

***Chaetocladius (Chaetocladius) elenae* sp.n.**
(Diptera, Chironomidae, Orthoclaadiinae), a new chironomid species
from the Magadan Region, Russian Far East

Новый вид хирономида *Chaetocladius (Chaetocladius) elenae* sp.n.
(Diptera, Chironomidae, Orthoclaadiinae) из Магаданской области

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

Abstract. A new species, *Chaetocladius (Chaetocladius) elenae* Makarchenko et Makarchenko, **sp.n.**, from the Magadan Region of the Russian Far East is described and figured by male imagines. A new species is closely related to *Ch. (Ch.) crassisaetosus* Tuiskunen, *Ch. (Ch.) eugenyii* Kobayashi and *Ch. (Ch.) variabilis* Makarchenko et Makarchenko, but clearly distinguished from the first two species by the shape of inferior volsella and gonostylus and the presence of very long virga, and from latter by a shorter gonostylus with 3 megasetae and 1 tooth, and a different shape of inferior volsella.

Резюме. Приведено иллюстрированное описание имаго самца нового вида хирономида *Chaetocladius (Chaetocladius) elenae* Makarchenko et Makarchenko, **sp.n.** из Магаданской обл. российского Дальнего Востока. Самец нового вида наиболее близок видам *Ch. (Ch.) crassisaetosus* Tuiskunen, *Ch. (Ch.) eugenyii* Kobayashi и *Ch. (Ch.) variabilis* Makarchenko et Makarchenko. От первых двух новый вид хорошо отличается формой нижнего придатка гонококситы и гоностилуса, присутствием очень длинной вирги, а от последнего — более коротким гоностилем с 3 терминальными шипами и 1 зубцом, а также формой нижнего придатка гонококситы.

Introduction

Up to date, the genus *Chaetocladius* Kieffer, 1911 includes one species of the subgenus *Amblycladius* Kieffer and 57 species of *Chaetocladius (Chaetocladius)* [Ashe, O'Connor, 2012]. Eighteen species of *Chaetocladius (Chaetocladius)* were recorded for the Russian Far East [Makarchenko, Makarchenko, 2011a–c, 2013]. A new species, *Chaetocladius (Chaetocladius) elenae* sp.n., was found in the Magadan Region of the Russian Far East. Male of this species is described and illustrated below.

Material was fixed by 70 % ethanol. 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 (Chaetocladius) elenae
Makarchenko et Makarchenko, **sp.n.**

Fig. 1.

Material. Russia, *Magadanskaya Oblast*: holotype, ♂, Toorchan River (Ola River basin), about 15 km from Yablonevyy Village, Khasynsky District, 486 m above sea level, N 60°24'46.77", E 151°31'14.47", 27.VIII.2013, leg. E. Khamenkova.

Description. Male imago (n = 1). Dark brown. Total length 3.15 mm. Wing length 2.16 mm. Total length/wing length 1.4.

Head. Eyes slightly pubescent, with short dorsomedian prolongation. Temporal setae include (from one side) 5–6 verticals and 5–6 postorbitals. Clypeus with 3 setae. Antenna with 13 flagellomeres and good developed plume; 13th flagellomere with pointed apex; AR 1.07–1.18. Lengths (μm) of palpomeres 1–5 — 32 : 44 : 112 : 80 : 128.

Thorax. Anteprepronotum with 4 lateral setae. Acrostichals 19, beginning from nearly border of anteprepronotum; dorso-centrals 9, prealars 5. Scutellum with hardly visible setae.

Wing. Grayish, with good visible microtrichia on x100. Anal lobe well developed, slightly truncated. Squama with 5 setae. R with 13–18 setae, R₁ with 2–3 setae in basal part, R₄₊₅ without setae. Costal extension 80–96 μm. Apex of R₄₊₅ is distal of apex M₃₊₄. Cu, curved in apical part.

Legs. BR₁ 2.6, BR₂ 2.4, BR₃ 3.2. Spur of front tibia 64 μm long. Spurs of middle tibia 24 μm and 28 μm long.

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

P	f	t	ta ₁	ta ₂	ta ₃	ta ₄	ta ₅	LR	SV	BV
P ₁	832	912	592	352	232	144	112	0.65	2.95	2.78
P ₂	800	832	384	240	160	112	96	0.46	4.25	3.32
P ₃	880	960	576	304	240	144	112	0.60	3.19	3.02

Spurs of hind tibia 24 μm and 52 μm long. Hind tibial comb with 15 setae. Middle and hind legs with 2 pseudospurs on ta₁ and ta₂. Middle and hind legs on ta₁ without sensilla chaetica. Pulvillae absent. Length and proportions of leg segments see in Table 1.

