

Chaetocladius (s. str.) *antipovae* sp.n.
(Diptera, Chironomidae, Orthoclaadiinae)
from the Amur River basin (Russian Far East)

Новый вид хирономид *Chaetocladius* (s. str.) *antipovae* sp.n.
(Diptera, Chironomidae, Orthoclaadiinae)
из бассейна р. Амур (Российский Дальний Восток)

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Ключевые слова: Diptera, Chironomidae, Orthoclaadiinae, *Chaetocladius*, новый вид, российский Дальний Восток.

Abstract. A new species, *Chaetocladius* (s. str.) *antipovae* sp.n., from Fedotkin Spring (tributary of Bidzhan River, Amur River basin, Jewish Autonomous Region) is described and figured by male imagines. A new species is good separated from known species of the genus by small tubercle-form of the inferior volsellae, by the shape of the gonostylus and by numerous (more than 50) acrostichals of the methonotum.

Резюме. Приведено иллюстрированное описание имаго самца нового вида хирономид *Chaetocladius* (s. str.) *antipovae* sp.n. из ключа Федоткин (приток р. Биджан, басс. р. Амур, Еврейская автономная область). Самец нового вида отличается от известных представителей рода маленьким бугорковидным нижним придатком гонококситы, формой гоностилуса и наличием на среднеспинке многочисленных (более 50) акростиальных щетинок.

Introduction

Up to date, the genus *Chaetocladius* Kieffer, 1911 includes one species of the subgenus *Amblycladius* Kieffer and about 50 Palaearctic species of *Chaetocladius* s. str. [Sæther et al., 2000; Yamamoto, 2004; Stur, Spies, 2011]. Fifteen species of *Chaetocladius* s. str. were recorded for the Russian Far East [Makarchenko, Makarchenko, 2011]. A new species, *Chaetocladius* (s. str.) *antipovae* sp. n., was found in the Amur River basin. Male of this species is described and illustrated below.

Material was fixed by Oudemans solution. The morphological nomenclature follows O.A. Sæther [1980].

Holotype of a new species is deposited in the Institute of Biology and Soil Sciences, Far East Branch of the Russian Academy of Sciences (IBSS FEB RAS), Vladivostok, Russia.

Description

Chaetocladius (s. str.) *antipovae*
Makarchenko et Makarchenko, sp.n.

Figs 1–4.

Material. Holotype: ♂, Fedotkin Spring, tributary of Bidzhan River (Amur River basin), Teplye Kluchi Village, N 48°38.624', E 131°37.223', Jewish Autonomous Region, Russian Far East, 16.V.2011, leg. E. Makarchenko.

Male imago (n = 1).

Total length 3.5 mm. Wing length 2.2 mm. Total length/wing length 1.58.

Coloration. Thorax brownish-yellowish, methonotum yellowish, with three more dark yellow stripes. Wing brownish. Abdominal tergites brown, in apical 1/4 tergites VII–VIII more light. Hypopygium brownish-yellow. Femur and tibia of fore leg yellowish, ta₁–ta₃ blackish. Femur, tibia and ta₁ of middle and hind legs yellowish, ta₂–ta₃ blackish.

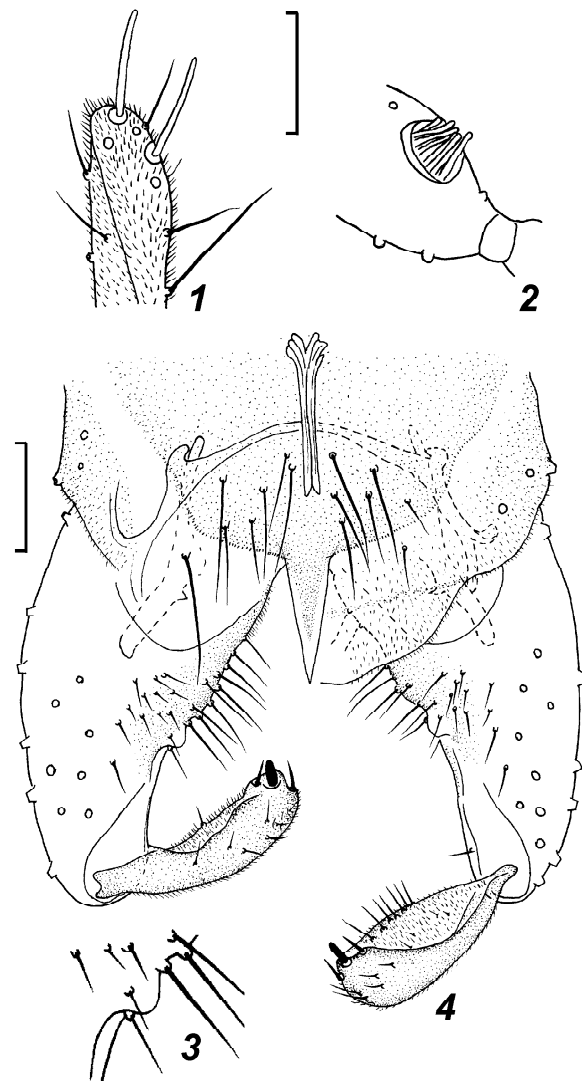
Head. Eyes bare, with dorsomedian horseshoe-shaped prolongation. Temporal setae include (from one side) 9–10 verticals and 3–4 postorbitals. Clypeus with 14 setae. Antenna with 13 flagellomeres and good developed plume; 13th flagellomere in apical part with two pale sensitive setae 40 μm long (Fig. 1). AR 0.85–0.89. Lengths (μm) of palpomeres 1–5 : 40 : 60 : 168 : 144 : 240. Third palpomere in distal part with some sensillae clavata in ring (Fig. 2). Head width/palp length 0.93.

