



Correction of mistakes. II. New taxonomic position of *Chaetocladius* (*Amblycladius*) *amurensis* Makarchenko et Makarchenko (Diptera: Chironomidae: Orthoclaadiinae) from the Russian Far East, with redescription of species

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Chaetocladius (*Amblycladius*) *amurensis* Makarchenko et Makarchenko was described on two adult males from the Amur River basin of the Russian Far East and originally assigned to the subgenus *Chaetocladius* Kieffer (Makarchenko & Makarchenko 2006). After the analysis of additional material and considering the results of the revision of the subgenus *Amblycladius* Kieffer by Krasheninnikov & Przhiboro (2022), we came to the conclusion that this species must be transferred from the subgenus *Chaetocladius* to the subgenus *Amblycladius*, since the male has a hypopygium structure typical of representatives of later subgenus, namely the presence of a large basal lobe of the gonostylus and a specific apical part. Also, as a result of the analysis of the new material, it turned out that some features in the original description were considered incomplete and incorrect. Therefore, we decided to redescribe the male of *Chaetocladius* (*Amblycladius*) *amurensis*, whose distribution does not extend beyond the Amur River basin, suggesting that the species is apparently endemic to this territory.

Materials and methods

The material was fixed by 70% ethanol and slide-mounted in polyvinyl lactophenol. The morphological terminology and abbreviations used below follow Sæther (1980). The photographs were taken using an Axio Lab.A1 (Karl Zeiss) microscope with an AxioCam ERc5s digital camera, and then stacked using Helicon Focus software. The final illustrations were post-processed for contrast and brightness using Adobe® Photoshop® software.

All material is deposited in the Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far East Branch of the Russian Academy of Sciences, Vladivostok, Russia (FSCEATB FEB RAS).

Taxonomy

Genus *Chaetocladius* Kieffer, 1911

Subgenus *Amblycladius* Kieffer, 1923

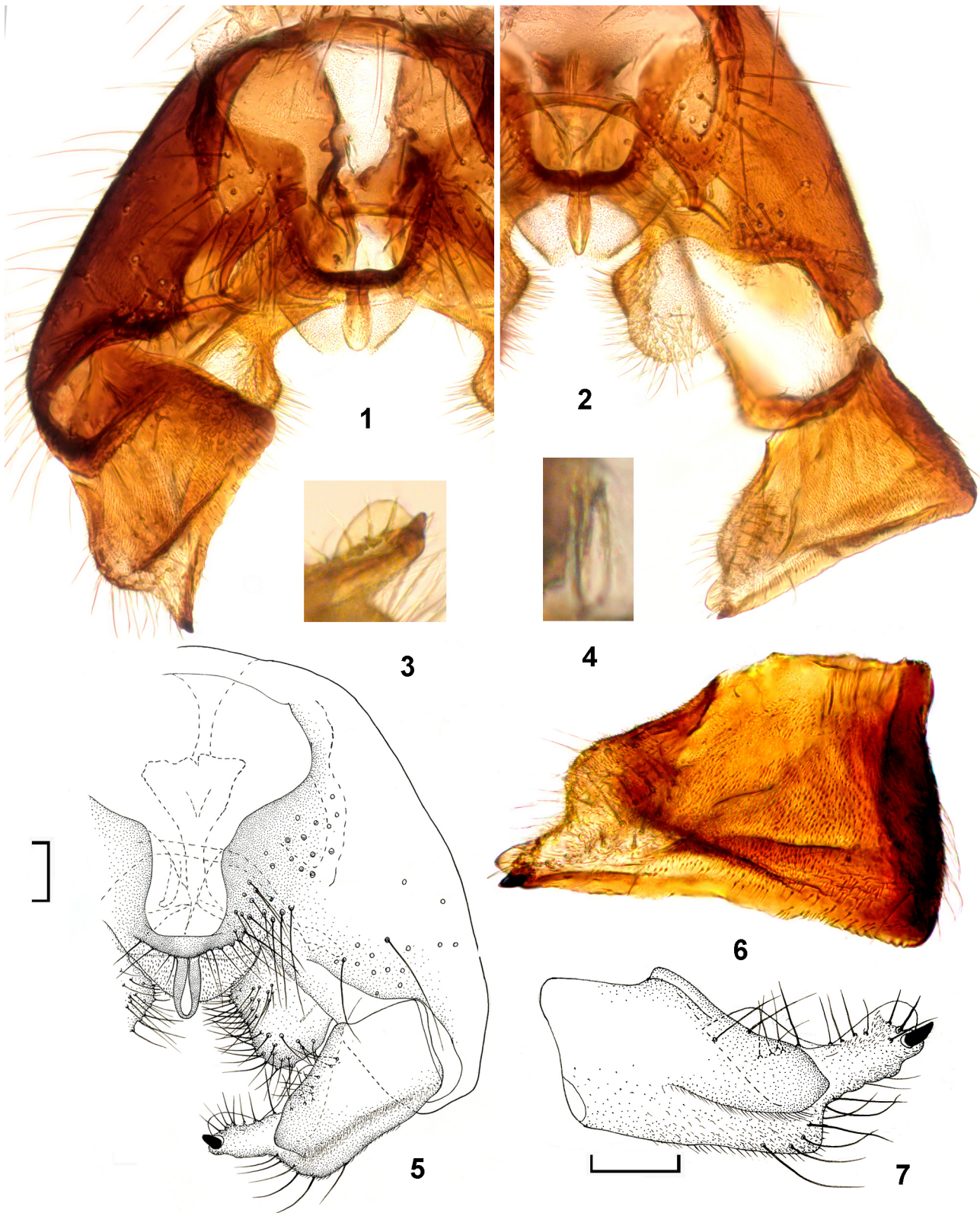
Amblycladius Kieffer, 1923: 4.