Hypopygium (Fig. 1). Anal point parallel sided, bare, 80 μm long and 12 μm wide in basal part. Tergite IX with 18 setae; laterosternite IX with 4 setae. Transverse sternapodeme 100 μm long, with reduced oral projections. Virga 120–140 μm long, consists of 5–6 setae and beginning from middle part of segment VIII. Gonocoxite 208 μm long; inferior volsella long and with roundish apex. Gonostylus 60 μm long; in apical part with 3 megaseta 14 μm long and tooth 6 μm long.

Diagnosis. Total length 3.15 mm. Wing length 2.16 mm. AR 1.07–1.18. Acrostichals of methonotum 19. LR₁ 0.65. Middle and hind legs on ta₁ without sensilla chaetica. Pulvillae absent. Anal point long and parallel sided, bare. Virga very long, consists of 5–6 setae and beginning from middle part of segment VIII. Inferior volsella long, with roundish apex. Gonostylus short, in apical part with 3 megasetae and tooth.

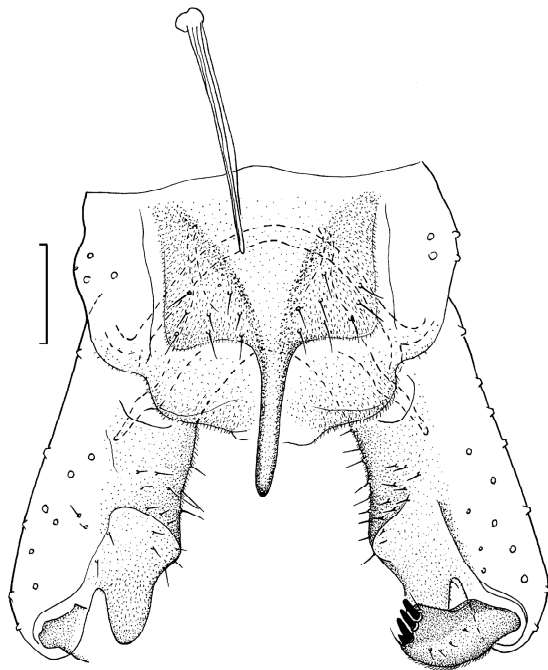


Fig. 1. Total view of male hypopygium of *Chaetocladius* (*Chaetocladius*) *elenae* sp.n., from above. Scale bar is 50 μm .

Рис. 1. Общий вид гипопигия самца *Chaetocladius* (*Chaetocladius*) *elenae* sp.n., вид сверху. Масштабная линейка 50 мкм.

A new species is closely related to *Chaetocladius* (*Chaetocladius*) *crassisaetosus* Tuiskunen, *Ch.* (*Ch.*) *eugenyii* Kobayashi and *Ch.* (*Ch.*) *variabilis* Makarchenko et Makarchenko [Tuiskunen, Lindeberg, 1986; Makarchenko, Makarchenko, 2003; Kobayashi, 2012] but good distinguished from first two species by shape of inferior volsella and gonostylus, by presence of very long virga, and from latter by shorter gonostylus with 3 megasetae and a tooth and different shape of inferior volsella.

Диагноз. Длина тела 3,15 мм. Длина крыла 2,16 мм. AR 1,07–1,18. Акростихальных щетинок на среднеспинке 19. LR₁ 0,65. Средние и задние ноги без чувствительных волосков на ta₁. Пульвиллы отсутствуют. Анальный отросток длинный, параллельно-сторонний и голый. Вирга очень длинная, состоит из 5–6 щетинок и начинается в середине сегмента VIII. Нижний придаток гонококситы длинный, с округлой вершиной. Гоностиль короткий, апикально с 3 терминальными шипами и зубцом.

Самец нового вида наиболее близок видам *Chaetocladius* (*Chaetocladius*) *crassisaetosus* Tuiskunen, *Ch.* (*Ch.*) *eugenyii* Kobayashi и *Ch.* (*Ch.*) *variabilis* Makarchenko et Makarchenko [Tuiskunen, Lindeberg, 1986; Makarchenko, Makarchenko, 2003; Kobayashi, 2012]. От первых двух новый вид хорошо отличается формой нижнего придатка гонококситы и гоностыля, присутствием очень длинной вирги, а от последнего — более коротким гоностилем с 3 терминальными шипами и 1 зубцом, а также формой нижнего придатка гонококситы.

Etymology. The new species is named in honor of Elena Vladimirovna Khamenkova (Institute of Biological Problems of the North, Far-Eastern Branch of Russian Academy of Sciences, Magadan) who collected the type material.

Distribution. Known only from the type locality in basin of Ola River (Magadanskaya Oblast, Russia).

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