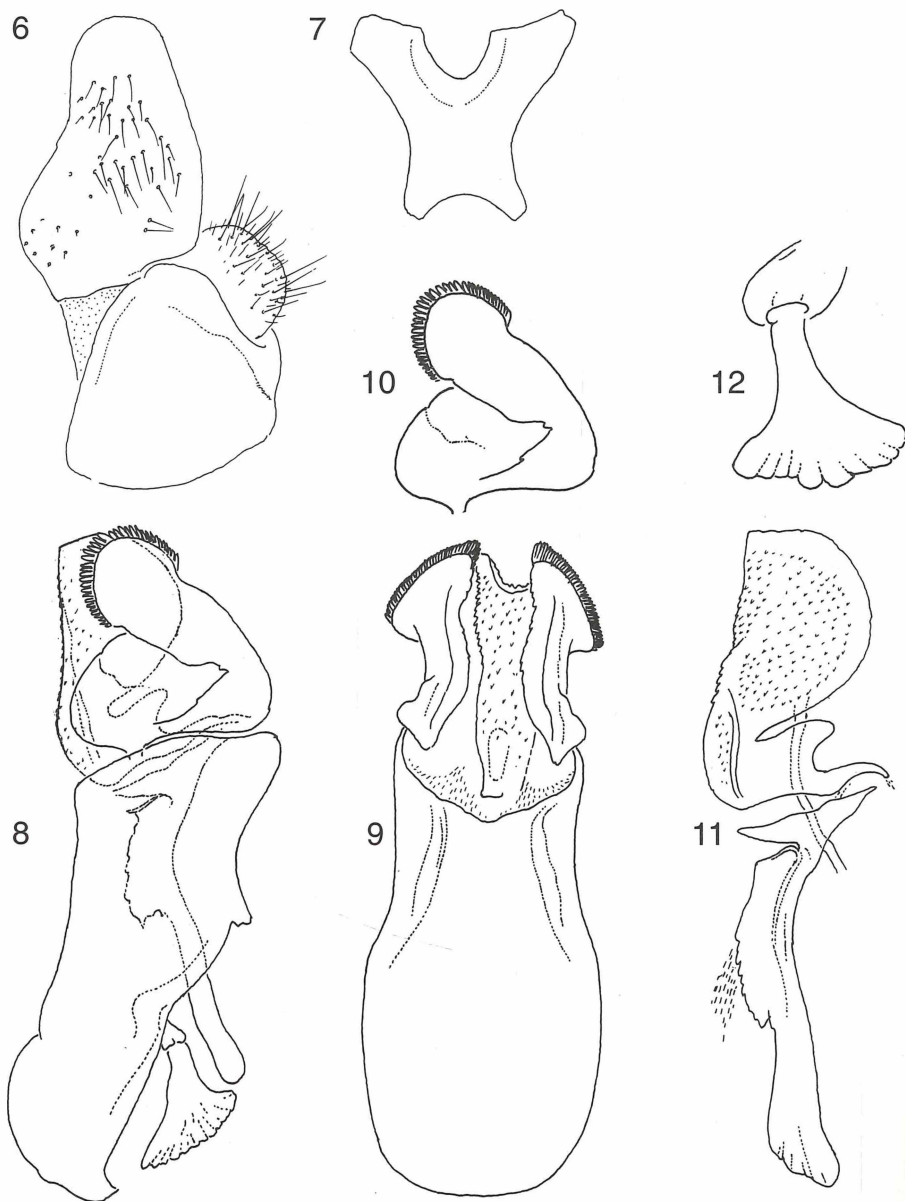
Abdomen: T1-4 with characteristic red markings (fig. 1, 2); undusted except for scattered microtrichia at the base of T1; with white pilosity, sub-adpressed and short in the median part of T2+3, otherwise erect and long, the longest hairs at the anterior corner of T2 about half as long as T2, and 0.25 mm at the side margin of T3. S1 black with the posterior ¼ reddish, S2+3 light red, S4 dark reddish brown; all sternites undusted except for the anterior corners of S1, with long erect white pile; S4 and S3 posteriorly with numerous short, sub-adpressed, pale hairs. – Genitalia: figs. 6-12; in all parts very similar to those of the other species of *Macropelecocera*, cf. figs. in Kuznetsov (1990).

Size: body (without head) 7 mm, wing length (from base of epaulet to apex) 6.4 mm.

♀ unknown.



Figs. 1-5: *Macropelecocera sanguinea* spec. nov. – 1. Abdomen (without hairs) dorsally; – 2. Abdomen (without hairs) laterally; – 3. Probasissternum; – 4. Wing (alula directed vertical); – 5. detail of the wing showing the tapering subapical part of the subcosta. C = costa; R₁ = vein R₁; S = subcosta; X = subapically weakened part of subcosta.