Arctosmittia Zelentsov, 2006: 775.

Chaetocladius (*Amblycladius*) *amurensis* Makarchenko et Makarchenko

(Figs. 1–7)

Chaetocladius (*Chaetocladius*) *amurensis* Makarchenko et Makarchenko, 2006: 276; Ashe & O'Connor 2012: 166.



FIGURES 1–7. Adult male of *Chaetocladius* (*Amblycladius*) *amurensis* Makarchenko et Makarchenko. 1–2, 5, hypopygium in dorsal view; 3, apex of gonostylus; 4, virga; 6, gonostylus in ventral view; 7, gonostylus, from one side. Scale bar 50 μ m.

Material examined. *Russian Far East*: 1 adult male, Primorye Territory, Sikhote-Alin Biosphere Nature Reserve, Kolumbe River, tributary of Bolshaya Ussurka River (Amur River basin), 1.X. 2005, leg. O. Zorina; 1 adult male, Khabarovsk Territory, Verkhnebureinsky District, Takantsy River, tributary of Bureya River (Amur River basin), 19.IX.

2006, leg. E. Makarchenko; 2 adult males, Jewish Autonomous Region, Obluchie District, vicinity of the Kuldur Village, Kuldur River, tributary of Bira River (Amur River basin), N 49.217816, E 131.62927, 23.IX. 2023, leg. N. Yavorskaya.

Description

Adult male (n = 4). Total length 3.0–3.7 mm. Wing length 1.58–2.88 mm. Total length/wing length 1.25–2.22. Coloration dark brown.

Head. Eyes bare and reniform. Temporal setae including 10–14 vertical setae from one side. Clypeus with 9–10 setae. Antenna with 13 flagellomeres, plume slightly reduced; pedicel without setae. Length of subapical seta of terminal flagellomere 46–48 μm . AR 0.70–0.74. Lengths (μm) of palpomeres 1–5 : 24–32 : 44–52 : 124–152 : 96–108 : 132–162. Third palpomere in distal part with sensillae chaetica. Head width/palp length 1.0–1.25.

Thorax. Anteprepronotum with 4–6 lateral setae. Acrostichals 13–17; dorsocentrals 12–14, beginning close to anteprepronotum; prealars 4. Scutellum with 7–9 setae.

Wing. Anal lobe slightly reduced. Squama with 6–8 setae. R with 16–20 setae, R_1 with 2–3 setae, R_{4+5} with 15–20 setae. R_{2+3} not so good visible.