Thorax. Anteprepronotum with 9–10 lateral setae. Acrostichals more than 50, beginning from border of anteprepronotum in 3–4 rows, before end in 2 rows and finishing by 2 setae in one row; dorsocentrals 16 (in 1–2 rows), prealars 4, supraalars 1.

Wing. Brownish, with good visible microtrichia. Anal lobe well developed. Squama with 3 setae. R with 19–20 setae, R₁ with 6–8 setae, R₄₊₅ with 22–23 setae. R₂₊₃ more close to R₁. Costal extension 48–60 μm. Apex of R₄₊₅ is distal of apex M₃₊₄.

Table 1. Length (μm) and proportions of leg segments of *Chaetocladius* (s. str.) *antipovae* sp.n., male (n=1)
 Таблица 1. Длина члеников ног (мкм) и их индексы самца *Chaetocladius* (s. str.) *antipovae* sp.n. (n=1)

| P | f | t | ta ₁ | ta ₂ | ta ₃ | ta ₄ | ta ₅ | LR | SV | BV |
|----------------|------|------|-----------------|-----------------|-----------------|-----------------|-----------------|------|------|------|
| P ₁ | 1072 | 1136 | 800 | 416 | 288 | 192 | 112 | 0.70 | 2.76 | 2.98 |
| P ₂ | 1088 | 1056 | 560 | 288 | 208 | 144 | 112 | 0.53 | 3.83 | 3.59 |
| P ₃ | 1232 | 1424 | 800 | 400 | 312 | 200 | 144 | 0.56 | 3.32 | 3.27 |



Figs 1–4. Male of *Chaetocladius* (s. str.) *antipovae* sp.n.: 1 — apical part of antenna; 2 — distal part of 3rd palpal segment with sensilla clavata; 3 — inferior volsella; 4 — total view of hypopygium from above. Scale bar 50 μm .

Рис. 1–4. Самец *Chaetocladius* (s. str.) *antipovae* sp.n.: 1 — вершина антенны; 2 — дистальная часть 3-го членика максиллярного щупика с чувствительными сенсиллами; 3 — нижний придаток гонококсита; 4 — общий вид гипопигия, сверху. Масштабная линейка 50 мкм.

Legs. BR₁ 2.3, BR₂ 2.3, BR₃ 2.7. Spur of front tibia 72 μm . Spurs of middle tibia 28 μm and 44 μm long. Spurs of hind tibia 28 μm and 80 μm long. Hind tibial comb with 13 setae. Middle and hind legs with 2 pseudospurs on ta₁ and ta₂. Length and proportions of leg segments see in Table 1.

Hypopygium (Figs 3–4). Anal point 52 μm long and 18 μm wide in basal part. Tergite IX with 12 setae and 2 setae are situated more distal of tergite IX. Laterosternite IX with 5–6 setae. Transverse sternapodeme 128 μm long; oral projections roundish. Virga 76 μm long, consists in basal part of 8–10 setae, in apical part 2 setae. Gonocoxite 204 μm long, with small tubercle-form inferior volsella. Gonostylus 100 μm long; in apical part with megaseta 12 μm long and with one strong seta from one side of megaseta and transparent crista dorsalis.

Diagnosis. Total length 3.5 mm. Wing length 2.2 mm. 13th antennal flagellomere in apical part with two pale sensitive setae. AR 0.85–0.89. Acrostichals of methonotum more than 50. LR₁ 0.70. Virga long, consists in basal part of 8–10 setae, in apical part 2 setae. Gonocoxite with small tubercle-form inferior volsella. Gonostylus in apical part with megaseta 12 μm long and with one strong seta from one side of megaseta and transparent crista dorsalis.

Диагноз. Длина тела 3,5 мм. Длина крыла 2,2 мм. 13-й флагелломер антенны апикально с 2 длинными и бледными чувствительными щетинками. AR 0,85–0,89. Акростихальных щетинок на среднеспинке более 50. LR₁ 0,70. Нижний придаток гонококсита маленький в виде бугорка. Вирга длинная, в базальной части состоит из 8–10 щетинок, апикальной — двух. Гоностиль апикально с прозрачной кристой, терминальным шипом, с каждой стороны от которого по одной сильной и длинной щетинке.

Etymology. The new species is named in honor of Director of Teplovsky and Bidzhan Fish Hatcheries of Jewish Autonomous Region Natalia Viktorovna Antipova who kindly helped us to visit very interesting but remote district of Bidzhan River basin for collect chironomid material, namely the new species in Fedotkin Spring on territory of Bidzhan Fish Hatchery.

Distribution. Known only from the type locality in Amur River basin — Fedotkin Spring of Bidzhan River basin.

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