Figs. 6-12: *Macrolepecocera sanguinea* spec. nov. – 6. Epandrium laterally; – 7. minis; – 8. hypandrium laterally; – 9. hypandrium ventrally; – 10. left gonostyle laterally from outside; – 11. aedeagus with phallapodeme laterally; – 12. ejaculatory apodeme.

| character / taxon | <i>pulchella</i> Kuznetsov, 1990 | <i>paradoxa</i> Stackelberg, 1952 | <i>stackelbergi</i> Kuznetsov, 1990 | <i>sanguinea</i> spec nov. |
|---|---|---|--|---|
| wing length | 4.7 mm | 7 mm | about 7 mm | 6.4 mm |
| long hairs on mal | ? (no information given) | absent | absent | present |
| presence of fine pollinosity on thoracic pleura | "Meso-, sterno-, ptero-, hypo- and propleuron fine greyish pollinose. Posterior part of mesopleuron not pollinose." | "Pleura shining black ... Anterior lower part of mesopleuron and anterior part of sternopleuron shining ... " (no explicit data on pollinosity given) | "Pleura very thin white pollinose ... Small lower part of mesopleuron and anterior part of sternopleuron narrowly shining ..." | Propleura, katepisternum ventrally and anteriorly, metasternum, and metapleura thinly dusted, mal+2, anepimeron, and meron bare of microtrichia. |
| colour of femora | black, narrowly yellow at apex | f1 black, narrowly yellow at apex, f3 black, widely yellow at apex | black in basal ¾ | f1 on the basal ¾, f2+3 on the basal 2/3 black, apices yellow |
| colour of tibiae | yellow with black ring in the middle | completely yellow [but fig. 7 in Stackelberg (1965) showing dark rings or spots on the tibiae, which is of about half the length on t3!] | with conspicuous median black ring, or medially with conspicuous black spot | t1-3 yellow and each with a weak incomplete dark ring in the third quarter of their lengths from the base |
| colour of tarsi | completely light-yellow | completely yellow | completely black or brownish-black from above and brownish-yellow from below or completely black | 1 st , 2 nd , and the apices of the 5 th tarsomeres of all tarsi light reddish yellow, remaining tarsomeres ± darkened, particularly the 4 th |
| colour of abdomen | black | tergites black, sternites light brown | black | tergites and sternites extensively red |

Table 1: Comparison of *Macrolepecocera sanguinea* spec. nov. with the characters given for the males of the known species of *Macrolepecocera* Stackelberg as described by Kuznetsov (1990).

Discussion

The peculiar structure of the third antennal segment with a short and very thick arista is a unique character of *Macropelecocera* (similar but less extreme conditions occur in *Ischyroptera* Pokorný and *Pelecocera* Meigen). Although the head of *M. sanguinea* spec. nov. is missing its assignment to *Macropelecocera* is obvious on account of the following features:

1. It possesses the typical two-segmented aedeagus of the tribe Cheilosini.
2. It fits each character listed in the diagnosis for the genus *Macropelecocera* in Kuznetsov (1990: 2) except for the ♂ abdomen being extensively red (instead of black).
3. It fits very well the illustration of the ♂ of *M. paradoxa* in Stackelberg (1965). In the shape of the wing and its venation these taxa are practically identical.
4. The genitalia are very similar to the illustrations provided for the other species of *Macropelecocera* by Kuznetsov (1990).

The presence of numerous long hairs on the anterior flat part of the mesanepisternum is probably a character state not observed so far in *Macropelecocera*. Kuznetsov (1990) reports this part as being not hairy in *M. paradoxa* and in *M. stackelbergi* but gives no information for *M. pulchella*. However, although being an important generic character in several tribes of the Syrphidae, among the tribe Cheilosini there are various examples of intrageneric variation in this feature. For instance, in the genera *Chamaesyrphus* Mik and *Cheilosia* Meigen it is an important character for distinguishing species. At least within *Cheilosia* there are no close relationships between the few species having this part of the mesanepisternum hairy. Therefore, within *Macropelecocera*, the presence of hairs on this part of the thoracic pleura deserves the status of a specific character of *M. sanguinea* only.

Thompson (1972: 101f.) suggested a subdivision of the tribe Cheilosini into the subtribes Cheilosina and Pelecocerina. The diagnostic characters of the latter are: arista inserted apically on the third antennal segment, metasterna bare, and alula reduced. However, *Macropelecocera* has the metasternum pilose and the alula is not reduced. In other characters it is close to *Ischyroptera bipilosa* Pokorný, "*Pelecocera*" *latifrons* Loew and "*Pelecocera*" *persiana* Kuznetsov (the genus name is placed in parentheses because these taxa are certainly not congeneric with the type-species of *Pelecocera*, *P. tricineta* Meigen). The ♂ genitalia of *Macropelecocera* most resemble those of "*Pelecocera*" *latifrons*. This suggests some changes are required in the subdivision of the Cheilosini as proposed by Thompson (1972).

Acknowledgements

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