Legs. Spur of front tibia 40–56 μm long. Spurs of middle tibia 28 μm and 28–34 μm long. Spurs of hind tibia 28 μm and 56–64 μm long. Hind tibial comb with 13–17 setae. Length and proportions of leg segments are as in Table 1.

TABLE 1. Lengths (in μm) and proportions of leg segments of *Chaetocladius (Amblycladius) amurensis* Makarchenko et Makarchenko, male (n=4).

	fe	ti	ta ₁	ta ₂	ta ₃	ta ₄	ta ₅
P ₁	984–1169	1058–1296	738–852	394–484	279–351	180–213	131–150
P ₂	968–1186	984–1186	492–568	279–334	205–262	131–150	107–134
P ₃	1132–1336	1132–1386	672–818	369–451	295–351	148–200	115–150

continued

	LR	BV	SV	BR
P ₁	0.65–0.69	2.76–2.85	2.77–2.87	2.4–2.5
P ₂	0.47–0.50	3.26–3.40	3.97–4.20	2.2–2.5
P ₃	0.57–0.60	2.99–3.17	3.26–3.40	2.6–3.3

Hypopygium (Figs. 1–7). Strong and broad in comparison to rest of abdomen. Anal point length 48–60 μm , width 20–26 μm , expanded in middle. Tergite IX and laterosternite IX close connected and with about 40–50 long setae from one side of anal point. Virga consists of 3–4 setae, 28–48 μm long. Transverse sternapodeme 200 μm long and 12 μm wide, oral projection rounded. Phallapodeme 100 μm long. Gonocoxite 360–400 μm long, with wide inferior volsella, which angular along the anterior edge and rounded along the posterior edge, covered with long setae. Gonostylus 236–240 μm long, with yellow subapical crista dorsalis and megaseta 16–18 μm long (Figs. 3, 5–7). Basal lobe of gonostylus is large, broadly triangular, and when located dorsally, covers almost the entire main part of the gonostylus (Figs. 1, 5). HR 1.57–1.59.

Remarks. Until now, the subgenus *Amblycladius* included 2 species: *Chaetocladius (A.) subplumosus* (Kieffer) and *Chaetocladius (A.) franzjosephiensis* Krasheninnikov (Ashe & O'Connor 2012; Krasheninnikov & Gavrilov 2013; Krasheninnikov & Przhiborov 2022), which well differ from *Chaetocladius (A.) amurensis* Makarchenko et Makarchenko in the structure of the hypopygium, namely the gonostylus, tergite IX, anal point, inferior volsella, as well as other characters given below in the key.

Probably *Chaetocladius (s. str.) britae* Säwedal from Sweden (Säwedal 1976) could be also placed in the genus *Amblycladius*. However, this requires the examination of type material, unfortunately the species is known only from one adult male.

Distribution. Known only from Amur River basin of the Russian Far East (Fig. 8).



FIGURE 8. Locality of *Chaetocladius (Amblycladius) amurensis* Makarchenko et Makarchenko in Kuldur River of Amur River basin.

Key to adult males of the subgenus *Amblycladius* Kieffer

1. Anal point expanded in middle. Tergite IX with short and rectangular posterior margin. Inferior volsella large, angular along the anterior edge and rounded along the posterior edge and covered with long setae. Apical part of main lobe of gonostylus with crista dorsalis; basal lobe wide triangular *Chaetocladius (Amblycladius) amurensis* Makarchenko et Makarchenko (Amur River basin)
- Anal point triangular, with hyaline apex. Tergite IX wide and with rounded posterior margin. Inferior volsella rounded, covered with micro- and macrotrichia. Apical part of main lobe of gonostylus without crista dorsalis; basal lobe another shape 2
2. Gonostylus with apical part of main lobe acute-triangular. Anal point 26–44 μm long. Dorsocentrals 10–14. Scutellum with 7–9 setae. (Novaya Zemlya) *Chaetocladius (Amblycladius) subplumosus* (Kieffer)
- Gonostylus with apical part of main lobe rectangular, not tapered in apical part, rounded at outer margin near apex. Anal point 60 μm long. Dorsocentrals 21–25. Scutellum with 18 setae. (Franz Josef Land) *Chaetocladius (Amblycladius) franzjosephiensis* Krashennikov

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